Beaumont Pointe

NOISE AND VIBRATION ANALYSIS

CITY OF BEAUMONT

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
I-15	Interstate 15
INCE	Institute of Noise Control Engineering
ISEE	International Society of Explosives Engineer's
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
mph	Miles per hour
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Beaumont Pointe
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
USBM	U.S. Bureau of Mines
VdB	Vibration Decibels

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EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed Beaumont Pointe development ("Project"). The Project site is located south of the SR-60 Freeway and west of Jack Rabbit Trail, in the City of Beaumont.

The Project would allow for the development on the Project site of a maximum of 246,000 square feet (sf) of general commercial uses in addition to a 125-room hotel (90,000 sf) and a maximum of 4,995,000 sf of industrial uses. The Project would provide 128.8 acres of open space to accommodate landscaped manufactured slopes, fuel modification areas, and natural open space as a buffer to adjacent conservation area and 134.7 acres of open space – conservation. The open space – conservation area would be preserved as natural habitat as required by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Associated improvements to the Project site would include, but are not limited to, paved roads, paved parking areas, drive aisles, truck courts, utility infrastructure, landscaping, water quality basins, signage, lighting, property walls, gates, and fencing, including perimeter fencing for the Project site.

The Project is proposed to be constructed in three phases (described in this report as Phase 1, Phase 2, and Buildout). This noise study includes a conservative analysis of the proposed Project uses. This study has been prepared to satisfy applicable City of Beaumont standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) The off-site traffic noise impact analysis is based on the land use assumptions and trip generation outlined in the *Beaumont Pointe Specific Plan Traffic Analysis* prepared by Urban Crossroads, Inc. (2) Therefore, the off-site Project traffic impacts evaluated in this noise impact analysis account for any minor changes that may occur as part of the final land use plan.

SUMMARY OF CEQA SIGNIFICANCE FINDINGS

The results of this Beaumont Pointe Noise and Vibration Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1). Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	**Mitigated**
Off-Site Traffic Noise	7	*Potentially Significant*	*Significant and Unavoidable*
Stationary Operational Noise	9	*Less Than Significant*	-
Construction Noise	10	*Less Than Significant*	-
Construction Vibration		*Less Than Significant*	-
Blasting Noise	10	*Less Than Significant*	-
Blasting Vibration		*Less Than Significant*	-

1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Beaumont Pointe ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for transportation related CNEL traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise as well as short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The proposed Beaumont Pointe site is located south of the SR-60 Freeway and west of Jack Rabbit Trail, in the City of Beaumont, as shown on Exhibit 1-A. Existing land uses near the site consist mostly of vacant land, an industrial project under construction to the east of the site and nearby residential homes located north across State Route 60. The nearest noise sensitive residential receiver is located approximately 417 feet south of the Project site near the Hoy Ranch property.

1.2 PROJECT DESCRIPTION

As shown in Exhibit 1-B, the Project is proposed to consist of a maximum of 246,000 square feet (sf) of general commercial uses in addition to a 125-room hotel (90,000 sf) and a maximum of 4,995,000 sf of industrial uses. The Project would provide 128.8 acres of open space to accommodate landscaped manufactured slopes, fuel modification areas, and natural open space as a buffer to adjacent conservation area and 134.7 acres of open space – conservation. The open space – conservation area would be preserved as natural habitat as required by the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Associated improvements to the Project site would include, but are not limited to, paved roads, paved parking areas, drive aisles, truck courts, utility infrastructure, landscaping, water quality basins, signage, lighting, property walls, gates, and fencing, including perimeter fencing for the Project site.

In addition, this noise analysis describes Project-related noise level associated with typical stationary operational activities at the Project site. The typical Project-related stationary operational noise sources are expected to include: loading dock activity, delivery van activity, truck movements, roof-top air conditioning units, parking lot vehicle movements and trash enclosure activity. This report assumes the Project-related operational noise source activity will function 24-hours daily for seven days per week. The Project is proposed to be constructed in three phases (described in this report as Phase 1, Phase 2, and Buildout). It is expected that the noise generated by the Project construction equipment will include a combination of crawler tractors, excavators, graders, dozers, scrapers, forklifts, generator sets, welders, paving equipment, and air compressors that when combined can reach high levels. In addition, rock blasting may be required during grading operations to support Project construction, therefore, this analysis considers the potential blasting noise and vibration levels at the nearest noise

sensitive receiver locations. Rock blasting would occur infrequently on the site, required if at all approximately once per week.

EXHIBIT 1-A: LOCATION MAP

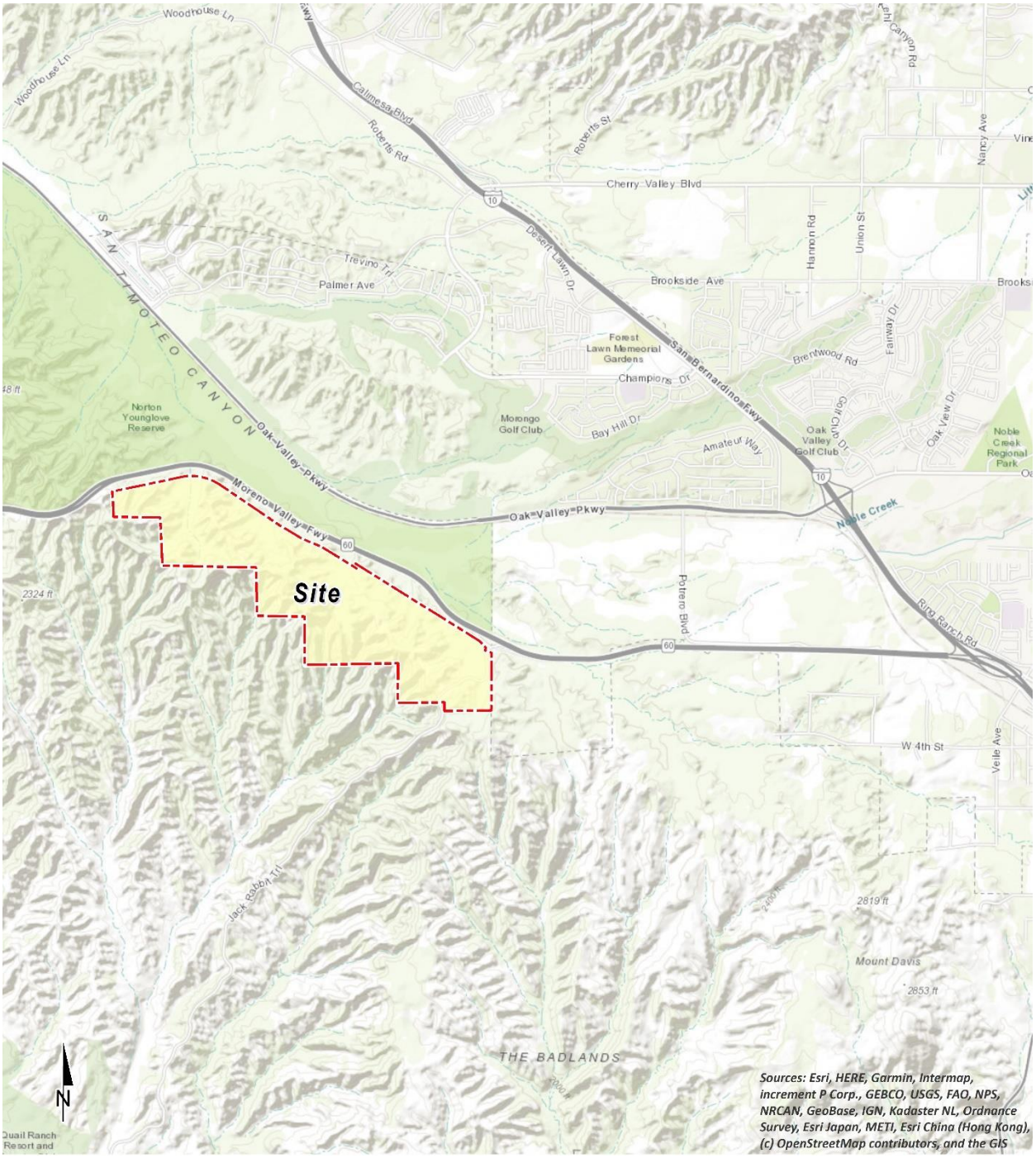
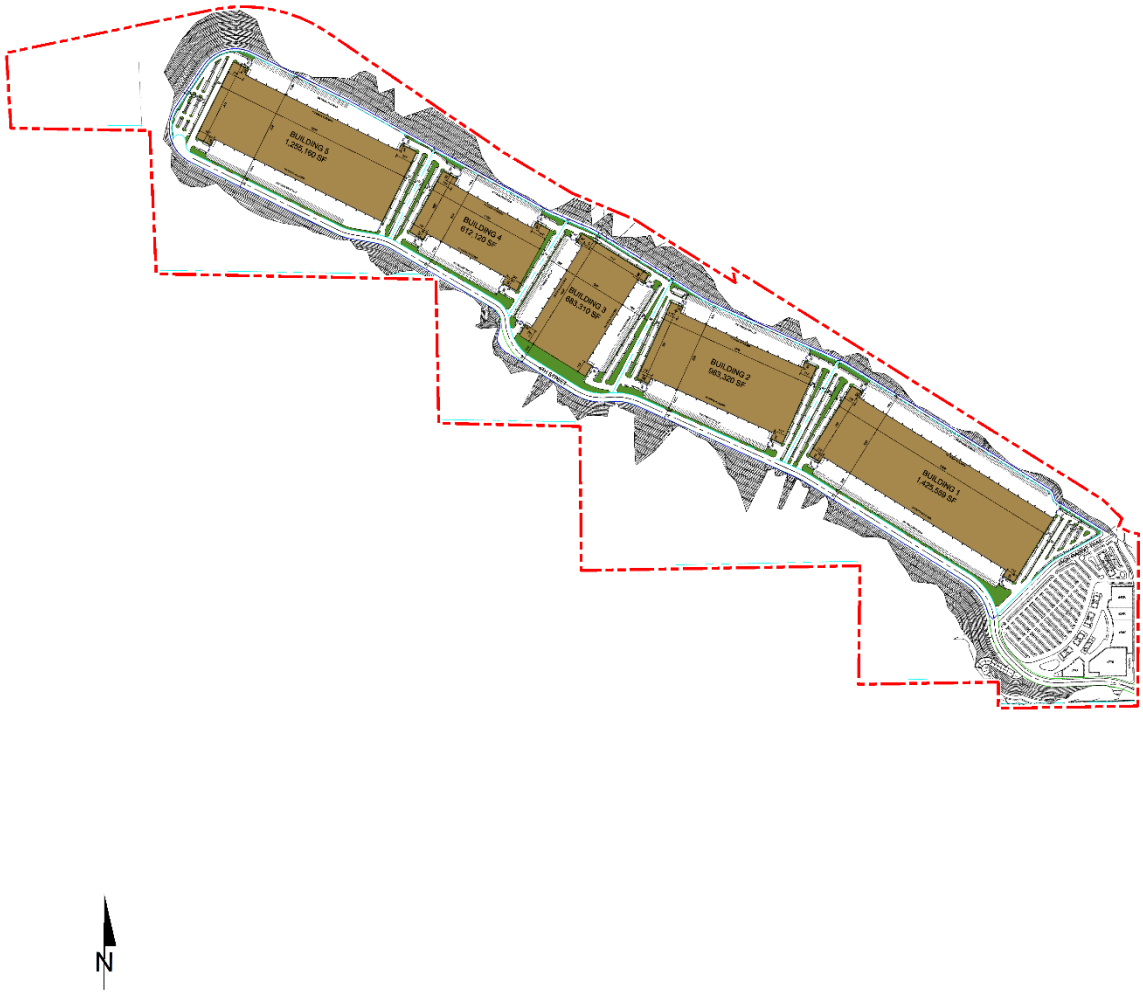


EXHIBIT 1-B: CONCEPTUAL SITE PLAN



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2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (3) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 100 feet, which can cause serious discomfort. (4) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period (typically one hour) and is commonly used to describe the "energy average" noise levels within the environment.

To describe the time-varying character of environmental noise, the City of Beaumont relies on the L_{25}, L_8, L_2 and L_{max}, percentile noise levels to describe the stationary source noise level limits. The percentile noise descriptors are the noise levels equaled or exceeded during 25 percent, 8 percent, and 2 percent of a stated time. Sound levels associated with the L_8 typically describe transient or short-term events, while levels associated with the L_{25} describe the base or typical noise conditions. The City of Beaumont relies on the percentile noise levels to describe the stationary source noise level limits. While the L_{25} describes the noise levels occurring 25 percent of the time, the L_{eq} accounts for the equivalent or energy average observed for the entire hour.

Peak hour or equivalent noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Beaumont relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. Based on guidance from the U.S. Department of Transportation, Federal Highway Administration (FHWA), Office of Environment and Planning, Noise and Air Quality Branch, the way noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling

of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (3)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (5)

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (3)

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (5)

2.3.5 REFLECTION

Field studies conducted by the FHWA have shown that the reflection from barriers and buildings does not substantially increase noise levels. (5) If all the noise striking a structure was reflected back to a given receiving point, the increase would be theoretically limited to 3 dBA. Further, not

all the acoustical energy is reflected back to same point. Some of the energy would go over the structure, some is reflected to points other than the given receiving point, some is scattered by ground coverings (e.g., grass and other plants), and some is blocked by intervening structures and/or obstacles (e.g., the noise source itself). Additionally, some of the reflected energy is lost due to the longer path that the noise must travel. FHWA measurements made to quantify reflective increases in traffic noise have not shown an increase of greater than 1-2 dBA; an increase that is not perceptible to the average human ear.

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by up to 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (5)

2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

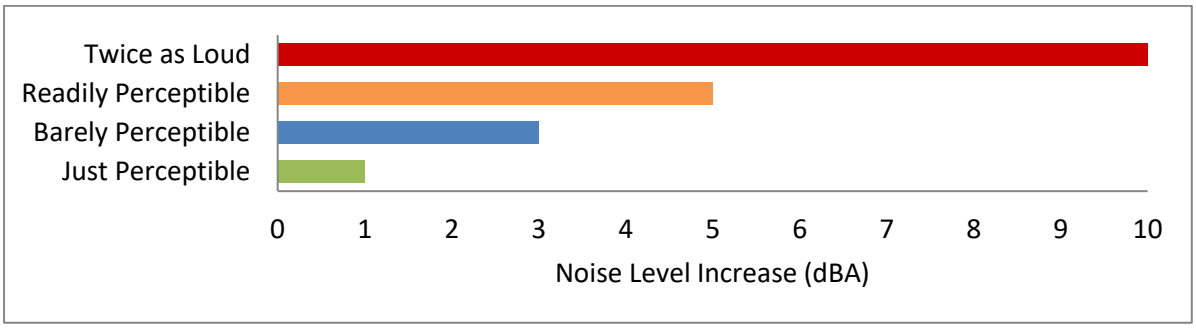
2.7 COMMUNITY RESPONSE TO NOISE

Community responses to noise varies depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities.
- Socio-economic status and educational level.
- Perception that those affected are being unfairly treated.
- Attitudes regarding the usefulness of the noise-producing activity.
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. (7) Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. (7) Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA is considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (5)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



2.8 VIBRATION

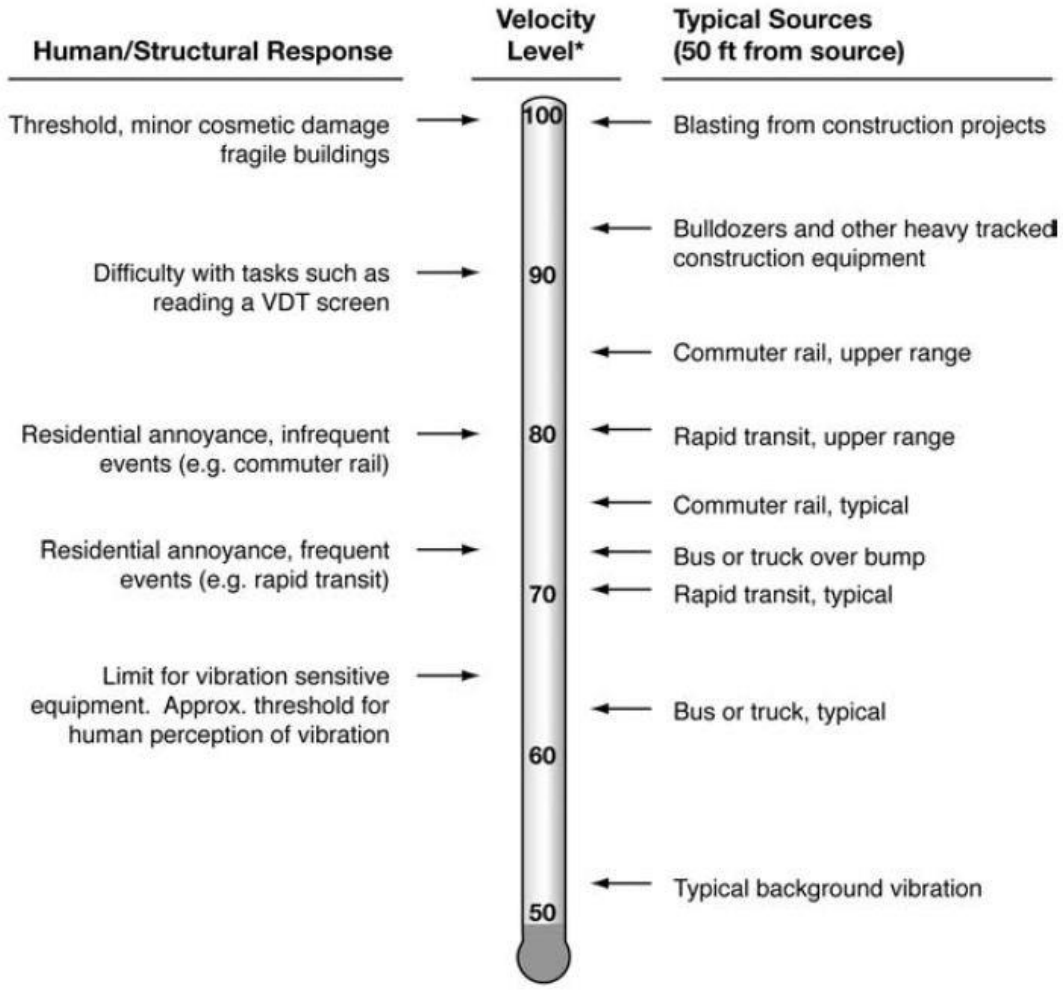
Per the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* (8), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with

distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



* *RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.

2.9 BLASTING

Rock blasting is used when large boulders must be broken into smaller sizes for handling. Blasts typically occur for only a few seconds. As further discussed in Appendix 2.1, air overpressure, or "airblast," levels generated by blasting can travel up to 1,100 feet per second, depending on the size of the blast, distance from the blast, and amount of charge confinement. (9) For safety purposes, during blasting, no other construction equipment is operated on a site.

The intensity of the noise and vibration impacts associated with rock blasting depends on location, size, material, shape of the rock, and the methods used to crack it. While a blasting contractor can design the blasts to stay below a given vibration level that could cause damage to nearby structures, it is virtually impossible to design blasts that are not perceptible by people in the vicinity. (10) The noise produced by blasting activities is referred to as air overpressure, or an "airblast," which is generated when explosive energy in the form of gases escape from the detonating blast holes. Much like a point source, airblasts radiate outward in a spherical pattern and attenuate with each doubling of distance from the blast location, depending on the design of the blast and amount of containment.

Blasting activities generally include: the pre-drilling of holes in the hard rock area; preparation and placement of the charges in the drilled holes; a pre-blast horn signal; additional pre-blast horn signals immediately prior to the blast; and the blast itself. An additional horn signal is sounded to indicate the "all clear" after the blast and the blasting contractor has inspected the blasting area. The noise from the blast itself starts with a cracking sound from the detonator, located at a distance from the charges, and ends with the low crackling sound from each charge as they are subsequently set off.

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3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (11) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 CITY OF BEAUMONT GENERAL PLAN NOISE ELEMENT

The City of Beaumont has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of City of Beaumont from excessive exposure to noise. (12) The Noise Element specifies the maximum allowable exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports and railroads. In addition, the Noise Element identifies several policies to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To protect City of Beaumont residents from excessive noise, the Noise Element contains the following noise programs related to the Project:

N1: Requirement for Acoustical Studies. Amend development application requirements so that projects that could result in noise environments above normally acceptable noise ranges or all new development complete acoustical studies prepared by qualified professionals to ensure that the noise levels are at acceptable levels, per the Municipal Code.

N3: Project Design Guidelines. Integrate project design guidelines that integrate features into new developments that minimize impacts associated with the operation of air conditioning and heating equipment, on-site traffic, and use of parking, loading, and trash storage facilities.

N7: Stationary Equipment. Enforce requirements that all stationary construction equipment shall be operated with closed engine doors, equipped with properly operating and maintained mufflers, and placed so that emitted noise is directed away from the nearest sensitive receptors.

N8: Equipment Staging Areas. Require that equipment staging shall be in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receptors.

N9: Additional Noise Attenuation Techniques. Require that temporary sound barriers are installed and maintained between the construction site and the sensitive receptors during the clearing, earth moving, grading, and foundation/conditioning phases of construction. Temporary sound barriers shall consist of sound blankets affixed to construction fencing along all sides of the construction site boundary facing potentially sensitive receptors.

N10: Vehicle and Equipment Idling. Establish requirements that construction vehicles and equipment are not left idling for longer than five minutes when not in use.

3.3 CITY OF BEAUMONT GENERAL PLAN NOISE ELEMENT ENVIRONMENTAL IMPACT REPORT

To support the General Plan Noise Element, the City of Beaumont adopted a Program Environmental Impact Report (EIR). (13) Section 5.12 of the EIR outlines the *regulations and polices intended to protect the community from excessive noise and vibration to ensure quality of life for residents and workers in the City*. In addition, Section 5.12.4 presents thresholds of significance for vibration and increases in off-site traffic noise levels. The CEQA significance thresholds outlined in the EIR that are used in this Noise and Vibration Analysis are presented in Section 4.

3.4 CITY OF BEAUMONT MUNICIPAL CODE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Beaumont Pointe Project, stationary-source (operational) noise levels such as the expected loading dock activity, delivery van activity, truck movements, roof-top air conditioning units, parking lot vehicle movements and trash enclosure activity, and noise from construction activities are typically evaluated against standards established under the City's Municipal Code included in Appendix 3.1.

3.4.1 STATIONARY OPERATIONAL NOISE STANDARDS

For noise-sensitive residential properties, the City of Beaumont Municipal Code, Section 9.02.050, identifies base ambient noise level (BANL) stationary-source noise level limits for the daytime (7:00 a.m. to 10:00 p.m.) hours of 55 dBA L_{eq} and 45 dBA L_{eq} during the nighttime (10:00 p.m. to 7:00 a.m.) hours. For industrial and commercial land uses, the BANL established by the City's Municipal Code is 75 dBA L_{eq} for the daytime hours and of 50 dBA L_{eq} during the nighttime hours. Section 9.40.050 states *that actual decibel measurements exceeding the levels set forth hereinabove at the times and within the zones corresponding thereto shall be employed as the "base ambient noise level".* In effect, when the ambient noise levels exceed the base exterior noise level limits, the noise level standard shall be adjusted as appropriate to encompass or reflect the ambient noise level. The noise level limit adjustments for the City of Beaumont noise standards are shown on Table 3-1.

TABLE 3-1: CITY OF BEAUMONT STATIONARY OPERATIONAL NOISE STANDARDS

Receiving Land Use	Time Period	Base Ambient Noise Level (dBA L_{eq})[1]	Exterior Noise Standards (dBA)[2]			
			L_{25} (15 mins)	L_8 (5 mins)	L_2 (1 min)	L_{max} (0 min)
Residential	Daytime	55	60	65	70	75
	Nighttime	45	50	55	60	65
Industrial and Commercial	Daytime	75	-[3]	-[3]	-[3]	-[3]
	Nighttime	50	-[3]	-[3]	-[3]	-[3]

[1] Section 9.02.050 base ambient noise level of the City of Beaumont Municipal Code.
[2] Noise levels shall not exceed for the duration periods specified in Section 9.02.070 City of Beaumont Municipal Code.
[3] No exterior noise level shall exceed the base ambient noise levels for nonresidential land uses Section 9.02.090 City of Beaumont Municipal Code.
The percent noise level is the level exceeded "n" percent of the time during the measurement period. L_{25} is the noise level exceeded 25% of the time. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

The City of Beaumont percentile noise descriptors are provided to ensure that the duration of the noise source is fully considered. However, due to the relatively constant intensity of the Project stationary operational activities, the (base exterior noise level limit) or the average L_{eq} noise level metric best describes the loading dock activity, delivery van activity, truck movements, roof-top air conditioning units, parking lot vehicle movements and trash enclosure activity. The equivalent L_{eq} noise level metric accounts for noise fluctuations over time by averaging the louder and quieter events and giving more weight to the louder events. In addition, a review of the existing ambient noise level measurements shows that the L_{eq} is generally greater than the L_{25}. Therefore, this noise study conservatively relies on the average L_{eq} sound level limits to describe the Project stationary operational noise levels.

In addition, the City of Beaumont Municipal Code, Section 9.02.110.G states that *it shall be unlawful for any person to operate, cause to operate or permit the operation of any machinery, equipment, device, pump, fan, compressor, air conditioning apparatus or similar mechanical device, including but not limited to the use of any steam shovel, pneumatic hammer, derrick, steam or electric hoist, blower or power fan, or any internal combustion engine, the operation of which causes noise due to the explosion of operating gases or fluids, or other appliance, in any manner so as to create any noise which would cause the noise level at the property line of the property upon which the equipment or machinery is operated to exceed the base ambient noise level by five dB(A).*

3.4.2 CONSTRUCTION NOISE STANDARDS

The City of Beaumont has set restrictions to control noise impacts associated with the construction of the proposed Project. These restrictions are generally limited to the nearby noise sensitive receiver locations that may be impacted by the short-term construction noise activities. The City's Municipal Code identifies the following construction noise provisions in Section 9.02.110.F.1: *It shall be unlawful for any person to engage in or permit the generation of noise related to landscape maintenance, construction including erection, excavation, demolition, alteration or repair of any structure or improvement, at such sound levels, as measured at the*

property line of the nearest adjacent occupied property, as to be in excess of the sound levels permitted under this Chapter, at other times than between the hours of 7:00 a.m. and 6:00 p.m. The person engaged in such activity is hereby permitted to exceed sound levels otherwise set forth in this Chapter for the duration of the activity during the above-described hours for purposes of construction. *However, nothing contained herein shall permit any person to cause sound levels to at any time exceed 55 dB(A) for intervals of more than 15 minutes per hour as measured in the interior of the nearest occupied residence or school*.

Section 9.02.110.F.3 of the Municipal Code indicates that *Construction related noise…may take place outside the time period set forth therein and above the relative sound levels in case of urgent necessity in the interest of public health and safety, and then only with the prior permission of the building inspector. Such permit may be granted for a period not to exceed three days or until the emergency ends, whichever is less. The permit may be renewed for periods of three days while the emergency continues.*

Project construction noise level standards are typically described as exterior noise level limits to assess the potential impacts. Therefore, to describe the Project construction noise levels at off-site sensitive receiver locations, an exterior construction-related noise level threshold of 75 dBA L_{eq} is used. This exterior construction noise level standard represents the combination of the City of Beaumont 55 dBA L_{eq} interior noise level limit and the Noise Reduction (NR) of approximately 20 dBA for typical buildings with "windows closed" (5 p. 31)). Therefore, an unmitigated exterior noise level standard of 75 dBA L_{eq} when measured at the building façade is used to assess the construction noise levels for the nearest noise sensitive residential uses.

3.5 CONSTRUCTION VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. (8) Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity.

To analyze vibration impacts originating from the construction of the Beaumont Pointe, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Beaumont does not identify specific vibration level limits and instead relies on the Federal Transit Administration (FTA) methodology. (8) The FTA *Transit Noise and Vibration Impact Assessment* methodology provides guidelines for the maximum-acceptable vibration criteria for different types of land uses. Consistent with the thresholds of significance outlined in the City of Beaumont General Plan EIR (13), these guidelines allow 90 VdB for industrial (workshop) use, 84 VdB for office use and 78 VdB for daytime residential uses and 72 VdB for nighttime uses in buildings where people normally sleep. (8 p. 131)

3.6 BLASTING

The blasting contractor is required to obtain blasting permit(s) from the State, and to notify Riverside County Sheriff's Department within 24 hours prior to the planned blasting events. Air overpressure regulations are identified by the USBM and the International Society of Explosives Engineer's (ISEE) Blasters' Handbook. (9) To analyze blasting impacts originating from the construction of the Beaumont Pointe Project, vibration-generating rock blasting activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Beaumont does not identify specific blasting noise or vibration level limits. Therefore, this analysis relies on the following criteria to assess potential temporary construction-related impacts at adjacent receiver locations.

3.6.1 BLASTING NOISE LIMITS

Based on Table 26.17 *Typical Air Overpressure Damage Criteria* of the Blasters' Handbook, an air overpressure of 133 dB is identified as a perception-based criteria level for blasting. As such, the Project blasting-related vibration and airblast levels are based on the 133 dB criteria for airblasts identified by the ISEE and USBM.

3.6.2 BLASTING VIBRATION LIMITS

The Caltrans *Transportation and Construction Vibration Guidance Manual*, (10 p. 38) Table 19, vibration criteria are used in this noise study to assess potential temporary construction-related impacts at adjacent receiver locations. Since most of the buildings near the Project site can best be described as "older residential buildings", Caltrans guidance identifies a maximum acceptable transient peak-particle-velocity (PPV) vibration threshold of 0.5 inches per second (in/sec). Therefore, the 0.5 PPV (in/sec) vibration threshold is used to evaluate the potential blasting-related vibration levels experienced at the nearby residential homes.

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4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

- (Threshold A) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- (Threshold B) Generation of excessive ground-borne vibration or ground-borne noise levels.
- (Threshold C) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

4.1 NOISE LEVEL INCREASES (THRESHOLD A)

Off-site traffic noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach *recognizes that there is no single noise increase that renders the noise impact significant.* (14) Table 5.12-G of in the City of Beaumont General Plan Noise Element EIR outlines the allowable noise exposure increases that are derived from the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual.* To describe the amount to which a given noise level increase is considered acceptable, the FTA criteria is used to evaluate the incremental noise level increase and establishes a method for comparing future project noise with existing ambient conditions under CEQA Significance Threshold A. In effect, the amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. Consistent with the City of Beaumont Municipal Code, Section 9.02.110[G], the stationary operational Project noise source activities shall not create any noise which would cause the noise level at the property line to exceed the base ambient noise level by 5 dBA.

4.2 VIBRATION (THRESHOLD B)

The vibration impacts originating from the construction of the Beaumont Pointe are appropriately evaluated using the thresholds of significance outlined in the City of Beaumont General Plan EIR. (13) These guidelines allow 90 VdB for industrial (workshop) use, 84 VdB for office use and 78 VdB for daytime residential uses and 72 VdB for nighttime uses in buildings where people normally sleep. (8)

4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)

CEQA Noise Threshold C applies when there are nearby public and private airports and/or air strips and focuses on land use compatibility of the Project to nearby airports and airstrips. The Project site is not located within two miles of an airport or airstrip. The closest major airport is the March Air Reserve Base located roughly 12 miles west of the Project site. As such, the Project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant,* and no further noise analysis is conducted in relation to Appendix G to the CEQA Guidelines, Noise Threshold C.

4.4 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-1 shows the significance criteria summary matrix.

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Condition(s)	Significance Criteria	
		Daytime	Nighttime
Off-Site Traffic[1]	If ambient is < 50 dBA CNEL	≥ 7 dBA CNEL Project increase	
	If ambient is 50 - 55 dBA CNEL	≥ 5 dBA CNEL Project increase	
	If ambient is 55 - 60 dBA CNEL	≥ 3 dBA CNEL Project increase	
	If ambient is 60 - 65 dBA CNEL	≥ 2 dBA CNEL Project increase	
	If ambient is 65 - 75 dBA CNEL	≥ 1 dBA CNEL Project increase	
	If ambient is > 75 dBA CNEL	0 dBA CNEL Project increase	
Stationary Operational	Base Exterior Noise Level[2]	55 dBA L_{eq}	45 dBA L_{eq}
	Base Ambient Noise Level[3]	≥ 5 dBA L_{eq} Project increase	
Construction	Permitted between 7:00 a.m. to 6:00 p.m.[4]		
	Noise Level Threshold[5]	75 dBA L_{eq}	n/a
	Vibration Level Threshold[6]	78 VdB	n/a
Blasting	Airblast Threshold[7]	133 dBA L_{eq}	n/a
	Vibration Level Threshold[8]	0.5 PPV (in/sec)	n/a

[1] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, consistent with the City of Beaumont General Plan DEIR.
[2] City of Beaumont General Plan Municipal Code, Section 9.02.050
[3] City of Beaumont General Plan Municipal Code, Section 9.02.110[G]
[4] City of Beaumont General Plan Municipal Code, Section 9.02.110[F]
[5] Acceptable exterior construction noise level threshold based on the City of Beaumont 55 dBA L_{eq} interior noise level limit and the 20 dBA noise reduction associated with typical building construction.
[6] Federal Transit Administration, Transit Noise and Vibration Impact Assessment.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
[7] ISEE's Blasters' Handbook, Table 26.17 Typical Air Overpressure Damage Criteria, and U.S. Bureau of Mines standards.
[8] Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19.

5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at five noise sensitive receiver locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, April 22, 2020. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (15)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (3) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (8)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (8) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby

sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the equivalent or the hourly energy average sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location.

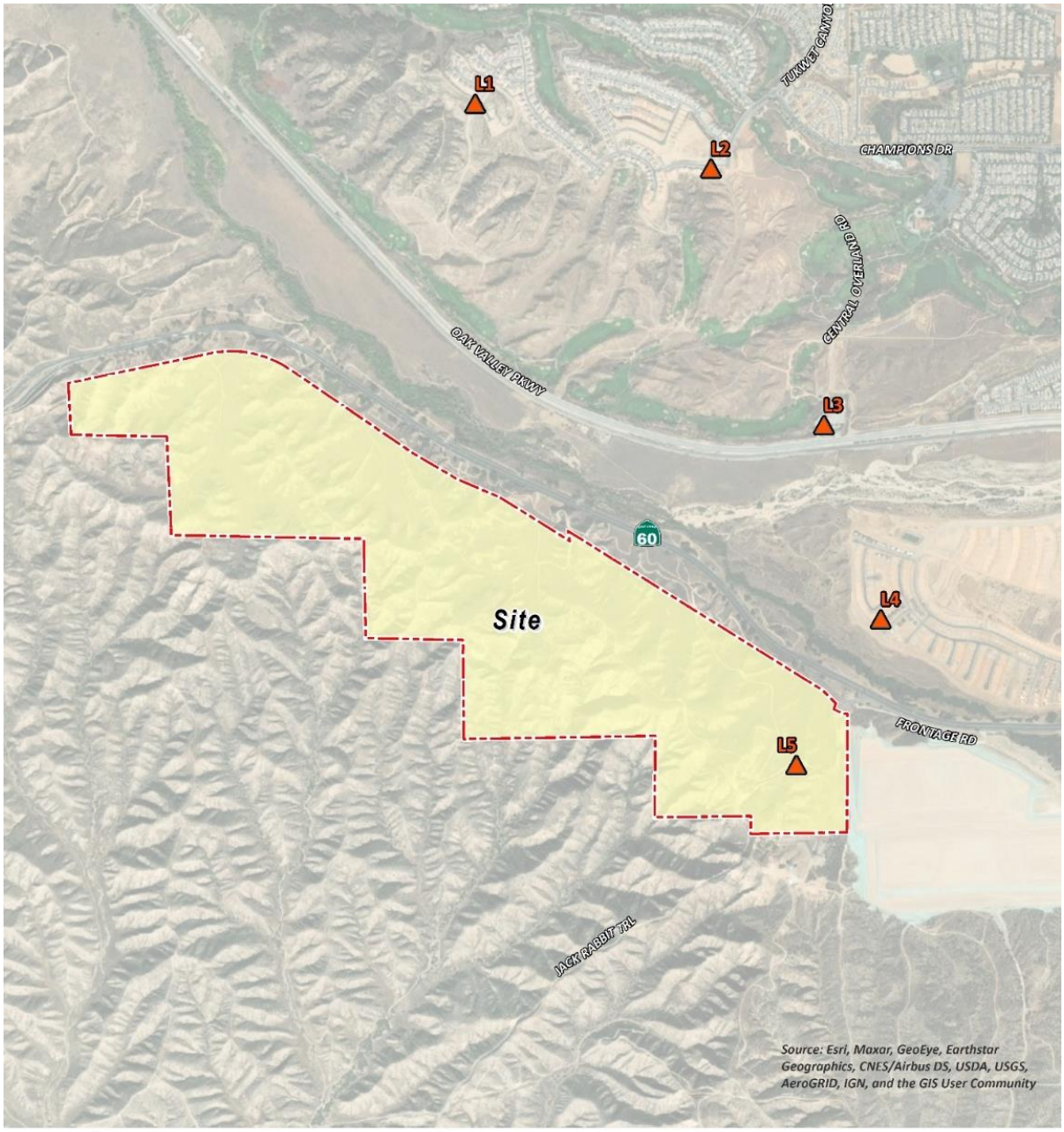
TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]		CNEL
		Daytime	Nighttime	
L1	Located north of the Project site on Roberts Place near existing single-family residential home at 34945 Roberts Place.	45.0	45.2	51.8
L2	Located north of the Project site on Mickelson Drive near existing single-family residential homes.	62.7	51.4	62.3
L3	Located northeast of the Project site by Oak Valley Parkway near the Tukwet Canyon Golf Course.	64.3	60.8	68.8
L4	Located northeast of the Project site on Olivewood near the Olivewood housing community	52.9	46.9	55.1
L5	Located in the southeast portion of the Project site on Jack Rabbit Trail just outside the Hoy Ranch Property.	44.9	39.4	48.1

[1] See Exhibit 5-A for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each of the daytime and nighttime hours.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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6 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

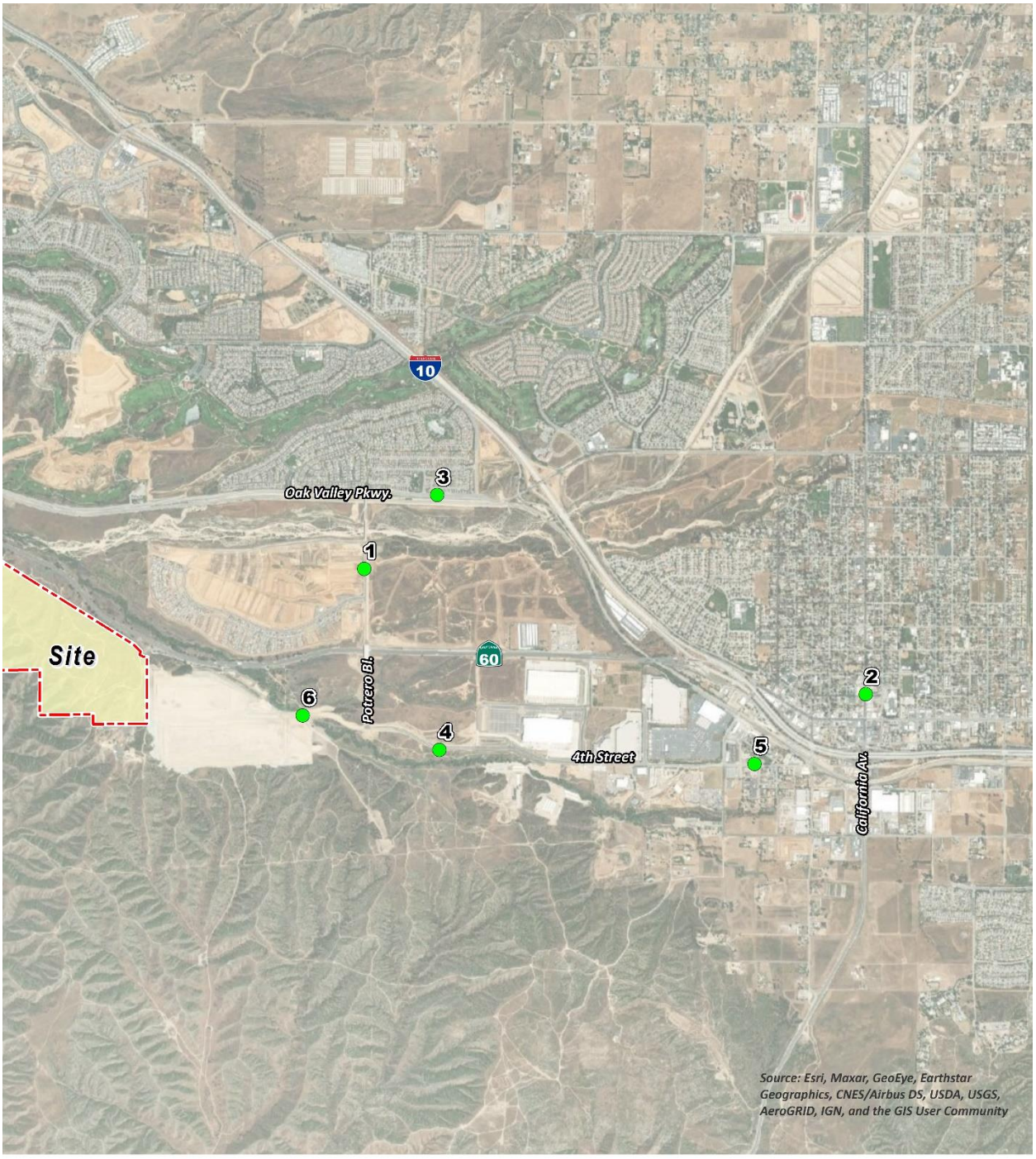
The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (16) This methodology is commonly used to describe the off-site traffic noise levels throughout southern California and is consistent with the County of Riverside Office of Industrial Hygiene *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures*, which specifically requires the FHWA RD-77-108 model to be used in analysis within the County's jurisdiction. (17)

The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (18) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (19)

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site dBA CNEL transportation noise impacts. Table 6-1 identifies the six study area roadway segments shown on Exhibit 6-A, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Beaumont General Plan Circulation Element, and the posted vehicle speeds.

EXHIBIT 6-A: OFF-SITE STUDY AREA ROADWAY SEGMENTS



Consistent with *Beaumont Pointe Traffic Analysis* prepared by Urban Crossroads, Inc., the analysis below provides off-site roadway segment analysis for the following traffic scenarios.

- Existing (2020) Conditions
- Existing plus Project (E+P) Conditions – Phase 1
- Existing plus Project (E+P) Conditions – Phase 1 + Phase 2
- Existing plus Project (E+P) Conditions – Project Buildout
- Opening Year Cumulative (2023) Without Project Conditions
- Opening Year Cumulative (2023) With Project (Phase1) Conditions
- Opening Year Cumulative (2025) Without Project Conditions
- Opening Year Cumulative (2025) With Project (Phase 1 + Phase 2) Conditions
- Opening Year Cumulative (2027) Without Project Conditions
- Opening Year Cumulative (2027) With Project (Project Buildout) Conditions
- Horizon Year (2045) Without Project Conditions
- Horizon Year (2045) With Project (Project Buildout) Conditions

The ADT volumes used in this study area presented on Table 6-2 are based on the *Beaumont Pointe Specific Plan Traffic Analysis*, prepared by Urban Crossroads, Inc. The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. In addition, the off-site traffic noise analysis maintains a peak hour to average daily traffic (peak-to-daily) relationship of approximately 8.33%. (2) To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix.

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Classification[1]	Distance from Centerline to Receiving Land Use (Feet)[2]	Vehicle Speed (mph)[3]
1	Potrero Bl.	s/o Oak Valley Pkwy.	Urban Arterial	67'	40
2	California Av.	n/o 6th St.	Collector	33'	40
3	Oak Valley Pkwy.	e/o Potrero Bl.	Urban Arterial Frontage Road	60'	50
4	4th St.	e/o Potrero Bl.	Major	59'	40
5	4th St.	e/o Veile Av.	Secondary	44'	40
6	4th St.	w/o Potrero Bl.	Secondary	33'	40

[1] County of Riverside General Plan Circulation Element.
[2] Distance to receiving land use is based upon the right-of-way distances.
[3] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes[1]											
			Existing 2020				OYC 2023		OYC 2025		OYC 2027		Horizon Year (HY) 2045	
			Without Project	With Ph. 1	With Ph. 1+2	With Project	Without Project	With Ph. 1	Without Project	With Ph. 1+2	Without Project	With Project	Without Project	With Project
1	Potrero Bl.	s/o Oak Valley Pkwy.	2,232	2,836	4,689	5,739	3,314	3,917	3,814	6,271	5,264	8,770	23,682	27,188
2	California Av.	n/o 6th St.	1,908	2,029	2,399	2,609	2,258	2,379	2,440	2,931	2,858	3,559	1,737	2,439
3	Oak Valley Pkwy.	e/o Potrero Bl.	4,788	5,392	7,245	8,295	7,389	7,992	8,583	11,040	12,094	15,600	19,233	22,739
4	4th St.	e/o Potrero Bl.	3,744	4,972	8,794	10,474	6,154	7,382	7,249	8,723	10,532	17,262	10,969	17,700
5	4th St.	e/o Veile Av.	1,746	3,100	12,228	16,428	3,767	6,233	4,663	16,706	7,476	25,374	6,094	27,890
6	4th St.	w/o Potrero Bl.	162	3,922	15,577	19,777	3,295	7,055	4,640	20,054	9,108	29,898	11,624	32,414

[1] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.

Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Traffic Analysis*. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Tables 6-5 to 6-11 show the vehicle mixes used for the with Project traffic scenarios.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

[1] County of Riverside Office of Industrial Hygiene. Values rounded to the nearest one-hundredth.
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-4: WITHOUT PROJECT VEHICLE MIX

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	91.81%	2.52%	5.67%	100.00%

Based on an existing vehicle count taken at Veile Avenue and 4th Street (Beaumont Pointe Specific Plan Traffic Analysis, Urban Crossroads, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-5: EXISTING 2020 WITH PROJECT PHASE 1 VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Potrero Bl.	s/o Oak Valley Pkwy.	93.55%	1.98%	4.46%	100.00%
2	California Av.	n/o 6th St.	92.30%	2.37%	5.33%	100.00%
3	Oak Valley Pkwy.	e/o Potrero Bl.	92.73%	2.24%	5.03%	100.00%
4	4th St.	e/o Potrero Bl.	88.56%	4.15%	7.29%	100.00%
5	4th St.	e/o Veile Av.	90.36%	3.52%	6.12%	100.00%
6	4th St.	w/o Potrero Bl.	82.67%	7.36%	9.97%	100.00%

[1] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.
[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-6: EXISTING WITH PROJECT PHASE 1 + PHASE 2 VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Potrero Bl.	s/o Oak Valley Pkwy.	96.10%	1.20%	2.70%	100.00%
2	California Av.	n/o 6th St.	93.49%	2.00%	4.51%	100.00%
3	Oak Valley Pkwy.	e/o Potrero Bl.	94.59%	1.67%	3.75%	100.00%
4	4th St.	e/o Potrero Bl.	83.78%	6.91%	9.32%	100.00%
5	4th St.	e/o Veile Av.	88.71%	4.83%	6.46%	100.00%
6	4th St.	w/o Potrero Bl.	81.57%	8.42%	10.00%	100.00%

[1] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.
[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-7: EXISTING WITH PROJECT BUILDOUT VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Potrero Bl.	s/o Oak Valley Pkwy.	96.81%	0.98%	2.21%	100.00%
2	California Av.	n/o 6th St.	94.01%	1.84%	4.15%	100.00%
3	Oak Valley Pkwy.	e/o Potrero Bl.	95.27%	1.45%	3.27%	100.00%
4	4th St.	e/o Potrero Bl.	86.38%	5.80%	7.82%	100.00%
5	4th St.	e/o Veile Av.	91.11%	3.80%	5.09%	100.00%
6	4th St.	w/o Potrero Bl.	86.28%	6.27%	7.45%	100.00%

[1] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.
[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-8: OYC 2023 WITH PROJECT PHASE 1 VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Potrero Bl.	s/o Oak Valley Pkwy.	93.07%	2.13%	4.80%	100.00%
2	California Av.	n/o 6th St.	92.23%	2.39%	5.38%	100.00%
3	Oak Valley Pkwy.	e/o Potrero Bl.	92.43%	2.33%	5.24%	100.00%
4	4th St.	e/o Potrero Bl.	89.62%	3.62%	6.76%	100.00%
5	4th St.	e/o Veile Av.	90.96%	3.10%	5.93%	100.00%
6	4th St.	w/o Potrero Bl.	87.26%	4.93%	7.81%	100.00%

[1] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.
[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-9: OYC 2025 WITH PROJECT PHASE 1 + PHASE 2 VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Potrero Bl.	s/o Oak Valley Pkwy.	95.02%	1.53%	3.45%	100.00%
2	California Av.	n/o 6th St.	93.18%	2.10%	4.72%	100.00%
3	Oak Valley Pkwy.	e/o Potrero Bl.	93.63%	1.96%	4.41%	100.00%
4	4th St.	e/o Potrero Bl.	93.19%	2.09%	4.71%	100.00%
5	4th St.	e/o Veile Av.	93.78%	1.91%	4.31%	100.00%
6	4th St.	w/o Potrero Bl.	84.32%	6.84%	8.84%	100.00%

[1] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.
[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-10: OYC 2027 WITH PROJECT BUILDOUT VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Potrero Bl.	s/o Oak Valley Pkwy.	95.09%	1.51%	3.40%	100.00%
2	California Av.	n/o 6th St.	93.42%	2.02%	4.55%	100.00%
3	Oak Valley Pkwy.	e/o Potrero Bl.	93.65%	1.95%	4.40%	100.00%
4	4th St.	e/o Potrero Bl.	88.52%	4.51%	6.98%	100.00%
5	4th St.	e/o Veile Av.	91.40%	3.26%	5.33%	100.00%
6	4th St.	w/o Potrero Bl.	88.23%	4.95%	6.82%	100.00%

[1] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.
[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-11: HY 2040 WITH PROJECT BUILDOUT VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Potrero Bl.	s/o Oak Valley Pkwy.	92.87%	2.19%	4.94%	100.00%
2	California Av.	n/o 6th St.	94.17%	1.80%	4.04%	100.00%
3	Oak Valley Pkwy.	e/o Potrero Bl.	93.07%	2.13%	4.80%	100.00%
4	4th St.	e/o Potrero Bl.	88.60%	4.46%	6.94%	100.00%
5	4th St.	e/o Veile Av.	91.36%	3.35%	5.30%	100.00%
6	4th St.	w/o Potrero Bl.	88.56%	4.73%	6.72%	100.00%

[1] Beaumont Pointe Traffic Analysis, Urban Crossroads, Inc.
[2] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

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7 OFF-SITE TRAFFIC NOISE IMPACTS

As described in Section 4.1, the off-site traffic noise impacts are evaluated based on noise level increases resulting from the Project. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. To describe the amount to which a given noise level increase is considered substantial (Threshold A), the City of Beaumont General Plan EIR (13) outlines criteria to evaluate the incremental noise level increase and establishes a method for comparing future project noise with existing ambient conditions under CEQA Significance Noise Threshold A. Based on off-site traffic noise level increase criteria, the City of Beaumont General Plan EIR (13) indicates that *with implementation of proposed Project policies and implementation actions, increases in roadway noise at existing noise sensitive receptors would be reduced to the degree feasible.* However, the EIR determined that *future noise levels could still exceed thresholds* and the *impacts from permanent noise are considered significant and unavoidable.*

According to the *Beaumont Pointe Specific Plan Traffic Analysis* prepared by Urban Crossroads, Inc. (2), at Project Buildout the Project is expected to generate a total of approximately 16,266 trip-ends per day (actual vehicles) and includes 2,240 truck trip-ends per day. To describe the off-site Project-related traffic noise levels, this noise study relies on the actual Project automobile and truck trips established in the *Traffic Analysis* (as opposed to the passenger car equivalents) to accurately account for the effect of individual car and truck trips on the study area roadway network.

7.1 TRAFFIC NOISE CONTOURS

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on the Beaumont Pointe *Traffic Analysis*. (2) Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Appendix 7.1 includes a summary of the dBA CNEL traffic noise level contours for each of the traffic scenarios. Tables 7-1 through 7-12 present a summary of the exterior dBA CNEL traffic noise levels without barrier attenuation. Roadway segments are analyzed in each of the following timeframes:

- Existing (2020) Conditions
- Existing plus Project (E+P) Conditions – Phase 1
- Existing plus Project (E+P) Conditions – Phase 1 + Phase 2
- Existing plus Project (E+P) Conditions – Project Buildout
- Opening Year Cumulative (OYC) (2023) Without Project Conditions

- Opening Year Cumulative (OYC) (2023) With Project (Phase1) Conditions
- Opening Year Cumulative (OYC) (2025) Without Project Conditions
- Opening Year Cumulative (OYC) (2025) With Project (Phase 1 + Phase 2) Conditions
- Opening Year Cumulative (OYC) (2027) Without Project Conditions
- Opening Year Cumulative (OYC) (2027) With Project (Project Buildout) Conditions
- Horizon Year (HY) (2045) Without Project Conditions
- Horizon Year (2045) With Project (Project Buildout) Conditions

TABLE 7-1: EXISTING 2020 WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	61.9	RW	RW	90
2	California Av.	n/o 6th St.	64.6	RW	RW	66
3	Oak Valley Pkwy.	e/o Potrero Bl.	68.4	RW	100	216
4	4th St.	e/o Potrero Bl.	64.2	RW	RW	113
5	4th St.	e/o Veile Av.	62.8	RW	RW	68
6	4th St.	w/o Potrero Bl.	53.9	RW	RW	RW

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING 2020 WITH PROJECT PHASE 1 NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	62.2	RW	RW	94
2	California Av.	n/o 6th St.	64.6	RW	RW	67
3	Oak Valley Pkwy.	e/o Potrero Bl.	68.5	RW	103	222
4	4th St.	e/o Potrero Bl.	66.4	RW	73	157
5	4th St.	e/o Veile Av.	65.3	RW	46	99
6	4th St.	w/o Potrero Bl.	68.8	RW	59	128

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: EXISTING 2020 WITH PROJECT PHASE 1 + PHASE 2 NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	63.0	RW	RW	107
2	California Av.	n/o 6th St.	64.9	RW	RW	70
3	Oak Valley Pkwy.	e/o Potrero Bl.	69.0	RW	112	240
4	4th St.	e/o Potrero Bl.	69.8	RW	124	267
5	4th St.	e/o Veile Av.	69.0	RW	81	175
6	4th St.	w/o Potrero Bl.	74.9	70	151	325

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: EXISTING 2020 WITH PROJECT BUILDOUT NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	63.5	RW	RW	114
2	California Av.	n/o 6th St.	65.0	RW	33	71
3	Oak Valley Pkwy.	e/o Potrero Bl.	69.3	RW	116	250
4	4th St.	e/o Potrero Bl.	70.0	59	127	273
5	4th St.	e/o Veile Av.	69.3	RW	85	182
6	4th St.	w/o Potrero Bl.	75.1	72	156	336

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-5: OYC 2023 WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	63.6	RW	RW	117
2	California Av.	n/o 6th St.	65.3	RW	35	74
3	Oak Valley Pkwy.	e/o Potrero Bl.	70.2	62	134	289
4	4th St.	e/o Potrero Bl.	66.4	RW	73	157
5	4th St.	e/o Veile Av.	66.1	RW	52	113
6	4th St.	w/o Potrero Bl.	66.9	RW	44	96

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-6: OYC 2023 WITH PROJECT PHASE 1 NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	63.8	RW	RW	120
2	California Av.	n/o 6th St.	65.4	RW	35	75
3	Oak Valley Pkwy.	e/o Potrero Bl.	70.4	63	136	294
4	4th St.	e/o Potrero Bl.	67.8	RW	91	195
5	4th St.	e/o Veile Av.	67.5	RW	64	138
6	4th St.	w/o Potrero Bl.	70.9	38	82	176

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-7: OYC 2025 WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	64.2	RW	RW	128
2	California Av.	n/o 6th St.	65.6	RW	36	78
3	Oak Valley Pkwy.	e/o Potrero Bl.	70.9	69	148	319
4	4th St.	e/o Potrero Bl.	67.1	RW	81	175
5	4th St.	e/o Veile Av.	67.1	RW	60	130
6	4th St.	w/o Potrero Bl.	68.4	RW	56	120

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-8: OYC 2025 WITH PROJECT PHASE 1 + PHASE 2 NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	64.9	RW	RW	143
2	California Av.	n/o 6th St.	65.9	RW	38	81
3	Oak Valley Pkwy.	e/o Potrero Bl.	71.3	73	157	339
4	4th St.	e/o Potrero Bl.	67.3	RW	84	181
5	4th St.	e/o Veile Av.	67.4	RW	64	138
6	4th St.	w/o Potrero Bl.	75.7	80	172	370

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-9: OYC 2027 WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	65.6	RW	74	159
2	California Av.	n/o 6th St.	66.3	RW	40	87
3	Oak Valley Pkwy.	e/o Potrero Bl.	72.4	86	186	401
4	4th St.	e/o Potrero Bl.	68.7	RW	104	224
5	4th St.	e/o Veile Av.	69.1	RW	83	178
6	4th St.	w/o Potrero Bl.	71.4	41	87	189

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-10: OYC 2027 WITH PROJECT BUILDOUT NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	66.4	RW	82	178
2	California Av.	n/o 6th St.	66.6	RW	42	91
3	Oak Valley Pkwy.	e/o Potrero Bl.	72.8	92	198	427
4	4th St.	e/o Potrero Bl.	71.7	76	165	355
5	4th St.	e/o Veile Av.	71.7	57	123	264
6	4th St.	w/o Potrero Bl.	76.6	91	197	423

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-11: HY 2045 WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	72.2	93	201	433
2	California Av.	n/o 6th St.	64.2	RW	RW	62
3	Oak Valley Pkwy.	e/o Potrero Bl.	74.4	118	254	546
4	4th St.	e/o Potrero Bl.	68.9	RW	107	231
5	4th St.	e/o Veile Av.	68.2	RW	72	156
6	4th St.	w/o Potrero Bl.	72.4	48	103	222

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-12: HY 2045 WITH PROJECT BUILDOUT NOISE CONTOURS

ID	Road	Segment	CNEL at Receiving Land Use (dBA)[1]	Distance to Contour from Centerline (Feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Potrero Bl.	s/o Oak Valley Pkwy.	72.3	96	206	444
2	California Av.	n/o 6th St.	64.6	RW	RW	67
3	Oak Valley Pkwy.	e/o Potrero Bl.	74.6	122	264	568
4	4th St.	e/o Potrero Bl.	71.8	77	167	360
5	4th St.	e/o Veile Av.	71.2	53	114	246
6	4th St.	w/o Potrero Bl.	77.0	96	207	446

[1] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.2 EXISTING WITH PROJECT PHASE 1 TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in the *Beaumont Pointe Traffic Analysis*. This scenario is analyzed to show the potential impacts of the Project using the existing baseline consistent with the Project Traffic Analysis. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 53.9 to 68.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project Phase 1 conditions will range from 62.2 to 68.8 dBA CNEL. Table 7-13 shows that the Project off-site traffic noise level impacts will range from 0.0 to 14.9 dBA CNEL.

7.3 EXISTING WITH PROJECT PHASE 1 + PHASE 2 TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in *Beaumont Pointe Traffic Analysis*. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 53.9 to 68.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-3 shows the Existing with Project Phase 1 + Phase 2 conditions will range from 63.0 to 74.9 dBA CNEL. Table 7-14 shows that the Project off-site traffic noise level impacts will range from 0.3 to 21.0 dBA CNEL.

7.4 EXISTING WITH PROJECT BUILDOUT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in *Beaumont Pointe Traffic Analysis*. This scenario is analyzed to show the potential impacts of the Project using the existing baseline consistent with the Project Traffic Analysis. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 53.9 to 68.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows the Existing with Project Buildout conditions will range from 63.5 to 75.1 dBA CNEL. Table 7-15 shows that the Project off-site traffic noise level impacts will range from 0.4 to 21.2 dBA CNEL.

7.5 OYC (2023) WITH PROJECT PHASE 1 TRAFFIC NOISE LEVEL INCREASES

Table 7-5 presents the Opening Year Cumulative (2023) without Project conditions CNEL noise levels. The Opening Year Cumulative (2023) without Project exterior noise levels are expected to range from 63.6 to 70.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-6 shows the Opening Year Cumulative (2023) with Project Phase 1 conditions will range from 63.8 to 70.9 dBA CNEL. Table 7-16 shows that the Project off-site traffic noise level increases will range from 0.1 to 4.0 dBA CNEL.

7.6 OYC (2025) WITH PROJECT PHASE 1 + PHASE 2 TRAFFIC NOISE LEVEL INCREASES

Table 7-7 presents the Opening Year Cumulative (2025) without Project conditions CNEL noise levels. The Opening Year Cumulative (2025) without Project exterior noise levels are expected to range from 64.2 to 70.9 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-8 shows the Opening Year Cumulative (2025) with Project Phase 1 + Phase 2 conditions will range from 64.9 to 75.7 dBA CNEL. Table 7-17 shows that the Project off-site traffic noise level increases will range from 0.2 to 7.3 dBA CNEL.

7.7 OYC (2027) WITH PROJECT BUILDOUT TRAFFIC NOISE LEVEL INCREASES

Table 7-9 presents the Opening Year Cumulative (2027) without Project conditions CNEL noise levels. The Opening Year Cumulative (2027) without Project exterior noise levels are expected to range from 65.6 to 72.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-10 shows the Opening Year Cumulative (2027) with Project Buildout conditions will range from 66.4 to 76.6 dBA CNEL. Table 7-18 shows that the Project off-site traffic noise level increases will range from 0.3 to 5.2 dBA CNEL.

7.8 HY (2045) WITH PROJECT BUILDOUT TRAFFIC NOISE LEVEL INCREASES

To evaluate the long-range Horizon Year 2045 w and without Project traffic noise levels, this section describes the off-site traffic noise levels consistent with the Project Traffic Analysis. Table 7-11 presents the Horizon Year (2045) without Project conditions CNEL noise levels. The Horizon Year (2045) without Project exterior noise levels are expected to range from 64.2 to 74.4 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-12 shows the Horizon Year (2045) with Project Buildout conditions will range from 64.6 to 77.0 dBA CNEL. Table 7-19 shows that the Project off-site traffic noise level increases will range from 0.1 to 4.6 dBA CNEL.

TABLE 7-13: EXISTING WITH PROJECT PHASE 1 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]		
				No Project	With Project	Project Addition
1	Potrero Bl.	s/o Oak Valley Pkwy.	Non-Sensitive	61.9	62.2	0.3
2	California Av.	n/o 6th St.	Sensitive	64.6	64.6	0.0
3	Oak Valley Pkwy.	e/o Potrero Bl.	Sensitive	68.4	68.5	0.1
4	4th St.	e/o Potrero Bl.	Non-Sensitive	64.2	66.4	2.2
5	4th St.	e/o Veile Av.	Non-Sensitive	62.8	65.3	2.5
6	4th St.	w/o Potrero Bl.	Non-Sensitive	53.9	68.8	14.9

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

TABLE 7-14: EXISTING WITH PROJECT PHASE 1 + PHASE 2 TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]		
				No Project	With Project	Project Addition
1	Potrero Bl.	s/o Oak Valley Pkwy.	Non-Sensitive	61.9	63.0	1.1
2	California Av.	n/o 6th St.	Sensitive	64.6	64.9	0.3
3	Oak Valley Pkwy.	e/o Potrero Bl.	Sensitive	68.4	69.0	0.6
4	4th St.	e/o Potrero Bl.	Non-Sensitive	64.2	69.8	5.6
5	4th St.	e/o Veile Av.	Non-Sensitive	62.8	69.0	6.2
6	4th St.	w/o Potrero Bl.	Non-Sensitive	53.9	74.9	21.0

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

TABLE 7-15: EXISTING WITH PROJECT BUILDOUT TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]		
				No Project	With Project	Project Addition
1	Potrero Bl.	s/o Oak Valley Pkwy.	Non-Sensitive	61.9	63.5	1.6
2	California Av.	n/o 6th St.	Sensitive	64.6	65.0	0.4
3	Oak Valley Pkwy.	e/o Potrero Bl.	Sensitive	68.4	69.3	0.9
4	4th St.	e/o Potrero Bl.	Non-Sensitive	64.2	70.0	5.8
5	4th St.	e/o Veile Av.	Non-Sensitive	62.8	69.3	6.5
6	4th St.	w/o Potrero Bl.	Non-Sensitive	53.9	75.1	21.2

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

TABLE 7-16: OYC (2023) WITH PROJECT PHASE 1 TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]		
				No Project	With Project	Project Addition
1	Potrero Bl.	s/o Oak Valley Pkwy.	Non-Sensitive	63.6	63.8	0.2
2	California Av.	n/o 6th St.	Sensitive	65.3	65.4	0.1
3	Oak Valley Pkwy.	e/o Potrero Bl.	Sensitive	70.2	70.4	0.2
4	4th St.	e/o Potrero Bl.	Non-Sensitive	66.4	67.8	1.4
5	4th St.	e/o Veile Av.	Non-Sensitive	66.1	67.5	1.4
6	4th St.	w/o Potrero Bl.	Non-Sensitive	66.9	70.9	4.0

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

TABLE 7-17: OYC (2025) WITH PROJECT PHASE 1 + PHASE 2 TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]		
				No Project	With Project	Project Addition
1	Potrero Bl.	s/o Oak Valley Pkwy.	Non-Sensitive	64.2	64.9	0.7
2	California Av.	n/o 6th St.	Sensitive	65.6	65.9	0.3
3	Oak Valley Pkwy.	e/o Potrero Bl.	Sensitive	70.9	71.3	0.4
4	4th St.	e/o Potrero Bl.	Non-Sensitive	67.1	67.3	0.2
5	4th St.	e/o Veile Av.	Non-Sensitive	67.1	67.4	0.3
6	4th St.	w/o Potrero Bl.	Non-Sensitive	68.4	75.7	7.3

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

TABLE 7-18: OYC (2027) WITH PROJECT BUILDOUT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]		
				No Project	With Project	Project Addition
1	Potrero Bl.	s/o Oak Valley Pkwy.	Non-Sensitive	65.6	66.4	0.8
2	California Av.	n/o 6th St.	Sensitive	66.3	66.6	0.3
3	Oak Valley Pkwy.	e/o Potrero Bl.	Sensitive	72.4	72.8	0.4
4	4th St.	e/o Potrero Bl.	Non-Sensitive	68.7	71.7	3.0
5	4th St.	e/o Veile Av.	Non-Sensitive	69.1	71.7	2.6
6	4th St.	w/o Potrero Bl.	Non-Sensitive	71.4	76.6	5.2

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

TABLE 7-19: HY (2045) WITH PROJECT BUILDOUT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]		
				No Project	With Project	Project Addition
1	Potrero Bl.	s/o Oak Valley Pkwy.	Non-Sensitive	72.2	72.3	0.1
2	California Av.	n/o 6th St.	Sensitive	64.2	64.6	0.4
3	Oak Valley Pkwy.	e/o Potrero Bl.	Sensitive	74.4	74.6	0.2
4	4th St.	e/o Potrero Bl.	Non-Sensitive	68.9	71.8	2.9
5	4th St.	e/o Veile Av.	Non-Sensitive	68.2	71.2	3.0
6	4th St.	w/o Potrero Bl.	Non-Sensitive	72.4	77.0	4.6

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

7.9 OFF-SITE TRAFFIC NOISE IMPACTS

Table 7-20 presents a summary of the cumulative and project incremental noise level increases for each of the six-study area roadway segments. The cumulative traffic noise level increase increment describes the difference between the future Horizon Year 2045 With Project conditions and the Existing (baseline) conditions. The Project increment represents the difference between the Existing (baseline) conditions and the Existing plus Project Buildout conditions. Based on the significance criteria for off-site traffic noise presented in Table 4-1, Table 7-20 shows that four of the study area roadway segments are shown to experience *potentially significant* off-site traffic noise level increases due to the added Project traffic. The segments are described below.

- Potrero Boulevard south of Oak Valley Parkway (Segment #1).
- 4th Street east of Potrero Boulevard. (Segment #4).
- 4th Street east of Veile Avenue (Segment #5).
- 4th Street west of Potrero Boulevard. (Segment #6).

Segments #1, #4, #5, and #6 are in industrial areas and are not located immediately adjacent to any noise sensitive land uses. This is consistent with the City's General Plan EIR that determined that buildout of the City's General Plan could result in new vehicular traffic which could exceed the FHWA thresholds and could substantially increase the ambient noise levels in the city and its sphere of influence. The City's General Plan recognizes that an increase in noise levels will occur in industrial areas due to truck traffic.

The City's General Plan goals and policies, therefore, are focused on protecting noise sensitive receivers from road noise, while encouraging timely and efficient goods movement that does not significantly contribute to noise in the City. The Project is located adjacent to the SR-60, which is identified as a Truck Priority roadway in General Plan Figure 4.9, and truck trips would be routed through an industrial area to Potrero Boulevard, also identified as a City Truck Priority roadway.

The City incorporated a number of General Plan policies and implementation programs to reduce traffic-related noise impacts, including the following polices: 10.1.2 (enforce noise standards), 10.1.3 (protect noise sensitive uses), 10.1.4 (require noise mitigation in the design of new development), 10.1.5 (require to new development to implement measures to normally compatible range), 10.1.8 (promote effective enforcement of federal, State, and City noise standards), 10.2.1 (work with Caltrans and FHA), 10.2.2 (enforce speed limits to reduce noise and enforce truck and bus routes), 10.2.3 (prohibit truck routes through neighborhoods with sensitive receptors), 10.2.4 (reduce roadway noise), 10.2.5 (traffic calming measures), 10.2.6 (encourage noise-reducing paving materials), and 10.2.7 (reduce noise generated from City-owned vehicles). Applicable implementation actions include: N2 (requirement for acoustical studies) and N5 (traffic noise assessments). Compliance would the City's General Plan policies and implementation actions would reduce impacts to the furthest extent feasible, but the potential off-site Project related traffic noise level increases on three study area roadway segments would remain significant and unavoidable.

Section 7.10 describes the off-site traffic noise mitigation measures considered in this analysis. The noise sensitive receiving land uses adjacent to roadway segment #2 and #3 and other roadway segments would not experience noise level increases under Existing with Project conditions that would exceed the established thresholds of significance.

7.10 OFF-SITE TRAFFIC NOISE MITIGATION

The off-site Traffic Noise Analysis shows that Project traffic noise level increases on four study area roadway segments will exceed the incremental noise level increase thresholds identified in the City of Beaumont General Plan DEIR and shown on Table 4-1. To reduce the *potentially significant* Project traffic noise level increases on the four study area roadway segments potential noise mitigation measures were considered in this analysis. Potential mitigation measures discussed below include rubberized asphalt hot mix pavement and off-site noise barriers for the existing noise sensitive residential land uses adjacent to impacted roadway segments.

7.10.1 RUBBERIZED ASPHALT

Due to the potential noise attenuation benefits, rubberized asphalt is considered as a mitigation measure for the off-site Project-related traffic noise level increases. To reduce traffic noise levels at the noise source, Caltrans research has shown that rubberized asphalt can provide noise attenuation of approximately 4 dBA for automobile traffic noise levels. (21) Changing the pavement type of a roadway has been shown to reduce the amount of tire/pavement noise produced at the source under both near-term and long-term conditions. Traffic noise is generated primarily by the interaction of the tires and pavement, the engine, and exhaust systems. For automobiles noise, as much as 75 to 90-percent of traffic noise is generated by the interaction of the tires and pavement, especially when traveling at higher and constant speeds. (3) According to research conducted by Caltrans (21) and(18) the Canadian Ministry of Transportation and Highways (22) a 4 dBA reduction in tire/pavement noise is attainable using rubberized asphalt under typical operating conditions.

The effectiveness of reducing traffic noise levels is higher on roadways with low percentages of heavy trucks, since the heavy truck engine and exhaust noise is not affected by rubberized alternative pavement due to the truck engine and exhaust stack height above the pavement itself. (21) Per Caltrans guidance a truck stack height is modeled using a height of 11.5 feet above the road. (5) (23) With the primary off-site traffic noise source consisting of heavy trucks with a stack height of 11.5 feet off the ground, the tire/pavement noise reduction benefits associated rubberized asphalt will be primarily limited to autos.

While the off-site Project-related traffic noise level increases would theoretically be reduced with the 4 dBA reduction provided by rubberized asphalt, the reduction would not provide reliable benefits for the noise levels generated by heavy truck traffic. This is, as previously stated, due to the noise source height difference between automobiles and trucks. While rubberized asphalt will provide some noise reduction, this noise study recognizes that this is only effective for tire-on-pavement noise at higher speeds and would not reduce truck-related off-site traffic noise levels associated with truck engine and exhaust stacks to less than significant levels. Since the use of rubberized asphalt would not lower the off-site traffic noise levels below a level of

significance, rubberized asphalt is not proposed as mitigation for the Project and the off-site Project-related traffic noise level increases at adjacent land uses under Existing Conditions would remain *significant.*

7.10.2 OFF-SITE NOISE BARRIERS

Since existing and future noise-sensitive receiving land uses are located adjacent to the impacted roadway segments in the Project study area, off-site noise barriers were considered in this analysis as a potential traffic noise mitigation measure to reduce the impacts. Off-site noise barriers are estimated to provide a *readily perceptible* 5 dBA reduction which, according to the FHWA, is *simple* to attain when blocking the line-of-sight from the noise source to the receiver. (5) As previously discussed, Caltrans guidance in the Highway Design Manual, Section 1102.3(3), indicates that for design purposes, *the noise barrier should intercept the line of sight from the exhaust stack of a truck to the receptor*, and an 11.5-foot-high truck stack height is assumed to represent the truck engine and exhaust noise source. (23) Therefore, any exterior noise barriers at receiving noise sensitive land uses experiencing Project-related traffic noise level increases would need to be high enough and long enough to block the line-of-sight from the noise source (at 11.5 feet high per Caltrans) to the receiver (at 5 feet high per FHWA guidance) in order to provide a 5 dBA reduction per FHWA guidance. (23)

As such, off-site noise barriers would not be feasible and would not lower the off-site traffic noise levels below a level of significance, and therefore, noise barriers are not proposed as mitigation for the Project.

7.10.3 SIGNIFICANT OFF-SITE TRAFFIC NOISE IMPACTS

Both rubberized asphalt and off-site noise barriers are considered as potential noise mitigation measures to reduce the *potentially significant* off-site traffic noise level increases shown on Table 7-20. However, due the reasons outlined about neither form of mitigation is recommended for implementation since they would not eliminate the off-site traffic noise level increases at the adjacent land uses to the impacted roadway segments. Therefore, the Project-related off-site traffic noise level increases at adjacent noise-sensitive land uses are considered a *significant and unavoidable* impact.

TABLE 7-20: OFF-SITE TRAFFIC INCREMENTAL NOISE LEVEL INCREASE SUMMARY

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]					
				Existing No Project	Future With Project	Cumulative Increment	Project Increment	Cumulative Limit	Cumulative Impact?
1	Potrero Bl.	s/o Oak Valley Pkwy.	Non-Sensitive	61.9	72.3	10.4	**1.6**	1	**Yes**
2	California Av.	n/o 6th St.	Sensitive	64.6	64.6	0.0	0.4	2	No
3	Oak Valley Pkwy.	e/o Potrero Bl.	Sensitive	68.4	74.6	6.2	0.9	1	No
4	4th St.	e/o Potrero Bl.	Non-Sensitive	64.2	71.8	7.6	**5.8**	1	**Yes**
5	4th St.	e/o Veile Av.	Non-Sensitive	62.8	71.2	8.4	**6.5**	1	**Yes**
6	4th St.	w/o Potrero Bl.	Non-Sensitive	53.9	77.0	23.1	**21.2**	0	**Yes**

[1] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[2] Does the Project create an incremental noise level increase exceeding the significance criteria in Section 4.1?

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8 RECEIVER LOCATIONS

To assess the potential for long-term stationary operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas.

Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2.

Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

To describe the potential off-site Project noise levels, five receiver locations in the vicinity of the Project site were identified. In addition, receiver locations BIO-1, BIO-2 and BIO-3 represent the existing open space areas and potential sensitive receiver locations for further consideration in the biology report for the Project. The nearest noise sensitive residential receiver is located approximately 417 feet south of the Project site near the Hoy Ranch property. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site.

R1: Location R1 represents the existing noise sensitive residence at 34945 Roberts Place, approximately 4,402 feet north of the Project site. R1 is placed at the backyard property line facing the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2: Location R2 represents the existing noise sensitive residence at 35339 Stewart Street, approximately 4,347 feet north of the Project site. R2 is placed at the backyard yard property line facing the Project site. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents the existing Tukwet Canyon Golf Course, approximately 3,123 feet north of the Project site. Since there are no private outdoor living areas facing the Project site, receiver R3 is placed at the building façade. A 24-hour noise measurement near this location, L3, is used to describe the existing ambient noise environment.

R4: Location R4 represents the existing noise sensitive residence at 14157 Bosana Lane, approximately 1,159 feet north of the Project site. R4 is placed at the backyard property

line facing the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

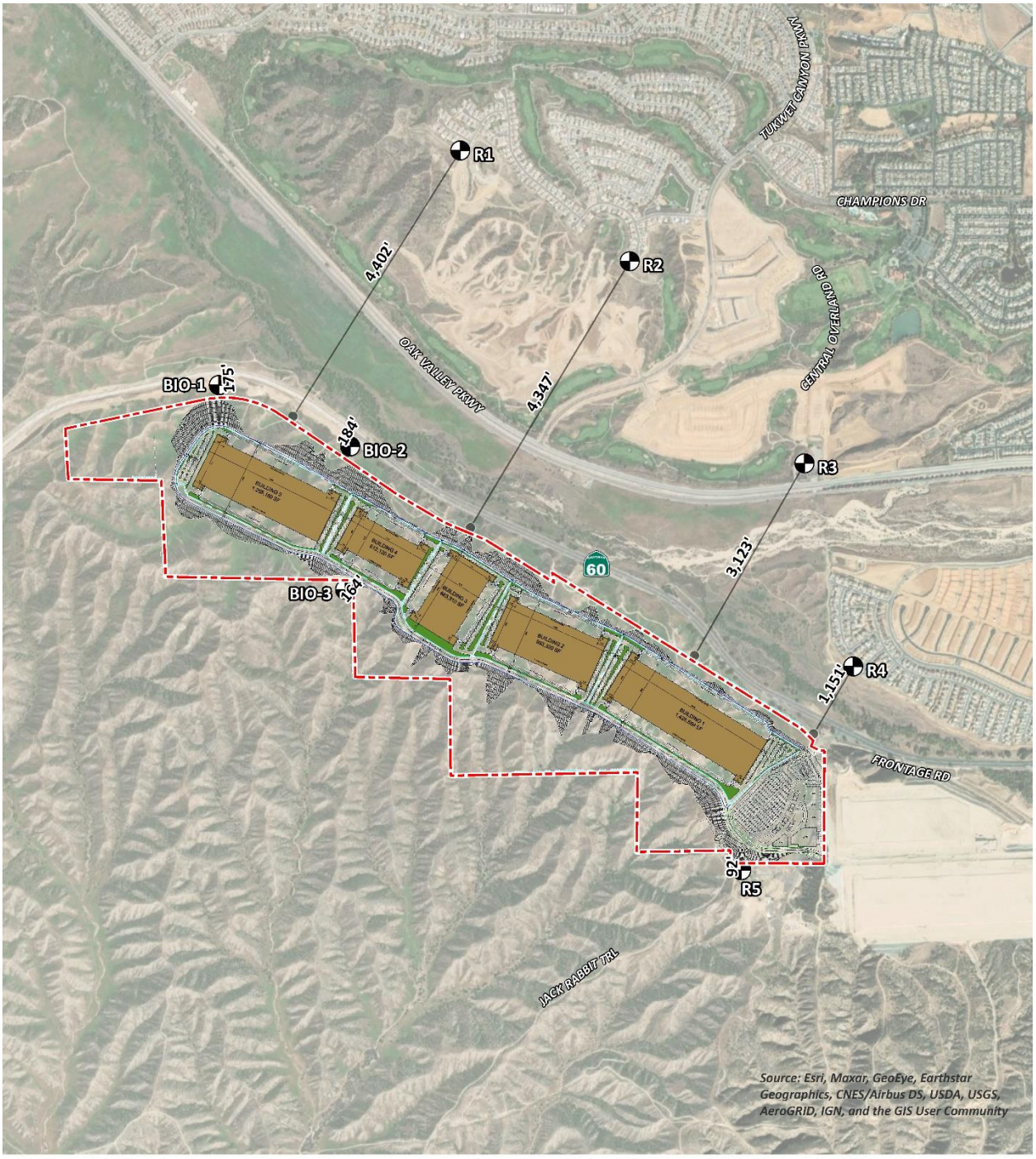
R5: Location R5 represents the existing noise sensitive residence at 13270 Jack Rabbit Trail (Hoy Ranch), approximately 92 feet south of the Project site. R2 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

BIO-1: Location BIO-1 represents the existing open space area near the wildlife underpass of the State Route 60, approximately 175 feet north of the Project site.

BIO-2: Location BIO-2 represents the existing open space area near the State Route 60, approximately 184 feet northeast of the Project site.

BIO-3: Location BIO-3 represents the existing open space area approximately 164 feet southwest of the Project site opposite the planned loading dock area of Building 4..

EXHIBIT 8-A: RECEIVER LOCATIONS



LEGEND:

N

Site Boundary

Receiver Locations

Distance from receiver to Project site boundary (in feet)

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9 STATIONARY OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source (i.e., on-site) operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the stationary operation of the proposed Beaumont Pointe Project. Exhibit 9-A identifies the noise source locations used to assess the hourly average L_{eq} stationary operational noise levels consistent with the City of Beaumont General Plan Noise Element Policy N 4.1.

9.1 STATIONARY OPERATIONAL NOISE SOURCES

This stationary operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Consistent with similar warehouse uses, the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movements, parking lot activities, as well as loading and unloading of trucks and vans at designated loading bays. The on-site Project-related noise sources are expected to include: loading dock activity, delivery van activity, truck movements, roof-top air conditioning units, parking lot vehicle movements and trash enclosure activity.

9.2 REFERENCE NOISE LEVELS

To estimate the Project stationary operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a description of the reference noise level measurements shown on Table 9-1 used to estimate the Project stationary operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, delivery van activity, truck movements, roof-top air conditioning units, parking lot vehicle movements and trash enclosure activity all operating continuously, 24 hours per day, seven days per week. These sources of noise activity will likely vary throughout the day.

9.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precision sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (15)

EXHIBIT 9-A: STATIONARY OPERATIONAL NOISE SOURCE LOCATIONS

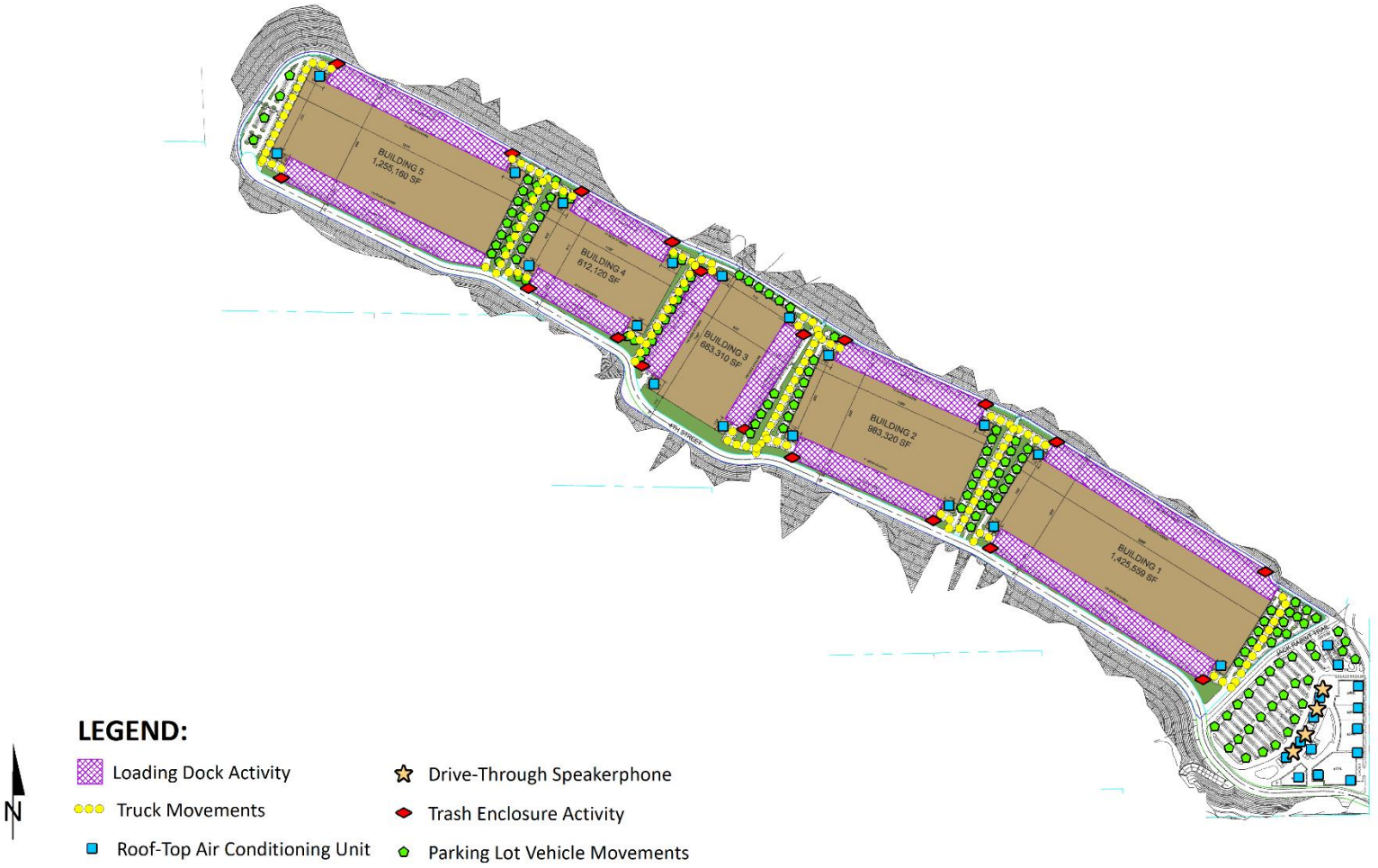


TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source[1]	Noise Source Height (Feet)	Min./Hour[2]		Reference Level (dBA L_{eq}) @ 50 feet	Sound Power Level (dBA)[3]
		Day	Night		
Loading Dock Activity	8'	60	60	76.2	111.5
Truck Movements	8'	60	60	59.8	93.2
Roof-Top Air Conditioning	5'	39	28	57.2	88.9
Parking Lot Vehicle Movements	5'	60	60	56.1	87.8
Drive-Through Speakerphone Activity	3'	60	60	50.0	84.0
Trash Enclosure Activity	5'	10	10	57.3	89.0

[1] As measured by Urban Crossroads, Inc.
[2] Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Day" = 7:00 a.m. to 10:00 p.m.; "Night" = 10:00 p.m. to 7:00 a.m.
[3] Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.
[4] Truck Movements are calculated based on the number of events by time of day (See Table 9-2).

9.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical stationary operational noise source levels associated with the Project. This includes truck idling, deliveries, backup alarms, unloading/loading, docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background forklift operations. At a uniform reference distance of 50 feet, Urban Crossroads collected a reference noise level of 65.7 dBA L_{eq}.

The loading dock activity noise level measurement was taken over a fifteen-minute period and represents multiple noise sources taken from the center of activity. The reference noise level measurement includes employees unloading a docked truck container included the squeaking of the truck's shocks when weight was removed from the truck, employees playing music over a radio, as well as a forklift horn and backup alarm. In addition, during the noise level measurement a truck entered the loading dock area and proceeded to reverse and dock in a nearby loading bay, adding truck engine, idling, air brakes noise, in addition to on-going idling of an already docked truck.

9.2.3 TRUCK MOVEMENTS

The truck movements reference noise level measurement was collected over a period of 1 hour and 28 minutes and represents multiple heavy trucks entering and exiting the outdoor loading dock area producing a reference noise level of 59.8 dBA L_{eq} at 50 feet. The noise sources included at this measurement location account for trucks entering and existing the Project driveways and maneuvering in and out of the outdoor loading dock activity area. Consistent with the *Beaumont Pointe Traffic Analysis*, the Project is expected to generate a total of approximately 16,266 trips per day (actual vehicles) and includes 2,240 truck trips per day. (2) This noise study relies on the actual Project trips (as opposed to the passenger car equivalents) to accurately account for the effect of individual truck trips on the study area roadway network.

9.2.4 ROOF-TOP AIR CONDITIONING UNITS

The noise level measurements describe a single mechanical roof-top air conditioning unit. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA L_{eq}. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for and average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings.

9.2.5 PARKING LOT VEHICLE MOVEMENTS

To describe the on-site parking lot activity a reference noise level of 56.1 dBA L_{eq} at 50 feet is used. Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due cars pulling in and out of parking spaces in combination doors opening and closing and alarm or car horn locking announcements.

9.2.6 DRIVE-THROUGH SPEAKERPHONE ACTIVITY

To describe the potential noise level impacts associated with the planned drive-thru speakerphones, this analysis relies on the drive-through intercom system manufactured by HME. This type of system is commonly used by the quick service restaurant (QSR) industry for drive-thru communications. The HME SPP2 speaker post intercom system produces a maximum noise level of 84 dBA at one foot from the speaker post. The system may also be equipped with an automatic volume control that can automatically reduce the sound levels as the ambient noise level decreases. The reference speakerphone noise level describes continuous drive-through operations and does not include any periods of inactivity.

9.2.7 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project Site. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's proposed building. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

9.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior stationary operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.

Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The stationary operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. The ground attenuation factor accounts for the ground absorption characteristics on the intervening topography and vegetation between the Project site and the nearest noise sensitive receiver locations. Appendix 9.1 includes the detailed noise model inputs used to estimate the Project stationary operational noise levels presented in this section.

9.4 PROJECT STATIONARY OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include loading dock activity, delivery van activity, truck movements, roof-top air conditioning units, parking lot vehicle movements and trash enclosure activity, Urban Crossroads, Inc. calculated the stationary source operational noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 9-2 shows the Project stationary operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 32.1 to 43.0 dBA L_{eq}.

TABLE 9-2: DAYTIME PROJECT STATIONARY OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)							
	R1	R2	R3	R4	R5	BIO-1	BIO-2	BIO-3
Loading Dock Activity	30.6	32.7	34.1	37.5	37.5	40.9	44.6	49.1
Truck Movements	22.3	25.0	25.8	29.1	33.2	33.6	37.0	41.0
Roof-Top Air Conditioning	18.5	20.6	24.1	29.5	34.2	27.2	29.9	31.4
Parking Lot Vehicle Movements	23.6	25.9	28.5	35.1	39.7	31.5	37.9	39.3
Drive-Through Speakerphone Activity	0.0	0.0	6.3	8.2	11.0	0.0	0.0	0.0
Trash Enclosure Activity	10.7	12.8	14.2	17.4	18.7	23.1	26.1	29.0
Total (All Noise Sources)	**32.1**	**34.3**	**36.0**	**40.3**	**43.0**	**42.2**	**46.2**	**50.2**

[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Tables 9-3 shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 32.0 to 42.7 dBA L_{eq}. The differences between the daytime and nighttime noise levels are largely related to the duration of noise activity (Table 9-1). Appendix 9.1 includes the detailed noise model inputs.

TABLE 9-3: NIGHTTIME PROJECT STATIONARY OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)							
	R1	R2	R3	R4	R5	BIO-1	BIO-2	BIO-3
Loading Dock Activity	30.6	32.7	34.1	37.5	37.5	40.9	44.6	49.1
Truck Movements	22.3	25.0	25.8	29.1	33.2	33.6	37.0	41.0
Roof-Top Air Conditioning	16.1	18.2	21.7	27.1	31.8	24.8	27.5	29.0
Parking Lot Vehicle Movements	23.6	25.9	28.5	35.1	39.7	31.5	37.9	39.3
Drive-Through Speakerphone Activity	0.0	0.0	6.3	8.2	11.0	0.0	0.0	0.0
Trash Enclosure Activity	9.7	11.9	13.3	16.4	17.7	22.1	25.2	28.0
Total (All Noise Sources)	**32.0**	**34.2**	**35.8**	**40.1**	**42.7**	**42.2**	**46.1**	**50.2**

[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

9.5 PROJECT STATIONARY OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only stationary operational noise levels are evaluated against exterior noise level thresholds based on the City of Beaumont exterior noise level standards at the nearest noise-sensitive receiver locations. Based on the CadnaA noise prediction model results that account for the noise attenuation due to distance from the noise source activities, Table 9-5 shows the stationary operational noise levels associated with the Beaumont Pointe Project will satisfy the City of Beaumont 55 dBA L_{eq} daytime and 45 dBA L_{eq} nighttime exterior noise level standards at the nearest receiver locations. Therefore, the stationary operational noise impacts are considered *less than significant* at the nearest noise-sensitive receiver locations. Potential stationary operational noise level impacts at

associated receiver locations BIO-1, BIO-2 and BIO-3 are analyzed in the biology report for the Project.

TABLE 9-4: STATIONARY OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Operational Noise Levels (dBA L_{eq})[2]		Noise Level Standards (dBA L_{eq})[3]		Noise Level Standards Exceeded?[4]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	32.1	32.0	55	45	No	No
R2	34.3	34.2	55	45	No	No
R3	36.0	35.8	55	45	No	No
R4	40.3	40.1	55	45	No	No
R5	43.0	42.7	55	45	No	No
BIO-1	42.2	42.2	-[5]	-[5]	-[5]	-[5]
BIO-2	46.2	46.1	-[5]	-[5]	-[5]	-[5]
BIO-3	50.2	50.2	-[5]	-[5]	-[5]	-[5]

[1] See Exhibit 8-A for the receiver locations.
[2] Proposed Project operational noise levels as shown on Tables 9-2 and 9-3.
[3] Exterior noise level standards for residential land use, as shown on Table 4-2.
[4] Do the estimated Project stationary operational noise source activities exceed the noise level standards?
[5] Receiver location and Project operational noise levels provided for informational purposes. Potential impacts analyzed in the Bio report for the Project.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

9.6 PROJECT STATIONARY OPERATIONAL NOISE LEVEL INCREASES

To describe the Project stationary operational noise level increases, the Project stationary operational noise levels are combined with the existing ambient noise levels measurements for the nearest receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (3) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project stationary operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented on Tables 9-5 and 9-6, respectively. As indicated on Tables 9-5, the Project will generate a daytime stationary operational noise level increases ranging from 0.0 to 3.6 dBA L_{eq} at the nearest receiver locations. Table 9-6 shows that the Project will generate a nighttime stationary operational noise level increases ranging from 0.0 to 4.2 dBA L_{eq} at the nearest receiver locations.

Based on the significance criteria presented in Table 4-1, the Project-related stationary operational noise level increases will satisfy the operational noise level increase criteria at the nearest sensitive receiver locations and the impact will be *less than significant.*

TABLE 9-5: DAYTIME PROJECT STATIONARY OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	32.1	L1	45.0	45.2	0.2	5	No
R2	34.3	L2	62.7	62.7	0.0	5	No
R3	36.0	L3	64.3	64.3	0.0	5	No
R4	40.3	L4	52.9	53.1	0.2	5	No
R5	43.0	L5	44.9	47.0	2.1	5	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project daytime operational noise levels as shown on Table 9-2.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-2.

TABLE 9-6: NIGHTTIME STAITONARY OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	32.0	L1	45.2	45.4	0.2	5	No
R2	34.2	L2	51.4	51.5	0.1	5	No
R3	35.8	L3	60.8	60.8	0.0	5	No
R4	40.1	L4	46.9	47.7	0.8	5	No
R5	42.7	L5	39.4	44.4	5.0	5	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project nighttime operational noise levels as shown on Table 9-3.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-2.

10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction noise source locations in relation to the nearest sensitive receiver locations previously described in Section 8. To prevent high levels of construction noise from impacting noise-sensitive land uses, Section 9.02.110(F) of the City of Beaumont Municipal Code limits construction activities to the hours of 7:00 a.m. and 6:00 p.m.

Construction trips would occur throughout the construction period and would be associated with the delivery of building materials, supplies, and concrete to the Project Site. The construction trips will consist mostly of individual worker vehicles. However, it is expected that the individual worker vehicle construction noise source activities will be overshadowed by the construction noise source activities outlined below.

10.1 CONSTRUCTION ACTIVITIES

Noise generated by the Project construction equipment will include a combination of crawler tractors, excavators, graders, dozers, scrapers, forklifts, generator sets, welders, paving equipment and air compressors that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages:

- Grading
- Building Construction
- Paving
- Architectural Coating

In addition, rock blasting may be required to support Project construction, therefore, this analysis considers the potential blasting noise and vibration levels at the nearest noise sensitive receiver locations. Construction is expected to commence in May 2022 and will last through January 2027.

10.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe peak construction noise activities, this construction noise analysis was prepared using reference noise level measurements published in the *Update of Noise Database for Prediction of Noise on Construction and Open Sites* by the Department for Environment, Food and Rural Affairs (DEFRA). (21). The DEFRA database provides the most recent and comprehensive source of reference construction noise levels. Table 10-1 provides a summary of the DEFRA construction reference noise level measurements expressed in hourly average dBA L_{eq} using the estimated FHWA Roadway Construction Noise Model (RCNM) usage factors (22) to describe the construction activities for each stage of Project construction.

EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE LOCATIONS

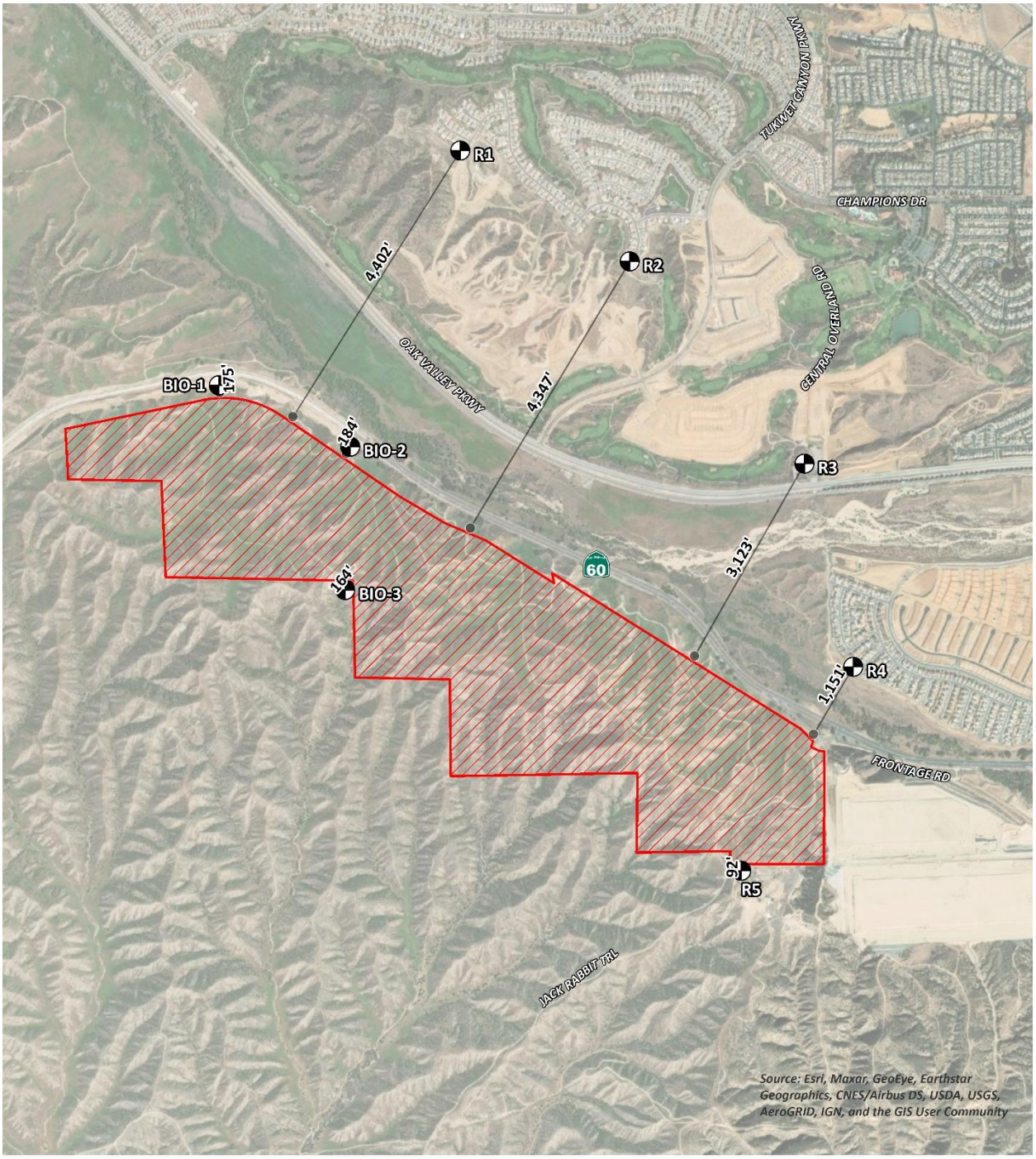


TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})	Highest Reference Noise Level (dBA L_{eq})
Grading	Graders	79	79
	Excavators	64	
	Compactors	67	
Building Construction	Cranes	67	72
	Tractors	72	
	Welders	65	
Paving	Pavers	70	70
	Paving Equipment	69	
	Rollers	69	
Architectural Coating	Cranes	67	67
	Air Compressors	67	
	Generator Sets	67	

[1] Update of Noise Database for Prediction of Noise on Construction and Open Sites by the Department for Environment, Food and Rural Affairs (DEFRA) expressed in hourly average L_{eq} based on estimated usage factors from the FHWA Roadway Construction Noise Model (RCNM).

10.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearest sensitive receiver locations were completed. To assess the construction equipment noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location. As shown on Table 10-2, the highest construction noise levels are expected to range from 61.2 to 77.7 dBA L_{eq} at the nearest receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

10.4 CONSTRUCTION NOISE THRESHOLDS OF SIGNIFICANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearby receiver locations, a construction-related noise level threshold of 75 dBA L_{eq} is used as acceptable thresholds to assess construction noise level impacts. This exterior construction noise level standard represents the combination of the City of Beaumont 55 dBA L_{eq} interior noise level limit and the Noise Reduction (NR) of approximately 20 dBA for typical buildings with "windows closed" (5 p. 31)). The construction noise analysis shows that the impacts on nearby residential receiver locations will fall below the 75 dBA L_{eq} significance threshold during Project construction activities as shown on Table 10-3.

TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})				
	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	61.2	54.2	52.2	49.2	61.2
R2	62.3	55.3	53.3	50.3	62.3
R3	64.7	57.7	55.7	52.7	64.7
R4	68.7	61.7	59.7	56.7	68.7
R5	73.4	66.4	64.4	61.4	73.4
BIO-1	74.4	67.4	65.4	62.4	74.4
BIO-2	75.2	68.2	66.2	63.2	75.2
BIO-3	77.7	70.7	68.7	65.7	77.7

[1] Construction noise source and receiver locations are shown on Exhibit 10-A.
[2] Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

TABLE 10-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	61.2	75	No
R2	62.3	75	No
R3	64.7	75	No
R4	68.7	75	No
R5	73.4	75	No
BIO-1	74.4	-[5]	-[5]
BIO-2	75.2	-[5]	-[5]
BIO-3	77.7	-[5]	-[5]

[1] Noise receiver locations are shown on Exhibit 10-A.
[2] Highest construction noise level operating at the Project site boundary to nearby receiver locations (Table 10-2).
[3] Acceptable exterior construction noise level thresholds based on the City of Beaumont 55 dBA Leq interior noise level limit and the 20 dBA noise reduction associated with typical building construction.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?
[5] Receiver location and Project operational noise levels provided for informational purposes. Potential impacts analyzed in the biology report.

Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations. Potential construction noise level impacts associated receiver locations BIO-1, BIO-2 and BIO-3 are analyzed in the biology report for the Project.

10.5 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

It is our understanding that nighttime concrete pouring activities will occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building area as shown on Exhibit 10-B. Since the nighttime concrete pours will take place outside the permitted City of Beaumont Municipal Code 9.02.110.F.1 hours of 7:00 a.m. to 6:00 p.m., the Project Applicant will be required to obtain authorization for nighttime work from the City of Beaumont. Any nighttime construction noise activities are evaluated against the City of Beaumont exterior construction noise level threshold of 75 dBA L_{eq}.

10.5.1 NIGHTTIME CONCRETE POUR REFERENCE NOISE LEVEL MEASUREMENTS

To estimate the noise levels due to nighttime concrete pour activities, sample reference noise level measurements were taken during a nighttime concrete pour at a construction site. Urban Crossroads, Inc. collected short-term nighttime concrete pour reference noise level measurements during the noise-sensitive nighttime hours between 1:00 a.m. to 2:00 a.m. at 27334 San Bernardino Avenue in the City of Redlands. The reference noise levels describe the expected concrete pour noise sources that may include concrete mixer truck movements and pouring activities, concrete paving equipment, rear mounted concrete mixer truck backup alarms, engine idling, air brakes, generators, and workers communicating/whistling.

To describe the nighttime concrete pour noise levels associated with the construction of the Beaumont Pointe, this analysis relies on reference sound pressure level of 67.7 dBA L_{eq} at 50 feet representing a sound power level of 100.3 dBA L_w. While the Project noise levels will depend on the actual duration of activities and specific equipment fleet in use at the time of construction, the reference sound power level of 100.3 dBA L_w is used to describe the expected Project nighttime concrete pour noise activities.

10.5.2 NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

As shown on Table 10-4, the noise levels associated with the nighttime concrete pour activities are estimated to range from 26.8 to 45.4 dBA $L_{eq.}$ The analysis shows that the unmitigated nighttime concrete pour activities will not exceed the construction noise level threshold at all the nearest noise sensitive receiver locations. Therefore, the noise impacts due to Project construction nighttime concrete pour noise activity are considered *less than significant* at all receiver locations with prior authorization for nighttime work from the City of Beaumont. Appendix 10.2 includes the CadnaA nighttime concrete pour noise model inputs.

EXHIBIT 10-B: NIGHTTIME CONCRETE POUR NOISE SOURCE AND RECEIVER LOCATIONS



TABLE 10-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Concrete Pour Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	26.8	75	No
R2	28.5	75	No
R3	33.9	75	No
R4	40.9	75	No
R5	45.4	75	No
BIO-1	36.3	-[5]	-[5]
BIO-2	39.8	-[5]	-[5]
BIO-3	42.9	-[5]	-[5]

[1] Concrete pour noise source and receiver locations are shown on Exhibit 10-B.
[2] Highest concrete pour noise level operating at the Project site boundary to nearby receiver locations.
[3] Acceptable exterior construction noise level thresholds based on the City of Beaumont 55 dBA Leq interior noise level limit and the 20 dBA noise reduction associated with typical building construction.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?
[5] Receiver location and Project operational noise levels provided for informational purposes. Potential impacts analyzed in the biology report.

10.6 CONSTRUCTION VIBRATION LEVELS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected receivers and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The human response (annoyance) to ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA) (8).

Ground vibration levels associated with various types of construction equipment are summarized on Table 10-5. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation:
$L_{VdB}(D) = L_{VdB}(25\text{ ft}) - 30\log(D/25)$

TABLE 10-5: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Vibration Decibels (VdB) at 25 feet
Small bulldozer	58
Jackhammer	79
Loaded Trucks	86
Large bulldozer	87

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 10-6 presents the expected construction equipment vibration levels at the nearest receiver locations. At distances ranging from 92 feet to 4,402 feet from Project construction activities (at the Project site boundary), construction vibration levels are estimated to range from 19.6 to 70.0 VdB and will remain below the FTA Transit Noise and Vibration Impact Assessment Manual maximum acceptable vibration criteria of 78 VdB for daytime residential uses at all receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during construction activities at the Project site. Moreover, the vibration levels reported at the sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

TABLE 10-6: CONSTRUCTION EQUIPMENT VIBRATION LEVELS

Receiver Location[1]	Distance to Construction Activity (Feet)	Receiver Vibration Levels (VdB)[2]					Threshold VdB[3]	Threshold Exceeded?[4]
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Levels		
R1	4,402'	0.0	11.6	18.6	19.6	19.6	78	No
R2	4,347'	0.0	11.8	18.8	19.8	19.8	78	No
R3	3,123'	0.0	16.1	23.1	24.1	24.1	78	No
R4	1,151'	8.1	29.1	36.1	37.1	37.1	78	No
R5	92'	41.0	62.0	69.0	70.0	70.0	78	No

[1] Noise receiver locations are shown on Exhibit 10-A.
[2] Based on the Vibration Source Levels of Construction Equipment included on Table 10-4.
[3] FTA Transit Noise and Vibration Impact Assessment maximum acceptable vibration criteria as shown in Section 3.5.
[4] Does the vibration level exceed the maximum acceptable vibration threshold?

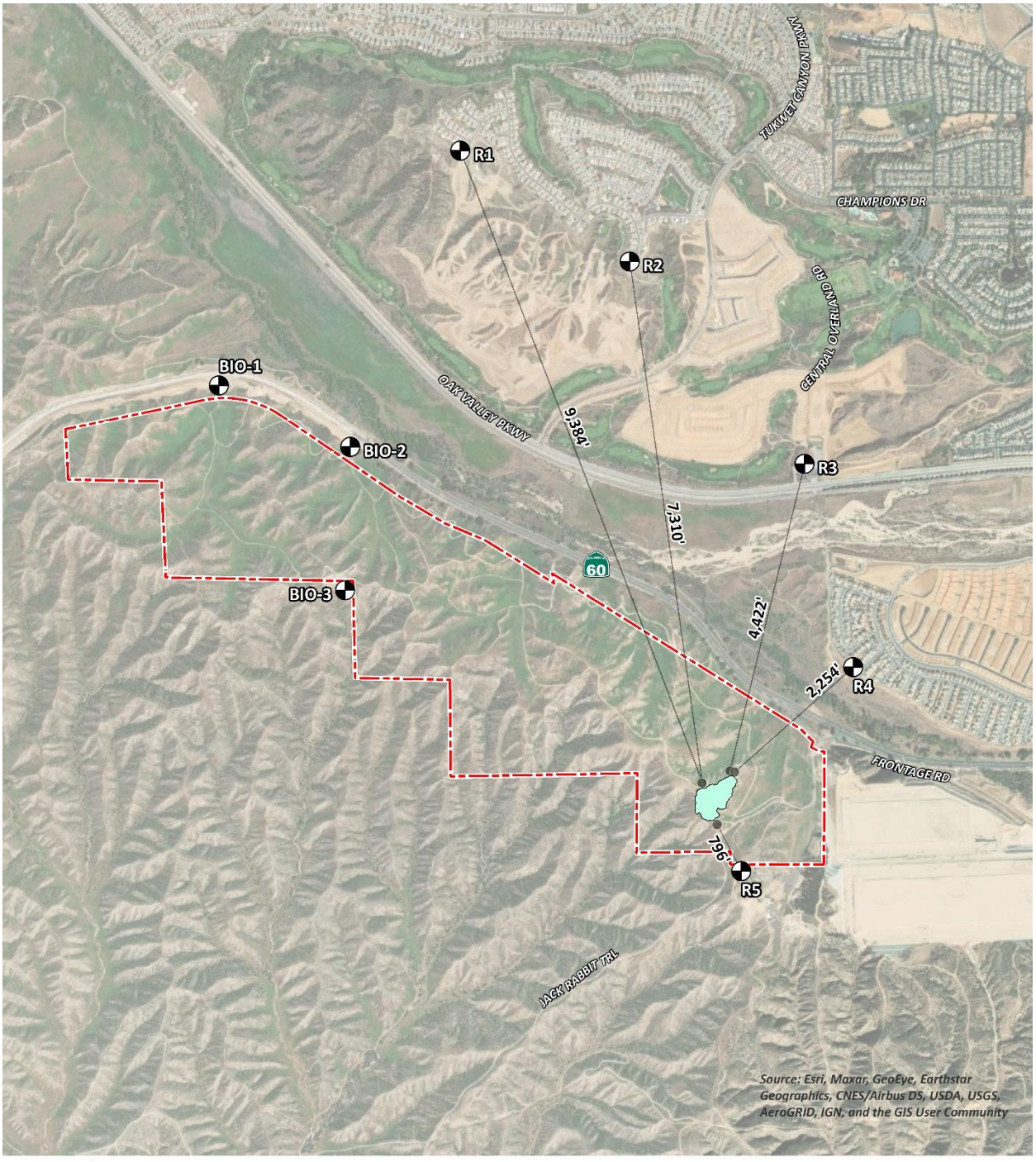
10.7 BLASTING IMPACTS

If blasting is determined to be required during excavation and grading, the blasting contractor is required to obtain blasting permit(s) from the State, and to notify Riverside County Sheriff's Department within 24 hours of planned blasting events. According to the Project team, blasting at the site is unlikely. However, if blasting is needed it is expected to be limited to the east ridgeline cut area as shown on Exhibit 10-C. Recognizing that it is unfeasible to foresee all the variables that may be encountered on various project sites, a site-specific blasting plan shall be developed for the project. Blasting shall only be conducted by a licensed blaster. Further, the licensed blaster is required to design all blasts such that they remain below the significance thresholds identified by the USBM in addition to the permitting requirements of the State of California and Riverside County Sheriff's Department.

As outlined in Section 3.6, air overpressure regulations are identified by the U.S. Bureau of Mines (USBM) and the ISEE's Blasters' Handbook. (9) To analyze blasting impacts originating from the construction of the Beaumont Pointe Project, vibration-generating rock blasting activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Beaumont does not identify specific blasting noise or

vibration level limits. Therefore, this analysis relies on the following criteria to assess potential temporary construction-related impacts at adjacent receiver locations.

EXHIBIT 10-C: BLASTING NOISE SOURCE LOCATIONS



10.7.1 AIRBLAST NOISE LEVELS

Due to the short-term instantaneous nature of blasting, the Project blasting-related airblast levels are based on the 133 dB criteria identified by the USBM and ISEE. The blasting airblast impacts described below represent the worst-case (closest) blast locations describing the potential impacts when measured from the edge of the nearest blast area to the nearest receiver location. When measured at greater distances, the blasts will result in lower airblast noise levels. The blasting calculations are included in Appendix 10.3.

The airblast levels from Project blasts are based on the ISEE's Blasters' Handbook equation for partially and substantially confined construction blasts, determined based on the anticipated depth of hard rock in each location. This analysis describes partially confined airblast levels since they are calculated using the Blasters' Handbook equation for general construction blasting activities. Table 10-7 shows that the calculated airblast levels from the worst-case (closest) Project blasting activities are expected to range from 88 to 111 dB. The Project airblast levels are shown to satisfy the 133 dB airblast threshold at the nearest noise sensitive residential receiver locations. Therefore, the Project-related airblast noise level impacts are considered *less than significant* during construction activities at the Project site.

TABLE 10-7: PROJECT BLASTING AND COMPLIANCE SUMMARY

Receiver Location[1]	Distance to Construction Activity (Feet)	Blasting Levels[2]		Threshold[3]		Threshold Exceeded?[4]	
		Airblast (dB)	Vibration (PPV)	Airblast (dB)	Vibration (PPV)	Airblast (dB)	Vibration (PPV)
R1	9,384'	88	0.00	133	0.5	No	No
R2	7,310'	90	0.00	133	0.5	No	No
R3	4,422'	95	0.00	133	0.5	No	No
R4	2,254'	101	0.01	133	0.5	No	No
R5	796'	111	0.05	133	0.5	No	No

[1] Blasting noise source and receiver locations are shown on Exhibit 10-C.
[2] Based on input data provided by California Drilling & Blasting. Calculations are provided in Appendix A for each blast location.
[3] Sources: Vibration threshold obtained from the Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19. Airblast threshold is based on ISEE's Blasters' Handbook, Table 26.17 Typical Air Overpressure Damage Criteria, and U.S. Bureau of Mines standards.
[4] Do the blast-related airblast and vibration levels exceed the thresholds?

10.7.2 BLASTING VIBRATION

The vibration criteria used in this noise study to assess potential temporary construction-related building damage impacts at adjacent receiver locations are based on the Caltrans *Transportation and Construction Vibration Guidance Manual*, (10 p. 38) Table 19. The blasting vibration impacts described below represent the worst-case (closest) blast locations describing the potential impacts when measured from the edge of the nearest blast area to the nearest receiver location. When measured at greater distances, the blasts will result in lower vibration levels. The blasting calculations are included in Appendix 10.2. Since most of the buildings near the Project site can best be described as "older residential buildings", Caltrans guidance identifies a maximum acceptable transient peak-particle-velocity (PPV) vibration threshold of 0.5 inches per second

(in/sec). Therefore, the 0.5 PPV (in/sec) vibration threshold is used to evaluate the potential blasting-related vibration levels experienced at the nearby residential homes.

Table 10-7 shows the calculated vibration levels for the worst-case (closest) blast locations near the adjacent residential homes north and west of the Project site. The vibration levels of Project blasts are expected to range from 0.00 to 0.05 in/sec PPV. Table 10-7 shows that the Project blasting vibration levels will remain below the maximum acceptable transient peak-particle-velocity (PPV) vibration threshold 0.5 PPV (in/sec) all the nearby noise sensitive residential receiver locations, and therefore, represent a *less than significant* impact.

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11 REFERENCES

1. **State of California.** *California Environmental Quality Act, Appendix G.* 2018.
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3. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
4. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974. EPA/ONAC 550/9/74-004.
5. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* December 2011.
6. **U.S. Department of Transportation, Federal Highway Administration.** *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
7. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
8. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual.* September 2018.
9. **International Society of Explosives Engineer's.** *Blasters' Handbook, 18th Edition.* 2014.
10. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* April 2020.
11. **Office of Planning and Research.** *State of California General Plan Guidelines.* October 2017.
12. **Beaumont.** *General Plan Noise Element.* December 2020.
13. **Albert A Webb Associates.** *Beaumont General Plan Program Environmental Impact Report.* September 8, 2020.
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16. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.
17. **County of Riverside, Office of Industrial Hygiene.** *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures.* April 2015.
18. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.
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20. **California Department of Transportation Environmental Program.** *I-80 Davis OGAC Pavement Noise Study.* September 2001.

21. **Canadian Ministry of Transportation and Highways, Highway Environment Branch.** *Open-Graded Asphalt 'Quiet Pavement' - Assessment of Traffic Noise Reduction Performance.* November 1995.
22. **California Department of Transportation.** *Highway Design Manual, Chapter 1100 Highway Traffic Noise Abatement.* November 2017.
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24. **FHWA.** *Roadway Construction Noise Model.* January 2006.

12 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Beaumont Pointe Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.

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EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of San Diego • March, 2018
Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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APPENDIX 3.1:

CITY OF BEAUMONT MUNICIPAL CODE

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Chapter 9.02 - NOISE CONTROL

Footnotes:
*--- (**1**) ---*
Editor's note— *Ord. No. 1067, § 1(Exh. A), adopted Jan. 19, 2016 , amended Ch. 9.02 in its entirety to read as herein set out. Former Ch. 9.02, §§ 9.02.010—9.02.110, pertained to similar subject matter, and derived from Ord. No. 914, § 1, adopted July 3, 2007; Ord. 997, adopted May 3, 2011.*

9.02.010 - Purpose.

The purpose of this Chapter is to establish criteria and standards for the regulation of noise levels within the City and to implement the noise provisions contained in the City's General Plan.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.020 - Findings.

It is hereby found and declared that:

A. The making, creation or maintenance of excessive, unnecessary, unnatural or unusually loud noises which are prolonged, unusual and unnatural in their time, place and use, affect and are a detriment to public health, comfort, convenience, safety, welfare and prosperity of the residents of the City; and

B. The necessity for the provisions and prohibitions hereinafter contained and enacted is hereby declared as a matter of legislative determination and public policy. It is further declared that the provisions and prohibitions hereinafter contained and enacted are in pursuance of and for the purpose of securing and promoting the public health, comfort, convenience, safety, welfare and prosperity and the peace and quiet of the City.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.030 - Definitions.

"Ambient noise" shall mean the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding any intrusive noise.

"Capital improvement" shall mean major construction, acquisition or maintenance/repair projects. Examples of capital improvements include street improvements, park development and construction of public buildings or structures, treatment plants. Structures include lighting, sewer and water pipelines and other related utility structures including treatment plants, gas, electric and other infrastructure, landscaping and drainage facilities and all other public infrastructure. "Acquisitions" include the acquisition of land or interest in land. Major maintenance/repairs may include street resurfacing and modifications to public buildings and structures.

"Commercial purpose" shall mean the use, operation or maintenance of any sound-amplifying equipment for the purpose of advertising any business, goods or services and/or for the purpose of advertising or attracting the attention of the public to or soliciting patronage for any performance, entertainment, exhibition or event, or for the purpose of demonstrating any such sound equipment.

"Cumulative time period" shall mean a period of time composed of individual time segments which may be continuous or interrupted.

"Decibel (dB)" shall mean a measurement unit of sound pressure level which denotes the ratio between two quantities which are proportional to power; the number of decibels corresponding to the ratio of two amounts of power is ten times the logarithm to the base ten of this ratio.

"Governmental agency" shall mean the United States (federal government), the State of California, the County of Riverside, the City of Beaumont, the school district and any special district within Riverside County or any combination of these agencies.

"Impact noise" shall mean the sound produced by the impact or collision of one moving object or mass with a second object or mass that is stationary or moving.

"Intrusive noise" shall mean a sound which intrudes over and above the existing ambient noise level at a given location.

"Motor-driven vehicle" shall include, but not be limited to, any automobile, truck, van, bus, motorcycle, minibike, go-cart or other self-propelled vehicle, on or off road, and aircraft.

"Noise" shall mean any sound that is loud or disturbing or that interferes with one's ability to hear some other sound.

"Noise level" shall mean the "A" weighted sound pressure level in decibels audible to humans obtained by using a sound level meter. The unit of noise level measurement shall be designated as dB(A).

"Person" shall mean a person, firm, association, partnership, joint venture, corporation or any entity, public or private in nature.

"Public property" shall mean property that is owned by any governmental agency as indicated in this section or held by the public, including, but not limited to, parks, streets, sidewalks, and alleys.

"Simple tone noise" shall mean a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished.

"Sound pressure level of a sound, in decibels" shall mean 20 times the logarithm to the base ten of the ratio of the pressure of this sound to the reference pressure, which reference pressure shall be explicitly stated.

As used in Section 9.02.110(H), "public nuisance'' is defined by Civil Code Section 3479.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.040 - Noise level measurement criteria.

A. Any noise level measurement, made pursuant to the provisions of this Chapter, shall be determined by using a sound level meter that meets the minimum requirements of the American National Standard Institute for sound level meters, or by using an instrument with associated recording and analyzing equipment that will provide equivalent data.
B. The factors which shall be considered in determining whether a violation of the provisions of this section exists shall include, but not be limited to, the following:

1. The sound level of the objectionable noise;
2. The sound level of the ambient noise;
3. The proximity of the noise to residential sleeping facilities;
4. The nature and zoning of the area within which the noise emanates;
5. The number of persons affected by the noise source;
6. The time of day or night the noise occurs;
7. The duration of the noise and its tonal, informational or musical content;
8. Whether the noise is produced by a commercial or noncommercial activity.

C. The above factors shall be considered in addition to the noise levels set forth in this section in determining a violation. However, noises do not necessarily need to exceed those noise level limits to be considered unnecessary or unusual so as to cause discomfort or annoyance to persons in the area.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.050 - Base ambient noise level.

All ambient noise measurements shall commence at the base ambient noise levels in decibels within the respective times and zones as follows:

Decibels	Time	Zone Use
45 dB(A)	10:00 p.m. — 7:00 a.m.	Residential
55 dB(A)	7:00 a.m. — 10:00 p.m.	Residential
50 dB(A)	10:00 p.m. — 7:00 a.m.	Industrial and Commercial
75 dB(A)	7:00 a.m. — 10:00 p:m.	Industrial and Commercial

Actual decibel measurements exceeding the levels set forth hereinabove at the times and within the zones corresponding thereto shall be employed as the "base ambient noise level" referred to in this Chapter. Otherwise, no ambient noise shall be deemed to be less than the above specified levels.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.060 - Exterior noise level measurement.

Except as otherwise specifically provided herein, all reference to "exterior noise" or "exterior noise levels" as used in this Chapter shall be as measured at any point relative to the closest point of the source of the noise at the property line of the complaining party. Measurements will not be made during extraordinary times, such as during the movement of a nearby train or airplane.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.070 - Maximum residential noise levels.

No noise level shall exceed the following for the duration periods specified:

Noise Level Exceeded	Maximum Duration Period
5 dB(A) above BANL	15 minutes any hour
10 dB(A) above BANL	5 minutes any hour
15 dB(A) above BANL	1 minute any hour
20 dB(A) above BANL	Not permitted

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.080 - Maximum interior noise levels.

A. No person shall operate or cause to be operated, any source of sound which causes the noise level, when measured inside another dwelling unit, school or hospital, to exceed:

Decibels	Time	Land Use
35 dB(A)	10:00 p.m. — 7:00 a.m.	Residential
45 dB(A)	7:00 a.m. — 10:00 p.m.	Residential
45 dB(A)	7:00 a.m. — 10:00 p.m. (while school is in session)	School
45 dB(A)	Anytime	Hospital

B. No person shall operate or cause to be operated, any source of sound which causes the noise level, when measured inside another dwelling unit, school or hospital, to exceed:

Noise Level Exceeded	Maximum Duration Period

5 dB(A) above interior BANL	5 minutes any hour
10 dB(A) above interior BANL	1 minutes any hour
Over 10 dB(A) above interior BANL	Not permitted

C. If the measured interior ambient noise level exceeds that permissible within the first two noise limit categories in this section, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to reflect the interior ambient noise level. In the event the interior ambient noise level exceeds the third noise limit category, the maximum allowable interior noise level under said category shall be increased to reflect the maximum interior ambient noise level.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.090 - Maximum nonresidential noise levels.

Any provision contained herein to the contrary notwithstanding, no exterior noise level shall exceed the base ambient noise levels (BANL) for nonresidential land uses set forth in any development agreement applicable to such development or as otherwise specifically set forth in any development standard which is by its terms enforceable by the City against the noise maker.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.100 - Exemptions.

Sound emanating from the following sources is exempt from the provisions of this Chapter:

A. Capital improvement projects of a governmental agency.

B. Maintenance and repair of public properties by a governmental agency.

C. Utility and street repairs, street sweepers, garbage services, emergency response warning noises, emergency generators and fire alarm systems are exempt from this Chapter.

D. Other public/governmental services or operations including, but not limited to trains and railway or airplanes and helicopter machinery, equipment or vehicles.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.110 - Special provisions.

A. *Sound Performances and Special Events.* Sound performances and special events not exceeding 95 dB measured at a distance of 50 feet from the loudest source are exempt from this Chapter when approval therefore has been obtained from the appropriate governmental entity.

B. *Vehicle Horns.* Vehicle horns, back-up warning devices, or other devices primarily intended to create a loud noise for warning purposes, shall be used only when the vehicle is in a situation where life, health or

property are endangered or as required by law.

C. *Alarm System.* An audible alarm system affixed to a motor vehicle shall be equipped with an automatic shutoff, which shuts off the alarm within a maximum of 15 minutes from the time of activation. Such alarm may not emit a sound similar to the sound emitted by sirens in use on emergency vehicles or to those used for civil defense purposes. For purposes of this section, any variable tone, as opposed to one steady pitch, shall be considered similar to the sound emitted by an emergency vehicle siren. The Police Department is authorized to abate the nuisance of an audible alarm system affixed to a motor vehicle, which sounds beyond 15 minutes by using any means necessary to disconnect the vehicle alarm. The expense of disconnecting the alarm shall be a lien against the motor vehicle and shall be the personal obligation of the owner thereof.

D. *Radios, Televisions, Stereos, Speakers, etc.* It shall be unlawful for any person, without special permit or as may otherwise be provided in this Chapter, to play, use, operate or permit to be played, used or operated, any radio, television, musical instrument, stereo equipment, or other machine or device used for producing, reproducing or amplifying sound at such sound levels as to cause the sound level to exceed 40 dB(A) as measured within the residence of any complaining person.

E. *Animals, Fowl, etc.* It shall be unlawful to keep or harbor any animal which emits, between the hours of 11:00 p.m. and 7:00 a.m., any unreasonable sound or cry which disturbs or may disturb the peace and comfort or repose of a reasonable person of normal sensitiveness who resides in the neighborhood or area in which such animal is located or kept. For barking dog, see limitations set forth in Section 6.04.080. This provision shall not apply to farm animals within any zone in which such farm animals are permitted under the Municipal Code.

F. *Construction, Landscape, Maintenance or Repair.*

1. It shall be unlawful for any person to engage in or permit the generation of noise related to landscape maintenance, construction including erection, excavation, demolition, alteration or repair of any structure or improvement, at such sound levels, as measured at the property line of the nearest adjacent occupied property, as to be in excess of the sound levels permitted under this Chapter, at other times than between the hours of 7:00 a.m. and 6:00 p.m. The person engaged in such activity is hereby permitted to exceed sound levels otherwise set forth in this Chapter for the duration of the activity during the above described hours for purposes of construction. However, nothing contained herein shall permit any person to cause sound levels to at any time exceed 55 dB(A) for intervals of more than 15 minutes per hour as measured in the interior of the nearest occupied residence or school.
2. Whenever a construction site is within one-quarter of a mile of an occupied residence or residences, no construction activities shall be undertaken between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May. Exceptions to these standards shall be allowed only with the written consent of the building official.
3. Construction related noise as defined in subsection (F)(1) and (2) above may take place outside the time period set forth therein and above the relative sound levels in case of urgent necessity in the interest of public health and safety, and then only with the prior permission of the building inspector.

Such permit may be granted for a period not to exceed three days or until the emergency ends, whichever is less. The permit may be renewed for periods of three days while the emergency continues.

4. Unless exempted by this Chapter, if the building official should determine that the public health and safety will not be impaired by the construction related noise, the building inspector may issue a permit for construction within the hours of 6:00 p.m. and 7:00 a.m., upon application being made at the time the permit for the work is awarded or during the progress of the work. The building official may place such conditions on the issuance of the permit that are appropriate to maintain the public health and safety, as determined by the building official.

G. *Machinery, Equipment, Fans and Air Conditioning.* It shall be unlawful for any person to operate, cause to operate or permit the operation of any machinery, equipment, device, pump, fan, compressor, air conditioning apparatus or similar mechanical device, including but not limited to the use of any steam shovel, pneumatic hammer, derrick, steam or electric hoist, blower or power fan, or any internal combustion engine, the operation of which causes noise due to the explosion of operating gases or fluids, or other appliance, in any manner so as to create any noise which would cause the noise level at the property line of the property upon which the equipment or machinery is operated to exceed the base ambient noise level by five dB(A).

H. *Motor Driven Vehicles.* It shall be unlawful for any person to operate any motor driven vehicle within the City that, due to the nature of the operation of the vehicle, or due to the operating condition of the vehicle, or due to any modification made to the vehicle, in such manner as to exceed noise levels set forth in Section 9.02.050 hereof.

1. Exhaust. It shall be unlawful for any person to discharge into the open air the exhaust of any steam engine, stationary internal combustion engine, motorboat or motor driven vehicle except through a muffler or other device which will effectively prevent loud or explosive noises there from.
2. No person shall use or operate a stereo system, radio, electronic music device, television or similar device in a vehicle on a public street which is audible to a person of normal hearing sensitivity, more than 50 feet from said vehicle.

I. Notwithstanding any other provisions of this Chapter and in addition thereto, it shall be unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary and unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or creates a public nuisance. The standard which may be considered in determining whether a violation of the provisions of this section exists may include, but not be limited to, the following:

1. The level of noise;
2. Whether the nature of the noise is usual or unusual;
3. Whether the origin of the noise is natural or unnatural;
4. The level and intensity of the background noise, if any;
5. The proximity of the noise to residential sleeping facilities;
6. The nature of the zoning of the area within which the noise emanates;
7. The density of the inhabitation of the area within which the noise emanates;

8. The time of the day and night the noise occurs;
9. Whether the noise is recurrent, intermittent, or constant;
10. The duration of the noise; and
11. Whether the noise is produced by a commercial or noncommercial activity.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.120 - Exception permits.

If the applicant can show to the City manager or designee, that a diligent investigation of available noise abatement techniques indicates that immediate compliance with the requirements of this Chapter would be impractical or unreasonable, a permit to allow exception from the provisions contained in this Chapter may be issued, with appropriate conditions to minimize the public detriment caused by such exceptions. Any such permit shall be of as short duration as possible, but in no case for longer than six months. These permits are renewable upon a showing of good cause, and shall be conditioned by a schedule for compliance and details of compliance methods in appropriate cases.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.130 - Application between zones.

In applying the regulations set forth in this Chapter, each source of noise shall be subject only to such regulation as shall apply to the zone, including any designated truck route, within which it is located. A use lying adjacent to a zone with a more restrictive noise requirement hereunder shall not be required to conform to that more restrictive requirement. For purposes of this subsection, "zone" shall be as utilized in Title 17 of the Beaumont Municipal Code.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.140 - Penalty for violation.

In the discretion of the Enforcement Officer, any person violating the provisions of this Chapter may be issued an Administrative Citation pursuant to Beaumont Municipal Code Chapter 1.17 or shall be guilty of an infraction pursuant to Beaumont Municipal Code Chapter 1.16. In either case, the amount of the fine shall be the appropriate amount set forth in Section 1.16.030 of this Code. Each such violation shall be deemed a separate offense as specified in Section 1.16.040.

Notwithstanding the foregoing, a first offense may be charged and prosecuted as a misdemeanor, punishable by a fine of $1,000.00, or six months in jail, or both

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.150 - Additional remedy—Injunction.

As an additional remedy, the operation or maintenance of any device, instrument, vehicle or machinery in violation of any provision hereof and which causes discomfort or annoyance to reasonable persons of normal sensitiveness or which endangers the comfort, repose, health or peace of residents in the area shall be deemed,

and is declared to be a public nuisance and may be subject to abatement summarily by a restraining order or injunction issued by a court of competent jurisdiction.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

9.02.160 - No mandatory duty created.

No section of this Chapter shall impose a mandatory duty on the City, or on any officer, official, agent, employee, board, council, or commission of the City. Instead, if any section purports to impose a mandatory duty of enforcement, that section shall be deemed to invest the City, and the appropriate officer, official, agent, employee, board, council, or commission with discretion to enforce the section or not to enforce it. A police officer, for example, shall have the discretion to quiet a nuisance without applying standards detailed herein.

(Ord. No. 1067, § 1(Exh. A), 1-19-2016)

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APPENDIX 5.1:

STUDY AREA PHOTOS

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JN:12398 Study Area Photos



L1_E
33, 57' 19.860000", 117, 3' 2.760000"



L1_N
33, 56' 55.840000", 117, 1' 52.550000"



L1_S
33, 57' 19.850000", 117, 3' 2.810000"



L1_W
33, 57' 19.890000", 117, 3' 2.760000"



L2_E
33, 57' 11.480000", 117, 2' 25.290000"



L2_N
33, 57' 11.460000", 117, 2' 25.350000"

JN:12398 Study Area Photos



L2_S
33, 57' 11.470000", 117, 2' 25.320000"



L2_W
33, 57' 11.460000", 117, 2' 25.290000"



L3_E
33, 56' 37.490000", 117, 2' 7.000000"



L3_N
33, 56' 40.270000", 117, 0' 14.340000"



L3_S
33, 56' 37.540000", 117, 2' 7.030000"



L3_W
33, 56' 37.520000", 117, 2' 7.000000"

JN:12398 Study Area Photos



L4_E
33, 56' 11.690000", 117, 1' 7.320000"



L4_N
33, 56' 3.300000", 117, 1' 26.190000"



L4_S
33, 56' 3.300000", 117, 1' 26.190000"



L4_W
33, 56' 11.640000", 117, 1' 7.700000"

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APPENDIX 5.2:

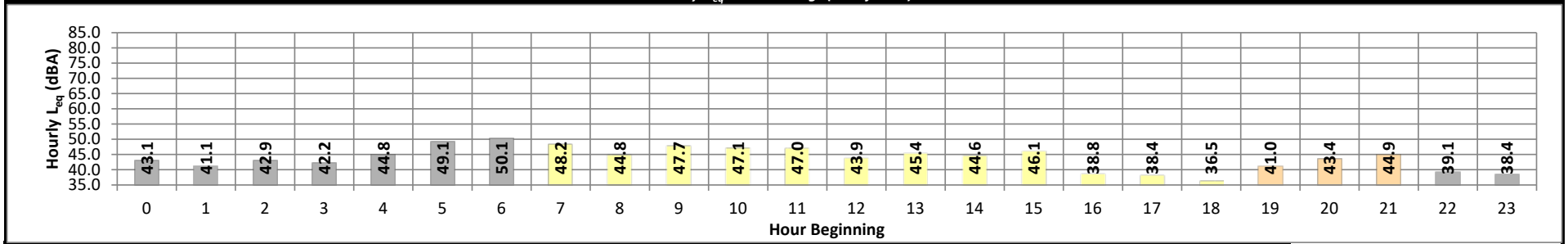
NOISE LEVEL MEASUREMENT WORKSHEETS

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24-Hour Noise Level Measurement Summary

Date: Wednesday, April 22, 2020
Project: Jack Rabbit Trail Development
Location: L1 - Located north of the Project site on Roberts Place near existing single-family residential home at 34945 Roberts Pl.
Meter: Piccolo I
JN: 12398
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	43.1	57.6	39.3	53.0	51.0	46.0	44.0	41.0	40.0	39.0	39.0	39.0	43.1	10.0	53.1
	1	41.1	50.7	39.3	45.0	44.0	43.0	42.0	41.0	40.0	39.0	39.0	39.0	41.1	10.0	51.1
	2	42.9	54.8	39.4	48.0	48.0	46.0	45.0	43.0	41.0	40.0	40.0	40.0	42.9	10.0	52.9
	3	42.2	50.2	40.4	45.0	44.0	44.0	43.0	42.0	41.0	40.0	40.0	40.0	42.2	10.0	52.2
	4	44.8	54.7	41.0	49.0	49.0	47.0	47.0	45.0	44.0	42.0	42.0	41.0	44.8	10.0	54.8
	5	49.1	73.3	41.6	53.0	52.0	51.0	50.0	48.0	46.0	44.0	43.0	42.0	49.1	10.0	59.1
	6	50.1	69.3	43.5	56.0	55.0	54.0	53.0	50.0	48.0	45.0	45.0	44.0	50.1	10.0	60.1
Day	7	48.2	72.5	37.7	54.0	53.0	50.0	49.0	47.0	44.0	40.0	39.0	39.0	48.2	0.0	48.2
	8	44.8	64.6	37.4	54.0	51.0	49.0	47.0	43.0	41.0	39.0	38.0	37.0	44.8	0.0	44.8
	9	47.7	74.5	34.7	51.0	49.0	46.0	45.0	40.0	38.0	35.0	35.0	35.0	47.7	0.0	47.7
	10	47.1	72.3	34.7	57.0	52.0	48.0	46.0	40.0	37.0	35.0	35.0	35.0	47.1	0.0	47.1
	11	47.0	74.2	34.7	57.0	53.0	48.0	45.0	40.0	37.0	35.0	35.0	35.0	47.0	0.0	47.0
	12	43.9	67.1	34.7	53.0	48.0	46.0	44.0	41.0	38.0	35.0	35.0	35.0	43.9	0.0	43.9
	13	45.4	68.8	34.7	55.0	53.0	50.0	48.0	43.0	40.0	36.0	35.0	35.0	45.4	0.0	45.4
	14	44.6	64.3	34.7	54.0	52.0	50.0	48.0	43.0	39.0	35.0	35.0	35.0	44.6	0.0	44.6
	15	46.1	73.3	34.7	54.0	52.0	50.0	48.0	42.0	39.0	35.0	35.0	35.0	46.1	0.0	46.1
	16	38.8	53.2	34.7	47.0	45.0	43.0	42.0	38.0	35.0	35.0	35.0	35.0	38.8	0.0	38.8
	17	38.4	56.2	34.7	48.0	46.0	42.0	41.0	37.0	35.0	35.0	35.0	35.0	38.4	0.0	38.4
	18	36.5	48.2	34.7	42.0	41.0	39.0	38.0	37.0	35.0	35.0	35.0	35.0	36.5	0.0	36.5
Evening	19	41.0	55.7	35.6	48.0	46.0	44.0	43.0	41.0	39.0	37.0	37.0	37.0	41.0	5.0	46.0
	20	43.4	59.6	37.5	52.0	49.0	46.0	45.0	43.0	41.0	39.0	37.0	37.0	43.4	5.0	48.4
	21	44.9	60.7	36.4	54.0	51.0	49.0	48.0	43.0	41.0	38.0	37.0	37.0	44.9	5.0	49.9
Night	22	39.1	57.0	34.7	48.0	45.0	43.0	41.0	38.0	37.0	35.0	35.0	35.0	39.1	10.0	49.1
	23	38.4	55.0	34.7	45.0	43.0	40.0	39.0	37.0	37.0	35.0	35.0	35.0	38.4	10.0	48.4

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	36.5	48.2	34.7	42.0	41.0	39.0	38.0	37.0	35.0	35.0	35.0	35.0
	Max	48.2	74.5	37.7	57.0	53.0	50.0	49.0	47.0	44.0	40.0	39.0	39.0
Energy Average		45.3	Average:		52.2	49.6	46.8	45.1	40.9	38.2	35.8	35.6	35.5
Evening	Min	41.0	55.7	35.6	48.0	46.0	44.0	43.0	41.0	39.0	37.0	37.0	37.0
	Max	44.9	60.7	37.5	54.0	51.0	49.0	48.0	43.0	41.0	39.0	37.0	37.0
Energy Average		43.4	Average:		51.3	48.7	46.3	45.3	42.3	40.3	38.0	37.0	37.0
Night	Min	38.4	50.2	34.7	45.0	43.0	40.0	39.0	37.0	37.0	35.0	35.0	35.0
	Max	50.1	73.3	43.5	56.0	55.0	54.0	53.0	50.0	48.0	45.0	45.0	44.0
Energy Average		45.2	Average:		49.1	47.9	46.0	44.9	42.8	41.6	39.9	39.8	39.4

L_{eq} (dBA)

24-Hour	Daytime	Nighttime
45.1	45.0	45.2

24-Hour CNEL (dBA)

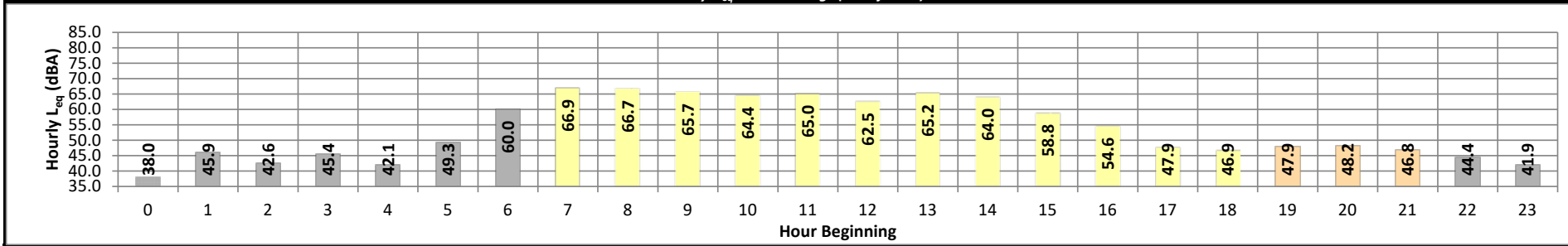
51.8

24-Hour Noise Level Measurement Summary

Date: Wednesday, April 22, 2020 *Location:* L2 - Located north of the Project site on Mickelson Drive near existing single-family residential homes. *Meter:* Piccolo II *JN:* 12398

Project: Jack Rabbit Trail Development *Analyst:* P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	38.0	43.8	34.3	43.4	43.1	42.1	41.4	38.5	36.6	34.8	34.6	34.4	38.0	10.0	48.0
	1	45.9	56.1	37.8	55.8	55.5	53.8	51.5	42.7	40.3	38.6	38.3	38.0	45.9	10.0	55.9
	2	42.6	51.7	37.4	50.8	49.3	47.1	46.3	42.4	39.8	37.9	37.7	37.5	42.6	10.0	52.6
	3	45.4	54.5	41.1	54.0	53.0	50.3	48.3	45.5	43.8	41.8	41.6	41.3	45.4	10.0	55.4
	4	42.1	49.4	38.2	49.0	48.5	46.7	44.9	42.3	40.6	38.8	38.6	38.3	42.1	10.0	52.1
	5	49.3	60.0	40.0	59.6	59.0	56.7	54.4	47.8	42.6	40.6	40.4	40.1	49.3	10.0	59.3
	6	60.0	68.1	54.0	67.7	67.1	65.7	64.3	60.3	57.6	55.0	54.7	54.2	60.0	10.0	70.0
Day	7	66.9	70.9	62.6	70.7	70.4	69.9	69.4	67.8	66.3	63.8	63.3	62.8	66.9	0.0	66.9
	8	66.7	71.6	62.2	71.3	71.0	70.1	69.4	67.6	66.0	63.5	63.0	62.5	66.7	0.0	66.7
	9	65.7	71.2	61.4	70.9	70.5	69.2	68.2	66.3	64.9	62.6	62.1	61.6	65.7	0.0	65.7
	10	64.4	69.6	59.8	69.3	68.9	67.8	67.2	65.4	63.5	61.1	60.7	60.1	64.4	0.0	64.4
	11	65.0	70.4	60.6	70.1	69.7	68.4	67.6	65.8	64.1	61.9	61.4	60.8	65.0	0.0	65.0
	12	62.5	67.8	58.1	67.6	67.3	66.5	65.7	63.3	61.4	59.1	58.7	58.3	62.5	0.0	62.5
	13	65.2	69.5	61.3	69.2	68.9	68.2	67.6	66.1	64.7	62.4	62.0	61.5	65.2	0.0	65.2
	14	64.0	69.2	58.9	68.9	68.6	67.6	66.9	65.0	63.0	60.2	59.7	59.1	64.0	0.0	64.0
	15	58.8	67.2	52.8	66.9	66.3	64.9	62.8	58.8	56.6	54.0	53.5	53.0	58.8	0.0	58.8
	16	54.6	67.3	40.2	66.6	65.7	63.0	59.5	50.0	45.9	41.4	40.8	40.3	54.6	0.0	54.6
	17	47.9	58.2	36.0	57.7	56.9	54.6	53.1	47.5	43.1	37.6	36.9	36.2	47.9	0.0	47.9
	18	46.9	57.3	34.5	56.7	56.1	54.5	52.7	45.9	40.9	35.6	35.2	34.6	46.9	0.0	46.9
Evening	19	47.9	57.3	37.7	56.8	56.3	54.8	53.3	47.6	43.6	39.1	38.6	37.9	47.9	5.0	52.9
	20	48.2	57.4	37.4	57.1	56.8	55.5	54.2	47.4	43.3	38.6	38.0	37.6	48.2	5.0	53.2
	21	46.8	53.7	41.4	53.3	52.8	51.7	50.6	47.7	45.0	42.4	42.0	41.5	46.8	5.0	51.8
Night	22	44.4	52.3	39.9	52.0	51.5	49.9	48.2	44.1	42.4	40.6	40.4	40.0	44.4	10.0	54.4
	23	41.9	50.5	36.2	50.0	49.5	47.8	46.4	41.8	39.1	36.8	36.6	36.3	41.9	10.0	51.9

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	46.9	57.3	34.5	56.7	56.1	54.5	52.7	45.9	40.9	35.6	35.2	34.6
	Max	66.9	71.6	62.6	71.3	71.0	70.1	69.4	67.8	66.3	63.8	63.3	62.8
Energy Average		63.7	Average:		67.1	66.7	65.4	64.2	60.8	58.4	55.3	54.8	54.2
Evening	Min	46.8	53.7	37.4	53.3	52.8	51.7	50.6	47.4	43.3	38.6	38.0	37.6
	Max	48.2	57.4	41.4	57.1	56.8	55.5	54.2	47.7	45.0	42.4	42.0	41.5
Energy Average		47.7	Average:		55.7	55.3	54.0	52.7	47.6	44.0	40.0	39.5	39.0
Night	Min	38.0	43.8	34.3	43.4	43.1	42.1	41.4	38.5	36.6	34.8	34.6	34.4
	Max	60.0	68.1	54.0	67.7	67.1	65.7	64.3	60.3	57.6	55.0	54.7	54.2
Energy Average		51.4	Average:		53.6	53.0	51.1	49.5	45.1	42.5	40.6	40.3	40.0

L_{eq} (dBA)

24-Hour	Daytime	Nighttime
60.9	62.7	51.4

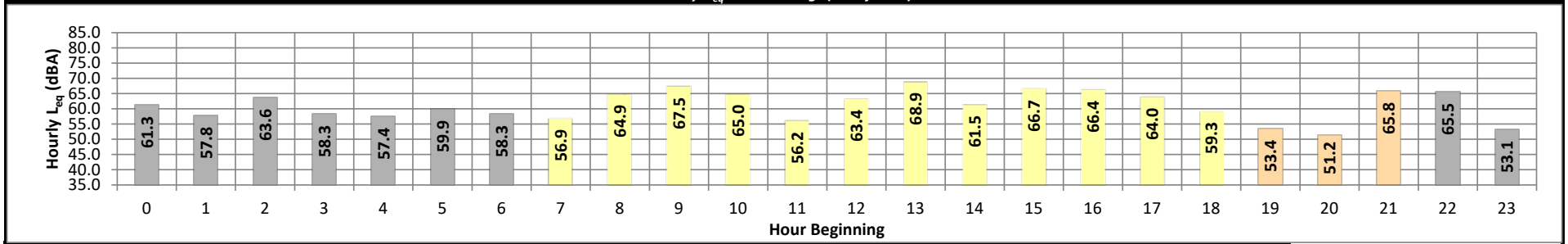
24-Hour CNEL (dBA)

62.3

24-Hour Noise Level Measurement Summary

Date: Wednesday, April 22, 2020
Project: Jack Rabbit Trail Development
Location: L3 - Located north east of the Project site by Oak Valley Parkway near the Tukwet Canyon Golf Course.
Meter: Piccolo I
JN: 12398
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	61.3	81.3	48.6	75.0	69.0	62.0	60.0	56.0	53.0	49.0	49.0	48.0	61.3	10.0	71.3
	1	57.8	69.5	51.2	63.0	63.0	61.0	61.0	58.0	56.0	54.0	53.0	52.0	57.8	10.0	67.8
	2	63.6	79.3	49.4	76.0	74.0	69.0	66.0	59.0	54.0	51.0	51.0	50.0	63.6	10.0	73.6
	3	58.3	67.7	49.2	65.0	64.0	63.0	62.0	59.0	56.0	52.0	51.0	50.0	58.3	10.0	68.3
	4	57.4	71.9	50.2	62.0	61.0	59.0	59.0	57.0	56.0	54.0	53.0	52.0	57.4	10.0	67.4
	5	59.9	75.7	51.5	68.0	66.0	62.0	62.0	60.0	58.0	53.0	53.0	52.0	59.9	10.0	69.9
	6	58.3	75.5	50.1	66.0	65.0	63.0	62.0	57.0	55.0	52.0	51.0	50.0	58.3	10.0	68.3
Day	7	56.9	67.8	48.5	64.0	64.0	63.0	62.0	56.0	52.0	50.0	49.0	49.0	56.9	0.0	56.9
	8	64.9	80.0	48.6	75.0	73.0	71.0	70.0	62.0	54.0	50.0	49.0	49.0	64.9	0.0	64.9
	9	67.5	87.2	43.5	80.0	77.0	72.0	70.0	63.0	59.0	47.0	46.0	44.0	67.5	0.0	67.5
	10	65.0	87.2	45.0	77.0	71.0	67.0	64.0	56.0	53.0	47.0	46.0	46.0	65.0	0.0	65.0
	11	56.2	70.1	50.1	63.0	62.0	59.0	57.0	56.0	55.0	53.0	52.0	51.0	56.2	0.0	56.2
	12	63.4	80.7	43.8	74.0	72.0	71.0	70.0	57.0	55.0	49.0	47.0	45.0	63.4	0.0	63.4
	13	68.9	86.5	50.4	81.0	79.0	74.0	73.0	64.0	59.0	54.0	53.0	52.0	68.9	0.0	68.9
	14	61.5	82.1	47.7	74.0	70.0	62.0	60.0	57.0	55.0	52.0	51.0	50.0	61.5	0.0	61.5
	15	66.7	81.8	47.7	74.0	73.0	72.0	71.0	68.0	58.0	52.0	51.0	49.0	66.7	0.0	66.7
	16	66.4	82.0	51.1	73.0	73.0	72.0	71.0	66.0	64.0	57.0	54.0	52.0	66.4	0.0	66.4
	17	64.0	80.0	44.5	76.0	74.0	72.0	68.0	58.0	54.0	50.0	48.0	46.0	64.0	0.0	64.0
	18	59.3	72.5	44.7	67.0	65.0	63.0	62.0	60.0	58.0	49.0	48.0	45.0	59.3	0.0	59.3
Evening	19	53.4	74.3	43.7	62.0	60.0	57.0	55.0	50.0	47.0	44.0	44.0	43.0	53.4	5.0	58.4
	20	51.2	68.6	43.8	60.0	58.0	55.0	54.0	50.0	48.0	46.0	45.0	44.0	51.2	5.0	56.2
	21	65.8	82.2	43.7	80.0	77.0	72.0	67.0	57.0	50.0	46.0	45.0	44.0	65.8	5.0	70.8
Night	22	65.5	85.1	43.9	79.0	74.0	71.0	69.0	50.0	46.0	44.0	44.0	44.0	65.5	10.0	75.5
	23	53.1	78.1	43.7	59.0	55.0	52.0	51.0	49.0	47.0	44.0	44.0	44.0	53.1	10.0	63.1

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	56.2	67.8	43.5	63.0	62.0	59.0	57.0	56.0	52.0	47.0	46.0	44.0
	Max	68.9	87.2	51.1	81.0	79.0	74.0	73.0	68.0	64.0	57.0	54.0	52.0
Energy Average		64.8	Average:		73.2	71.1	68.2	66.5	60.3	56.3	50.8	49.5	48.2
Evening	Min	51.2	68.6	43.7	60.0	58.0	55.0	54.0	50.0	47.0	44.0	44.0	43.0
	Max	65.8	82.2	43.8	80.0	77.0	72.0	67.0	57.0	50.0	46.0	45.0	44.0
Energy Average		61.4	Average:		67.3	65.0	61.3	58.7	52.3	48.3	45.3	44.7	43.7
Night	Min	53.1	67.7	43.7	59.0	55.0	52.0	51.0	49.0	46.0	44.0	44.0	44.0
	Max	65.5	85.1	51.5	79.0	74.0	71.0	69.0	60.0	58.0	54.0	53.0	52.0
Energy Average		60.8	Average:		68.1	65.7	62.4	61.3	56.1	53.4	50.3	49.9	49.1

L_{eq} (dBA)		
24-Hour	Daytime	Nighttime
63.3	64.3	60.8

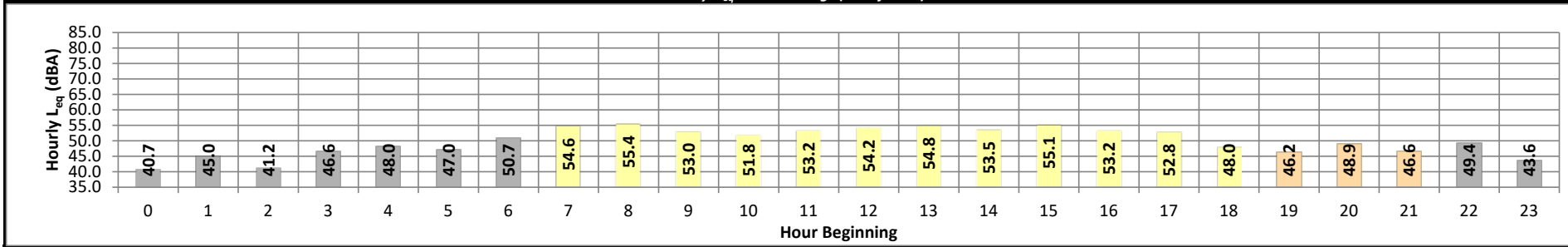
24-Hour CNEL (dBA)
68.2

24-Hour Noise Level Measurement Summary

Date: Wednesday, April 22, 2020 *Location:* L4 - located north east of the Project site on Olivewood near the Olivewood housing community. *Meter:* Piccolo II *JN:* 12398

Project: Jack Rabbit Trail Development *Analyst:* P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	40.7	46.4	38.3	46.1	45.6	44.0	42.8	40.9	39.8	38.7	38.5	38.3	40.7	10.0	50.7
	1	45.0	49.6	42.3	49.3	48.9	47.8	47.0	45.7	44.4	42.9	42.7	42.5	45.0	10.0	55.0
	2	41.2	48.5	38.1	48.1	47.8	45.9	44.4	40.7	39.5	38.5	38.3	38.1	41.2	10.0	51.2
	3	46.6	52.1	42.9	51.8	51.5	50.2	49.1	47.1	45.9	43.6	43.3	43.0	46.6	10.0	56.6
	4	48.0	59.5	40.6	59.3	59.0	55.8	52.8	43.7	42.1	41.0	40.8	40.7	48.0	10.0	58.0
	5	47.0	56.5	43.3	56.1	55.6	52.2	49.6	46.1	45.0	43.9	43.6	43.4	47.0	10.0	57.0
	6	50.7	61.0	45.0	60.8	60.2	57.4	55.1	49.0	47.0	45.5	45.3	45.0	50.7	10.0	60.7
Day	7	54.6	66.4	44.2	66.0	65.5	63.4	60.1	49.8	46.6	44.8	44.6	44.3	54.6	0.0	54.6
	8	55.4	65.9	43.4	65.7	65.3	63.4	61.4	52.9	47.6	44.1	43.8	43.5	55.4	0.0	55.4
	9	53.0	63.2	45.9	62.8	62.1	59.8	57.9	51.5	48.6	46.6	46.3	46.0	53.0	0.0	53.0
	10	51.8	63.5	40.1	63.1	62.3	59.8	57.1	48.4	43.9	40.9	40.7	40.3	51.8	0.0	51.8
	11	53.2	63.7	39.4	63.5	63.2	61.4	59.2	50.8	45.1	40.4	40.0	39.6	53.2	0.0	53.2
	12	54.2	64.4	39.3	64.1	63.8	62.2	60.4	52.4	46.4	41.1	40.1	39.4	54.2	0.0	54.2
	13	54.8	65.6	42.1	65.3	64.9	62.7	60.6	52.8	47.4	43.1	42.7	42.3	54.8	0.0	54.8
	14	53.5	65.0	44.6	64.5	63.7	61.0	58.2	50.7	47.9	45.5	45.2	44.7	53.5	0.0	53.5
	15	55.1	68.1	41.4	67.7	66.9	63.1	59.5	49.5	45.3	42.3	41.9	41.5	55.1	0.0	55.1
	16	53.2	65.0	40.4	64.6	64.0	62.0	59.0	48.1	44.5	41.5	41.0	40.6	53.2	0.0	53.2
	17	52.8	63.8	38.6	63.4	62.8	60.7	58.8	49.9	44.0	39.8	39.3	38.8	52.8	0.0	52.8
	18	48.0	59.7	38.2	59.2	58.4	55.4	52.7	45.7	41.9	39.1	38.7	38.3	48.0	0.0	48.0
Evening	19	46.2	54.5	41.0	54.1	53.7	52.1	50.6	45.6	43.7	41.8	41.5	41.1	46.2	5.0	51.2
	20	48.9	60.4	41.8	59.6	58.7	56.2	53.1	46.7	44.8	42.6	42.3	41.9	48.9	5.0	53.9
	21	46.6	53.7	42.7	53.3	52.6	50.7	49.2	46.9	45.4	43.5	43.2	42.8	46.6	5.0	51.6
Night	22	49.4	54.7	46.4	54.5	54.0	52.4	51.4	49.7	48.8	47.1	46.9	46.6	49.4	10.0	59.4
	23	43.6	50.5	39.4	50.2	49.7	48.0	46.7	43.8	42.3	40.1	39.9	39.5	43.6	10.0	53.6

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	48.0	59.7	38.2	59.2	58.4	55.4	52.7	45.7	41.9	39.1	38.7	38.3
	Max	55.4	68.1	45.9	67.7	66.9	63.4	61.4	52.9	48.6	46.6	46.3	46.0
Energy Average		53.6	Average:		64.1	63.6	61.2	58.7	50.2	45.8	42.4	42.0	41.6
Evening	Min	46.2	53.7	41.0	53.3	52.6	50.7	49.2	45.6	43.7	41.8	41.5	41.1
	Max	48.9	60.4	42.7	59.6	58.7	56.2	53.1	46.9	45.4	43.5	43.2	42.8
Energy Average		47.4	Average:		55.7	55.0	53.0	51.0	46.4	44.6	42.6	42.3	42.0
Night	Min	40.7	46.4	38.1	46.1	45.6	44.0	42.8	40.7	39.5	38.5	38.3	38.1
	Max	50.7	61.0	46.4	60.8	60.2	57.4	55.1	49.7	48.8	47.1	46.9	46.6
Energy Average		46.9	Average:		52.9	52.5	50.4	48.8	45.2	43.9	42.4	42.1	41.9

L_{eq} (dBA)

24-Hour	*Daytime*	*Nighttime*
51.5	**52.9**	**46.9**

24-Hour CNEL (dBA)

55.1

24-Hour Noise Level Measurement Summary

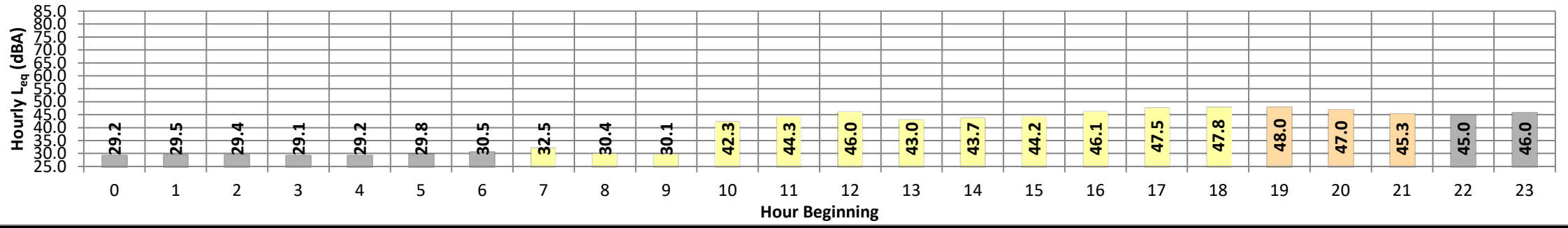
Date: Tuesday, November 24, 2020
Project: Jack Rabbit Trail Development

Location: L5 - Located in the southeast portion of the Project site on Jack Rabbit Trail by the Hoy Ranch to the south.

Meter: Piccolo II

JN: 12398
Analyst: P. Mara

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	29.2	29.8	28.9	29.7	29.6	29.5	29.4	29.3	29.2	29.0	28.9	28.9	29.2	10.0	39.2
	1	29.5	33.8	28.9	33.5	32.9	31.3	30.5	29.3	29.1	28.9	28.9	28.9	29.5	10.0	39.5
	2	29.4	30.4	28.8	30.2	30.1	30.0	29.9	29.7	29.3	28.9	28.9	28.9	29.4	10.0	39.4
	3	29.1	29.3	28.9	29.3	29.3	29.2	29.2	29.1	29.0	29.0	28.9	28.9	29.1	10.0	39.1
	4	29.2	29.9	29.0	29.8	29.8	29.6	29.5	29.3	29.2	29.1	29.0	29.0	29.2	10.0	39.2
	5	29.8	32.1	29.3	31.6	31.2	30.7	30.4	30.0	29.6	29.4	29.4	29.3	29.8	10.0	39.8
	6	30.5	32.8	29.7	32.4	32.1	31.7	31.3	30.7	30.3	29.9	29.9	29.8	30.5	10.0	40.5
Day	7	32.5	38.9	30.2	38.1	37.2	35.7	34.9	32.7	31.4	30.5	30.4	30.3	32.5	0.0	32.5
	8	30.4	35.7	29.5	34.6	33.5	31.8	31.3	30.5	30.0	29.6	29.6	29.5	30.4	0.0	30.4
	9	30.1	33.9	29.0	33.3	32.8	32.0	31.6	30.4	29.7	29.2	29.1	29.1	30.1	0.0	30.1
	10	42.3	50.9	34.4	50.6	50.4	49.6	48.7	40.9	37.6	35.3	35.0	34.6	42.3	0.0	42.3
	11	44.3	55.1	34.4	55.0	54.4	51.2	48.5	43.1	39.8	35.6	35.0	34.5	44.3	0.0	44.3
	12	46.0	55.1	35.0	54.6	54.1	52.5	51.1	46.4	41.9	36.2	35.6	35.1	46.0	0.0	46.0
	13	43.0	48.3	39.0	48.0	47.6	46.4	45.7	43.9	42.0	39.8	39.5	39.1	43.0	0.0	43.0
	14	43.7	52.2	39.4	51.6	51.2	48.8	46.7	43.3	42.0	40.3	39.9	39.5	43.7	0.0	43.7
	15	44.2	50.9	40.5	49.9	49.0	47.6	46.7	44.9	43.3	41.4	41.0	40.6	44.2	0.0	44.2
	16	46.1	71.2	42.6	70.8	69.6	66.4	62.0	48.5	45.4	43.5	43.1	42.8	46.1	0.0	46.1
	17	47.5	52.1	44.6	51.9	51.5	50.6	50.0	48.1	46.8	45.3	45.1	44.8	47.5	0.0	47.5
	18	47.8	52.5	44.0	52.2	51.8	50.9	50.4	48.6	47.2	45.0	44.6	44.2	47.8	0.0	47.8
Evening	19	48.0	52.2	44.9	51.9	51.7	50.8	50.1	48.6	47.4	45.7	45.4	45.0	48.0	5.0	53.0
	20	47.0	51.2	44.0	50.9	50.5	49.7	49.2	47.7	46.5	44.8	44.5	44.1	47.0	5.0	52.0
	21	45.3	49.8	41.6	49.6	49.3	48.3	47.6	46.0	44.7	42.7	42.2	41.8	45.3	5.0	50.3
Night	22	45.0	49.4	41.7	49.1	48.7	47.9	47.4	45.7	44.5	42.6	42.2	41.8	45.0	10.0	55.0
	23	46.0	52.6	41.0	52.3	52.0	50.9	50.0	46.0	44.5	42.1	41.7	41.1	46.0	10.0	56.0

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	30.1	33.9	29.0	33.3	32.8	31.8	31.3	30.4	29.7	29.2	29.1	29.1
	Max	47.8	71.2	44.6	70.8	69.6	66.4	62.0	48.6	47.2	45.3	45.1	44.8
Energy Average		44.2	Average:		49.2	48.6	47.0	45.6	41.8	39.8	37.6	37.3	37.0
Evening	Min	45.3	49.8	41.6	49.6	49.3	48.3	47.6	46.0	44.7	42.7	42.2	41.8
	Max	48.0	52.2	44.9	51.9	51.7	50.8	50.1	48.6	47.4	45.7	45.4	45.0
Energy Average		46.9	Average:		50.8	50.5	49.6	49.0	47.5	46.2	44.4	44.0	43.6
Night	Min	29.1	29.3	28.8	29.3	29.3	29.2	29.2	29.1	29.0	28.9	28.9	28.9
	Max	46.0	52.6	41.7	52.3	52.0	50.9	50.0	46.0	44.5	42.6	42.2	41.8
Energy Average		39.4	Average:		35.3	35.1	34.5	34.2	33.2	32.7	32.1	32.0	31.8

L_{eq} (dBA)		
24-Hour	*Daytime*	*Nighttime*
43.5	**44.9**	**39.4**

24-Hour CNEL (dBA)
48.1

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APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,232 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	186 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-9.00	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-24.62	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-21.10	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.6	54.5	52.7	46.7	55.3	55.9
Medium Trucks:	51.2	50.5	44.2	42.6	51.1	51.3
Heavy Trucks:	60.0	59.4	50.4	51.6	60.0	60.1
Vehicle Noise:	61.8	61.0	55.1	53.2	61.6	61.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	19	40	86	186
CNEL:	19	42	90	193

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,788 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	399 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.66	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-22.27	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-18.75	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.9	61.8	60.1	54.0	62.6	63.2
Medium Trucks:	58.1	57.4	51.1	49.5	58.0	58.2
Heavy Trucks:	66.0	65.4	56.4	57.6	66.0	66.1
Vehicle Noise:	68.2	67.4	62.0	59.6	68.1	68.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	45	96	207	446
CNEL:	47	100	216	466

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	1,908 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	159 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-9.68	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-25.30	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.78	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	57.2	55.4	49.3	58.0	58.6
Medium Trucks:	53.9	53.2	46.8	45.3	53.7	54.0
Heavy Trucks:	62.7	62.1	53.0	54.3	62.6	62.8
Vehicle Noise:	64.4	63.7	57.7	55.9	64.3	64.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	14	30	64	138
CNEL:	14	31	66	143

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,744 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	312 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-6.76	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-22.37	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-18.85	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.9	56.8	55.1	49.0	57.6	58.2
Medium Trucks:	53.5	52.8	46.5	44.9	53.4	53.6
Heavy Trucks:	62.3	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	64.1	63.3	57.4	55.5	64.0	64.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	23	50	108	233
CNEL:	24	52	113	243

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	1,746 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	145 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-10.07	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-25.69	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-22.16	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.5	55.4	53.6	47.6	56.2	56.8
Medium Trucks:	52.1	51.4	45.1	43.5	52.0	52.2
Heavy Trucks:	60.9	60.3	51.3	52.5	60.9	61.0
Vehicle Noise:	62.7	61.9	56.0	54.1	62.6	62.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	14	30	65	140
CNEL:	15	31	68	146

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project Phase 1
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,836 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	236 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.55%
Medium Trucks:	84.8%	4.9%	10.3%	1.98%
Heavy Trucks:	86.5%	2.7%	10.8%	4.46%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-7.88	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-24.62	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-21.10	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.7	55.6	53.9	47.8	56.4	57.0
Medium Trucks:	51.2	50.5	44.2	42.6	51.1	51.3
Heavy Trucks:	60.0	59.4	50.4	51.6	60.0	60.1
Vehicle Noise:	62.1	61.3	55.8	53.5	61.9	62.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	19	42	90	194
CNEL:	20	44	94	203

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing Without Project
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	162 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	13 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-20.40	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-36.01	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-32.49	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.6	46.4	44.7	38.6	47.2	47.9
Medium Trucks:	43.2	42.5	36.1	34.6	43.0	43.3
Heavy Trucks:	52.0	51.4	42.3	43.6	51.9	52.1
Vehicle Noise:	53.7	53.0	47.0	45.2	53.6	53.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	3	6	12	27
CNEL:	3	6	13	28

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project Phase 1
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,029 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	169 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.30%
Medium Trucks:	84.8%	4.9%	10.3%	2.37%
Heavy Trucks:	86.5%	2.7%	10.8%	5.33%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-9.40	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-25.30	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.78	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.6	57.4	55.7	49.6	58.2	58.9
Medium Trucks:	53.9	53.2	46.8	45.3	53.7	54.0
Heavy Trucks:	62.7	62.1	53.0	54.3	62.6	62.8
Vehicle Noise:	64.5	63.8	57.9	56.0	64.4	64.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	14	30	65	139
CNEL:	14	31	67	145

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project Phase 1 | Project Name: Jack Rabbit Trail Develop
Road Name: Oak Valley Pkwy. | Job Number: 12398
Road Segment: e/o Potrero Bl.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,392 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	449 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.73%
Medium Trucks:	84.8%	4.9%	10.3%	2.24%
Heavy Trucks:	86.5%	2.7%	10.8%	5.03%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-6.10	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-22.27	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-18.75	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.5	62.4	60.6	54.6	63.2	63.8
Medium Trucks:	58.1	57.4	51.1	49.5	58.0	58.2
Heavy Trucks:	66.0	65.4	56.4	57.6	66.0	66.1
Vehicle Noise:	68.4	67.6	62.3	59.8	68.2	68.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	99	213	458
CNEL:	48	103	222	479

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project Phase 1 | Project Name: Jack Rabbit Trail Develop
Road Name: 4th St. | Job Number: 12398
Road Segment: e/o Veile Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,843 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	237 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	90.36%
Medium Trucks:	84.8%	4.9%	10.3%	3.52%
Heavy Trucks:	86.5%	2.7%	10.8%	6.12%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.02	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-22.12	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-19.71	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.6	57.5	55.7	49.6	58.3	58.9
Medium Trucks:	55.7	55.0	48.6	47.1	55.5	55.8
Heavy Trucks:	63.4	62.8	53.7	55.0	63.3	63.5
Vehicle Noise:	65.1	64.4	58.3	56.6	65.0	65.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	21	44	95	205
CNEL:	21	46	99	213

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project Phase 1 | Project Name: Jack Rabbit Trail Develop
Road Name: 4th St. | Job Number: 12398
Road Segment: e/o Potrero Bl.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,972 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	414 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.56%
Medium Trucks:	84.8%	4.9%	10.3%	4.15%
Heavy Trucks:	86.5%	2.7%	10.8%	7.29%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.68	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-18.97	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-16.53	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.0	57.9	56.1	50.1	58.7	59.3
Medium Trucks:	56.9	56.2	49.9	48.3	56.8	57.0
Heavy Trucks:	64.7	64.0	55.0	56.2	64.6	64.7
Vehicle Noise:	66.2	65.5	59.2	57.7	66.1	66.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	70	151	326
CNEL:	34	73	157	338

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project Phase 1 | Project Name: Jack Rabbit Trail Develop
Road Name: 4th St. | Job Number: 12398
Road Segment: w/o Potrero Bl.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,100 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	258 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	82.67%
Medium Trucks:	84.8%	4.9%	10.3%	7.36%
Heavy Trucks:	86.5%	2.7%	10.8%	9.97%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.03	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-18.54	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-17.22	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.9	58.8	57.0	51.0	59.6	60.2
Medium Trucks:	60.7	60.0	53.6	52.0	60.5	60.7
Heavy Trucks:	67.3	66.6	57.6	58.8	67.2	67.3
Vehicle Noise:	68.7	68.0	61.2	60.2	68.6	68.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	58	124	267
CNEL:	28	59	128	276

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project P1+2 | Project Name: Jack Rabbit Trail Develop
Road Name: Potrero Bl. | Job Number: 12398
Road Segment: s/o Oak Valley Pkwy.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,689 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	391 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	96.10%
Medium Trucks:	84.8%	4.9%	10.3%	1.20%
Heavy Trucks:	86.5%	2.7%	10.8%	2.70%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.58	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-24.62	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-21.10	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.0	57.9	56.2	50.1	58.7	59.3
Medium Trucks:	51.2	50.5	44.2	42.6	51.1	51.3
Heavy Trucks:	60.0	59.4	50.4	51.6	60.0	60.1
Vehicle Noise:	62.9	62.1	57.4	54.2	62.7	63.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	22	47	102	219
CNEL:	23	50	107	230

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project P1+2 | Project Name: Jack Rabbit Trail Develop
Road Name: Oak Valley Pkwy. | Job Number: 12398
Road Segment: e/o Potrero Bl.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,245 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	603 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	94.59%
Medium Trucks:	84.8%	4.9%	10.3%	1.67%
Heavy Trucks:	86.5%	2.7%	10.8%	3.75%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.73	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-22.27	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-18.75	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.9	63.8	62.0	55.9	64.6	65.2
Medium Trucks:	58.1	57.4	51.1	49.5	58.0	58.2
Heavy Trucks:	66.0	65.4	56.4	57.6	66.0	66.1
Vehicle Noise:	68.9	68.1	63.3	60.3	68.7	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	49	106	229	493
CNEL:	52	112	240	518

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project P1+2 | Project Name: Jack Rabbit Trail Develop
Road Name: California Av. | Job Number: 12398
Road Segment: n/o 6th St.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,399 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	200 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.49%
Medium Trucks:	84.8%	4.9%	10.3%	2.00%
Heavy Trucks:	86.5%	2.7%	10.8%	4.51%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.61	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-25.30	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.78	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.3	58.2	56.5	50.4	59.0	59.6
Medium Trucks:	53.9	53.2	46.8	45.3	53.7	54.0
Heavy Trucks:	62.7	62.1	53.0	54.3	62.6	62.8
Vehicle Noise:	64.7	64.0	58.4	56.1	64.6	64.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	14	31	67	144
CNEL:	15	32	70	150

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project P1+2 | Project Name: Jack Rabbit Trail Develop
Road Name: 4th St. | Job Number: 12398
Road Segment: e/o Potrero Bl.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,794 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	733 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	83.78%
Medium Trucks:	84.8%	4.9%	10.3%	6.91%
Heavy Trucks:	86.5%	2.7%	10.8%	9.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.45	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-14.29	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-12.99	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.2	60.1	58.4	52.3	60.9	61.5
Medium Trucks:	61.6	60.9	54.6	53.0	61.5	61.7
Heavy Trucks:	68.2	67.6	58.5	59.8	68.1	68.3
Vehicle Noise:	69.7	69.0	62.3	61.2	69.6	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	56	120	259	557
CNEL:	58	124	267	575

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project P1+2 | Project Name: Jack Rabbit Trail Develop
Road Name: 4th St. | Job Number: 12398
Road Segment: e/o Veile Av.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,237 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	520 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.71%
Medium Trucks:	84.8%	4.9%	10.3%	4.83%
Heavy Trucks:	86.5%	2.7%	10.8%	6.46%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.69	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-17.33	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.07	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.9	60.8	59.0	53.0	61.6	62.2
Medium Trucks:	60.5	59.8	53.4	51.9	60.3	60.6
Heavy Trucks:	67.0	66.4	57.4	58.6	67.0	67.1
Vehicle Noise:	68.9	68.1	61.9	60.3	68.8	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	36	78	169	363
CNEL:	38	81	175	377

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project BO | Project Name: Jack Rabbit Trail Develop
Road Name: Potrero Bl. | Job Number: 12398
Road Segment: s/o Oak Valley Pkwy.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,739 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	478 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	96.81%
Medium Trucks:	84.8%	4.9%	10.3%	0.98%
Heavy Trucks:	86.5%	2.7%	10.8%	2.21%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.67	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-24.62	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-21.10	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.0	58.8	57.1	51.0	59.6	60.3
Medium Trucks:	51.2	50.5	44.2	42.6	51.1	51.3
Heavy Trucks:	60.0	59.4	50.4	51.6	60.0	60.1
Vehicle Noise:	63.3	62.4	58.1	54.6	63.1	63.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	23	50	108	232
CNEL:	25	53	114	245

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project P1+2 | Project Name: Jack Rabbit Trail Develop
Road Name: 4th St. | Job Number: 12398
Road Segment: w/o Potrero Bl.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,228 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,019 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	81.57%
Medium Trucks:	84.8%	4.9%	10.3%	8.42%
Heavy Trucks:	86.5%	2.7%	10.8%	10.00%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.13	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-11.99	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-11.24	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.8	64.7	62.9	56.9	65.5	66.1
Medium Trucks:	67.2	66.5	60.1	58.6	67.1	67.3
Heavy Trucks:	73.2	72.6	63.6	64.8	73.2	73.3
Vehicle Noise:	74.8	74.1	67.2	66.3	74.7	74.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	68	146	314	677
CNEL:	70	151	325	699

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project BO | Project Name: Jack Rabbit Trail Develop
Road Name: California Av. | Job Number: 12398
Road Segment: n/o 6th St.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,609 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	217 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	94.01%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	4.15%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.22	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-25.30	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.78	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.7	58.6	56.9	50.8	59.4	60.0
Medium Trucks:	53.9	53.2	46.8	45.3	53.7	54.0
Heavy Trucks:	62.7	62.1	53.0	54.3	62.6	62.8
Vehicle Noise:	64.8	64.1	58.7	56.3	64.7	65.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	15	32	68	146
CNEL:	15	33	71	153

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project BO
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,295 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	691 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	95.27%
Medium Trucks:	84.8%	4.9%	10.3%	1.45%
Heavy Trucks:	86.5%	2.7%	10.8%	3.27%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.11	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-22.27	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-18.75	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	64.4	62.6	56.5	65.2	65.8
Medium Trucks:	58.1	57.4	51.1	49.5	58.0	58.2
Heavy Trucks:	66.0	65.4	56.4	57.6	66.0	66.1
Vehicle Noise:	69.1	68.3	63.8	60.5	69.0	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	110	238	512
CNEL:	54	116	250	539

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project BO
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,917 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	660 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.11%
Medium Trucks:	84.8%	4.9%	10.3%	3.80%
Heavy Trucks:	86.5%	2.7%	10.8%	5.09%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.54	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-17.33	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.07	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.0	61.9	60.2	54.1	62.7	63.4
Medium Trucks:	60.5	59.8	53.4	51.9	60.3	60.6
Heavy Trucks:	67.0	66.4	57.4	58.6	67.0	67.1
Vehicle Noise:	69.1	68.4	62.6	60.6	69.0	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	38	81	175	377
CNEL:	39	85	182	393

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project BO
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,474 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	873 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	86.38%
Medium Trucks:	84.8%	4.9%	10.3%	5.80%
Heavy Trucks:	86.5%	2.7%	10.8%	7.82%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.55	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-14.29	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-12.99	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.1	61.0	59.3	53.2	61.8	62.4
Medium Trucks:	61.6	60.9	54.6	53.0	61.5	61.7
Heavy Trucks:	68.2	67.6	58.5	59.8	68.1	68.3
Vehicle Noise:	69.9	69.2	62.7	61.3	69.8	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	57	122	264	568
CNEL:	59	127	273	588

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: Existing + Project BO
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,428 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,368 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	86.28%
Medium Trucks:	84.8%	4.9%	10.3%	6.27%
Heavy Trucks:	86.5%	2.7%	10.8%	7.45%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.60	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-11.99	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-11.24	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	66.2	64.5	58.4	67.0	67.6
Medium Trucks:	67.2	66.5	60.1	58.6	67.1	67.3
Heavy Trucks:	73.2	72.6	63.6	64.8	73.2	73.3
Vehicle Noise:	75.0	74.3	67.9	66.5	74.9	75.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	70	151	325	700
CNEL:	72	156	336	725

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 Without Project
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,314 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	276 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-7.29	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-22.90	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-19.38	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.3	56.2	54.5	48.4	57.0	57.6
Medium Trucks:	52.9	52.2	45.9	44.3	52.8	53.0
Heavy Trucks:	61.7	61.1	52.1	53.3	61.7	61.8
Vehicle Noise:	63.5	62.7	56.8	54.9	63.4	63.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	24	52	112	242
CNEL:	25	54	117	251

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 Without Project
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,389 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	616 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.77	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-20.39	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-16.87	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.8	63.7	61.9	55.9	64.5	65.1
Medium Trucks:	60.0	59.3	52.9	51.4	59.9	60.1
Heavy Trucks:	67.9	67.3	58.3	59.5	67.9	68.0
Vehicle Noise:	70.1	69.3	63.9	61.5	70.0	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	60	128	277	596
CNEL:	62	134	289	622

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 Without Project
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,258 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	188 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.95	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-24.57	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.05	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.0	57.9	56.1	50.1	58.7	59.3
Medium Trucks:	54.6	53.9	47.6	46.0	54.5	54.7
Heavy Trucks:	63.4	62.8	53.8	55.0	63.4	63.5
Vehicle Noise:	65.2	64.4	58.5	56.6	65.0	65.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	15	33	72	154
CNEL:	16	35	74	160

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 Without Project
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,154 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	513 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.60	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-20.21	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-16.69	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.1	59.0	57.2	51.2	59.8	60.4
Medium Trucks:	55.7	55.0	48.6	47.1	55.5	55.8
Heavy Trucks:	64.5	63.9	54.8	56.1	64.4	64.6
Vehicle Noise:	66.2	65.5	59.6	57.7	66.1	66.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	70	151	325
CNEL:	34	73	157	338

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 Without Project
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,767 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	314 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-6.73	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-22.35	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-18.82	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.9	58.8	57.0	50.9	59.6	60.2
Medium Trucks:	55.5	54.8	48.4	46.9	55.3	55.6
Heavy Trucks:	64.3	63.7	54.6	55.9	64.2	64.3
Vehicle Noise:	66.0	65.3	59.3	57.5	65.9	66.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	23	50	109	234
CNEL:	24	52	113	243

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 With Project Phase 1
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,917 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	326 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.07%
Medium Trucks:	84.8%	4.9%	10.3%	2.13%
Heavy Trucks:	86.5%	2.7%	10.8%	4.80%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-6.50	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-22.90	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-19.38	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.1	57.0	55.2	49.2	57.8	58.4
Medium Trucks:	52.9	52.2	45.9	44.3	52.8	53.0
Heavy Trucks:	61.7	61.1	52.1	53.3	61.7	61.8
Vehicle Noise:	63.7	62.9	57.3	55.1	63.6	63.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	54	116	249
CNEL:	26	56	120	260

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 Without Project
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,295 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	274 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-7.31	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-22.93	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-19.41	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.6	59.5	57.8	51.7	60.3	60.9
Medium Trucks:	56.3	55.6	49.2	47.7	56.1	56.4
Heavy Trucks:	65.1	64.4	55.4	56.7	65.0	65.1
Vehicle Noise:	66.8	66.1	60.1	58.3	66.7	66.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	20	43	92	198
CNEL:	21	44	96	206

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 With Project Phase 1
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,379 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	198 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.23%
Medium Trucks:	84.8%	4.9%	10.3%	2.39%
Heavy Trucks:	86.5%	2.7%	10.8%	5.38%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.71	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-24.57	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-21.05	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.2	58.1	56.4	50.3	58.9	59.5
Medium Trucks:	54.6	53.9	47.6	46.0	54.5	54.7
Heavy Trucks:	63.4	62.8	53.8	55.0	63.4	63.5
Vehicle Noise:	65.2	64.5	58.6	56.7	65.1	65.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	16	34	72	156
CNEL:	16	35	75	162

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 With Project Phase 1
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,992 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	666 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.43%
Medium Trucks:	84.8%	4.9%	10.3%	2.33%
Heavy Trucks:	86.5%	2.7%	10.8%	5.24%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.40	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-20.39	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-16.87	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.2	64.1	62.3	56.3	64.9	65.5
Medium Trucks:	60.0	59.3	52.9	51.4	59.9	60.1
Heavy Trucks:	67.9	67.3	58.3	59.5	67.9	68.0
Vehicle Noise:	70.2	69.4	64.1	61.6	70.1	70.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	61	131	281	606
CNEL:	63	136	294	633

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 With Project Phase 1
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,864 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	405 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	90.96%
Medium Trucks:	84.8%	4.9%	10.3%	3.10%
Heavy Trucks:	86.5%	2.7%	10.8%	5.93%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.66	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-20.33	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.52	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.9	59.8	58.1	52.0	60.6	61.2
Medium Trucks:	57.5	56.8	50.4	48.9	57.3	57.6
Heavy Trucks:	65.6	65.0	55.9	57.2	65.5	65.7
Vehicle Noise:	67.3	66.6	60.6	58.8	67.2	67.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	62	133	287
CNEL:	30	64	138	298

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 With Project Phase 1
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,382 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	615 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	89.62%
Medium Trucks:	84.8%	4.9%	10.3%	3.62%
Heavy Trucks:	86.5%	2.7%	10.8%	6.76%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.91	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-17.85	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-15.14	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.8	59.7	57.9	51.9	60.5	61.1
Medium Trucks:	58.1	57.3	51.0	49.4	57.9	58.1
Heavy Trucks:	66.1	65.4	56.4	57.6	66.0	66.1
Vehicle Noise:	67.7	67.0	60.7	59.1	67.6	67.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	41	87	188	406
CNEL:	42	91	195	421

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2023 With Project Phase 1
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,233 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	519 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	87.26%
Medium Trucks:	84.8%	4.9%	10.3%	4.93%
Heavy Trucks:	86.5%	2.7%	10.8%	7.81%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.76	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-17.25	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-15.25	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.2	62.1	60.3	54.3	62.9	63.5
Medium Trucks:	62.0	61.2	54.9	53.3	61.8	62.0
Heavy Trucks:	69.2	68.6	59.6	60.8	69.2	69.3
Vehicle Noise:	70.8	70.1	63.6	62.3	70.7	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	37	79	170	367
CNEL:	38	82	176	380

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 Without Project | Project Name: Jack Rabbit Trail Develop
Road Name: Potrero Bl. | Job Number: 12398
Road Segment: s/o Oak Valley Pkwy.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,814 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	318 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-6.68	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-22.29	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-18.77	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.9	56.8	55.1	49.0	57.6	58.2
Medium Trucks:	53.6	52.8	46.5	44.9	53.4	53.6
Heavy Trucks:	62.4	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	64.1	63.3	57.4	55.5	64.0	64.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	57	123	266
CNEL:	28	59	128	276

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 Without Project | Project Name: Jack Rabbit Trail Develop
Road Name: Oak Valley Pkwy. | Job Number: 12398
Road Segment: e/o Potrero Bl.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,583 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	715 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.12	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-19.74	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-16.22	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.5	64.4	62.6	56.5	65.2	65.8
Medium Trucks:	60.7	60.0	53.6	52.1	60.5	60.7
Heavy Trucks:	68.6	67.9	58.9	60.2	68.5	68.6
Vehicle Noise:	70.7	70.0	64.5	62.2	70.6	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	66	142	306	659
CNEL:	69	148	319	688

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 Without Project | Project Name: Jack Rabbit Trail Develop
Road Name: California Av. | Job Number: 12398
Road Segment: n/o 6th St.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,440 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	203 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.62	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-24.23	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-20.71	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.3	58.2	56.5	50.4	59.0	59.6
Medium Trucks:	55.0	54.3	47.9	46.4	54.8	55.0
Heavy Trucks:	63.8	63.1	54.1	55.4	63.7	63.8
Vehicle Noise:	65.5	64.8	58.8	57.0	65.4	65.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	16	35	75	162
CNEL:	17	36	78	169

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 Without Project | Project Name: Jack Rabbit Trail Develop
Road Name: 4th St. | Job Number: 12398
Road Segment: e/o Potrero Bl.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,249 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	604 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.89	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-19.50	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-15.98	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.8	59.7	57.9	51.9	60.5	61.1
Medium Trucks:	56.4	55.7	49.3	47.8	56.3	56.5
Heavy Trucks:	65.2	64.6	55.5	56.8	65.2	65.3
Vehicle Noise:	67.0	66.2	60.3	58.4	66.8	67.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	36	78	168	363
CNEL:	38	81	175	377

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 Without Project
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,663 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	388 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.80	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-21.42	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.90	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.8	59.7	57.9	51.9	60.5	61.1
Medium Trucks:	56.4	55.7	49.3	47.8	56.2	56.5
Heavy Trucks:	65.2	64.6	55.5	56.8	65.1	65.3
Vehicle Noise:	66.9	66.2	60.3	58.4	66.8	67.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	58	125	270
CNEL:	28	60	130	281

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 With Project P1+2
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,271 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	522 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	95.02%
Medium Trucks:	84.8%	4.9%	10.3%	1.53%
Heavy Trucks:	86.5%	2.7%	10.8%	3.45%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.37	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-22.29	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-18.77	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.3	59.1	57.4	51.3	59.9	60.6
Medium Trucks:	53.6	52.8	46.5	44.9	53.4	53.6
Heavy Trucks:	62.4	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	64.8	64.0	58.9	56.2	64.6	64.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	29	63	136	294
CNEL:	31	66	143	308

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 Without Project
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,640 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	387 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.83	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-21.44	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-17.92	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.1	61.0	59.3	53.2	61.8	62.4
Medium Trucks:	57.8	57.1	50.7	49.1	57.6	57.8
Heavy Trucks:	66.6	65.9	56.9	58.1	66.5	66.6
Vehicle Noise:	68.3	67.6	61.6	59.7	68.2	68.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	25	54	116	249
CNEL:	26	56	120	259

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 With Project P1+2
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,931 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	244 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.18%
Medium Trucks:	84.8%	4.9%	10.3%	2.10%
Heavy Trucks:	86.5%	2.7%	10.8%	4.72%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-7.76	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-24.23	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-20.71	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.2	59.1	57.3	51.3	59.9	60.5
Medium Trucks:	55.0	54.3	47.9	46.4	54.8	55.0
Heavy Trucks:	63.8	63.1	54.1	55.4	63.7	63.8
Vehicle Noise:	65.7	65.0	59.3	57.2	65.6	65.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	17	36	78	168
CNEL:	17	38	81	175

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 With Project P1+2
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,040 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	920 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.63%
Medium Trucks:	84.8%	4.9%	10.3%	1.96%
Heavy Trucks:	86.5%	2.7%	10.8%	4.41%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.94	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-19.74	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-16.22	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.6	65.5	63.8	57.7	66.3	66.9
Medium Trucks:	60.7	60.0	53.6	52.1	60.5	60.7
Heavy Trucks:	68.6	67.9	58.9	60.2	68.5	68.6
Vehicle Noise:	71.1	70.3	65.3	62.5	71.0	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	70	150	324	697
CNEL:	73	157	339	731

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 With Project P1+2
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,137 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	511 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.78%
Medium Trucks:	84.8%	4.9%	10.3%	1.91%
Heavy Trucks:	86.5%	2.7%	10.8%	4.31%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.52	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-21.42	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-17.90	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.1	61.0	59.2	53.1	61.8	62.4
Medium Trucks:	56.4	55.7	49.3	47.8	56.2	56.5
Heavy Trucks:	65.2	64.6	55.5	56.8	65.1	65.3
Vehicle Noise:	67.3	66.5	61.1	58.7	67.2	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	28	61	132	284
CNEL:	30	64	138	297

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 With Project P1+2
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,723 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	727 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.19%
Medium Trucks:	84.8%	4.9%	10.3%	2.09%
Heavy Trucks:	86.5%	2.7%	10.8%	4.71%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.02	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-19.50	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-15.98	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.7	60.6	58.8	52.7	61.4	62.0
Medium Trucks:	56.4	55.7	49.3	47.8	56.3	56.5
Heavy Trucks:	65.2	64.6	55.5	56.8	65.2	65.3
Vehicle Noise:	67.2	66.4	60.8	58.6	67.0	67.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	37	81	174	375
CNEL:	39	84	181	391

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2025 With Project P1+2
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,706 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,392 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	84.32%
Medium Trucks:	84.8%	4.9%	10.3%	6.84%
Heavy Trucks:	86.5%	2.7%	10.8%	8.84%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.63	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-11.54	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-10.43	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.3	66.2	64.4	58.4	67.0	67.6
Medium Trucks:	67.7	67.0	60.6	59.0	67.5	67.7
Heavy Trucks:	74.1	73.4	64.4	65.6	74.0	74.1
Vehicle Noise:	75.6	74.9	68.2	67.1	75.5	75.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	77	166	358	771
CNEL:	80	172	370	797

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 Without Project
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,264 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	438 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-5.28	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-20.89	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-17.37	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.3	58.2	56.5	50.4	59.0	59.6
Medium Trucks:	55.0	54.2	47.9	46.3	54.8	55.0
Heavy Trucks:	63.8	63.1	54.1	55.3	63.7	63.8
Vehicle Noise:	65.5	64.7	58.8	56.9	65.4	65.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	33	71	153	329
CNEL:	34	74	159	342

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 Without Project
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,094 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,007 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.63	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-18.25	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-14.73	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	67.0	65.8	64.1	58.0	66.6	67.3
Medium Trucks:	62.2	61.4	55.1	53.5	62.0	62.2
Heavy Trucks:	70.1	69.4	60.4	61.6	70.0	70.1
Vehicle Noise:	72.2	71.5	66.0	63.7	72.1	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	83	178	384	828
CNEL:	86	186	401	864

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 Without Project
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,858 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	238 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-7.93	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-23.55	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-20.02	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	60.0	58.9	57.1	51.1	59.7	60.3
Medium Trucks:	55.7	54.9	48.6	47.0	55.5	55.7
Heavy Trucks:	64.5	63.8	54.8	56.0	64.4	64.5
Vehicle Noise:	66.2	65.4	59.5	57.6	66.1	66.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	18	39	84	180
CNEL:	19	40	87	188

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 Without Project
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,532 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	877 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.27	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-17.88	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-14.36	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.4	61.3	59.6	53.5	62.1	62.7
Medium Trucks:	58.0	57.3	51.0	49.4	57.9	58.1
Heavy Trucks:	66.8	66.2	57.2	58.4	66.8	66.9
Vehicle Noise:	68.6	67.8	61.9	60.0	68.5	68.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	47	100	216	465
CNEL:	48	104	224	483

Thursday, September 2, 2021

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 Without Project
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,476 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	623 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-3.75	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-19.37	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-15.85	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.8	61.7	60.0	53.9	62.5	63.1
Medium Trucks:	58.5	57.7	51.4	49.8	58.3	58.5
Heavy Trucks:	67.3	66.6	57.6	58.8	67.2	67.3
Vehicle Noise:	69.0	68.2	62.3	60.4	68.9	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	37	80	172	370
CNEL:	38	83	178	384

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 With Project BO
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,770 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	731 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	95.09%
Medium Trucks:	84.8%	4.9%	10.3%	1.51%
Heavy Trucks:	86.5%	2.7%	10.8%	3.40%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.91	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-20.89	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-17.37	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.7	60.6	58.8	52.8	61.4	62.0
Medium Trucks:	55.0	54.2	47.9	46.3	54.8	55.0
Heavy Trucks:	63.8	63.1	54.1	55.3	63.7	63.8
Vehicle Noise:	66.2	65.4	60.3	57.6	66.0	66.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	37	79	170	365
CNEL:	38	82	178	383

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 Without Project
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,108 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	759 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.90	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-18.51	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-14.99	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.1	63.9	62.2	56.1	64.7	65.4
Medium Trucks:	60.7	60.0	53.6	52.1	60.5	60.8
Heavy Trucks:	69.5	68.9	59.8	61.1	69.4	69.6
Vehicle Noise:	71.2	70.5	64.5	62.7	71.1	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	39	84	181	391
CNEL:	41	87	189	406

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 With Project BO
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,559 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	296 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.42%
Medium Trucks:	84.8%	4.9%	10.3%	2.02%
Heavy Trucks:	86.5%	2.7%	10.8%	4.55%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-6.90	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-23.55	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-20.02	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.0	59.9	58.2	52.1	60.7	61.3
Medium Trucks:	55.7	54.9	48.6	47.0	55.5	55.7
Heavy Trucks:	64.5	63.8	54.8	56.0	64.4	64.5
Vehicle Noise:	66.5	65.7	60.1	57.9	66.3	66.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	19	40	87	188
CNEL:	20	42	91	196

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 With Project BO
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,600 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,300 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.65%
Medium Trucks:	84.8%	4.9%	10.3%	1.95%
Heavy Trucks:	86.5%	2.7%	10.8%	4.40%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.44	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-18.25	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-14.73	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	67.0	65.3	59.2	67.8	68.4
Medium Trucks:	62.2	61.4	55.1	53.5	62.0	62.2
Heavy Trucks:	70.1	69.4	60.4	61.6	70.0	70.1
Vehicle Noise:	72.6	71.8	66.8	64.0	72.5	72.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	88	189	407	877
CNEL:	92	198	427	919

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 With Project BO
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,647 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,137 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.40%
Medium Trucks:	84.8%	4.9%	10.3%	3.26%
Heavy Trucks:	86.5%	2.7%	10.8%	5.33%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-1.16	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-15.63	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-13.50	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	64.3	62.6	56.5	65.1	65.7
Medium Trucks:	62.2	61.5	55.1	53.6	62.0	62.3
Heavy Trucks:	69.6	69.0	59.9	61.2	69.5	69.7
Vehicle Noise:	71.5	70.8	64.9	63.0	71.4	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	55	118	254	547
CNEL:	57	123	264	569

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 With Project BO
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,262 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,438 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.52%
Medium Trucks:	84.8%	4.9%	10.3%	4.51%
Heavy Trucks:	86.5%	2.7%	10.8%	6.98%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-0.28	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-13.21	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-11.31	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.4	63.3	61.5	55.5	64.1	64.7
Medium Trucks:	62.7	62.0	55.6	54.1	62.5	62.8
Heavy Trucks:	69.9	69.3	60.2	61.5	69.8	69.9
Vehicle Noise:	71.6	70.8	64.5	63.0	71.5	71.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	74	159	342	737
CNEL:	76	165	355	764

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OYC 2027 With Project BO
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	25,374 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	2,114 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	88.23%
Medium Trucks:	84.8%	4.9%	10.3%	4.95%
Heavy Trucks:	86.5%	2.7%	10.8%	6.82%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.38	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-11.13	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-9.74	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.3	68.2	66.5	60.4	69.0	69.6
Medium Trucks:	68.1	67.4	61.0	59.5	67.9	68.1
Heavy Trucks:	74.7	74.1	65.1	66.3	74.7	74.8
Vehicle Noise:	76.5	75.8	69.5	68.0	76.4	76.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	88	190	409	880
CNEL:	91	197	423	912

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 Without Project
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	23,682 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,973 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.25	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-14.36	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-10.84	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.9	64.8	63.0	56.9	65.6	66.2
Medium Trucks:	61.5	60.8	54.4	52.9	61.3	61.6
Heavy Trucks:	70.3	69.7	60.6	61.9	70.2	70.3
Vehicle Noise:	72.0	71.3	65.3	63.5	71.9	72.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	90	193	416	897
CNEL:	93	201	433	932

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 Without Project
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,233 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,602 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-0.62	0.58	-1.20	-4.69	0.000	0.000
Medium Trucks:	81.00	-16.23	0.61	-1.20	-4.88	0.000	0.000
Heavy Trucks:	85.38	-12.71	0.61	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	69.0	67.9	66.1	60.0	68.7	69.3
Medium Trucks:	64.2	63.5	57.1	55.6	64.0	64.3
Heavy Trucks:	72.1	71.4	62.4	63.7	72.0	72.1
Vehicle Noise:	74.3	73.5	68.0	65.7	74.1	74.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	113	243	524	1,128
CNEL:	118	254	546	1,177

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 Without Project
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	1,737 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	145 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-10.09	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-25.71	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-22.19	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.9	56.8	55.0	48.9	57.6	58.2
Medium Trucks:	53.5	52.8	46.4	44.9	53.3	53.6
Heavy Trucks:	62.3	61.7	52.6	53.9	62.2	62.4
Vehicle Noise:	64.0	63.3	57.3	55.5	63.9	64.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	13	28	60	129
CNEL:	13	29	62	135

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 Without Project
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,969 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	914 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-2.09	-0.62	-1.20	-4.69	0.000	0.000
Medium Trucks:	77.72	-17.70	-0.60	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-14.18	-0.60	-1.20	-5.35	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	62.6	61.5	59.7	53.7	62.3	62.9
Medium Trucks:	58.2	57.5	51.1	49.6	58.1	58.3
Heavy Trucks:	67.0	66.4	57.3	58.6	66.9	67.1
Vehicle Noise:	68.8	68.0	62.1	60.2	68.6	68.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	48	103	222	478
CNEL:	50	107	231	497

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 Without Project
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,094 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	508 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-4.64	1.28	-1.20	-4.61	0.000	0.000
Medium Trucks:	77.72	-20.26	1.31	-1.20	-4.87	0.000	0.000
Heavy Trucks:	82.99	-16.74	1.31	-1.20	-5.50	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	61.9	60.8	59.1	53.0	61.6	62.2
Medium Trucks:	57.6	56.9	50.5	48.9	57.4	57.6
Heavy Trucks:	66.4	65.7	56.7	58.0	66.3	66.4
Vehicle Noise:	68.1	67.4	61.4	59.6	68.0	68.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	70	150	323
CNEL:	34	72	156	335

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 With Project BO
Road Name: Potrero Bl.
Road Segment: s/o Oak Valley Pkwy.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,188 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	2,265 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	67.0 feet
Centerline Dist. to Observer:	67.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.87%
Medium Trucks:	84.8%	4.9%	10.3%	2.19%
Heavy Trucks:	86.5%	2.7%	10.8%	4.94%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	54.708
Medium Trucks:	54.546
Heavy Trucks:	54.562

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	1.90	-0.69	-1.20	-4.71	0.000	0.000
Medium Trucks:	77.72	-14.36	-0.67	-1.20	-4.88	0.000	0.000
Heavy Trucks:	82.99	-10.84	-0.67	-1.20	-5.29	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.5	65.4	63.7	57.6	66.2	66.8
Medium Trucks:	61.5	60.8	54.4	52.9	61.3	61.6
Heavy Trucks:	70.3	69.7	60.6	61.9	70.2	70.3
Vehicle Noise:	72.2	71.4	65.7	63.6	72.1	72.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	92	198	427	919
CNEL:	96	206	444	957

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 Without Project
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,624 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	968 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	91.81%
Medium Trucks:	84.8%	4.9%	10.3%	2.52%
Heavy Trucks:	86.5%	2.7%	10.8%	5.67%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-1.84	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-17.45	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-13.93	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.1	65.0	63.2	57.2	65.8	66.4
Medium Trucks:	61.8	61.0	54.7	53.1	61.6	61.8
Heavy Trucks:	70.5	69.9	60.9	62.1	70.5	70.6
Vehicle Noise:	72.3	71.5	65.6	63.7	72.2	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	46	99	213	460
CNEL:	48	103	222	478

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 With Project BO
Road Name: California Av.
Road Segment: n/o 6th St.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,439 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	203 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	94.17%
Medium Trucks:	84.8%	4.9%	10.3%	1.80%
Heavy Trucks:	86.5%	2.7%	10.8%	4.04%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	66.51	-8.51	2.64	-1.20	-4.52	0.000	0.000
Medium Trucks:	77.72	-25.71	2.69	-1.20	-4.86	0.000	0.000
Heavy Trucks:	82.99	-22.19	2.69	-1.20	-5.69	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.4	58.3	56.6	50.5	59.1	59.7
Medium Trucks:	53.5	52.8	46.4	44.9	53.3	53.6
Heavy Trucks:	62.3	61.7	52.6	53.9	62.2	62.4
Vehicle Noise:	64.5	63.7	58.3	55.9	64.3	64.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	14	30	64	138
CNEL:	14	31	67	144

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 With Project BO
Road Name: Oak Valley Pkwy.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	22,739 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,894 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	80 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.07%
Medium Trucks:	84.8%	4.9%	10.3%	2.13%
Heavy Trucks:	86.5%	2.7%	10.8%	4.80%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	45.000
Medium Trucks:	44.803
Heavy Trucks:	44.822

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	0.17	0.58	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	81.00	-16.23	0.61	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	85.38	-12.71	0.61	-1.20	*-5.34*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.8	68.6	66.9	60.8	69.5	70.1
Medium Trucks:	64.2	63.5	57.1	55.6	64.0	64.3
Heavy Trucks:	72.1	71.4	62.4	63.7	72.0	72.1
Vehicle Noise:	74.5	73.7	68.5	65.9	74.4	74.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	117	252	543	1,170
CNEL:	122	264	568	1,225

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 With Project BO
Road Name: 4th St.
Road Segment: e/o Veile Av.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,265 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,022 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	36 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	44.0 feet
Centerline Dist. to Observer:	44.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	91.36%
Medium Trucks:	84.8%	4.9%	10.3%	3.35%
Heavy Trucks:	86.5%	2.7%	10.8%	5.30%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	40.460
Medium Trucks:	40.241
Heavy Trucks:	40.262

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-1.63	1.28	-1.20	*-4.61*	0.000	0.000
Medium Trucks:	77.72	-15.99	1.31	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	82.99	-13.99	1.31	-1.20	*-5.50*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.0	63.9	62.1	56.0	64.7	65.3
Medium Trucks:	61.8	61.1	54.8	53.2	61.7	61.9
Heavy Trucks:	69.1	68.5	59.4	60.7	69.0	69.2
Vehicle Noise:	71.1	70.3	64.5	62.5	70.9	71.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	51	110	236	509
CNEL:	53	114	246	529

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 With Project BO
Road Name: 4th St.
Road Segment: e/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,700 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	1,474 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	59.0 feet
Centerline Dist. to Observer:	59.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	88.60%
Medium Trucks:	84.8%	4.9%	10.3%	4.46%
Heavy Trucks:	86.5%	2.7%	10.8%	6.94%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	54.129
Medium Trucks:	53.966
Heavy Trucks:	53.982

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-0.17	-0.62	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	77.72	-13.15	-0.60	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-11.22	-0.60	-1.20	*-5.35*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.5	63.4	61.7	55.6	64.2	64.8
Medium Trucks:	62.8	62.1	55.7	54.1	62.6	62.8
Heavy Trucks:	70.0	69.3	60.3	61.6	69.9	70.0
Vehicle Noise:	71.7	70.9	64.6	63.1	71.5	71.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	75	161	347	747
CNEL:	77	167	360	775

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: HY 2045 With Project BO
Road Name: 4th St.
Road Segment: w/o Potrero Bl.
Project Name: Jack Rabbit Trail Develop
Job Number: 12398

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,890 vehicles
Peak Hour Percentage:	8.33%
Peak Hour Volume:	2,323 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	33.0 feet
Centerline Dist. to Observer:	33.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	88.56%
Medium Trucks:	84.8%	4.9%	10.3%	4.73%
Heavy Trucks:	86.5%	2.7%	10.8%	6.72%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	32.833
Medium Trucks:	32.562
Heavy Trucks:	32.589

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	1.81	2.64	-1.20	*-4.52*	0.000	0.000
Medium Trucks:	77.72	-10.92	2.69	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-9.39	2.69	-1.20	*-5.69*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.8	68.7	66.9	60.8	69.5	70.1
Medium Trucks:	68.3	67.6	61.2	59.7	68.1	68.4
Heavy Trucks:	75.1	74.5	65.4	66.7	75.0	75.2
Vehicle Noise:	76.9	76.1	69.9	68.3	76.7	77.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	93	200	431	928
CNEL:	96	207	446	962

APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS

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12398 - Beaumont Pointe

CadnaA Noise Prediction Model: 12398_15b.cna
Date: 23.06.22
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	32.1	32.0	38.7	55.0	45.0	0.0				5.00	a	6318806.11	2292331.15	5.00
RECEIVERS		R2	34.3	34.2	40.9	55.0	45.0	0.0				5.00	a	6321134.99	2290808.09	5.00
RECEIVERS		R3	35.9	35.8	42.5	55.0	45.0	0.0				5.00	a	6323538.75	2288028.01	5.00
RECEIVERS		R4	40.3	40.1	46.8	55.0	45.0	0.0				5.00	a	6324208.60	2285233.27	5.00
RECEIVERS		R5	43.0	42.7	49.4	55.0	45.0	0.0				5.00	a	6322668.83	2282431.69	5.00
RECEIVERS		xBIO-1	42.2	42.1	48.8	0.0	0.0	0.0		x	Total	5.00	a	6315486.52	2289104.40	5.00
RECEIVERS		xBIO-2	46.2	46.2	52.8	0.0	0.0	0.0		x	Total	5.00	a	6317292.24	2288261.01	5.00
RECEIVERS		xBIO-3	50.2	50.2	56.9	0.0	0.0	0.0		x	Total	5.00	a	6317222.84	2286292.08	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323343.27	2283042.07	25.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323411.45	2283447.91	25.00
POINTSOURCE		AC03	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323361.13	2283290.44	25.00
POINTSOURCE		AC04	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323258.86	2283100.51	25.00
POINTSOURCE		AC05	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323146.84	2282977.13	25.00
POINTSOURCE		AC06	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323245.87	2282819.67	25.00
POINTSOURCE		AC07	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323400.09	2282837.52	25.00
POINTSOURCE		AC08	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323653.33	2282793.69	25.00
POINTSOURCE		AC09	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323708.53	2283012.85	25.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC10	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323708.53	2283202.78	25.00
POINTSOURCE		AC11	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323711.77	2283366.74	25.00
POINTSOURCE		AC12	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323715.02	2283538.81	25.00
POINTSOURCE		AC13	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323555.93	2283707.64	25.00
POINTSOURCE		AC14	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6323473.14	2283860.24	25.00
POINTSOURCE		AC15	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6322630.61	2283701.15	50.00
POINTSOURCE		AC16	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6321193.94	2285366.72	50.00
POINTSOURCE		AC17	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6320840.05	2284798.54	50.00
POINTSOURCE		AC18	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6320487.78	2284962.50	50.00
POINTSOURCE		AC19	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6320767.00	2285595.61	50.00
POINTSOURCE		AC20	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6319538.11	2286149.18	50.00
POINTSOURCE		AC21	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6319255.65	2285514.45	50.00
POINTSOURCE		AC22	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6318706.95	2285589.12	50.00
POINTSOURCE		AC23	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6318163.12	2285921.91	50.00
POINTSOURCE		AC24	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6319229.56	2286445.79	50.00
POINTSOURCE		AC25	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6318695.80	2286775.65	50.00
POINTSOURCE		AC26	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6318025.68	2286382.15	50.00
POINTSOURCE		AC27	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6318306.20	2286876.95	50.00
POINTSOURCE		AC28	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6317173.74	2286856.17	50.00
POINTSOURCE		AC29	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6317443.87	2287349.68	50.00
POINTSOURCE		AC30	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6317065.06	2287590.09	50.00
POINTSOURCE		AC31	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6315523.31	2288350.44	50.00
POINTSOURCE		AC32	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	0.0	5.00	g	6315187.86	2287742.68	50.00
POINTSOURCE		PARKING00	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323692.29	2283754.72	5.00
POINTSOURCE		PARKING01	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6315002.38	2287851.87	5.00
POINTSOURCE		PARKING01	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323590.02	2283818.03	5.00
POINTSOURCE		PARKING02	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6315087.89	2288024.20	5.00
POINTSOURCE		PARKING02	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323193.92	2283772.58	5.00
POINTSOURCE		PARKING03	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6315210.23	2288197.84	5.00
POINTSOURCE		PARKING03	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323093.27	2283720.63	5.00
POINTSOURCE		PARKING04	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6315287.84	2288359.64	5.00
POINTSOURCE		PARKING04	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323318.92	2283589.14	5.00
POINTSOURCE		PARKING05	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6316880.24	2286952.28	5.00
POINTSOURCE		PARKING05	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323216.65	2283563.17	5.00
POINTSOURCE		PARKING06	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6316915.30	2287019.81	5.00
POINTSOURCE		PARKING06	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323125.74	2283472.26	5.00
POINTSOURCE		PARKING07	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6316958.16	2287102.92	5.00
POINTSOURCE		PARKING07	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323036.46	2283384.60	5.00
POINTSOURCE		PARKING08	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317002.31	2287195.13	5.00
POINTSOURCE		PARKING08	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322945.55	2283298.56	5.00
POINTSOURCE		PARKING09	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317042.57	2287278.25	5.00
POINTSOURCE		PARKING09	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322853.02	2283201.16	5.00
POINTSOURCE		PARKING10	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317088.03	2287367.86	5.00
POINTSOURCE		PARKING10	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322768.60	2283119.99	5.00
POINTSOURCE		PARKING11	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317128.29	2287449.67	5.00
POINTSOURCE		PARKING11	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322581.91	2283222.26	5.00
POINTSOURCE		PARKING12	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317168.55	2287535.39	5.00
POINTSOURCE		PARKING12	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322679.32	2283308.30	5.00
POINTSOURCE		PARKING13	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317238.67	2287488.64	5.00
POINTSOURCE		PARKING13	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322763.73	2283395.96	5.00
POINTSOURCE		PARKING14	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317197.12	2287410.71	5.00
POINTSOURCE		PARKING14	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322851.39	2283483.62	5.00
POINTSOURCE		PARKING15	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317155.56	2287328.90	5.00
POINTSOURCE		PARKING15	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322943.92	2283581.02	5.00
POINTSOURCE		PARKING16	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317115.30	2287244.48	5.00
POINTSOURCE		PARKING16	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323018.60	2283658.94	5.00
POINTSOURCE		PARKING17	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317072.44	2287158.77	5.00
POINTSOURCE		PARKING17	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323276.71	2283402.45	5.00
POINTSOURCE		PARKING18	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317026.99	2287066.56	5.00
POINTSOURCE		PARKING18	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323215.03	2283280.70	5.00
POINTSOURCE		PARKING19	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6316986.73	2286979.55	5.00
POINTSOURCE		PARKING19	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323159.83	2283176.81	5.00
POINTSOURCE		PARKING20	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6316941.27	2286889.94	5.00
POINTSOURCE		PARKING20	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323062.43	2283077.78	5.00
POINTSOURCE		PARKING21	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317343.87	2287396.43	5.00
POINTSOURCE		PARKING21	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322961.78	2283020.96	5.00
POINTSOURCE		PARKING22	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317303.61	2287325.00	5.00
POINTSOURCE		PARKING22	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322851.17	2282989.96	5.00
POINTSOURCE		PARKING23	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317258.15	2287245.78	5.00
POINTSOURCE		PARKING23	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322697.17	2283053.43	5.00
POINTSOURCE		PARKING24	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317210.10	2287157.47	5.00
POINTSOURCE		PARKING24	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323174.44	2284123.22	5.00
POINTSOURCE		PARKING25	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317163.35	2287073.05	5.00
POINTSOURCE		PARKING25	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323127.36	2284048.55	5.00
POINTSOURCE		PARKING26	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317117.90	2286989.94	5.00
POINTSOURCE		PARKING26	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323077.04	2283969.01	5.00
POINTSOURCE		PARKING27	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317075.04	2286910.72	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		PARKING27	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323232.88	2284087.51	5.00
POINTSOURCE		PARKING28	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317091.92	2286775.65	5.00
POINTSOURCE		PARKING28	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323286.45	2284035.56	5.00
POINTSOURCE		PARKING29	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317147.77	2286744.49	5.00
POINTSOURCE		PARKING29	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323382.23	2284079.39	5.00
POINTSOURCE		PARKING30	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317952.95	2286301.63	5.00
POINTSOURCE		PARKING30	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323310.80	2284141.08	5.00
POINTSOURCE		PARKING31	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318006.20	2286271.76	5.00
POINTSOURCE		PARKING31	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323219.90	2284201.15	5.00
POINTSOURCE		PARKING32	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318050.36	2286115.92	5.00
POINTSOURCE		PARKING32	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323150.09	2283954.40	5.00
POINTSOURCE		PARKING33	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318091.91	2286183.45	5.00
POINTSOURCE		PARKING33	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323031.59	2283887.84	5.00
POINTSOURCE		PARKING34	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318142.56	2286263.97	5.00
POINTSOURCE		PARKING35	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318193.21	2286352.28	5.00
POINTSOURCE		PARKING36	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318247.76	2286435.40	5.00
POINTSOURCE		PARKING37	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318298.40	2286515.92	5.00
POINTSOURCE		PARKING38	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318343.86	2286591.24	5.00
POINTSOURCE		PARKING39	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318402.30	2286686.05	5.00
POINTSOURCE		PARKING40	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318451.65	2286765.27	5.00
POINTSOURCE		PARKING41	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318493.21	2286832.80	5.00
POINTSOURCE		PARKING42	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318382.82	2286904.23	5.00
POINTSOURCE		PARKING43	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318317.89	2286936.69	5.00
POINTSOURCE		PARKING44	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317502.31	2287386.04	5.00
POINTSOURCE		PARKING45	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317442.57	2287422.40	5.00
POINTSOURCE		PARKING46	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6317386.72	2287530.19	5.00
POINTSOURCE		PARKING47	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318917.99	2285535.55	5.00
POINTSOURCE		PARKING48	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318961.82	2285606.98	5.00
POINTSOURCE		PARKING49	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319005.65	2285686.52	5.00
POINTSOURCE		PARKING50	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319059.22	2285764.44	5.00
POINTSOURCE		PARKING51	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319109.54	2285848.86	5.00
POINTSOURCE		PARKING52	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319421.23	2286111.84	5.00
POINTSOURCE		PARKING53	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319382.27	2286022.56	5.00
POINTSOURCE		PARKING54	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319343.31	2285936.52	5.00
POINTSOURCE		PARKING55	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319301.10	2285847.23	5.00
POINTSOURCE		PARKING56	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319263.76	2285759.57	5.00
POINTSOURCE		PARKING57	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319219.93	2285667.04	5.00
POINTSOURCE		PARKING58	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319179.35	2285576.13	5.00
POINTSOURCE		PARKING59	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319583.57	2286296.91	5.00
POINTSOURCE		PARKING60	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318833.57	2286782.29	5.00
POINTSOURCE		PARKING61	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318908.25	2286738.46	5.00
POINTSOURCE		PARKING62	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6318987.79	2286686.51	5.00
POINTSOURCE		PARKING63	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319067.34	2286634.57	5.00
POINTSOURCE		PARKING64	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319150.13	2286584.24	5.00
POINTSOURCE		PARKING65	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6319236.17	2286527.42	5.00
POINTSOURCE		PARKING66	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320586.80	2284947.89	5.00
POINTSOURCE		PARKING67	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320632.26	2285046.92	5.00
POINTSOURCE		PARKING68	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320669.59	2285131.33	5.00
POINTSOURCE		PARKING69	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320708.55	2285217.37	5.00
POINTSOURCE		PARKING70	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320749.14	2285306.66	5.00
POINTSOURCE		PARKING71	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320786.48	2285394.32	5.00
POINTSOURCE		PARKING72	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320825.44	2285490.10	5.00
POINTSOURCE		PARKING73	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320861.15	2285561.52	5.00
POINTSOURCE		PARKING74	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6321012.12	2285475.48	5.00
POINTSOURCE		PARKING75	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320976.41	2285395.94	5.00
POINTSOURCE		PARKING76	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320930.96	2285311.53	5.00
POINTSOURCE		PARKING77	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320882.25	2285222.24	5.00
POINTSOURCE		PARKING78	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320836.80	2285141.07	5.00
POINTSOURCE		PARKING79	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320791.35	2285048.54	5.00
POINTSOURCE		PARKING80	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320745.89	2284970.62	5.00
POINTSOURCE		PARKING81	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320700.44	2284881.33	5.00
POINTSOURCE		PARKING82	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320659.85	2284798.54	5.00
POINTSOURCE		PARKING83	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6321109.53	2285412.17	5.00
POINTSOURCE		PARKING84	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6321065.69	2285339.12	5.00
POINTSOURCE		PARKING85	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6321020.24	2285256.33	5.00
POINTSOURCE		PARKING86	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320965.05	2285175.16	5.00
POINTSOURCE		PARKING87	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320919.59	2285098.87	5.00
POINTSOURCE		PARKING88	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320870.89	2285027.44	5.00
POINTSOURCE		PARKING89	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6320814.07	2284939.78	5.00
POINTSOURCE		PARKING90	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323029.96	2284139.46	5.00
POINTSOURCE		PARKING91	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322974.77	2284053.42	5.00
POINTSOURCE		PARKING92	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322927.69	2283973.88	5.00
POINTSOURCE		PARKING93	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322877.37	2283892.71	5.00
POINTSOURCE		PARKING94	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322822.17	2283811.54	5.00
POINTSOURCE		PARKING95	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6322773.47	2283727.12	5.00
POINTSOURCE		PARKING96	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323338.40	2283856.99	5.00
POINTSOURCE		PARKING97	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323378.98	2283780.70	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		PARKING98	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323559.18	2283972.25	5.00
POINTSOURCE		PARKING99	87.8	87.8	87.8	Lw	87.8					0.0	5.00	a	6323617.62	2283894.33	5.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6315664.07	2288449.10	5.00
POINTSOURCE		TRASH02	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6317042.69	2287741.37	5.00
POINTSOURCE		TRASH03	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6315223.38	2287549.31	5.00
POINTSOURCE		TRASH04	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6318067.35	2286066.39	5.00
POINTSOURCE		TRASH05	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6318530.00	2286813.13	5.00
POINTSOURCE		TRASH06	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6319341.68	2286313.14	5.00
POINTSOURCE		TRASH07	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6318877.40	2285564.77	5.00
POINTSOURCE		TRASH08	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6319664.73	2286267.69	5.00
POINTSOURCE		TRASH09	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6320778.36	2285762.82	5.00
POINTSOURCE		TRASH10	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6320364.40	2284845.62	5.00
POINTSOURCE		TRASH11	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6319252.40	2285342.37	5.00
POINTSOURCE		TRASH12	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6320815.70	2284628.09	5.00
POINTSOURCE		TRASH13	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6322491.01	2283590.76	5.00
POINTSOURCE		TRASH14	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6322984.51	2284439.78	5.00
POINTSOURCE		TRASH15	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6321336.80	2285465.74	5.00
POINTSOURCE		TRASH16	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6317591.07	2287442.58	5.00
POINTSOURCE		TRASH17	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6318303.53	2287044.78	5.00
POINTSOURCE		TRASH18	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6317880.47	2286287.06	5.00
POINTSOURCE		TRASH19	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	0.0	5.00	a	6317173.27	2286677.50	5.00
POINTSOURCE		DT01	84.0	84.0	84.0	Lw	84					0.0	3.00	a	6323204.45	2283025.26	3.00
POINTSOURCE		DT02	84.0	84.0	84.0	Lw	84					0.0	3.00	a	6323300.00	2283161.97	3.00
POINTSOURCE		DT03	84.0	84.0	84.0	Lw	84					0.0	3.00	a	6323391.14	2283361.89	3.00
POINTSOURCE		DT04	84.0	84.0	84.0	Lw	84					0.0	3.00	a	6323436.71	2283517.72	3.00

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src				Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	Number			Speed	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)
LINESOURCE		DWY01	93.2	93.2	93.2	67.8	67.8	67.8	Lw	93.2									8
LINESOURCE		DWY02	93.2	93.2	93.2	75.8	75.8	75.8	Lw	93.2									8
LINESOURCE		DWY03	93.2	93.2	93.2	70.6	70.6	70.6	Lw	93.2									8
LINESOURCE		DWY04	93.2	93.2	93.2	69.0	69.0	69.0	Lw	93.2									8
LINESOURCE		DWY05	93.2	93.2	93.2	78.6	78.6	78.6	Lw	93.2									8
LINESOURCE		DWY06	93.2	93.2	93.2	74.2	74.2	74.2	Lw	93.2									8
LINESOURCE		DWY07	93.2	93.2	93.2	71.5	71.5	71.5	Lw	93.2									8
LINESOURCE		DWY08	93.2	93.2	93.2	68.6	68.6	68.6	Lw	93.2									8
LINESOURCE		DWY09	93.2	93.2	93.2	75.4	75.4	75.4	Lw	93.2									8
LINESOURCE		DWY10	93.2	93.2	93.2	71.2	71.2	71.2	Lw	93.2									8
LINESOURCE		DWY11	93.2	93.2	93.2	68.1	68.1	68.1	Lw	93.2									8
LINESOURCE		DWY12	93.2	93.2	93.2	74.2	74.2	74.2	Lw	93.2									8
LINESOURCE		DWY13	93.2	93.2	93.2	72.4	72.4	72.4	Lw	93.2									8
LINESOURCE		DWY14	93.2	93.2	93.2	70.5	70.5	70.5	Lw	93.2									8
LINESOURCE		DWY15	93.2	93.2	93.2	68.5	68.5	68.5	Lw	93.2									8
LINESOURCE		DWY16	93.2	93.2	93.2	75.1	75.1	75.1	Lw	93.2									8
LINESOURCE		DWY17	93.2	93.2	93.2	74.8	74.8	74.8	Lw	93.2									8
LINESOURCE		DWY18	93.2	93.2	93.2	68.7	68.7	68.7	Lw	93.2									8
LINESOURCE		DWY19	93.2	93.2	93.2	75.0	75.0	75.0	Lw	93.2									8

Name	Height			Coordinates			
	Begin		End	x	y	z	Ground
	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
LINESOURCE	8.00	a		6315625.28	2288405.42	8.00	0.00
				6315494.37	2288466.20	8.00	0.00
				6315441.75	2288453.04	8.00	0.00
				6315039.21	2287619.03	8.00	0.00
LINESOURCE	8.00	a		6315238.54	2287616.13	8.00	0.00
				6315074.23	2287691.58	8.00	0.00
LINESOURCE	8.00	a		6317038.73	2287698.59	8.00	0.00
				6317301.84	2287563.78	8.00	0.00
				6317409.71	2287463.80	8.00	0.00
				6317549.15	2287384.87	8.00	0.00
LINESOURCE	8.00	a		6317301.84	2287563.78	8.00	0.00
				6316911.15	2286790.27	8.00	0.00
LINESOURCE	8.00	a		6316814.00	2286904.23	8.00	0.00
				6316841.28	2286875.65	8.00	0.00
				6316829.59	2286822.41	8.00	0.00
LINESOURCE	8.00	a		6316982.83	2286756.17	8.00	0.00
				6317021.79	2286812.02	8.00	0.00
				6317055.56	2286818.51	8.00	0.00
				6317197.12	2286743.19	8.00	0.00
LINESOURCE	8.00	a		6318280.22	2286978.25	8.00	0.00
				6318462.04	2286884.74	8.00	0.00
				6318534.77	2286901.63	8.00	0.00
				6318642.56	2286858.77	8.00	0.00

Name	Height			Coordinates			
	Begin		End	x	y	z	Ground
	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
				6318595.80	2286783.45	8.00	0.00
LINESOURCE	8.00	a		6318504.33	2286894.56	8.00	0.00
				6317999.71	2286087.35	8.00	0.00
LINESOURCE	8.00	a		6317926.85	2286340.48	8.00	0.00
				6318096.25	2286241.78	8.00	0.00
LINESOURCE	8.00	a		6319284.08	2286357.05	8.00	0.00
				6319348.18	2286452.75	8.00	0.00
				6319450.45	2286381.32	8.00	0.00
				6319458.57	2286308.27	8.00	0.00
				6319497.53	2286262.82	8.00	0.00
				6319627.95	2286205.66	8.00	0.00
LINESOURCE	8.00	a		6319458.57	2286308.27	8.00	0.00
				6318960.19	2285369.97	8.00	0.00
LINESOURCE	8.00	a		6319273.29	2285413.89	8.00	0.00
				6319155.00	2285460.87	8.00	0.00
				6319027.06	2285495.86	8.00	0.00
LINESOURCE	8.00	a		6318808.90	2285595.06	8.00	0.00
				6318739.42	2285473.86	8.00	0.00
				6318815.72	2285443.02	8.00	0.00
				6318939.09	2285418.67	8.00	0.00
				6318983.23	2285413.33	8.00	0.00
LINESOURCE	8.00	a		6320757.15	2285696.92	8.00	0.00
				6321005.63	2285585.87	8.00	0.00
				6321296.21	2285408.93	8.00	0.00
LINESOURCE	8.00	a		6321005.63	2285585.87	8.00	0.00
				6320542.97	2284730.36	8.00	0.00
LINESOURCE	8.00	a		6320405.74	2284906.45	8.00	0.00
				6320512.13	2284842.37	8.00	0.00
				6320478.04	2284759.58	8.00	0.00
LINESOURCE	8.00	a		6320844.92	2284688.15	8.00	0.00
				6320732.91	2284749.84	8.00	0.00
				6320676.09	2284670.30	8.00	0.00
LINESOURCE	8.00	a		6323061.45	2284274.81	8.00	0.00
				6323159.83	2284215.76	8.00	0.00
				6322728.02	2283542.06	8.00	0.00
LINESOURCE	8.00	a		6322538.51	2283640.83	8.00	0.00
				6322719.90	2283524.20	8.00	0.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
AREASOURCE		DOCK01	103.4	103.4	103.4	59.1	59.1	59.1	Lw	103.4					8
AREASOURCE		DOCK02	103.4	103.4	103.4	58.8	58.8	58.8	Lw	103.4					8
AREASOURCE		DOCK03	103.4	103.4	103.4	61.8	61.8	61.8	Lw	103.4					8
AREASOURCE		DOCK04	103.4	103.4	103.4	61.8	61.8	61.8	Lw	103.4					8
AREASOURCE		DOCK05	103.4	103.4	103.4	61.5	61.5	61.5	Lw	103.4					8
AREASOURCE		DOCK06	103.4	103.4	103.4	61.6	61.6	61.6	Lw	103.4					8
AREASOURCE		DOCK07	103.4	103.4	103.4	60.1	60.1	60.1	Lw	103.4					8
AREASOURCE		DOCK08	103.4	103.4	103.4	60.1	60.1	60.1	Lw	103.4					8
AREASOURCE		DOCK09	103.4	103.4	103.4	57.9	57.9	57.9	Lw	103.4					8
AREASOURCE		DOCK10	103.4	103.4	103.4	58.0	58.0	58.0	Lw	103.4					8
AREASOURCE		DOCK11	103.4	103.4	103.4	74.0	74.0	74.0	Lw	103.4					8

Name	Height			Coordinates			
	Begin		End	x	y	z	Ground
	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
AREASOURCE	8.00	a		6315602.03	2288356.70	8.00	0.00
				6315656.18	2288470.14	8.00	0.00
				6316504.66	2288055.77	8.00	0.00
				6317059.80	2287742.68	8.00	0.00
				6316993.00	2287602.88	8.00	0.00
				6315573.82	2288301.57	8.00	0.00
AREASOURCE	8.00	a		6315286.65	2287713.13	8.00	0.00
				6316831.47	2286942.64	8.00	0.00
				6316787.49	2286853.42	8.00	0.00
				6316529.66	2286896.83	8.00	0.00
				6316479.67	2286915.24	8.00	0.00
				6315203.65	2287542.73	8.00	0.00
				6315258.45	2287658.00	8.00	0.00
AREASOURCE	8.00	a		6317525.13	2287343.09	8.00	0.00
				6317585.42	2287456.17	8.00	0.00
				6318316.59	2287047.08	8.00	0.00
				6318258.96	2286936.56	8.00	0.00
				6318231.61	2286885.63	8.00	0.00
				6317495.89	2287290.27	8.00	0.00

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
AREASOURCE	8.00	a			6317245.93	2286840.35	8.00	0.00
					6317976.94	2286433.82	8.00	0.00
					6317949.58	2286382.89	8.00	0.00
					6317889.32	2286270.46	8.00	0.00
					6317156.86	2286676.95	8.00	0.00
					6317216.69	2286786.59	8.00	0.00
AREASOURCE	8.00	a			6318684.05	2286731.85	8.00	0.00
					6318207.96	2285966.07	8.00	0.00
					6318052.74	2286068.01	8.00	0.00
					6318528.38	2286826.12	8.00	0.00
					6318638.71	2286760.82	8.00	0.00
AREASOURCE	8.00	a			6319196.67	2286411.94	8.00	0.00
					6319351.42	2286314.76	8.00	0.00
					6318877.40	2285555.03	8.00	0.00
					6318719.32	2285647.42	8.00	0.00
AREASOURCE	8.00	a			6319583.75	2286109.46	8.00	0.00
					6319605.25	2286158.19	8.00	0.00
					6319661.49	2286275.80	8.00	0.00
					6319820.58	2286204.37	8.00	0.00
					6320786.48	2285769.31	8.00	0.00
					6320737.34	2285648.03	8.00	0.00
					6320714.42	2285599.30	8.00	0.00
AREASOURCE	8.00	a			6320446.44	2284998.86	8.00	0.00
					6320372.52	2284831.01	8.00	0.00
					6319241.04	2285339.12	8.00	0.00
					6319314.34	2285509.02	8.00	0.00
AREASOURCE	8.00	a			6321232.87	2285322.36	8.00	0.00
					6321267.12	2285374.64	8.00	0.00
					6321331.93	2285480.36	8.00	0.00
					6322989.38	2284454.39	8.00	0.00
					6323010.48	2284404.07	8.00	0.00
					6323023.47	2284368.35	8.00	0.00
					6323047.82	2284342.38	8.00	0.00
					6323088.40	2284318.03	8.00	0.00
					6323024.54	2284215.63	8.00	0.00
AREASOURCE	8.00	a			6320895.80	2284783.42	8.00	0.00
					6322591.95	2283732.57	8.00	0.00
					6322564.91	2283683.90	8.00	0.00
					6322495.88	2283571.28	8.00	0.00
					6320802.71	2284624.84	8.00	0.00
					6320870.57	2284732.95	8.00	0.00
AREASOURCE	8.00	a			6323758.85	2282964.14	8.00	0.00
					6323750.73	2282790.45	8.00	0.00
					6323700.41	2282790.45	8.00	0.00
					6323703.66	2282969.01	8.00	0.00

Building(s)

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BLDG01	x	0		45.00	a	6315467.42	2288422.08	45.00	0.00
								6315602.03	2288356.70	45.00	0.00
								6315573.82	2288301.57	45.00	0.00
								6316993.00	2287602.88	45.00	0.00
								6317019.93	2287656.72	45.00	0.00
								6317150.69	2287591.34	45.00	0.00
								6316831.47	2286942.64	45.00	0.00
								6315286.65	2287713.13	45.00	0.00
								6315258.45	2287658.00	45.00	0.00
								6315123.84	2287724.67	45.00	0.00
BUILDING		BLDG02	x	0		45.00	a	6317399.68	2287412.89	45.00	0.00
								6317525.13	2287343.09	45.00	0.00
								6317495.89	2287290.27	45.00	0.00
								6318231.61	2286885.63	45.00	0.00
								6318258.96	2286936.56	45.00	0.00
								6318383.47	2286868.65	45.00	0.00
								6318076.92	2286312.14	45.00	0.00
								6317949.58	2286382.89	45.00	0.00
								6317976.94	2286433.82	45.00	0.00
								6317245.93	2286840.35	45.00	0.00
								6317216.69	2286786.59	45.00	0.00
								6317091.24	2286858.27	45.00	0.00
BUILDING		BLDG03	x	0		45.00	a	6318682.79	2286832.61	45.00	0.00
								6319289.87	2286462.32	45.00	0.00
								6319243.27	2286382.97	45.00	0.00
								6319196.67	2286411.94	45.00	0.00

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
								6318719.32	2285647.42	45.00	0.00
								6318765.92	2285618.45	45.00	0.00
								6318707.98	2285525.24	45.00	0.00
								6318102.16	2285899.32	45.00	0.00
								6318162.62	2285993.78	45.00	0.00
								6318207.96	2285966.07	45.00	0.00
								6318684.05	2286731.85	45.00	0.00
								6318638.71	2286760.82	45.00	0.00
BUILDING		BLDG04	x	0		45.00	a	6319503.50	2286204.04	45.00	0.00
								6319605.25	2286158.19	45.00	0.00
								6319583.75	2286109.46	45.00	0.00
								6320714.42	2285599.30	45.00	0.00
								6320737.34	2285648.03	45.00	0.00
								6320839.09	2285605.03	45.00	0.00
								6320526.69	2284901.41	45.00	0.00
								6320423.51	2284950.14	45.00	0.00
								6320446.44	2284998.86	45.00	0.00
								6319314.34	2285509.02	45.00	0.00
								6319288.54	2285457.43	45.00	0.00
								6319189.67	2285503.29	45.00	0.00
BUILDING		BLDG05	x	0		45.00	a	6321167.98	2285430.51	45.00	0.00
								6321267.12	2285374.64	45.00	0.00
								6321232.87	2285322.36	45.00	0.00
								6323024.54	2284215.63	45.00	0.00
								6322658.64	2283622.61	45.00	0.00
								6322564.91	2283683.90	45.00	0.00
								6322591.95	2283732.57	45.00	0.00
								6320895.80	2284783.42	45.00	0.00
								6320870.57	2284732.95	45.00	0.00
								6320775.04	2284796.04	45.00	0.00
BUILDING		BLDG06	x	0		20.00	a	6323489.37	2283899.20	20.00	0.00
								6323601.39	2283697.90	20.00	0.00
								6323544.57	2283671.93	20.00	0.00
								6323435.80	2283874.85	20.00	0.00
BUILDING		BLDG07	x	0		20.00	a	6323557.55	2283585.89	20.00	0.00
								6323752.36	2283582.65	20.00	0.00
								6323758.85	2282964.14	20.00	0.00
								6323703.66	2282969.01	20.00	0.00
								6323693.92	2282759.60	20.00	0.00
								6323450.41	2282759.60	20.00	0.00
								6323453.66	2282795.32	20.00	0.00
								6323354.63	2282793.69	20.00	0.00
								6323353.01	2282892.72	20.00	0.00
								6323518.59	2283017.72	20.00	0.00
								6323546.19	2283017.72	20.00	0.00
								6323554.31	2283046.94	20.00	0.00
								6323563.51	2283077.71	20.00	0.00
								6323570.41	2283109.07	20.00	0.00
								6323574.96	2283140.87	20.00	0.00
								6323577.14	2283172.91	20.00	0.00
								6323576.95	2283205.03	20.00	0.00
								6323574.37	2283237.04	20.00	0.00
								6323569.42	2283268.77	20.00	0.00
								6323562.14	2283300.05	20.00	0.00
								6323552.55	2283330.71	20.00	0.00
								6323540.72	2283360.57	20.00	0.00
								6323526.71	2283389.47	20.00	0.00
								6323538.07	2283457.65	20.00	0.00
								6323562.42	2283459.27	20.00	0.00
BUILDING		BLDG08	x	0		20.00	a	6323401.71	2283506.35	20.00	0.00
								6323452.04	2283488.49	20.00	0.00
								6323430.93	2283381.35	20.00	0.00
								6323374.11	2283391.09	20.00	0.00
BUILDING		BLDG09	x	0		20.00	a	6323361.13	2283352.13	20.00	0.00
								6323406.58	2283334.27	20.00	0.00
								6323372.49	2283228.75	20.00	0.00
								6323317.30	2283249.86	20.00	0.00
BUILDING		BLDG10	x	0		20.00	a	6323270.22	2283158.95	20.00	0.00
								6323310.80	2283128.10	20.00	0.00
								6323255.61	2283038.82	20.00	0.00
								6323208.53	2283069.66	20.00	0.00
BUILDING		BLDG11	x	0		20.00	a	6323177.69	2283033.95	20.00	0.00
								6323211.78	2282991.74	20.00	0.00
								6323120.87	2282926.81	20.00	0.00
								6323091.65	2282965.77	20.00	0.00
BUILDING		BLDG12	x	0		20.00	a	6323356.26	2283105.38	20.00	0.00
								6323393.59	2283081.03	20.00	0.00

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
								6323333.53	2282982.00	20.00	0.00
								6323296.19	2283007.98	20.00	0.00
BUILDING		BLDG13	x	0		20.00	a	6323265.35	2282933.30	20.00	0.00
								6323314.05	2282879.73	20.00	0.00
								6323296.19	2282866.74	20.00	0.00
								6323305.93	2282858.63	20.00	0.00
								6323307.56	2282757.98	20.00	0.00
								6323106.26	2282757.98	20.00	0.00
								6323112.75	2282811.55	20.00	0.00
								6323215.03	2282884.60	20.00	0.00
								6323210.15	2282895.96	20.00	0.00

APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

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12398 - Beaumont Pointe

CadnaA Noise Prediction Model: 12398_15_Construction.cna
Date: 23.06.22
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	61.2	61.2	67.8	55.0	45.0	0.0				5.00	a	6318806.11	2292331.15	5.00
RECEIVERS		R2	62.3	62.3	68.9	55.0	45.0	0.0				5.00	a	6321134.99	2290808.09	5.00
RECEIVERS		R3	64.7	64.7	71.3	55.0	45.0	0.0				5.00	a	6323538.75	2288028.01	5.00
RECEIVERS		R4	68.7	68.7	75.4	55.0	45.0	0.0				5.00	a	6324208.60	2285233.27	5.00
RECEIVERS		R5	75.5	75.5	82.2	55.0	45.0	0.0				5.00	a	6322668.83	2282431.69	5.00
RECEIVERS		xBIO-1	74.4	74.4	81.1	0.0	0.0	0.0		x	Total	5.00	a	6315486.52	2289104.40	5.00
RECEIVERS		xBIO-2	75.2	75.2	81.8	0.0	0.0	0.0		x	Total	5.00	a	6317292.24	2288261.01	5.00
RECEIVERS		xBIO-3	77.7	77.7	84.4	0.0	0.0	0.0		x	Total	5.00	a	6317222.84	2286292.08	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
SITEBOUNDARY		SITEBOUNDARY00001	142.4	142.4	142.4	79.0	79.0	79.0	Lw"	79					8

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	8.00	a			6313356.36	2288514.52	8.00	0.00
					6315362.74	2288922.66	8.00	0.00
					6315532.04	2288939.05	8.00	0.00
					6315701.95	2288933.85	8.00	0.00

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
			6315869.86	2288907.05	8.00	0.00
			6316032.96	2288859.15	8.00	0.00
			6316188.66	2288790.84	8.00	0.00
			6316334.47	2288703.34	8.00	0.00
			6317974.42	2287587.41	8.00	0.00
			6318662.24	2287201.80	8.00	0.00
			6319222.36	2286971.29	8.00	0.00
			6320152.38	2286395.44	8.00	0.00
			6320146.12	2286501.03	8.00	0.00
			6321258.55	2285817.95	8.00	0.00
			6322134.25	2285280.24	8.00	0.00
			6323490.59	2284442.31	8.00	0.00
			6323668.60	2284254.31	8.00	0.00
			6323628.60	2284169.31	8.00	0.00
			6323653.60	2284152.31	8.00	0.00
			6323709.79	2284091.56	8.00	0.00
			6323748.20	2284076.50	8.00	0.00
			6323809.27	2284038.31	8.00	0.00
			6323808.23	2283814.49	8.00	0.00
			6323802.42	2282522.19	8.00	0.00
			6322527.01	2282524.31	8.00	0.00
			6322514.74	2282700.79	8.00	0.00
			6321870.89	2282690.98	8.00	0.00
			6321866.55	2282759.62	8.00	0.00
			6321231.53	2282760.23	8.00	0.00
			6321240.52	2283771.35	8.00	0.00
			6318670.64	2283728.18	8.00	0.00
			6318667.29	2285128.28	8.00	0.00
			6317313.41	2285137.40	8.00	0.00
			6317300.30	2286479.74	8.00	0.00
			6314685.22	2286514.56	8.00	0.00
			6314664.32	2287810.45	8.00	0.00
			6313381.18	2287837.03	8.00	0.00

APPENDIX 10.2:

NIGHTTIME CONCRETE POUR CALCULATIONS

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12398 - Beaumont Pointe

CadnaA Noise Prediction Model: 12398_18_Concrete.cna
Date: 16.11.22
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (RLS-90)	
Strictly acc. to RLS-90	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	26.8	26.8	33.5	55.0	45.0	0.0				5.00	a	6318806.11	2292331.15	5.00
RECEIVERS		R2	28.5	28.5	35.2	55.0	45.0	0.0				5.00	a	6321134.99	2290808.09	5.00
RECEIVERS		R3	33.9	33.9	40.5	55.0	45.0	0.0				5.00	a	6323538.75	2288028.01	5.00
RECEIVERS		R4	40.9	40.9	47.6	55.0	45.0	0.0				5.00	a	6324208.60	2285233.27	5.00
RECEIVERS		R5	45.4	45.4	52.0	55.0	45.0	0.0				5.00	a	6322668.83	2282431.69	5.00
RECEIVERS		xBIO-1	36.3	36.3	43.0	0.0	0.0	0.0		x	Total	5.00	a	6315486.52	2289104.40	5.00
RECEIVERS		xBIO-2	39.8	39.8	46.5	0.0	0.0	0.0		x	Total	5.00	a	6317292.24	2288261.01	5.00
RECEIVERS		xBIO-3	42.9	42.9	49.5	0.0	0.0	0.0		x	Total	5.00	a	6317222.84	2286292.08	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
CONCRETE		CONS01	100.3	100.3	100.3	48.9	48.9	48.9	Lw	100.3					8
CONCRETE		CONS02	100.3	100.3	100.3	52.1	52.1	52.1	Lw	100.3					8
CONCRETE		CONS03	100.3	100.3	100.3	51.7	51.7	51.7	Lw	100.3					8
CONCRETE		CONS04	100.3	100.3	100.3	50.1	50.1	50.1	Lw	100.3					8
CONCRETE		CONS05	100.3	100.3	100.3	48.4	48.4	48.4	Lw	100.3					8
CONCRETE		CONS06	100.3	100.3	100.3	69.2	69.2	69.2	Lw	100.3					8
CONCRETE		CONS07	100.3	100.3	100.3	72.6	72.6	72.6	Lw	100.3					8
CONCRETE		CONS08	100.3	100.3	100.3	72.8	72.8	72.8	Lw	100.3					8
CONCRETE		CONS09	100.3	100.3	100.3	73.0	73.0	73.0	Lw	100.3					8

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
CONCRETE		CONS10	100.3	100.3	100.3	73.1	73.1	73.1	Lw	100.3					8
CONCRETE		CONS11	100.3	100.3	100.3	67.0	67.0	67.0	Lw	100.3					8
CONCRETE		CONS12	100.3	100.3	100.3	57.6	57.6	57.6	Lw	100.3					8

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
CONCRETE	8.00	a			6315467.42	2288422.08	8.00	0.00
					6317150.69	2287591.34	8.00	0.00
					6316831.47	2286942.64	8.00	0.00
					6316803.17	2286870.87	8.00	0.00
					6315258.45	2287658.00	8.00	0.00
					6315123.84	2287724.67	8.00	0.00
CONCRETE	8.00	a			6317399.68	2287412.89	8.00	0.00
					6318383.47	2286868.65	8.00	0.00
					6318076.92	2286312.14	8.00	0.00
					6317091.24	2286858.27	8.00	0.00
CONCRETE	8.00	a			6318682.79	2286832.61	8.00	0.00
					6319289.87	2286462.32	8.00	0.00
					6318707.98	2285525.24	8.00	0.00
					6318102.16	2285899.32	8.00	0.00
CONCRETE	8.00	a			6319503.50	2286204.04	8.00	0.00
					6320839.09	2285605.03	8.00	0.00
					6320526.69	2284901.41	8.00	0.00
					6319189.67	2285503.29	8.00	0.00
CONCRETE	8.00	a			6321167.98	2285430.51	8.00	0.00
					6323063.72	2284270.89	8.00	0.00
					6322658.64	2283622.61	8.00	0.00
					6320775.04	2284796.04	8.00	0.00
CONCRETE	8.00	a			6323489.37	2283899.20	8.00	0.00
					6323601.39	2283697.90	8.00	0.00
					6323544.57	2283671.93	8.00	0.00
					6323435.80	2283874.85	8.00	0.00
CONCRETE	8.00	a			6323401.71	2283506.35	8.00	0.00
					6323452.04	2283488.49	8.00	0.00
					6323430.93	2283381.35	8.00	0.00
					6323374.11	2283391.09	8.00	0.00
CONCRETE	8.00	a			6323361.13	2283352.13	8.00	0.00
					6323406.58	2283334.27	8.00	0.00
					6323372.49	2283228.75	8.00	0.00
					6323317.30	2283249.86	8.00	0.00
CONCRETE	8.00	a			6323270.22	2283158.95	8.00	0.00
					6323310.80	2283128.10	8.00	0.00
					6323255.61	2283038.82	8.00	0.00
					6323208.53	2283069.66	8.00	0.00
CONCRETE	8.00	a			6323177.69	2283033.95	8.00	0.00
					6323211.78	2282991.74	8.00	0.00
					6323120.87	2282926.81	8.00	0.00
					6323091.65	2282965.77	8.00	0.00
CONCRETE	8.00	a			6323112.75	2282811.55	8.00	0.00
					6323215.03	2282884.60	8.00	0.00
					6323210.15	2282895.96	8.00	0.00
					6323265.35	2282933.30	8.00	0.00
					6323314.05	2282879.73	8.00	0.00
					6323296.19	2282866.74	8.00	0.00
					6323307.56	2282757.98	8.00	0.00
					6323106.26	2282757.98	8.00	0.00
CONCRETE	8.00	a			6323354.63	2282793.69	8.00	0.00
					6323353.01	2282892.72	8.00	0.00
					6323518.59	2283017.72	8.00	0.00
					6323546.19	2283017.72	8.00	0.00
					6323554.31	2283046.94	8.00	0.00
					6323563.51	2283077.71	8.00	0.00
					6323570.41	2283109.07	8.00	0.00
					6323574.96	2283140.87	8.00	0.00
					6323577.14	2283172.91	8.00	0.00
					6323576.95	2283205.03	8.00	0.00
					6323574.37	2283237.04	8.00	0.00
					6323569.42	2283268.77	8.00	0.00
					6323562.14	2283300.05	8.00	0.00
					6323552.55	2283330.71	8.00	0.00
					6323540.72	2283360.57	8.00	0.00
					6323526.71	2283389.47	8.00	0.00
					6323538.07	2283457.65	8.00	0.00
					6323562.42	2283459.27	8.00	0.00
					6323557.55	2283585.89	8.00	0.00
					6323752.36	2283582.65	8.00	0.00

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
					6323756.43	2282757.87	8.00	0.00
					6323450.41	2282759.60	8.00	0.00
					6323453.66	2282795.32	8.00	0.00

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APPENDIX 10.3:

BLASTING CALCULATIONS

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BLASTING INPUTS & CALCULATIONS

Scaled Distance

Source: ISEE's Blaster's Handbook, 2018 Edition.

Square Root Scaled Distance

$SD_2 = R / W^{1/2}$

R =	9384	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_2 = 1876.80 ft/lbs$^{1/2}$

Peak Particle Velocity

$PPV = A * (SD_2)^{-B}$

A =	160	**"Best Fit" 160 per blasting contractor guidance based on site conditions.**
SD_2 =	1876.80	*All blasts will be designed on-site by the blasting contractor to remain below 0.5 in/sec PPV*
B =	1.6	Slope of the line (note that the slope is **negative** in the equation)

PPV = 0.00 in/sec

Vibration Amplitude Equations For Various Blasting Industries

Industry	Metric Equations mm/sec.	U.S. Equations in./sec.	Confidence level	Source
General	$PPV = 1{,}140(SD_2)^{-1.6}$	$PPV = 160(SD_2)^{-1.6}$	Best Fit	DuPont
Construction	$PPV = 173(SD_2)^{-1.6}$	$PPV = 24.2(SD_2)^{-1.6}$	Lower Bound	Oriard
Construction	$PPV = 1{,}730(SD_2)^{-1.6}$	$PPV = 242(SD_2)^{-1.6}$	Upper Bound	Oriard (2005)
Construction	$PPV = 4{,}320(SD_2)^{-1.6}$	$PPV = 605(SD_2)^{-1.6}$	Upper Bound - High Confinement	Oriard (2005)
Construction	$PPV = 53(SD_2)^{-1.09}$	$PPV = 5(SD_2)^{-1.09}$	Best Fit	USBM RI 8507
Quarries	$PPV = 1{,}090(SD_2)^{-1.82}$	$PPV = 182(SD_2)^{-1.82}$	Best Fit	USBM Bulletin 656
Coal Mines	$PPV = 905(SD_2)^{-1.52}$	$PPV = 119(SD_2)^{-1.52}$	Best Fit	USBM RI 8507
Coal Mines	$PPV = 3{,}330(SD_2)^{-1.52}$	$PPV = 438(SD_2)^{-1.52}$	Upper bound	USBM RI 8507
Coal - Low Frequency sites	$PPV = 1{,}252(SD_2)^{-1.31}$	$PPV = 138(SD_2)^{-1.31}$	Best Fit	USBM RI 9226

Air Overpressure/Airblast

Cubed Root Scaled Distance

$SD_3 = R / W^{1/3}$

R =	9384	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_3 = 3209.28 ft/lbs$^{1/3}$

Air Overpressure Prediction

URBAN CROSSROADS

R1

$P = A * SD_3^{-B}$

A =	0.5	Partially confined.
SD_3 =	3209.28	
B =	1.1	Slope of the line (note that the slope is negative)

P = 0.0001 psi

Air Overpressure Prediction Equations

Blasting	Metric Equations mb	U.S. Equations psi	Statistical Type	Source
Open air (no confinement)	$P = 3589 \times SD_3^{-1.38}$	$P = 187 \times SD_3^{-1.38}$	Best Fit	Perkins
Coal mines (parting)	$P = 2596 \times SD_3^{-1.62}$	$P = 169 \times SD_3^{-1.62}$	Best Fit	USBM RI 8485
Coal mines (highwall)	$P = 5.37 \times SD_3^{-0.79}$	$P = 0.162 \times SD_3^{-0.79}$	Best Fit	USBM RI 8485
Quarry face	$P = 37.1 \times SD_3^{-0.97}$	$P = 1.32 \times SD_3^{-0.97}$	Best Fit	USBM RI 8485
Metal Mine	$P = 14.3 \times SD_3^{-0.71}$	$P = 0.401 \times SD_3^{-0.71}$	Best Fit	USBM RI 8485
Construction (average)	$P = 24.8 \times SD_3^{-1.1}$	$P = 1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Construction (highly confined)	$P = 2.48 \times SD_3^{-1.1}$	$P = 0.1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Buried (total confinement)	$P = 1.73 \times SD_3^{-0.96}$	$P = 0.061 \times SD_3^{-0.96}$	Best Fit	USBM RI 8485

Decibels (Linear)

$P_s = 20 * \log(P / P_0)$

P =	0.0001 psi	
P_0 =	2.9E-09 pascals	Reference value: $2.9 * 10^{-9}$ lbs/inch^2

P_s = 87.59 dB

URBAN CROSSROADS

BLASTING INPUTS & CALCULATIONS

Scaled Distance

Source: ISEE's Blaster's Handbook, 2018 Edition.

Square Root Scaled Distance

$SD_2 = R / W^{1/2}$

R =	7310	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_2 = 1462.00 ft/lbs$^{1/2}$

Peak Particle Velocity

$PPV = A * (SD_2)^{-B}$

A =	160	**"Best Fit" 160 per blasting contractor guidance based on site conditions.**
SD_2 =	1462.00	*All blasts will be designed on-site by the blasting contractor to remain below 0.5 in/sec PPV*
B =	1.6	Slope of the line (note that the slope is **negative** in the equation)

PPV = 0.00 in/sec

Vibration Amplitude Equations For Various Blasting Industries

Industry	Metric Equations mm/sec.	U.S. Equations in./sec.	Confidence level	Source
General	$PPV = 1{,}140(SD_2)^{-1.6}$	$PPV = 160(SD_2)^{-1.6}$	Best Fit	DuPont
Construction	$PPV = 173(SD_2)^{-1.6}$	$PPV = 24.2(SD_2)^{-1.6}$	Lower Bound	Oriard
Construction	$PPV = 1{,}730(SD_2)^{-1.6}$	$PPV = 242(SD_2)^{-1.6}$	Upper Bound	Oriard (2005)
Construction	$PPV = 4{,}320(SD_2)^{-1.6}$	$PPV = 605(SD_2)^{-1.6}$	Upper Bound - High Confinement	Oriard (2005)
Construction	$PPV = 53(SD_2)^{-1.09}$	$PPV = 5(SD_2)^{-1.09}$	Best Fit	USBM RI 8507
Quarries	$PPV = 1{,}090(SD_2)^{-1.82}$	$PPV = 182(SD_2)^{-1.82}$	Best Fit	USBM Bulletin 656
Coal Mines	$PPV = 905(SD_2)^{-1.52}$	$PPV = 119(SD_2)^{-1.52}$	Best Fit	USBM RI 8507
Coal Mines	$PPV = 3{,}330(SD_2)^{-1.52}$	$PPV = 438(SD_2)^{-1.52}$	Upper bound	USBM RI 8507
Coal - Low Frequency sites	$PPV = 1{,}252(SD_2)^{-1.31}$	$PPV = 138(SD_2)^{-1.31}$	Best Fit	USBM RI 9226

Air Overpressure/Airblast

Cubed Root Scaled Distance

$SD_3 = R / W^{1/3}$

R =	7310	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_3 = 2499.98 ft/lbs$^{1/3}$

Air Overpressure Prediction

URBAN CROSSROADS

R2

$P = A * SD_3^{-B}$

A =	0.5	Partially confined.
SD_3 =	2499.98	
B =	1.1	Slope of the line (note that the slope is negative)

P = 0.0001 psi

Air Overpressure Prediction Equations

Blasting	Metric Equations mb	U.S. Equations psi	Statistical Type	Source
Open air (no confinement)	$P = 3589 \times SD_3^{-1.38}$	$P = 187 \times SD_3^{-1.38}$	Best Fit	Perkins
Coal mines (parting)	$P = 2596 \times SD_3^{-1.62}$	$P = 169 \times SD_3^{-1.62}$	Best Fit	USBM RI 8485
Coal mines (highwall)	$P = 5.37 \times SD_3^{-0.79}$	$P = 0.162 \times SD_3^{-0.79}$	Best Fit	USBM RI 8485
Quarry face	$P = 37.1 \times SD_3^{-0.97}$	$P = 1.32 \times SD_3^{-0.97}$	Best Fit	USBM RI 8485
Metal Mine	$P = 14.3 \times SD_3^{-0.71}$	$P = 0.401 \times SD_3^{-0.71}$	Best Fit	USBM RI 8485
Construction (average)	$P = 24.8 \times SD_3^{-1.1}$	$P = 1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Construction (highly confined)	$P = 2.48 \times SD_3^{-1.1}$	$P = 0.1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Buried (total confinement)	$P = 1.73 \times SD_3^{-0.96}$	$P = 0.061 \times SD_3^{-0.96}$	Best Fit	USBM RI 8485

Decibels (Linear)

$P_s = 20 * \log(P / P_0)$

P =	0.0001 psi	
P_0 =	2.9E-09 pascals	Reference value: $2.9 * 10^{-9}$ lbs/inch^2

P_s = 89.98 dB

URBAN CROSSROADS

BLASTING INPUTS & CALCULATIONS

Scaled Distance

Source: ISEE's Blaster's Handbook, 2018 Edition.

Square Root Scaled Distance

$SD_2 = R / W^{1/2}$

R =	4422	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_2 = **884.40** ft/lbs$^{1/2}$

Peak Particle Velocity

$PPV = A * (SD_2)^{-B}$

A =	160	**"Best Fit" 160 per blasting contractor guidance based on site conditions.**
SD_2 =	884.40	*All blasts will be designed on-site by the blasting contractor to remain below 0.5 in/sec PPV*
B =	1.6	Slope of the line (note that the slope is **negative** in the equation)

PPV = **0.00** in/sec

Vibration Amplitude Equations For Various Blasting Industries

Industry	Metric Equations mm/sec.	U.S. Equations in./sec.	Confidence level	Source
General	$PPV = 1{,}140(SD_2)^{-1.6}$	$PPV = 160(SD_2)^{-1.6}$	Best Fit	DuPont
Construction	$PPV = 173(SD_2)^{-1.6}$	$PPV = 24.2(SD_2)^{-1.6}$	Lower Bound	Oriard
Construction	$PPV = 1{,}730(SD_2)^{-1.6}$	$PPV = 242(SD_2)^{-1.6}$	Upper Bound	Oriard (2005)
Construction	$PPV = 4{,}320(SD_2)^{-1.6}$	$PPV = 605(SD_2)^{-1.6}$	Upper Bound - High Confinement	Oriard (2005)
Construction	$PPV = 53(SD_2)^{-1.09}$	$PPV = 5(SD_2)^{-1.09}$	Best Fit	USBM RI 8507
Quarries	$PPV = 1{,}090(SD_2)^{-1.82}$	$PPV = 182(SD_2)^{-1.82}$	Best Fit	USBM Bulletin 656
Coal Mines	$PPV = 905(SD_2)^{-1.52}$	$PPV = 119(SD_2)^{-1.52}$	Best Fit	USBM RI 8507
Coal Mines	$PPV = 3{,}330(SD_2)^{-1.52}$	$PPV = 438(SD_2)^{-1.52}$	Upper bound	USBM RI 8507
Coal - Low Frequency sites	$PPV = 1{,}252(SD_2)^{-1.31}$	$PPV = 138(SD_2)^{-1.31}$	Best Fit	USBM RI 9226

Air Overpressure/Airblast

Cubed Root Scaled Distance

$SD_3 = R / W^{1/3}$

R =	4422	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_3 = **1512.30** ft/lbs$^{1/3}$

Air Overpressure Prediction

URBAN CROSSROADS

$P = A * SD_3^{-B}$

A =	0.5	Partially confined.
SD_3 =	1512.30	
B =	1.1	Slope of the line (note that the slope is negative)

P = 0.0002 psi

Air Overpressure Prediction Equations

Blasting	Metric Equations mb	U.S. Equations psi	Statistical Type	Source
Open air (no confinement)	$P = 3589 \times SD_3^{-1.38}$	$P = 187 \times SD_3^{-1.38}$	Best Fit	Perkins
Coal mines (parting)	$P = 2596 \times SD_3^{-1.62}$	$P = 169 \times SD_3^{-1.62}$	Best Fit	USBM RI 8485
Coal mines (highwall)	$P = 5.37 \times SD_3^{-0.79}$	$P = 0.162 \times SD_3^{-0.79}$	Best Fit	USBM RI 8485
Quarry face	$P = 37.1 \times SD_3^{-0.97}$	$P = 1.32 \times SD_3^{-0.97}$	Best Fit	USBM RI 8485
Metal Mine	$P = 14.3 \times SD_3^{-0.71}$	$P = 0.401 \times SD_3^{-0.71}$	Best Fit	USBM RI 8485
Construction (average)	$P = 24.8 \times SD_3^{-1.1}$	$P = 1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Construction (highly confined)	$P = 2.48 \times SD_3^{-1.1}$	$P = 0.1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Buried (total confinement)	$P = 1.73 \times SD_3^{-0.96}$	$P = 0.061 \times SD_3^{-0.96}$	Best Fit	USBM RI 8485

Decibels (Linear)

$P_s = 20 * \log(P / P_0)$

P =	0.0002 psi	
P_0 =	2.9E-09 pascals	Reference value: $2.9 * 10^{-9}$ lbs/inch^2

P_s = 94.78 dB

BLASTING INPUTS & CALCULATIONS

Scaled Distance

Source: ISEE's Blaster's Handbook, 2018 Edition.

Square Root Scaled Distance

$SD_2 = R / W^{1/2}$

R =	2254	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_2 = **450.80** ft/lbs$^{1/2}$

Peak Particle Velocity

$PPV = A * (SD_2)^{-B}$

A =	160	**"Best Fit" 160 per blasting contractor guidance based on site conditions.**
SD_2 =	450.80	*All blasts will be designed on-site by the blasting contractor to remain below 0.5 in/sec PPV*
B =	1.6	Slope of the line (note that the slope is **negative** in the equation)

PPV = **0.01** in/sec

Vibration Amplitude Equations For Various Blasting Industries

Industry	Metric Equations mm/sec.	U.S. Equations in./sec.	Confidence level	Source
General	$PPV = 1{,}140(SD_2)^{-1.6}$	$PPV = 160(SD_2)^{-1.6}$	Best Fit	DuPont
Construction	$PPV = 173(SD_2)^{-1.6}$	$PPV = 24.2(SD_2)^{-1.6}$	Lower Bound	Oriard
Construction	$PPV = 1{,}730(SD_2)^{-1.6}$	$PPV = 242(SD_2)^{-1.6}$	Upper Bound	Oriard (2005)
Construction	$PPV = 4{,}320(SD_2)^{-1.6}$	$PPV = 605(SD_2)^{-1.6}$	Upper Bound - High Confinement	Oriard (2005)
Construction	$PPV = 53(SD_2)^{-1.09}$	$PPV = 5(SD_2)^{-1.09}$	Best Fit	USBM RI 8507
Quarries	$PPV = 1{,}090(SD_2)^{-1.82}$	$PPV = 182(SD_2)^{-1.82}$	Best Fit	USBM Bulletin 656
Coal Mines	$PPV = 905(SD_2)^{-1.52}$	$PPV = 119(SD_2)^{-1.52}$	Best Fit	USBM RI 8507
Coal Mines	$PPV = 3{,}330(SD_2)^{-1.52}$	$PPV = 438(SD_2)^{-1.52}$	Upper bound	USBM RI 8507
Coal - Low Frequency sites	$PPV = 1{,}252(SD_2)^{-1.31}$	$PPV = 138(SD_2)^{-1.31}$	Best Fit	USBM RI 9226

Air Overpressure/Airblast

Cubed Root Scaled Distance

$SD_3 = R / W^{1/3}$

R =	2254	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_3 = **770.86** ft/lbs$^{1/3}$

Air Overpressure Prediction

URBAN CROSSROADS

R4

$P = A * SD_3^{-B}$

A =	0.5	Partially confined.
SD_3 =	770.86	
B =	1.1	Slope of the line (note that the slope is negative)

P = 0.0003 psi

Air Overpressure Prediction Equations

Blasting	Metric Equations mb	U.S. Equations psi	Statistical Type	Source
Open air (no confinement)	$P = 3589 \times SD_3^{-1.38}$	$P = 187 \times SD_3^{-1.38}$	Best Fit	Perkins
Coal mines (parting)	$P = 2596 \times SD_3^{-1.62}$	$P = 169 \times SD_3^{-1.62}$	Best Fit	USBM RI 8485
Coal mines (highwall)	$P = 5.37 \times SD_3^{-0.79}$	$P = 0.162 \times SD_3^{-0.79}$	Best Fit	USBM RI 8485
Quarry face	$P = 37.1 \times SD_3^{-0.97}$	$P = 1.32 \times SD_3^{-0.97}$	Best Fit	USBM RI 8485
Metal Mine	$P = 14.3 \times SD_3^{-0.71}$	$P = 0.401 \times SD_3^{-0.71}$	Best Fit	USBM RI 8485
Construction (average)	$P = 24.8 \times SD_3^{-1.1}$	$P = 1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Construction (highly confined)	$P = 2.48 \times SD_3^{-1.1}$	$P = 0.1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Buried (total confinement)	$P = 1.73 \times SD_3^{-0.96}$	$P = 0.061 \times SD_3^{-0.96}$	Best Fit	USBM RI 8485

Decibels (Linear)

$P_s = 20 * \log(P / P_0)$

P =	0.0003 psi	
P_0 =	2.9E-09 pascals	Reference value: $2.9 * 10^{-9}$ lbs/inch^2

P_s = 101.22 dB

BLASTING INPUTS & CALCULATIONS

Scaled Distance

Source: ISEE's Blaster's Handbook, 2018 Edition.

Square Root Scaled Distance

$SD_2 = R / W^{1/2}$

R =	796	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_2 = **159.20** ft/lbs$^{1/2}$

Peak Particle Velocity

$PPV = A * (SD_2)^{-B}$

A =	160	**"Best Fit" 160 per blasting contractor guidance based on site conditions.**
SD_2 =	159.20	*All blasts will be designed on-site by the blasting contractor to remain below 0.5 in/sec PPV*
B =	1.6	Slope of the line (note that the slope is **negative** in the equation)

PPV = **0.05** in/sec

Vibration Amplitude Equations For Various Blasting Industries

Industry	Metric Equations mm/sec.	U.S. Equations in./sec.	Confidence level	Source
General	$PPV = 1{,}140(SD_2)^{-1.6}$	$PPV = 160(SD_2)^{-1.6}$	Best Fit	DuPont
Construction	$PPV = 173(SD_2)^{-1.6}$	$PPV = 24.2(SD_2)^{-1.6}$	Lower Bound	Oriard
Construction	$PPV = 1{,}730(SD_2)^{-1.6}$	$PPV = 242(SD_2)^{-1.6}$	Upper Bound	Oriard (2005)
Construction	$PPV = 4{,}320(SD_2)^{-1.6}$	$PPV = 605(SD_2)^{-1.6}$	Upper Bound - High Confinement	Oriard (2005)
Construction	$PPV = 53(SD_2)^{-1.09}$	$PPV = 5(SD_2)^{-1.09}$	Best Fit	USBM RI 8507
Quarries	$PPV = 1{,}090(SD_2)^{-1.82}$	$PPV = 182(SD_2)^{-1.82}$	Best Fit	USBM Bulletin 656
Coal Mines	$PPV = 905(SD_2)^{-1.52}$	$PPV = 119(SD_2)^{-1.52}$	Best Fit	USBM RI 8507
Coal Mines	$PPV = 3{,}330(SD_2)^{-1.52}$	$PPV = 438(SD_2)^{-1.52}$	Upper bound	USBM RI 8507
Coal - Low Frequency sites	$PPV = 1{,}252(SD_2)^{-1.31}$	$PPV = 138(SD_2)^{-1.31}$	Best Fit	USBM RI 9226

Air Overpressure/Airblast

Cubed Root Scaled Distance

$SD_3 = R / W^{1/3}$

R =	796	feet	Distance from blast to a point of intereste (meters or feet)
W =	25	lbs	Maximum charge-weigh detonated within any 8-millisecond period (kilograms or pounds)

SD_3 = **272.23** ft/lbs$^{1/3}$

Air Overpressure Prediction

URBAN CROSSROADS

$P = A * SD_3^{-B}$

A =	0.5	Partially confined.
SD_3 =	272.23	
B =	1.1	Slope of the line (note that the slope is negative)

P = 0.0010 psi

Air Overpressure Prediction Equations

Blasting	Metric Equations mb	U.S. Equations psi	Statistical Type	Source
Open air (no confinement)	$P = 3589 \times SD_3^{-1.38}$	$P = 187 \times SD_3^{-1.38}$	Best Fit	Perkins
Coal mines (parting)	$P = 2596 \times SD_3^{-1.62}$	$P = 169 \times SD_3^{-1.62}$	Best Fit	USBM RI 8485
Coal mines (highwall)	$P = 5.37 \times SD_3^{-0.79}$	$P = 0.162 \times SD_3^{-0.79}$	Best Fit	USBM RI 8485
Quarry face	$P = 37.1 \times SD_3^{-0.97}$	$P = 1.32 \times SD_3^{-0.97}$	Best Fit	USBM RI 8485
Metal Mine	$P = 14.3 \times SD_3^{-0.71}$	$P = 0.401 \times SD_3^{-0.71}$	Best Fit	USBM RI 8485
Construction (average)	$P = 24.8 \times SD_3^{-1.1}$	$P = 1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Construction (highly confined)	$P = 2.48 \times SD_3^{-1.1}$	$P = 0.1 \times SD_3^{-1.1}$	Best Fit	Oriard (2005)
Buried (total confinement)	$P = 1.73 \times SD_3^{-0.96}$	$P = 0.061 \times SD_3^{-0.96}$	Best Fit	USBM RI 8485

Decibels (Linear)

$P_s = 20 * \log(P / P_0)$

P =	0.0010 psi	
P_0 =	2.9E-09 pascals	Reference value: $2.9 * 10^{-9}$ lbs/inch^2

P_s = 111.16 dB

Jack Rabbit Trail Specific Plan

TRAFFIC ANALYSIS

CITY OF BEAUMONT

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APRIL 5, 2022

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing Plus Project
HCM	Highway Capacity Manual
HCS	Highway Capacity Software
ITE	Institute of Transportation Engineers
LOS	Level of Service
NCHRP	National Cooperative Highway Research Program
PCE	Passenger Car Equivalent
PHF	Peak Hour Factor
Project	Jack Rabbit Trail Specific Plan
RCTC	Riverside County Transportation Commission
RivTAM	Riverside Transportation Analysis Model
RTA	Riverside Transit Agency
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategies
SHS	State Highway System
TA	Traffic Analysis
TUMF	Transportation Uniform Mitigation Fee
WRCOG	Western Riverside Council of Governments
V/C	Volume to Capacity

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1 INTRODUCTION

This report presents the results of the traffic analysis (TA) for the proposed Jack Rabbit Trail Specific Plan development ("Project"), which is located south of the SR-60 Freeway and west of Jack Rabbit Trail, in the City of Beaumont, as shown on Exhibit 1-1.

The purpose of this TA is to evaluate the potential deficiencies related to traffic, identify circulation system deficiencies that may result from the development of the proposed Project, and to recommend improvements to resolve identified deficiencies in order to achieve acceptable operational conditions at study area intersections. This TA has been prepared in accordance with the County of Riverside's Traffic Impact Analysis Preparation Guide (August 2008), the California Department of Transportation (Caltrans) Guide for the Preparation of Traffic Impact Studies, and through consultation with City of Beaumont staff during the scoping process. (1) (2) The Project traffic study scoping agreement is provided in Appendix 1.1 of this TA, which has been approved by the City of Beaumont.

1.1 SUMMARY OF FINDINGS

The Project is to construct the following improvements as design features in conjunction with development of the site:

Phase 1

- Project to construct 4th Street at its ultimate full-width as a Modified Secondary (78-foot right-of-way) from the western Project boundary to Jack Rabbit Trail consistent with the City's standards. Project to construct 4th Street with a minimum of one lane of travel in each direction from Jack Rabbit Trail to Potrero Boulevard to facilitate site access consistent with the City's standards.
- Project to install a traffic signal at the intersection of Jack Rabbit Trail & 4th Street.

Phase 2

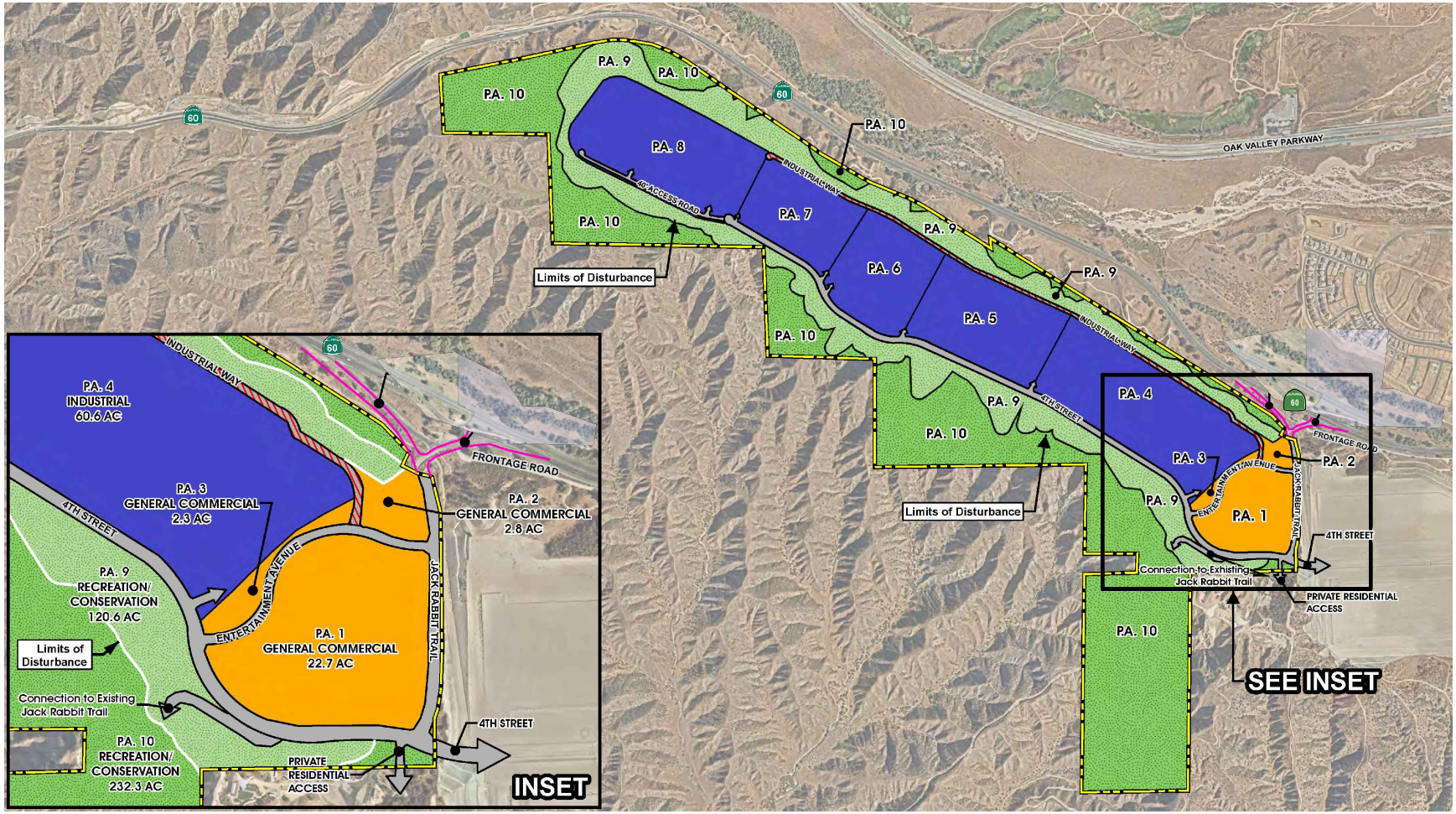
There are no additional site adjacent and site access improvements recommended for Phase 2.

Project Buildout

- Project to construct Jack Rabbit Trail at its ultimate full-width as a Modified Industrial Collector (78-foot right-of-way) from 4th Street to the SR-60 Freeway ramp consistent with the City's standards. It should be noted, the Project is proposing to construct Jack Rabbit Trail to provide access to Parcels 1 and 2 and to meet County of Riverside Fire Authority road requirements, not to provide primary Project access to the SR-60 Freeway.
- Project to construct Entertainment Avenue at its ultimate full-width as a Private Road (50-foot right-of-way) from 4th Street to Jack Rabbit Trail consistent with the City's standards.

Additional details and intersection lane geometrics are provided in Section 1.6 *Recommendations* of this report.

EXHIBIT 1-1: PRELIMINARY SITE PLAN



N

URBAN CROSSROADS

The proposed Project is not anticipated to require the construction of any off-site improvements, however, there are improvement needs identified at off-site intersections for future cumulative traffic analysis scenarios. As such, the Project Applicant's responsibility for the Project's contributions towards deficient off-site intersections is fulfilled through payment of fair share and/or payment into pre-existing fee programs (if applicable) that would be assigned to the future construction of the identified recommended improvements. The Project Applicant would be required to pay requisite fees and/or fair share contributions consistent with the City's requirements (see Section 10 *Local and Regional Funding Mechanisms*).

1.2 PROJECT OVERVIEW

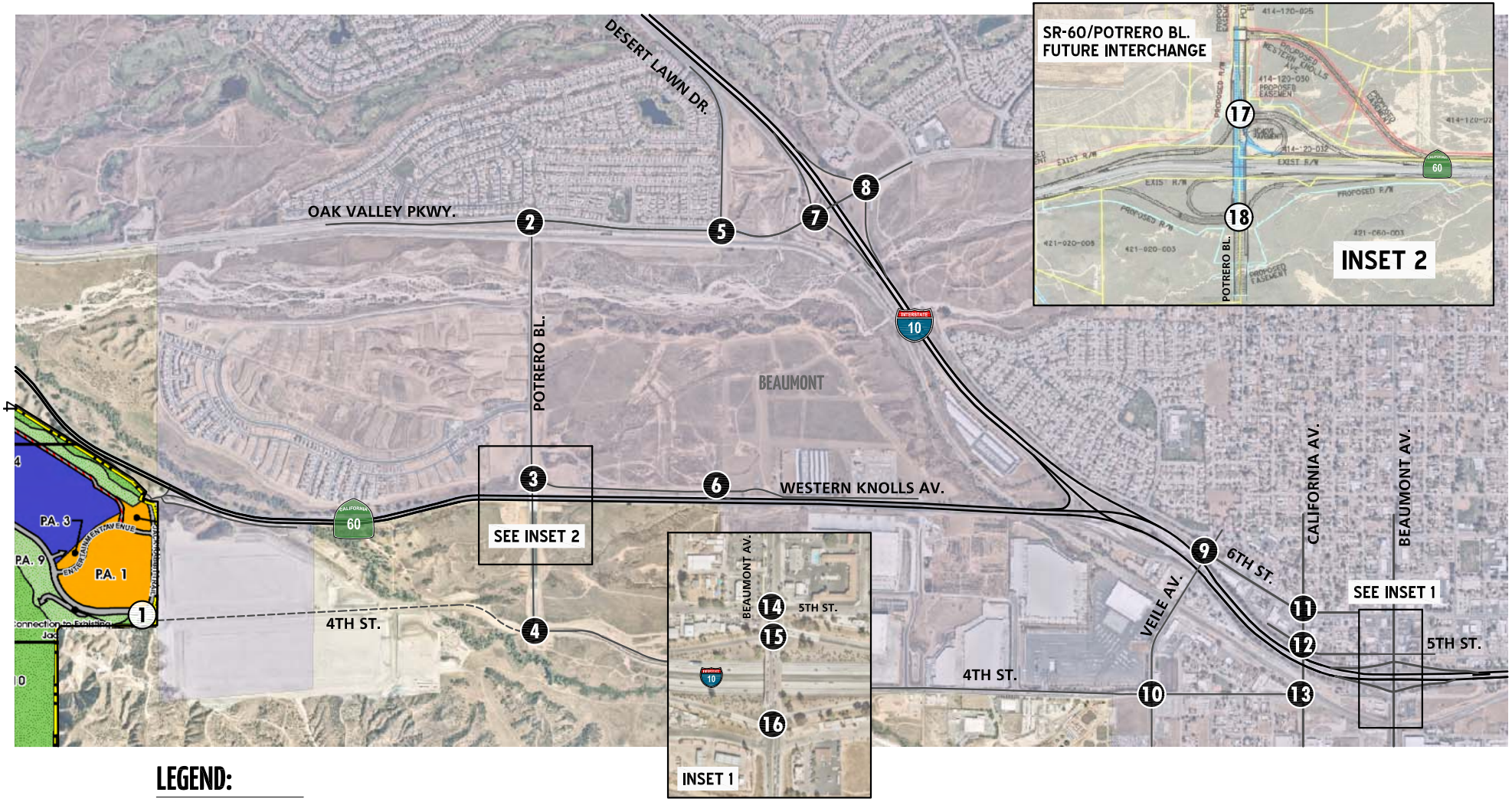
The Project is proposed to consist of 4,500,000 square feet of high-cube fulfillment center use and 500,000 square feet of general light industrial use. In addition, there is commercial component that includes a 125 room hotel, 77,000 square foot indoor go-kart facility, 26,000 square foot rock climbing facility, 24,000 square foot trampoline park, 40,000 square foot bowling alley, 36 hole miniature golf, 15,000 square feet of quality restaurant use, and 15,000 square feet of high turnover (sit-down) restaurant use. The Project is proposed to be developed in three phases as follows:

- Phase 1 = 1,379,191 square feet of high-cube fulfillment center warehouse use (Opening Year 2023)
- Phase 1 + Phase 2 = 4,500,000 square feet of high-cube fulfillment center warehouse use and 500,000 square feet of general light industrial use (Opening Year 2025)
- Project Buildout = 4,500,000 square feet of high-cube fulfillment center warehouse use, 500,000 square feet of general light industrial use, and all uses within the general commercial area (Opening Year 2027)

The preliminary land use plan for the proposed Project is shown on Exhibit 1-1. As indicated on Exhibit 1-1, access to the Project site will be provided via the future extension of 4th Street to Potrero Boulevard. No access to the SR-60 Freeway/Jack Rabbit Trail interchange is proposed (to be utilized as secondary emergency access only). Exhibit 1-2 depicts the location of the proposed Project in relation to the existing roadway network and the study area intersections. Interim regional access to the Project site is available from the SR-60 Freeway via the Western Knolls and I-10 Freeway via the Oak Valley Parkway and Beaumont Avenue interchanges. Once the Potrero Boulevard interchange is constructed, regional access to the Project site would be available from the SR-60 Freeway/Potrero Boulevard and I-10 Freeway/Oak Valley Parkway interchanges.

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017 and the High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019). (3) (4) The proposed Project is anticipated to generate a total of 16,266 trip-ends per day, 1,060 AM peak hour trips and 1,466 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

EXHIBIT 1-2: LOCATION MAP



LEGEND:

- (0) = EXISTING INTERSECTION ANALYSIS LOCATION
- (0) = FUTURE INTERSECTION ANALYSIS LOCATION

N

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2020) Conditions
- Existing plus Project (E+P) Conditions – Phase 1
- Existing plus Project (E+P) Conditions – Phase 1 + Phase 2
- Existing plus Project (E+P) Conditions – Project Buildout
- Opening Year Cumulative (2023) Without Project Conditions
- Opening Year Cumulative (2023) With Project (Phase1) Conditions
- Opening Year Cumulative (2025) Without Project Conditions
- Opening Year Cumulative (2025) With Project (Phase 1 + Phase 2) Conditions
- Opening Year Cumulative (2027) Without Project Conditions
- Opening Year Cumulative (2027) With Project (Project Buildout) Conditions
- Horizon Year (2045) Without Project Conditions
- Horizon Year (2045) With Project (Project Buildout) Conditions

1.3.1 EXISTING (2020) CONDITIONS

Information for Existing (2020) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.3.2 EXISTING PLUS PROJECT CONDITIONS

The Existing plus Project (E+P) analysis determines traffic deficiencies that would occur on the existing roadway system with the addition of Project traffic.

1.3.3 OPENING YEAR CUMULATIVE (2023, 2025, AND 2027) CONDITIONS

The Opening Year Cumulative (2023, 2025, and 2027) conditions analysis determines the potential near-term cumulative circulation system deficiencies. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth from Existing (2020) conditions of 6.12% is included for Opening Year Cumulative (2023) traffic conditions, 10.41% is included for Opening Year Cumulative (2025) traffic conditions, and 14.87% is included for Opening Year Cumulative (2027) traffic conditions. This comprehensive list was compiled from information provided by the City of Beaumont and is consistent with other recent studies in the study area.

1.4 STUDY AREA

To ensure that this TA satisfies the City of Beaumont's traffic study requirements, Urban Crossroads, Inc. prepared a Project traffic study scoping package for review by City of Beaumont staff prior to the preparation of this report. This agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology. The agreement approved by the City of Beaumont is included in Appendix 1.1 of this TA.

1.4.1 INTERSECTIONS

The 18 study area intersections shown on Exhibit 1-2 and listed in Table 1-1 were selected for evaluation in this TA based on consultation with City of Beaumont staff. The study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the County of Riverside's traffic study guidelines. (1) The "50 peak hour trip" criteria represents a minimum number of trips at which a typical intersection would have the potential to be substantively affected by a given development proposal. The 50 peak hour trip criterion is a traffic engineering rule of thumb that is accepted and widely used within Riverside County for estimating a potential area of influence (i.e., study area).

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
1	Jack Rabbit Tr. & 4th St. – Future Intersection	County of Riverside	No
2	Potrero Bl. & Oak Valley Pkwy.	City of Beaumont	No
3	Potrero Bl. & Western Knolls Av.	City of Beaumont	No
4	Potrero Bl. & 4th St.	County of Riverside	No
5	Desert Lawn Dr. & Oak Valley Pkwy.	City of Beaumont	No
6	SR-60 WB & Western Knolls Pkwy.	City of Beaumont, Caltrans	No
7	I-10 EB Ramps & Oak Valley Pkwy.	City of Beaumont, Caltrans	No
8	I-10 WB Ramps & Oak Valley Pkwy.	City of Beaumont, Caltrans	No
9	Veile Av. & I-10 WB On-ramp/6th St.	City of Beaumont	No
10	Veile Av. & 4th St.	City of Beaumont	No
11	California Av. & 6th St.	City of Beaumont	No
12	California Av. & 5th St.	City of Beaumont	No
13	California Av. & 4th St.	City of Beaumont	No
14	Beaumont Av. & 5th St.	City of Beaumont	No
15	Beaumont Av. & I-10 WB Ramps	City of Beaumont, Caltrans	No
16	Beaumont Av. & I-10 EB Ramps	City of Beaumont, Caltrans	No
17	Potrero Bl. & I-10 WB Ramps – Future Intersection	City of Beaumont, Caltrans	No
18	Potrero Bl. & I-10 EB Ramps – Future Intersection	City of Beaumont, Caltrans	No

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and updated most recently updated in 2011. The Riverside County Transportation Commission (RCTC) adopted the 2011 CMP for the County of Riverside in December 2011. (5) There are no study area intersections identified as a Riverside County CMP facility.

1.4.2 FREEWAY MAINLINE AND RAMP JUNCTION ANALYSIS

Study area freeway mainline analysis locations were selected based on Caltrans traffic study guidelines, which may require the analysis of State highway facilities. (2) Consistent with recent Caltrans guidance, and because deficiencies to freeway segments tend to dissipate with distance from the point of State Highway System (SHS) entry, quantitative study of freeway segments beyond those immediately adjacent to the point of entry typically is not required. This TA evaluates the following freeway facilities for interim conditions adjacent to the point of entry to the SHS at the I-10 Freeway at Oak Valley Parkway and Beaumont Avenue interchanges and the SR-60 Freeway at Western Knolls Avenue interchange (see Table 1-2):

TABLE 1-2: FREEWAY FACILITY ANALYSIS LOCATIONS FOR INTERIMCONDITIONS

ID	Freeway Facilities
1	I-10 Freeway Eastbound, West of Oak Valley Pkwy.
2	I-10 Freeway Eastbound, Off-Ramp at Oak Valley Pkwy.
3	I-10 Freeway Eastbound, On-Ramp at Beaumont Av.
4	I-10 Freeway Eastbound, East of Beaumont Av.
5	I-10 Freeway Westbound, West of Oak Valley Pkwy.
6	I-10 Freeway Westbound, On-Ramp at Oak Valley Pkwy.
7	I-10 Freeway Westbound, On-Ramp at Beaumont Av.
8	I-10 Freeway Westbound, West of Beaumont Av.
9	SR-60 Freeway Eastbound, West of I-10 Freeway
10	SR-60 Freeway Eastbound, Off-Ramp at 6th St.
11	SR-60 Freeway Westbound, East of Western Knolls Av.
12	SR-60 Freeway Westbound, Off-Ramp at Western Knolls Av.
13	SR-60 Freeway Westbound, On-Ramp at Western Knolls Av.
14	SR-60 Freeway Westbound, West of Western Knolls Av.

This study evaluates the following freeway facilities for ultimate conditions adjacent to the point of entry to the SHS at the I-10 Freeway at Oak Valley Parkway and Beaumont Avenue interchanges and the SR-60 Freeway at Potrero Boulevard interchange (see Table 1-2):

TABLE 1-3: FREEWAY FACILITY ANALYSIS LOCATIONS FOR ULTIMATE CONDITIONS

ID	Freeway Facilities
1	I-10 Freeway Eastbound, West of Oak Valley Pkwy.
2	I-10 Freeway Eastbound, Off-Ramp at Oak Valley Pkwy.
3	I-10 Freeway Westbound, West of Oak Valley Pkwy.
4	I-10 Freeway Westbound, On-Ramp at Oak Valley Pkwy.
5	SR-60 Freeway Eastbound, West of Potrero Bl.
6	SR-60 Freeway Eastbound, Off-Ramp at Potrero Bl. – Future Ramp
7	SR-60 Freeway Eastbound, On-Ramp at Potrero Bl. – Future Ramp

ID	Freeway Facilities
8	SR-60 Freeway Eastbound, East of Potrero Bl.
9	SR-60 Freeway Westbound, West of Potrero Bl.
10	SR-60 Freeway Westbound, Loop On-Ramp at Potrero Bl. – Future Ramp
11	SR-60 Freeway Westbound, Off-Ramp at Potrero Bl. – Future Ramp
12	SR-60 Freeway Westbound, East of Potrero Bl.

1.5 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 5 *E+P Traffic Conditions*, Section 6 *Opening Year Cumulative (2023) Traffic Conditions,* Section 7 *Opening Year Cumulative (2025) Traffic Conditions,* Section 8 *Opening Year Cumulative (2027) Traffic Conditions*, and Section 9 *Horizon Year (2045) Traffic Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented on Exhibit 1-3.

1.5.1 E+P (PHASE 1) CONDITIONS

Intersections

The following study area intersections are anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours with the addition of Phase 1 Project traffic, consistent with Existing (2020) traffic conditions:

- Desert Lawn Drive & Oak Valley Parkway (#5) – LOS F AM peak hour only
- California Avenue & 5th Street (#12) – LOS E AM peak hour only
- California Avenue & 4th Street (#13) – LOS E AM peak hour; LOS F PM peak hour
- Beaumont Avenue & I-10 Westbound Ramps (#15) – LOS F AM peak hour; LOS E PM peak hour
- Beaumont Avenue & I-10 Eastbound Ramps (#16) – LOS F AM peak hour; LOS E PM peak hour

Off-Ramp Queues

Consistent with Existing (2020) traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows.

Freeway Facilities

Consistent with Existing (2020) traffic conditions, the study area freeway segments and merge/diverge ramp junctions analyzed for this study are anticipated to continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours.

EXHIBIT 1-3: SUMMARY OF DEFICIENT INTERSECTIONS BY ANALYSIS SCENARIO

#	Intersection	Existing (2020)	E+P (Phase 1)	E+P (Phase 2)	E+P (Buildout)	Opening Year Cumulative(2023) Without Project	Opening Year Cumulative(2023) With Project	Opening Year Cumulative(2025) Without Project	Opening Year Cumulative(2025) With Project	Opening Year Cumulative(2027) Without Project	Opening Year Cumulative(2027) With Project	Horizon Year (2045) Without Project	Horizon Year (2045) With Project
1	Jack Rabbit Tr. & 4th St.	NA				NA		NA		NA		NA	
2	Potrero Bl. & Oak Valley Pkwy.												
3	Potrero Bl. & Western Knolls Av.												
4	Potrero Bl. & 4th St.												
5	Desert Lawn Dr. & Oak Valley Pkwy.												
6	SR-60 WB & Western Knolls Av.					NA	NA	NA	NA	NA	NA	NA	NA
7	I-10 EB Ramps & Oak Valley Pkwy.												
8	I-10 WB Ramps & Oak Valley Pkwy.												
9	Veile Av. & I-10 WB On-ramp/6th St.												
10	Veile Av. & 4th St.												
11	California Av. & 6th St.												
12	California Av. & 5th St.												
13	California Av. & 4th St.												
14	Beaumont Av. & 5th St.												
15	Beaumont Av. & I-10 WB Ramps					NA	NA	NA	NA	NA	NA	NA	NA
16	Beaumont Av. & I-10 EB Ramps					NA	NA	NA	NA	NA	NA	NA	NA
17	Potrero Bl. & I-10 WB Ramps	NA	NA	NA	NA								
18	Potrero Bl. & I-10 EB Ramps	NA	NA	NA	NA								

LEGEND:

- = AM PEAK HOUR
- = PM PEAK HOUR
- = LOS A-D
- = LOS E
- = LOS F
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

1.5.2 E+P (PHASE 2) CONDITIONS

Intersections

The following additional study area intersections are anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours with the addition of Phase 2 Project traffic:

- Potrero Boulevard & 4th Street (#4) – LOS F AM and PM peak hours
- I-10 Eastbound Ramps & Oak Valley Parkway (#7) – LOS E AM and PM peak hours
- Veile Avenue & 4th Street (#10) – LOS F PM peak hour only

Off-Ramp Queues

Consistent with Existing (2020) traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows.

Freeway Facilities

Consistent with Existing (2020) traffic conditions, the study area freeway segments and merge/diverge ramp junctions analyzed for this study are anticipated to continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours.

1.5.3 E+P (PROJECT BUILDOUT) CONDITIONS

Intersections

The following additional study area intersection is anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours with the addition of Project Buildout traffic, consistent with Existing (2020) traffic conditions:

- Potrero Boulevard & Western Knolls Avenue (#3) – LOS E AM peak hour; LOS F PM peak hour

Off-Ramp Queues

Consistent with Existing (2020) traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows.

Freeway Facilities

Consistent with Existing (2020) traffic conditions, the study area freeway segments and merge/diverge ramp junctions analyzed for this study are anticipated to continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours.

1.5.4 OPENING YEAR CUMULATIVE (2023, 2025, AND 2027) AND HORIZON YEAR (2045) CONDITIONS

A summary of the deficiencies for each subsequent scenario is provided in Section 6 *Opening Year Cumulative (2023) Traffic Conditions,* Section 7 *Opening Year Cumulative (2025) Traffic Conditions,* Section 8 *Opening Year Cumulative (2027) Traffic Conditions*, and Section 9 *Horizon Year (2045) Traffic Conditions*.

1.6 RECOMMENDATIONS

1.6.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the minimum improvements needed to accommodate site access and maintain acceptable peak hour operations. The site adjacent recommendations for Phase 1 and Project Buildout are shown on Exhibits 1-4 and 1-5, respectively.

Phase 1

Recommendation 1 – Jack Rabbit Trail & 4th Street (#1) – The following improvements are necessary to accommodate site access:

- Project to install a traffic signal.
- Project to construct a southbound left turn lane with a minimum of 200-feet of storage and a right turn lane.
- Project to construct an eastbound left turn lane with a minimum of 100-feet of storage and a through lane.
- Project to construct a westbound through lane and a right turn lane with a minimum of 100-feet of storage.

Recommendation 2 – Potrero Boulevard & 4th Street (#1) – The following improvements are necessary to accommodate site access:

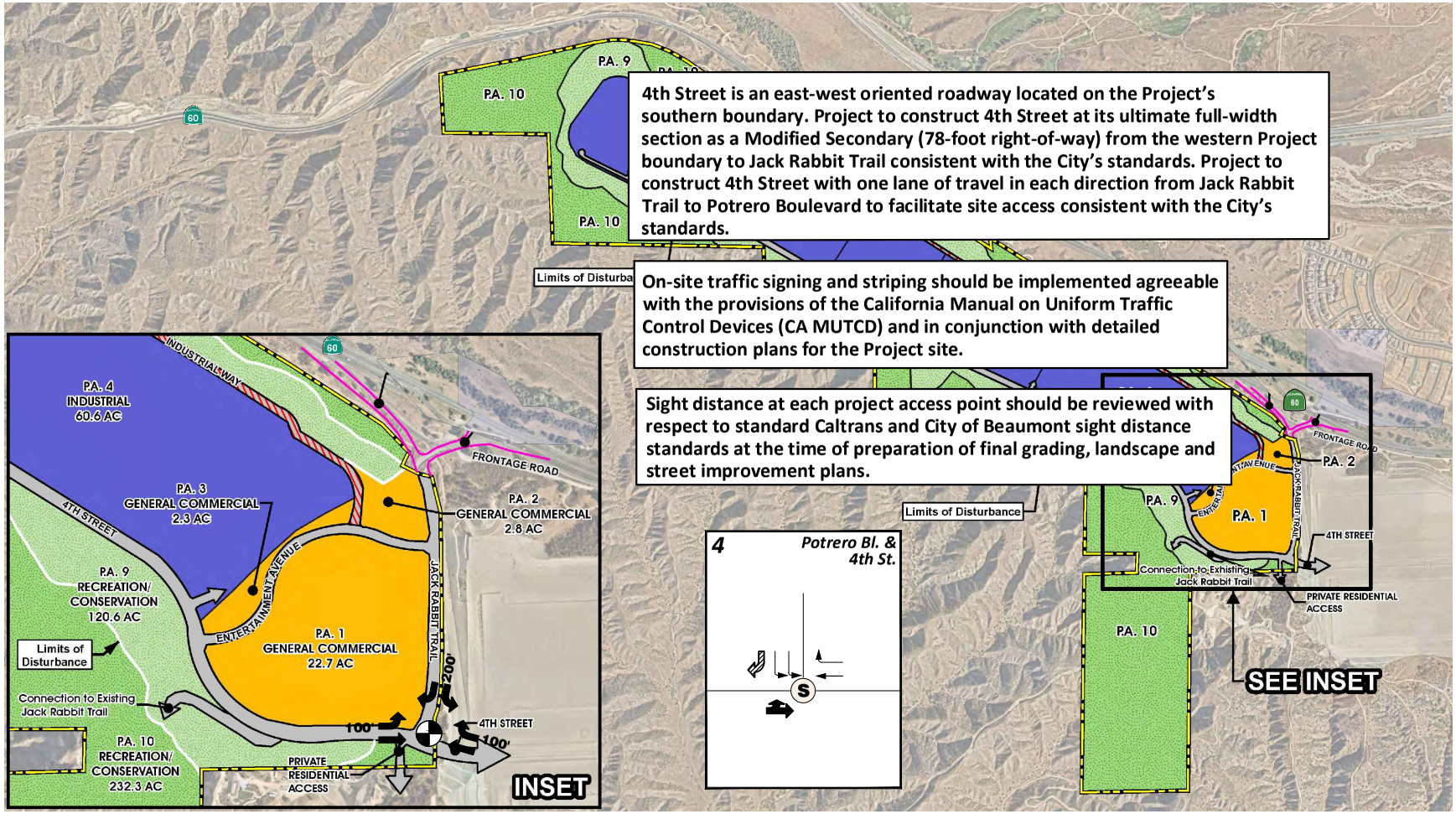
- Project to construct an eastbound shared left-through lane.
- Project to stripe the southbound right turn lane.

Recommendation 3 – 4th Street is an east-west oriented roadway located on the Project's southern boundary. Project to construct 4th Street at its ultimate full-width as a Modified Secondary (78-foot right-of-way) from the western Project boundary to Jack Rabbit Trail consistent with the City's standards. Project to construct 4th Street with a minimum of one lane of travel in each direction from Jack Rabbit Trail to Potrero Boulevard to facilitate site access consistent with the City's standards.

Phase 2

There are no site adjacent and site access improvements recommended for Phase 2.

EXHIBIT 1-4: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS FOR PHASE 1



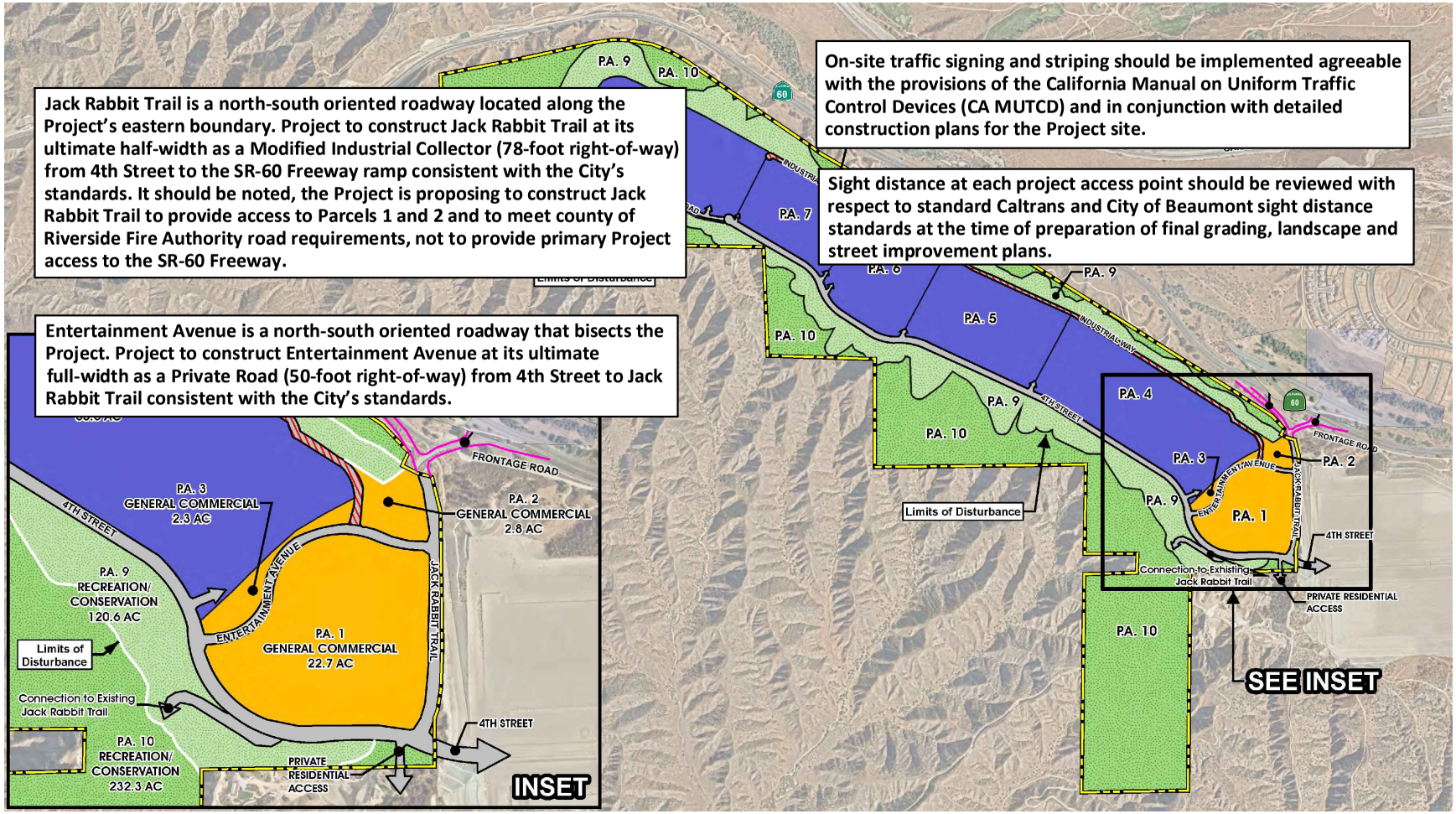
LEGEND:

- = NEW TRAFFIC SIGNAL
- = EXISTING LANE
- = LANE IMPROVEMENT
- = RESTRIPE ONLY
- 150' = MINIMUM TURN POCKET LENGTH

N

12396 - recs.dwg

EXHIBIT 1-5: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS FOR PROJECT BUILDOUT



Project Buildout

Recommendation 4 – Jack Rabbit Trail is a north-south oriented roadway located along the Project's eastern boundary. Project to construct Jack Rabbit Trail at its ultimate full-width as a Modified Industrial Collector (78-foot right-of-way) from 4th Street to the SR-60 Freeway ramp consistent with the City's standards. It should be noted, the Project is proposing to construct Jack Rabbit Trail to provide access to Parcels 1 and 2 and to meet County of Riverside Fire Authority road requirements, not to provide primary Project access to the SR-60 Freeway.

Recommendation 5 – Entertainment Avenue is a north-south oriented roadway that bisects the Project. Project to construct Entertainment Avenue at its ultimate full-width as a Private Road (50-foot right-of-way) from 4th Street to Jack Rabbit Trail consistent with the City's standards.

On-site traffic signing and striping should be implemented agreeable with the provisions of the CA MUTCD and in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Beaumont sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

1.6.2 OFF-SITE RECOMMENDATIONS

The recommended improvements needed to address the cumulative deficiencies identified under Existing (2020), E+P (Phase 1, Phase 2, and Buildout), Opening Year Cumulative (2023), Opening Year Cumulative (2025), Opening Year Cumulative (2027), and Horizon Year (2045) traffic conditions are shown in Table 1-4. For those improvements listed in Table 1-4 and not constructed as part of the Project, the Project Applicant's responsibility for the Project's contributions towards deficient intersections is fulfilled through payment of fair share and/or Transportation Uniform Mitigation Fee (TUMF)/Development Impact Fee (DIF) program fees (if applicable) that would be assigned to construction of the identified recommended improvements. Preliminary cost estimates and fee assessments for these improvements are summarized in Table 1-4. The Project Applicant would be required to pay TUMF/DIF and/or fair share fees consistent with the City's requirements (see Section 10 *Local and Regional Funding Mechanisms*).

Table 1-4

Summary of Improvements by Analysis Scenario

#	Intersection Location	Jurisdiction	Existing (2020)	E+P (Phase 1)	E+P (Phase 2)	E+P (Buildout)	2023 Without Project	2023 With Project	2025 Without Project	2025 With Project	2027 Without Project	2027 With Project	Horizon Year (2045) Without Project	Horizon Year (2045) With Project	Improvements in County TUMF/DIF?[1]	Project Responsibility[2]	Phase 1 Fair Share %[3]	Phase 2 Fair Share %[3]	Buildout Fair Share %[3]	Horizon Year Fair Share %[3]
2	Potrero Bl. & Oak Valley Pkwy.	Beaumont	None	None	None	None	None	None	None	None	Install a Traffic Signal	Same	Same	Same	No	Fair Share	--	--	28.6%	10.4%
													Add 2nd NB left turn lane	Same	No	Fair Share				
													Add 2nd WB left turn lane	Same	No	Fair Share				
													Add 3rd WB through lane	Same	No	Fair Share				
3	Potrero Bl. & Western Knolls Av.	Beaumont	None	None	None	Remove the stop control on the NB and SB approaches, converting the intersection to a cross-street stop control	None	None	None	None	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	No	Fair Share	--	--	28.6%	10.4%
						Add 2nd NB through lane					Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Yes (TUMF)	Fees				
						Add SB left turn lane					Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	No	Fair Share				
						Add 2nd SB through lane					Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Yes (TUMF)	Fees				
													Add 3rd NB through lane	Same	No	Fair Share				
													Add 3rd SB through lane	Same	No	Fair Share				
4	Potrero Bl. & 4th St.	County of Riverside	None	None	Install a Traffic Signal	Same	None	None	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	No	Fair Share	--	52.5%	46.1%	25.5%
					Add 2nd EB left turn lane	Same			Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	No	Fair Share				
					Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same			Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	Same as E+P (Buildout)	No	Fair Share				
5	Desert Lawn Dr. & Oak Valley Pkwy.	Beaumont	Install a Traffic Signal	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	No	Fair Share	9.6%	--	20.6%	6.0%
											Add 2nd EB through lane	Same	Same	Same	No	Fair Share				
													Add 2nd SB left turn lane	Same	No	Fair Share				
													Add 3rd EB through lane	Same	No	Fair Share				
													Add WB right turn lane	Same	No	Fair Share				
													Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same	No	Fair Share				
7	I-10 EB Ramps & Oak Valley Pkwy.	Beaumont, Caltrans	None	None	Add SB left turn lane	Same	Same	Same	Same	Same	Same	Same	Same	Same	No	Fair Share	--	20.2%	15.3%	5.2%
					Add EB right turn lane	Same	Same	Same	Same	Same	Same	Same	Same	Same	No	Fair Share				
									Add 2nd EB through lane	Same	Same	Same	Same	Same	No	Fair Share				
											Add 2nd SB left turn lane	Same	Same	Same	No	Fair Share				
											Add 2nd WB through lane	Same	Same	Same	No	Fair Share				
													Add 3rd EB through lane	Same	No	Fair Share				
													Add 3rd WB through lane	Same	No	Fair Share				
													Add SB right turn lane	Same	No	Fair Share				
8	I-10 WB Ramps & Oak Valley Pkwy.	Beaumont, Caltrans	None	None	None	None	None	None	Add NB left turn lane	Same	Same	Same	Same	Same	No	Fair Share	--	14.6%	10.5%	3.4%
											Add 2nd EB through lane	Same	Same	Same	No	Fair Share				
											Add 2nd WB through lane	Same	Same	Same	Yes (TUMF)	Fees				
													Add 2nd EB left turn lane	Same	No	Fair Share				
													Add 3rd EB through lane	Same	No	Fair Share				
													Add 3rd WB through lane	Same	No	Fair Share				
													Add WB right turn lane	Same	No	Fair Share				
9	Veile Av. & I-10 WB On-ramp/6th St.	Beaumont	None	None	None	None	None	None	Add 2nd WB through lane	Same	Same	Same	Same	Same	No	Fair Share	--	22.2%	--	--
10	Veile Av. & 4th St.	Beaumont	None	None	Install a Traffic Signal[4]	Same	Same	Same	Same	Same	Same	Same	Same	Same	No	Fair Share	9.0%	--	--	--
11	California Av. & 6th St.	Beaumont	None	None	None	None	None	None	None	None	Restripe the EB approach to provide one left turn lane, one through lane, and one shared through-right turn lane	Same	Same	Same	No	Fair Share	--	--	8.7%	--
											Restripe the WB approach to provide one left turn lane, one through lane, and one shared through-right turn lane	Same	Same	Same	No	Fair Share				
12	California Av. & 5th St.	Beaumont	Install a Traffic Signal	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	No	Fair Share	7.5%	--	--	--
13	California Av. & 4th St.	Beaumont	Install a Traffic Signal	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	Same	No	Fair Share	8.1%	23.7%	17.2%	--
									Add SB right turn lane	Same	Same	Same	Same	Same	No	Fair Share				
											Add 2nd NB through lane	Same	Same	Same	No	Fair Share				
											Add 2nd SB through lane	Same	Same	Same	No	Fair Share				
											Modify the traffic signal to implement overlap phasing for the SB right turn lane	Same	Same	Same	No	Fair Share				

Table 1-4
Page 2 of 2

Summary of Improvements by Analysis Scenario

#	Intersection Location	Jurisdiction	Existing (2020)	E+P (Phase 1)	E+P (Phase 2)	E+P (Buildout)	2023 Without Project	2023 With Project	2025 Without Project	2025 With Project	2027 Without Project	2027 With Project	Horizon Year (2045) Without Project	Horizon Year (2045) With Project	Improvements in County TUMF/DIF?[1]	Project Responsibility[2]	Phase 1 Fair Share %[3]	Phase 2 Fair Share %[3]	Buildout Fair Share %[3]	Horizon Year Fair Share %[3]
15	Beaumont Av. & I-10 WB Ramps	Beaumont, Caltrans	Modify the traffic signal to implement a 120-second cycle length	Same	Same	Same	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	No	Fair Share[7]	3.2%	--	--	--
16	Beaumont Av. & I-10 EB Ramps	Beaumont, Caltrans	Modify the traffic signal to implement a 120-second cycle length	Same	Same	Same	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	Not Evaluated[6]	No	Fair Share[7]	1.7%	--	--	--
17	Potrero Bl. & I-10 WB Ramps	Beaumont, Caltrans	Does Not Exist	Does Not Exist	Does Not Exist	Does Not Exist	Install a Traffic Signal[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees	--	--	--	--
							Add NB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add 2nd NB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add 3rd NB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add NB free right turn lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add SB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add 2nd SB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add 3rd SB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add dual free SB right turn lanes[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add dual WB left turn lanes[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add dual WB right turn lanes[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
18	Potrero Bl. & I-10 EB Ramps	County of Riverside, Caltrans	Does Not Exist	Does Not Exist	Does Not Exist	Does Not Exist	Install a Traffic Signal[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees	--	--	--	--
							Add NB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add 2nd NB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add 3rd NB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add dual right turn lanes[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add SB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add 2nd SB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add 3rd SB through lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add free SB right turn lane[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add dual EB left turn lanes[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				
							Add dual EB right turn lanes[5]	Same	Same	Same	Same	Same	Same	Same	Yes (TUMF)	Fees				

[1] Improvements included in TUMF Nexus, or City of Beaumont DIF fee programs.
[2] Identifies the Project's responsibility to construct an improvement or contribute fair share towards the implementation of the improvements shown.
[3] Program improvements constructed by project may be eligible for fee credit, at discretion of City. See Table 10-1 for fair share calculations.
[4] Traffic signal heads are currently installed at this location, but not operational as of January 28, 2020.
[5] Improvement is consistent with the SR-60 Freeway/Potrero Boulevard interchange improvement project.
[6] The proposed Project is not anticipated to contribute any trips to this intersection during the peak hours for this scenario. As such, intersection operations were not evaluated.
[7] Since the Project is not anticipated to contribute any trips to this intersection once the future SR-60 Freeway/Potrero interchange is in place, fair share has been calculated for near-term conditions based on Existing and E+P (Buildout) volumes. See Table 10-1 for fair share calculations.

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. Since the City of Beaumont does not have their own traffic study guidelines, the methodologies described are generally consistent with the County of Riverside and Caltrans traffic study guidelines. (1) (2)

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (6) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Beaumont and County of Riverside require signalized intersection operations analysis based on the methodology described in the HCM (6th Edition). Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections, LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. Study area intersections have been evaluated using the Synchro (Version 10) analysis software package.

The traffic modeling and signal timing optimization software package Synchro (Version 10) is utilized to analyze signalized intersections within the City of Beaumont. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM, 6th Edition

A saturation flow rate of 1900 has been utilized for all study area intersections located within the City of Beaumont and County of Riverside. The peak hour traffic volumes are adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (6)

California Department of Transportation (Caltrans)

Per the Caltrans Guide for the Preparation of Traffic Impact Studies, the traffic modeling and signal timing optimization software package Synchro (Version 10) has also been utilized to analyze signalized intersections under Caltrans' jurisdiction, which include interchange to arterial ramps (i.e. I-10 Freeway ramps at Oak Valley Parkway and Beaumont Avenue and SR-60 Freeway ramps at Western Knolls Avenue and Potrero Boulevard). (2) Signal timing for the freeway arterial-to-ramp intersections have been obtained from Caltrans District 8 and were utilized for the purposes of this analysis.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Beaumont and County of Riverside require the operations of unsignalized intersections be evaluated using the methodology described the HCM. (6) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM, 6th Edition

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. Per the HCM, the highest delay and associated LOS on the minor approach is reported for two-way stop-controlled intersections. For all-way stop controlled intersections, LOS is computed for the intersection as a whole and the average delay is reported (similar to signalized intersections).

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by the Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices *(CA MUTCD)*. (7)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The Caltrans CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (7) Specifically, this TA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 is appropriate to use for this TA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Traffic signal warrant analyses were performed for the following unsignalized study area intersection shown in Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
1	Jack Rabbit Tr. & 4th St. – Future Intersection	County of Riverside
2	Potrero Bl. & Oak Valley Pkwy.	Beaumont
3	Potrero Bl. & Western Knolls Av.	Beaumont
4	Potrero Bl. & 4th St.	County of Riverside
5	Desert Lawn Dr. & Oak Valley Pkwy.	Beaumont
10	Veile Av. & 4th St.	Beaumont
12	California Av. & 5th St.	Beaumont
13	California Av. & 4th St.	Beaumont

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *E+P Traffic Conditions,* Section 6 *Opening Year Cumulative (2023) Traffic Conditions,* Section 7 *Opening Year Cumulative (2025) Traffic Conditions,* Section 8 *Opening Year Cumulative (2027) Traffic Conditions,* and Section 9 *Horizon Year (2045) Traffic Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 FREEWAY OFF-RAMP QUEUING ANALYSIS

Consistent with Caltrans requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing deficiencies at the freeway ramp intersections at the I-10 Freeway at Oak Valley Parkway and Beaumont Avenue interchanges and at the SR-60 Freeway at Potrero Boulevard (future traffic conditions only). Specifically, the queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-10 or SR-60 Freeway mainline from the off-ramps.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential deficiencies/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The footnote from the Synchro output sheets indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely

be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed it is simply based on statistical calculations.

2.5 FREEWAY MAINLINE SEGMENT ANALYSIS METHODOLOGY

Consistent with recent Caltrans guidance, the TA has evaluated freeway segments where the Project is anticipated to contribute 50 or more peak hour one-way trips, in an effort to conduct a conservative analysis and overstate as opposed to understand potential deficiencies.

The freeway system in the study area has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway segments have been evaluated in this TA based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in the HCM and performed using Highway Capacity Software (HCS) 7. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 2-4 illustrates the freeway segment LOS descriptions for each density range utilized for this analysis.

TABLE 2-4: DESCRIPTION OF FREEWAY MAINLINE LOS

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM, 6th Edition

The number of lanes for existing baseline conditions has been obtained from field observations conducted by Urban Crossroads in January 2020. These existing freeway geometrics have been utilized for Existing, E+P (Phases 1, 2, and Buildout), Opening Year Cumulative (2023), Opening Year Cumulative (2025), Opening Year Cumulative (2027), and Horizon Year (2045) conditions.

The I-10 and SR-60 Freeway mainline volume data was obtained from the Caltrans Performance Measurement System (PeMS) website for the segments of the I-10 Freeway interchanges at Oak Valley Parkway and Beaumont Avenue, and the SR-60 Freeway at Western Knolls Avenue. The data was obtained from November 2019. In an effort to conduct a conservative analysis, the maximum value observed within the 3-day period was utilized for the weekday morning (AM) and weekday evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic and actual vehicles (as opposed to Passenger Car Equivalent (PCE) volumes) have been utilized for the purposes of the basic freeway segment analysis. (8)

2.6 FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS

The freeway system in the study area has been broken into segments defined by freeway-to-arterial interchange locations where the Project is anticipated to contribute 50 or more peak hour trips (see Table 1-2) at the I-10 Freeway at Oak Valley Parkway and Beaumont Avenue interchanges and the SR-60 Freeway at Western Knolls Avenue (Existing and E+P conditions only) and Potrero Boulevard (future traffic conditions only) interchanges. Although the HCM indicates the influence area for a merge/diverge junction is 1,500 feet, the analysis presented in this TA has been performed at all ramp locations with respect to the nearest on or off ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects Urban Crossroads has worked on in the region.

The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS7 software. The measure of effectiveness (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on and off ramps both at the analysis junction and at upstream and downstream locations (if applicable) and acceleration/deceleration lengths at each merge/diverge point. Table 2-5 presents the merge/diverge area level of service descriptions for each density range utilized for this analysis.

TABLE 2-5: DESCRIPTION OF FREEWAY MERGE AND DIVERGE LOS

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM, 6th Edition

Similar to the basic freeway segment analysis, the I-10 Freeway mainline volume data were obtained from the Caltrans maintained PeMS website for the segments of the I-10 Freeway interchanges at Oak Valley Parkway and Beaumont Avenue, and the SR-60 Freeway at Western Knolls Avenue. The ramp data (per the count data presented in Appendix 3.1) were then utilized to flow conserve the mainline volumes to determine the remaining I-10 Freeway and SR-60

Freeway mainline segment volumes. Flow conservation checks ensure that traffic flows from north to south (and vice versa) of the interchange area with no unexplained loss of vehicles. The data was obtained from November 2019. In an effort to conduct a conservative analysis, the maximum value observed within the 3-day period was utilized for the weekday morning (AM) and weekday evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic and actual vehicles (as opposed to PCE volumes) have been utilized for the purposes of the freeway ramp junction (merge/diverge) analysis. (8)

2.7 MINIMUM LEVEL OF SERVICE (LOS)

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions.

2.7.1 CITY OF BEAUMONT

The City of Beaumont has established LOS D as the minimum level of service for all roadways/intersections within the City (Policy 10 of the General Plan Circulation Element). Therefore, any intersection operating at LOS E or F will be considered deficient for the purposes of this analysis.

2.7.2 COUNTY OF RIVERSIDE

The definition of an intersection deficiency has been obtained from the County of Riverside General Plan. Riverside County General Plan Policy C 2.1 states that the County will maintain the following County-wide target LOS:

The following minimum target levels of service have been designated for the review of development proposals in the unincorporated areas of Riverside County with respect to transportation deficiencies on roadways designated in the Riverside County Circulation Plan which are currently County maintained, or are intended to be accepted into the County maintained roadway system:

- *LOS C shall apply to all development proposals in any area of the Riverside County not located within the boundaries of an Area Plan, as well as those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center, Palo Verde Valley, and those non-Community Development areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.*
- *LOS D shall apply to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.*
- *LOS E may be allowed by the Board of Supervisors within designated areas where transit-oriented development and walkable communities are proposed.*

The applicable minimum LOS utilized for the purposes of this analysis is LOS D per the County-wide target LOS for projects located within the Pass area plan.

2.7.3 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on SHS facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. Consistent with the City of Beaumont minimum LOS of LOS D, LOS D will be used as the target LOS for both arterial-to-freeway ramps and freeway mainline segments and ramp junctions.

2.8 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

2.8.1 INTERSECTIONS

To determine whether the addition of project traffic at a study intersection results in a direct project-related deficiency, the following thresholds will be utilized:

- A project-related traffic deficiency occurs at a study intersection if the addition of project-generated trips reduces the peak hour level of service of the study intersection to change from acceptable level of service (LOS A, B, C or D) to an unacceptable level of service (LOS E or F);
- A cumulative traffic deficiency occurs at a study intersection if the Project contributes peak hour trips to an intersection that is anticipated to operate at a deficient LOS without the Project (LOS E or F).

2.8.2 CALTRANS

To determine whether the addition of project traffic to the SHS freeway segments would result in a deficiency, the following will be utilized:

- The TA finds that the LOS of a segment will degrade from D or better to E or F.

The TA finds that a project will exacerbate an already deficient condition if it contributes 50 or more one-way peak hour trips. A segment that is operating at or near capacity is deemed to be deficient.

2.9 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the TUMF and/or DIF will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share contribution based on the Project's proportional share may be imposed in order to address the Project's share of deficiencies in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the City Traffic Engineer will determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval).

The Project's fair share contribution is determined based on the following equations, which are the ratio of Project traffic to net new traffic for each applicable phase (where net new traffic is the future traffic less existing traffic):

For Opening Year Cumulative (2023, 2025, 2027) traffic conditions:

Project Fair Share % = Project Phase 1, Phase 2, or Phase 3 Traffic / (2023, 2025, and 2027 Total Traffic – Existing Traffic)

or;

For Horizon Year (2045) traffic conditions:

Project Fair Share % = Project Buildout Traffic / (2045 Total Traffic – Existing Traffic)

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3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Beaumont General Plan Circulation Network, and a review of existing peak hour intersection operations, traffic signal warrant, off-ramp queuing, and freeway facility analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the scoping agreement with City of Beaumont staff (Appendix 1.1), the study area includes a total of 18 existing and future intersections as shown previously on Exhibit 1-2, where the Project is anticipated to contribute 50 or more peak hour trips. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 GENERAL PLAN CIRCULATION ELEMENTS

As noted previously, the Project site is located within the City of Beaumont. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on City of Beaumont General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Beaumont General Plan Circulation Element and Exhibit 3-3 illustrates the City of Beaumont General Plan roadway cross-sections.

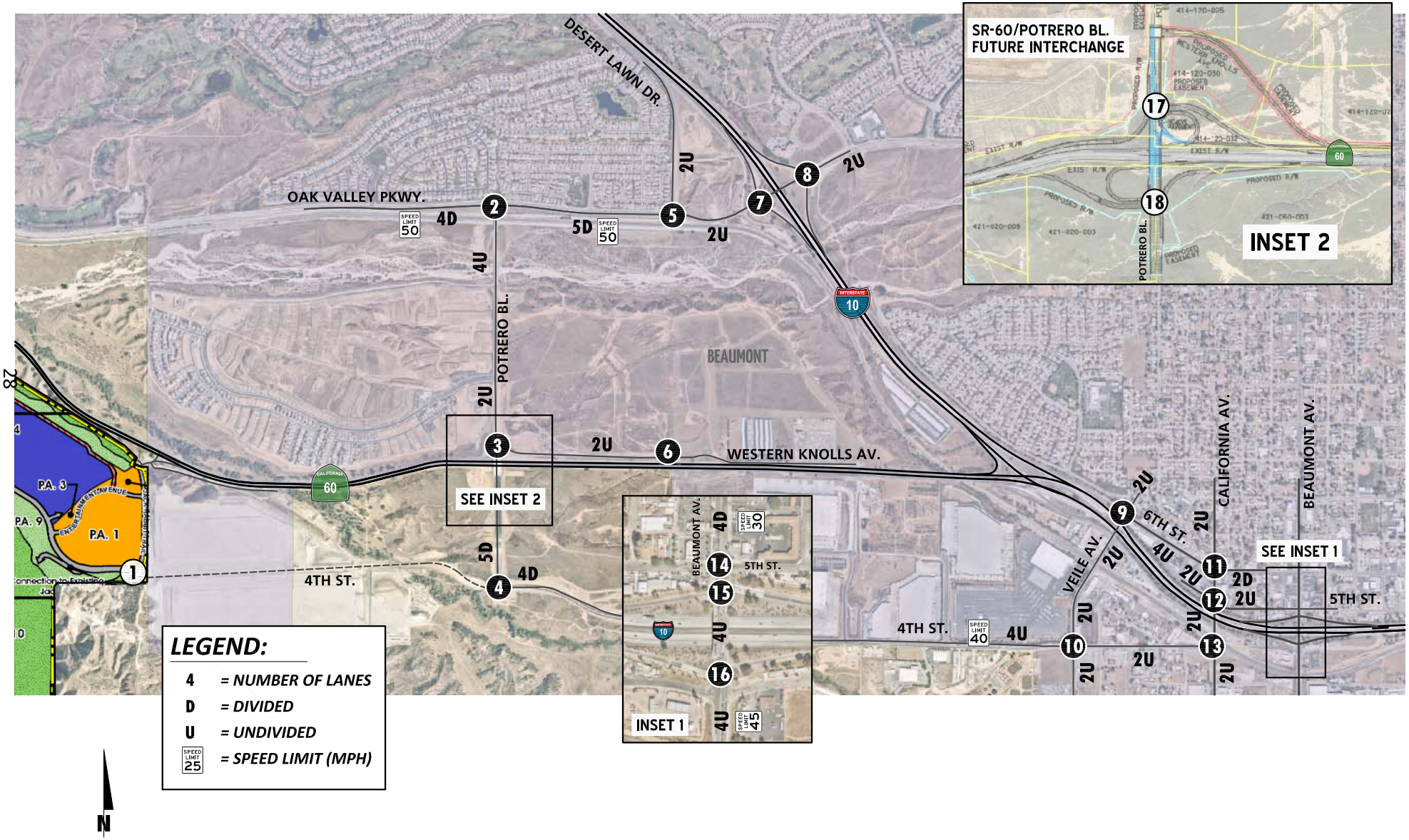
Expressways are six-lane divided roadways (typically divided by a raised median) with a 194 to 220-foot and a 94-foot curb-to-curb measurement. These roadways serve regional through-traffic and inter-city traffic. The following study area roadway within the City of Beaumont is classified as an Expressway:

- Beaumont Avenue, south of I-10 Freeway

Urban Arterials are six-lane divided roadways (typically divided by a raised median or painted two-way turn-lane) with a 120-foot to 134-foot right-of-way and a 102-foot curb-to-curb measurement. These roadways serve both regional through-traffic and inter-city traffic and typically direct traffic onto and off-of the freeways. The following study area roadways within the City of Beaumont are classified as an Urban Arterial:

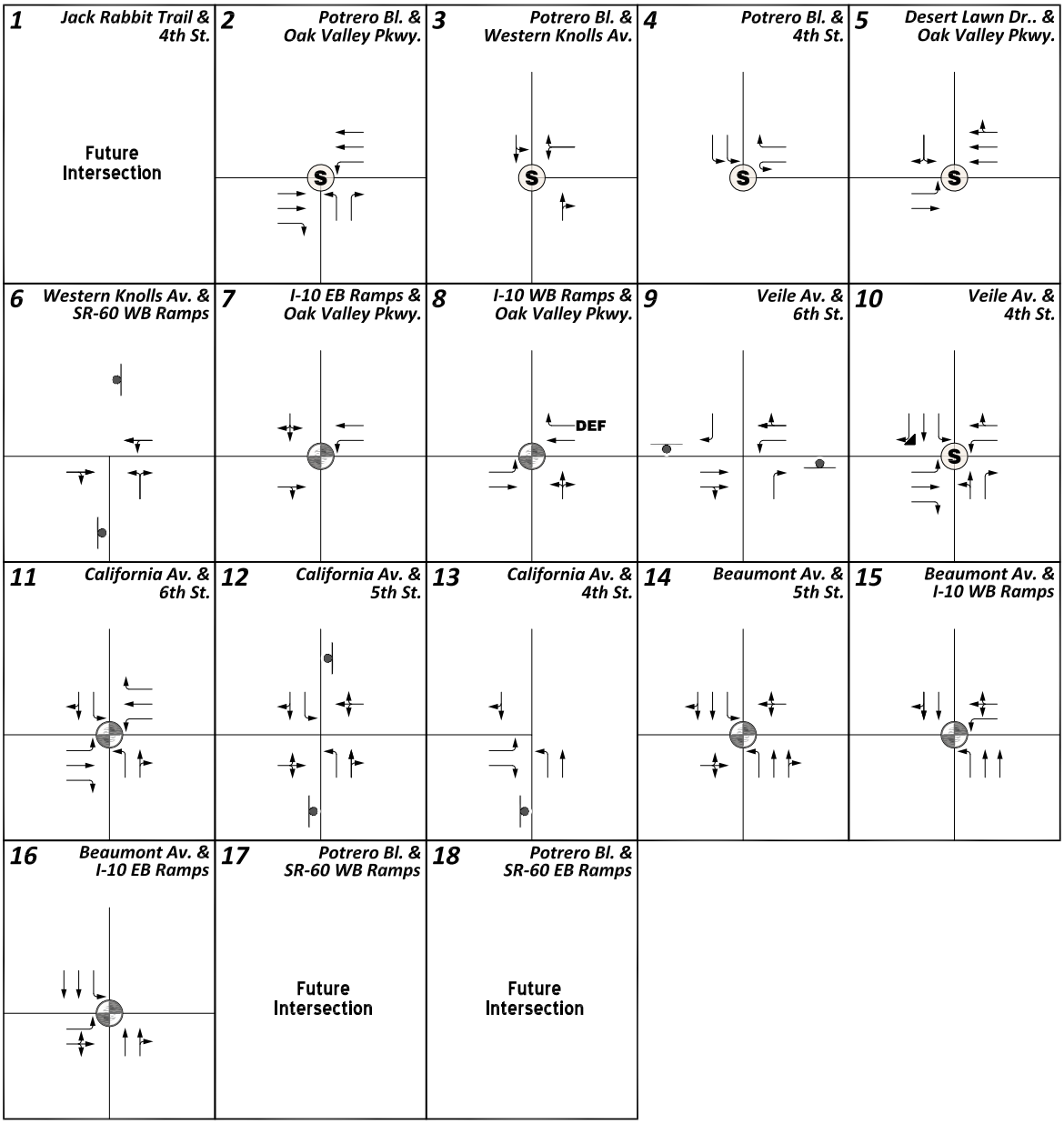
- Oak Valley Parkway, between Potrero Boulevard and Oak View Drive
- Potrero Boulevard, north of 4th Street

EXHIBIT 3-1 (1OF2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



URBAN CROSSROADS

EXHIBIT 3-1 (2OF2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



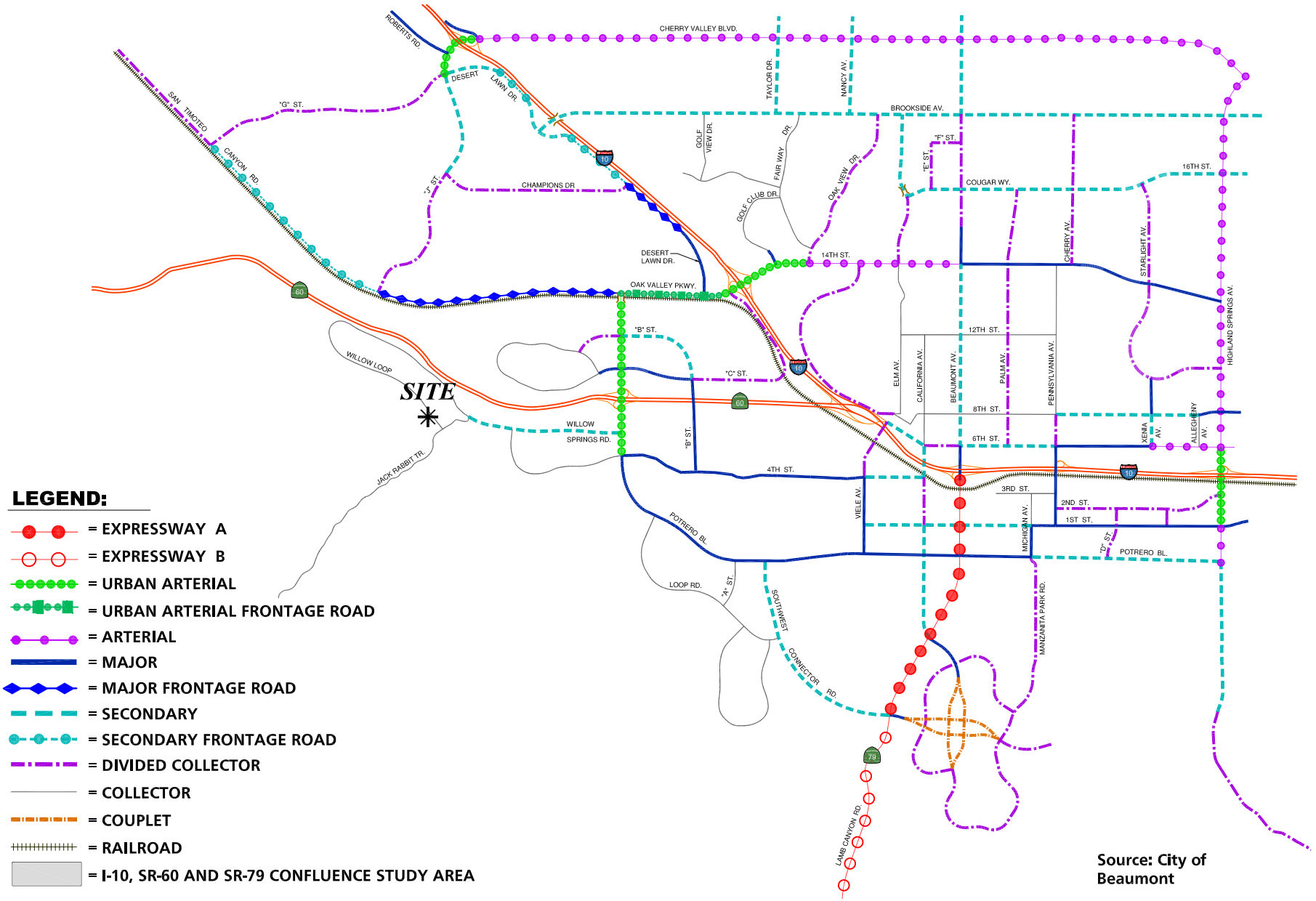
LEGEND:

- = TRAFFIC SIGNAL
- S = ALL WAY STOP
- = STOP SIGN
- = FREE RIGHT TURN
- DEF = DEFACTO RIGHT TURN

N

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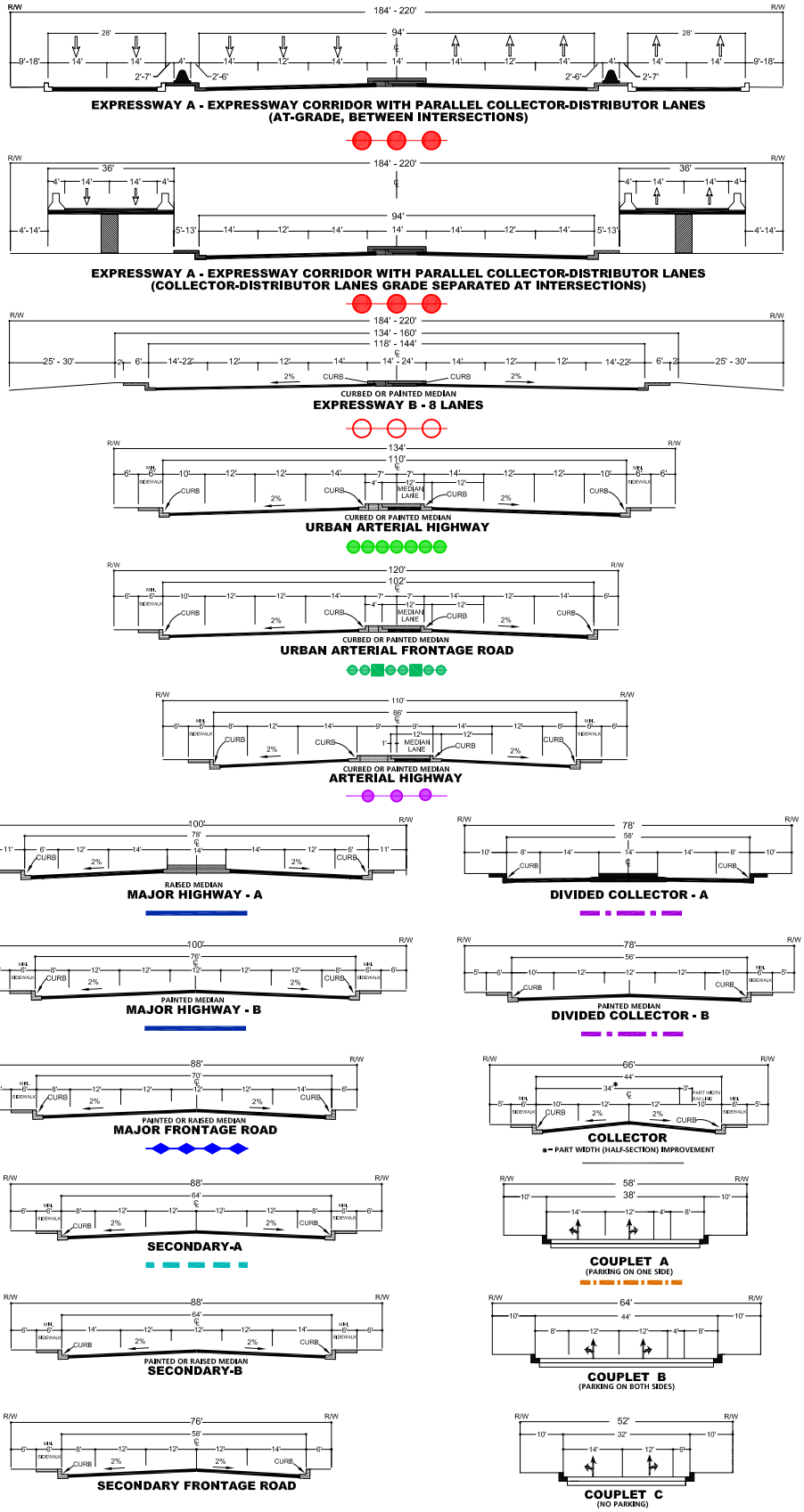
EXHIBIT 3-2: CITY OF BEAUMONT GENERAL PLAN CIRCULATION ELEMENT



Source: City of Beaumont

URBAN CROSSROADS

EXHIBIT 3-3: CITY OF BEAUMONT GENERAL PLAN ROADWAY CROSS-SECTIONS



Source: City of Beaumont

Major Roadways are four lane divided roadways and may provide on-street parking. These roadways typically have an 88-foot to 100-foot right-of-way and a 70-foot to 76-foot curb-to-curb measurement. These roadways typically direct traffic through major development areas and serve to move large volumes of inter-city traffic. The following study area roadway within the City of Beaumont is classified as a Major Roadway:

- 4th Street, between Potrero Boulevard and Veile Avenue
- Veile Avenue, between 4th Street and 6th Street
- Beaumont Avenue, north of I-10 Freeway
- Desert Lawn Drive

Secondary Streets are four-lane roadways and may include a painted median. These roadways typically have a 76-foot to 86-foot right-of-way and a 56-foot to 64-foot curb-to-curb measurement. These roadways typically direct traffic through major development areas and a lesser capacity than Major Roadways. The following study area roadways within the City of Beaumont are classified as a Secondary Street:

- 4th Street, east of Veile Avenue
- California Avenue, south of 6th Street
- 6th Street, between Veile Avenue and California Avenue and east of Beaumont Avenue

Collector Streets are two-lane roadways and provide on-street parking on both sides. These roadways typically have a 66-foot to 78-foot right-of-way and a 44-foot curb-to-curb measurement. These roadways provide connections to secondary streets, arterials, and freeways, with most traffic being through-traffic or intra-city traffic. The following study area roadways within the City of Beaumont are classified as a Collector Street:

- 4th Street, west of Potrero Boulevard
- California Avenue, north of 6th Street

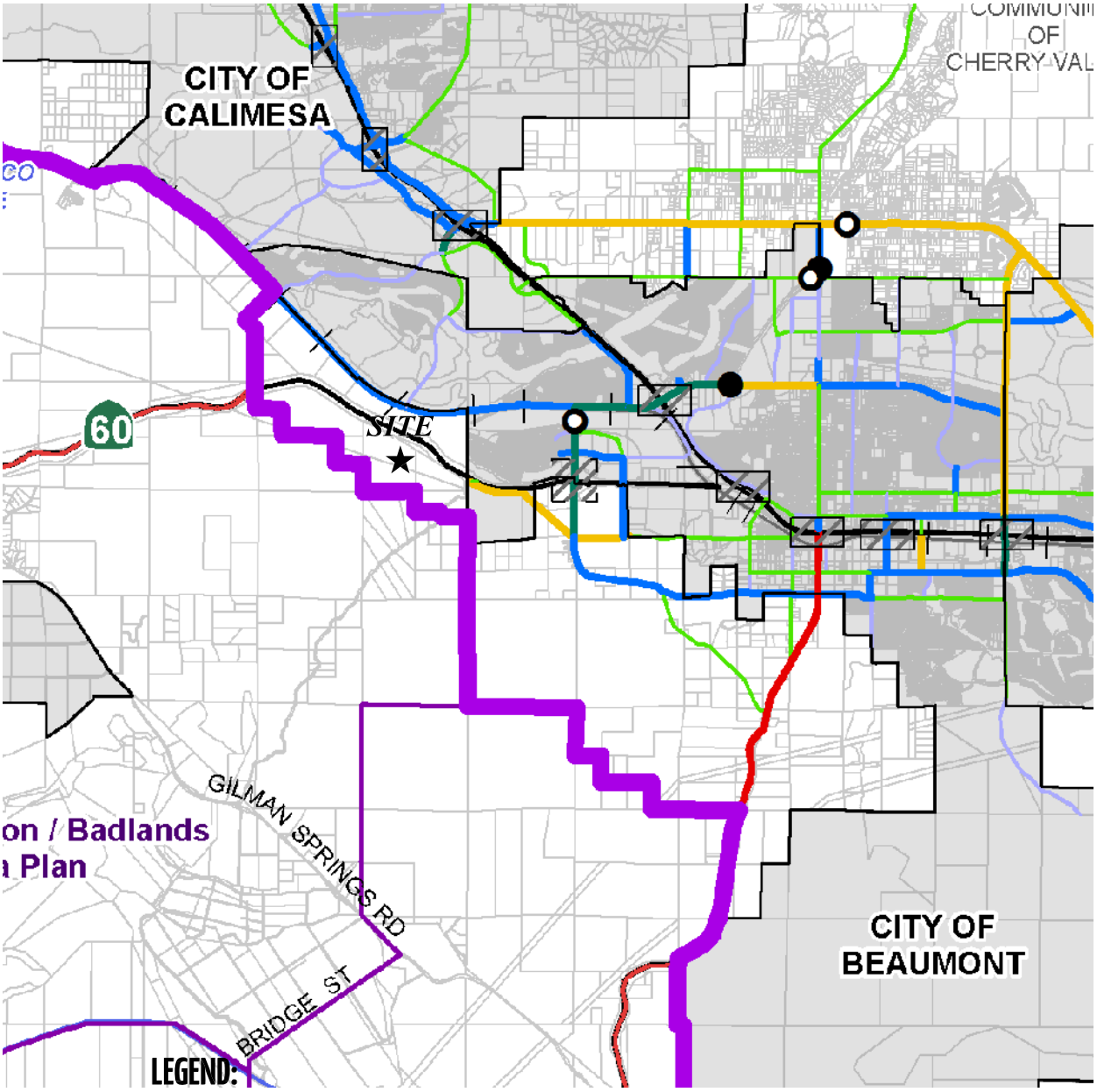
3.3 COUNTY OF RIVERSIDE GENERAL PLAN CIRCULATION ELEMENT

The study area is also partially located within the County of Riverside. Exhibit 3-4 shows the County of Riverside General Plan Circulation Element, and Exhibit 3-5 illustrates the County of Riverside General Plan roadway cross-sections.

3.4 BICYCLE & PEDESTRIAN FACILITIES

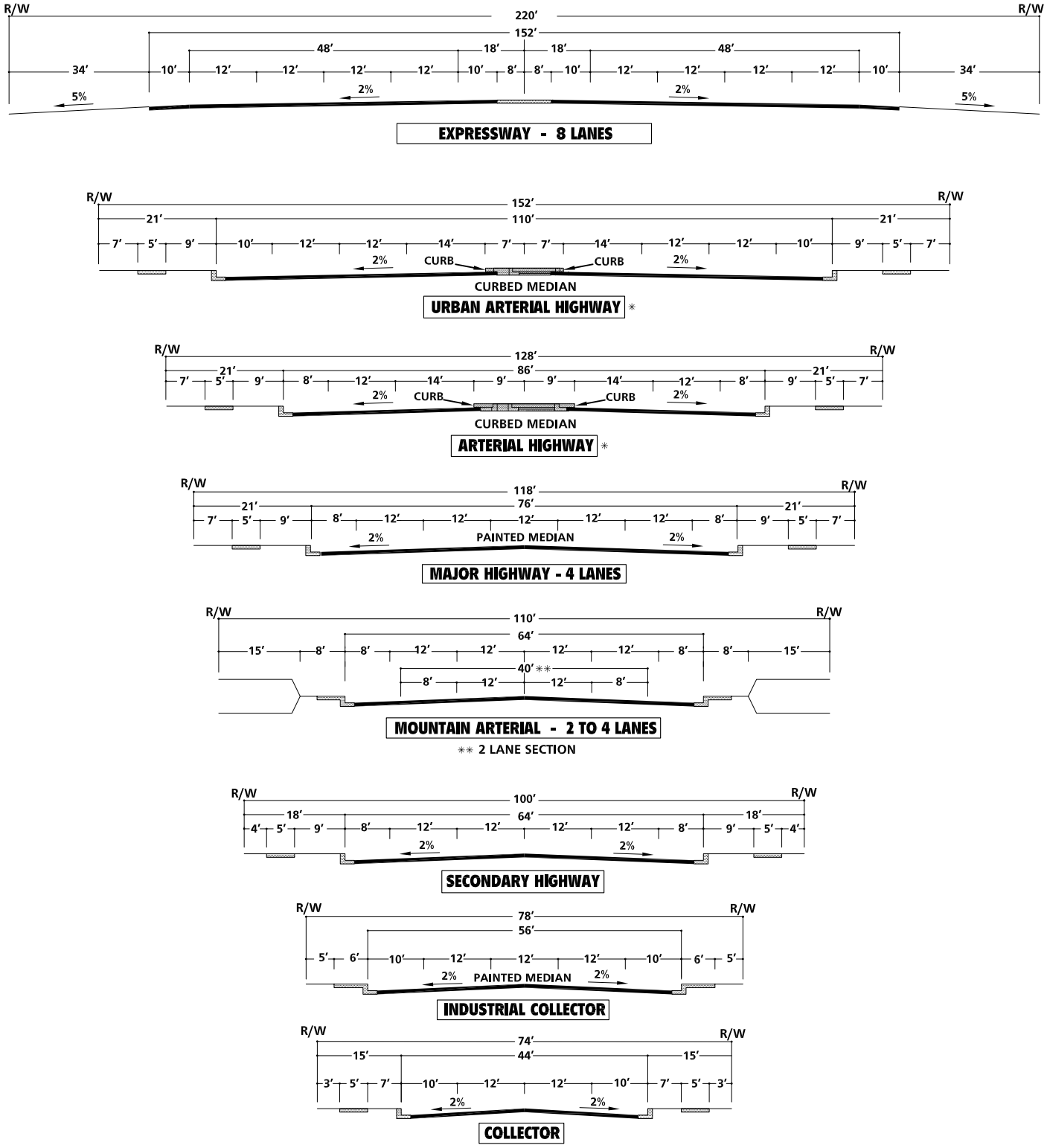
The City of Beaumont General Plan does not include a bike facility exhibit. The County of Riverside trails and bikeway system is shown on Exhibit 3-6. As shown on Exhibit 3-6, there is a proposed regional trail adjacent to the Project site. Exhibit 3-7 illustrates the existing pedestrian facilities, including sidewalks and crosswalks. As shown on Exhibit 3-7, there are limited pedestrian facilities in the vicinity of the Project site. Field observations conducted in January 2020 indicate nominal pedestrian and bicycle activity within the study area.

EXHIBIT 3-4: COUNTY OF RIVERSIDE GENERAL PLAN CIRCULATION ELEMENT



SOURCE: RIVERSIDE COUNTY 12/8/2015

EXHIBIT 3-5: COUNTY OF RIVERSIDE GENERAL PLAN ROADWAY CROSS-SECTIONS

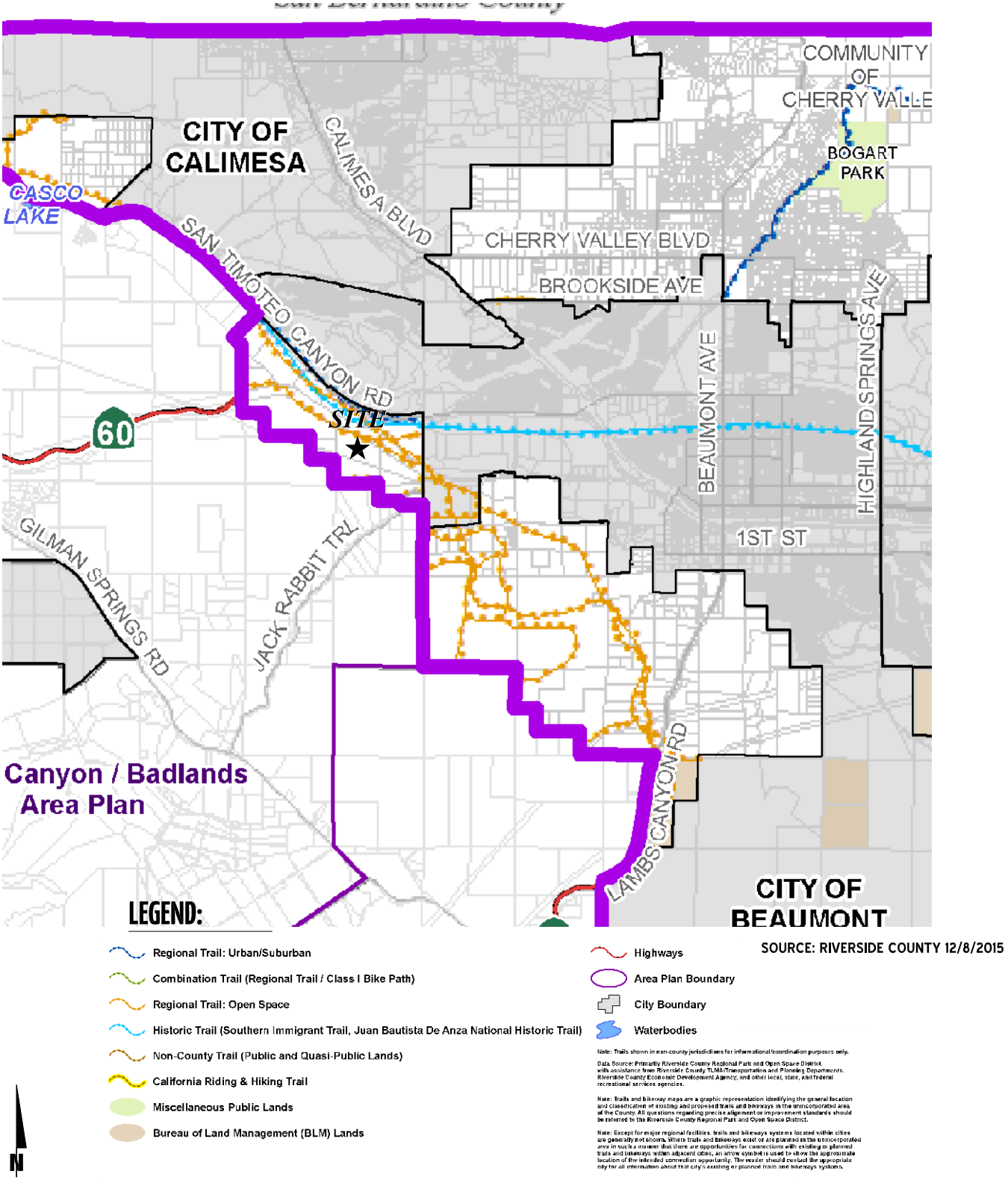


✳ *IMPROVEMENTS MAY BE RECONFIGURED TO ACCOMMODATE EXCLUSIVE TRANSIT LANES OR ALTERNATIVE LANE ARRANGEMENTS ADDITIONAL RIGHT OF WAY MAY BE REQUIRED AT INTERSECTIONS TO ACCOMMODATE ULTIMATE IMPROVEMENTS FOR STATE HIGHWAYS SHALL CONFORM TO CALTRANS DESIGN STANDARDS.*

NOT TO SCALE

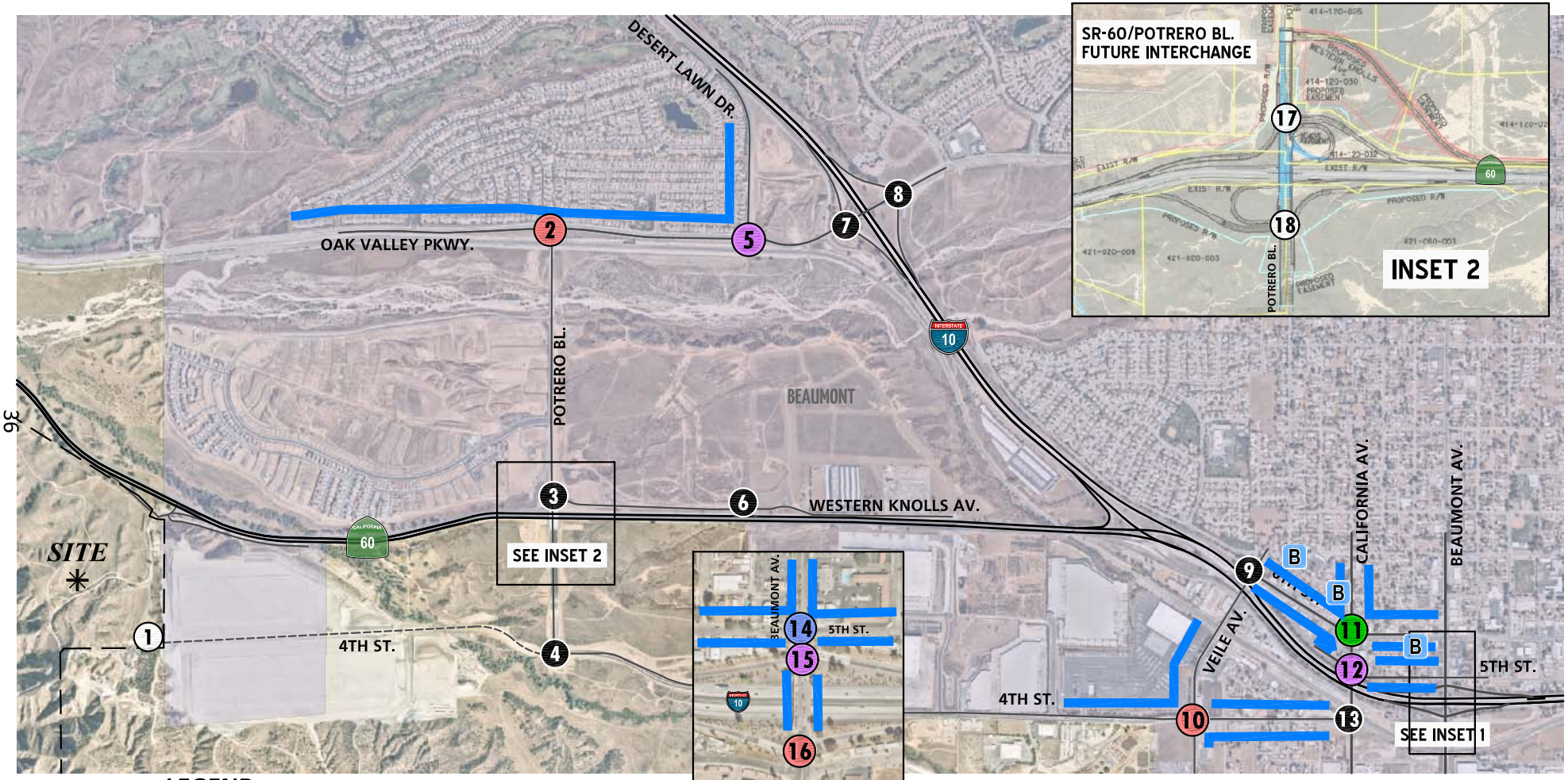
SOURCE: COUNTY OF RIVERSIDE

EXHIBIT 3-6: COUNTY OF RIVERSIDE TRAILS AND BIKEWAY SYSTEM



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EXHIBIT 3-7: EXISTING PEDESTRIAN FACILITIES



URBAN CROSSROADS

3.5 TRANSIT SERVICE

The study area is currently served by the Pass Transit with bus services along 6th Street, California Avenue, Beaumont Avenue via routes 3/4. Riverside Transit Agency (RTA) Routes 34 and 210 runs along the SR-60 Freeway, but do not provide bus service/stops within the study area. The transit services are illustrated on Exhibit 3-8. There does not appear to be existing transit routes that could potentially serve the Project. Transit service is reviewed and updated by the Pass Transit and RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

3.6 EXISTING TRAFFIC COUNTS

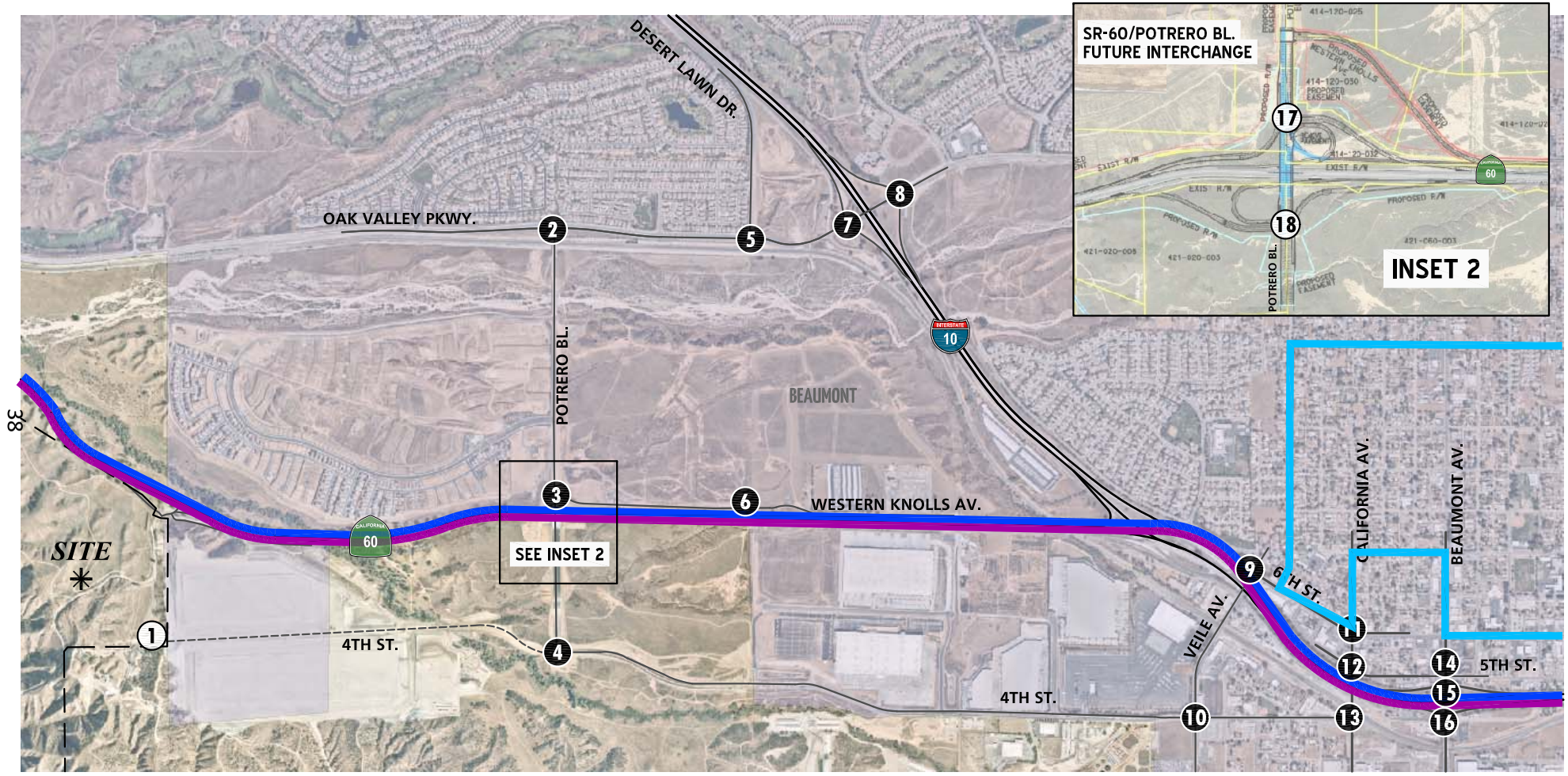
The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in November 2019 and January 2020, while schools were in session. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The weekday AM and weekday PM peak hour count data are representative of typical weekday peak hour traffic conditions in the study area. The traffic counts were taken before schools and businesses were closed due to the currently ongoing COVID-19 pandemic. There were no observations made in the field at the time the traffic counts were collected that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes, and near-by schools were in session and operating on normal schedules. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access, and where there are currently no uses generating traffic.

The traffic counts collected in November 2019 and January 2020 include the following vehicle classifications: Passenger Cars, 2-Axle Trucks, 3-Axle Trucks, and 4 or More Axle Trucks. To represent the effects large trucks, buses and recreational vehicles have on traffic flow; all trucks were converted into PCE. By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is much longer than for passenger cars and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 1.5 has been applied to 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement. These factors are consistent with the values recommended for use in the San Bernardino County CMP and are in excess of the factor recommended for use in the County of Riverside traffic study guidelines. (9) Although the County of Riverside has a recommended PCE factor of 2.0, the San Bernardino County CMP PCE factors have been utilized in an effort to conduct a more conservative analysis.

EXHIBIT 3-8: EXISTING TRANSIT ROUTES



URBAN CROSSROADS

Existing weekday Average Daily Traffic (ADT) volumes on arterial highways throughout the study area are shown on Exhibit 3-9. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12.00 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.33 percent. As such, the above equation utilizing a factor of 12.00 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.33 percent (i.e., 1/0.0833 = 12.00) and was assumed to sufficiently estimate ADT volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes are shown on Exhibit 3-10.

3.7 EXISTING (2020) INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that the following study area intersections are currently operating at an unacceptable LOS (i.e., LOS E or worse) during the peak hours:

- Desert Lawn Drive & Oak Valley Parkway (#5) – LOS F AM peak hour only
- California Avenue & 5th Street (#12) – LOS E AM peak hour only
- California Avenue & 4th Street (#13) – LOS E AM peak hour; LOS F PM peak hour
- Beaumont Avenue & I-10 Westbound Ramps (#15) – LOS F AM peak hour; LOS E PM peak hour
- Beaumont Avenue & I-10 Eastbound Ramps (#16) – LOS F AM peak hour; LOS E PM peak hour

It should be noted, based on field observations, the intersections of I-10 Westbound Ramps & Beaumont Avenue (#15) and I-10 Eastbound Ramps & Beaumont Avenue (#16) experienced queuing issues along Beaumont Avenue during the AM peak hour. As such, the intersection operations analysis results shown in Table 3-1 reflect the field conditions at the time this TA was prepared. Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions is shown on Exhibit 3-11. The intersection operations analysis worksheets are included in Appendix 3.2 of this TA.

3.8 EXISTING (2020) TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. The following unsignalized study area intersections currently warrant a traffic signal for Existing (2020) traffic conditions (see Appendix 3.3):

- Desert Lawn Drive & Oak Valley Parkway (#5)
- California Avenue & 4th Street (#13)

EXHIBIT 3-9: EXISTING (2020) AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

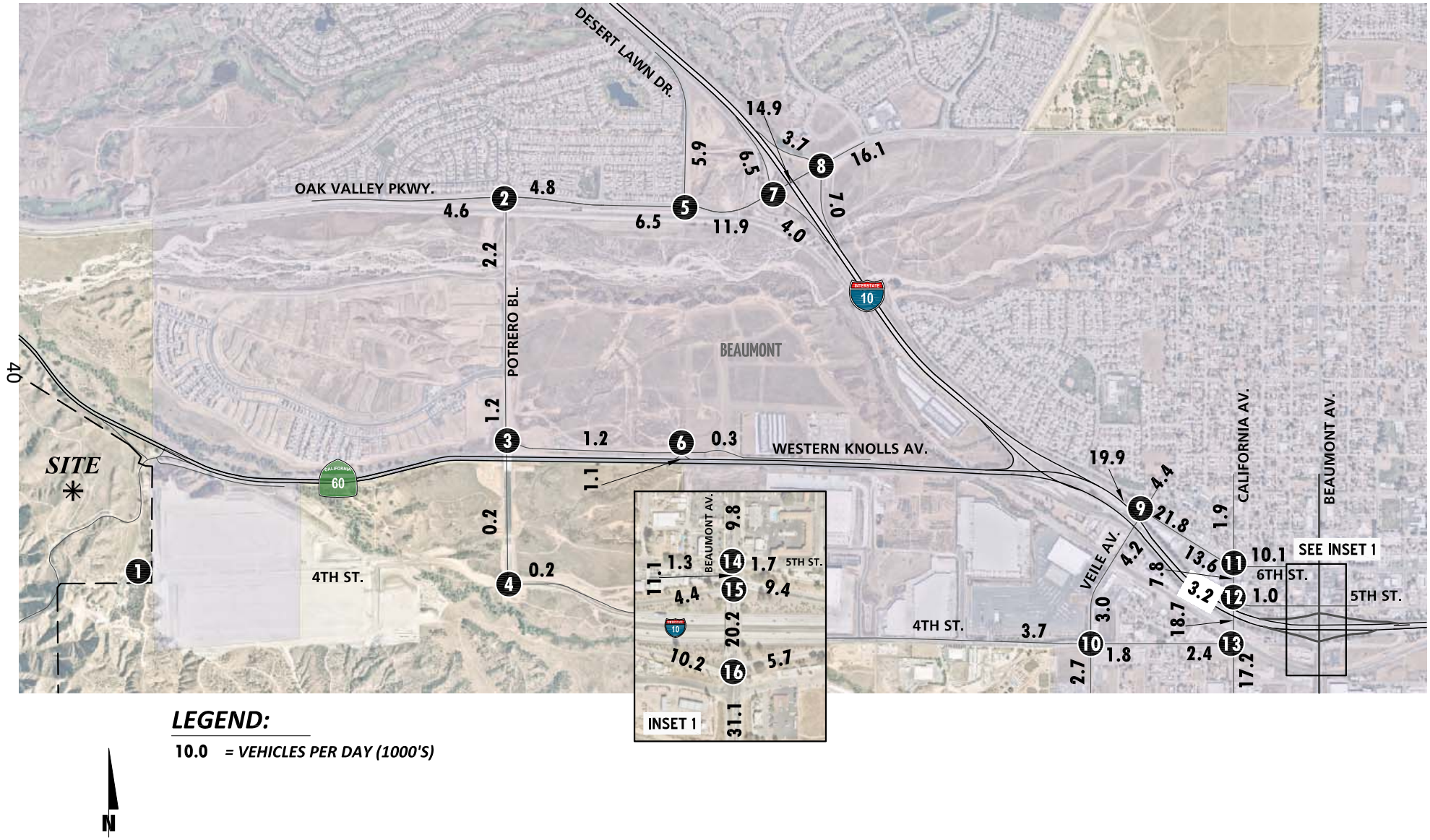
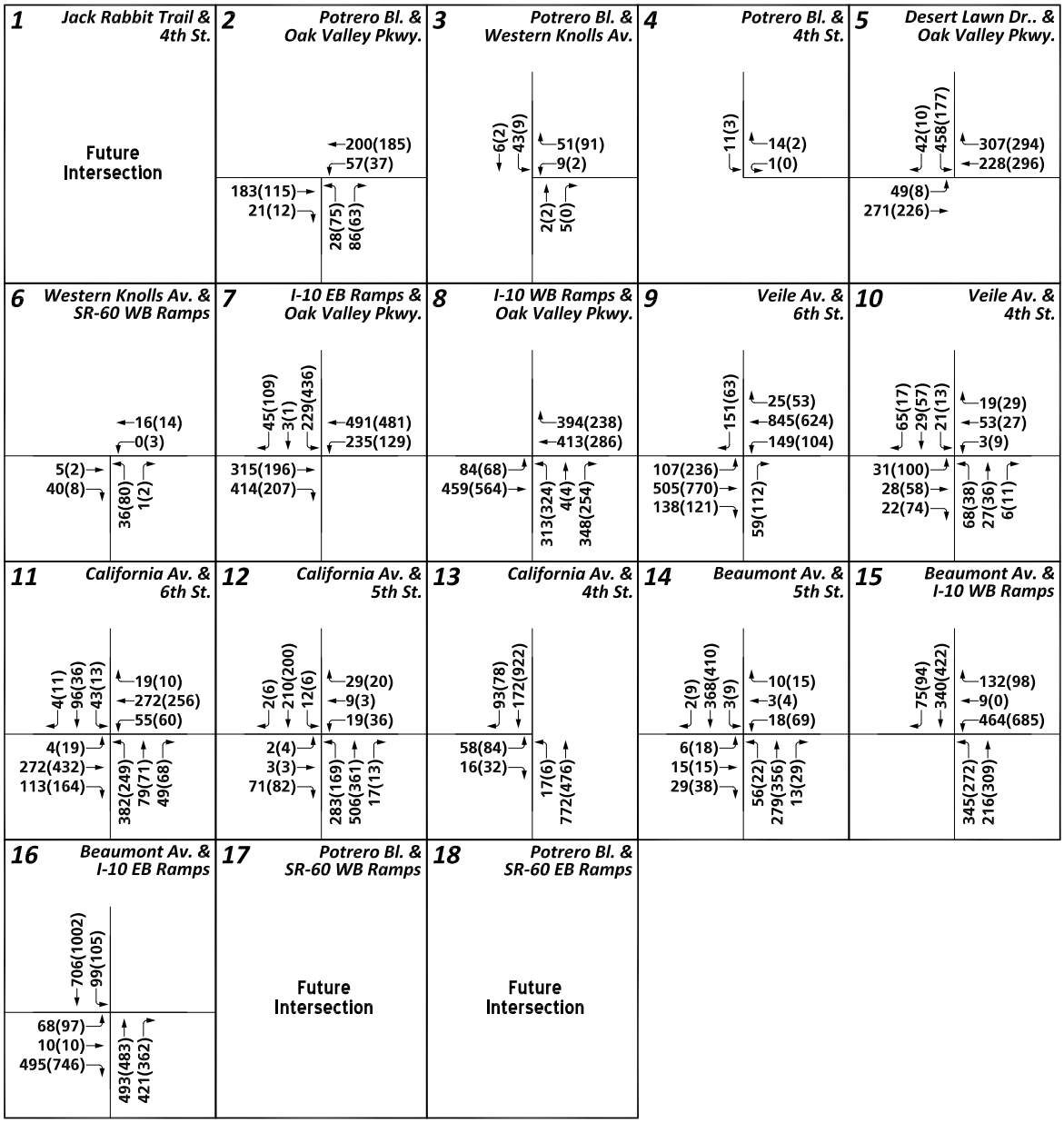


EXHIBIT 3-10: EXISTING (2020) TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



EXHIBIT 3-11: EXISTING (2020) SUMMARY OF LOS

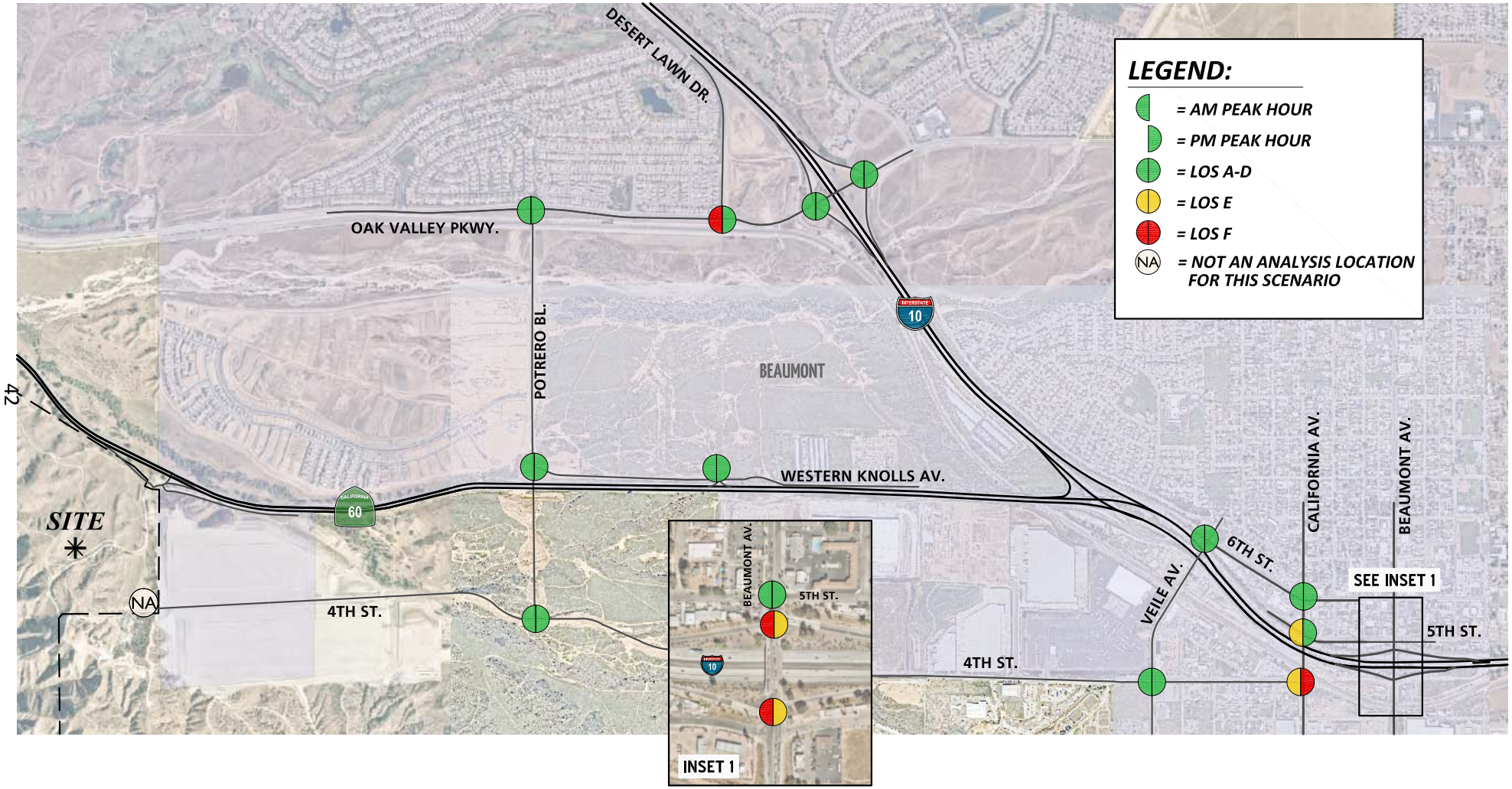


Table 3-1

Intersection Analysis for Existing (2020) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Jack Rabbit Tr. & 4th St.		Future Intersection															
2	Potrero Bl. & Oak Valley Pkwy.	AWS	1	0	1	0	0	0	0	2	1	1	2	0	8.6	8.3	A	A
3	Potrero Bl. & Western Knolls Av.	AWS	0	1	0	0	1	0	0	0	0	0	1	0	7.3	6.9	A	A
4	Potrero Bl. & 4th St.	AWS	0	0	0	2	0	0	0	0	0	1	0	1	7.0	7.2	A	A
5	Desert Lawn Dr. & Oak Valley Pkwy.	AWS	0	0	0	0	1	0	1	1	0	0	3	0	**58.5**	10.2	**F**	B
6	SR-60 WB & Western Knolls Av.	CSS	0	1	0	0	0	0	0	1	0	0	1	1	9.9	10.7	A	B
7	I-10 EB Ramps & Oak Valley Pkwy.	TS	0	0	0	0	1	0	0	1	0	1	1	0	30.2	43.1	C	D
8	I-10 WB Ramps & Oak Valley Pkwy.	TS	0	1	0	0	0	0	1	1	0	0	1	d	33.9	31.0	C	C
9	Veile Av. & I-10 WB On-ramp/6th St.	CSS	0	0	1	0	0	1	0	2	0	1	1	0	27.6	14.6	D	B
10	Veile Av. & 4th St.	AWS	0	1	1	1	1	1>>	1	1	1	1	1	0	8.9	9.5	A	A
11	California Av. & 6th St.	TS	1	1	0	1	1	0	1	1	1	1	1	1	33.5	30.4	C	C
12	California Av. & 5th St.	CSS	1	1	0	1	1	0	0	1	0	0	1	0	**40.6**	18.2	**E**	C
13	California Av. & 4th St.	CSS	1	1	0	0	1	0	1	0	1	0	0	0	**35.4**	**73.6**	**E**	**F**
14	Beaumont Av. & 5th St.	TS	1	2	0	1	2	0	0	1	0	0	1	0	7.6	7.5	A	A
15	Beaumont Av. & I-10 WB Ramps[4]	TS	1	2	0	0	2	0	0	0	0	1	1	0	**106.7**	**66.9**	**F**	**E**
16	Beaumont Av. & I-10 EB Ramps[4]	TS	0	2	0	1	2	0	0	1	1	0	0	0	**87.5**	**66.8**	**F**	**E**
17	Potrero Bl. & I-10 WB Ramps		Future Intersection															
18	Potrero Bl. & I-10 EB Ramps		Future Intersection															

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; >> = Free-Right Turn Lane

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-Street Stop; AWS = All-Way Stop; TS = Traffic Signal

[4] Heavy northbound vehicle queues observed during the morning peak hours; heavy off-ramp queues during the evening peak hours.

3.9 EXISTING (2020) OFF-RAMP QUEUING ANALYSIS

A queuing analysis was performed for the off-ramps at the I-10 Freeway at Oak Valley Parkway and Beaumont Avenue interchanges to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-10 Freeway mainline. Queuing analysis findings are presented in Table 3-2. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown in Table 3-2, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. This finding is consistent with field observations at the time traffic counts were conducted. Worksheets for Existing (2020) traffic conditions off-ramp queuing analysis are provided in Appendix 3.4.

3.10 FREEWAY FACILITY ANALYSIS

Existing (2020) mainline directional volumes for the AM and PM peak hours are provided on Exhibit 3-12. As shown in Table 3-3, the study area freeway segments and merge/diverge ramp junctions analyzed for this study are currently operating at an acceptable LOS (i.e., LOS D or better) during the peak hours for Existing (2020) traffic conditions. Existing (2020) freeway facility analysis worksheets are provided in Appendix 3.5.

3.11 EXISTING DEFICIENCIES AND IMPROVEMENTS

Improvements needed to achieve acceptable LOS have been identified at intersections that are currently operating at a deficient LOS under Existing (2020) traffic conditions.

3.11.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Table 3-4 indicates the physical improvements needed to address LOS deficiencies at each of the study area intersections under Existing (2020) traffic conditions. The following improvements are necessary to improve the Existing (2020) deficiencies back to acceptable levels.

Desert Lawn Drive & Oak Valley Parkway (#5) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Install a traffic signal.

California Avenue & 5th Street (#12) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Install a traffic signal.

California Avenue & 4th Street (#13) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Install a traffic signal.

Table 3-2

Peak Hour Freeway Off-Ramp Queuing Summary for Existing (2020) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-10 EB Ramps & Oak Valley Pwky.	SBL/T/R	1,150	327 [2]	463 [2]	Yes	Yes
I-10 WB Ramps & Oak Valley Pkwy.	NBL/T/R	1,220	468 [2]	376	Yes	Yes
Beaumont Av. & I-10 WB Ramps	WBL	485	221 [2]	266 [2]	Yes	Yes
	WBL/R	1,110	158	176	Yes	Yes
Beaumont Av. & I-10 EB Ramps	EBL/R	885	92	272 [2]	Yes	Yes
	EBR	235	87	236 [2,3]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-10 Freeway mainline.

Table 3-3

Freeway Facility Analysis for Existing (2020) Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	Density[3]		LOS[4]	
				AM	PM	AM	PM
I-10 Freeway	EB	West of Oak Valley Pkwy.	3	9.9	13.5	A	B
		Off-Ramp at Oak Valley Pkwy.	3	13.2	17.8	B	B
		On-Ramp at Beaumont Av.	4	17.3	15.7	B	B
		East of Beaumont Av.	4	17.9	17.0	B	B
	WB	West of Oak Valley Pkwy.	3	11.3	13.2	B	B
		On-Ramp at Oak Valley Pkwy.	3	11.9	13.3	B	B
		On-Ramp at Beaumont Av.	4	16.2	18.3	B	B
		West of Beaumont Av.	4	13.4	15.4	B	B
SR-60 Freeway	EB	West of I-10 Freeway	2	9.3	10.9	A	A
		Off-Ramp at 6th St.	2	11.3	13.2	B	B
	WB	East of Western Knolls Av.	2	9.0	10.8	A	A
		Off-Ramp at Western Knolls Av.	2	7.7	9.8	A	A
		On-Ramp at Western Knolls Av.	2	6.9	8.2	A	A
		West of Western Knolls Av.	2	9.1	10.2	A	A

[1] NB = Northbound; SB = Southbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 3-4

Intersection Analysis for Existing (2020) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
5	Desert Lawn Dr. & Oak Valley Pkwy.																	
	- Without Improvements	AWS	0	0	0	0	1	0	1	1	0	0	3	0	**58.5**	10.2	**F**	B
	- With Improvements	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	18.5	11.0	B	B
12	California Av. & 5th St.																	
	- Without Improvements	CSS	1	1	0	1	1	0	0	1	0	0	1	0	**40.6**	18.2	**E**	C
	- With Improvements	**TS**	1	1	0	0	1	0	0	1	0	0	1	0	15.6	12.0	B	B
13	California Av. & 4th St.																	
	- Without Improvements	CSS	1	1	0	0	1	0	1	0	1	0	0	0	**35.4**	**73.6**	**E**	**F**
	- With Improvements	**TS**	1	1	0	0	1	0	1	0	1	0	0	0	10.6	15.2	B	B
15	Beaumont Av. & I-10 WB Ramps																	
	- Without Improvements	TS	1	2	0	0	2	0	0	0	0	1	1	0	**106.7**	**66.9**	**F**	**E**
	- With Improvements[4]	TS	1	2	0	0	2	0	0	0	0	1	1	0	45.5	45.1	D	D
16	Beaumont Av. & I-10 EB Ramps																	
	- Without Improvements	TS	0	2	0	1	2	0	0	1	1	0	0	0	**87.5**	**66.8**	**F**	**E**
	- With Improvements[4]	TS	0	2	0	1	2	0	0	1	1	0	0	0	29.4	51.6	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

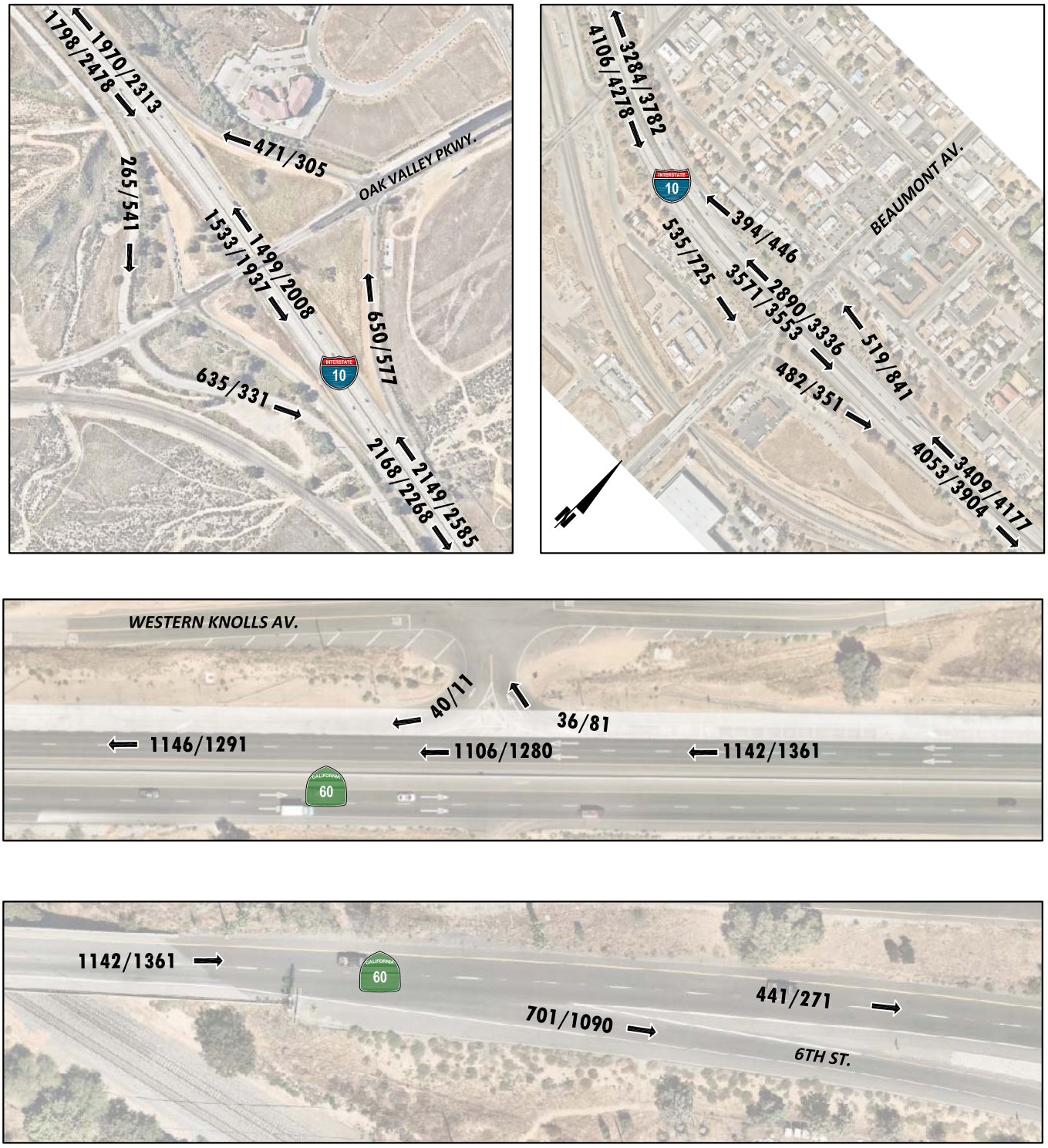
L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] AWS = All-way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

[4] Improvement includes modifying the signal timing to accommodate a 120-second cycle length

EXHIBIT 3-12: EXISTING (2020) FREEWAY MAINLINE VOLUMES



LEGEND:

⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

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URBAN CROSSROADS

Beaumont Avenue & I-10 Westbound Ramps (#15) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Modify the traffic signal to accommodate a 120-second cycle length.

Beaumont Avenue & I-10 Eastbound Ramps (#16) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Modify the traffic signal to accommodate a 120-second cycle length.

3.11.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown in Table 3-2, there are currently no peak hour queuing issues at the I-10 Freeway study area interchange. As such, no improvements are necessary.

3.11.3 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown in Table 3-3, the study area freeway segments and merge/diverge ramp junctions are currently operating at an acceptable LOS. As such no improvements are necessary.

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4 PROJECTED FUTURE TRAFFIC

The Project is to consist of 4,500,000 square feet of high-cube fulfillment center use and 500,000 square feet of general light industrial use. In addition, there is commercial component that includes a 125 room hotel, 77,000 square foot indoor go-kart facility, 26,000 square foot rock climbing facility, 24,000 square foot trampoline park, 40,000 square foot bowling alley, 36 hole miniature golf, 15,000 square feet of quality restaurant use, and 15,000 square feet of high turnover (sit-down) restaurant use. The Project is proposed to be developed in three phases as follows:

- Phase 1 = 1,379,191 square feet of high-cube fulfillment center warehouse use (Opening Year 2023)
- Phase 1 + Phase 2 = 4,500,000 square feet of high-cube fulfillment center warehouse use and 500,000 square feet of general light industrial use (Opening Year 2025)
- Project Buildout = 4,500,000 square feet of high-cube fulfillment center warehouse use, 500,000 square feet of general light industrial use, and all uses within the general commercial area (Opening Year 2027)

Interim regional access to the Project site is available from the SR-60 Freeway via the Western Knolls and I-10 Freeway via the Oak Valley Parkway and Beaumont Avenue interchanges. Once the Potrero Boulevard interchange is constructed, regional access to the Project site is available from the SR-60 Potrero Boulevard interchange and the I-10 Oak Valley Parkway interchange.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017) and the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) have been used. For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- High-Cube Fulfillment Center Warehouse has been used to derive site specific trip generation estimates for up to 4,500,000 square feet of the proposed Project. The ITE Trip Generation Manual (2017) has trip generation rates for high-cube fulfillment center use (ITE land use code 155), however, these rates are unreliable because they are based on limited data (i.e., one to two surveyed sites) and the ITE Trip Generation Manual recommends the use of local data sources where available. The recent (February 2020) ITE Trip Generation Manual Supplement includes trip generation rates for high-cube fulfillment center warehouse (non-sort) and (sort) facilities, however, it is unclear at this time the type of operation for the proposed speculative buildings. As such, the trip-generation statistics published in the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) which was commissioned by the Western Riverside

Council of Governments (WRCOG) in support of the Transportation Uniform Mitigation Fee (TUMF) update, has been utilized for the high-cube fulfillment center use. The WSP trip generation rates were published in January 2019 and are based on data collected at 11 local high-cube fulfillment center sites. However, the WSP study does not include a split for inbound and outbound vehicles, as such, the inbound and outbound splits per the ITE High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016) have been utilized.

- ITE land use code 110 (General Light Industrial) has been used to derive site specific trip generation estimates for up to 500,000 square feet of the proposed Project. The ITE Trip Generation Manual includes very limited data regarding the types of vehicles that are generated for general light industrial uses (passenger cars and various sizes of trucks). As such, data regarding the vehicle mix has been obtained from a separate report; the City of Fontana's Truck Trip Generation Study (August 2003) for the general light industrial uses proposed as part of the Project. The "Light Industrial" vehicle mix data has been utilized: 8.0% 2-axle trucks, 3.9% 3-axle trucks, and 9.5% 4+-axle trucks (total of 21.4% trucks).
- Other land uses assumed within the General Commercial area (Planning Areas 1-3):
    - Hotel – ITE Land Use Code 310
    - Shopping Center – ITE Land Use Code 820
    - Rock Climbing – ITE Land Use Code 434
    - Trampoline Park – ITE Land Use Code 436
    - Bowling Alley – ITE Land Use Code 437
    - Athletic Club – ITE Land Use Code 493
    - Miniature Golf Course – ITE Land Use Code 432
    - Quality Restaurant – ITE Land Use Code 931
    - High Turnover Sit-Down Restaurant – ITE Land Use Code 932
    - Indoor Car Racing (Alternative Source, See Table 1-1)

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site or between the retail and industrial uses (employees) and can be made either by walking or using internal roadways without using external streets (e.g., restaurant to retail). Internal capture reductions between the proposed land uses have been considered based on the ITE Trip Generation Handbook, 3rd Edition (2017). (3)

Pass-by trips are defined as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These types of trips are many times associated with retail uses. As the Project is proposed to include restaurant uses, applicable pass-by reduction percentages have been obtained and applied from the ITE Trip Generation Handbook, 3rd Edition (2017). (3)

Table 4-1 presents the trip generation rates for each of the land uses above. A summary of the Project's trip generation, by phase, is shown in Table 4-2 in actual vehicles and in Table 4-3 in PCE. PCE trip generation has been utilized for the purposes of the operations analysis. As shown in Table 4-2, the proposed development is anticipated to generate a net total of approximately 16,266 trip-ends per day on a typical weekday with 1,060 trips during the weekday AM peak hour and 1,466 trips during the weekday PM peak hour.

4.2 PROJECT TRIP DISTRIBUTION

All Project traffic will access Potrero Boulevard via an extension of 4th Street to the west. No Project traffic is assumed to utilize the SR-60 Freeway/Jack Rabbit Trail interchange. E+P traffic conditions assumes the existing roadway infrastructure only, which includes the interim Potrero Boulevard bridge and connection to SR-60 Freeway Westbound at Western Knolls Road. Opening Year Cumulative and Horizon Year traffic conditions assumes the completion of the SR-60 Freeway/Potrero Boulevard interchange. No trucks are assumed to use Oak Valley Parkway (trucks to use Beaumont Avenue in the interim condition and Potrero Boulevard interchange once completed). Project trip distribution patters for passenger cars and trucks are shown on Exhibits 4-1 and 4-2 for Existing/E+P conditions (without Potrero Boulevard interchange) and on Exhibits 4-3 and 4-4 for future conditions (with Potrero Boulevard interchange).

4.3 MODAL SPLIT

The traffic reducing potential of public transit, walking, or bicycling have not been considered in this TA. Essentially, the traffic projections are "conservative" in that these alternative travel modes might be able to reduce the forecasted traffic volumes.

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, the Project only ADT and peak hour intersection turning movement volumes for without Potrero Boulevard interchange conditions are shown on the following exhibits:

- Exhibits 4-5 and 4-6 for Project (Phase 1)
- Exhibits 4-7 and 4-8 for Project (Phase 2)
- Exhibits 4-9 and 4-10 for Project (Buildout)

The Project only ADT and peak hour intersection turning movement volumes for with Potrero Boulevard interchange are shown on the following exhibits:

- Exhibits 4-11 and 4-12 for Project (Phase 1)
- Exhibits 4-13 and 4-14 for Project (Phase 2)
- Exhibits 4-15 and 4-16 for Project (Buildout)

Table 4-1

Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Rates									
General Light Industrial[3]	TSF	110	0.616	0.084	0.700	0.082	0.548	0.630	4.960
Passenger Cars (78.6%)			0.484	0.066	0.550	0.064	0.431	0.495	3.899
2-Axle Trucks (8.0%)			0.049	0.007	0.056	0.007	0.044	0.050	0.397
3-Axle Trucks (3.9%)			0.024	0.003	0.027	0.003	0.021	0.025	0.193
4-Axle+ Trucks (9.5%)			0.059	0.008	0.067	0.008	0.052	0.060	0.471
High-Cube Fulfillment Center	TSF	--[4]	0.094	0.028	0.122	0.046	0.119	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks			0.006	0.002	0.008	0.003	0.008	0.011	0.162
5+-Axle Trucks			0.008	0.003	0.011	0.003	0.007	0.010	0.217
Hotel	RM	310	0.28	0.19	0.47	0.31	0.29	0.60	8.36
Shopping Center[5]	TSF	820	0.73	0.45	1.18	2.11	2.29	4.40	46.38
K-1 Kart Racing[7]	TSF	--	N/A	N/A	N/A	0.36	0.27	0.63	6.76
Rock Climing[6]	TSF	434	0.46	0.94	1.40	0.93	0.71	1.64	16.40
Trampoline Park[6]	TSF	436	N/A	N/A	N/A	0.72	0.78	1.50	15.00
Bowling Alley[6]	TSF	437	0.77	0.04	0.81	0.75	0.41	1.16	11.60
Athletic Club[6]	TSF	493	1.93	1.23	3.16	3.90	2.39	6.29	62.90
Miniature Golf Course[6]	Holes	432	N/A	N/A	N/A	0.11	0.22	0.33	3.30
Quality Restaurant	TSF	931	0.37	0.36	0.73	5.23	2.57	7.80	83.84
High Turnover Sit-Down Restaurant	TSF	932	5.47	4.47	9.94	6.06	3.71	9.77	112.18
Passenger Car Equivalent (PCE) Rates									
General Light Industrial[3]	TSF	110	0.616	0.084	0.700	0.082	0.548	0.630	4.960
Passenger Cars			0.484	0.066	0.550	0.064	0.431	0.495	3.899
2-Axle Trucks (PCE = 1.5)			0.074	0.010	0.084	0.010	0.066	0.076	0.595
3-Axle Trucks (PCE = 2.0)			0.048	0.007	0.055	0.006	0.043	0.049	0.387
4-Axle+ Trucks (PCE = 3.0)			0.176	0.024	0.200	0.023	0.156	0.180	1.414
High-Cube Fulfillment Center	TSF	--[4]	0.094	0.028	0.122	0.046	0.119	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (PCE = 2.0)			0.012	0.004	0.016	0.006	0.016	0.022	0.324
5+-Axle Trucks (PCE = 3.0)			0.025	0.008	0.033	0.008	0.022	0.030	0.651

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] RM = Room; TSF = Thousand Square Feet

[3] Vehicle Mix Source: Truck mix (by axle type) source from City of Fontana Truck Trip Generation Study (August 2003). PCE rates are per SBCTA.

[4] Vehicle Mix Source: TUMF High Cube Warehouse Trip Generation Study, WSP, November January 29, 2019.
Inbound and outbound split source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE. PCE rates are per SBCTA.

[5] Trip generation rates based on regression equation.

[6] No weekday daily value provided in ITE. Estimated based on 10 times the PM peak hour.

[7] Source: Trip Generation and Parking Rate Analysis for the proposed K-1 Speed Indoor Kart Track, Linscott Law & Greenspan Engineers, June 20, 2005.

Table 4-2

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Phase 1									
High-Cube Fulfillment Center (Building 1)	1,379.191	TSF							
Passenger Cars:			109	33	142	56	143	199	2,414
Truck Trips:									
2-4-axle:			8	3	11	4	11	15	224
5+-axle:			12	3	15	4	10	14	300
- Truck Trips (Actual Vehicles)			20	6	26	8	21	29	524
Phase 1 Total:			**129**	**39**	**168**	**64**	**164**	**228**	**2,938**
Phase 2									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+-axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Subtotal			423	126	549	208	535	743	9,584
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Subtotal			308	42	350	41	274	315	2,482
Phase 2 Passenger Cars:			*599*	*140*	*739*	*213*	*682*	*895*	*9,826*
Phase 2 Trucks:			*132*	*28*	*160*	*36*	*127*	*163*	*2,240*
Phase 2 Total:			**731**	**168**	**899**	**249**	**809**	**1,058**	**12,066**
Project Buildout									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+-axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Internal Trip Reduction (Office - Employees only)			-10	-5	-15	-1	-1	-2	-20
Subtotal			413	121	534	207	534	742	9,564

Table 4-2

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Internal Trip Reduction (Office - Employees only)			-30	-15	-45	-2	-2	-5	-36
Subtotal			278	27	305	39	272	311	2,446
Hotel	125	RM	35	24	59	38	37	75	1,046
Internal Trip Reduction (Hotel)			-1	-20	-21	-7	-8	-15	-210
Go Kart	77.000	TSF	0	0	0	28	21	49	522
Rock Climbing	26.000	TSF	12	24	36	24	18	42	426
Trampoline Park	24.000	TSF	0	0	0	17	19	36	360
Bowling Alley	40.000	TSF	31	2	33	30	16	46	464
Miniature Golf	36	Holes	0	0	0	4	8	12	120
Quality Restaurant	15.000	TSF	5	5	10	78	39	117	1,258
Internal Trip Reduction (Restaurant)			-9	-9	-18	-4	-4	-8	-92
Pass-by Reductions (PM/Daily = 44%)[3]			0	0	0	-15	-15	-31	-514
High Turnover Sit-Down Restaurant	15.000	TSF	82	67	149	91	56	147	1,684
Internal Trip Reduction (Restaurant)			-13	-14	-27	-7	-6	-13	-146
Pass-by Reductions (PM/Daily = 43%)[3]			0	0	0	-22	-22	-43	-662
Total Industrial Passenger Cars:			*559*	*120*	*679*	*210*	*679*	*889*	*9,770*
Total Trucks:			*132*	*28*	*160*	*36*	*127*	*163*	*2,240*
Total Commercial Passenger Cars:			*142*	*79*	*221*	*255*	*159*	*414*	*4,256*
TOTAL TRIPS (Actual Vehicles)[2]			**833**	**227**	**1,060**	**501**	**965**	**1,466**	**16,266**

[1] RM = Room; TSF = Thousand Square Feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

[3] Source: ITE Trip Generation Handbook, 3rd Edition, 2017.

Table 4-3

Project Trip Generation Summary (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Phase 1									
High-Cube Fulfillment Center	1,379.191	TSF							
Passenger Cars:			109	33	142	56	143	199	2,414
Truck Trips:									
2-4-axle:			17	5	22	8	22	30	448
5+-axle:			35	10	45	12	30	42	898
- Truck Trips (PCE)[2]			52	15	67	20	52	72	1,346
Phase 1 Total (PCE):			**161**	**48**	**209**	**76**	**195**	**271**	**3,760**
Phase 2									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			55	17	72	28	71	99	1,458
5+-axle:			114	34	148	38	97	135	2,930
- Truck Trips (PCE)[2]			169	51	220	66	168	234	4,388
Subtotal			526	158	684	247	635	882	12,264
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			37	5	42	5	33	38	298
3-axle:			24	3	27	3	21	24	194
4+-axle:			88	12	100	12	78	90	708
- Truck Trips (PCE)[2]			149	20	169	20	132	152	1,200
Subtotal			391	53	444	52	347	399	3,150
Phase 2 Passenger Cars:			*599*	*140*	*739*	*213*	*682*	*895*	*9,826*
Phase 2 Trucks (PCE):			*318*	*71*	*389*	*86*	*300*	*386*	*5,588*
Phase 2 Total (PCE):			**917**	**211**	**1,128**	**299**	**982**	**1,281**	**15,414**
Project Buildout									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			55	17	72	28	71	99	1,458
5+-axle:			114	34	148	38	97	135	2,930
- Truck Trips (PCE)[2]			169	51	220	66	168	234	4,388
Internal Trip Reduction (Office - Employees only)			-10	-5	-15	-1	-1	-2	-20
Subtotal			516	153	669	246	634	881	12,244

Table 4-3

Project Trip Generation Summary (PCE)

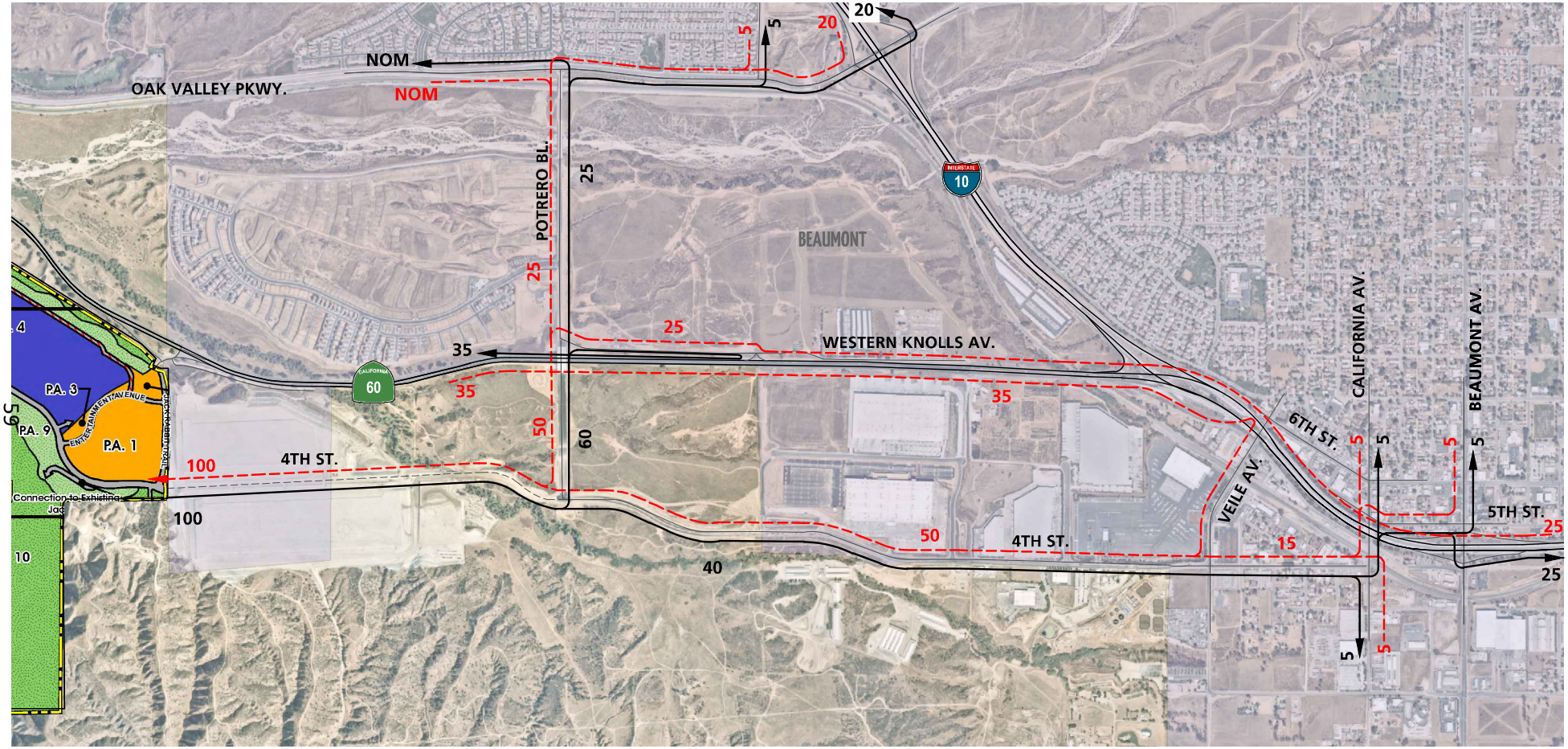
Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			37	5	42	5	33	38	298
3-axle:			24	3	27	3	21	24	194
4+-axle:			88	12	100	12	78	90	708
- Truck Trips (PCE)[2]			149	20	169	20	132	152	1,200
Internal Trip Reduction (Office - Employees only)			-30	-15	-45	-2	-2	-5	-36
Subtotal			361	38	399	50	345	395	3,114
Hotel	125	RM	35	24	59	38	37	75	1,046
Internal Trip Reduction (Hotel)			-1	-20	-21	-7	-8	-15	-210
Go Kart	77.000	TSF	0	0	0	28	21	49	522
Rock Climbing	26.000	TSF	12	24	36	24	18	42	426
Trampoline Park	24.000	TSF	0	0	0	17	19	36	360
Bowling Alley	40.000	TSF	31	2	33	30	16	46	464
Miniature Golf	36	Holes	0	0	0	4	8	12	120
Quality Restaurant	15.000	TSF	5	5	10	78	39	117	1,258
Internal Trip Reduction (Restaurant)			-9	-9	-18	-4	-4	-8	-92
Pass-by Reductions (PM/Daily = 44%)[3]			0	0	0	-15	-15	-31	-514
High Turnover Sit-Down Restaurant	15.000	TSF	82	67	149	91	56	147	1,684
Internal Trip Reduction (Restaurant)			-13	-14	-27	-7	-6	-13	-146
Pass-by Reductions (PM/Daily = 43%)[3]			0	0	0	-22	-22	-43	-662
Total Industrial Passenger Cars:			*559*	*120*	*679*	*210*	*679*	*889*	*9,770*
Total Trucks (PCE):			*318*	*71*	*389*	*86*	*300*	*386*	*5,588*
Total Commercial Passenger Cars:			*142*	*79*	*221*	*255*	*159*	*414*	*4,256*
TOTAL TRIPS (PCE)[3]			**1,019**	**270**	**1,289**	**551**	**1,138**	**1,689**	**19,614**

[1] RM = Room; TSF = Thousand Square Feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

[3] Source: ITE Trip Generation Handbook, 3rd Edition, 2017.

EXHIBIT 4-1: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION WITHOUT POTRERO BOULEVARD INTERCHANGE



LEGEND:

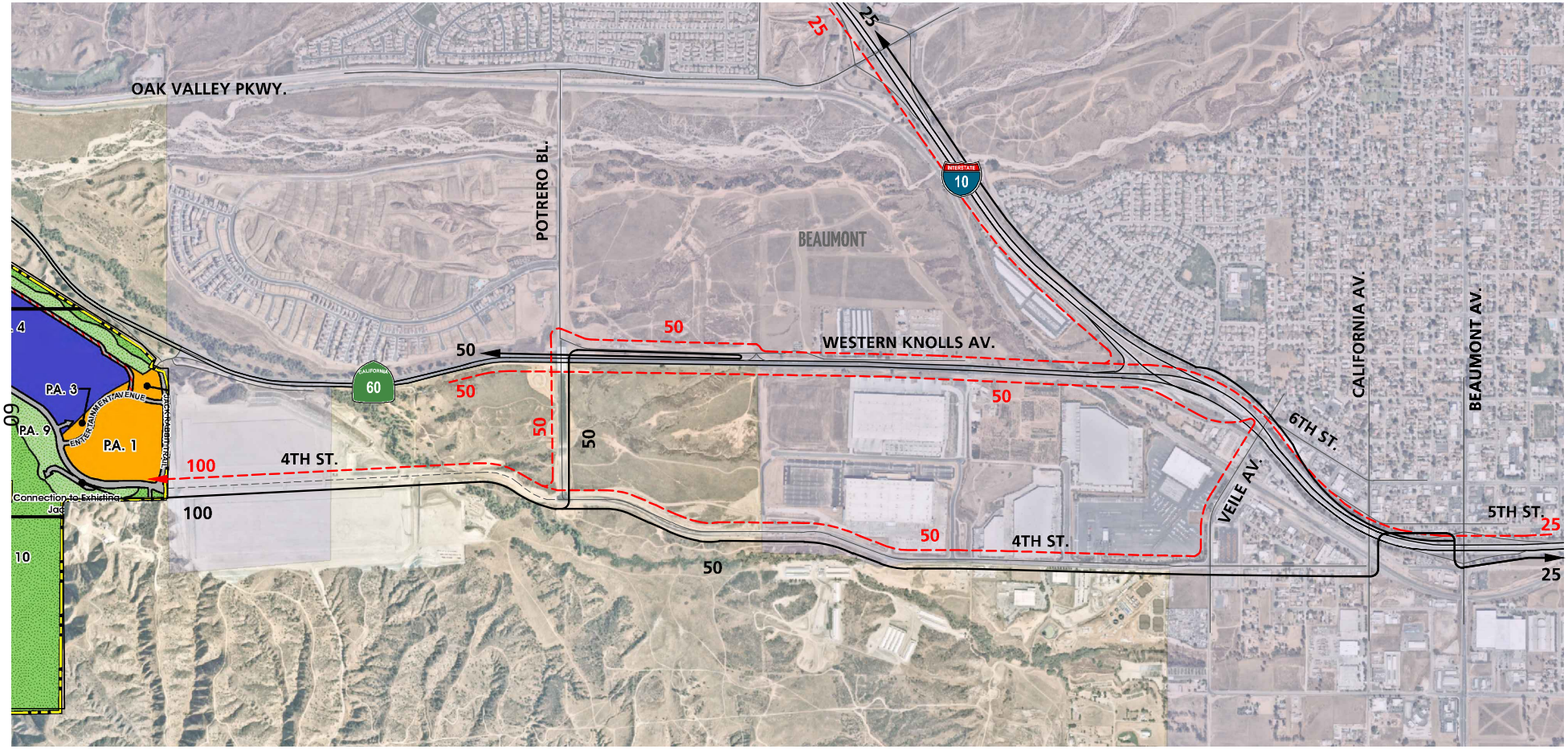
10 = PERCENT TO/FROM PROJECT

◄—— = OUTBOUND

◄- - - = INBOUND

N

EXHIBIT 4-2: PROJECT (TRUCK) TRIP DISTRIBUTION WITHOUT POTRERO BOULEVARD INTERCHANGE



LEGEND:

10 = PERCENT TO/FROM PROJECT

◄—— = OUTBOUND

◄- - - = INBOUND

N

EXHIBIT 4-3: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION WITH POTRERO BOULEVARD INTERCHANGE

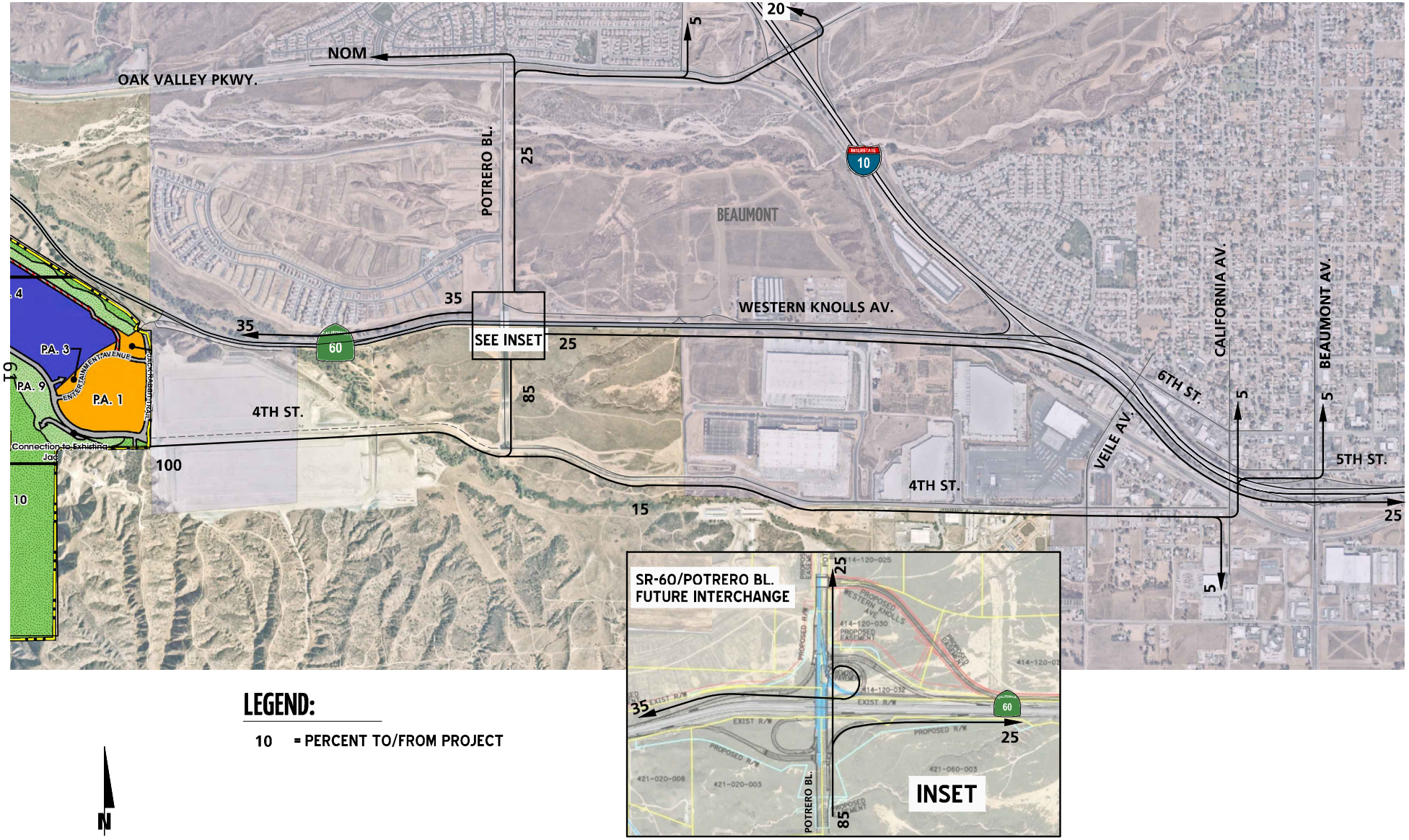


EXHIBIT 4-4: PROJECT (TRUCK) TRIP DISTRIBUTION WITH POTRERO BOULEVARD INTERCHANGE

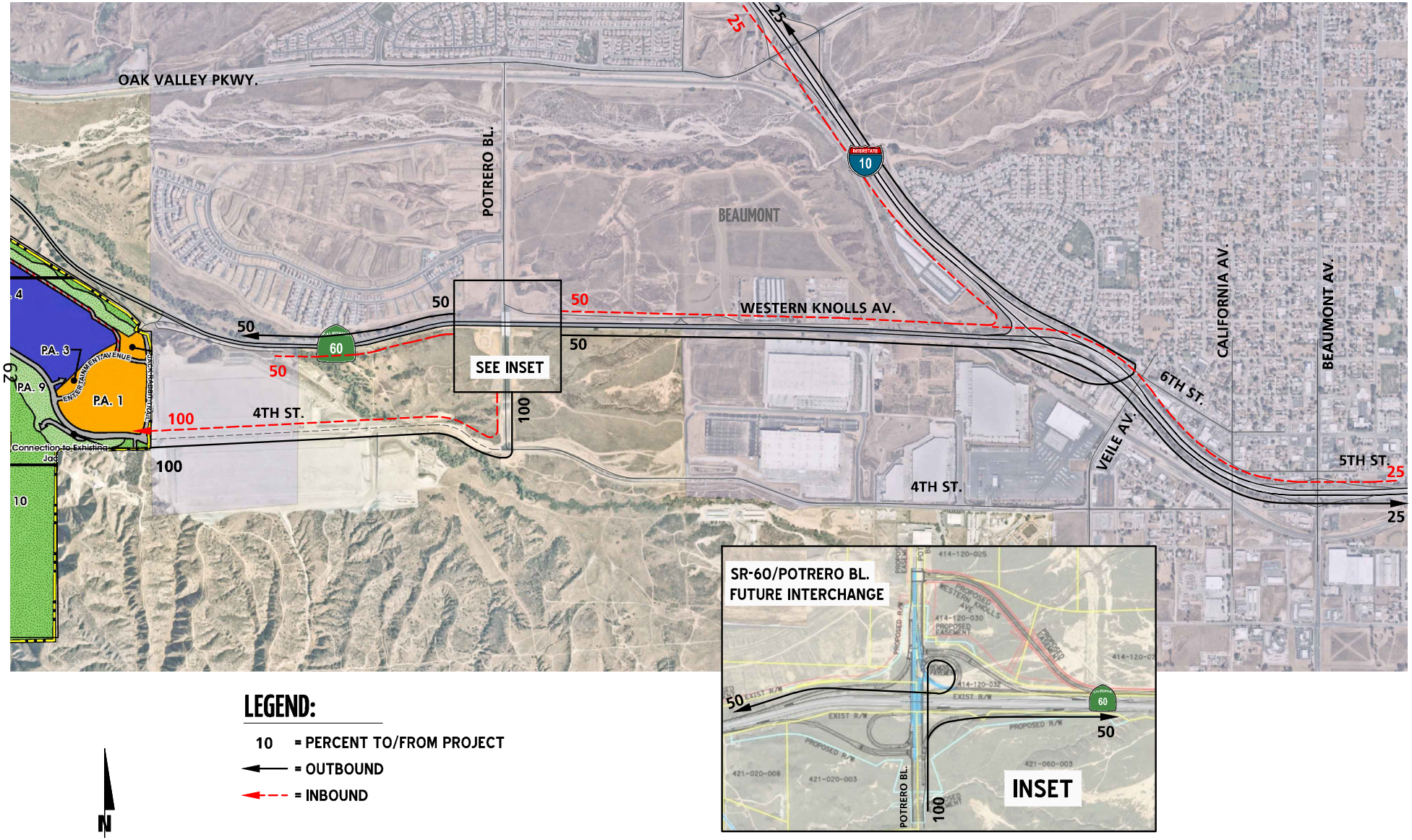
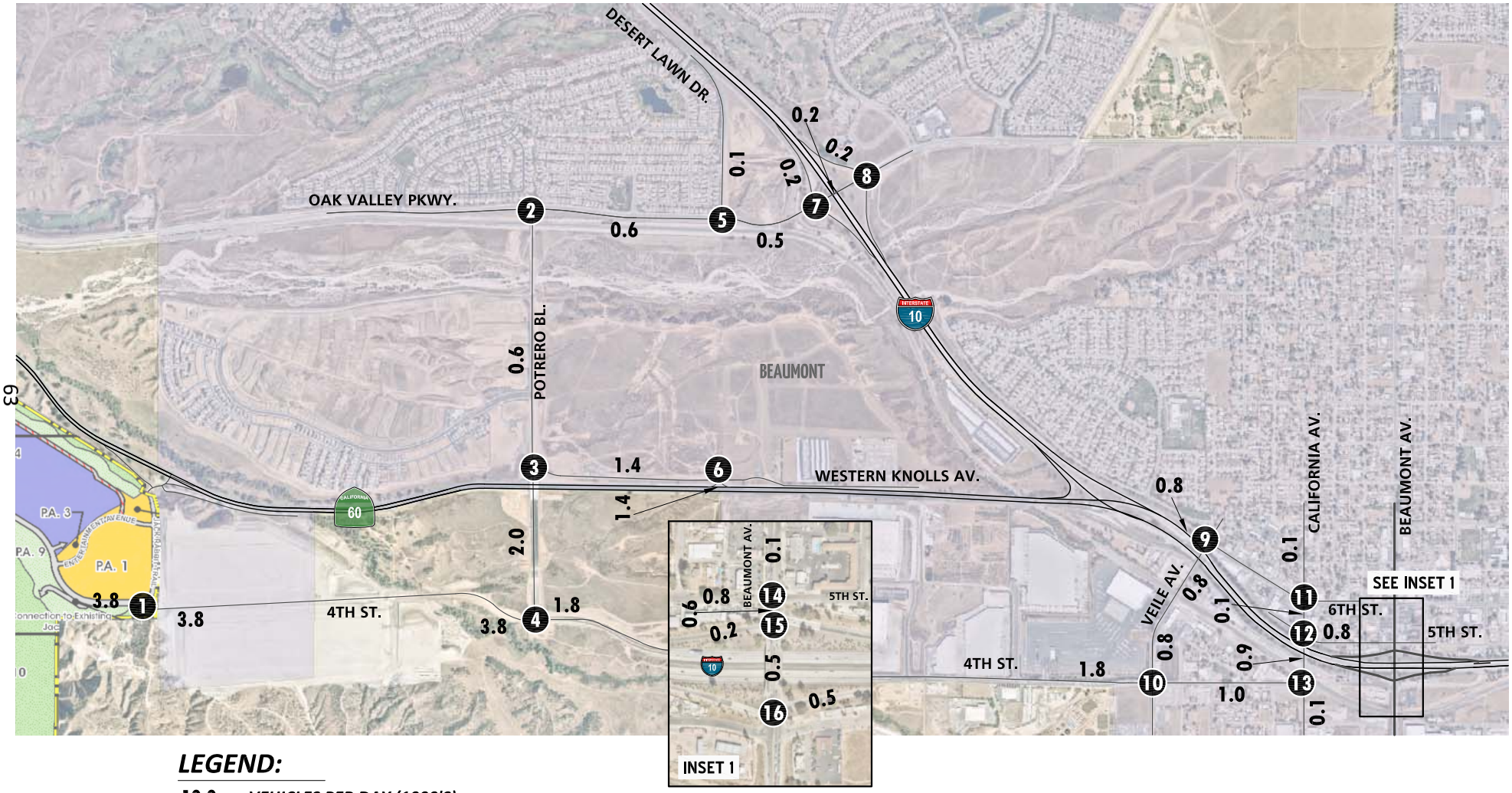


EXHIBIT 4-5: PROJECT (PHASE 1) WITHOUT POTRERO BOULEVARD INTERCHANGE AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

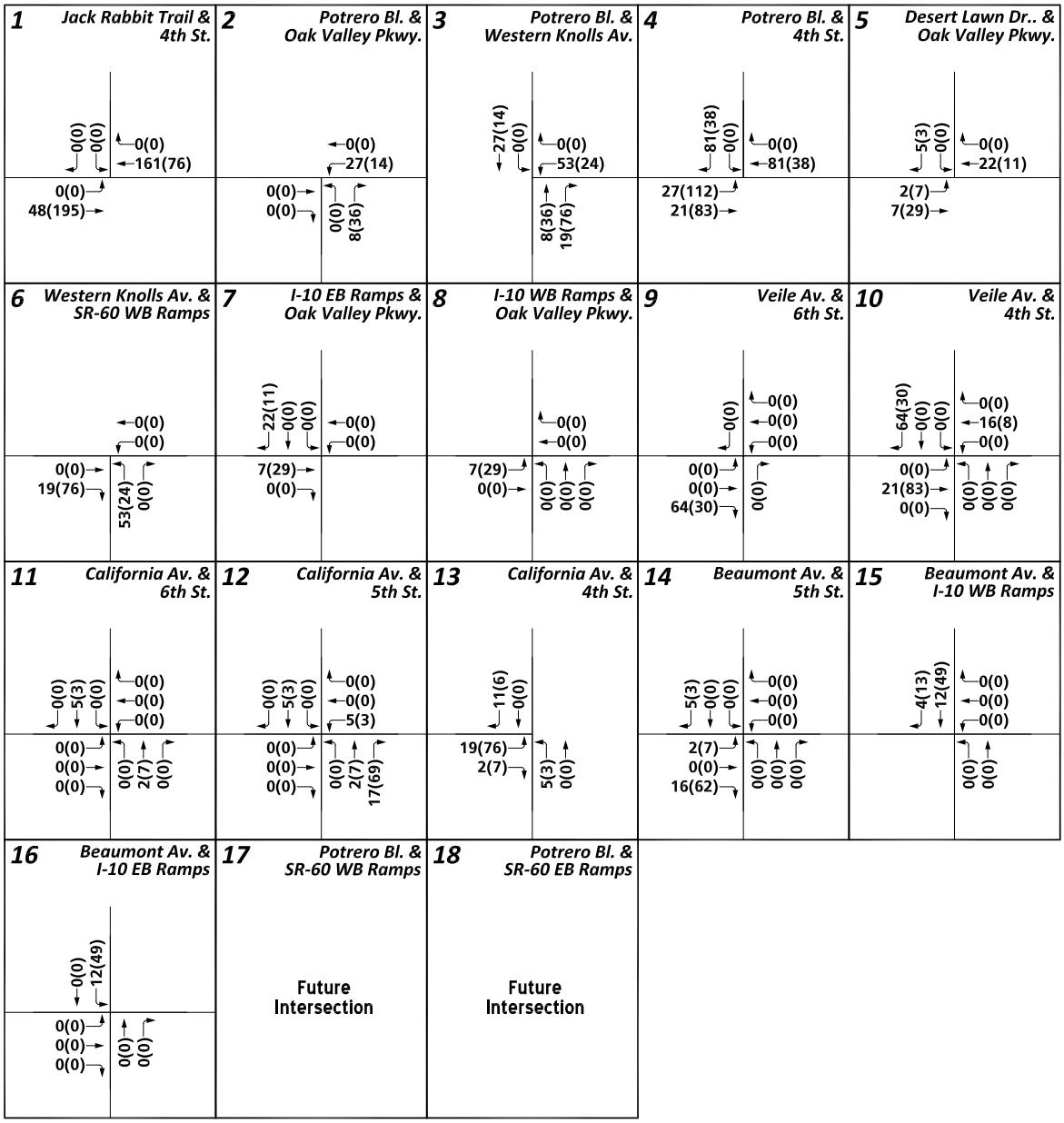


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 4-6: PROJECT (PHASE 1) WITHOUT POTRERO BOULEVARD INTERCHANGE TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



EXHIBIT 4-7: PROJECT (PHASE 2) WITHOUT POTRERO BOULEVARD INTERCHANGE AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

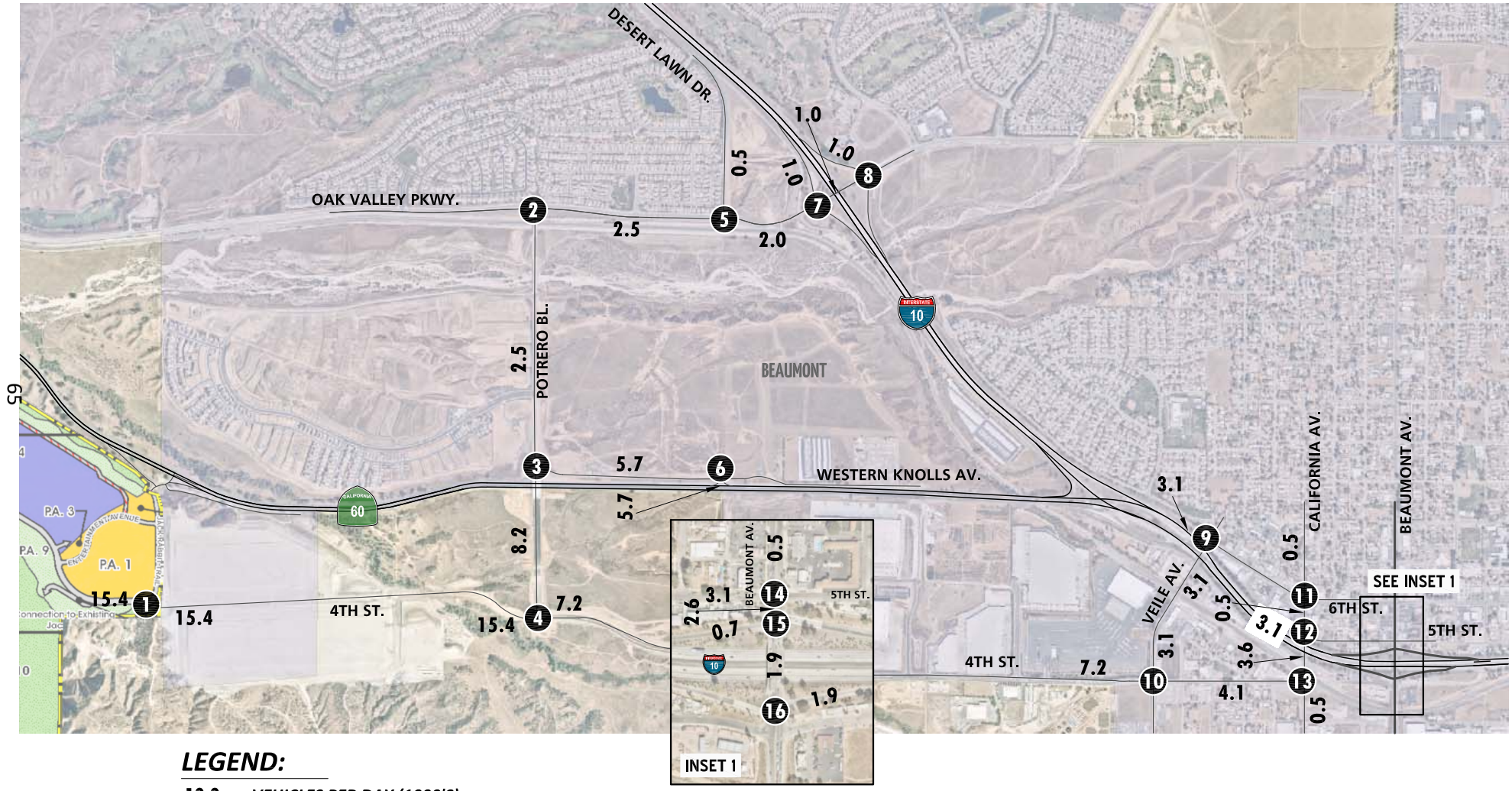
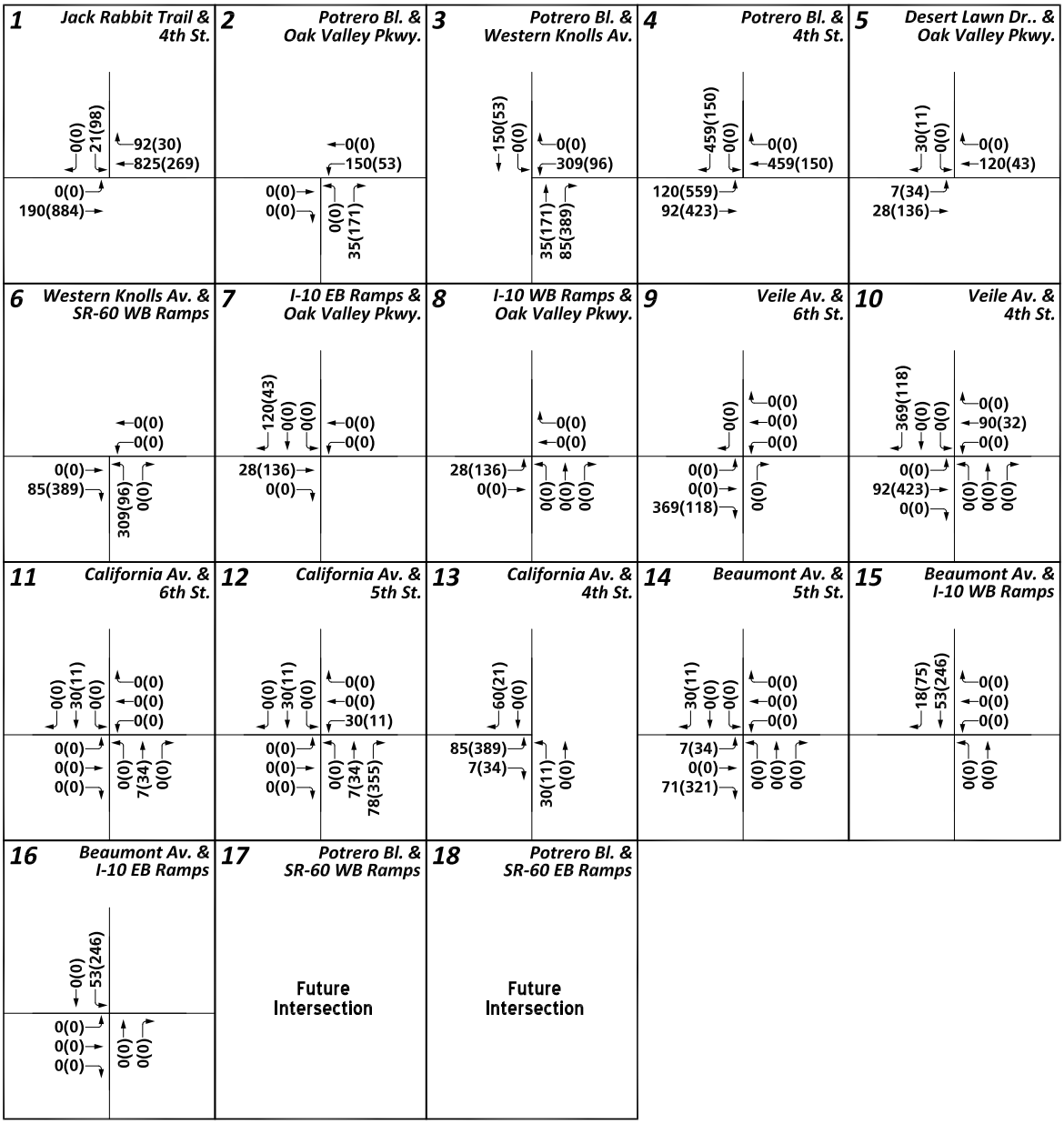


EXHIBIT 4-8: PROJECT (PHASE 2) WITHOUT POTRERO BOULEVARD INTERCHANGE TRAFFIC VOLUMES (IN PCE)

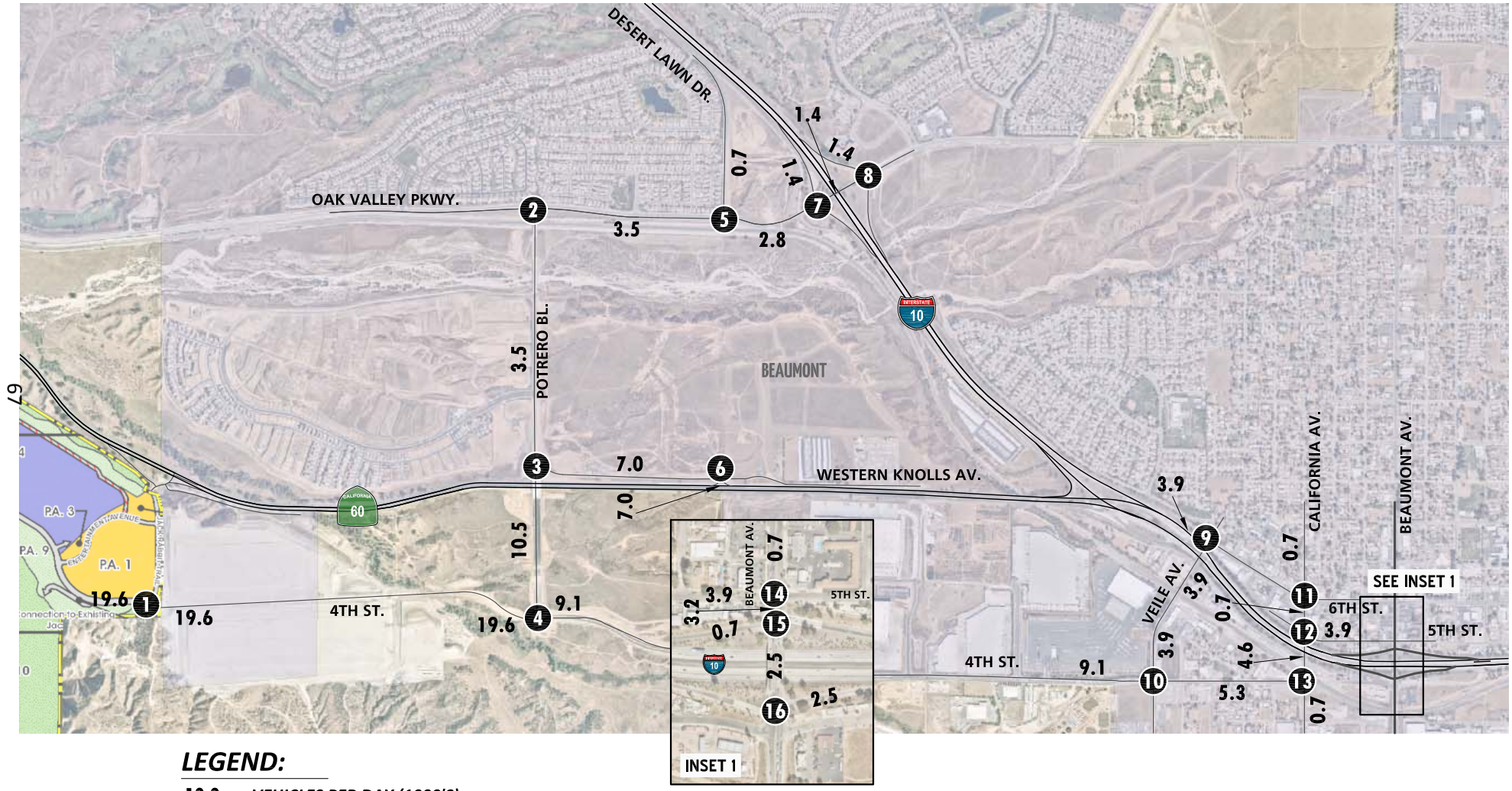


LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



EXHIBIT 4-9: PROJECT (PROJECT BUILDOUT) WITHOUT POTRERO BOULEVARD INTERCHANGE AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

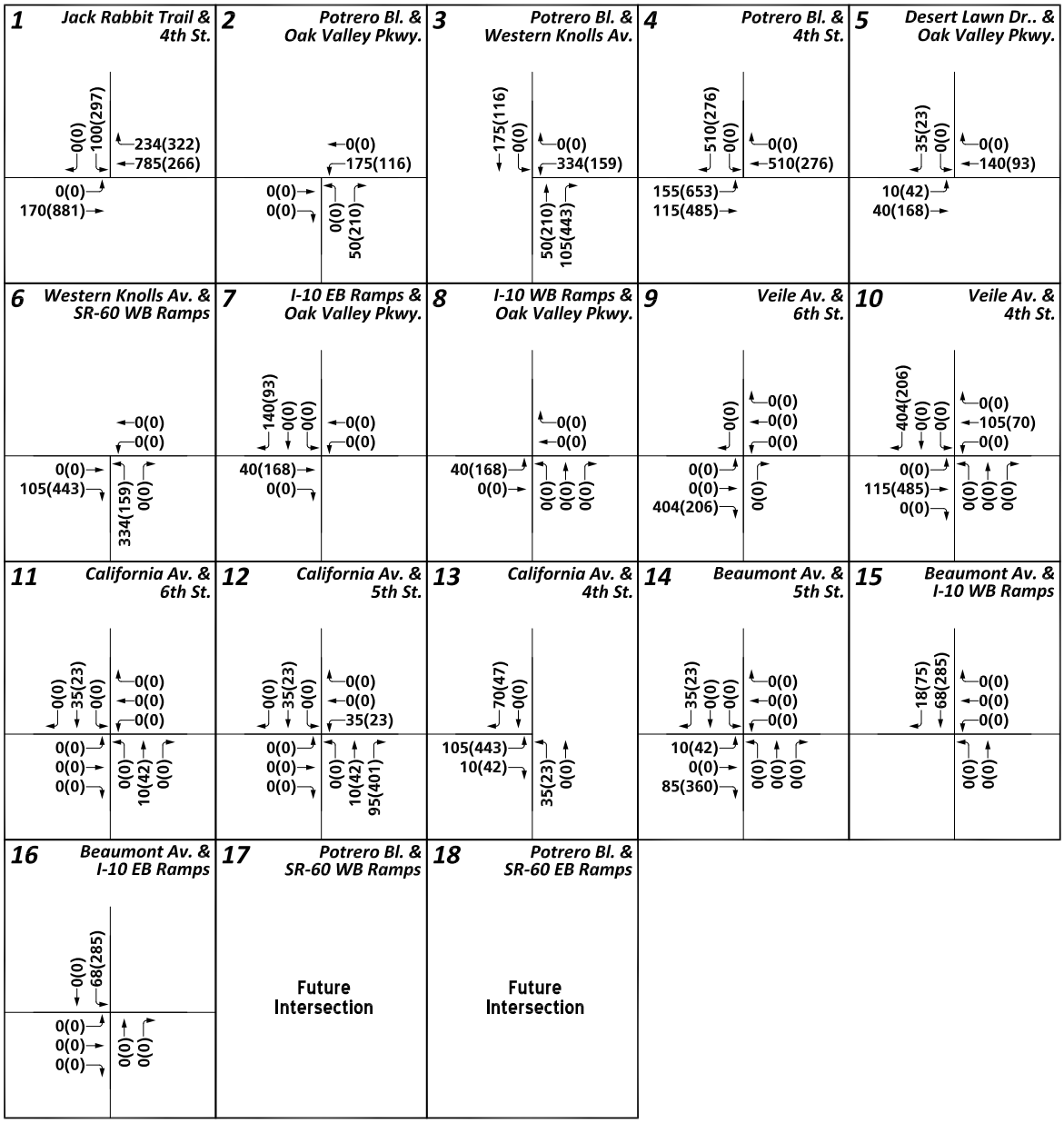


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 4-10: PROJECT (PROJECT BUILDOUT) WITHOUT POTRERO BOULEVARD INTERCHANGE TRAFFIC VOLUMES (IN PCE)

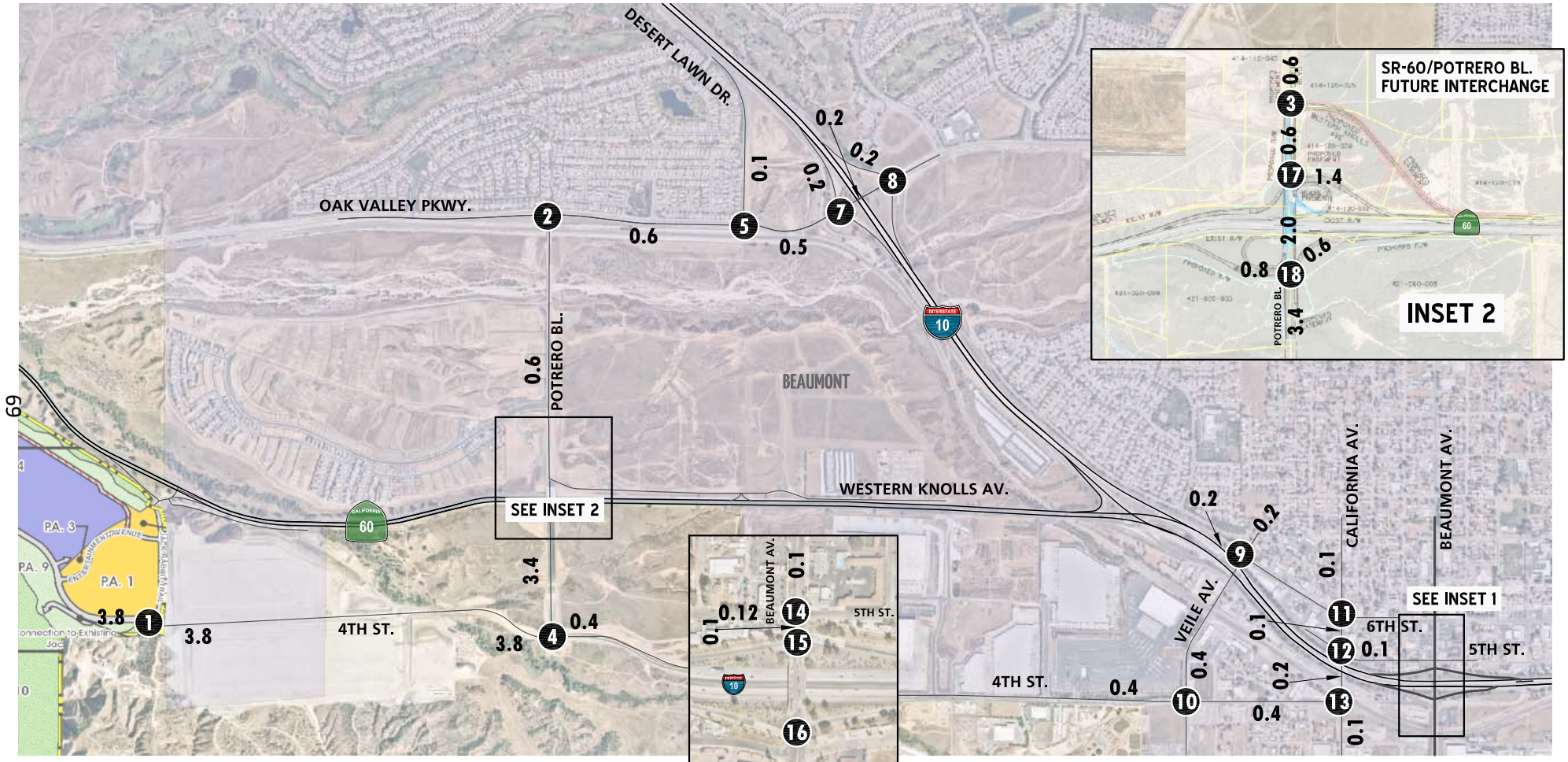


LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



EXHIBIT 4-11: PROJECT (PHASE 1) WITH POTRERO BOULEVARD INTERCHANGE AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

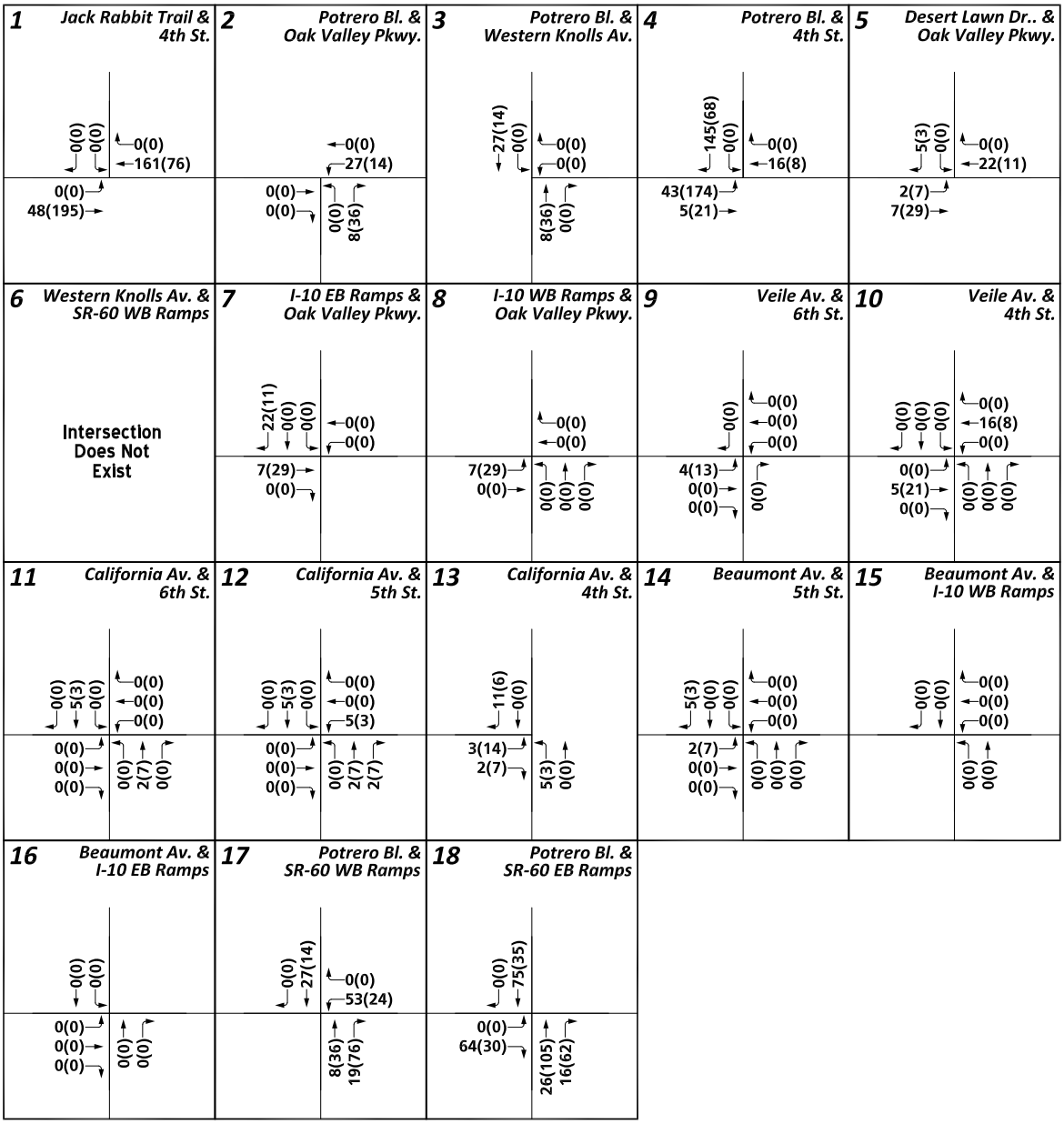


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 4-12: PROJECT (PHASE 1) WITH POTRERO BOULEVARD INTERCHANGE TRAFFIC VOLUMES (IN PCE)



LEGEND:

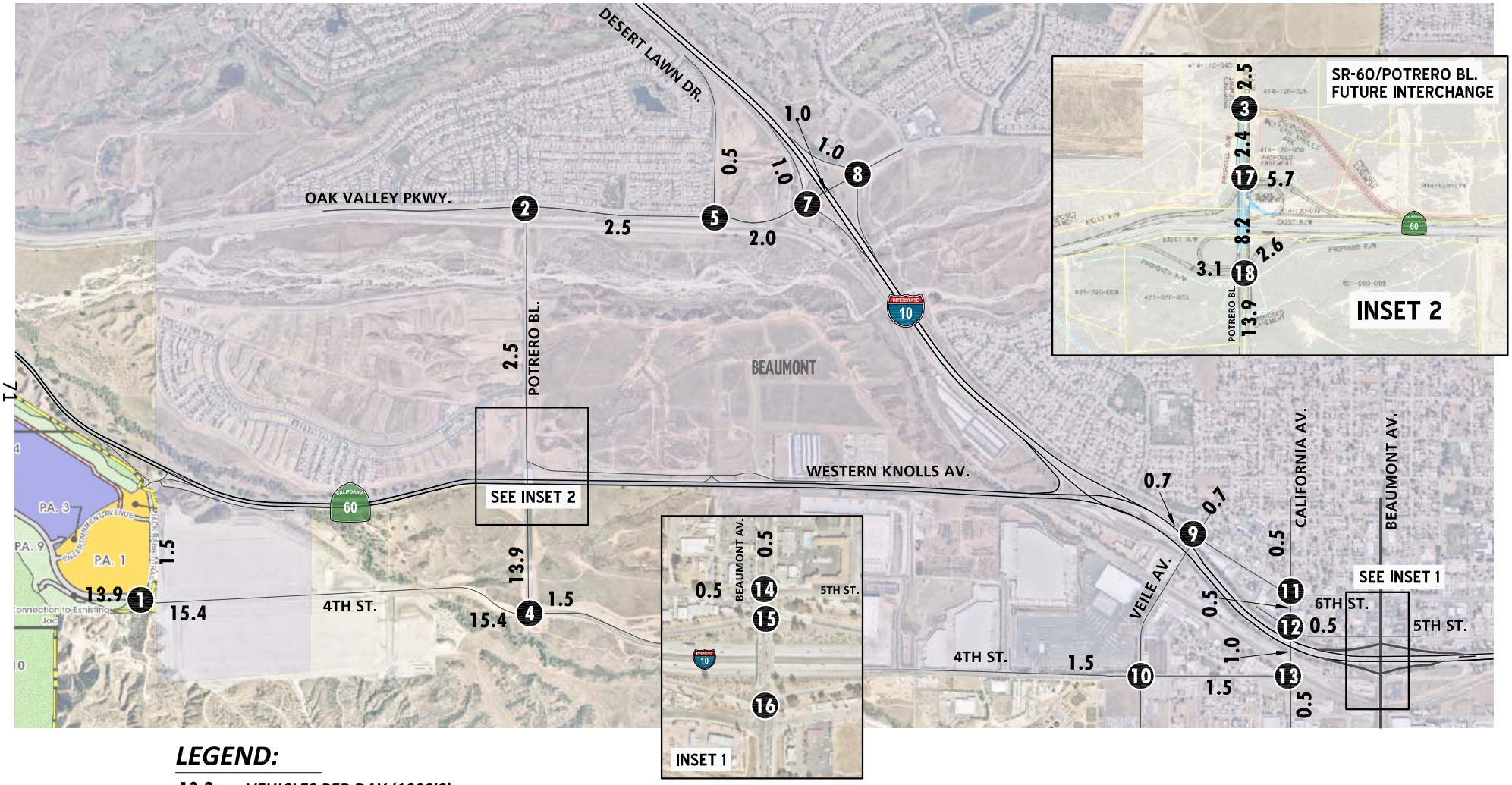
10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***

N

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EXHIBIT 4-13: PROJECT (PHASE 2) WITH POTRERO BOULEVARD INTERCHANGE AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

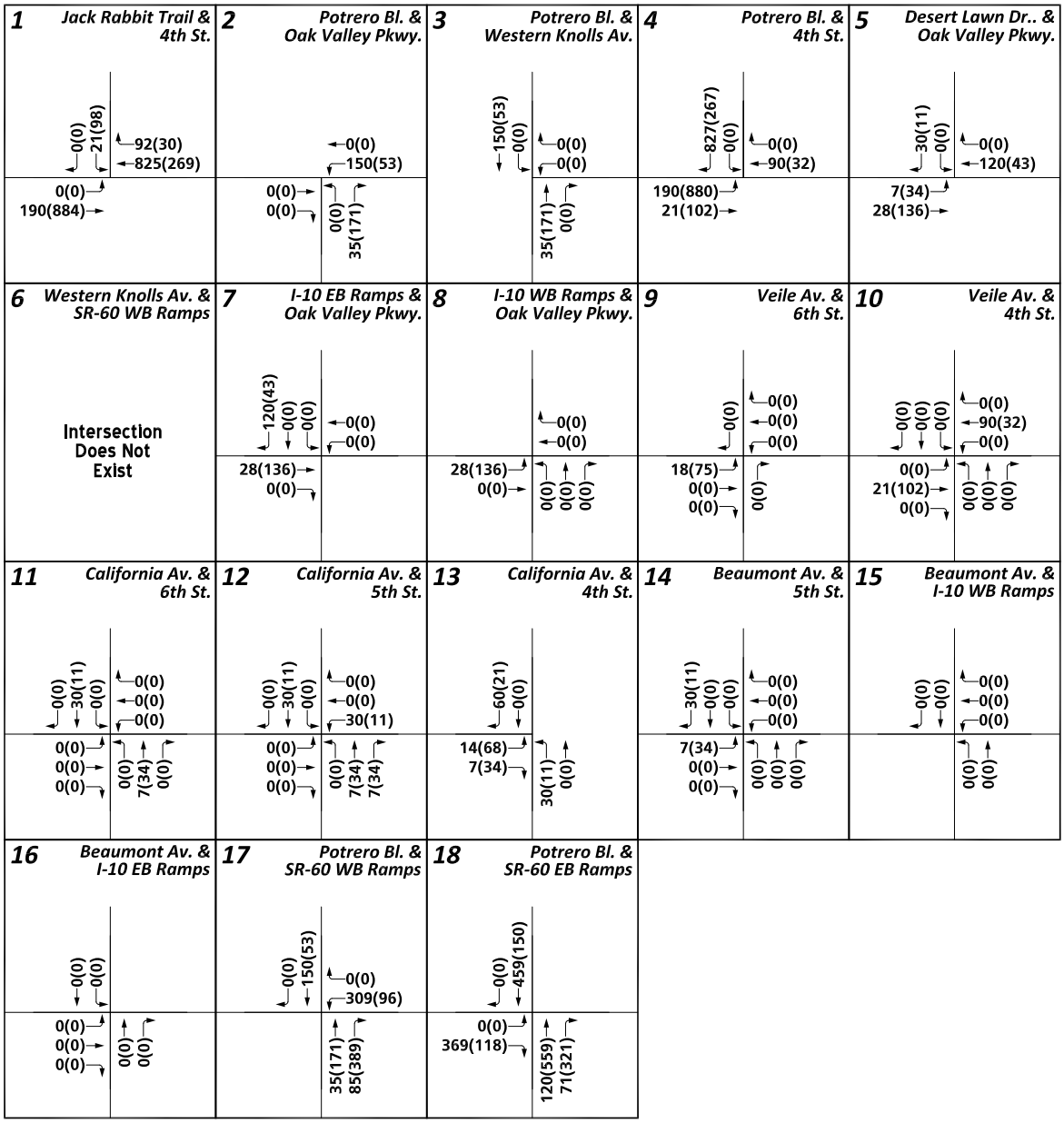


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 4-14: PROJECT (PHASE 2) WITH POTRERO BOULEVARD INTERCHANGE TRAFFIC VOLUMES (IN PCE)

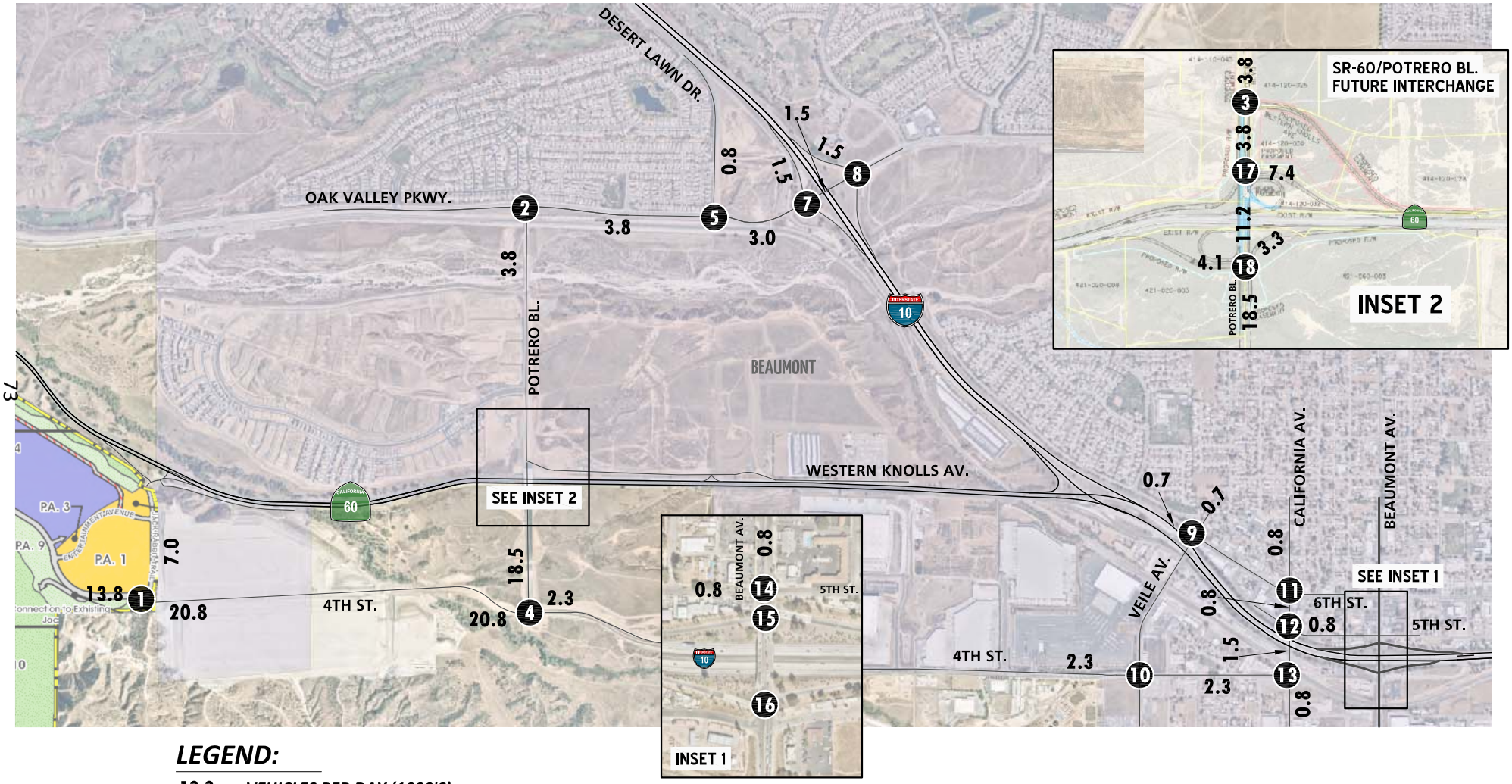


LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



EXHIBIT 4-15: PROJECT (PROJECT BUILDOUT) WITH POTRERO BOULEVARD INTERCHANGE AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

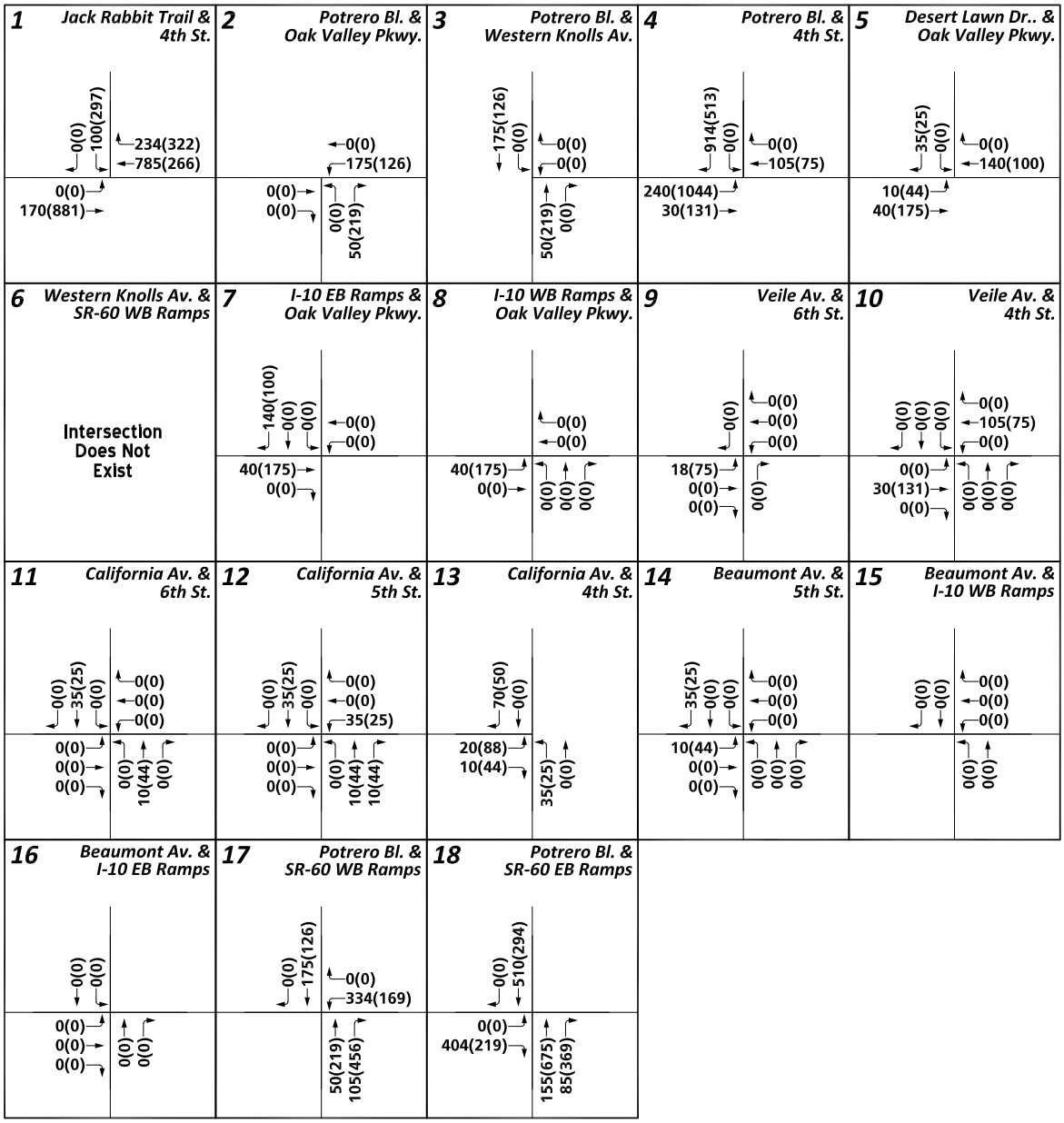


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 4-16: PROJECT (PROJECT BUILDOUT) WITH POTRERO BOULEVARD INTERCHANGE TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



4.5 BACKGROUND TRAFFIC

4.5.1 OPENING YEAR CUMULATIVE CONDITIONS

Future year traffic forecasts have been based upon background (ambient) growth at 2% per year for 2023, 2025, and 2027 traffic conditions. The total ambient growth is 6.12% for 2023 traffic conditions (compounded growth of 2 percent per year over 3 years or $1.02^{3\ years}$), 10.41% for 2025 traffic conditions (compounded growth of 2 percent per year over 5 years or $1.02^{5\ years}$), and 14.87% for 2027 traffic conditions (compounded growth of 2 percent per year over 7 years or $1.02^{7\ years}$). The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies. Opening Year Cumulative (2023), Opening Year Cumulative (2025), and Opening Year Cumulative (2027) traffic volumes are provided in Section 6, Section 7, and Section 8 of this TA. The traffic generated by the proposed Project was then manually added to the base volume to determine Opening Year Cumulative "With Project" forecasts for each applicable phase.

4.5.2 HORIZON YEAR (2045) CONDITIONS

The adopted Southern California Association of Governments (SCAG) 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (May 2020) growth forecasts for the City of Beaumont identifies projected growth in population of 80,200 in 2016 to 45,500 in 2045, or a 14.61% increase over the 29-year period. (10) The change in population equates to roughly a 1.97% growth rate, compounded annually. Similarly, growth over the same 29-year period in households is projected to increase by 76.26%, or a 1.98% annual growth rate. Finally, growth in employment over the same 29-year period is projected to increase by 70.97%, or a 1.87% annual growth rate.

Based on a comparison of Existing (2020) traffic volumes to the Horizon Year (2045) forecasts, the average growth rate is estimated at approximately 1.94%, compounded annually between Existing (2020) and 2045 traffic conditions. The annual growth rate at each individual intersection is not lower than 1.10% compounded annually to as high as 26.75% compounded annually over the same time period. Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Beaumont for Opening Year Cumulative and Horizon Year (2045) traffic conditions, especially when considered along with the addition of project-related traffic, which would tend to overstate as opposed to understate the potential effects to traffic and circulation.

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

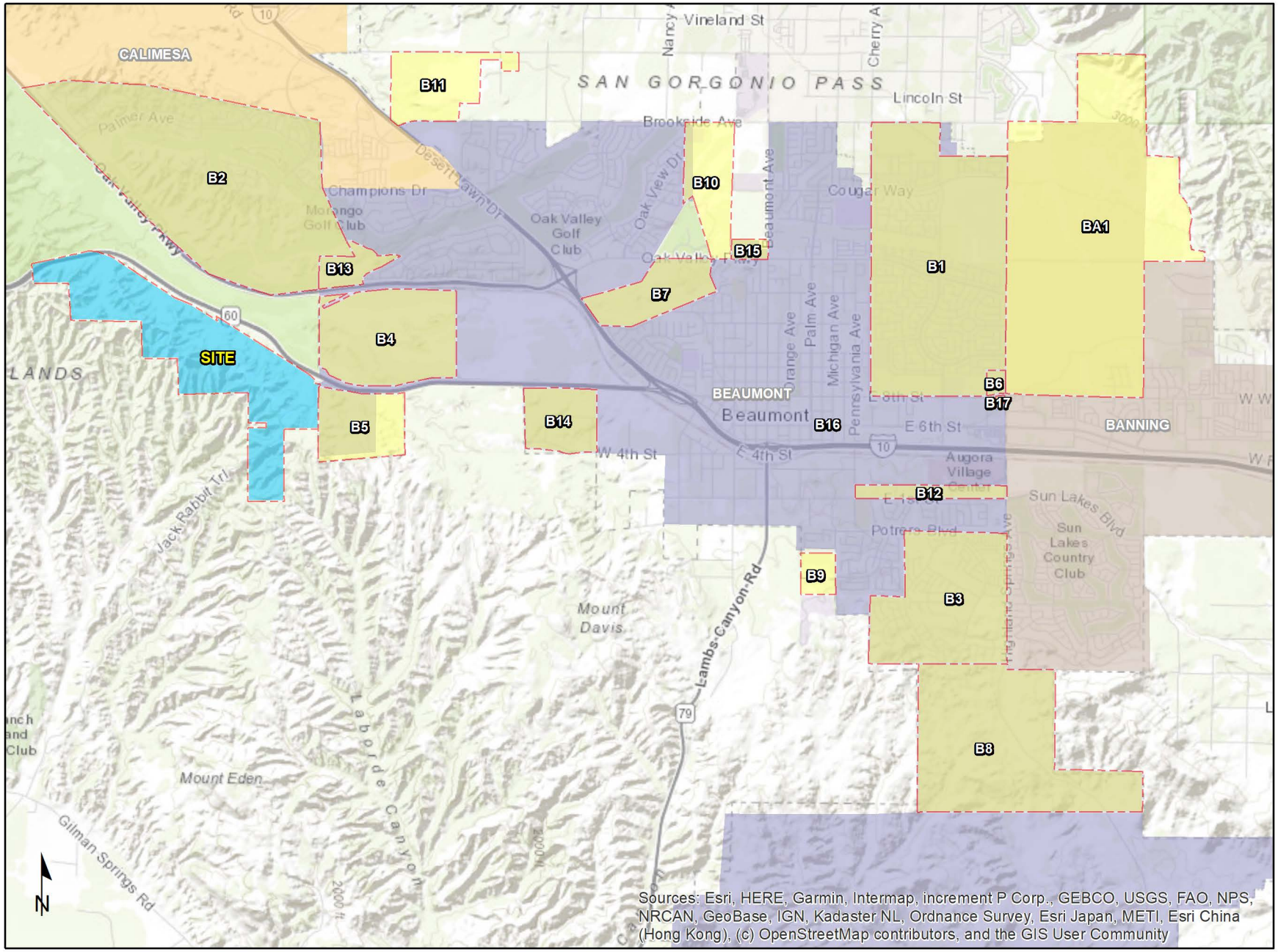
A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Beaumont. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e. 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate Opening Year Cumulative (2023, 2025, and 2027) forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-17, listed in Table 4-4, and have been considered for inclusion.

Although it is unlikely that all of these cumulative projects would be fully built and occupied by Years 2023, 2025, and 2027, they have been included in an effort to conduct a conservative analysis and overstate as opposed to understate potential traffic deficiencies. Any other cumulative projects located beyond the cumulative study area that are not expected to contribute measurable traffic to study area intersections have not been included since the traffic would dissipate due to the distance from the Project site and study area intersections. Any additional traffic generated by other projects not on the cumulative projects list is likely accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative Only ADT and peak hour intersection turning movement volumes are shown on Exhibits 4-18 and 4-19, respectively.

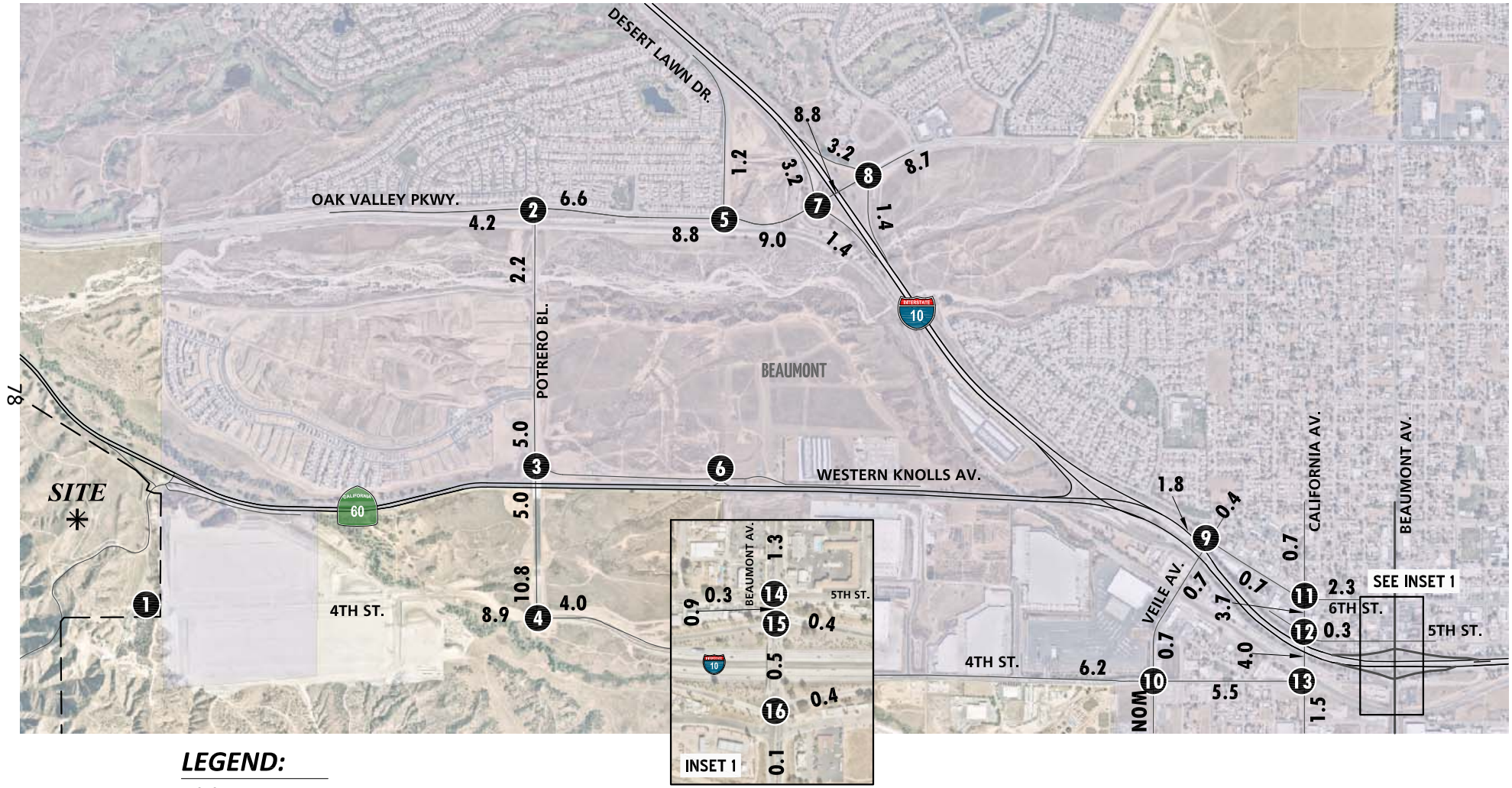
For the purposes of this study, absorption percentages have been applied to the cumulative development traffic. 35% of the cumulative development traffic is added for Opening Year Cumulative (2023) traffic volumes, 50% of the cumulative development traffic is added for Opening Year Cumulative (2025) traffic volumes, and 100% of cumulative development traffic is added for Opening Year Cumulative (2027) traffic volumes.

EXHIBIT 4-17: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP



URBAN CROSSROADS

EXHIBIT 4-18: CUMULATIVE ONLY AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



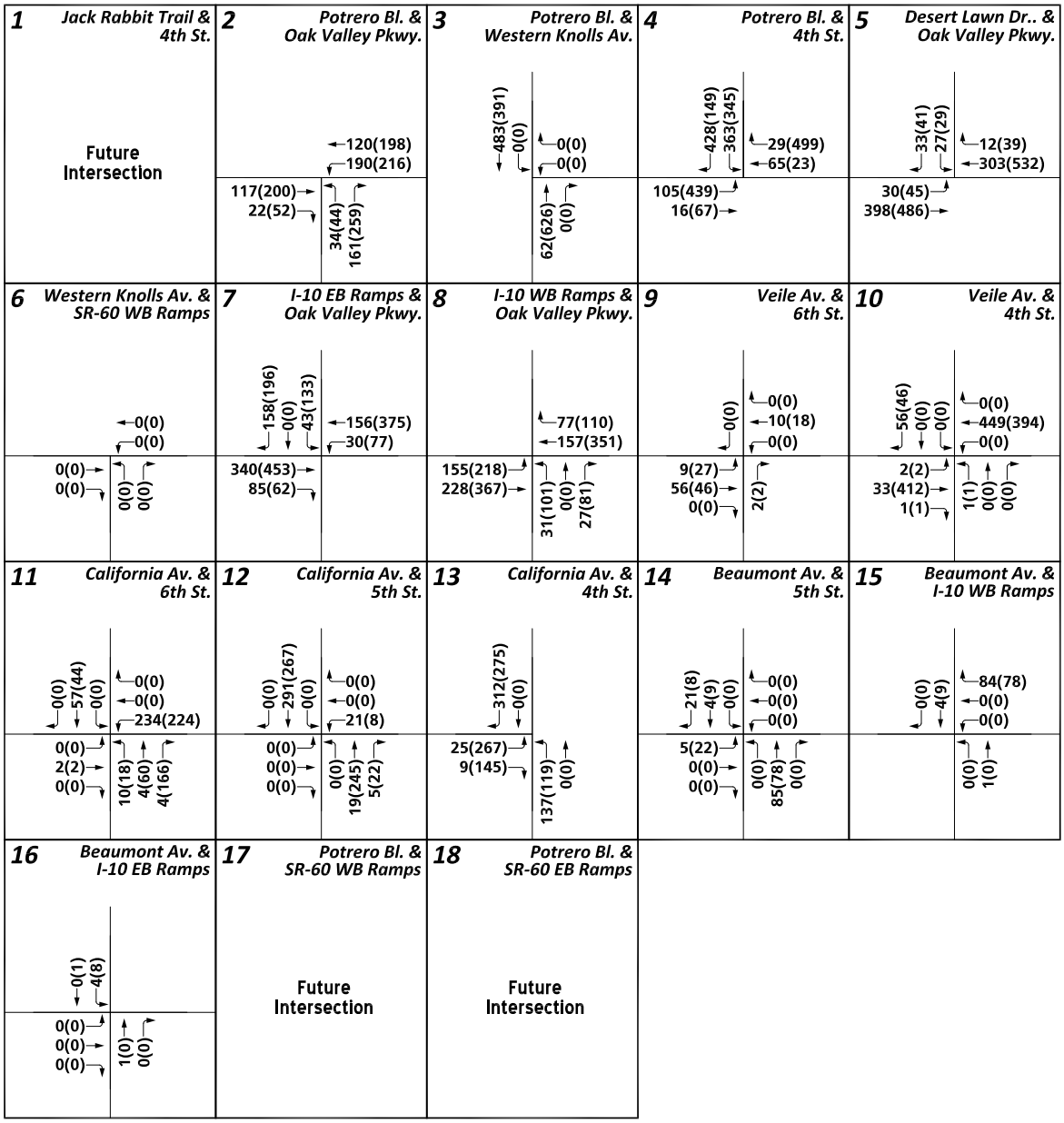
LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

NOM *= NOMINAL, LESS THAN 50 VEHICLES PER DAY*

N

EXHIBIT 4-19: CUMULATIVE ONLY TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***

Table 4-4

Cumulative Development Land Use Summary

TAZ	Project	Land Use	Quantity[1]
City of Beaumont			
B1	Sundance	Residential	4,450 DU
B2	Fairway Canyon SCPGA	Residential	3,300 DU
B3	Four Seasons Tract No. 32260 & 33096	Residential	1,890 DU
B4	Heartland (Olivewood)	Residential	981 DU
B5	Hidden Canyon Industrial	Industrial	2,890.000 TSF
B6	Sundance Corporate Center	Commercial/Industrial	13.60 AC
B7	Kirkwood Ranch	Residential	403 DU
B8	Potrero Creek Estates	Residential	700 DU
B9	Tract No. 32850	Residential	95 DU
B10	Noble Creek Vistas	Residential	648 DU
B11	Sunny-Cal Specific Plan	Residential	571 DU
B12	San Gorgonio Village Phase 2	Commercial	22.50 AC
B13	Tournament Hills 3, TM 36307	Residential	279 DU
B14	Rolling Hills Ranch Industrial Phase 2	Industrial	2,850.000 TSF
B15	Beaumont Village	Commercial	50.810 TSF
B16	Beyond Beaumont	Commercial	6.589 TSF
B17	Highland & 8th Retail	Fast-Food w/ Drive-Thru	3.500 TSF
		Super Con. Mkt. w/ Gas Station	12 VFP
B18	Potrero & 4th Warehouse	Indusrtrial	577.920 TSF
City of Banning			
BA1	Butterfield Specific Plan	Residential	5,387 DU
		Commercial	549.000 TSF
		Golf Course	253.9 AC
		School	23.0 AC
BA2	7-11 NWC Ramsey St. & Sunset Ave.	Gasoline/Service Station w/Conven. Mkt.	10.0 VFP
BA3	Nourish	Commercial	1.07 AC
BA4	The Alley Barber & Hair Styling	Commercial	0.16 AC

[1] AC = Acres; DU = Dwelling Units; RM = Rooms; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

4.7 NEAR-TERM TRAFFIC CONDITIONS

The "buildup" approach combines existing traffic counts with a background ambient growth factor to forecast the near-term 2023, 2025, and 2027 traffic conditions. An ambient growth factor of 2.0% per year, compounded annually, accounts for background (area-wide) traffic increases that occur over time up to the years 2023, 2025, and 2027 from the year 2020. Traffic volumes generated by cumulative development projects are then added to assess the Opening Year Cumulative (2023, 2025, and 2027) traffic conditions. Lastly, Project traffic is added to assess "With Project" traffic conditions. The 2023, 2025, and 2027 roadway network is similar to the existing conditions roadway network with the exception of intersections proposed to be developed by the Project. The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- Opening Year Cumulative (2023) Without Project
    - Existing 2020 counts
    - Ambient growth traffic (6.12%)
    - Cumulative Development Project traffic (35%)
- Opening Year Cumulative (2023) With Project
    - Existing 2020 counts
    - Ambient growth traffic (6.12%)
    - Cumulative Development Project traffic (35%)
    - Project Phase 1 traffic
- Opening Year Cumulative (2025) Without Project
    - Existing 2020 counts
    - Ambient growth traffic (10.41%)
    - Cumulative Development Project traffic (50%)
- Opening Year Cumulative (2025) With Project
    - Existing 2020 counts
    - Ambient growth traffic (10.41%)
    - Cumulative Development Project traffic (50%)
    - Project Phase 1 + Phase 2 traffic
- Opening Year Cumulative (2027) Without Project
    - Existing 2020 counts
    - Ambient growth traffic (14.87%)
    - Cumulative Development Project traffic (100%)
- Opening Year Cumulative (2027) With Project
    - Existing 2020 counts
    - Ambient growth traffic (14.87%)
    - Cumulative Development Project traffic (100%)
    - Project Buildout traffic

4.8 HORIZON YEAR TRAFFIC FORECASTS

Traffic projections for Horizon Year conditions were derived from the Riverside County Transportation Analysis Model (RivTAM) regional model using accepted procedures for model forecast refinement and smoothing. The traffic forecasts reflect the area-wide growth anticipated between Existing and Horizon Year traffic conditions. The base model year for the RivTAM regional model is Year 2012 and the future year model is Year 2040.

In most instances the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Therefore, the Horizon Year peak hour forecasts were refined using the model derived long-range forecasts, base (validation) year model forecasts, along with existing peak hour traffic count data collected at each analysis location.

The refined future peak hour approach and departure volumes obtained from these calculations are then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program (NCHRP Report 255), along with initial estimates of turning movement proportions. A linear programming algorithm is used to calculate individual turning movements which match the known directional roadway segment forecast volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Horizon Year traffic conditions. However, review of the resulting model growth indicates negative growth for some of the study area intersections. In an effort to conduct a conservative analysis, reductions to traffic forecasts from either Existing or Opening Year Cumulative traffic conditions were not assumed as part of this analysis. As such, in conjunction with the addition of cumulative projects that are not consistent with the General Plan, additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable Horizon Year forecasts. Horizon Year turning volumes were compared to Opening Year Cumulative volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between Opening Year Cumulative and Horizon Year traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2020) and Horizon Year traffic conditions. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the Horizon Year peak hour forecasts.

The future Horizon Year Without Project peak hour turning movements were then reviewed by Urban Crossroads for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two freeway ramp locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis.

In an effort to conduct a conservative analysis and overstate as opposed to understate potential traffic deficiencies, the Horizon Year traffic forecasts include background traffic, traffic generated by other cumulative development projects within the study area, and the traffic generated by the proposed Project. Post-processing worksheets for Horizon Year Without Project traffic conditions are provided in Appendix 4.1.

Pursuant to discussions with the City of Beaumont during the scoping process, the year 2045 has been utilized evaluating long-range conditions. The new Riverside County Transportation Analysis Model (known as RIVCOM) is currently under development and has not yet been released and the RivTAM reflects 2040 data. As such, the regional growth rate from the newly adopted 2020 SCAG RTP/SCS report has been utilized (1.94% per year, compounded annually). This growth rate has been compounded annually to forecast 2045 forecasts using the post-processed 2040 RivTAM model data.

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5 E+P TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing Plus Project (E+P) conditions and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and freeway facility analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 E+P TRAFFIC VOLUME FORECASTS

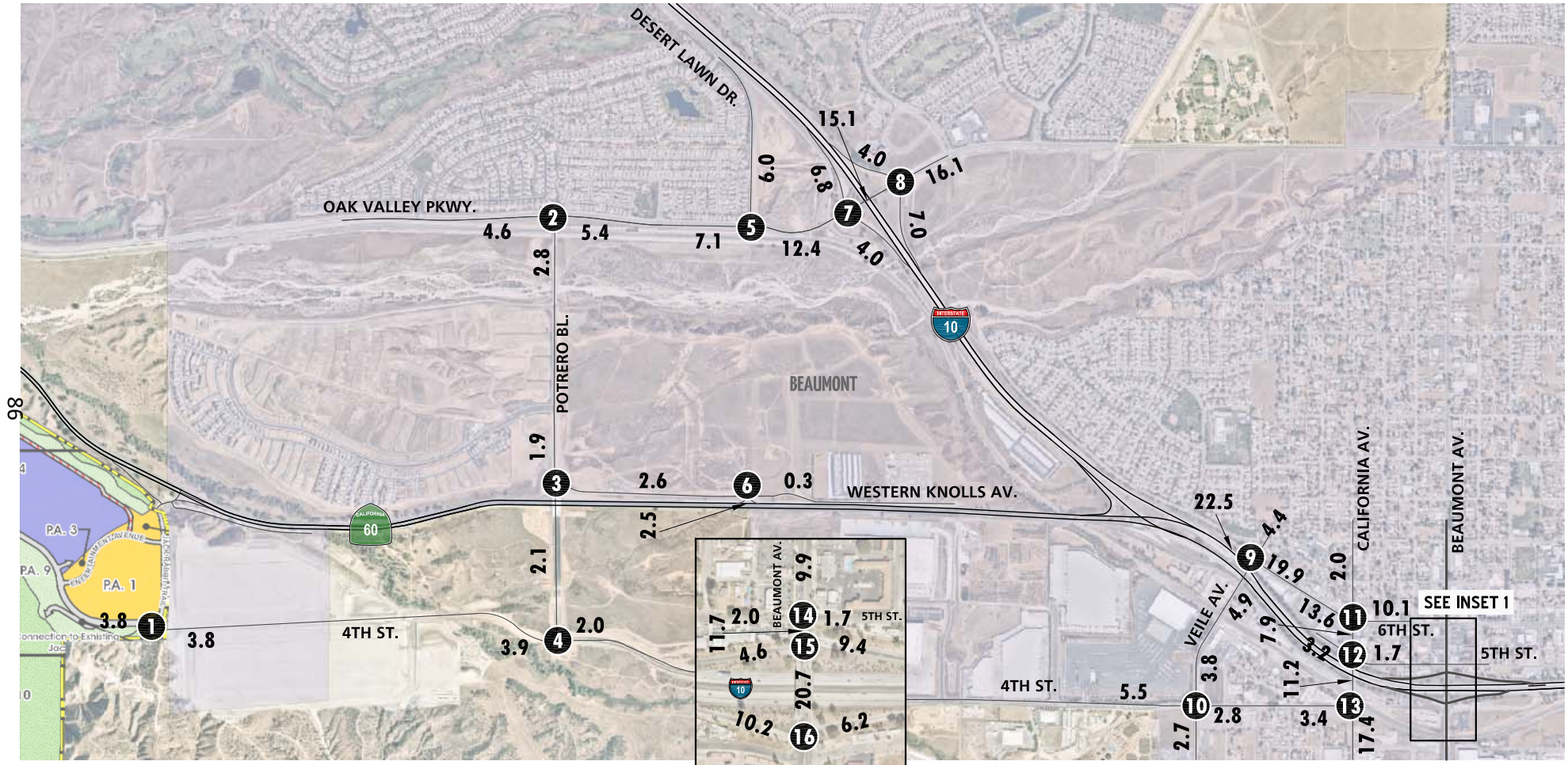
This scenario includes Existing traffic volumes plus Project (Phase 1), Project (Phase 2), and Project (Buildout) traffic. The ADT and peak hour intersection turning movement volumes which can be expected for E+P (Phase 1) traffic conditions are shown on Exhibits 5-1 and 5-2, respectively. The ADT and peak hour intersection turning movement volumes which can be expected for E+P (Phase 2) traffic conditions are shown on Exhibits 5-3 and 5-4, respectively. The ADT and peak hour intersection turning movement volumes which can be expected for E+P (Project Buildout) traffic conditions are shown on Exhibits 5-5 and 5-6, respectively.

5.3 INTERSECTION OPERATIONS ANALYSIS

5.3.1 E+P (PHASE 1) CONDITIONS

E+P (Phase 1) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1, which indicates that with the addition of Project (Phase 1) traffic, there are no additional study area intersections anticipated to operate at an unacceptable LOS during the peak hours, in addition to the intersections identified under Existing (2020) traffic conditions. A summary of the peak hour intersection LOS for E+P (Phase 1) traffic conditions is shown on Exhibit 5-7. The intersection operations analysis worksheets for E+P (Phase 1) traffic conditions are included in Appendix 5.1 of this TA.

EXHIBIT 5-1: E+P (PHASE 1) AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

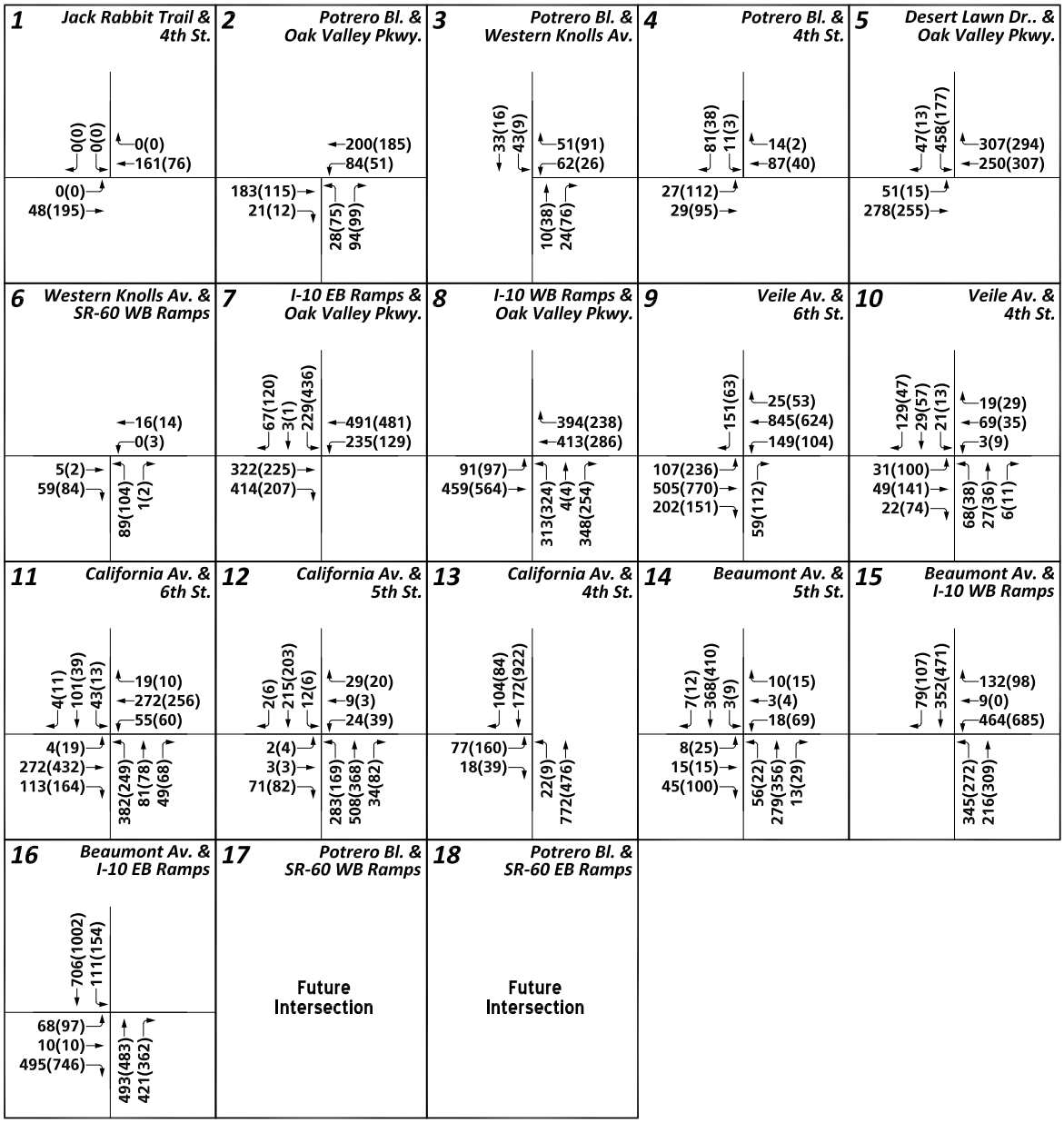


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 5-2: E+P (PHASE 1) TRAFFIC VOLUMES (IN PCE)



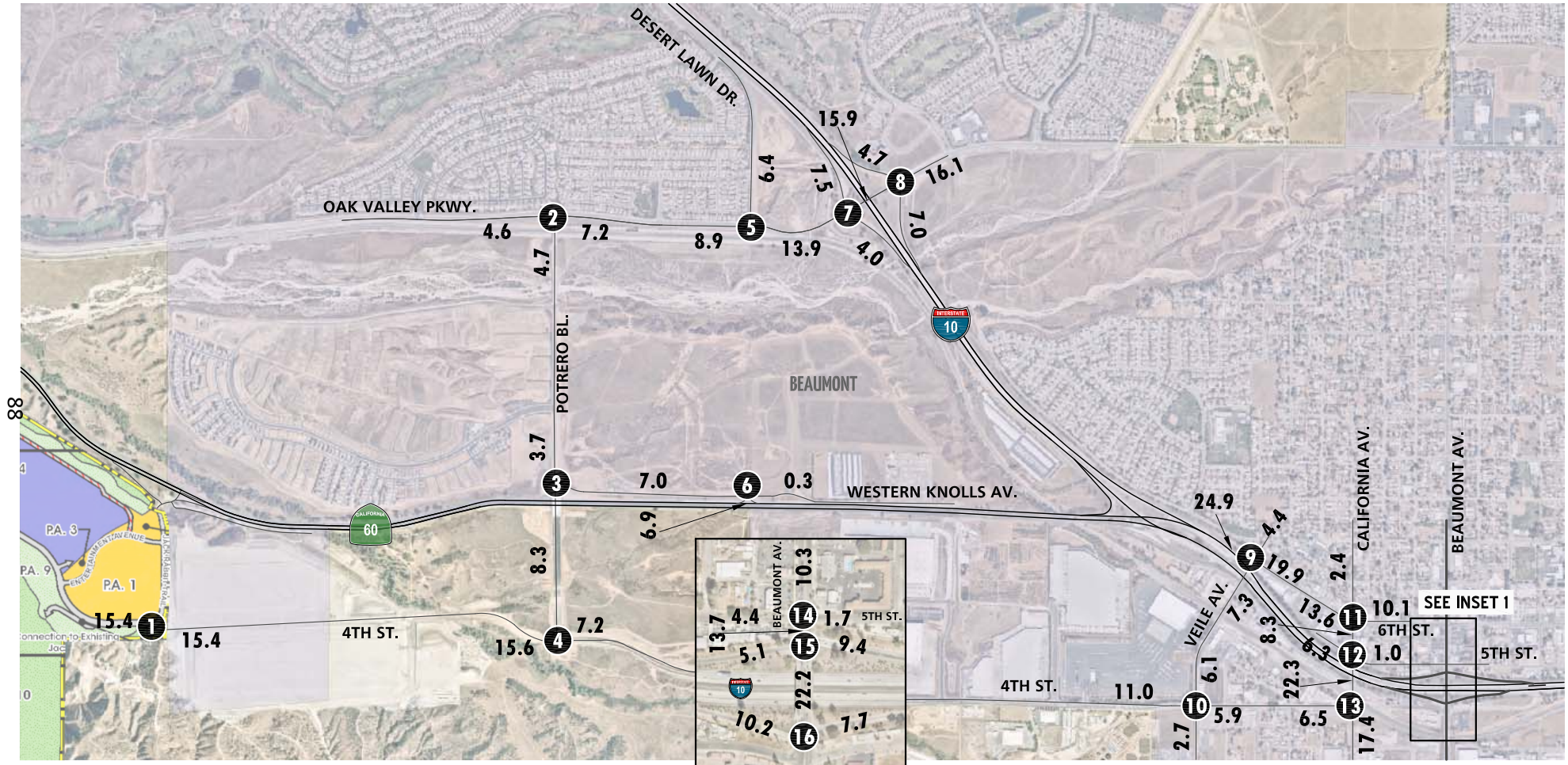
LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



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EXHIBIT 5-3: E+P (PHASE 2) AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

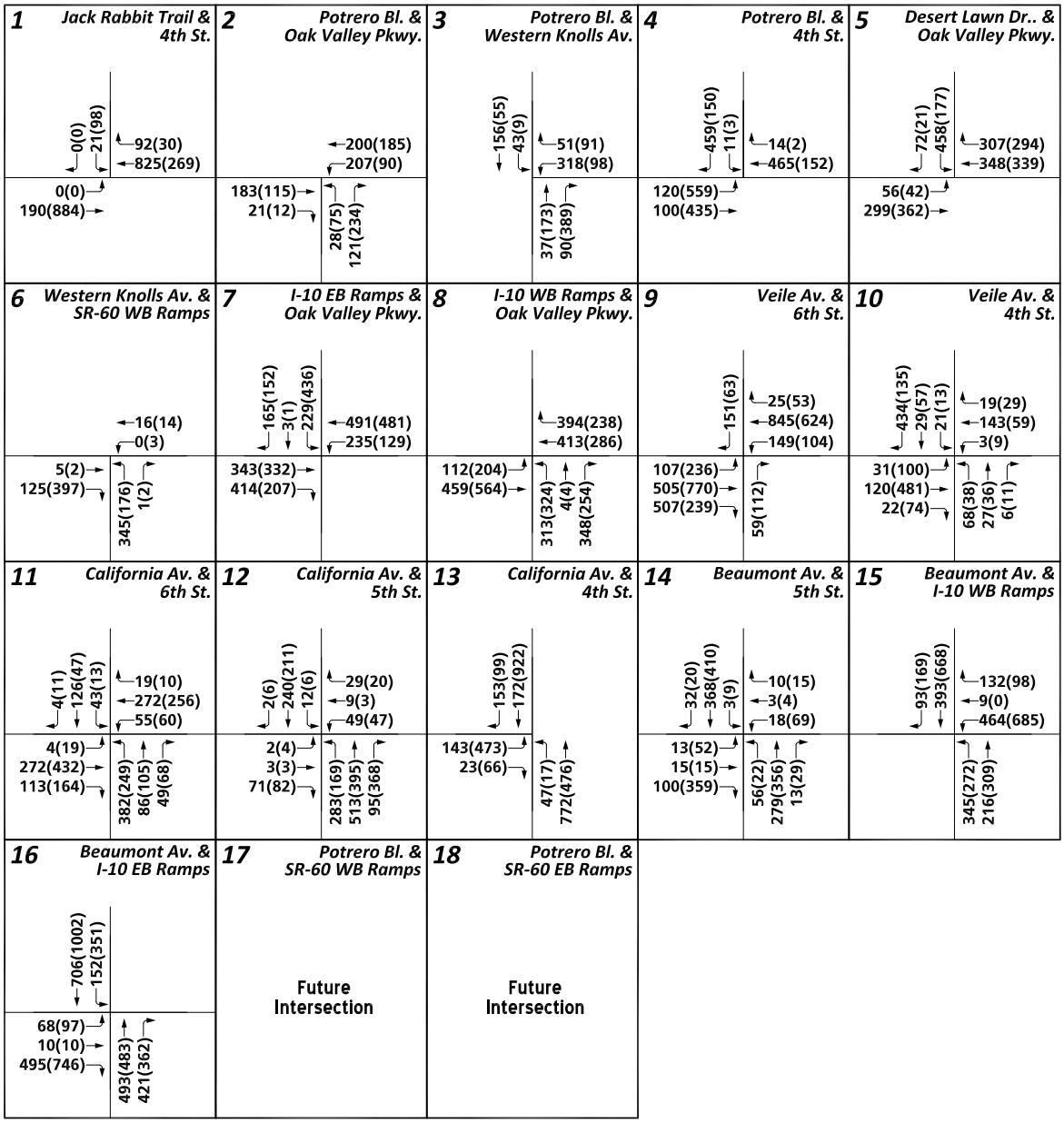


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 5-4: E+P (PHASE 2) TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***

EXHIBIT 5-5: E+P (PROJECT BUILDOUT) AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

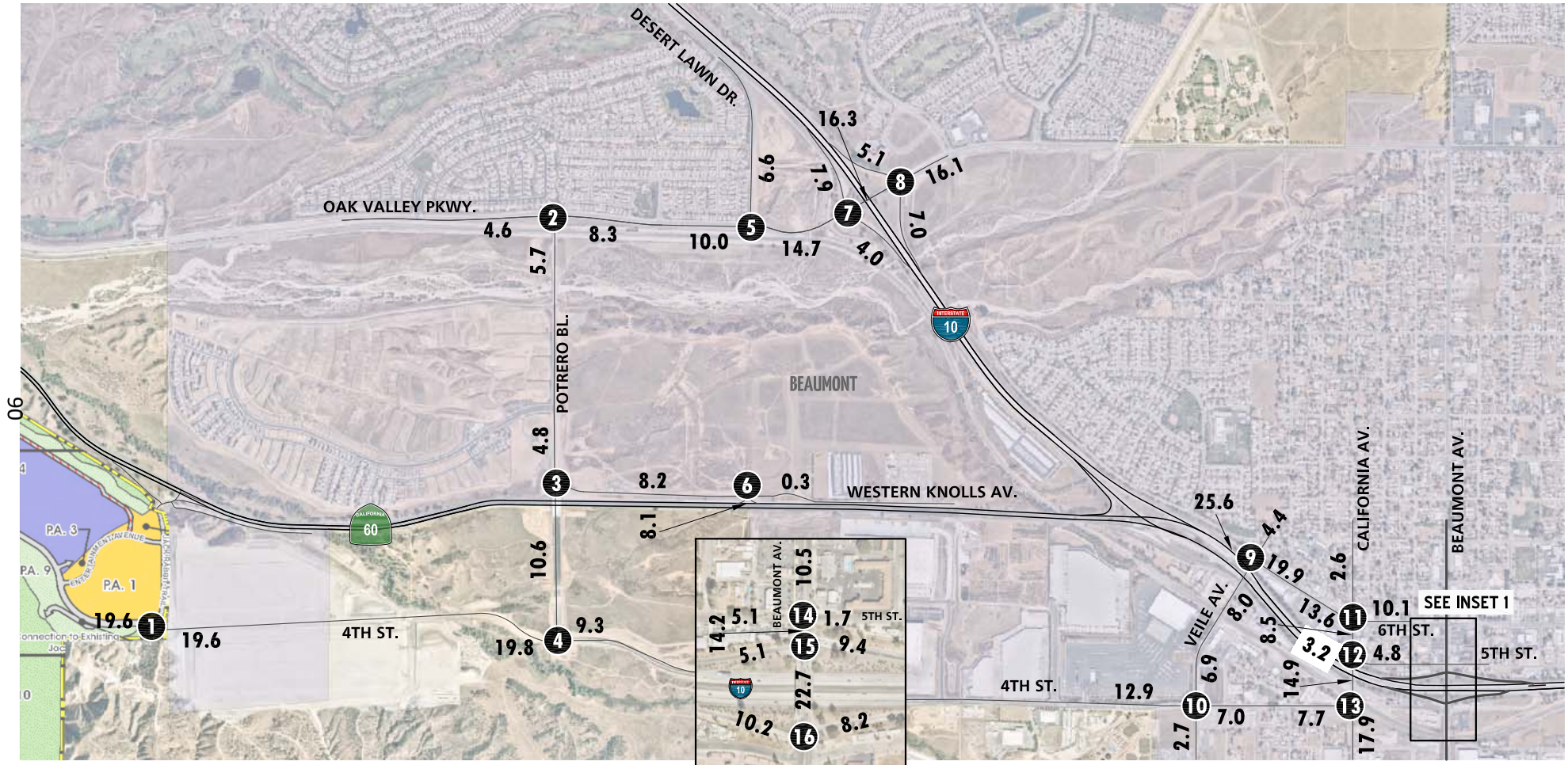
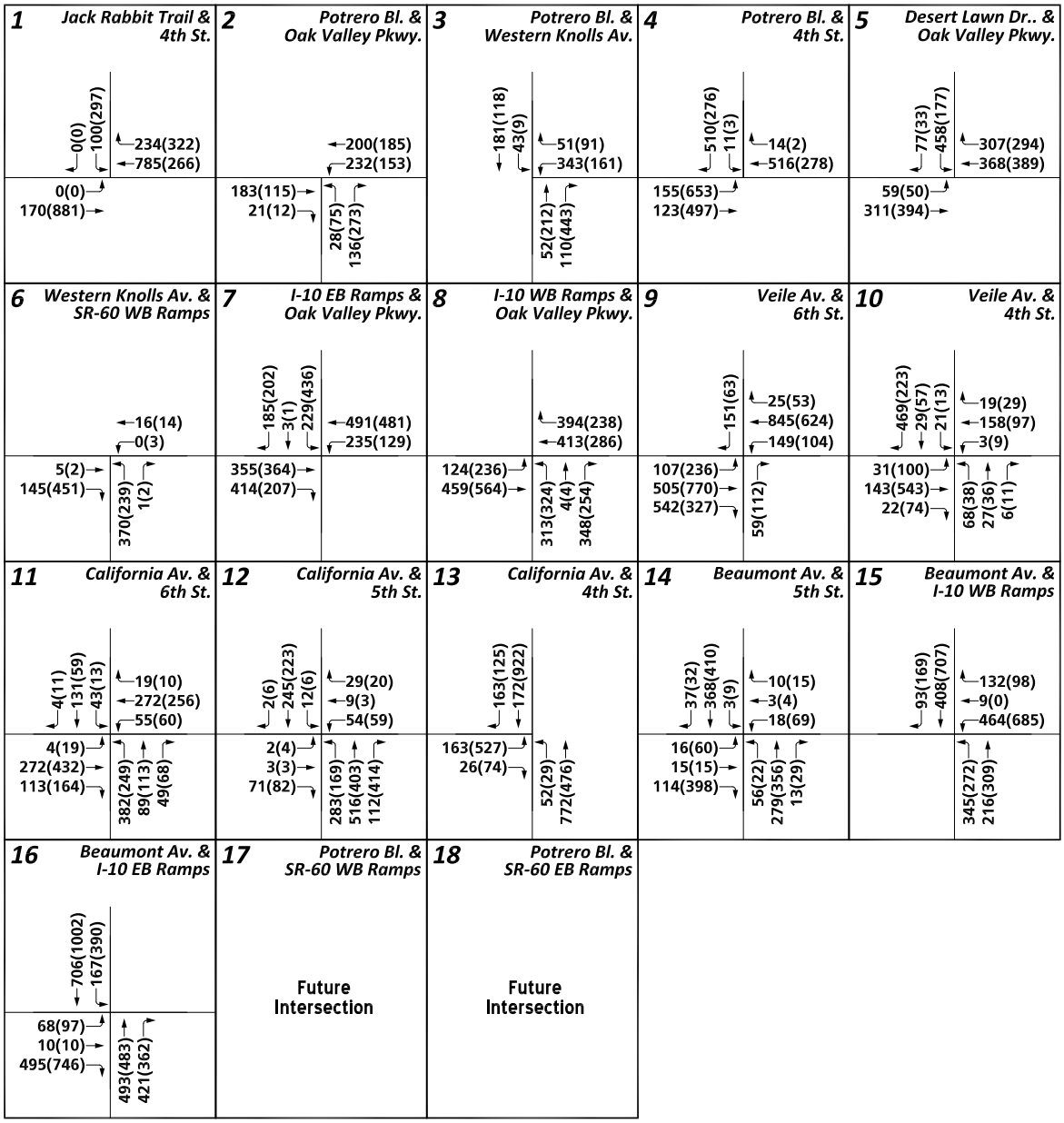


EXHIBIT 5-6: E+P (PROJECT BUILDOUT) TRAFFIC VOLUMES (IN PCE)

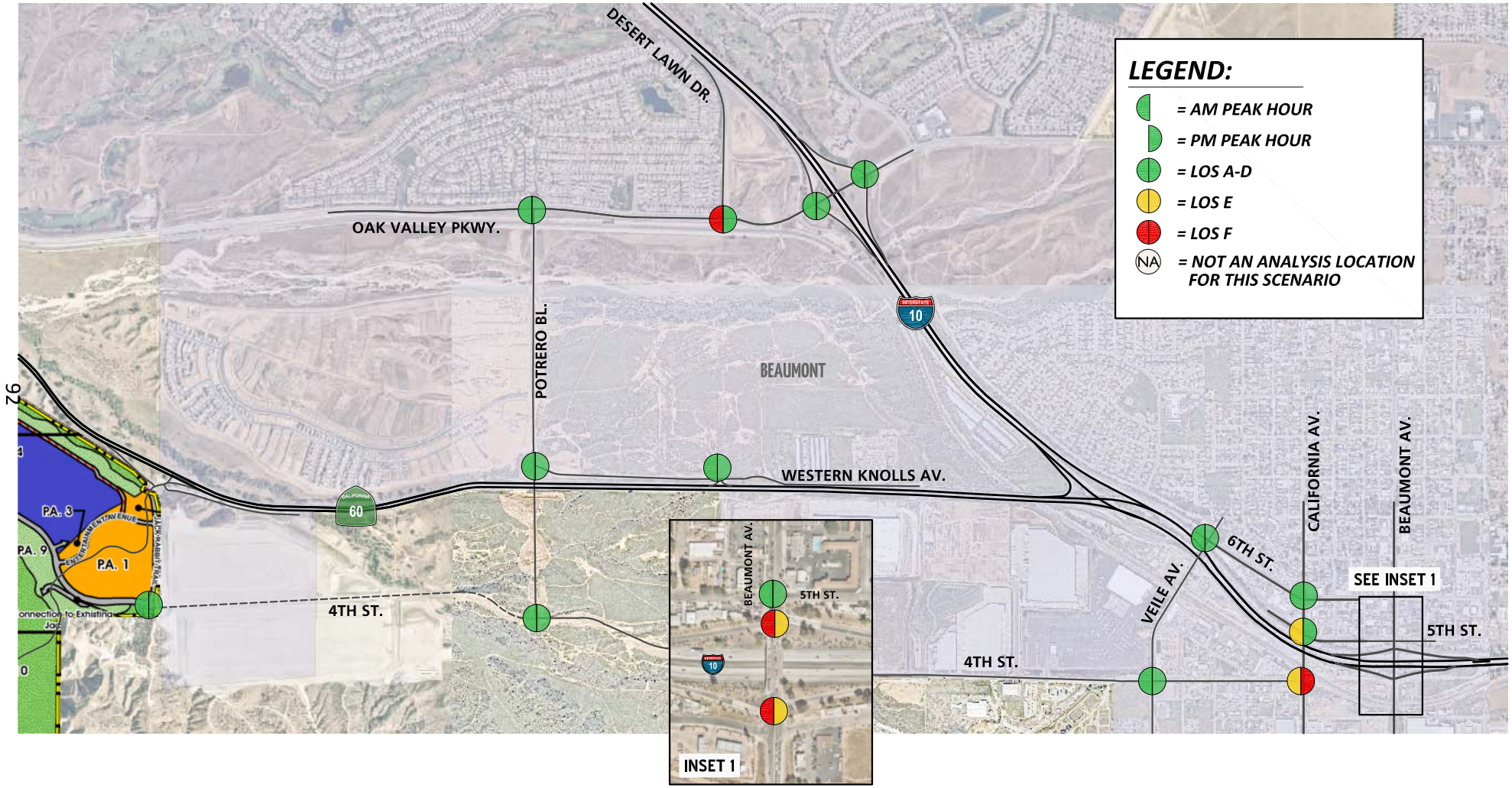


LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



EXHIBIT 5-7: E+P (PHASE 1) SUMMARY OF LOS



N

Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2020)				E+P (Phase 1)				E+P (Phase 2)				E+P (Buildout)			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	Jack Rabbit Tr. & 4th St.	**TS**	Future Intersection				1.8	1.6	A	A	5.4	8.9	A	A	8.1	13.0	A	B
2	Potrero Bl. & Oak Valley Pkwy.	AWS	8.6	8.3	A	A	8.8	8.5	A	A	10.3	9.7	B	A	10.9	10.8	B	B
3	Potrero Bl. & Western Knolls Av.	AWS	7.3	6.9	A	A	8.0	7.6	A	A	23.4	23.1	C	C	**36.6**	**70.0**	**E**	**F**
4	Potrero Bl. & 4th St.	AWS	7.0	7.2	A	A	8.4	10.6	A	B	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
5	Desert Lawn Dr. & Oak Valley Pkwy.	AWS	**58.5**	10.2	**F**	B	**61.4**	10.8	**F**	B	**75.4**	13.8	**F**	B	**79.3**	15.9	**F**	C
6	SR-60 WB & Western Knolls Av.	CSS	9.9	10.7	A	B	11.5	11.6	B	B	33.4	16.8	D	C	34.8	22.4	D	C
7	I-10 EB Ramps & Oak Valley Pkwy.	TS	30.2	43.1	C	D	34.4	46.2	C	D	**67.9**	**71.2**	**E**	**E**	**77.7**	**90.9**	**E**	**F**
8	I-10 WB Ramps & Oak Valley Pkwy.	TS	33.9	31.0	C	C	34.0	31.3	C	C	34.8	43.2	C	D	37.9	47.9	D	D
9	Veile Av. & I-10 WB On-ramp/6th St.	CSS	27.6	14.6	D	B	27.6	14.6	D	B	27.6	14.8	D	B	27.6	15.7	D	C
10	Veile Av. & 4th St.	AWS	8.9	9.5	A	A	9.5	10.3	A	B	33.9	**74.4**	D	**F**	**51.9**	**>100.0**	**F**	**F**
11	California Av. & 6th St.	TS	33.5	30.4	C	C	33.8	31.0	A	C	34.2	32.0	C	C	34.2	33.2	C	C
12	California Av. & 5th St.	CSS	**40.6**	18.2	**E**	C	**47.9**	19.6	**E**	C	**>100.0**	25.7	**F**	D	**>100.0**	29.9	**F**	D
13	California Av. & 4th St.	CSS	**35.4**	**73.6**	**E**	**F**	**48.1**	**>100.0**	**E**	**F**	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
14	Beaumont Av. & 5th St.	TS	7.6	7.5	A	A	8.0	8.7	A	A	9.3	21.9	A	C	9.7	31.8	A	C
15	Beaumont Av. & I-10 WB Ramps[3]	TS	**106.7**	**66.9**	**F**	**E**	**106.7**	**70.9**	**F**	**E**	**115.2**	**71.4**	**F**	**E**	**115.5**	**72.7**	**F**	**E**
16	Beaumont Av. & I-10 EB Ramps[3]	TS	**87.5**	**66.8**	**F**	**E**	**111.3**	**68.2**	**F**	**E**	**111.3**	**81.3**	**F**	**F**	**123.5**	**88.5**	**F**	**F**
17	Potrero Bl. & I-10 WB Ramps		Future Intersection				Future Intersection				Future Intersection				Future Intersection			
18	Potrero Bl. & I-10 EB Ramps		Future Intersection				Future Intersection				Future Intersection				Future Intersection			

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] AWS = All-way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

[3] Heavy northbound vehicle queues observed during the morning peak hours; heavy off-ramp queues during the evening peak hours.

5.3.2 E+P (PHASE 2) CONDITIONS

E+P (Phase 2) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1, which indicates that with the addition of Project (Phase 2) traffic, the following additional study area intersections are anticipated to operate at an unacceptable LOS during the peak hours, in addition to the intersections identified under Existing (2020) and E+P (Phase 1) traffic conditions:

- Potrero Boulevard & 4th Street (#4) – LOS F AM and PM peak hours
- I-10 Eastbound Ramps & Oak Valley Parkway (#7) – LOS E AM and PM peak hours
- Veile Avenue & 4th Street (#10) – LOS F PM peak hour only

A summary of the peak hour intersection LOS for E+P (Phase 2) traffic conditions is shown on Exhibit 5-8. The intersection operations analysis worksheets for E+P (Phase 2) traffic conditions are included in Appendix 5.2 of this TA.

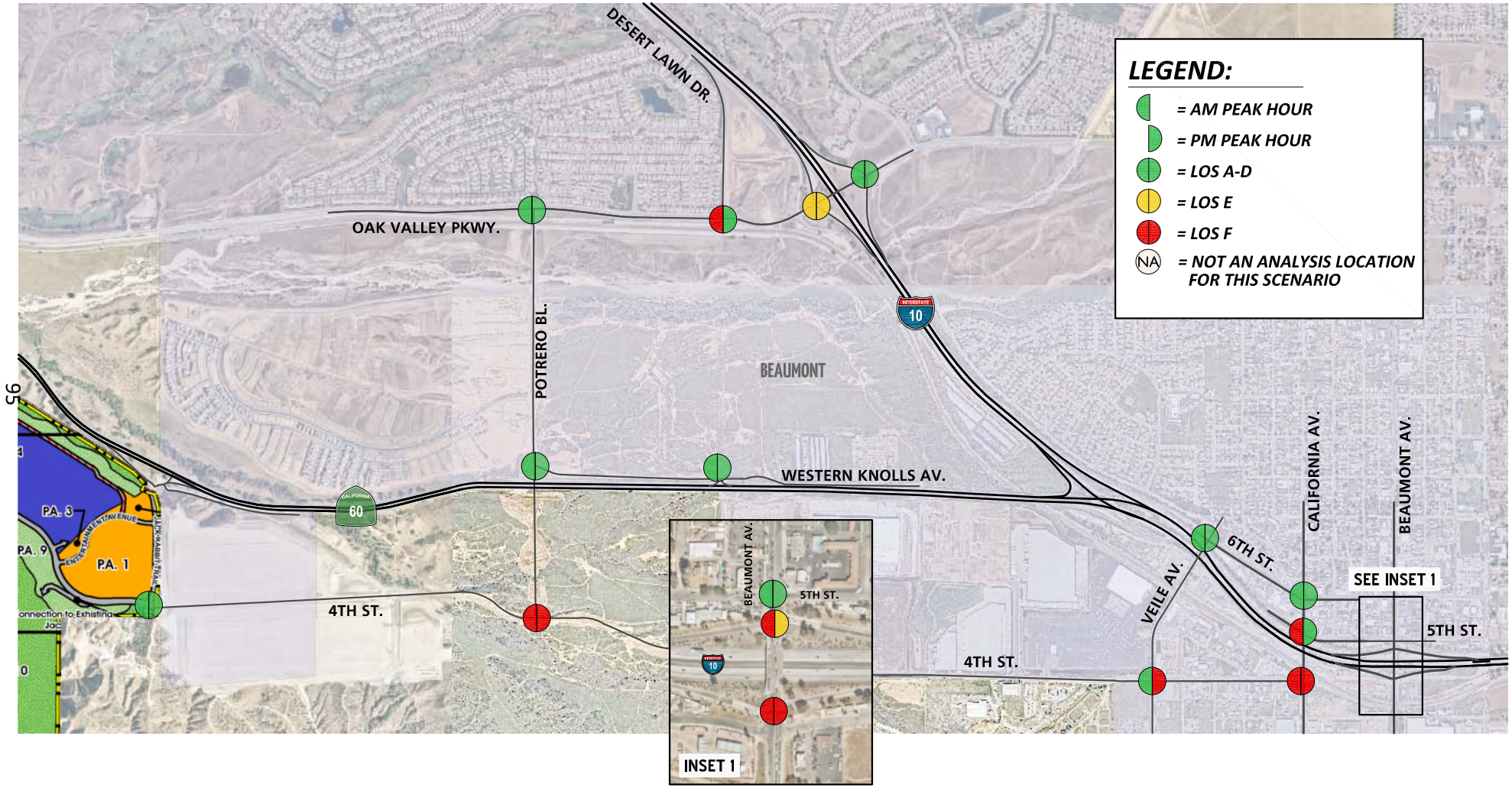
5.3.3 E+P (PROJECT BUILDOUT) CONDITIONS

E+P (Project Buildout) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1, which indicates that with the addition of Project (Buildout) traffic, the following additional study area intersection is anticipated to operate at an unacceptable LOS during the peak hours, in addition to the intersections identified under Existing (2020), E+P (Phase 1), and E+P (Phase 2) traffic conditions:

- Potrero Boulevard & Western Knolls Avenue (#3) – LOS E AM peak hour; LOS F PM peak hour

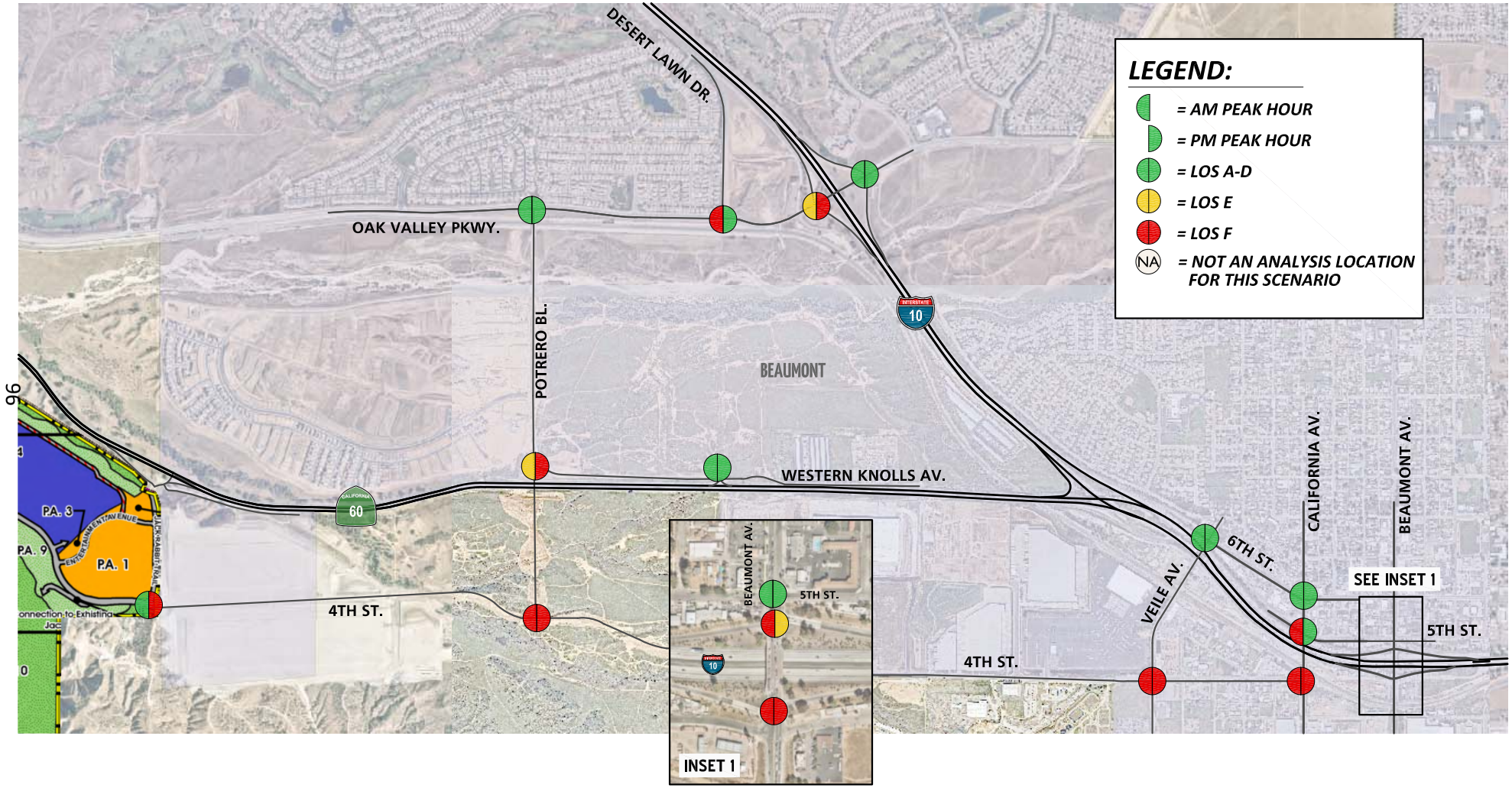
A summary of the peak hour intersection LOS for E+P (Project Buildout) traffic conditions is shown on Exhibit 5-9. The intersection operations analysis worksheets for E+P (Project Buildout) traffic conditions are included in Appendix 5.3 of this TA.

EXHIBIT 5-8: E+P (PHASE 2) SUMMARY OF LOS



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EXHIBIT 5-9: E+P (PROJECT BUILDOUT) SUMMARY OF LOS



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5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed (based on CA MUTCD) for E+P traffic conditions based on peak hour intersection turning movement volumes. There are no additional unsignalized study area intersections anticipated to meet a traffic signal warrant with the addition of Project (Phase 1) traffic for E+P (Phase 1) traffic conditions, in addition to the intersections previously identified under Existing (2020) conditions (see Appendix 5.4).

With the addition of Project (Phase 2) traffic, the following unsignalized study area intersections are anticipated to warrant a traffic signal for E+P (Phase 2) traffic conditions (see Appendix 5.5):

- Jack Rabbit Trail & 4th Street (#1)
- Potrero Boulevard & 4th Street (#4)
- California Avenue & 5th Street (#12)

With the addition of Project (Buildout) traffic, the following unsignalized study area intersection is anticipated to warrant a traffic signal for E+P (Project Buildout) traffic conditions (see Appendix 5.6):

- Veile Avenue & 4th Street (#10)

5.5 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for E+P (Phase 1, Phase 2, and Project Buildout) are presented in Table 5-2. As shown in Table 5-2 and consistent with Existing traffic conditions, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows with the addition of Project (Phase 1), Project (Phase 2), and Project Buildout traffic. Worksheets for E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) traffic conditions off-ramp queuing analyses are provided in Appendices 5.7, 5.8, and 5.9, respectively.

5.6 FREEWAY FACILITY ANALYSIS

E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) mainline directional volumes for the AM and PM peak hours are provided on Exhibits 5-10, 5-11, and 5-12, respectively. As shown in Table 5-3 and consistent with Existing traffic conditions, the study area freeway mainline segments and merge/diverge ramp junctions are anticipated to continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for E+P traffic conditions. E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) freeway facility analysis worksheets are provided in Appendices 5.10, 5.11, and 5.12, respectively.

Table 5-2

Peak Hour Freeway Off-Ramp Queuing Summary for E+P Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2020)				E+P (Phase 1)				E+P (Phase 2)				E+P (Buildout)			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-10 EB Ramps & Oak Valley Pwky.	SBL/T/R	1,150	327[2]	463[2]	Yes	Yes	357[2]	479[2]	Yes	Yes	491[2]	524[2]	Yes	Yes	519[2]	594[2]	Yes	Yes
I-10 WB Ramps & Oak Valley Pkwy.	NBL/T/R	1,220	468[2]	376	Yes	Yes	468[2]	376	Yes	Yes	468[2]	376	Yes	Yes	468[2]	386	Yes	Yes
Beaumont Av. & I-10 WB Ramps	WBL	485	221[2]	266[2]	Yes	Yes	232[2]	278[2]	Yes	Yes	232[2]	278[2]	Yes	Yes	232[2]	278[2]	Yes	Yes
	WBL/R	1,110	158	176	Yes	Yes	163	182	Yes	Yes	163	182	Yes	Yes	163	182	Yes	Yes
Beaumont Av. & I-10 EB Ramps	EBL/R	885	92	272[2]	Yes	Yes	127	272[2]	Yes	Yes	127	329[2]	Yes	Yes	143[2]	351[2]	Yes	Yes
	EBR	235	87	236[2,3]	Yes	Yes	124	236[2]	Yes	Yes	124	281[2,3]	Yes	Yes	141[2]	298[2,3]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-10 Freeway mainline.

Table 5-3

Freeway Facility Analysis for E+P Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	Existing (2020)				E+P (Phase 1)				E+P (Phase 2)				E+P (Buildout)			
				Density[3]		LOS[4]		Density[3]		LOS[4]		Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
I-10 Freeway	EB	West of Oak Valley Pkwy.	3	9.9	13.5	A	B	10.0	13.5	A	B	10.5	13.7	A	B	10.6	14.0	A	B
		Off-Ramp at Oak Valley Pkwy.	3	13.2	17.8	B	B	13.4	17.9	B	B	14.2	18.1	B	B	14.4	18.5	B	B
		On-Ramp at Beaumont Av.	4	17.3	15.7	B	B	17.3	15.9	B	B	17.4	16.2	B	B	17.4	16.2	B	B
		East of Beaumont Av.	4	17.9	17.0	B	B	18.0	17.0	B	B	18.0	17.1	B	B	18.0	17.1	B	B
	WB	West of Oak Valley Pkwy.	3	11.3	13.2	B	B	11.4	13.3	B	B	11.5	13.9	B	B	11.4	14.0	B	B
		On-Ramp at Oak Valley Pkwy.	3	11.9	13.3	B	B	12.0	13.5	B	B	12.2	14.4	B	B	12.3	14.6	B	B
		On-Ramp at Beaumont Av.	4	16.2	18.3	B	B	16.3	18.7	B	B	16.6	20.2	B	C	16.7	20.5	B	C
		West of Beaumont Av.	4	13.4	15.4	B	B	13.4	15.6	B	B	13.6	16.4	B	B	13.6	16.5	B	B
SR-60 Freeway	EB	West of I-10 Freeway	2	9.3	10.9	A	A	9.8	11.1	A	B	12.0	11.7	B	B	12.3	12.5	B	B
		Off-Ramp at 6th St.	2	11.3	13.2	B	B	11.9	13.5	B	B	14.6	14.2	B	B	14.9	15.1	B	B
	WB	East of Western Knolls Av.	2	9.0	10.8	A	A	9.4	11.0	A	A	11.3	11.6	B	B	11.5	11.9	B	B
		Off-Ramp at Western Knolls Av.	2	7.7	9.8	A	A	8.2	10.1	A	B	10.4	10.7	B	B	10.6	11.2	B	B
		On-Ramp at Western Knolls Av.	2	6.9	8.2	A	A	7.1	8.8	A	A	7.6	11.1	A	B	7.7	11.5	A	B
		West of Western Knolls Av.	2	9.1	10.2	A	A	9.3	10.8	A	A	9.7	13.1	A	B	9.8	13.6	A	B

[1] NB = Northbound; SB = Southbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

EXHIBIT 5-10: E+P (PHASE 1) FREEWAY MAINLINE VOLUMES

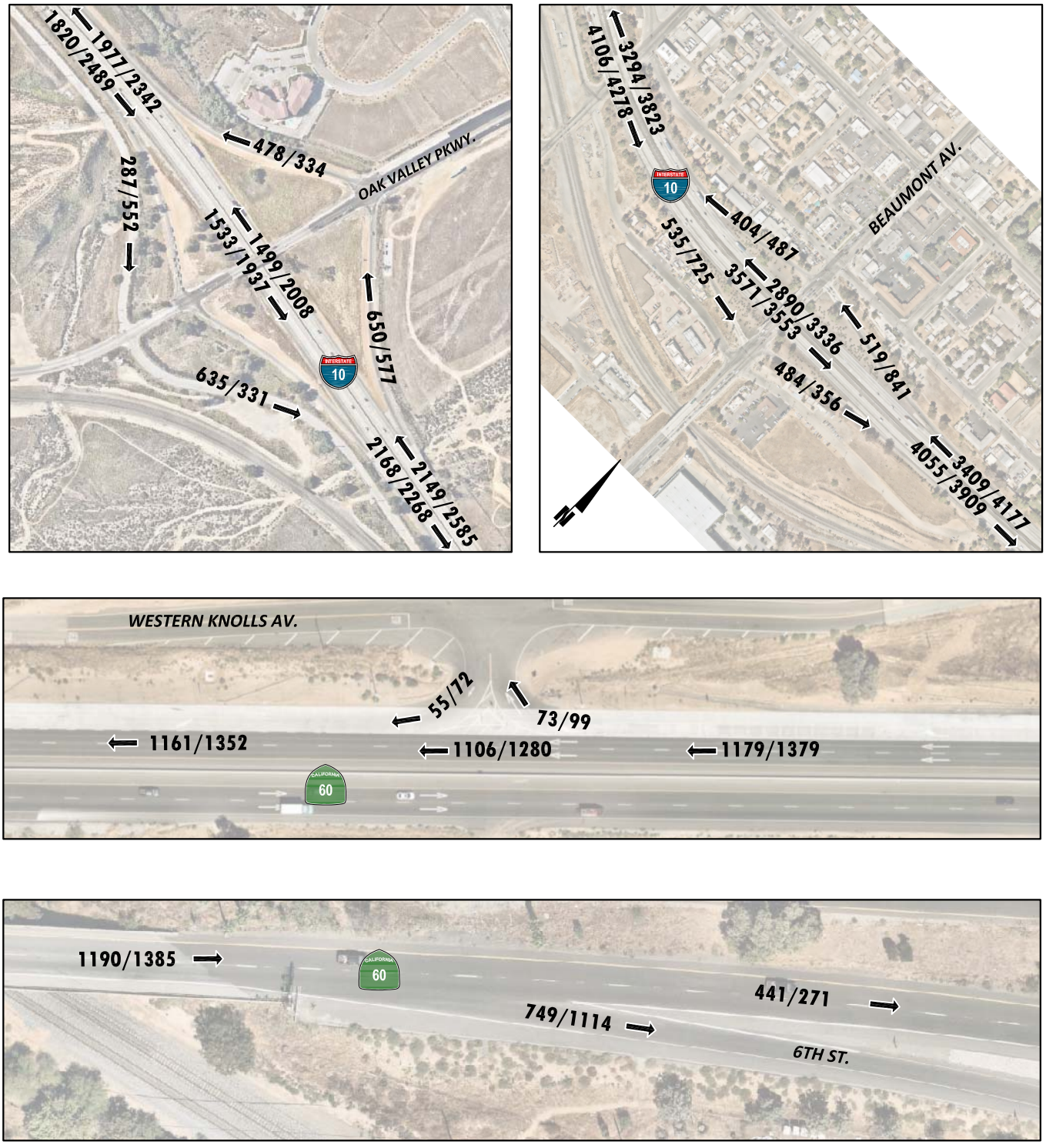


EXHIBIT 5-11: E+P (PHASE 2) FREEWAY MAINLINE VOLUMES

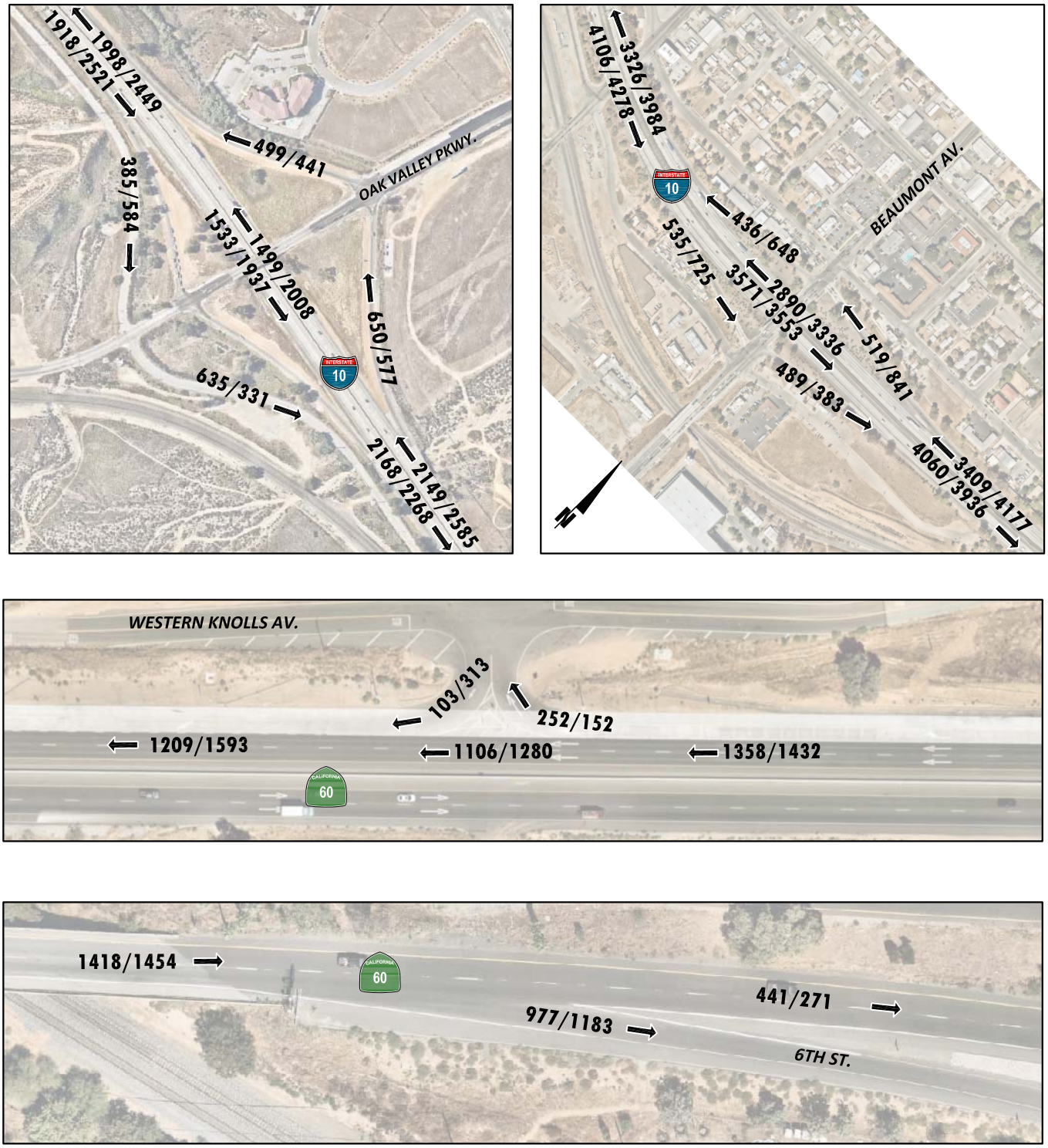
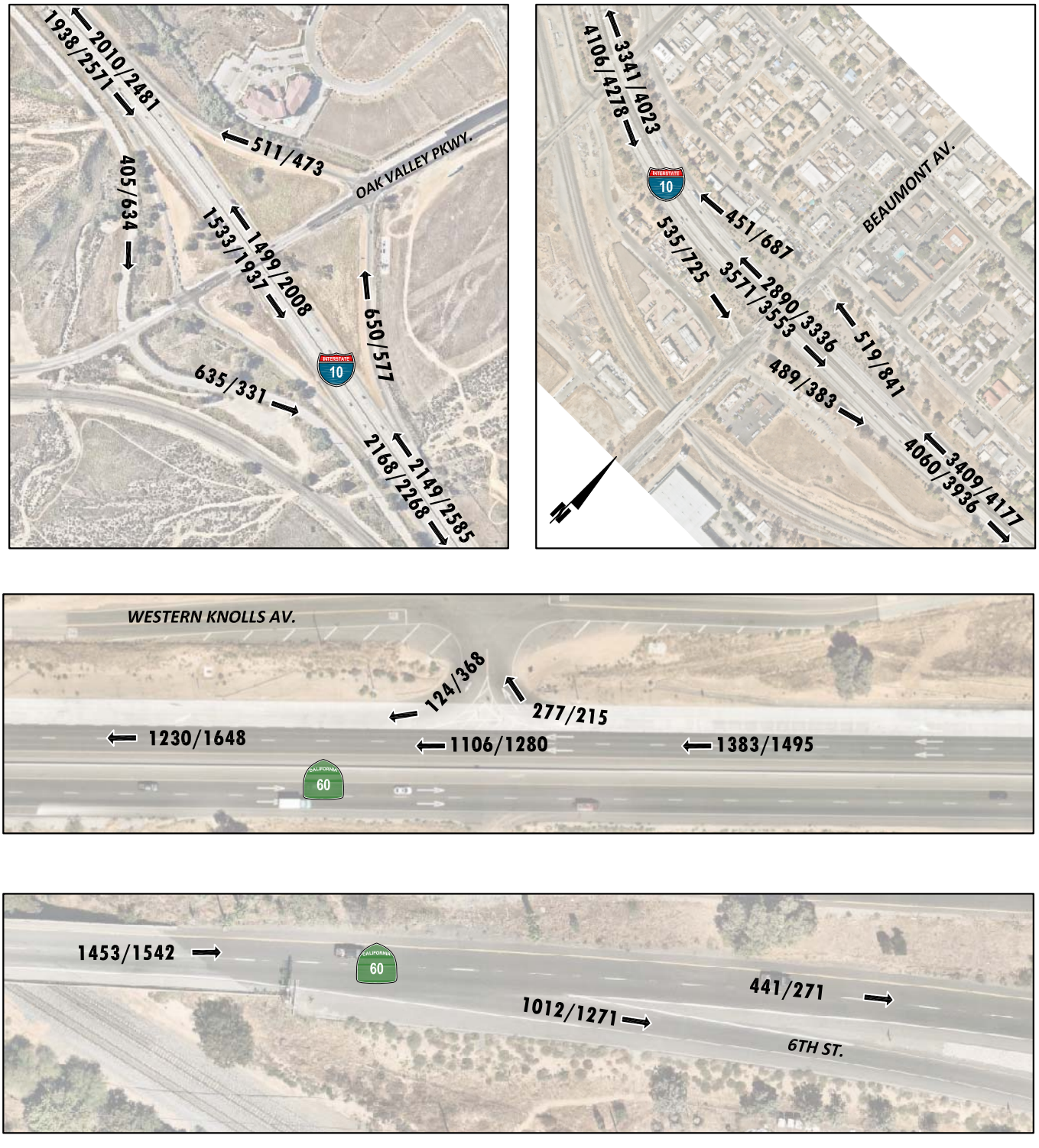


EXHIBIT 5-12: E+P (PROJECT BUILDOUT) FREEWAY MAINLINE VOLUMES



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5.7 DEFICIENCIES AND IMPROVEMENTS

This section provides a summary of deficiencies under E+P traffic conditions and improvements necessary to improve these deficiencies back to acceptable levels. Based on the City of Beaumont deficiency criteria discussed in Section 2.8 *Deficiency Criteria*, the following intersections were found to be deficient. Improvements necessary to improve E+P traffic deficiencies are also discussed below.

5.7.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Table 5-4 indicates the improvements needed to address LOS deficiencies at each of the study area intersections under E+P traffic conditions.

The following improvements are recommended to improve the E+P (Phase 1) deficiencies back to acceptable levels and are consistent with Existing (2020) traffic conditions.

Desert Lawn Drive & Oak Valley Parkway (#5) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Install a traffic signal.

California Avenue & 5th Street (#12) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Install a traffic signal.

California Avenue & 4th Street (#13) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Install a traffic signal.

Beaumont Avenue & I-10 Westbound Ramps (#15) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Modify the traffic signal to accommodate a 120-second cycle length.

Beaumont Avenue & I-10 Eastbound Ramps (#16) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Modify the traffic signal to accommodate a 120-second cycle length.

The following additional improvements are recommended to improve the E+P (Phase 2) deficiencies back to acceptable levels.

Potrero Boulevard & 4th Street (#4) – The following improvements are necessary to improve the existing deficiency to acceptable levels:

- Install a traffic signal.
- Add a 2nd eastbound left turn lane.
- Modify the traffic signal to implement overlap phasing for the southbound right turn lane.

Table 5-4

Intersection Analysis for E+P Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
3	Potrero Bl. & Western Knolls Av.																	
	- Existing		Not Applicable															
	-E+P (Phase 1)		Not Applicable															
	-E+P (Phase 2)		Not Applicable															
	- E+P (Buildout)	**CSS**	0	**2**	0	**1**	**2**	0	0	0	0	0	1	0	34.3	24.9	D	C
4	Potrero Bl. & 4th St.																	
	- Existing		Not Applicable															
	-E+P (Phase 1)		Not Applicable															
	-E+P (Phase 2)	**TS**	0	0	0	2	0	**1>**	**2**	1	0	1	1	1	22.6	18.1	C	B
	- E+P (Buildout)	**TS**	0	0	0	2	0	**1>**	**2**	1	0	1	1	1	25.8	20.9	C	C
5	Desert Lawn Dr. & Oak Valley Pkwy.																	
	- Existing	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	18.5	11.0	B	B
	-E+P (Phase 1)	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	18.8	11.1	B	B
	-E+P (Phase 2)	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	20.5	11.6	C	B
	- E+P (Buildout)	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	21.0	11.8	C	B
7	I-10 EB Ramps & Oak Valley Pkwy.																	
	- Existing		Not Applicable															
	-E+P (Phase 1)		Not Applicable															
	-E+P (Phase 2)	TS	0	0	0	**1**	1	0	0	1	**1**	1	1	0	22.1	34.0	C	C
	- E+P (Buildout)	TS	0	0	0	**1**	1	0	0	1	**1**	1	1	0	22.4	34.0	C	C
10	Veile Av. & 4th St.																	
	- Existing[5]		Not Applicable															
	-E+P (Phase 1)[5]		Not Applicable															
	-E+P (Phase 2)[5]	**TS**	0	1	1	1	1	1>>	1	1	1	1	1	0	11.9	15.2	B	B
	- E+P (Buildout)[5]	**TS**	0	1	1	1	1	1>>	1	1	1	1	1	0	12.0	16.8	B	B
12	California Av. & 5th St.																	
	- Existing	**TS**	1	1	0	0	1	0	0	1	0	0	1	0	15.6	12.0	B	B
	-E+P (Phase 1)	**TS**	1	1	0	0	1	0	0	1	0	0	1	0	15.7	12.2	B	B
	-E+P (Phase 2)	**TS**	1	1	0	0	1	0	0	1	0	0	1	0	16.7	15.3	B	B
	- E+P (Buildout)	**TS**	1	1	0	0	1	0	0	1	0	0	1	0	17.1	17.6	B	B
13	California Av. & 4th St.																	
	- Existing	**TS**	1	1	0	0	1	0	1	0	1	0	0	0	10.6	15.2	B	B
	-E+P (Phase 1)	**TS**	1	1	0	0	1	0	1	0	1	0	0	0	11.6	17.5	B	B
	-E+P (Phase 2)	**TS**	1	1	0	0	1	0	1	0	1	0	0	0	12.3	41.4	B	D
	- E+P (Buildout)	**TS**	1	1	0	0	1	0	1	0	1	0	0	0	12.8	51.1	B	D
15	Beaumont Av. & I-10 WB Ramps																	
	- Existing[4]	TS	1	2	0	0	2	0	0	0	0	1	1	0	45.5	45.1	D	D
	-E+P (Phase 1)[4]	TS	1	2	0	0	2	0	0	0	0	1	1	0	46.6	46.9	D	D
	-E+P (Phase 2)[4]	TS	1	2	0	0	2	0	0	0	0	1	1	0	47.0	47.4	D	D
	- E+P (Buildout)[4]	TS	1	2	0	0	2	0	0	0	0	1	1	0	47.3	47.8	D	D
16	Beaumont Av. & I-10 EB Ramps																	
	- Existing[4]	TS	0	2	0	1	2	0	0	1	1	0	0	0	29.4	51.6	C	D
	-E+P (Phase 1)[4]	TS	0	2	0	1	2	0	0	1	1	0	0	0	30.0	52.5	C	D
	-E+P (Phase 2)[4]	TS	0	2	0	1	2	0	0	1	1	0	0	0	32.5	52.8	C	D
	- E+P (Buildout)[4]	TS	0	2	0	1	2	0	0	1	1	0	0	0	34.2	54.0	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

[4] Improvement includes modifying the signal timing to accommodate a 120-second cycle length

[5] Traffic signal heads are currently installed at this location, but not operational as of January 28, 2020.

I-10 Eastbound Ramps & Oak Valley Parkway (#7) – The following improvements are necessary to improve the existing deficiency to acceptable levels:

- Add a southbound left turn lane.
- Add an eastbound right turn lane.

Veile Avenue & 4th Street (#10) – The following improvement is necessary to improve the existing deficiency to acceptable levels:

- Install a traffic signal.

The following additional improvements are recommended to improve the E+P (Project Buildout) deficiencies back to acceptable levels.

Potrero Boulevard & Western Knolls Avenue (#3) – The following improvements are necessary to improve the existing deficiency to acceptable levels:

- Remove the stop control on the northbound and southbound approaches, converting the intersection to a cross-street stop control.
- Add a 2nd northbound through lane.
- Add a southbound left turn lane.
- Add a 2nd southbound through lane.

Worksheets for E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) traffic conditions intersection operations analysis, with improvements, worksheets are provided in Appendices 5.13, 5.14, and 5.15, respectively

5.7.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown in Table 5-2, there are no peak hour queuing issues at the study area interchanges for E+P traffic conditions. As such, no improvements are necessary.

5.7.3 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown in Table 5-3, the study area freeway segments and merge/diverge ramp junctions are anticipated to operate at an acceptable LOS for E+P traffic conditions. As such no improvements are necessary.

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6 OPENING YEAR CUMULATIVE (2023) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2023) Without and With Project traffic forecasts, and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and freeway facility analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2023) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).
- The SR-60 Freeway/Potrero Boulevard interchange is assumed to be in place. The proposed configuration of the new interchange is shown on Exhibit 6-1.
- The SR-60 Freeway/Western Knolls Avenue interchange is assumed to be vacated.

6.2 OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 6.12% plus 35% of the traffic from pending and approved but not yet constructed known development projects in the area. The ADT and peak hour intersection turning movement volumes which can be expected for Opening Year Cumulative (2023) Without Project conditions are shown on Exhibits 6-2 and 6-3, respectively.

6.3 OPENING YEAR CUMULATIVE (2023) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes, an ambient growth factor of 6.12%, 35% of the traffic from pending and approved but not yet constructed known development projects in the area and the addition of Project (Phase 1) traffic. The ADT and peak hour intersection turning movement volumes which can be expected for Opening Year Cumulative (2023) With Project conditions are shown on Exhibits 6-4 and 6-5, respectively.

EXHIBIT 6-1: SR-60 FREEWAY/POTRERO BOULEVARD INTERCHANGE CONCEPT PLAN



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EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

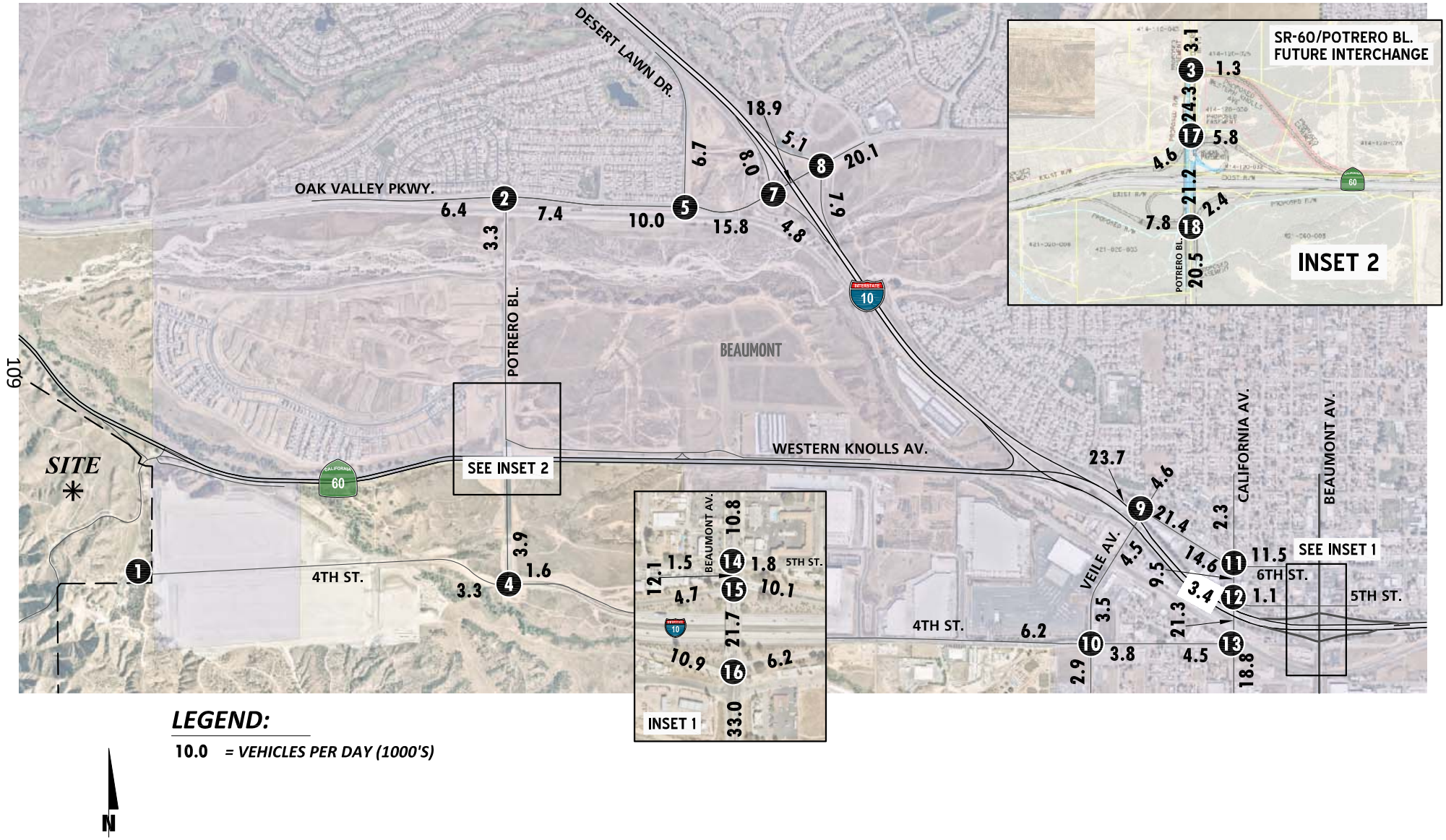
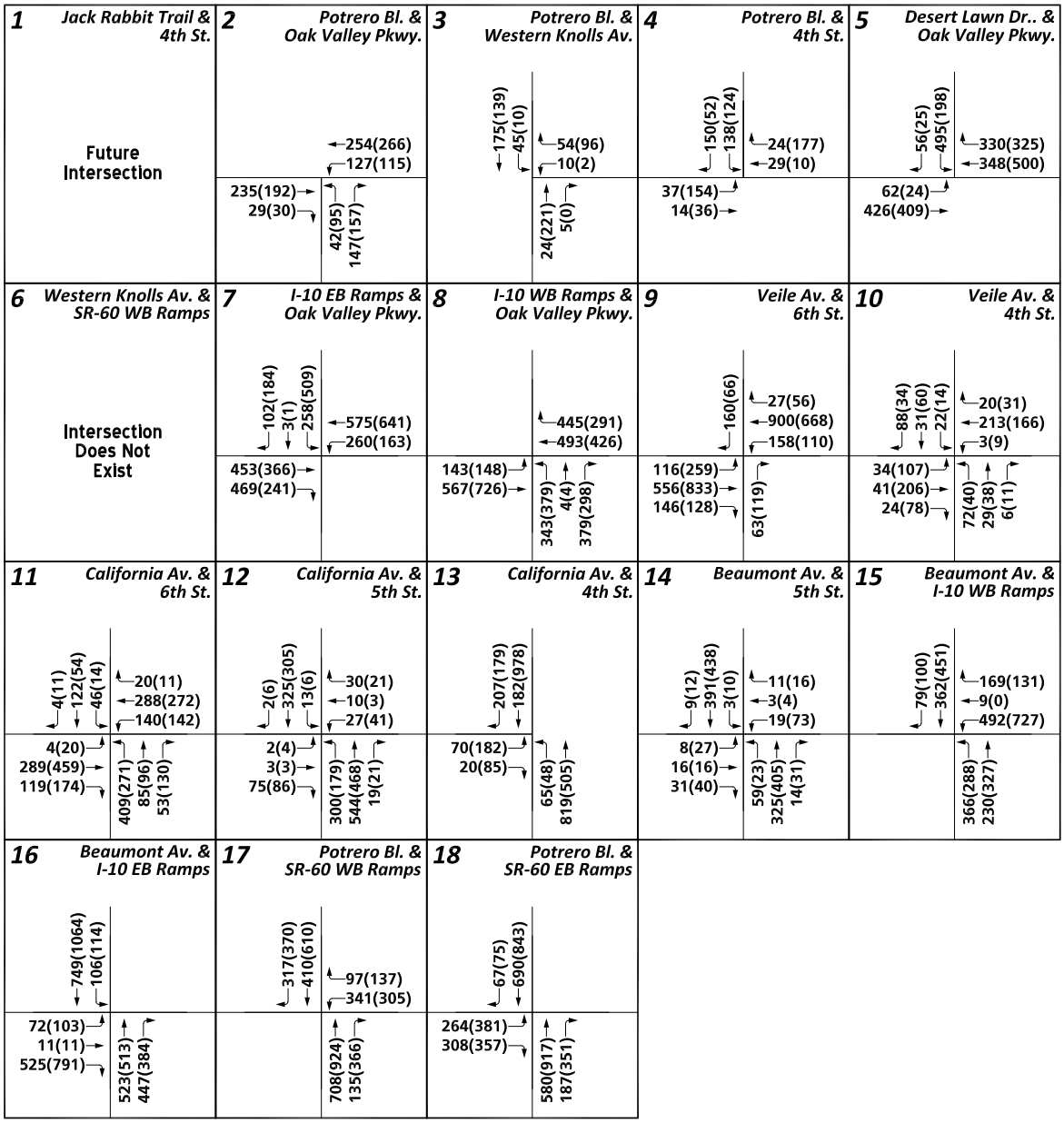


EXHIBIT 6-3: OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)

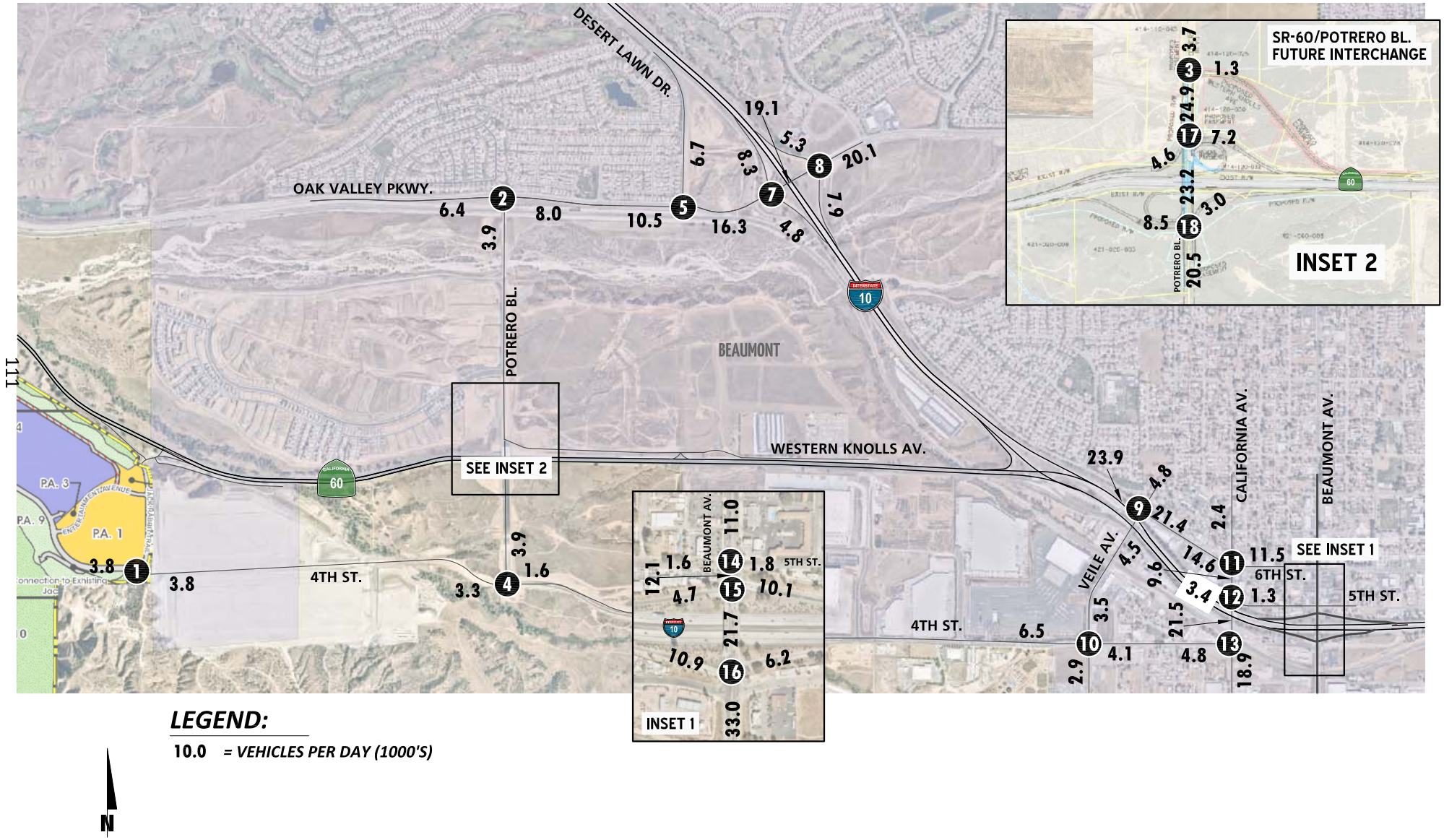


LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



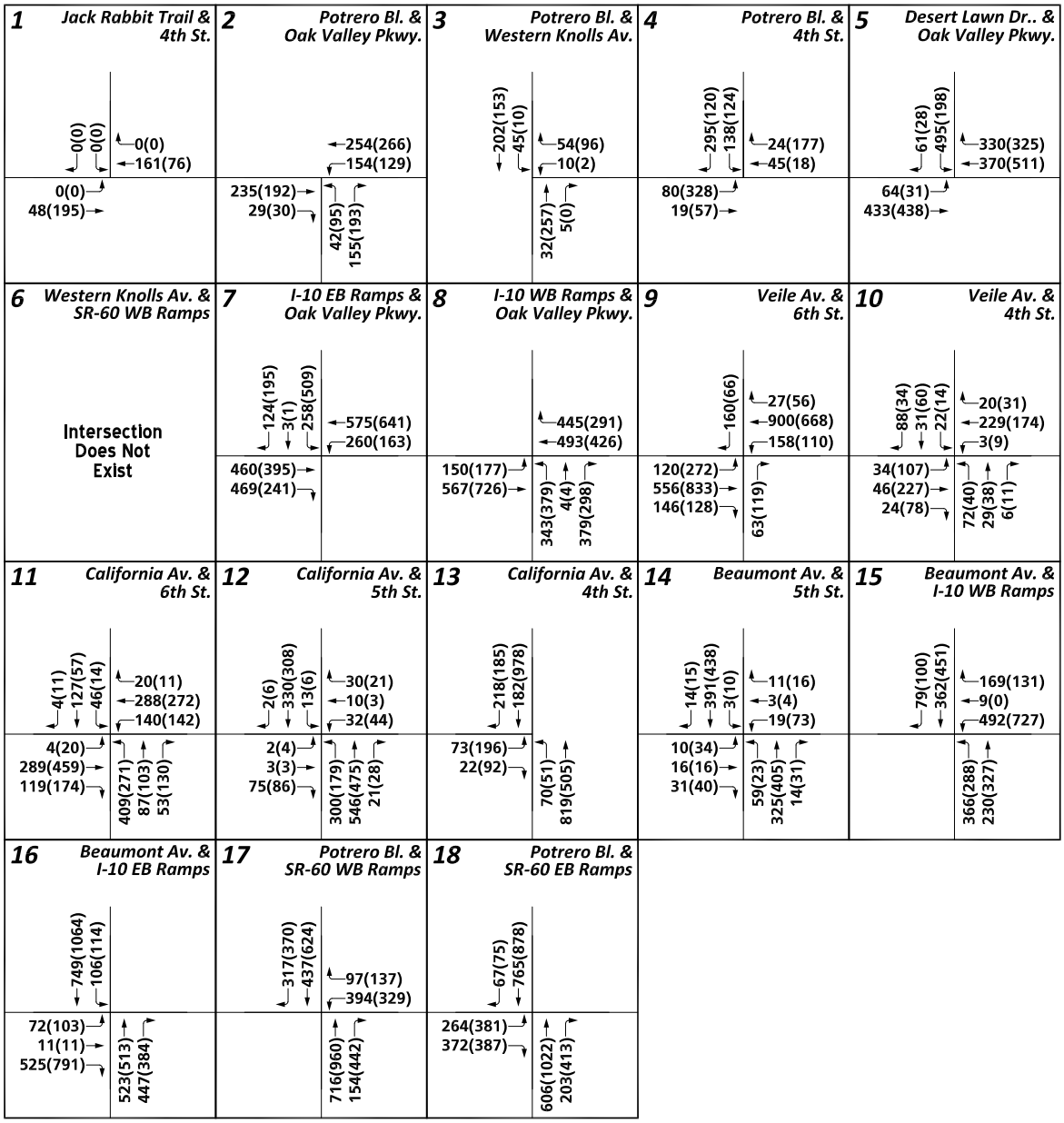
EXHIBIT 6-4: OPENING YEAR CUMULATIVE (2023) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



LEGEND:

10.0 ***= VEHICLES PER DAY (1000'S)***

EXHIBIT 6-5: OPENING YEAR CUMULATIVE (2023) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***

6.4 INTERSECTION OPERATIONS ANALYSIS

6.4.1 OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT TRAFFIC CONDITIONS

Opening Year Cumulative (2023) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection analysis results are summarized in Table 6-1, which indicate that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours under Opening Year Cumulative (2023) Without Project:

- Desert Lawn Drive & Oak Valley Parkway (#5) – LOS F AM peak hour only
- I-10 Eastbound Ramps & Oak Valley Parkway (#7) – LOS E AM peak hour; LOS F PM peak hour
- California Avenue & 5th Street (#12) – LOS F AM peak hour only
- California Avenue & 4th Street (#13) – LOS F AM and PM peak hours

A summary of the peak hour intersection LOS for Opening Year Cumulative (2023) Without Project conditions is shown on Exhibit 6-6. The intersection operations analysis worksheets for Opening Year Cumulative Without Project traffic conditions are included in Appendix 6.1 of this TA.

6.4.2 OPENING YEAR CUMULATIVE (2023) WITH PROJECT TRAFFIC CONDITIONS

As shown in Table 6-1 and illustrated on Exhibit 6-7, there are no additional study area intersections anticipated to operate at an unacceptable LOS with the addition of Project (Phase 1) traffic, in addition to the intersections previously identified under Opening Year Cumulative (2023) Without Project traffic conditions. The intersection operations analysis worksheets for Opening Year Cumulative (2023) With Project traffic conditions are included in Appendix 6.2 of this TA.

6.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed (based on CA MUTCD) for Opening Year Cumulative (2023) traffic conditions based on peak hour intersection turning movements volumes. There are no additional unsignalized study area intersection anticipated to meet a traffic signal warrant under Opening Year Cumulative (2023) Without Project and With Project traffic conditions (see Appendices 6.3 and 6.4, respectively), in addition to the intersections identified previously under Existing (2020), E+P (Phase 2), and E+P (Project Buildout) traffic conditions.

Table 6-1

Intersection Analysis for Opening Year Cumulative (2023) Conditions

#	Intersection	Traffic Control[2]	2023 Without Project				2023 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Jack Rabbit Tr. & 4th St.	**TS**	Future Intersection				1.8	1.6	A	A
2	Potrero Bl. & Oak Valley Pkwy.	AWS	10.2	10.1	B	B	10.5	10.5	B	B
3	Potrero Bl. & Western Knolls Av.	AWS	9.3	9.2	A	A	9.8	9.7	A	A
4	Potrero Bl. & 4th St.	AWS	9.7	12.4	A	B	14.5	55.5	B	F
5	Desert Lawn Dr. & Oak Valley Pkwy.	AWS	**>100.0**	18.6	**F**	C	**>100.0**	21.6	**F**	C
6	SR-60 WB & Western Knolls Av.	CSS	Does Not Exist				Does Not Exist			
7	I-10 EB Ramps & Oak Valley Pkwy.	TS	**76.9**	**114.1**	**E**	**F**	**85.4**	**120.7**	**F**	**F**
8	I-10 WB Ramps & Oak Valley Pkwy.	TS	45.9	38.5	D	D	48.4	39.0	D	D
9	Veile Av. & I-10 WB On-ramp/6th St.	CSS	33.5	15.4	D	C	33.5	15.4	D	C
10	Veile Av. & 4th St.	AWS	12.0	14.3	B	B	12.5	15.2	B	C
11	California Av. & 6th St.	TS	43.6	51.9	D	D	43.9	53.2	D	D
12	California Av. & 5th St.	CSS	**>100.0**	24.2	**F**	C	**>100.0**	25.2	**F**	D
13	California Av. & 4th St.	CSS	**96.1**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
14	Beaumont Av. & 5th St.	TS	7.4	7.2	A	A	7.5	7.2	A	A
15	Beaumont Av. & I-10 WB Ramps	TS	Not Applicable[3]				Not Applicable[3]			
16	Beaumont Av. & I-10 EB Ramps	TS	Not Applicable[3]				Not Applicable[3]			
17	Potrero Bl. & I-10 WB Ramps	**TS**	6.4	6.2	A	A	6.7	6.4	A	A
18	Potrero Bl. & I-10 EB Ramps	**TS**	7.8	8.0	A	A	7.9	8.1	A	A

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

[2] AWS = All-way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

[3] Project is not anticipated to contribute any trips to this intersection. As such, the intersection has not been evaluated for this scenario.

EXHIBIT 6-6: OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT SUMMARY OF LOS

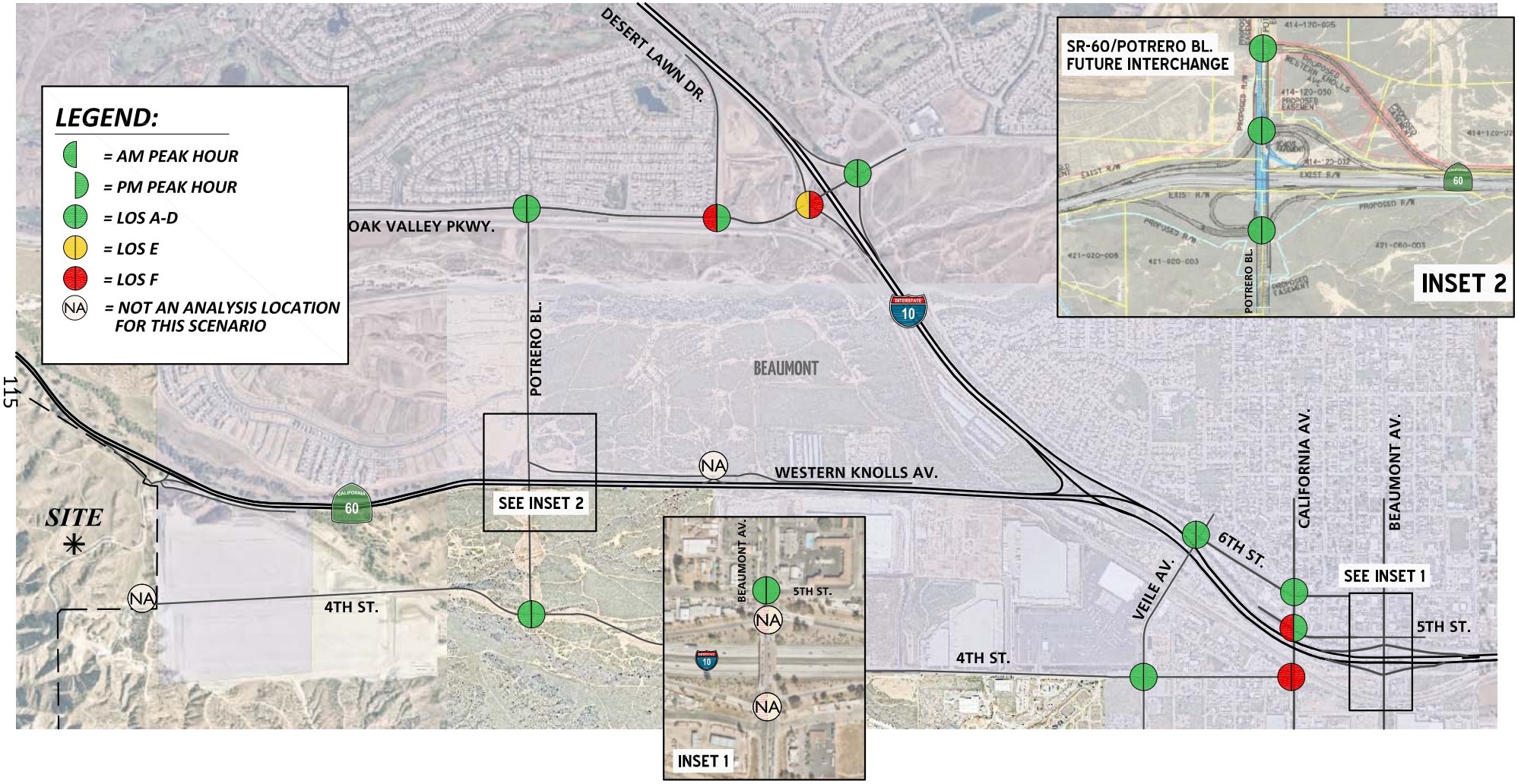
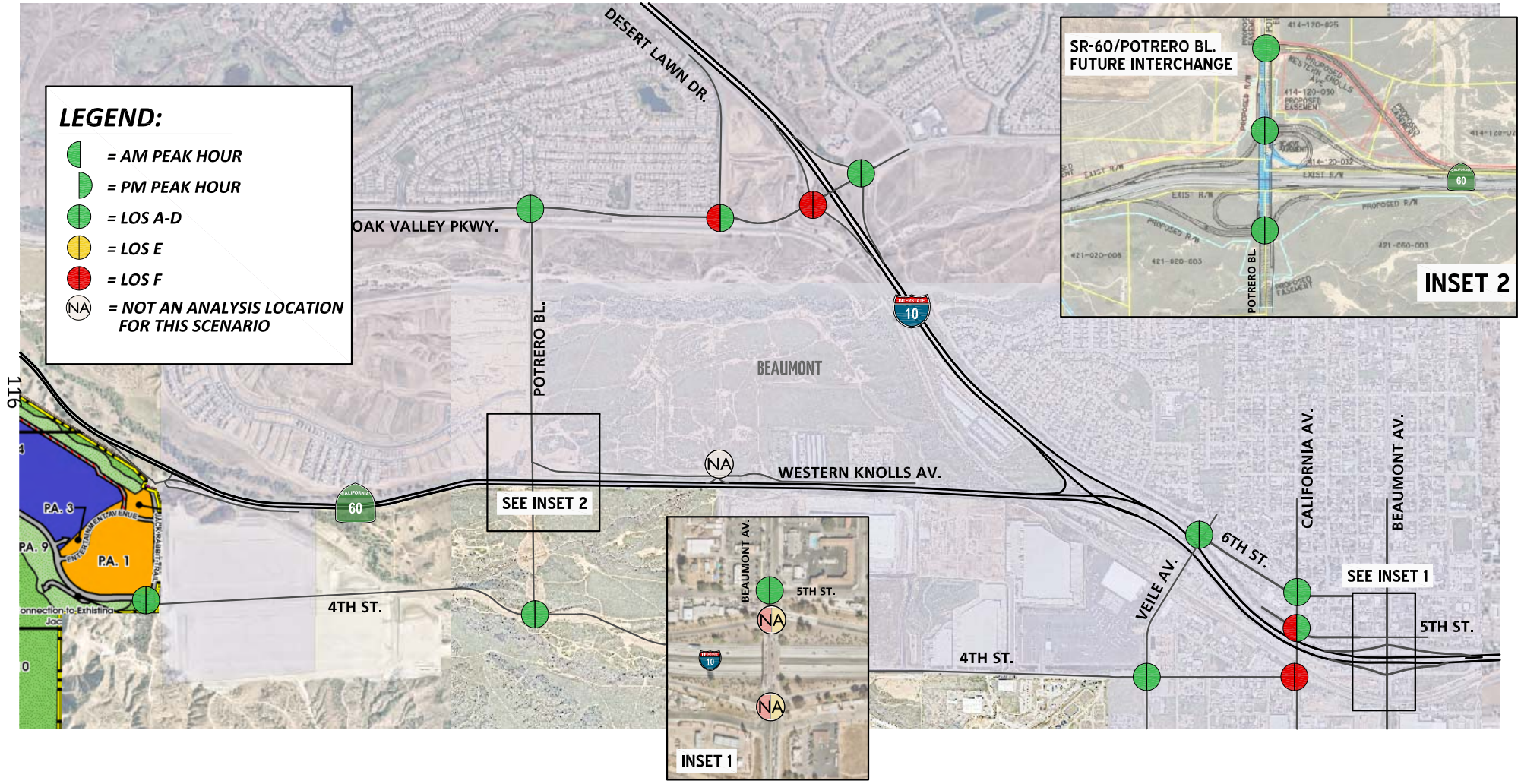


EXHIBIT 6-7: OPENING YEAR CUMULATIVE (2023) WITH PROJECT SUMMARY OF LOS



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6.6 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for Opening Year Cumulative (2023) are presented in Table 6-2. As shown in Table 6-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Opening Year Cumulative (2023) Without Project and With Project traffic conditions. Worksheets for Opening Year Cumulative (2023) Without Project and With Project traffic conditions off-ramp queuing analyses are provided Appendices 6.5 and 6.6, respectively.

6.7 FREEWAY FACILITY ANALYSIS

Opening Year Cumulative (2023) Without Project and With Project freeway mainline directional volumes for the AM and PM peak hours are provided on Exhibits 6-8 and 6-9, respectively. As shown in Table 6-3, the study area freeway mainline segments and merge/diverge ramp junctions are anticipated to continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for Opening Year Cumulative (2023) Without Project and With Project traffic conditions. Opening Year Cumulative (2023) Without Project and With Project freeway facility analysis worksheets are provided in Appendices 6.7 and 6.8, respectively.

6.8 DEFICIENCIES AND IMPROVEMENTS

This section provides a summary of deficiencies, based on the City of Beaumont's deficiency criteria discussed in Section 2.8 *Deficiency Criteria*, and improvements needed to improve operations back to acceptable levels.

6.8.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The effectiveness of the recommended improvement strategies to address Opening Year Cumulative (2023) traffic deficiencies are presented in Table 6-4. Worksheets for Opening Year Cumulative (2023) Without and With Project conditions, with improvements, HCM calculation worksheets are provided in Appendices 6.9 and 6.10, respectively.

6.8.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown previously in Table 6-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Opening Year Cumulative (2023) traffic conditions. As such, no improvements are necessary.

6.8.3 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown previously in Table 6-3, the study area freeway segments and merge/diverge ramp junctions are anticipated to operate at an acceptable LOS for Opening Year Cumulative (2023) traffic conditions. As such no improvements are necessary.

Table 6-2

Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year Cumulative (2023) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2023 Without Project				2023 With Project			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-10 EB Ramps & Oak Valley Pwky.	SBL/T/R	1,150	454 [2]	653 [2]	Yes	Yes	484 [2]	667 [2]	Yes	Yes
I-10 WB Ramps & Oak Valley Pkwy.	NBL/T/R	1,220	577 [2]	530 [2]	Yes	Yes	577 [2]	530 [2]	Yes	Yes
Beaumont Av. & I-10 WB Ramps	WBL	485	278 [2]	307 [2]	Yes	Yes	278 [2]	307 [2]	Yes	Yes
	WBL/R	1,110	217 [2]	234 [2]	Yes	Yes	217 [2]	234 [2]	Yes	Yes
Beaumont Av. & I-10 EB Ramps	EBL/R	885	112	296 [2]	Yes	Yes	112 [2]	296 [2]	Yes	Yes
	EBR	235	108	253 [2,3]	Yes	Yes	108 [2]	253 [2,3]	Yes	Yes
Potrero Bl. & I-10 WB Ramps	WBL	2,000	58	71	Yes	Yes	68	81	Yes	Yes
	WBR	500	13	19	Yes	Yes	13	19	Yes	Yes
Potrero Bl. & I-10 EB Ramps	EBL	1,800	42	86	Yes	Yes	44	97	Yes	Yes
	EBR	600	22	52	Yes	Yes	40	71	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-10 Freeway mainline.

Table 6-3

Freeway Facility Analysis for Opening Year Cumulative (2023) Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2023 Without Project				2023 With Project			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-10 Freeway	EB	West of Oak Valley Pkwy.	3	10.8	14.9	A	B	11.0	15.0	A	B
		Off-Ramp at Oak Valley Pkwy.	3	14.5	19.7	B	B	14.7	19.8	B	B
	WB	West of Oak Valley Pkwy.	3	12.4	14.4	B	B	12.4	14.4	B	B
		On-Ramp at Oak Valley Pkwy.	3	13.4	13.3	B	B	13.4	13.3	B	B
SR-60 Freeway	EB	West of Potrero Bl.	2	16.1	19.6	B	C	16.5	19.8	B	C
		Off-Ramp at Potrero Bl.	2	21.4	25.4	C	C	21.8	25.6	C	C
		On-Ramp at Potrero Bl.	2	14.8	17.4	B	B	14.9	17.9	B	B
		East of Potrero Bl.	2	10.2	12.5	A	B	10.3	13.0	A	B
	WB	West of Potrero Bl.	2	14.1	16.6	B	B	14.3	17.3	B	B
		Loop On-Ramp at Potrero Bl.	2	10.0	11.9	A	B	10.1	12.5	B	B
		Off-Ramp at Potrero Bl.	2	15.1	16.4	B	B	15.4	16.5	B	B
		East of Potrero Bl.	2	10.8	11.8	A	B	11.1	12.0	B	B

[1] NB = Northbound; SB = Southbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 6-4

Intersection Analysis for Opening Year Cumulative (2023) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
5	Desert Lawn Dr. & Oak Valley Pkwy.																	
	- Without Project	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	22.7	11.4	C	B
	- With Project	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	23.2	11.6	C	B
7	I-10 EB Ramps & Oak Valley Pkwy.																	
	- Without Project	TS	0	0	0	**1**	1	0	0	1	**1**	1	1	0	21.5	41.8	C	D
	- With Project	TS	0	0	0	**1**	1	0	0	1	**1**	1	1	0	21.7	43.2	C	D
12	California Av. & 5th St.																	
	- Without Project	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	22.0	13.1	C	B
	- With Project	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	22.4	13.1	C	B
13	California Av. & 4th St.																	
	- Without Project	**TS**	1	1	0	0	1	**1**	1	0	1	0	0	0	11.8	17.0	B	B
	- With Project	**TS**	1	1	0	0	1	**1**	1	0	1	0	0	0	12.0	18.0	B	B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

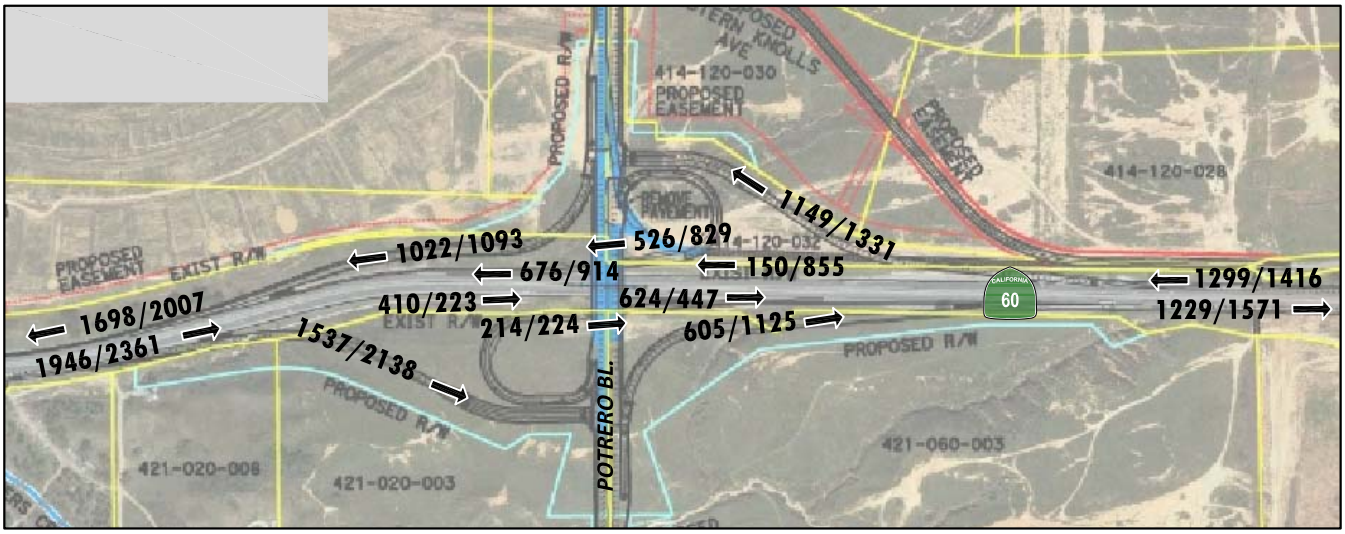
L = Left; T = Through; R = Right; **1** = Improvement; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] TS = Traffic Signal; **TS** = Improvement

EXHIBIT 6-8: OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES





LEGEND:

⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

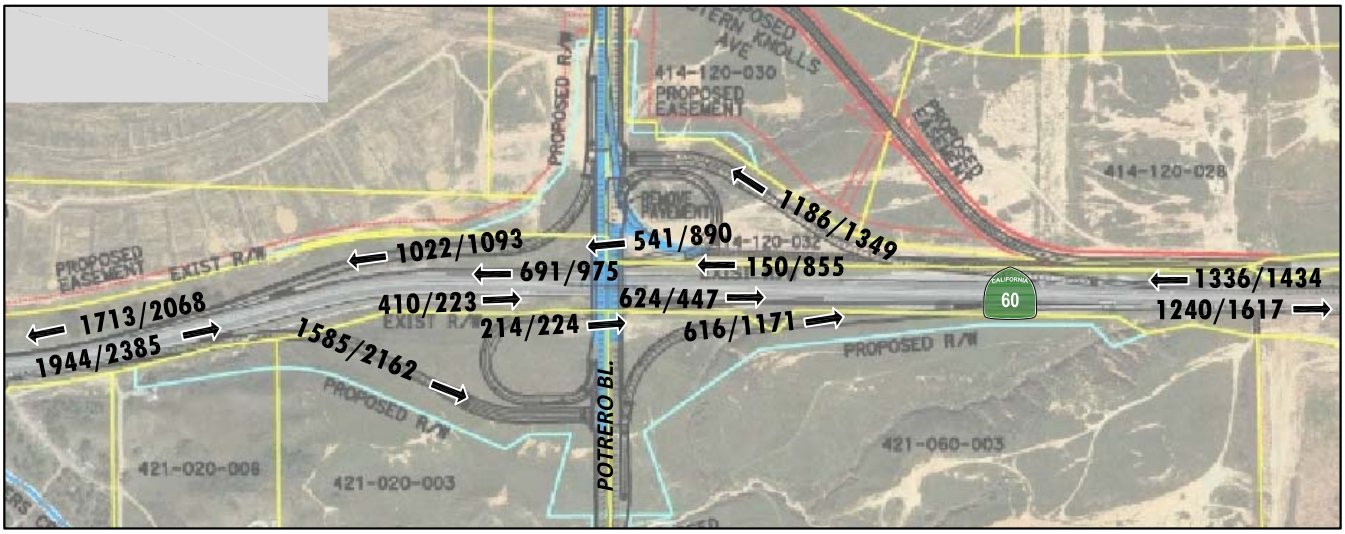
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EXHIBIT 6-9: OPENING YEAR CUMULATIVE (2023) WITH PROJECT FREEWAY MAINLINE VOLUMES





LEGEND:

⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

7 OPENING YEAR CUMULATIVE (2025) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2025) Without and With Project traffic forecasts, and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and freeway facility analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2025) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).
- The SR-60 Freeway/Potrero Boulevard interchange is assumed to be in place (see Exhibit 6-1).
- The SR-60 Freeway/Western Knolls Avenue interchange is assumed to be vacated.

7.2 OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 10.41% plus 50% of the traffic from pending and approved but not yet constructed known development projects in the area. The ADT and peak hour intersection turning movement volumes which can be expected for Opening Year Cumulative (2025) Without Project conditions are shown on Exhibits 7-1 and 7-2, respectively.

7.3 OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes, an ambient growth factor of 10.41%, 50% of the traffic from pending and approved but not yet constructed known development projects in the area and the addition of Project (Phase 2) traffic. The ADT and peak hour intersection turning movement volumes which can be expected for Opening Year Cumulative (2025) With Project conditions are shown on Exhibits 7-3 and 7-4, respectively.

EXHIBIT 7-1: OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

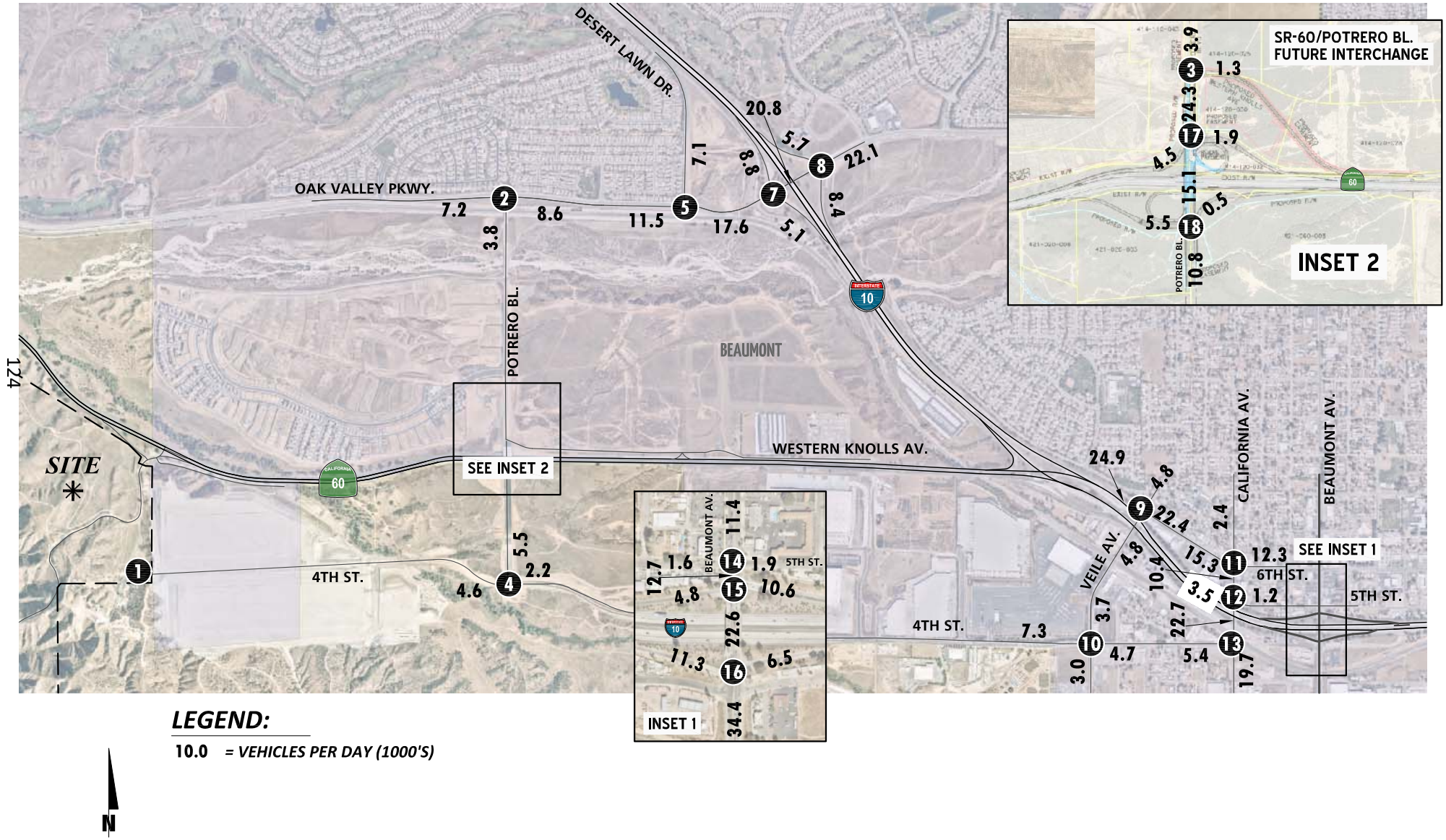
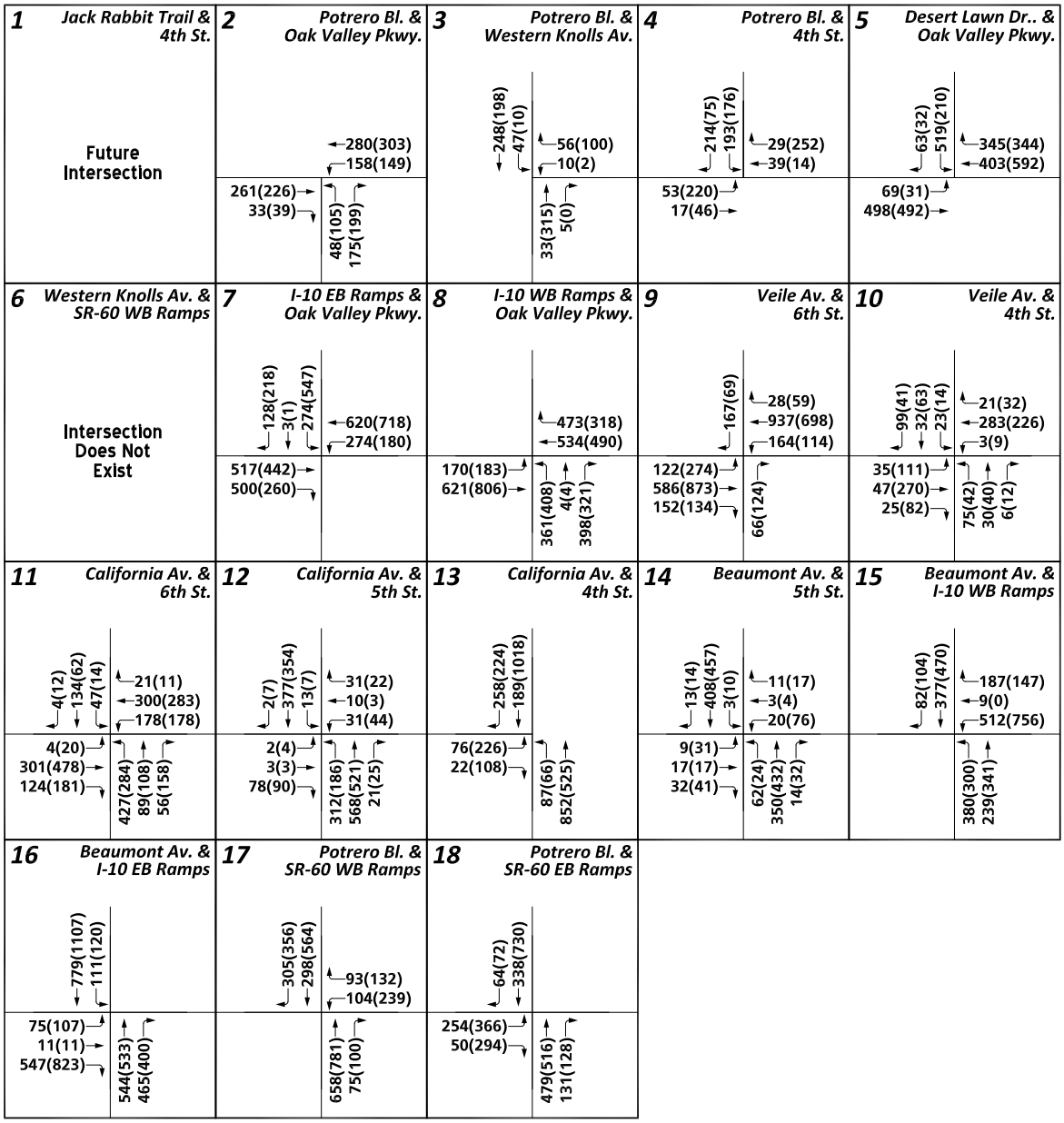


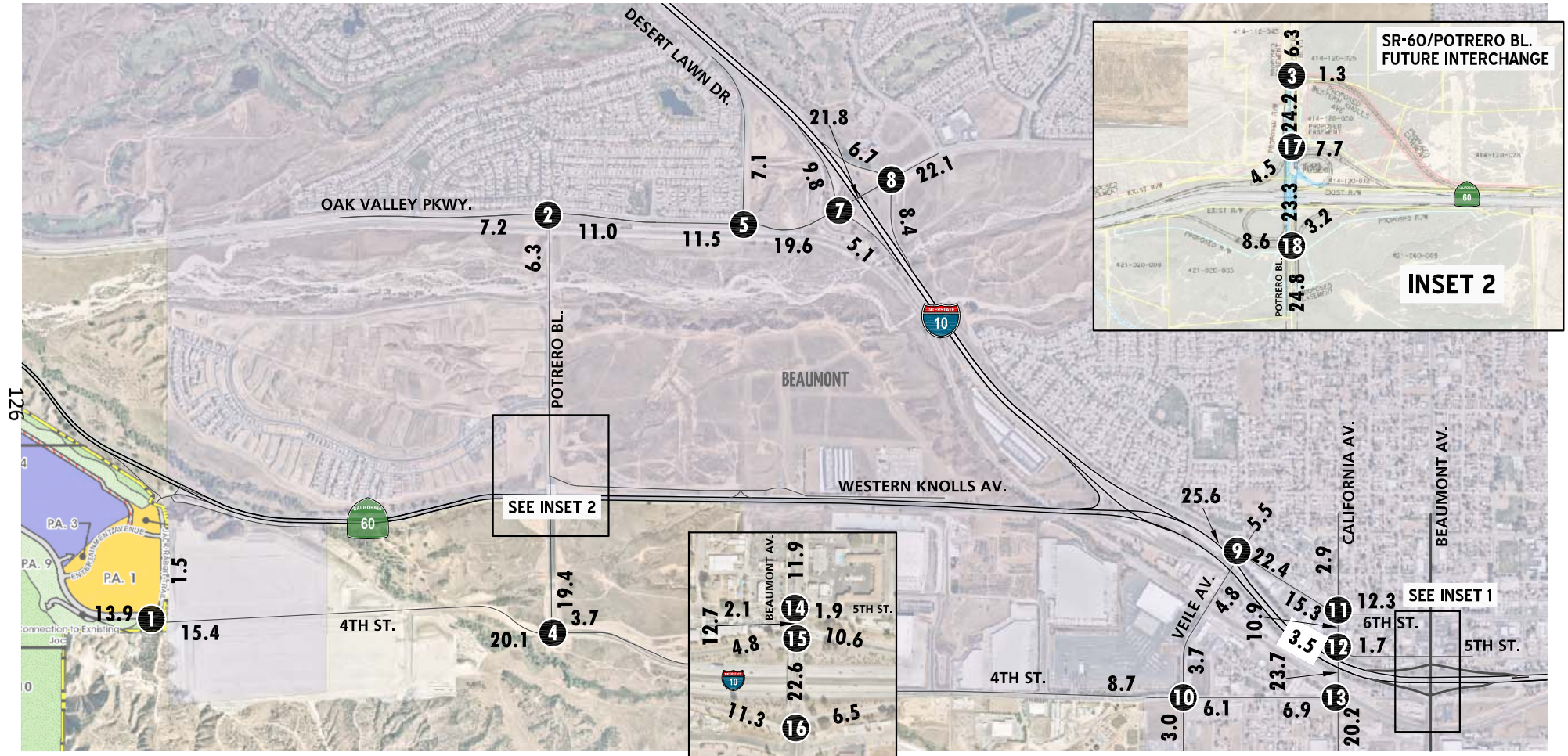
EXHIBIT 7-2: OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***

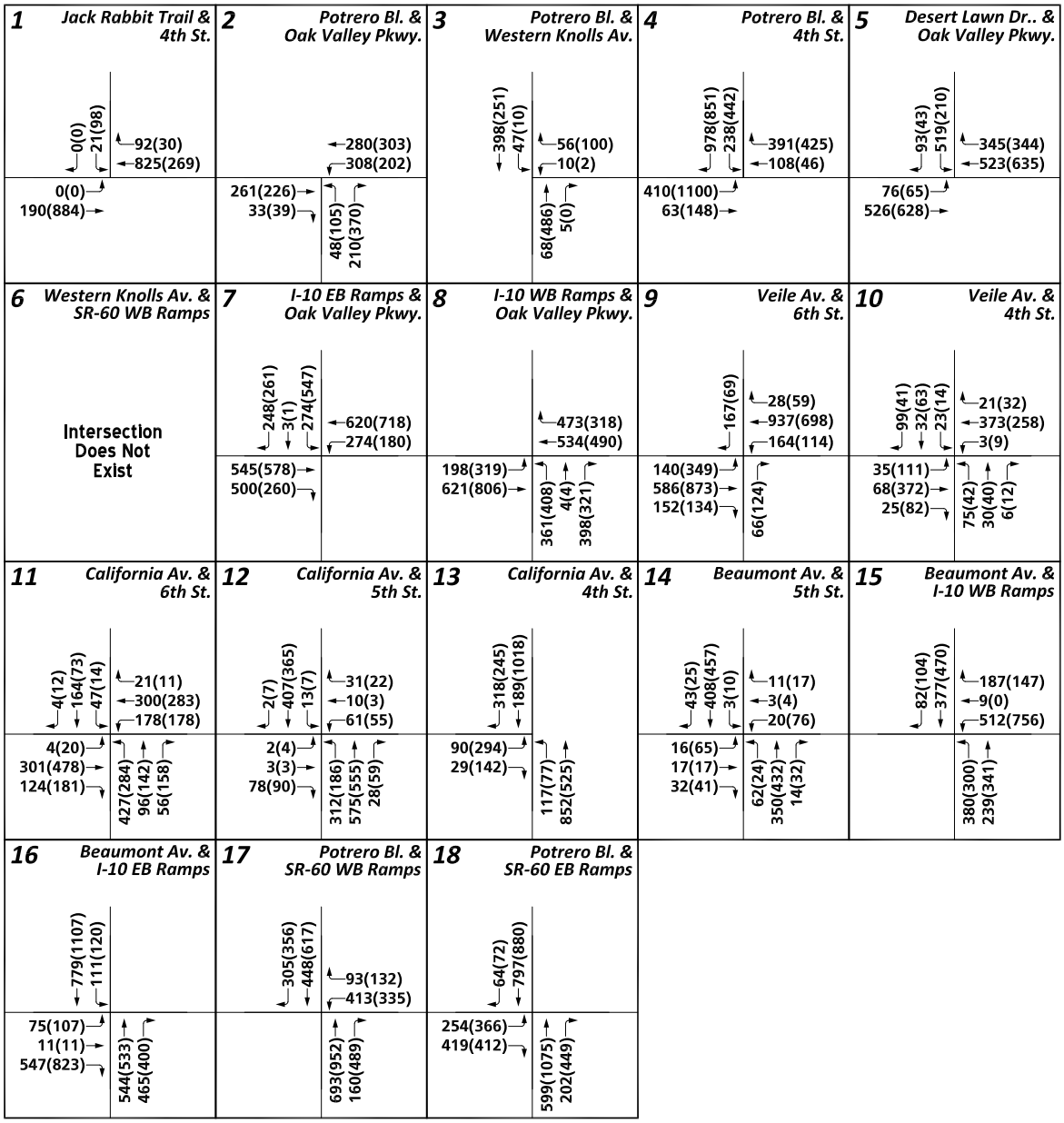
EXHIBIT 7-3: OPENING YEAR CUMULATIVE (2025) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



LEGEND:

10.0 ***= VEHICLES PER DAY (1000'S)***

EXHIBIT 7-4: OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***

7.4 INTERSECTION OPERATIONS ANALYSIS

7.4.1 OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC CONDITIONS

Opening Year Cumulative (2025) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection analysis results are summarized in Table 7-1, which indicate that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours under Opening Year Cumulative (2025) Without Project:

- Desert Lawn Drive & Oak Valley Parkway (#5) – LOS F AM peak hour only
- I-10 Eastbound Ramps & Oak Valley Parkway (#7) – LOS F AM and PM peak hours
- I-10 Westbound Ramps & Oak Valley Parkway (#8) – LOS E AM peak hour only
- Veile Avenue & I-10 Westbound On-Ramp/6th Street (#9) – LOS E AM peak hour only
- California Avenue & 6th Street (#11) – LOS E PM peak hour only
- California Avenue & 5th Street (#12) – LOS F AM peak hour only
- California Avenue & 4th Street (#13) – LOS F AM and PM peak hours

A summary of the peak hour intersection LOS for Opening Year Cumulative (2025) Without Project conditions is shown on Exhibit 7-5. The intersection operations analysis worksheets for Opening Year Cumulative Without Project traffic conditions are included in Appendix 7.1 of this TA.

7.4.2 OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC CONDITIONS

As shown in Table 7-1 and illustrated on Exhibit 7-6, the following additional study area intersections are anticipated to operate at an unacceptable LOS with the addition of Project (Phase 2) traffic, in addition to the intersections previously identified under Opening Year Cumulative (2025) Without Project traffic conditions:

- Potrero Boulevard & 4th Street (#4) – LOS F AM and PM peak hours
- Veile Avenue & 4th Street (#10) – LOS E PM peak hour only

The intersection operations analysis worksheets for Opening Year Cumulative (2025) With Project traffic conditions are included in Appendix 7.2 of this TA.

7.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed (based on CA MUTCD) for Opening Year Cumulative (2025) traffic conditions based on peak hour intersection turning movements volumes. The following additional unsignalized study area intersection is anticipated to meet a traffic signal warrant under Opening Year Cumulative (2025) Without Project traffic conditions (see Appendix 7.3), in addition to those warranted previously:

- Potrero Boulevard & Oak Valley Parkway (#2)

Table 7-1

Intersection Analysis for Opening Year Cumulative (2025) Conditions

#	Intersection	Traffic Control[2]	2025 Without Project				2025 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Jack Rabbit Tr. & 4th St.	**TS**	Future Intersection				5.4	8.9	A	A
2	Potrero Bl. & Oak Valley Pkwy.	AWS	11.2	11.3	B	B	15.6	16.4	C	C
3	Potrero Bl. & Western Knolls Av.	AWS	10.8	11.1	B	B	20.3	19.3	C	C
4	Potrero Bl. & 4th St.	AWS	11.9	22.3	B	C	**>100.0**	**>100.0**	**F**	**F**
5	Desert Lawn Dr. & Oak Valley Pkwy.	AWS	**>100.0**	35.0	**F**	D	**>100.0**	**75.8**	**F**	**F**
6	SR-60 WB & Western Knolls Av.	CSS	Does Not Exist				Does Not Exist			
7	I-10 EB Ramps & Oak Valley Pkwy.	TS	**111.9**	**144.9**	**F**	**F**	**167.9**	**>200.0**	**F**	**F**
8	I-10 WB Ramps & Oak Valley Pkwy.	TS	**58.3**	42.5	**E**	D	**71.4**	**74.7**	**E**	**E**
9	Veile Av. & I-10 WB On-ramp/6th St.	CSS	**39.3**	16.1	**E**	C	**39.3**	16.1	**E**	C
10	Veile Av. & 4th St.	AWS	15.4	21.7	C	C	29.3	**49.1**	D	**E**
11	California Av. & 6th St.	TS	54.7	**60.4**	D	**E**	54.8	**62.8**	D	**E**
12	California Av. & 5th St.	CSS	**>100.0**	29.4	**F**	D	**>100.0**	**36.0**	**F**	**E**
13	California Av. & 4th St.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
14	Beaumont Av. & 5th St.	TS	7.4	7.2	A	A	7.6	7.7	A	A
15	Beaumont Av. & I-10 WB Ramps	TS	Not Applicable[3]				Not Applicable[3]			
16	Beaumont Av. & I-10 EB Ramps	TS	Not Applicable[3]				Not Applicable[3]			
17	Potrero Bl. & I-10 WB Ramps	**TS**	5.7	6.0	A	A	6.7	6.4	A	A
18	Potrero Bl. & I-10 EB Ramps	**TS**	7.7	7.9	A	A	7.9	8.1	A	A

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

[2] AWS = All-way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

[3] Project is not anticipated to contribute any trips to this intersection. As such, the intersection has not been evaluated for this scenario.

EXHIBIT 7-5: OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT SUMMARY OF LOS

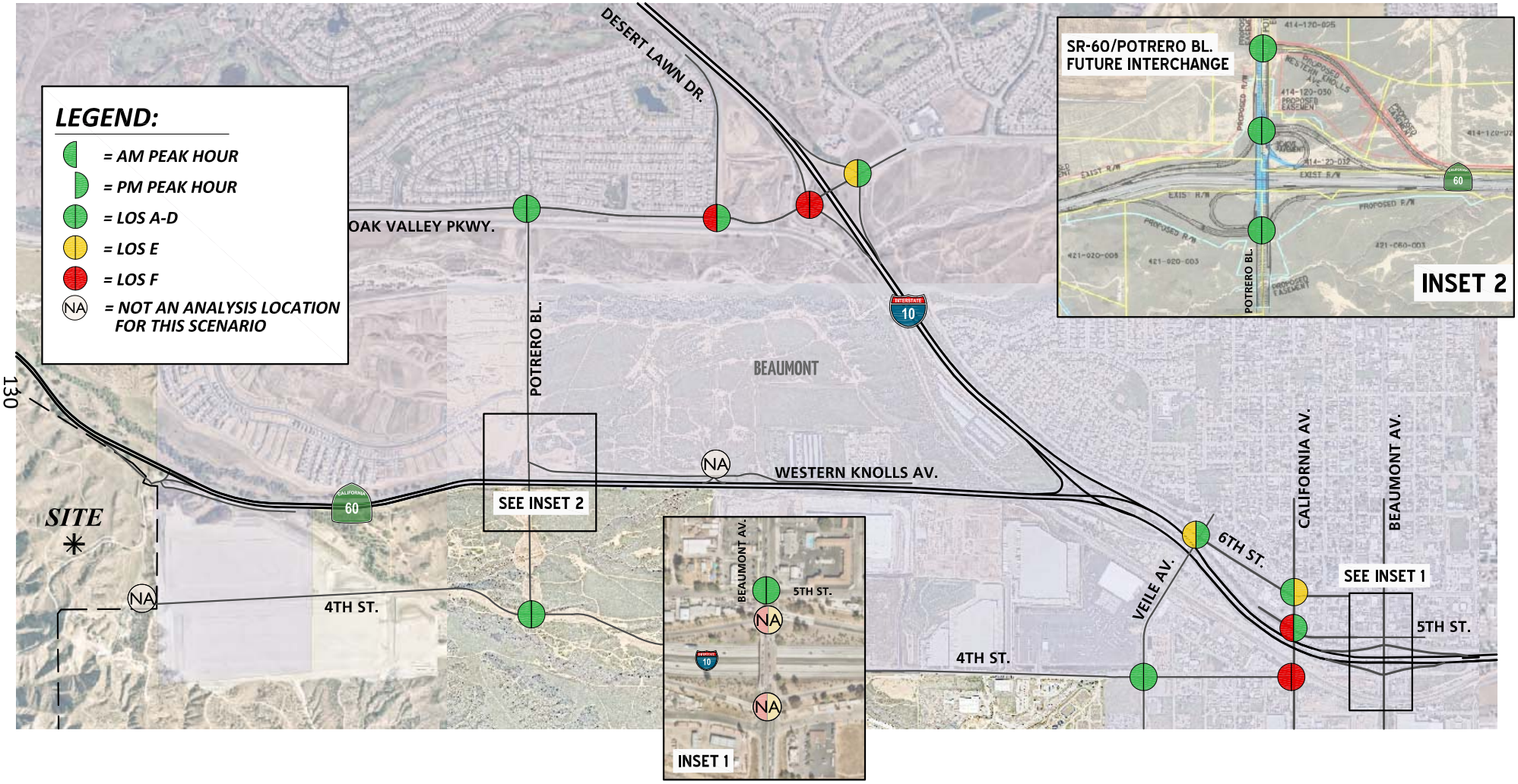
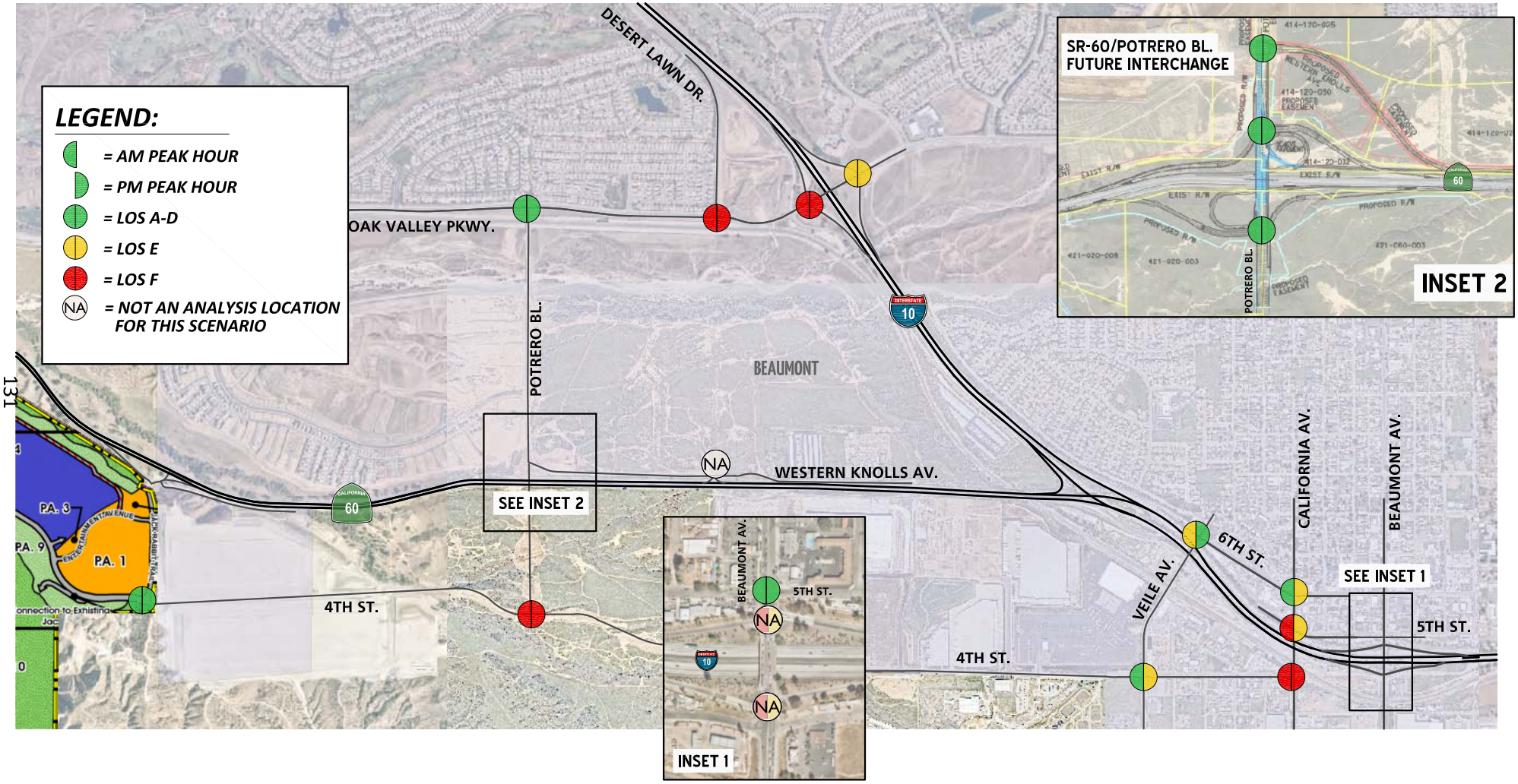


EXHIBIT 7-6: OPENING YEAR CUMULATIVE (2025) WITH PROJECT SUMMARY OF LOS



URBAN CROSSROADS

There are no additional unsignalized study area intersections anticipated to meet a traffic signal warrant under Opening Year Cumulative (2025) With Project traffic conditions, in addition to the intersections identified previously under Existing (2020), E+P (Phase 2), E+P (Project Buildout), and Opening Year Cumulative (2025) Without Project traffic conditions (see Appendix 7.4).

7.6 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for Opening Year Cumulative (2025) are presented in Table 7-2. As shown in Table 7-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Opening Year Cumulative (2025) Without Project and With Project traffic conditions. Worksheets for Opening Year Cumulative (2025) Without Project and With Project traffic conditions off-ramp queuing analyses are provided Appendices 7.5 and 7.6, respectively.

7.7 FREEWAY FACILITY ANALYSIS

Opening Year Cumulative (2025) Without Project and With Project freeway mainline directional volumes for the AM and PM peak hours are provided on Exhibits 7-7 and 7-8, respectively. As shown in Table 7-3, the study area freeway mainline segments and merge/diverge ramp junctions are anticipated to continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for Opening Year Cumulative (2025) Without Project and With Project traffic conditions. Opening Year Cumulative (2025) Without Project and With Project freeway facility analysis worksheets are provided in Appendices 7.7 and 7.8, respectively.

7.8 DEFICIENCIES AND IMPROVEMENTS

This section provides a summary of deficiencies, based on the City of Beaumont deficiency criteria discussed in Section 2.8 *Deficiency Criteria*, and improvements needed to improve operations back to acceptable levels.

7.8.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The effectiveness of the recommended improvement strategies to address Opening Year Cumulative (2025) traffic deficiencies are presented in Table 7-4. Worksheets for Opening Year Cumulative (2025) Without and With Project conditions, with improvements, HCM calculation worksheets are provided in Appendices 7.9 and 7.10, respectively.

7.8.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown previously in Table 7-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Opening Year Cumulative (2025) traffic conditions. As such, no improvements are necessary.

Table 7-2

Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year Cumulative (2025) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2025 Without Project				2025 With Project			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-10 EB Ramps & Oak Valley Pwky.	SBL/T/R	1,150	516 [2]	754 [2]	Yes	Yes	677 [2]	813 [2]	Yes	Yes
I-10 WB Ramps & Oak Valley Pkwy.	NBL/T/R	1,220	624 [2]	601 [2]	Yes	Yes	624 [2]	601 [2]	Yes	Yes
Beaumont Av. & I-10 WB Ramps	WBL	485	300 [2]	325 [2]	Yes	Yes	300 [2]	325 [2]	Yes	Yes
	WBL/R	1,110	232 [2]	263 [2]	Yes	Yes	232 [2]	263 [2]	Yes	Yes
Beaumont Av. & I-10 EB Ramps	EBL/R	885	127	317 [2]	Yes	Yes	127	317 [2]	Yes	Yes
	EBR	235	124	273 [2,3]	Yes	Yes	124	273 [2,3]	Yes	Yes
Potrero Bl. & I-10 WB Ramps	WBL	2,000	17	42	Yes	Yes	71	84	Yes	Yes
	WBR	500	10	15	Yes	Yes	13	19	Yes	Yes
Potrero Bl. & I-10 EB Ramps	EBL	1,800	32	60	Yes	Yes	46	102	Yes	Yes
	EBR	600	6	22	Yes	Yes	54	85	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-10 Freeway mainline.

Table 7-3

Freeway Facility Analysis for Opening Year Cumulative (2025) Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2025 Without Project				2025 With Project			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-10 Freeway	EB	West of Oak Valley Pkwy.	3	11.4	15.7	B	B	12.1	16.0	B	B
		Off-Ramp at Oak Valley Pkwy.	3	15.3	20.7	B	C	16.3	21.1	B	C
	WB	West of Oak Valley Pkwy.	3	13.0	15.3	B	B	13.2	16.1	B	B
		On-Ramp at Oak Valley Pkwy.	3	14.2	16.0	B	B	14.4	17.1	B	B
SR-60 Freeway	EB	West of Potrero Bl.	2	17.3	20.7	B	C	20.0	21.8	C	C
		Off-Ramp at Potrero Bl.	2	22.7	26.7	C	C	25.8	27.9	C	C
		On-Ramp at Potrero Bl.	2	15.3	18.3	B	B	15.9	21.0	B	C
		East of Potrero Bl.	2	10.6	13.4	A	B	11.0	16.0	A	B
	WB	West of Potrero Bl.	2	14.9	17.8	B	B	15.3	20.8	B	C
		Loop On-Ramp at Potrero Bl.	2	10.3	12.7	B	B	10.8	15.6	B	B
		Off-Ramp at Potrero Bl.	2	15.9	17.1	B	B	18.6	17.8	B	B
		East of Potrero Bl.	2	11.5	12.5	B	B	13.8	13.1	B	B

[1] NB = Northbound; SB = Southbound

[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

Table 7-4

Intersection Analysis for Opening Year Cumulative (2025) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
4	Potrero Bl. & 4th St.																	
	- Without Project	**TS**	0	0	0	2	0	**1>**	**2**	1	0	1	1	1	10.7	13.7	B	B
	- With Project	**TS**	0	0	0	2	0	**1>**	**2**	1	0	1	1	1	31.1	51.0	C	D
5	Desert Lawn Dr. & Oak Valley Pkwy.																	
	- Without Project	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	26.4	11.7	C	B
	- With Project	**TS**	0	0	0	0	1	0	1	1	0	0	3	0	30.4	12.5	C	B
7	I-10 EB Ramps & Oak Valley Pkwy.																	
	- Without Project	TS	0	0	0	**1**	1	0	0	**2**	**1**	1	1	0	21.6	47.4	C	D
	- With Project	TS	0	0	0	**1**	1	0	0	**2**	**1**	1	1	0	22.9	48.5	C	D
8	I-10 WB Ramps & Oak Valley Pkwy.																	
	- Without Project	TS	**1**	1	0	0	0	0	1	1	0	0	1	1	28.5	34.1	C	C
	- With Project	TS	**1**	1	0	0	0	0	1	1	0	0	1	1	29.4	37.5	C	D
9	Veile Av. & I-10 WB On-ramp/6th St.																	
	- Without Project	CSS	0	0	1	0	0	1	0	2	0	1	**2**	0	16.4	15.1	C	C
	- With Project	CSS	0	0	1	0	0	1	0	2	0	1	**2**	0	16.4	15.1	C	C
10	Veile Av. & 4th St.																	
	- Without Project[4]	**TS**	0	1	1	1	1	1>>	1	1	1	1	1	0	13.7	14.2	B	B
	- With Project[4]	**TS**	0	1	1	1	1	1>>	1	1	1	1	1	0	14.3	14.7	B	B
12	California Av. & 5th St.																	
	- Without Project	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	28.3	14.0	C	B
	- With Project	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	31.1	14.3	C	B
13	California Av. & 4th St.																	
	- Without Project	**TS**	1	1	0	0	1	**1**	1	0	1	0	0	0	13.2	24.1	B	C
	- With Project	**TS**	1	1	0	0	1	**1**	1	0	1	0	0	0	14.3	34.0	B	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane

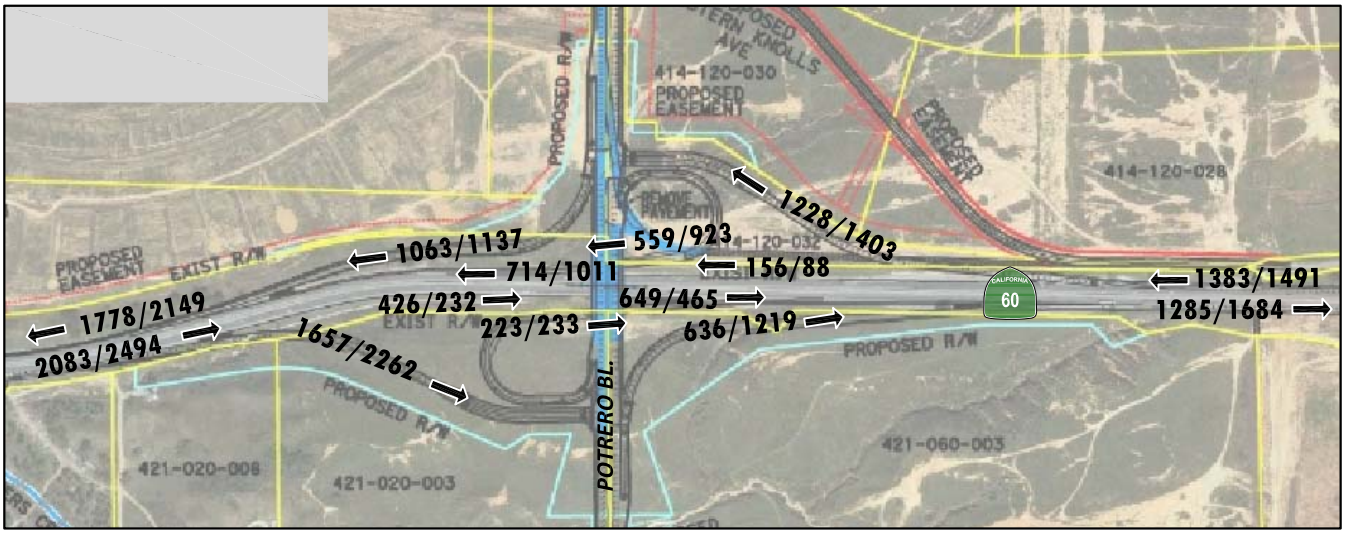
[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

[4] Traffic signal heads are currently installed at this location, but not operational as of January 28, 2020.

EXHIBIT 7-7: OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES





LEGEND:

⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

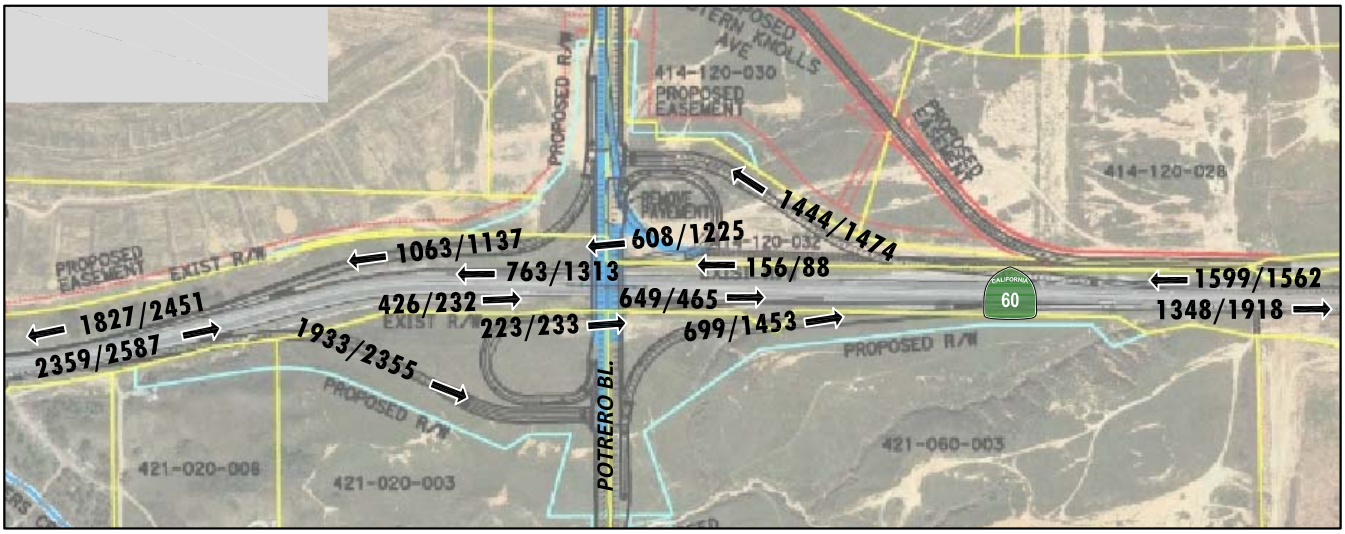
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URBAN CROSSROADS

EXHIBIT 7-8: OPENING YEAR CUMULATIVE (2025) WITH PROJECT FREEWAY MAINLINE VOLUMES





LEGEND:

⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

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URBAN CROSSROADS

7.8.3 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown previously in Table 7-3, the study area freeway segments and merge/diverge ramp junctions are anticipated to operate at an acceptable LOS for Opening Year Cumulative (2025) traffic conditions. As such no improvements are necessary.

8 OPENING YEAR CUMULATIVE (2027) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2027) Without and With Project traffic forecasts, and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and freeway facility analyses.

8.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2027) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).
- The SR-60 Freeway/Potrero Boulevard interchange is assumed to be in place (see Exhibit 6-1).
- The SR-60 Freeway/Western Knolls Avenue interchange is assumed to be vacated.

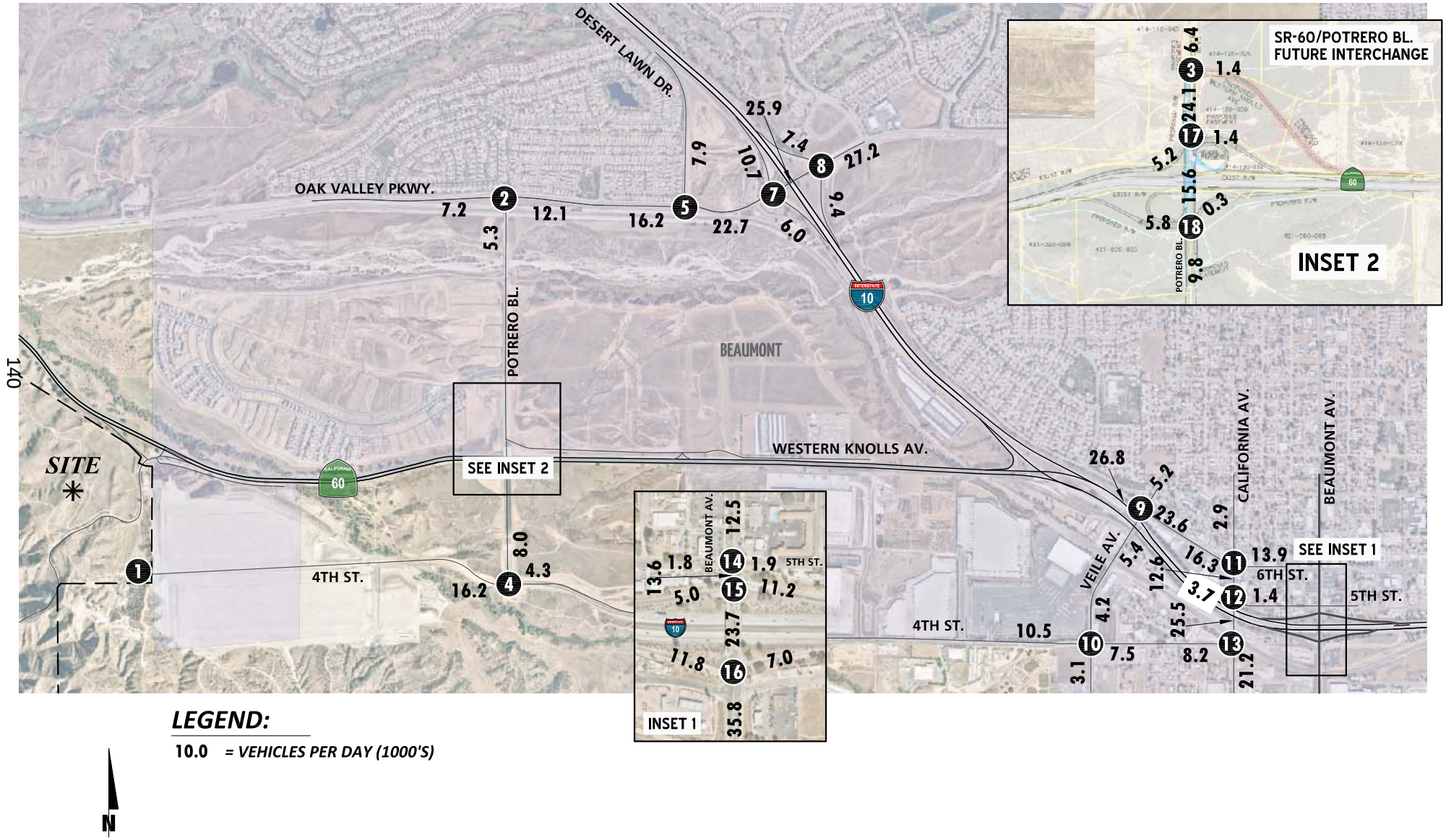
8.2 OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth factor of 14.87% plus 100% of the traffic from pending and approved but not yet constructed known development projects in the area. The ADT and peak hour intersection turning movement volumes which can be expected for Opening Year Cumulative (2027) Without Project conditions are shown on Exhibits 8-1 and 8-2, respectively.

8.3 OPENING YEAR CUMULATIVE (2027) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes, an ambient growth factor of 14.87%, 100% of the traffic from pending and approved but not yet constructed known development projects in the area and the addition of Project Buildout traffic. The ADT and peak hour intersection turning movement volumes which can be expected for Opening Year Cumulative (2027) With Project conditions are shown on Exhibits 8-3 and 8-4, respectively.

EXHIBIT 8-1: OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

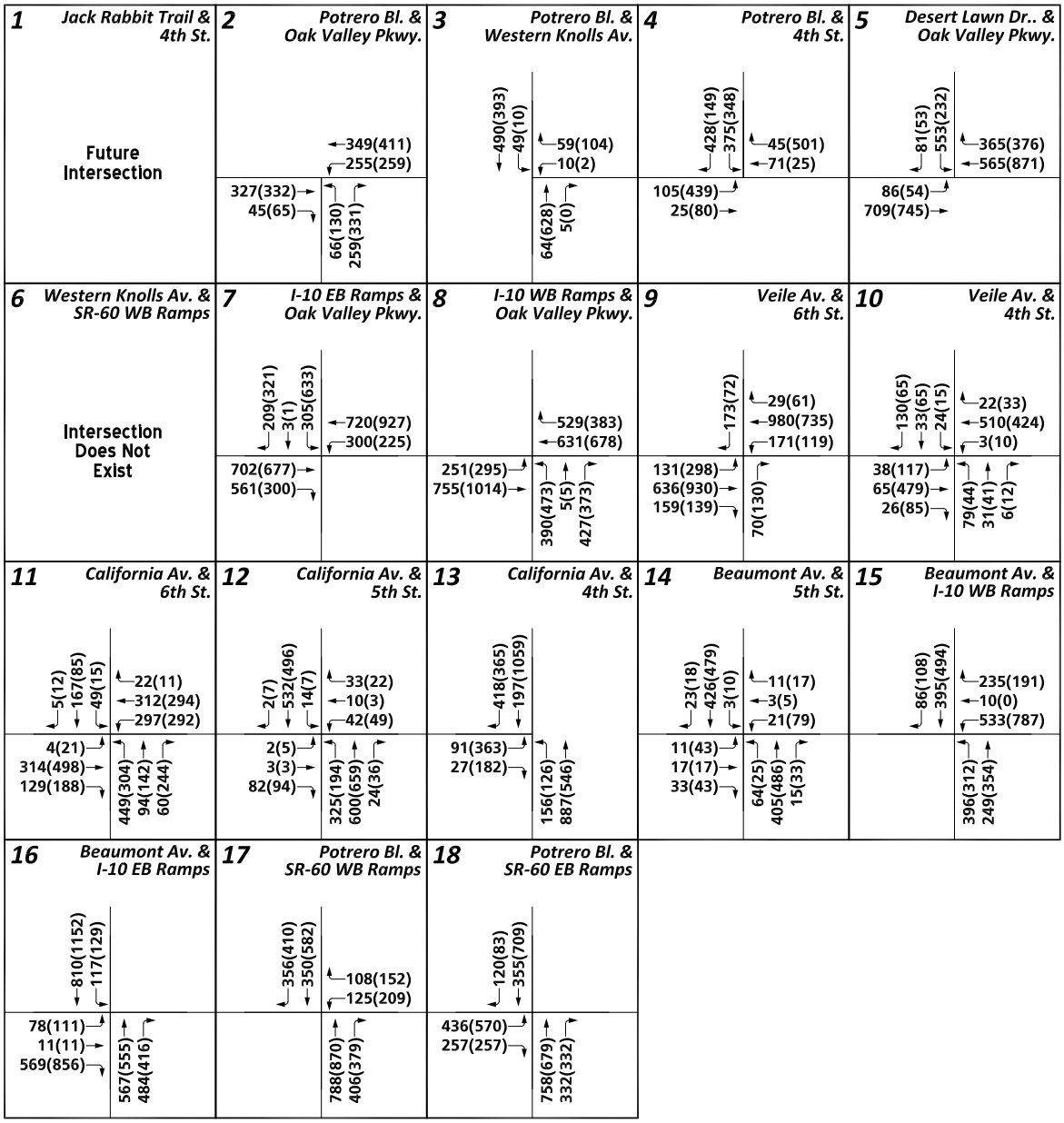


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 8-2: OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



EXHIBIT 8-3: OPENING YEAR CUMULATIVE (2027) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

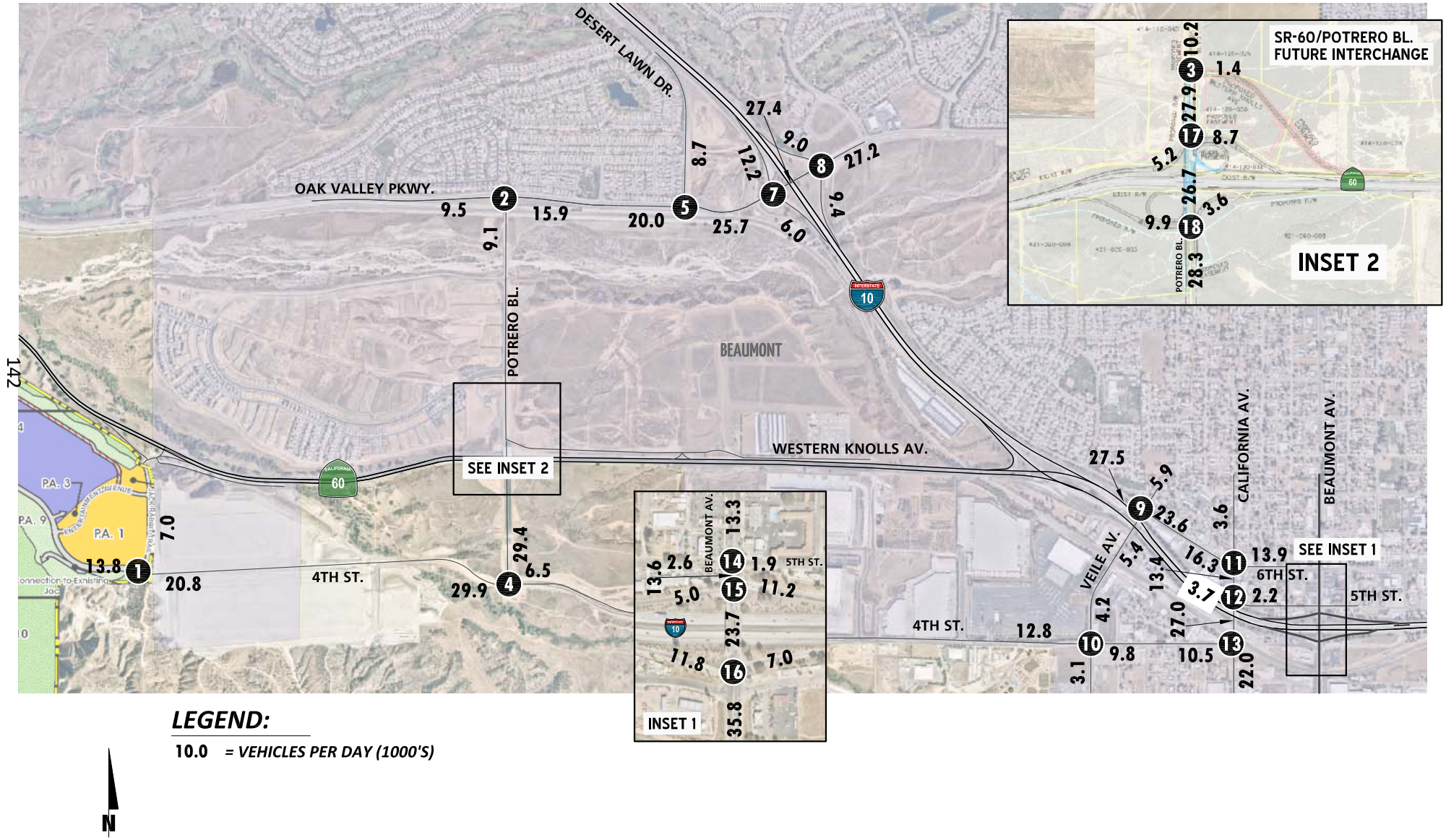
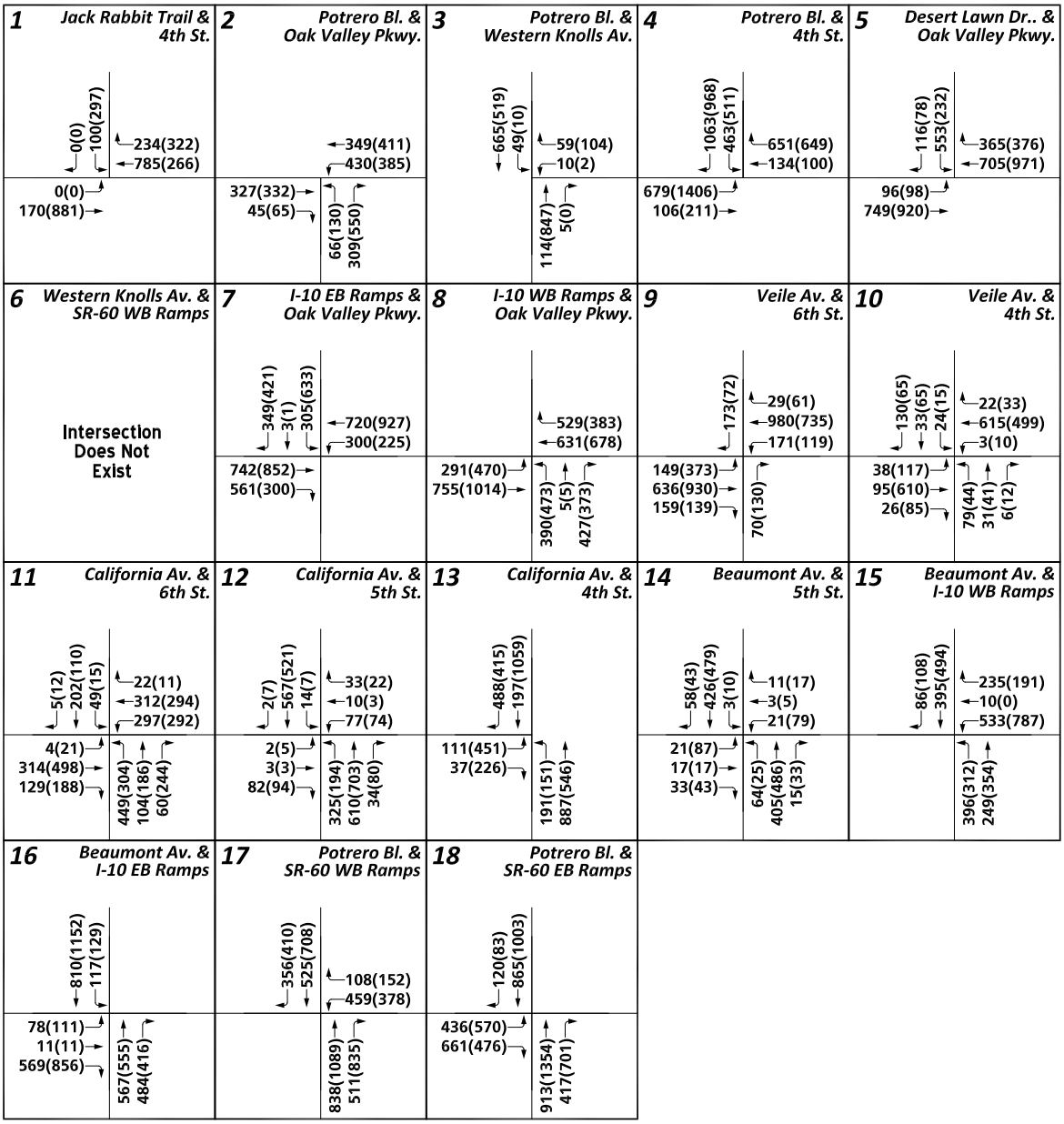


EXHIBIT 8-4: OPENING YEAR CUMULATIVE (2027) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***

8.4 INTERSECTION OPERATIONS ANALYSIS

8.4.1 OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT TRAFFIC CONDITIONS

Opening Year Cumulative (2027) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection analysis results are summarized in Table 8-1, which indicate that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours under Opening Year Cumulative (2027) Without Project:

- Potrero Boulevard & Oak Valley Parkway (#3) – LOS E AM peak hour; LOS F PM peak hour
- Potrero Boulevard & 4th Street (#4) – LOS F AM and PM peak hours
- Desert Lawn Drive & Oak Valley Parkway (#5) – LOS F AM and PM peak hours
- I-10 Eastbound Ramps & Oak Valley Parkway (#7) – LOS F AM and PM peak hours
- I-10 Westbound Ramps & Oak Valley Parkway (#8) – LOS F AM and PM peak hours
- Veile Avenue & I-10 Westbound On-Ramp/6th Street (#9) – LOS E AM peak hour only
- Veile Avenue & 4th Street (#10) – LOS F AM and PM peak hours
- California Avenue & 6th Street (#11) – LOS F AM and PM peak hours
- California Avenue & 5th Street (#12) – LOS F AM and PM peak hours
- California Avenue & 4th Street (#13) – LOS F AM and PM peak hours

A summary of the peak hour intersection LOS for Opening Year Cumulative (2027) Without Project conditions is shown on Exhibit 8-5. The intersection operations analysis worksheets for Opening Year Cumulative Without Project traffic conditions are included in Appendix 8.1 of this TA.

8.4.2 OPENING YEAR CUMULATIVE (2027) WITH PROJECT TRAFFIC CONDITIONS

As shown in Table 8-1 and illustrated on Exhibit 8-6, the following additional study area intersection is anticipated to operate at an unacceptable LOS with the addition of Project (Buildout) traffic, in addition to the intersections previously identified under Opening Year Cumulative (2027) Without Project traffic conditions:

- Potrero Boulevard & Oak Valley Parkway (#2) – LOS E AM peak hour only

The intersection operations analysis worksheets for Opening Year Cumulative (2027) With Project traffic conditions are included in Appendix 8.2 of this TA.

Table 8-1

Intersection Analysis for Opening Year Cumulative (2027) Conditions

#	Intersection	Traffic Control[2]	2027 Without Project				2027 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Jack Rabbit Tr. & 4th St.	**TS**	Future Intersection				8.1	13.0	A	B
2	Potrero Bl. & Oak Valley Pkwy.	AWS	16.7	19.8	C	C	**45.8**	19.8	**E**	C
3	Potrero Bl. & Western Knolls Av.	AWS	**42.7**	**65.2**	**E**	**F**	**>100.0**	**65.2**	**F**	**F**
4	Potrero Bl. & 4th St.	AWS	**90.1**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
5	Desert Lawn Dr. & Oak Valley Pkwy.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
6	SR-60 WB & Western Knolls Av.	CSS	Does Not Exist				Does Not Exist			
7	I-10 EB Ramps & Oak Valley Pkwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
8	I-10 WB Ramps & Oak Valley Pkwy.	TS	**112.7**	**130.1**	**F**	**F**	**138.2**	**130.1**	**F**	**F**
9	Veile Av. & I-10 WB On-ramp/6th St.	CSS	**47.7**	17.0	**E**	C	**47.7**	17.0	**E**	C
10	Veile Av. & 4th St.	AWS	**96.3**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
11	California Av. & 6th St.	TS	**114.6**	**129.6**	**F**	**F**	**116.2**	**129.6**	**F**	**F**
12	California Av. & 5th St.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
13	California Av. & 4th St.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
14	Beaumont Av. & 5th St.	TS	7.3	7.2	A	A	7.5	7.2	A	A
15	Beaumont Av. & I-10 WB Ramps	TS	Not Applicable[3]				Not Applicable[3]			
16	Beaumont Av. & I-10 EB Ramps	TS	Not Applicable[3]				Not Applicable[3]			
17	Potrero Bl. & I-10 WB Ramps	**TS**	5.7	5.9	A	A	7.1	5.9	A	A
18	Potrero Bl. & I-10 EB Ramps	**TS**	7.9	8.1	A	A	9.5	8.1	A	A

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

[2] AWS = All-way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

[3] Project is not anticipated to contribute any trips to this intersection. As such, the intersection has not been evaluated for this scenario.

EXHIBIT 8-5: OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT SUMMARY OF LOS

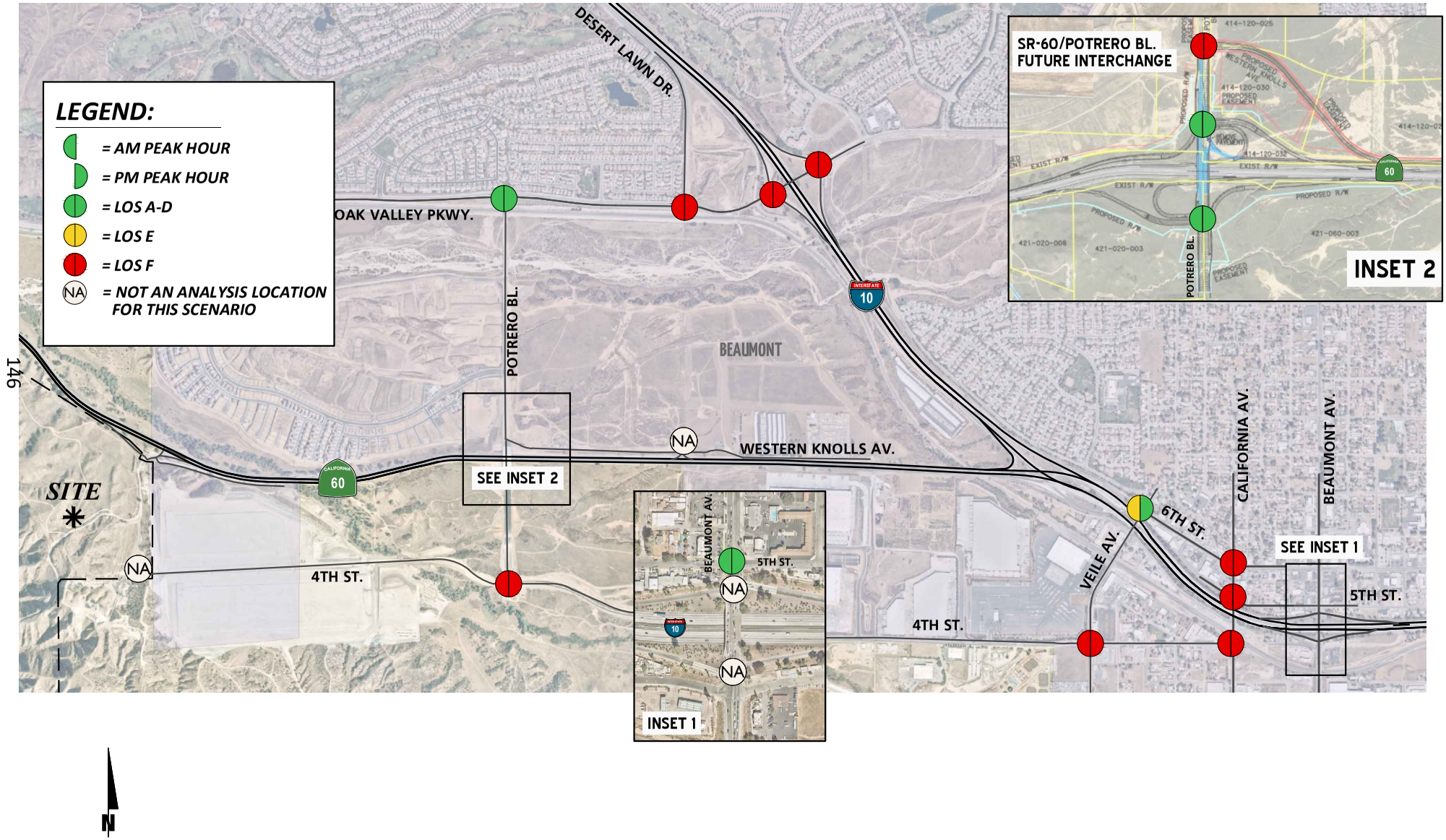
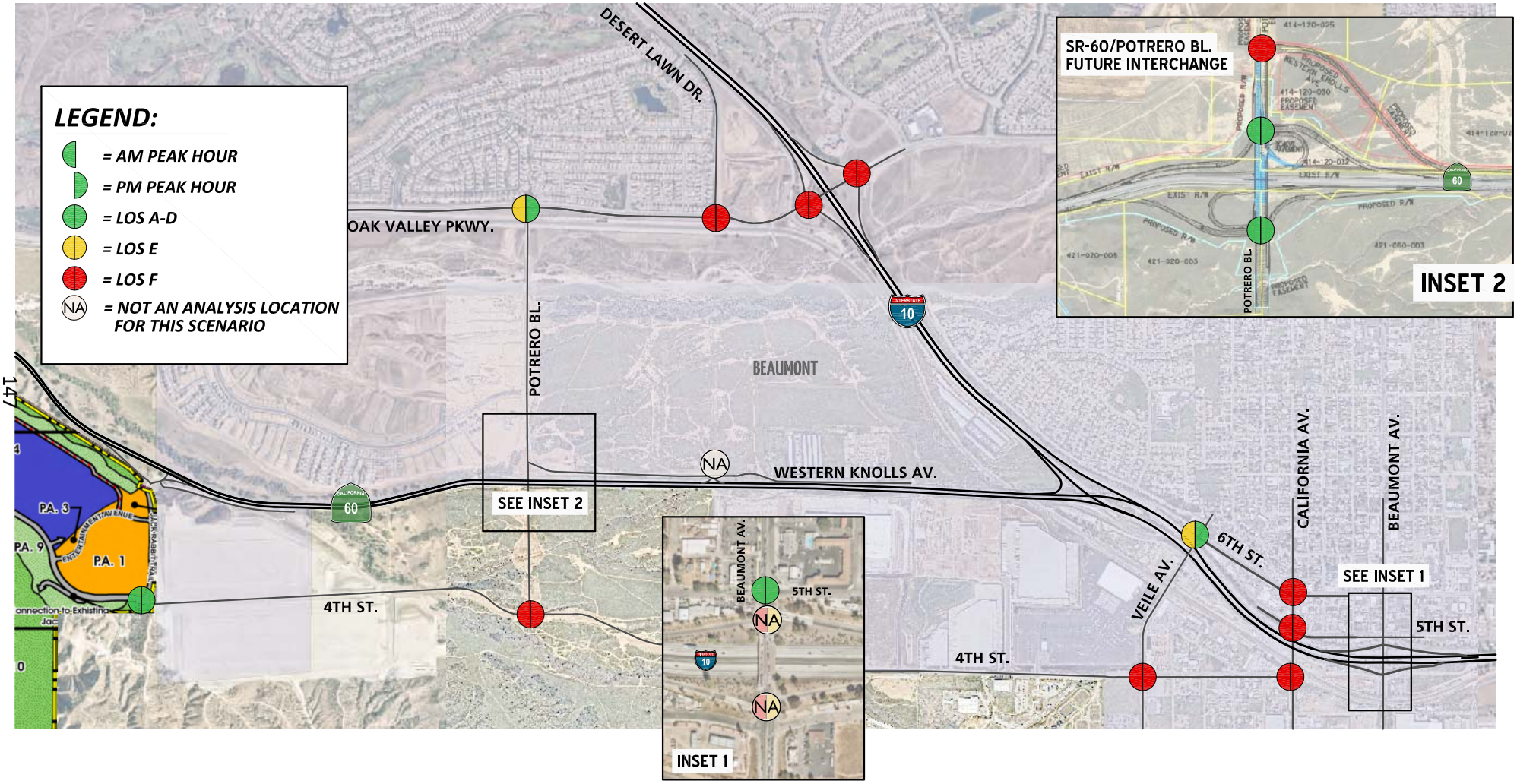


EXHIBIT 8-6: OPENING YEAR CUMULATIVE (2027) WITH PROJECT SUMMARY OF LOS



URBAN CROSSROADS

8.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed (based on CA MUTCD) for Opening Year Cumulative (2027) traffic conditions based on peak hour intersection turning movements volumes. The following additional unsignalized study area intersection is anticipated to meet a traffic signal warrant under Opening Year Cumulative (2027) Without Project traffic conditions (see Appendix 8.3), in addition to the locations previously warranted:

- Potrero Boulevard & Oak Valley Parkway (#3)

Since all unsignalized study area intersections have previously warranted a traffic signal warrant under previous scenarios, no traffic signal warrants have been evaluated for Opening Year Cumulative (2027) With Project traffic conditions.

8.6 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for Opening Year Cumulative (2027) are presented in Table 8-2. As shown in Table 8-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Opening Year Cumulative (2027) Without Project and With Project traffic conditions. Worksheets for Opening Year Cumulative (2027) Without Project and With Project traffic conditions off-ramp queuing analyses are provided Appendices 8.4 and 8.5, respectively.

8.7 FREEWAY FACILITY ANALYSIS

Opening Year Cumulative (2027) Without Project and With Project freeway mainline directional volumes for the AM and PM peak hours are provided on Exhibits 8-7 and 8-8, respectively. As shown in Table 8-3, the study area freeway mainline segments and merge/diverge ramp junctions are anticipated to continue to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours for Opening Year Cumulative (2027) Without Project and With Project traffic conditions. Opening Year Cumulative (2027) Without Project and With Project freeway facility analysis worksheets are provided in Appendices 8.6 and 8.7, respectively.

Table 8-2

Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year Cumulative (2027) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2027 Without Project				2027 With Project			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-10 EB Ramps & Oak Valley Pwky.	SBL/T/R	1,150	675 [2]	1,018 [2]	Yes	Yes	861 [2]	1,146 [2]	Yes	Yes
I-10 WB Ramps & Oak Valley Pkwy.	NBL/T/R	1,220	704 [2]	766 [2]	Yes	Yes	704 [2]	766 [2]	Yes	Yes
Beaumont Av. & I-10 WB Ramps	WBL	485	343 [2]	344 [2]	Yes	Yes	343 [2]	344 [2]	Yes	Yes
	WBL/R	1,110	236 [2]	321 [2]	Yes	Yes	236 [2]	321 [2]	Yes	Yes
Beaumont Av. & I-10 EB Ramps	EBL/R	885	143 [2]	341 [2]	Yes	Yes	143 [2]	341 [2]	Yes	Yes
	EBR	235	141 [2]	291 [2,3]	Yes	Yes	141 [2]	291 [2,3]	Yes	Yes
Potrero Bl. & I-10 WB Ramps	WBL	2,000	28	46	Yes	Yes	107	46	Yes	Yes
	WBR	500	15	19	Yes	Yes	17	19	Yes	Yes
Potrero Bl. & I-10 EB Ramps	EBL	1,800	85	111	Yes	Yes	109	111	Yes	Yes
	EBR	600	22	21	Yes	Yes	163	21	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-10 Freeway mainline.

Table 8-3

Freeway Facility Analysis for Opening Year Cumulative (2027) Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2027 Without Project				2027 With Project			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-10 Freeway	EB	West of Oak Valley Pkwy.	3	12.4	17.2	B	B	13.2	17.7	B	B
		Off-Ramp at Oak Valley Pkwy.	3	16.6	22.7	B	C	17.8	23.4	B	C
	WB	West of Oak Valley Pkwy.	3	14.2	16.8	B	B	14.4	17.8	B	B
		On-Ramp at Oak Valley Pkwy.	3	15.6	17.9	B	B	15.9	19.3	B	B
SR-60 Freeway	EB	West of Potrero Bl.	2	19.5	22.9	C	C	23.0	24.7	C	C
		Off-Ramp at Potrero Bl.	2	25.3	28.9	C	D	29.1	30.7	D	D
		On-Ramp at Potrero Bl.	2	15.8	20.5	B	C	16.7	23.0	B	C
		East of Potrero Bl.	2	10.9	15.6	A	B	11.7	18.0	B	B
	WB	West of Potrero Bl.	2	15.6	20.3	B	C	16.5	24.2	B	C
		Loop On-Ramp at Potrero Bl.	2	10.8	14.7	B	B	11.6	18.1	B	B
		Off-Ramp at Potrero Bl.	2	17.5	18.1	B	B	20.4	19.6	C	B
		East of Potrero Bl.	2	12.9	13.4	B	B	15.3	14.6	B	B

[1] NB = Northbound; SB = Southbound

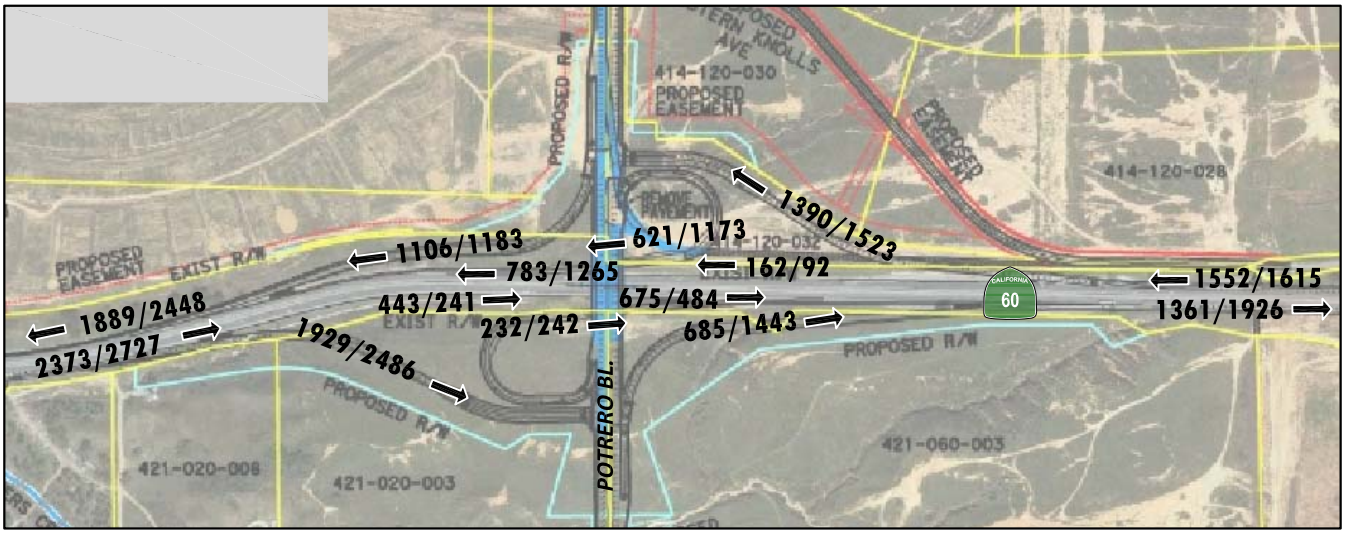
[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

EXHIBIT 8-7: OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES





LEGEND:

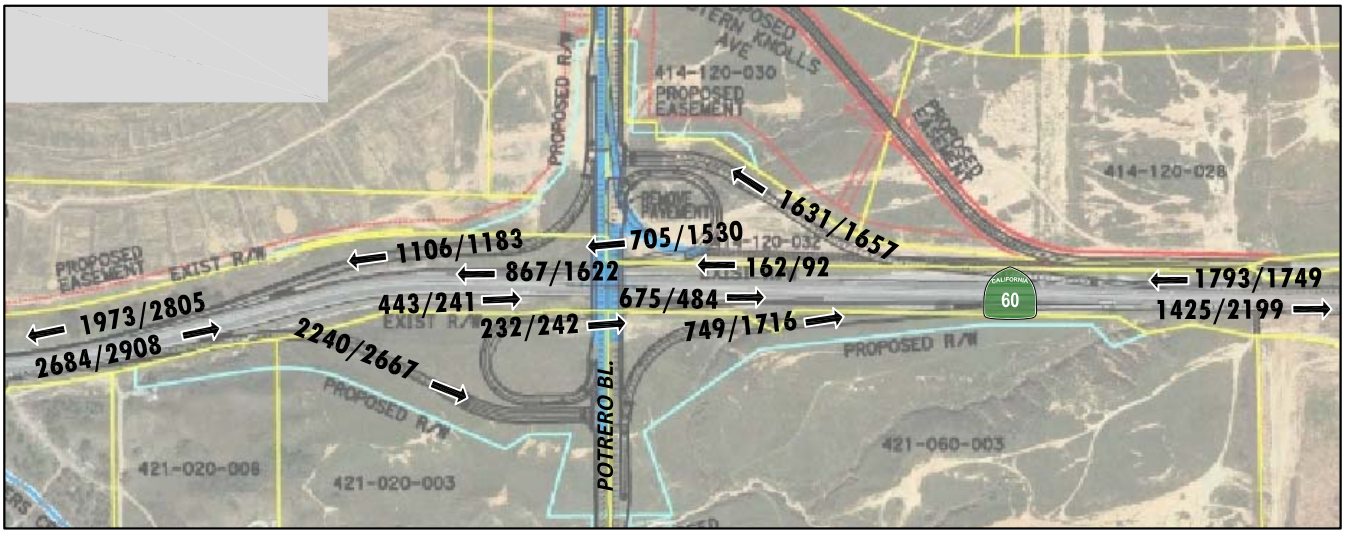
⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

EXHIBIT 8-8: OPENING YEAR CUMULATIVE (2027) WITH PROJECT FREEWAY MAINLINE VOLUMES





LEGEND:

⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

8.8 DEFICIENCIES AND IMPROVEMENTS

This section provides a summary of deficiencies, based on the City of Beaumont deficiency criteria discussed in Section 2.8 *Deficiency Criteria*, and improvements needed to improve operations back to acceptable levels.

8.8.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The effectiveness of the recommended improvement strategies to address Opening Year Cumulative (2027) traffic deficiencies are presented in Table 8-4. Worksheets for Opening Year Cumulative (2027) Without and With Project conditions, with improvements, HCM calculation worksheets are provided in Appendices 8.8 and 8.9, respectively.

8.8.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown previously in Table 8-2, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for Opening Year Cumulative (2027) traffic conditions. As such, no improvements are necessary.

8.8.3 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown previously in Table 8-3, the study area freeway segments and merge/diverge ramp junctions are anticipated to operate at an acceptable LOS for Opening Year Cumulative (2027) traffic conditions. As such no improvements are necessary.

Table 8-4

Intersection Analysis for Opening Year Cumulative (2027) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
2	Potrero Bl. & Oak Valley Pkwy.																	
	- Without Project	**TS**	1	0	1	0	0	0	0	2	1	1	2	0	15.6	16.4	B	B
	- With Project	**TS**	1	0	1	0	0	0	0	2	1	1	2	0	26.3	38.4	C	D
3	Potrero Bl. & Western Knolls Av.																	
	- Without Project	**CSS**	0	**2**	0	**1**	**2**	0	0	0	0	0	1	0	9.8	13.0	A	B
	- With Project	**CSS**	0	**2**	0	**1**	**2**	0	0	0	0	0	1	0	10.3	15.7	B	C
4	Potrero Bl. & 4th St.																	
	- Without Project	**TS**	0	0	0	2	0	**1>**	**2**	1	0	1	1	1	12.5	34.6	B	C
	- With Project	**TS**	0	0	0	2	0	**1>**	**2**	1	0	1	1	1	34.8	53.3	C	D
5	Desert Lawn Dr. & Oak Valley Pkwy.																	
	- Without Project	**TS**	0	0	0	0	1	0	1	**2**	0	0	3	0	30.3	12.3	C	B
	- With Project	**TS**	0	0	0	0	1	0	1	**2**	0	0	3	0	36.4	14.0	D	B
7	I-10 EB Ramps & Oak Valley Pkwy.																	
	- Without Project	TS	0	0	0	**2**	1	0	0	**2**	**1**	1	**2**	0	24.8	40.4	C	D
	- With Project	TS	0	0	0	**2**	1	0	0	**2**	**1**	1	**2**	0	32.6	43.7	C	D
8	I-10 WB Ramps & Oak Valley Pkwy.																	
	- Without Project	TS	**1**	1	0	0	0	0	1	**2**	0	0	**2**	1	34.2	45.9	C	D
	- With Project	TS	**1**	1	0	0	0	0	1	**2**	0	0	**2**	1	33.3	48.3	C	D
9	Veile Av. & I-10 WB On-ramp/6th St.																	
	- Without Project	CSS	0	0	1	0	0	1	0	2	0	1	**2**	0	17.3	16.0	C	C
	- With Project	CSS	0	0	1	0	0	1	0	2	0	1	**2**	0	17.3	16.0	C	C
10	Veile Av. & 4th St.																	
	- Without Project[4]	**TS**	0	1	1	1	1	1>>	1	1	1	1	1	0	17.7	18.1	C	B
	- With Project[4]	**TS**	0	1	1	1	1	1>>	1	1	1	1	1	0	23.6	23.8	C	C
11	California Av. & 6th St.																	
	- Without Project	TS	1	1	0	1	1	0	1	**2**	**0**	1	**2**	**0**	52.6	49.4	D	D
	- With Project	TS	1	1	0	1	1	0	1	**2**	**0**	1	**2**	**0**	54.2	52.6	D	D
12	California Av. & 5th St.																	
	- Without Project	**TS**	1	1	0	0	1	0	0	1	0	0	1	0	46.6	18.6	D	B
	- With Project	**TS**	1	1	0	0	1	0	0	1	0	0	1	0	50.3	20.2	D	C
13	California Av. & 4th St.																	
	- Without Project	**TS**	1	**2**	0	0	**2**	**1>**	1	0	1	0	0	0	9.8	17.4	A	B
	- With Project	**TS**	1	**2**	0	0	**2**	**1>**	1	0	1	0	0	0	11.3	22.4	B	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

[4] Traffic signal heads are currently installed at this location, but not operational as of January 28, 2020.

9 HORIZON YEAR (2045) TRAFFIC CONDITIONS

This section discusses the methods used to develop Horizon Year (2045) Without and With Project traffic forecasts, and the resulting intersection operations, traffic signal warrant, off-ramp queuing, and freeway facility analyses.

9.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year (2045) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Horizon Year conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Horizon Year conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).
- Other parallel facilities, that although not evaluated for the purposes of this analysis, are anticipated to be in place for Horizon Year traffic conditions and would affect the travel patterns within the study area.
- The SR-60 Freeway/Potrero Boulevard interchange is assumed to be in place (see Exhibit 6-1).
- The SR-60 Freeway/Western Knolls Avenue interchange is assumed to be vacated.

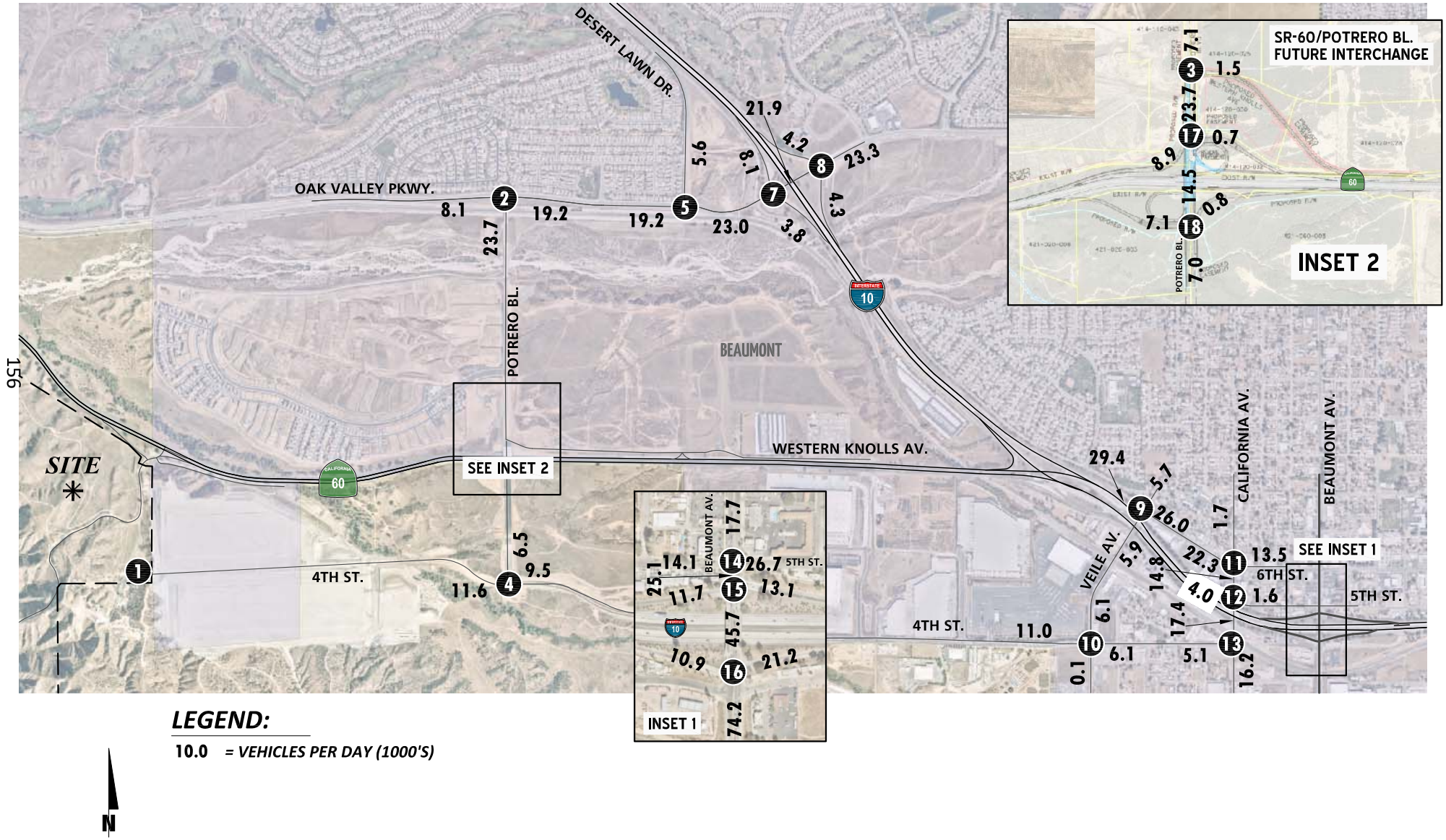
9.2 HORIZON YEAR (2045) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-process volumes obtained from the RivTAM plus an ambient growth factor of 10.10% (see Section 4.7 *Horizon Year Traffic Forecasts* of this TA for a detailed discussion on the post-processing methodology). The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Horizon Year (2045) Without Project traffic conditions are shown on Exhibits 9-1 and 9-2, respectively.

9.3 HORIZON YEAR (2045) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-process volumes obtained from the RivTAM plus an ambient growth factor of 10.10%, plus the traffic generated by the buildout of the proposed Project. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Horizon Year (2045) With Project traffic conditions are shown on Exhibits 9-3 and 9-4, respectively.

EXHIBIT 9-1: HORIZON YEAR (2045) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

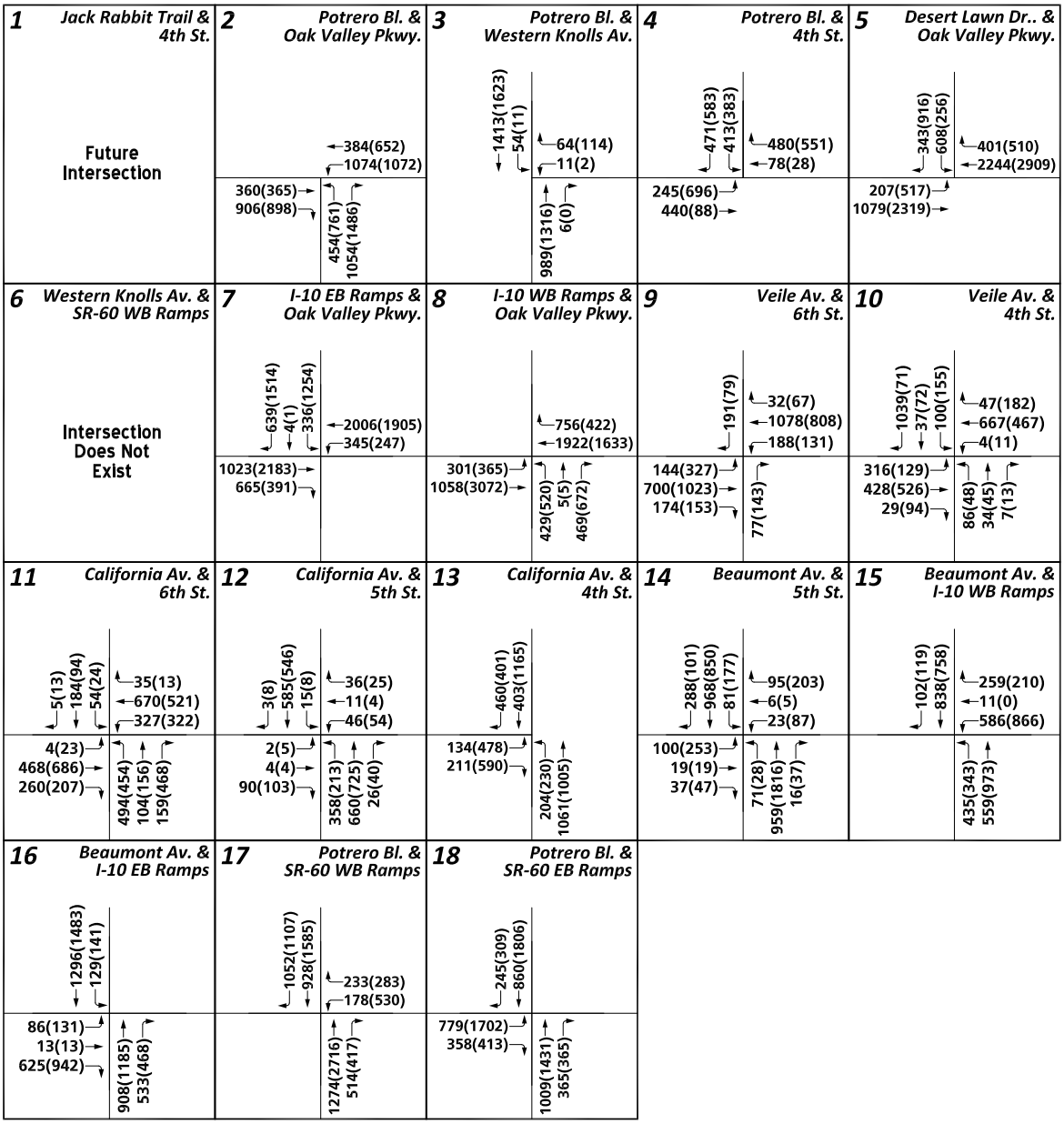


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 9-2: HORIZON YEAR (2045) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)

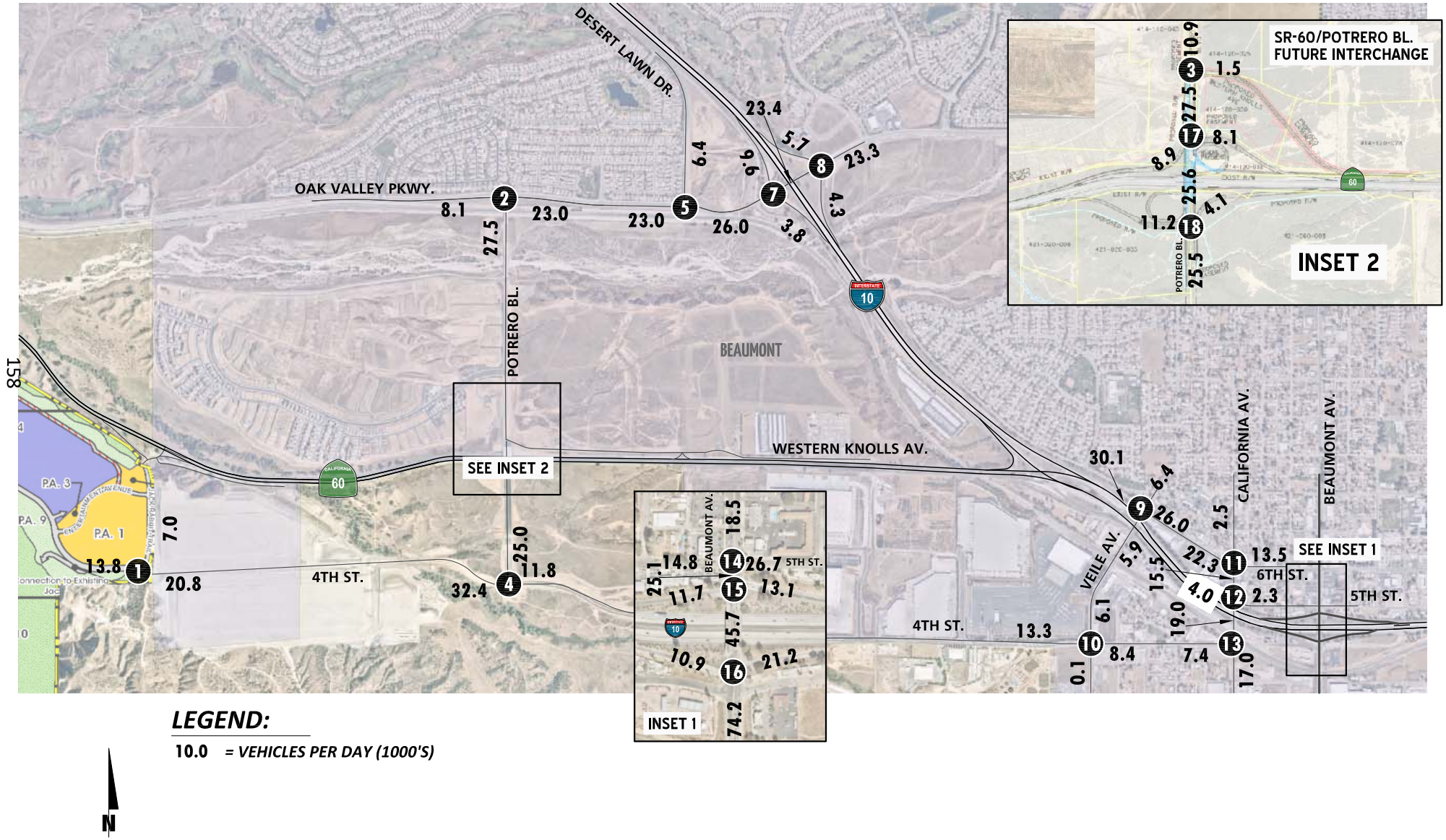


LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



EXHIBIT 9-3: HORIZON YEAR (2045) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

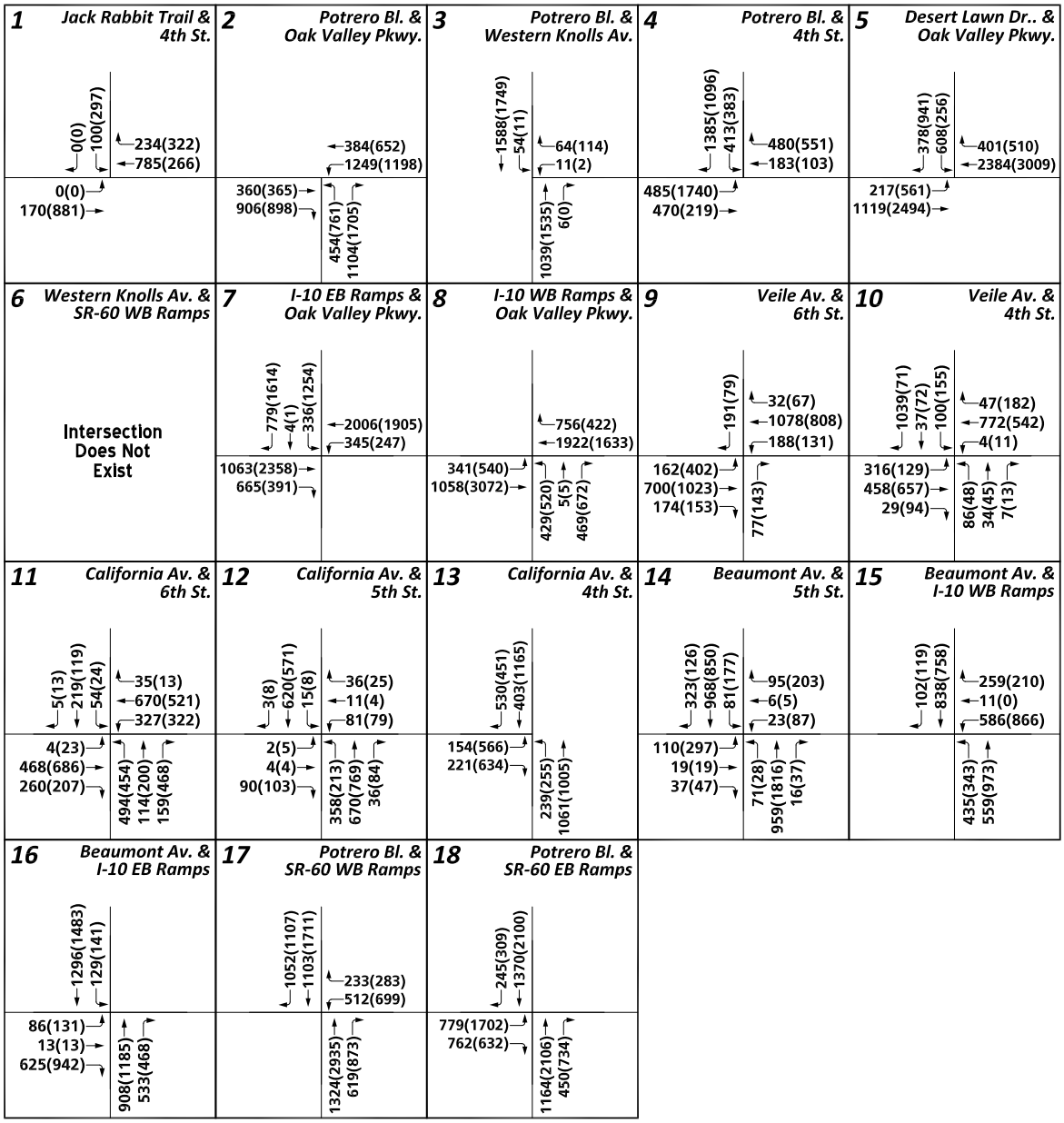


LEGEND:

10.0 *= VEHICLES PER DAY (1000'S)*

N

EXHIBIT 9-4: HORIZON YEAR (2045) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) ***= AM(PM) PEAK HOUR INTERSECTION VOLUMES***



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9.4 INTERSECTION OPERATIONS ANALYSIS

9.4.1 HORIZON YEAR (2045) WITHOUT PROJECT TRAFFIC CONDITIONS

Horizon Year (2045) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection analysis results are summarized in Table 9-1, which indicate that the following study area intersections are anticipated to operate at an unacceptable LOS during the peak hours under Horizon Year (2045) Without Project:

- Potrero Boulevard & Oak Valley Parkway (#2) – LOS F AM and PM peak hours
- Potrero Boulevard & Western Knolls Avenue (#3) – LOS F AM and PM peak hours
- Potrero Boulevard & 4th Street (#4) – LOS F AM and PM peak hours
- Desert Lawn Drive & Oak Valley Parkway (#5) – LOS F AM peak hour only
- I-10 Eastbound Ramps & Oak Valley Parkway (#7) – LOS F AM and PM peak hours
- I-10 Westbound Ramps & Oak Valley Parkway (#8) – LOS F AM and PM peak hours
- Veile Avenue & I-10 Westbound On-Ramp/6th Street (#9) – LOS F AM peak hour only
- Veile Avenue & 4th Street (#10) – LOS F AM and PM peak hours
- California Avenue & 6th Street (#11) – LOS F AM and PM peak hours
- California Avenue & 5th Street (#12) – LOS F AM and PM peak hours
- California Avenue & 4th Street (#13) – LOS F AM and PM peak hours

A summary of the peak hour intersection LOS for Horizon Year (2045) Without Project conditions is shown on Exhibit 9-5. The intersection operations analysis worksheets for Horizon Year (2045) Without Project traffic conditions are included in Appendix 9.1 of this TA.

9.4.2 OPENING YEAR CUMULATIVE (2027) WITH PROJECT TRAFFIC CONDITIONS

As shown in Table 9-1 and illustrated on Exhibit 9-6, there are no additional study area intersections anticipated to operate at an unacceptable LOS with the addition of Project (Buildout) traffic, in addition to the intersections previously identified under Horizon Year (2045) traffic conditions. The intersection operations analysis worksheets for Horizon Year (2045) With Project traffic conditions are included in Appendix 9.2 of this TA.

9.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

All unsignalized study area intersections are anticipated to meet a peak hour volume-based traffic signal warrant under a previous analysis scenario. As such, no traffic signal warrants have been evaluated for Horizon Year (2045) Without Project and With Project traffic conditions.

Table 9-1

Intersection Analysis for Horizon Year (2045) Conditions

#	Intersection	Traffic Control[2]	2045 Without Project				2045 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
			AM	PM	AM	PM	AM	PM	AM	PM
1	Jack Rabbit Tr. & 4th St.	**TS**	Future Intersection				8.1	13.0	A	B
2	Potrero Bl. & Oak Valley Pkwy.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
3	Potrero Bl. & Western Knolls Av.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
4	Potrero Bl. & 4th St.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
5	Desert Lawn Dr. & Oak Valley Pkwy.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
6	SR-60 WB & Western Knolls Av.	CSS	Does Not Exist				Does Not Exist			
7	I-10 EB Ramps & Oak Valley Pkwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
8	I-10 WB Ramps & Oak Valley Pkwy.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
9	Veile Av. & I-10 WB On-ramp/6th St.	CSS	**80.4**	19.2	**F**	C	**80.4**	19.2	**F**	C
10	Veile Av. & 4th St.	AWS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
11	California Av. & 6th St.	TS	**169.9**	**184.1**	**F**	**F**	**171.5**	**184.2**	**F**	**F**
12	California Av. & 5th St.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
13	California Av. & 4th St.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**
14	Beaumont Av. & 5th St.	TS	12.2	25.3	B	C	12.7	27.5	B	C
15	Beaumont Av. & I-10 WB Ramps	TS	Not Applicable[3]				Not Applicable[3]			
16	Beaumont Av. & I-10 EB Ramps	TS	Not Applicable[3]				Not Applicable[3]			
17	Potrero Bl. & I-10 WB Ramps	**TS**	6.0	13.5	A	B	9.2	21.3	A	C
18	Potrero Bl. & I-10 EB Ramps	**TS**	10.2	47.1	B	D	13.1	48.1	B	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. HCM delay reported in seconds.

[2] AWS = All-way Stop; CSS = Cross-street Stop; TS = Traffic Signal; **TS** = Improvement

[3] Project is not anticipated to contribute any trips to this intersection. As such, the intersection has not been evaluated for this scenario.

EXHIBIT 9-5: HORIZON YEAR (2045) WITHOUT PROJECT SUMMARY OF LOS

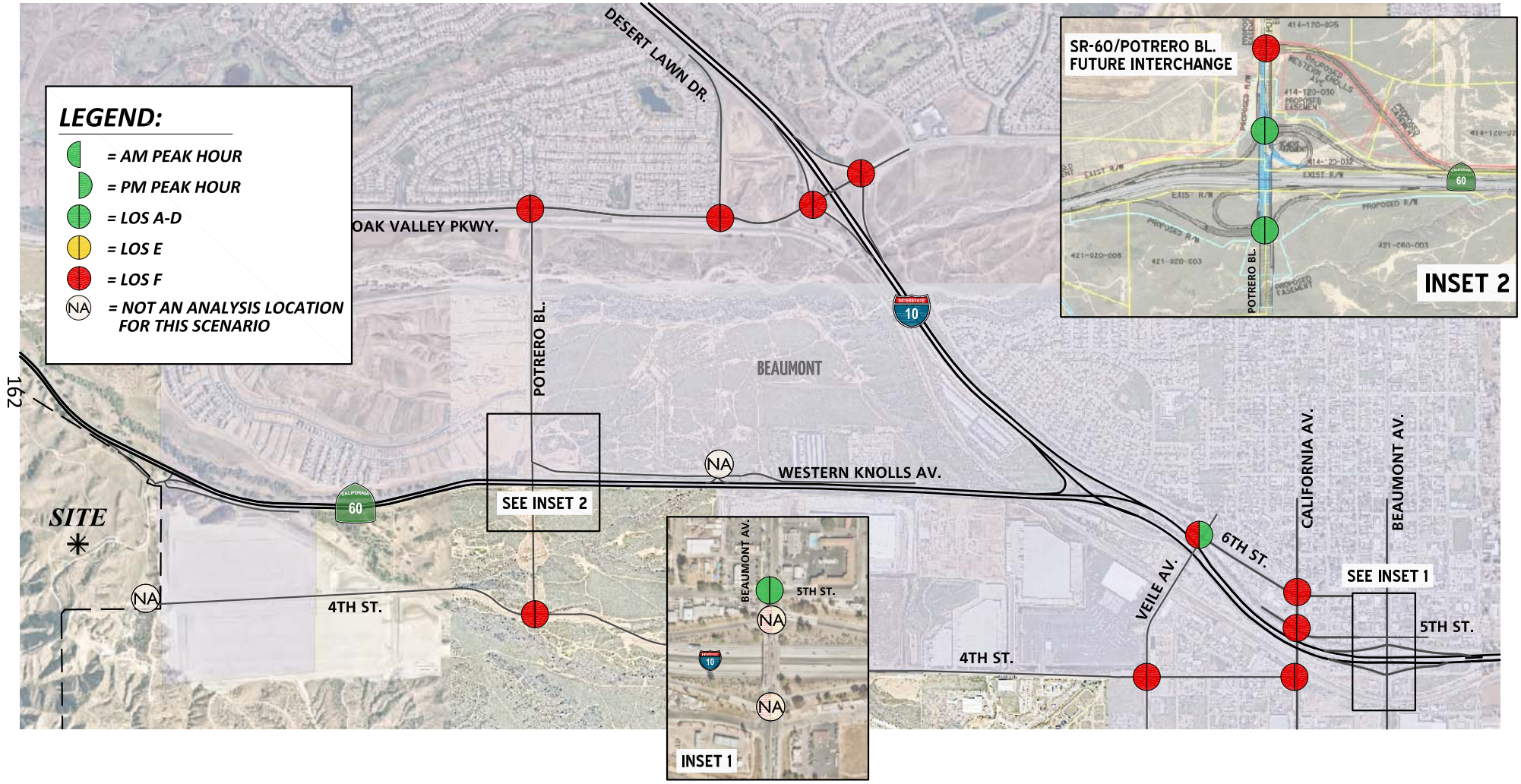
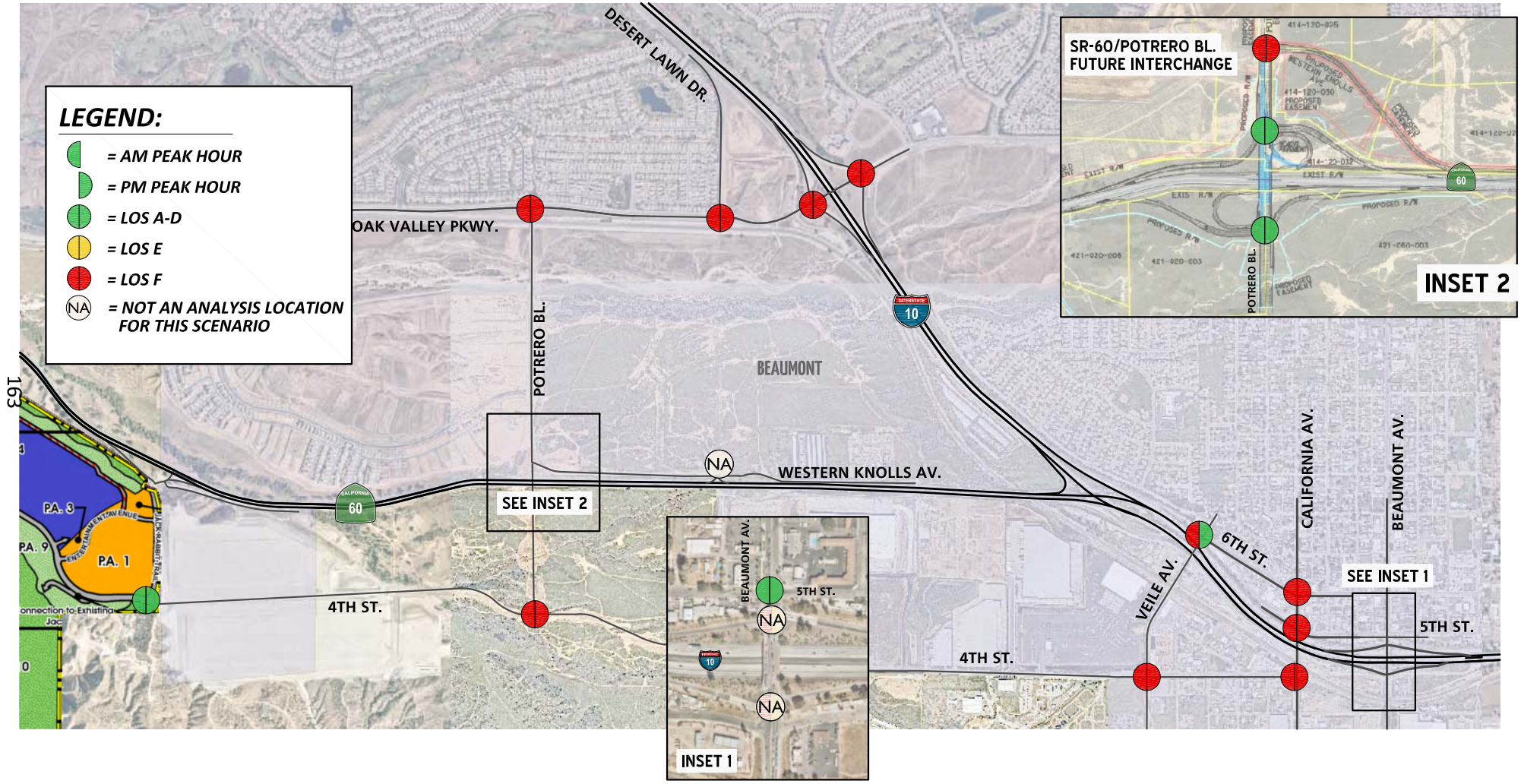


EXHIBIT 9-6: HORIZON YEAR (2040) WITH PROJECT SUMMARY OF LOS



URBAN CROSSROADS

9.6 OFF-RAMP QUEUING ANALYSIS

Queuing analysis findings for Horizon Year (2045) traffic conditions are shown in Table 7-2. As shown in Table 9-2, the following movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Horizon Year (2045) Without Project and With Project traffic conditions:

- I-10 Eastbound Ramps & Oak Valley Parkway (#7), Southbound shared left-through-right turn lane – AM and PM peak hours
- I-10 Westbound Ramps & Oak Valley Parkway (#8), Northbound shared left-through-right turn lane – PM peak hour only

Worksheets for Horizon Year (2045) Without and With Project traffic conditions off-ramp queuing analysis are provided in Appendices 9.3 and 9.4, respectively.

9.7 FREEWAY FACILITY ANALYSIS

Horizon Year (2045) Without Project and With Project mainline directional volumes for the AM and PM peak hours are provided on Exhibits 9-7 and 9-8, respectively. As shown in Table 9-3, the following study area freeway mainline segments and merge/diverge ramp junctions are anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Horizon Year (2045) Without Project traffic conditions:

- I-10 Freeway Eastbound, West of Oak Valley Parkway (#1) – LOS E PM peak hour only
- I-10 Freeway Eastbound, Off-Ramp at Oak Valley Parkway (#2) – LOS E PM peak hour only
- SR-60 Freeway Eastbound, West of Potrero Boulevard (#5) – LOS F AM and PM peak hours
- SR-60 Freeway Eastbound, Off-Ramp at Potrero Boulevard (#6) – LOS F AM and PM peak hours
- SR-60 Freeway Eastbound, West of Potrero Boulevard (#7) – LOS E AM peak hour only

With the addition of Project Buildout traffic, the following additional study area freeway mainline segments and merge/diverge ramp junctions are anticipated to operate at an unacceptable LOS (i.e., LOS E or worse) during the peak hours for Horizon Year (2045) Without Project traffic conditions:

- SR-60 Freeway Eastbound, East of Potrero Boulevard (#8) – LOS F PM peak hour only
- SR-60 Freeway Westbound, West of Potrero Boulevard (#9) – LOS E PM peak hour only

Horizon Year (2045) Without Project and With Project freeway facility analysis worksheets are provided in Appendices 9.5 and 9.6, respectively.

Table 9-2

Peak Hour Freeway Off-Ramp Queuing Summary for Horizon Year (2045) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2045 Without Project				2045 With Project			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-10 EB Ramps & Oak Valley Pwky.	SBL/T/R	1,150	**1,337** [2]	**3,480** [2]	**No**	**No**	**1,531** [2]	**3,611** [2]	**No**	**No**
I-10 WB Ramps & Oak Valley Pkwy.	NBL/T/R	1,220	845 [2]	**1,240** [2]	Yes	**No**	845 [2]	**1,240** [2]	Yes	**No**
Beaumont Av. & I-10 WB Ramps	WBL	485	Not Applicable[3]				Not Applicable[3]			
	WBL/R	1,110								
Beaumont Av. & I-10 EB Ramps	EBL/R	885	Not Applicable[3]				Not Applicable[3]			
	EBR	235								
Potrero Bl. & I-10 WB Ramps	WBL	2,000	86	250	Yes	Yes	234	346	Yes	Yes
	WBR	500	98	144	Yes	Yes	100	145	Yes	Yes
Potrero Bl. & I-10 EB Ramps	EBL	1,800	227	907 [2]	Yes	Yes	307	917 [2]	Yes	Yes
	EBR	600	68	138	Yes	Yes	351	211	Yes	Yes

* **BOLD** = Queue length exceeds available stacking distance.

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer.

[3] Project is not anticipated to contribute any trips to this off-ramp. As such, the queues have not been evaluated for this scenario.

Table 9-3

Freeway Facility Analysis for Horizon Year (2045) Conditions

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2045 Without Project				2045 With Project			
				Density[3]		LOS[4]		Density[3]		LOS[4]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-10 Freeway	EB	West of Oak Valley Pkwy.	3	19.8	**38.8**	C	**E**	20.7	**40.0**	C	**E**
		Off-Ramp at Oak Valley Pkwy.	3	25.3	**40.4**	C	**E**	26.3	**41.1**	C	**E**
	WB	West of Oak Valley Pkwy.	3	21.0	23.0	C	C	21.2	24.2	C	C
		On-Ramp at Oak Valley Pkwy.	3	22.9	23.8	C	C	23.2	25.2	C	C
SR-60 Freeway	EB	West of Potrero Bl.	2	**45.0**	**45.0**	**F**	**F**	**45.0**	**45.0**	**F**	**F**
		Off-Ramp at Potrero Bl.	2	**43.4**	**43.4**	**F**	**F**	**43.4**	**43.4**	**F**	**F**
		On-Ramp at Potrero Bl.	2	**36.5**	28.5	**E**	D	**36.5**	**29.6**	**E**	**F**
		East of Potrero Bl.	2	34.0	22.9	D	C	34.0	**24.3**	D	**F**
	WB	West of Potrero Bl.	2	22.1	30.9	C	D	23.2	**36.9**	C	**E**
		Loop On-Ramp at Potrero Bl.	2	18.1	24.4	B	C	18.8	27.7	B	C
		Off-Ramp at Potrero Bl.	2	17.2	28.9	B	D	20.1	30.2	C	D
		East of Potrero Bl.	2	12.6	22.9	B	C	15.0	24.2	B	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] NB = Northbound; SB = Southbound

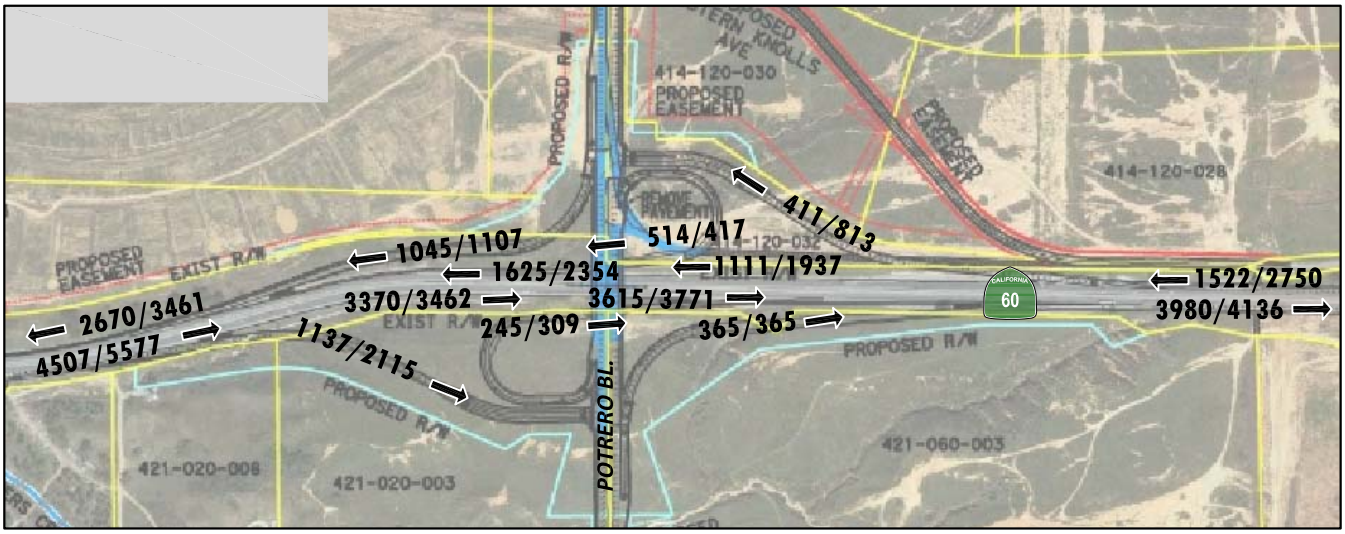
[2] Number of lanes are in the specified direction and is based on existing conditions.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

EXHIBIT 9-7: HORIZON YEAR (2045) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES





LEGEND:

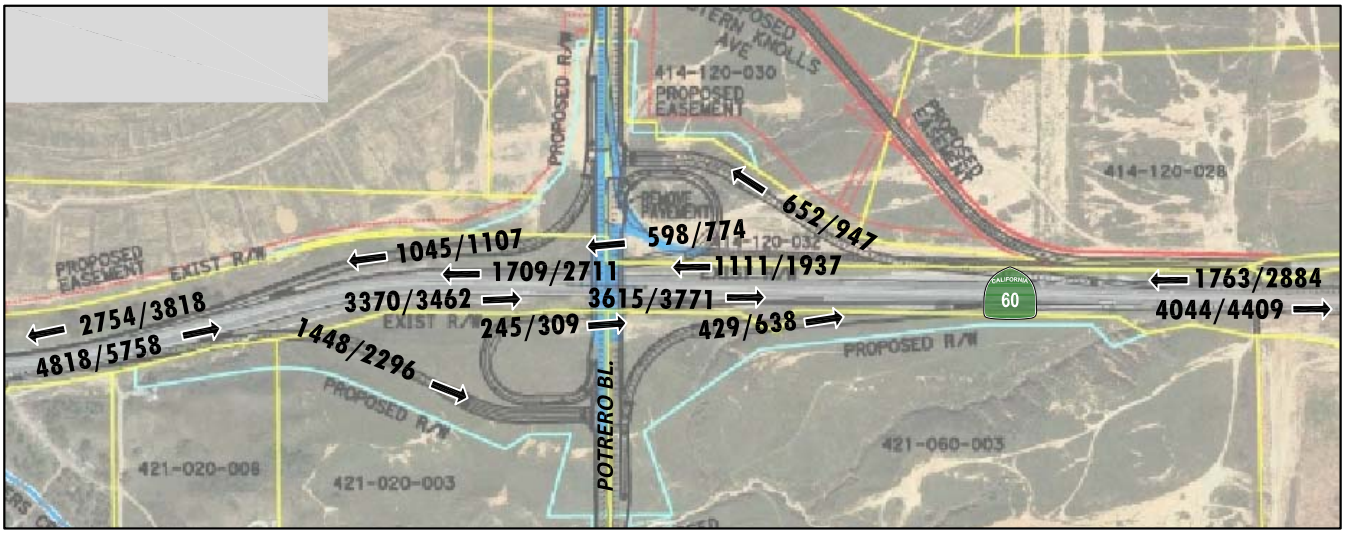
⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

EXHIBIT 9-8: HORIZON YEAR (2045) WITH PROJECT FREEWAY MAINLINE VOLUMES





LEGEND:

⟵ 100/200 *= AM/PM PEAK HOUR VOLUMES*

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

9.8 DEFICIENCIES AND RECOMMENDED IMPROVEMENTS

This section provides a summary of deficiencies, based on the City of Beaumont deficiency criteria discussed in Section 2.8 *Deficiency Criteria*, and improvements needed to improve operations back to acceptable levels.

9.8.1 IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

The effectiveness of the recommended improvement strategies to address Horizon Year (2045) traffic deficiencies are presented in Table 9-4. The Project Applicant shall contribute to these improvements through construction (with applicable credits), payment DIF/TUMF fees or fair share contribution as identified in Table 1-4. Worksheets for Horizon Year (2045) Without and With Project conditions, with improvements, HCM calculation worksheets are provided in Appendices 9.7 and 9.8, respectively.

9.8.2 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON OFF-RAMP QUEUES

As shown previously in Table 9-2, there are movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows under Horizon Year (2045) traffic conditions. Table 9-5 shows the effectiveness of the improvement strategies at the intersections that experience off-ramp queuing issues during Horizon Year (2045) traffic conditions. With the proposed intersection improvements at the study area freeway ramp-to-arterial intersection as identified on Table 9-4, the analysis indicates that there are no queuing issues anticipated that may potentially "spill back" onto the I-10 Freeway mainline during the peak hours for Horizon Year (2045) Without Project and With Project traffic conditions (see Table 9-5). Off-ramp queuing analysis worksheets with improvements for Horizon Year (2045) Without Project and With Project traffic conditions are provided in Appendices 9.9 and 9.10, respectively.

9.8.3 IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

As shown previously in Table 9-3, there are study area freeway mainline segments and ramp junctions that are anticipated to operate at an unacceptable LOS for Horizon Year (2045) traffic conditions. However, there are no planned improvements to the SR-60 Freeway or I-10 Freeway at this time. As such, no improvements have been evaluated for Horizon Year (2045) traffic conditions. Neither Caltrans nor the State have adopted a fee program that can ensure that locally contributed impact fees will be tied to improvements to freeway mainlines, and only Caltrans has the jurisdiction over mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are part of a fee program tied to implementation is within the jurisdiction of Caltrans.

Table 9-4

Intersection Analysis for Horizon Year (2045) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
2	Potrero Bl. & Oak Valley Pkwy.																	
	- Without Project	**TS**	**2**	0	1	0	0	0	0	2	1	**2**	**3**	0	34.7	32.2	C	C
	- With Project	**TS**	**2**	0	1	0	0	0	0	2	1	**2**	**3**	0	51.5	38.6	D	D
3	Potrero Bl. & Western Knolls Av.																	
	- Without Project	**CSS**	0	**3**	0	**1**	**3**	0	0	0	0	0	1	0	22.4	24.8	C	C
	- With Project	**CSS**	0	**3**	0	**1**	**3**	0	0	0	0	0	1	0	25.0	32.8	D	D
4	Potrero Bl. & 4th St.																	
	- Without Project	**TS**	0	0	0	2	0	**1>**	**2**	1	0	0	1	1	11.5	17.3	B	B
	- With Project	**TS**	0	0	0	2	0	**1>**	**2**	1	0	0	1	1	51.7	52.1	D	D
5	Desert Lawn Dr. & Oak Valley Pkwy.																	
	- Without Project	**TS**	0	0	0	**2**	0	**1>**	**2**	**3**	0	0	3	**1**	24.3	43.5	C	D
	- With Project	**TS**	0	0	0	**2**	0	**1>**	**2**	**3**	0	0	3	**1**	26.5	51.5	C	D
7	I-10 EB Ramps & Oak Valley Pkwy.																	
	- Without Project	TS	0	0	0	**2**	1	**1**	0	**3**	**1**	**2**	**3**	0	21.4	42.7	C	D
	- With Project	TS	0	0	0	**2**	1	**1**	0	**3**	**1**	**2**	**3**	0	24.2	52.7	C	D
8	I-10 WB Ramps & Oak Valley Pkwy.																	
	- Without Project	TS	**1**	1	0	0	0	0	**2**	**3**	0	0	**3**	**1**	35.0	44.3	C	D
	- With Project	TS	**1**	1	0	0	0	0	**2**	**3**	0	0	**3**	**1**	35.5	46.0	D	D
9	Veile Av. & I-10 WB On-ramp/6th St.																	
	- Without Project	CSS	0	0	1	0	0	1	0	2	0	1	**2**	0	19.9	18.1	C	C
	- With Project	CSS	0	0	1	0	0	1	0	2	0	1	**2**	0	19.9	18.1	C	C
10	Veile Av. & 4th St.																	
	- Without Project[4]	**TS**	0	1	1	1	1	1>>	1	1	1	1	1	0	16.5	9.1	B	A
	- With Project[4]	**TS**	0	1	1	1	1	1>>	1	1	1	1	1	0	22.7	10.1	C	B
11	California Av. & 6th St.																	
	- Without Project	TS	1	1	0	1	1	0	1	**2**	**0**	1	**2**	**0**	50.6	48.2	D	D
	- With Project	TS	1	1	0	1	1	0	1	**2**	**0**	1	**2**	**0**	54.9	52.4	D	D
12	California Av. & 5th St.																	
	- Without Project	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	9.4	8.9	A	A
	- With Project	**TS**	1	1	0	1	1	0	0	1	0	0	1	0	10.1	9.4	B	A
13	California Av. & 4th St.																	
	- Without Project	**TS**	1	**2**	0	0	**2**	**1>**	1	0	1	0	0	0	11.1	36.4	B	D
	- With Project	**TS**	1	**2**	0	0	**2**	**1>**	1	0	1	0	0	0	11.6	47.2	B	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; **1** = Improvement; > = Right-Turn Overlap Phasing; >> = Free-Right Turn Lane

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single

[3] CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

[4] Traffic signal heads are currently installed at this location, but not operational as of January 28, 2020.

Table 9-5

Peak Hour Freeway Off-Ramp Queuing Summary for Horizon Year (2045) Conditions With Improvements

Intersection	Movement[4]	Available Stacking Distance (Feet)[5]	2045 Without Project				2045 With Project			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
I-10 EB Ramps & Oak Valley Pwky.	SBL	1,150	141	549	Yes	Yes	141	549	Yes	Yes
	SBT/R	**1,150**	346	993 [2]	Yes	Yes	444	1,089 [2]	Yes	Yes
	SBR	**1,000**	290	868 [2]	Yes	Yes	382	961 [2]	Yes	Yes
I-10 WB Ramps & Oak Valley Pkwy.	NBL	1,220	429	572 [2]	Yes	Yes	429	572 [2]	Yes	Yes
	NBT/R	**500**	467 [2]	901 [2,3]	Yes	Yes	467 [2]	901 [2,3]	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.

[2] 95th percentile volume exceeds capacity, queue may be longer.

[3] Although 95th percentile queue is anticipated to exceed the available storage for the turn lane, the adjacent through lane has sufficient storage to accommodate any spillover without spilling back and affecting the I-10 Freeway mainline.

[4] **SBT** = Improvement

[5] **500** = Improvement

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10 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Beaumont are funded through a combination of improvements constructed by the Project, development impact fee programs or fair share contributions. Fee programs applicable to the Project are described below.

10.1 RIVERSIDE COUNTY TRANSPORTATION UNIFORM MITIGATION FEE (TUMF)

The TUMF program is administered by the Western Riverside Council of Governments (WRCOG) based upon a regional Nexus Study most recently updated in 2016 to address major changes in right of way acquisition and improvement cost factors. (11) This regional program was put into place to ensure that development pays its fair share and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region. TUMF is a truly regional mitigation fee program and is imposed and implemented in every jurisdiction in Western Riverside County.

10.2 CITY OF BEAUMONT DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The City of Beaumont has created its own local DIF program to impose and collect fees from new residential, commercial and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The City's DIF includes Street & Bridges Impact Fee, Traffic Signal Impact Fee and Railroad Crossing Impact Fee. Under the City's DIF program, the City may grant to developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

The Project Applicant will be subject to the City's DIF fee program and will pay the requisite City DIF fees at the rates then in effect. The Project Applicant's payment of the requisite DIF fees at the rates then in effect pursuant to the DIF Program will mitigate its impacts to DIF-funded facilities.

10.3 MEASURE A

Measure A, Riverside County's half-cent sales tax for transportation, was adopted by voters in 1988 and extended in 2002. It will continue to fund transportation improvements through 2039. Measure A funds a wide variety of transportation projects and services throughout the County. RCTC is responsible for administering the program. Measure A dollars are spent in accordance with a voter-approved expenditure plan that was adopted as part of the 1988 election.

10.4 FAIR SHARE CONTRIBUTION

Project improvements may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion). When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, have been provided in Table 10-1 for the applicable deficient study area intersection and for each applicable phase. These fees are collected with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases.

Table 10-1
Page 1 of 2

Project Fair Share Calculations

#	Intersection		Existing (2020) Traffic	Phase 1				Phase 2				Project Buildout				Horizon Year (2045)			
				Project (Phase 1) Traffic	2023 With Project Traffic	Total New Traffic	Project % of New Traffic	Project (Phase 2) Traffic	2025 With Project Traffic	Total New Traffic	Project % of New Traffic	Project (Buildout) Traffic	2027 With Project Traffic	Total New Traffic	Project % of New Traffic	Project (Buildout) Traffic	2045 With Project Traffic	Total New Traffic	Project % of New Traffic
2	Potrero Bl. & Oak Valley Pkwy.																		
		AM:	574	--	--	--	--	--	--	--	--	225	1,527	953	23.6%	225	4,456	3,882	5.8%
		PM:	486	--	--	--	--	--	--	--	--	345	1,872	1,386	**24.9%**	345	5,578	5,092	**6.8%**
3	Potrero Bl. & Western Knolls Av.																		
		AM:	115	--	--	--	--	--	--	--	--	225	902	787	**28.6%**	225	2,762	2,647	8.5%
		PM:	105	--	--	--	--	--	--	--	--	345	1,483	1,378	25.0%	345	3,411	3,306	**10.4%**
4	Potrero Bl. & 4th St.																		
		AM:	39	--	--	--	--	1,128	2,189	2,150	**52.5%**	1,289	3,097	3,058	42.2%	1,289	5,185	5,146	25.0%
		PM:	19	--	--	--	--	1,281	3,011	2,992	42.8%	1,763	3,846	3,827	**46.1%**	1,763	6,928	6,909	**25.5%**
5	Desert Lawn Dr. & Oak Valley Pkwy.																		
		AM:	1,354	36	1,754	400	9.0%	--	--	--	--	225	2,584	1,230	18.3%	225	5,108	3,754	**6.0%**
		PM:	1,010	50	1,532	522	**9.6%**	--	--	--	--	344	2,676	1,666	**20.6%**	344	7,770	6,760	5.1%
7	I-10 EB Ramps & Oak Valley Pkwy.																		
		AM:	1,730	--	--	--	--	148	2,464	734	**20.2%**	180	2,979	1,249	14.4%	180	5,196	3,466	**5.2%**
		PM:	1,557	--	--	--	--	179	2,545	988	18.1%	275	3,359	1,802	**15.3%**	275	7,770	6,213	4.4%
8	I-10 WB Ramps & Oak Valley Pkwy.																		
		AM:	2,014	--	--	--	--	28	2,589	575	4.9%	40	3,028	1,014	3.9%	40	4,980	2,966	1.3%
		PM:	1,736	--	--	--	--	136	2,666	930	**14.6%**	175	3,396	1,660	**10.5%**	175	6,862	5,126	**3.4%**
9	Veile Av. & I-10 WB On-ramp/6th St.																		
		AM:	1,978	--	--	--	--	18	2,240	262	6.9%	--	--	--	--	--	--	--	--
		PM:	2,081	--	--	--	--	75	2,419	338	**22.2%**	--	--	--	--	--	--	--	--
10	Veile Av. & 4th St.																		
		AM:	371	21	604	233	**9.0%**	--	--	--	--	--	--	--	--	--	--	--	--
		PM:	466	29	823	357	8.1%	--	--	--	--	--	--	--	--	--	--	--	--
11	California Av. & 6th St.																		
		AM:	1,386	--	--	--	--	--	--	--	--	45	1,948	562	8.0%	--	--	--	--
		PM:	1,387	--	--	--	--	--	--	--	--	69	2,176	789	**8.7%**	--	--	--	--

Project Fair Share Calculations

#	Intersection	Existing (2020) Traffic	Phase 1				Phase 2				Project Buildout				Horizon Year (2045)			
			Project (Phase 1) Traffic	2023 With Project Traffic	Total New Traffic	Project % of New Traffic	Project (Phase 2) Traffic	2025 With Project Traffic	Total New Traffic	Project % of New Traffic	Project (Buildout) Traffic	2027 With Project Traffic	Total New Traffic	Project % of New Traffic	Project (Buildout) Traffic	2045 With Project Traffic	Total New Traffic	Project % of New Traffic
12	California Av. & 5th St.																	
	AM:	1,161	14	1,364	203	6.9%	--	--	--	--	--	--	--	--	--	--	--	--
	PM:	900	20	1,165	265	**7.5%**	--	--	--	--	--	--	--	--	--	--	--	--
13	California Av. & 4th St.																	
	AM:	1,126	21	1,384	258	**8.1%**	111	1,595	469	**23.7%**	135	1,911	785	**17.2%**	--	--	--	--
	PM:	1,597	30	2,007	410	7.3%	134	2,300	703	19.1%	207	2,847	1,250	16.6%	--	--	--	--
15	Beaumont Av. & I-10 WB Ramps[1]																	
	AM:	--	16	1,595	--	1.0%	--	--	--	--	--	--	--	--	--	--	--	--
	PM:	--	62	1,941	--	**3.2%**	--	--	--	--	--	--	--	--	--	--	--	--
16	Beaumont Av. & I-10 EB Ramps[1]																	
	AM:	--	12	2,303	--	0.5%	--	--	--	--	--	--	--	--	--	--	--	--
	PM:	--	49	2,854	--	**1.7%**	--	--	--	--	--	--	--	--	--	--	--	--

BOLD = Denotes highest fair share percentage.

[1] Since the Project is not anticipated to contribute any trips to this intersection once the future SR-60 Freeway/Potrero interchange is in place, fair share has been calculated for near-term conditions based on Existing and E+P (Buildout) volumes.

11 REFERENCES

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APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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URBAN CROSSROADS

260 E. Baker St. | Suite 200 | Costa Mesa, CA 92626 | (949) 660-1994
urbanxroads.com

April 8, 2020

Mr. Jeff Hart
City of Beaumont Public Works
550 E. Sixth Street
Beaumont, CA 92223

SUBJECT: JACK RABBIT TRAIL TRAFFIC IMPACT ANALYSIS SCOPING AGREEMENT

Dear Mr. Jeff Hart:

Urban Crossroads, Inc. is pleased to submit this letter documenting the recommended scoping / assumptions for the proposed Jack Rabbit Trail development ("Project"), which is located south of the SR-60 Freeway and west of Jack Rabbit Trail, in the County of Riverside in the sphere of influence of City of Beaumont. Our goal is to obtain comments from City of Beaumont staff, to ensure that the traffic study fully addresses the potential impacts of the proposed Project. The remainder of this letter describes the proposed analysis methodology, Project trip generation, and trip distribution, which have been used to establish the proposed Project study area and analysis locations.

The Project is to consist of 4,500,000 square feet of high-cube fulfillment center use and 500,000 square feet of general light industrial use. In addition, there is commercial component that includes a 125 room hotel, 77,000 square foot indoor go-kart facility, 26,000 square foot rock climbing facility, 24,000 square foot trampoline park, 40,000 square foot bowling alley, 36 hole miniature golf, 15,000 square feet of quality restaurant use, and 15,000 square feet of high turnover (sit-down) restaurant use. The Project is proposed to be developed in three phases as follows:

- Phase 1 = 1,379,191 square feet of high-cube fulfillment center warehouse use (Opening Year 2023)
- Phase 1 + Phase 2 = 4,500,000 square feet of high-cube fulfillment center warehouse use and 500,000 square feet of general light industrial use (Opening Year 2025)
- Project Buildout = 4,500,000 square feet of high-cube fulfillment center warehouse use, 500,000 square feet of general light industrial use, and all uses within the general commercial area (Opening Year 2027)

The preliminary land use plan for the proposed Project is shown on Exhibit 1. As indicated on Exhibit 1, access to the Project site will be provided via the future extension of 4th Street to Potrero Boulevard. No access to the SR-60 Freeway/Jack Rabbit Trail interchange is proposed (to be utilized as secondary emergency access only). Exhibit 2 depicts the location of the proposed Project in relation to the existing roadway network and the study area intersections.

ANALYSIS SCENARIOS

Peak hour operations at each of the study area intersections and site access driveways will be assessed based on the HCM 6th Edition methodology for the following analysis scenarios:

- Existing (2020) Conditions
- Existing plus Project (E+P) Conditions – Phase 1
- Existing plus Project (E+P) Conditions – Phase 1 + Phase 2
- Existing plus Project (E+P) Conditions – Project Buildout
- Opening Year Cumulative (2023) Without Project Conditions
- Opening Year Cumulative (2023) With Project Conditions
- Opening Year Cumulative (2025) Without Project Conditions
- Opening Year Cumulative (2025) With Project Conditions
- Opening Year Cumulative (2027) Without Project Conditions
- Opening Year Cumulative (2027) With Project Conditions
- Horizon Year (2045) Without Project Conditions
- Horizon Year (2045) With Project Conditions

TRIP GENERATION

In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017) and the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) have been used. For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- High-Cube Fulfillment Center Warehouse has been used to derive site specific trip generation estimates for up to 4,500,000 square feet of the proposed Project. The ITE Trip Generation Manual (2017) has trip generation rates for high-cube fulfillment center use (ITE land use code 155), however, these rates are unreliable because they are based on limited data (i.e., one to two surveyed sites) and the ITE Trip Generation Manual recommends the use of local data sources where available. The recent (February 2020) ITE Trip Generation Manual Supplement includes trip generation rates for high-cube fulfillment center warehouse (non-sort) and (sort) facilities, however, it is unclear at this time the type of operation for the proposed speculative buildings. As such, the trip-generation statistics published in the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) which was commissioned by the Western Riverside Council of Governments (WRCOG) in support of the Transportation Uniform Mitigation Fee (TUMF) update, has been utilized for the high-cube fulfillment center use. The WSP trip generation rates were published in January 2019 and are based on data collected at 11 local high-cube fulfillment center sites. However, the WSP study does not include a split for inbound and outbound vehicles, as such, the inbound and outbound splits per the ITE High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016) have been utilized.

- ITE land use code 110 (General Light Industrial) has been used to derive site specific trip generation estimates for up to 500,000 square feet of the proposed Project. The ITE Trip Generation Manual includes very limited data regarding the types of vehicles that are generated for general light industrial uses (passenger cars and various sizes of trucks). As such, data regarding the vehicle mix has been obtained from a separate report; the City of Fontana's Truck Trip Generation Study (August 2003) for the general light industrial uses proposed as part of the Project. The "Light Industrial" vehicle mix data has been utilized: 8.0% 2-axle trucks, 3.9% 3-axle trucks, and 9.5% 4+-axle trucks (total of 21.4% trucks).
- Other land uses assumed within the General Commercial area (Planning Areas 1-3):
    - Hotel – ITE Land Use Code 310
    - Shopping Center – ITE Land Use Code 820
    - Rock Climbing – ITE Land Use Code 434
    - Trampoline Park – ITE Land Use Code 436
    - Bowling Alley – ITE Land Use Code 437
    - Athletic Club – ITE Land Use Code 493
    - Miniature Golf Course – ITE Land Use Code 432
    - Quality Restaurant – ITE Land Use Code 931
    - High Turnover Sit-Down Restaurant – ITE Land Use Code 932
    - Indoor Car Racing (Alternative Source, See Table 1)

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site or between the retail and industrial uses (employees) and can be made either by walking or using internal roadways without using external streets (e.g., restaurant to retail). Internal capture reductions between the proposed land uses have been considered based on the ITE Trip Generation Handbook, 3rd Edition (2017).

Pass-by trips are defined as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These types of trips are many times associated with retail uses. As the Project is proposed to include restaurant uses, applicable pass-by reduction percentages have been obtained and applied from the ITE Trip Generation Handbook, 3rd Edition (2017).

Table 1 presents the trip generation rates for each of the land uses above. A summary of the Project's trip generation, by phase, is shown on Table 2 in actual vehicles and on Table 3 in passenger car equivalent (PCE). PCE trip generation will be utilized for the purposes of the operations analysis. As

shown on Table 2, the proposed development is anticipated to generate a net total of approximately 16,266 trip-ends per day on a typical weekday with 1,060 vehicles per hour (VPH) during the weekday AM peak hour and 1,466 VPH during the weekday PM peak hour.

TRIP DISTRIBUTION

All Project traffic will access Potrero Boulevard via an extension of 4th Street to the west. No Project traffic is assumed to utilize the SR-60 Freeway/Jack Rabbit Trail interchange. E+P traffic conditions will assume the existing roadway infrastructure only, which includes the interim Potrero Boulevard bridge and connection to SR-60 Freeway Westbound at Western Knolls Road. Opening Year Cumulative and Horizon Year traffic conditions assume the completion of the SR-60/Potrero Boulevard interchange. No trucks are assumed to use Oak Valley Parkway (trucks to use Beaumont Avenue in the interim condition and Potrero Boulevard interchange once completed). Project trip distribution patters for passenger cars and trucks are shown on Exhibits 3 through 6 for without and with Potrero Boulevard interchange conditions.

LEVEL OF SERVICE (LOS) CRITERIA

The ***City of Beaumont*** has established LOS D as the minimum level of service for all roadways/intersections within the City (Policy 10 of the General Plan Circulation Element). Therefore, any intersection operating at LOS E or F will be considered deficient for the purposes of this analysis.

DEFICIENCY CRITERIA

To determine whether the addition of project traffic at a study intersection results in a deficiency, the following thresholds of significance will be utilized:

- A significant project-related impact occurs at a study intersection if the addition of project-generated trips reduces the peak hour level of service of the study intersection to change from acceptable level of service (LOS A, B, C or D) to an unacceptable level of service (LOS E or F);
- A significant cumulative impact occurs at a study intersection if the Project contributes 50 or more peak hour trips to an intersection that is anticipated to operate at a deficient LOS without the Project (LOS E or F).

EXISTING COUNT DATA

Traffic counts for the study area intersections were collected in November 2019 and January 2020. Traffic counts were conducted on a typical Tuesday, Wednesday, or Thursday while local schools were in session and operating on normal bell schedules. There were no unusual traffic conditions that would affect the accuracy of counts, such as lane blockage, diverted traffic, or roadway construction.

AMBIENT GROWTH

Consistent with other studies performed in the area, an ambient growth rate of 2% per year is proposed for the study area intersections to approximate background traffic growth not identified by nearby cumulative development projects. The rate will be calculated based on the following:

Year 2023 = Three-year period (i.e., $1.02^{3 \text{ years}} = 1.0612$ or 6.12%)

Year 2025 = Five-year period (i.e., $1.02^{5 \text{ years}} = 1.1041$ or 10.41%)

Year 2027 = Seven-year period (i.e., $1.02^{7 \text{ years}} = 1.1487$ or 14.87%)

SPECIAL ISSUES

The following special issues will also be addressed as part of the TIA:

- Provide a Traffic Signal Warrant assessment at all unsignalized intersections based on either the CA MUTCD peak-hour volume-based or planning-level daily volume-based traffic signal warrants.
- Traffic Study will evaluate the freeway facilities where project-related traffic is proposed to enter the State Highway System. Freeway facilities to be evaluated would include basic freeway segments and merge/diverge ramp junctions at the I-10 Freeway at Oak Valley Parkway, I-10 Freeway at Beaumont Avenue (near-term conditions only), and SR-60 Freeway at future Potrero Boulevard interchange.
- Vehicle Miles Traveled (VMT) analysis will be prepared under separate cover.

OPEN ITEMS – CUMULATIVE DEVELOPMENT PROJECTS

Exhibit 7 shows cumulative development projects which are listed on Table 4. It is requested that the City of Beaumont provide an updated list of cumulative development projects for inclusion in the traffic study.

If you have any questions, please contact me directly at (949) 336-5982.

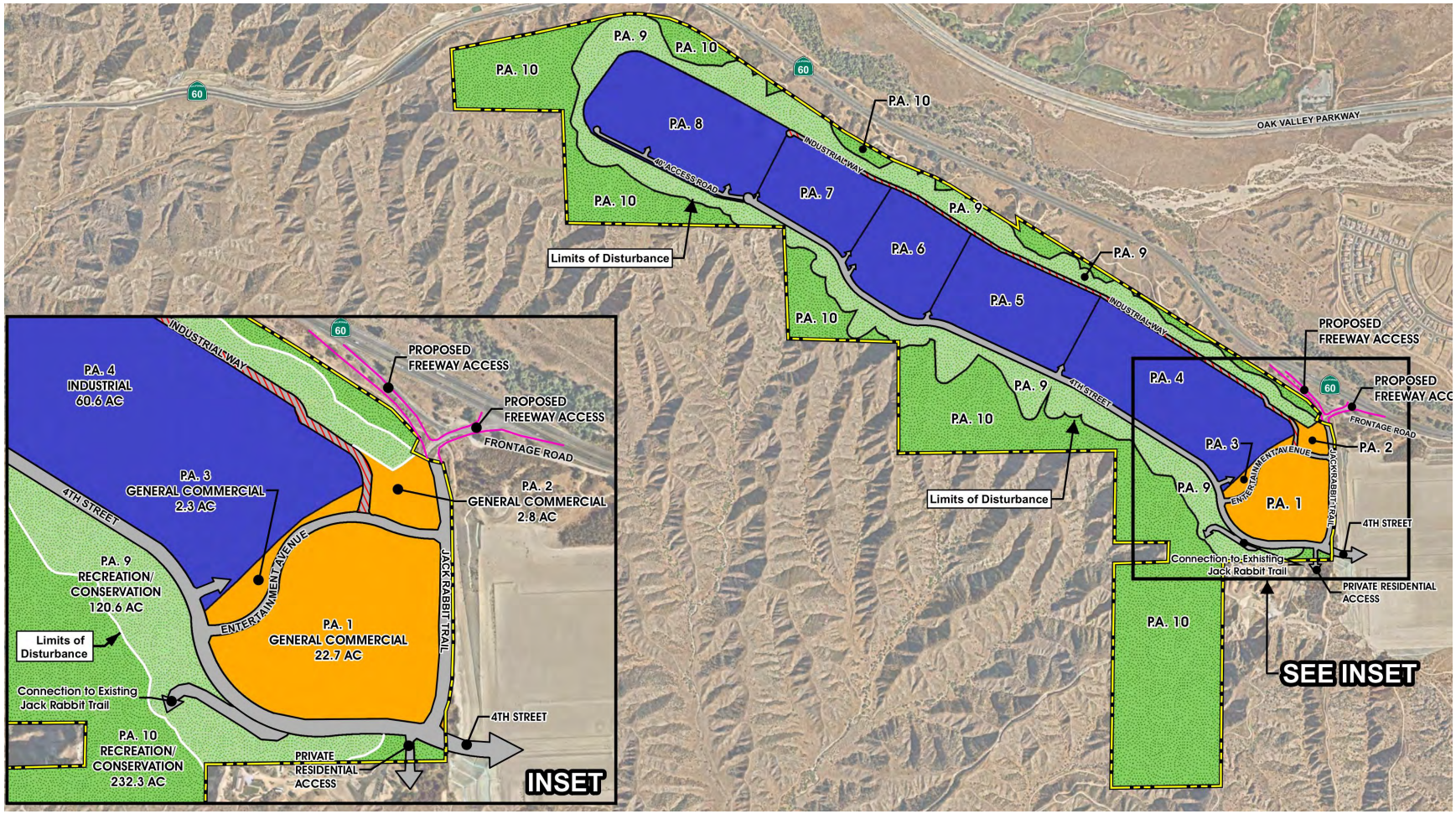
Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Charlene So, PE
Associate Principal

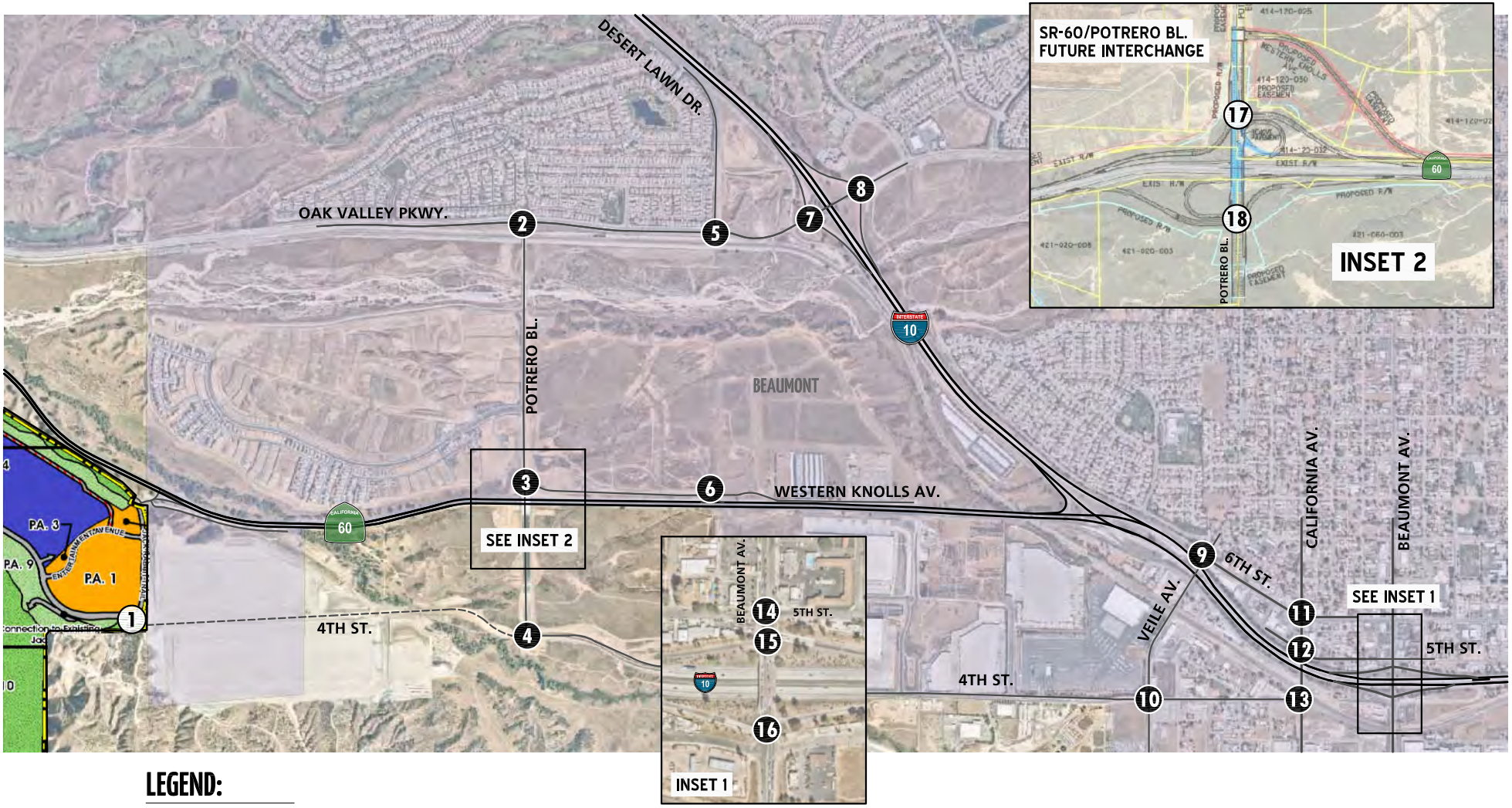
EXHIBIT 1: PRELIMINARY SITE PLAN



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EXHIBIT 2: LOCATION MAP



LEGEND:

0 = EXISTING INTERSECTION ANALYSIS LOCATION

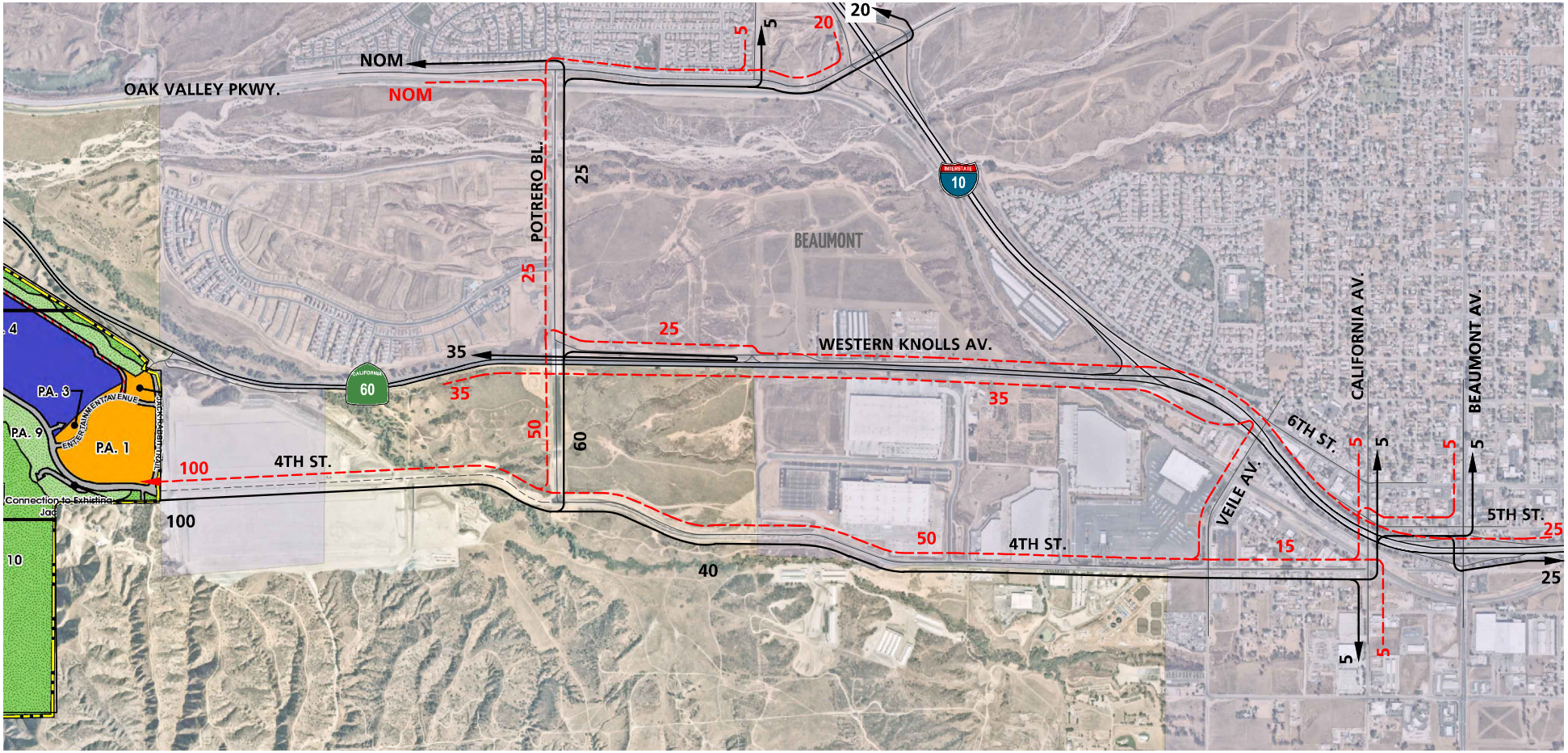
(0) = FUTURE INTERSECTION ANALYSIS LOCATION

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EXHIBIT 3: PROJECT (INTERIM PASSENGER CAR) TRIP DISTRIBUTION



LEGEND:

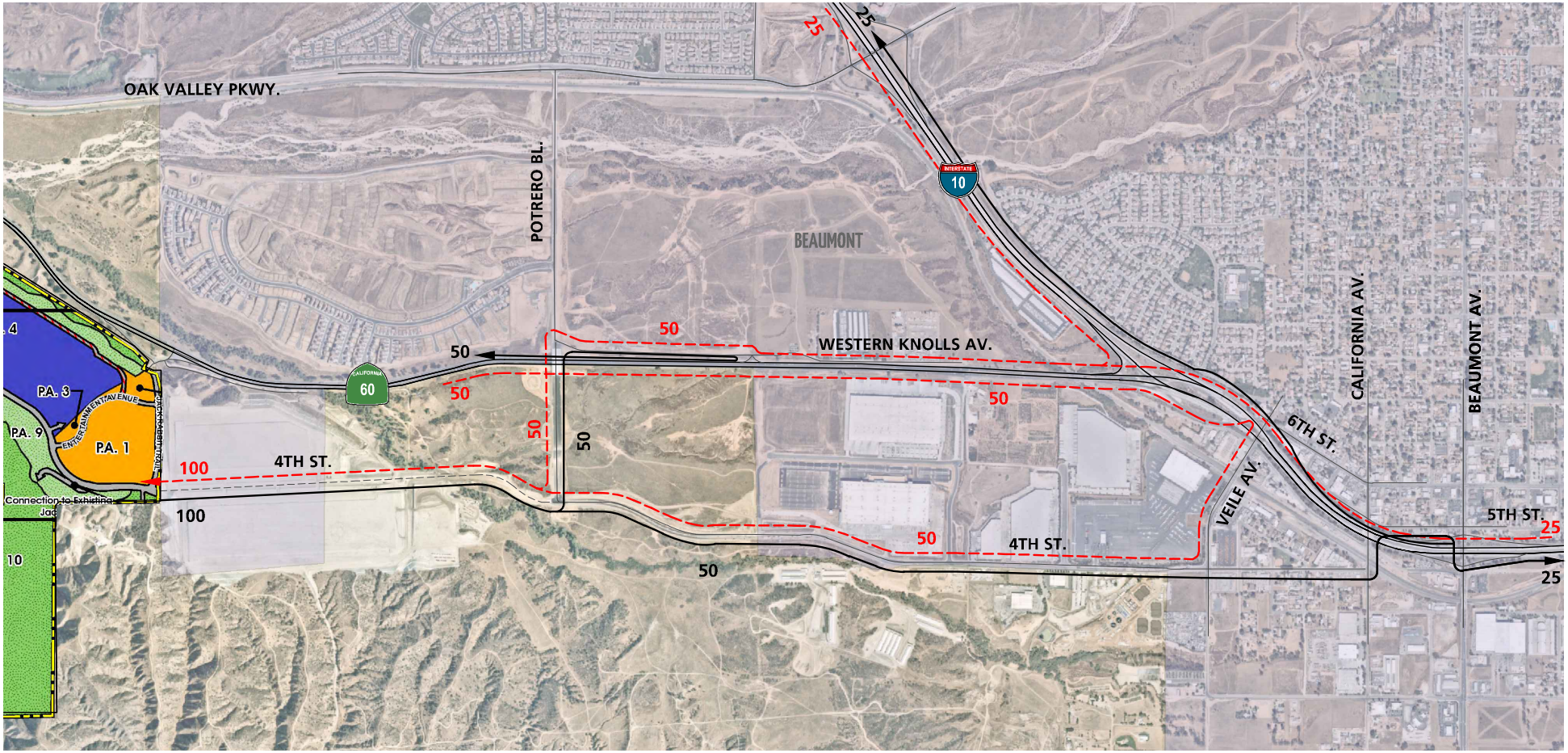
10 = PERCENT TO/FROM PROJECT

= OUTBOUND

= INBOUND

N

EXHIBIT 4: PROJECT (INTERIM TRUCK) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

◄—— = OUTBOUND

◄- - - = INBOUND

N

EXHIBIT 5: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION WITH POTRERO INTERCHANGE

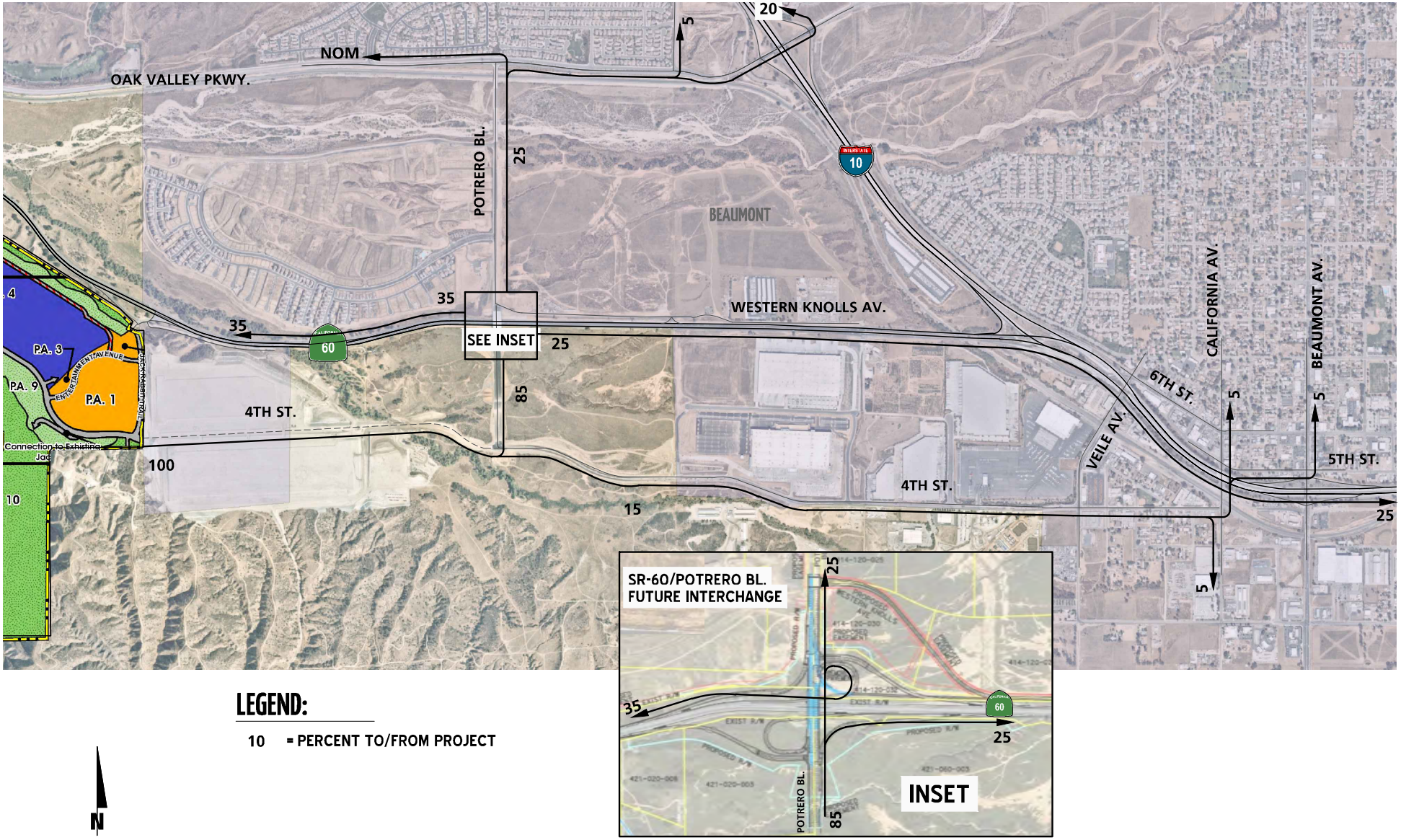


EXHIBIT 6: PROJECT (TRUCK) TRIP DISTRIBUTION WITH POTRERO INTERCHANGE

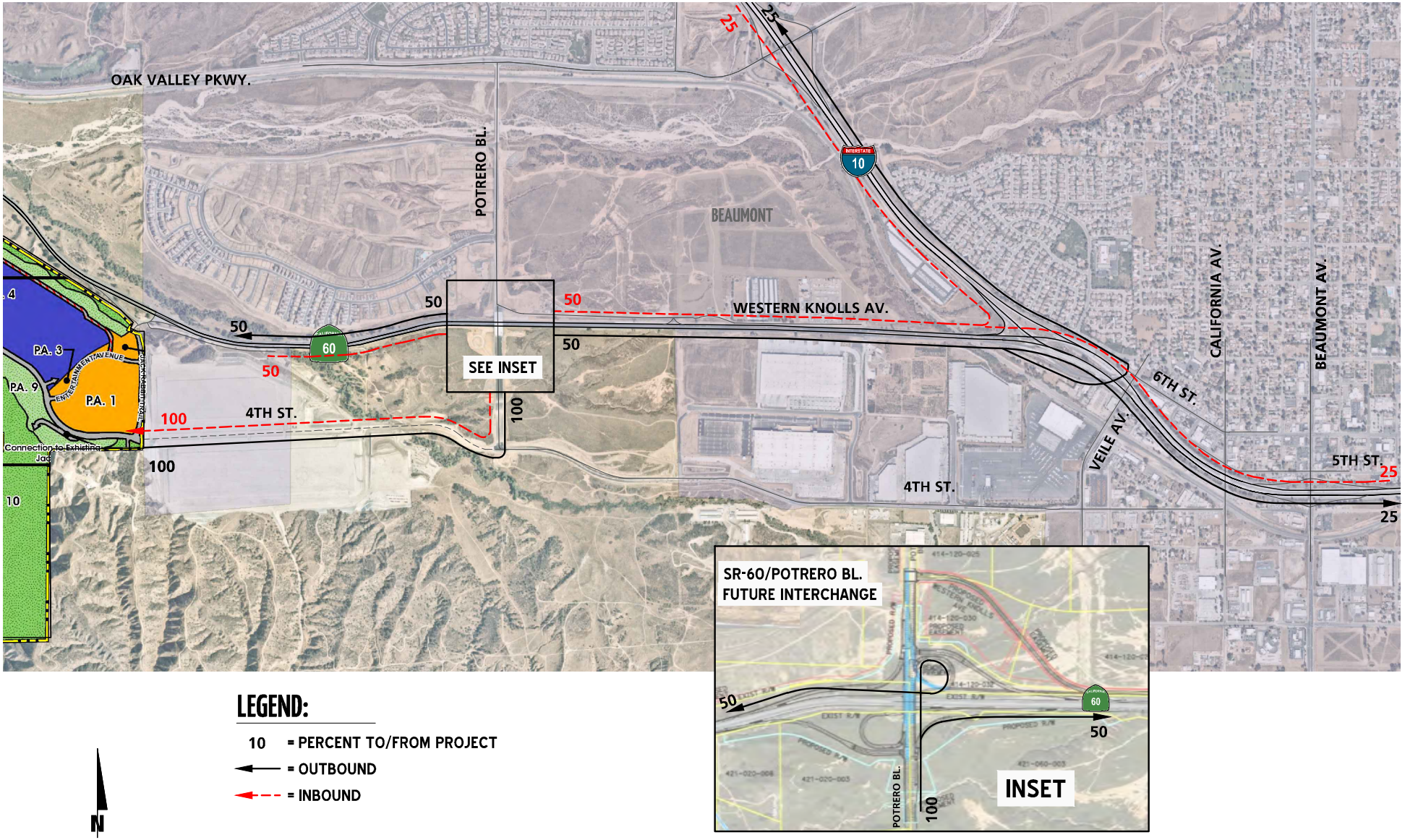


EXHIBIT 7: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP

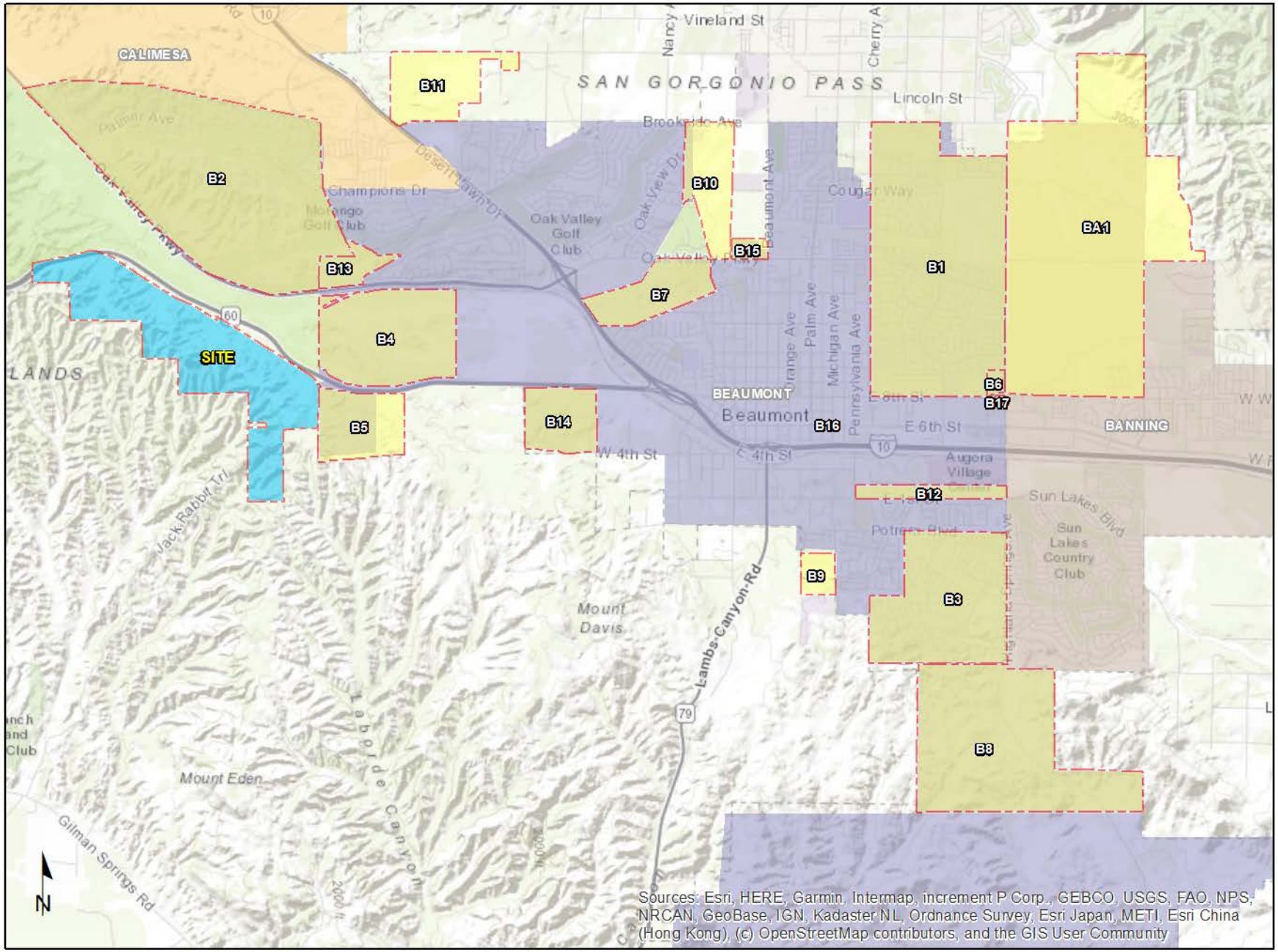


Table 1

Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Rates									
General Light Industrial[3]	TSF	110	0.616	0.084	0.700	0.082	0.548	0.630	4.960
Passenger Cars (78.6%)			0.484	0.066	0.550	0.064	0.431	0.495	3.899
2-Axle Trucks (8.0%)			0.049	0.007	0.056	0.007	0.044	0.050	0.397
3-Axle Trucks (3.9%)			0.024	0.003	0.027	0.003	0.021	0.025	0.193
4-Axle+ Trucks (9.5%)			0.059	0.008	0.067	0.008	0.052	0.060	0.471
High-Cube Fulfillment Center	TSF	--[4]	0.094	0.028	0.122	0.046	0.119	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks			0.006	0.002	0.008	0.003	0.008	0.011	0.162
5+-Axle Trucks			0.008	0.003	0.011	0.003	0.007	0.010	0.217
Hotel	RM	310	0.28	0.19	0.47	0.31	0.29	0.60	8.36
Shopping Center[5]	TSF	820	0.73	0.45	1.18	2.11	2.29	4.40	46.38
K-1 Kart Racing[7]	TSF	--	N/A	N/A	N/A	0.36	0.27	0.63	6.76
Rock Climing[6]	TSF	434	0.46	0.94	1.40	0.93	0.71	1.64	16.40
Trampoline Park[6]	TSF	436	N/A	N/A	N/A	0.72	0.78	1.50	15.00
Bowling Alley[6]	TSF	437	0.77	0.04	0.81	0.75	0.41	1.16	11.60
Athletic Club[6]	TSF	493	1.93	1.23	3.16	3.90	2.39	6.29	62.90
Miniature Golf Course[6]	Holes	432	N/A	N/A	N/A	0.11	0.22	0.33	3.30
Quality Restaurant	TSF	931	0.37	0.36	0.73	5.23	2.57	7.80	83.84
High Turnover Sit-Down Restaurant	TSF	932	5.47	4.47	9.94	6.06	3.71	9.77	112.18
Passenger Car Equivalent (PCE) Rates									
General Light Industrial[3]	TSF	110	0.616	0.084	0.700	0.082	0.548	0.630	4.960
Passenger Cars			0.484	0.066	0.550	0.064	0.431	0.495	3.899
2-Axle Trucks (PCE = 1.5)			0.074	0.010	0.084	0.010	0.066	0.076	0.595
3-Axle Trucks (PCE = 2.0)			0.048	0.007	0.055	0.006	0.043	0.049	0.387
4-Axle+ Trucks (PCE = 3.0)			0.176	0.024	0.200	0.023	0.156	0.180	1.414
High-Cube Fulfillment Center	TSF	--[4]	0.094	0.028	0.122	0.046	0.119	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (PCE = 2.0)			0.012	0.004	0.016	0.006	0.016	0.022	0.324
5+-Axle Trucks (PCE = 3.0)			0.025	0.008	0.033	0.008	0.022	0.030	0.651

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] RM = Room; TSF = Thousand Square Feet

[3] Vehicle Mix Source: Truck mix (by axle type) source from City of Fontana Truck Trip Generation Study (August 2003). PCE rates are per SBCTA.

[4] Vehicle Mix Source: TUMF High Cube Warehouse Trip Generation Study, WSP, November January 29, 2019.
Inbound and outbound split source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE. PCE rates are per SBCTA.

[5] Trip generation rates based on regression equation.

[6] No weekday daily value provided in ITE. Estimated based on 10 times the PM peak hour.

[7] Source: Trip Generation and Parking Rate Analysis for the proposed K-1 Speed Indoor Kart Track, Linscott Law & Greenspan Engineers, June 20, 2005.

Table 2

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Phase 1									
High-Cube Fulfillment Center (Building 1)	1,379.191	TSF							
Passenger Cars:			109	33	142	56	143	199	2,414
Truck Trips:									
2-4-axle:			8	3	11	4	11	15	224
5+-axle:			12	3	15	4	10	14	300
- Truck Trips (Actual Vehicles)			20	6	26	8	21	29	524
Phase 1 Total:			**129**	**39**	**168**	**64**	**164**	**228**	**2,938**
Phase 2									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+-axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Subtotal			423	126	549	208	535	743	9,584
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Subtotal			308	42	350	41	274	315	2,482
Phase 2 Passenger Cars:			*599*	*140*	*739*	*213*	*682*	*895*	*9,826*
Phase 2 Trucks:			*132*	*28*	*160*	*36*	*127*	*163*	*2,240*
Phase 2 Total:			**731**	**168**	**899**	**249**	**809**	**1,058**	**12,066**
Project Buildout									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+-axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Internal Trip Reduction (Office - Employees only)			-10	-5	-15	-1	-1	-2	-20
Subtotal			413	121	534	207	534	742	9,564

Table 2

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Internal Trip Reduction (Office - Employees only)			-30	-15	-45	-2	-2	-5	-36
Subtotal			278	27	305	39	272	311	2,446
Hotel	125	RM	35	24	59	38	37	75	1,046
Internal Trip Reduction (Hotel)			-1	-20	-21	-7	-8	-15	-210
Go Kart	77.000	TSF	0	0	0	28	21	49	522
Rock Climbing	26.000	TSF	12	24	36	24	18	42	426
Trampoline Park	24.000	TSF	0	0	0	17	19	36	360
Bowling Alley	40.000	TSF	31	2	33	30	16	46	464
Miniature Golf	36	Holes	0	0	0	4	8	12	120
Quality Restaurant	15.000	TSF	5	5	10	78	39	117	1,258
Internal Trip Reduction (Restaurant)			-9	-9	-18	-4	-4	-8	-92
Pass-by Reductions (PM/Daily = 44%)[3]			0	0	0	-15	-15	-31	-514
High Turnover Sit-Down Restaurant	15.000	TSF	82	67	149	91	56	147	1,684
Internal Trip Reduction (Restaurant)			-13	-14	-27	-7	-6	-13	-146
Pass-by Reductions (PM/Daily = 43%)[3]			0	0	0	-22	-22	-43	-662
Total Industrial Passenger Cars:			*559*	*120*	*679*	*210*	*679*	*889*	*9,770*
Total Trucks:			*132*	*28*	*160*	*36*	*127*	*163*	*2,240*
Total Commercial Passenger Cars:			*142*	*79*	*221*	*255*	*159*	*414*	*4,256*
TOTAL TRIPS (Actual Vehicles)[2]			**833**	**227**	**1,060**	**501**	**965**	**1,466**	**16,266**

[1] RM = Room; TSF = Thousand Square Feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

[3] Source: ITE Trip Generation Handbook, 3rd Edition, 2017.

Table 3

Project Trip Generation Summary (Passenger Car Equivalent)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Phase 1									
High-Cube Fulfillment Center	1,379.191	TSF							
Passenger Cars:			109	33	142	56	143	199	2,414
Truck Trips:									
2-4-axle:			17	5	22	8	22	30	448
5+-axle:			35	10	45	12	30	42	898
- Truck Trips (PCE)[2]			52	15	67	20	52	72	1,346
Phase 1 Total (PCE):			**161**	**48**	**209**	**76**	**195**	**271**	**3,760**
Phase 2									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			55	17	72	28	71	99	1,458
5+-axle:			114	34	148	38	97	135	2,930
- Truck Trips (PCE)[2]			169	51	220	66	168	234	4,388
Subtotal			526	158	684	247	635	882	12,264
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			37	5	42	5	33	38	298
3-axle:			24	3	27	3	21	24	194
4+-axle:			88	12	100	12	78	90	708
- Truck Trips (PCE)[2]			149	20	169	20	132	152	1,200
Subtotal			391	53	444	52	347	399	3,150
Phase 2 Passenger Cars:			*599*	*140*	*739*	*213*	*682*	*895*	*9,826*
Phase 2 Trucks (PCE):			*318*	*71*	*389*	*86*	*300*	*386*	*5,588*
Phase 2 Total (PCE):			**917**	**211**	**1,128**	**299**	**982**	**1,281**	**15,414**
Project Buildout									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			55	17	72	28	71	99	1,458
5+-axle:			114	34	148	38	97	135	2,930
- Truck Trips (PCE)[2]			169	51	220	66	168	234	4,388
Internal Trip Reduction (Office - Employees only)			-10	-5	-15	-1	-1	-2	-20
Subtotal			516	153	669	246	634	881	12,244

Table 3

Project Trip Generation Summary (Passenger Car Equivalent)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			37	5	42	5	33	38	298
3-axle:			24	3	27	3	21	24	194
4+-axle:			88	12	100	12	78	90	708
- Truck Trips (PCE)[2]			149	20	169	20	132	152	1,200
Internal Trip Reduction (Office - Employees only)			-30	-15	-45	-2	-2	-5	-36
Subtotal			361	38	399	50	345	395	3,114
Hotel	125	RM	35	24	59	38	37	75	1,046
Internal Trip Reduction (Hotel)			-1	-20	-21	-7	-8	-15	-210
Go Kart	77.000	TSF	0	0	0	28	21	49	522
Rock Climbing	26.000	TSF	12	24	36	24	18	42	426
Trampoline Park	24.000	TSF	0	0	0	17	19	36	360
Bowling Alley	40.000	TSF	31	2	33	30	16	46	464
Miniature Golf	36	Holes	0	0	0	4	8	12	120
Quality Restaurant	15.000	TSF	5	5	10	78	39	117	1,258
Internal Trip Reduction (Restaurant)			-9	-9	-18	-4	-4	-8	-92
Pass-by Reductions (PM/Daily = 44%)[3]			0	0	0	-15	-15	-31	-514
High Turnover Sit-Down Restaurant	15.000	TSF	82	67	149	91	56	147	1,684
Internal Trip Reduction (Restaurant)			-13	-14	-27	-7	-6	-13	-146
Pass-by Reductions (PM/Daily = 43%)[3]			0	0	0	-22	-22	-43	-662
Total Industrial Passenger Cars:			*559*	*120*	*679*	*210*	*679*	*889*	*9,770*
Total Trucks (PCE):			*318*	*71*	*389*	*86*	*300*	*386*	*5,588*
Total Commercial Passenger Cars:			*142*	*79*	*221*	*255*	*159*	*414*	*4,256*
TOTAL TRIPS (PCE)[3]			**1,019**	**270**	**1,289**	**551**	**1,138**	**1,689**	**19,614**

[1] RM = Room; TSF = Thousand Square Feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

[3] Source: ITE Trip Generation Handbook, 3rd Edition, 2017.

Table 4

Cumulative Development Land Use Summary

TAZ	Project	Land Use	Quantity[1]
City of Beaumont			
B1	Sundance	Residential	4,450 DU
B2	Fairway Canyon SCPGA	Residential	3,300 DU
B3	Four Seasons Tract No. 32260 & 33096	Residential	1,890 DU
B4	Heartland (Olivewood)	Residential	981 DU
B5	Hidden Canyon Industrial	Industrial	2,890.000 TSF
B6	Sundance Corporate Center	Commercial/Industrial	13.60 AC
B7	Kirkwood Ranch	Residential	403 DU
B8	Potrero Creek Estates	Residential	700 DU
B9	Tract No. 32850	Residential	95 DU
B10	Noble Creek Vistas	Residential	648 DU
B11	Sunny-Cal Specific Plan	Residential	571 DU
B12	San Gorgonio Village Phase 2	Commercial	22.50 AC
B13	Tournament Hills 3, TM 36307	Residential	279 DU
B14	Rolling Hills Ranch Industrial Phase 2	Industrial	2,850.000 TSF
B15	Beaumont Village	Commercial	50.810 TSF
B16	Beyond Beaumont	Commercial	6.589 TSF
B17	Highland & 8th Retail	Fast-Food w/ Drive-Thru	3.500 TSF
		Super Con. Mkt. w/ Gas Station	12 VFP
City of Banning			
BA1	Butterfield Specific Plan	Residential	5,387 DU
		Commercial	549.000 TSF
		Golf Course	253.9 AC
		School	23.0 AC
BA2	7-11 NWC Ramsey St. & Sunset Ave.	Gasoline/Service Station w/Conven. Mkt.	10.0 VFP
BA3	Nourish	Commercial	1.07 AC
BA4	The Alley Barber & Hair Styling	Commercial	0.16 AC

[1] AC = Acres; DU = Dwelling Units; RM = Rooms; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

APPENDIX 1.2:

SITE ADJACENT QUEUES

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Intersection: 1: 4th St. & Jack Rabbit Trail

Movement	EB	WB	WB	SB
Directions Served	T	T	R	L
Maximum Queue (ft)	70	194	58	97
Average Queue (ft)	23	99	32	45
95th Queue (ft)	59	176	55	84
Link Distance (ft)	918	1018		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	200
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 1: 4th St. & Jack Rabbit Trail

Movement	EB	WB	WB	SB	SB
Directions Served	T	T	R	L	R
Maximum Queue (ft)	361	105	67	212	60
Average Queue (ft)	169	49	38	119	5
95th Queue (ft)	298	94	63	195	66
Link Distance (ft)	918	1018			1595
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			200	200	
Storage Blk Time (%)	4			1	
Queuing Penalty (veh)	0			0	

Network Summary

Network wide Queuing Penalty: 0

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – NOVEMBER 2019 & JANUARY 2020

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Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

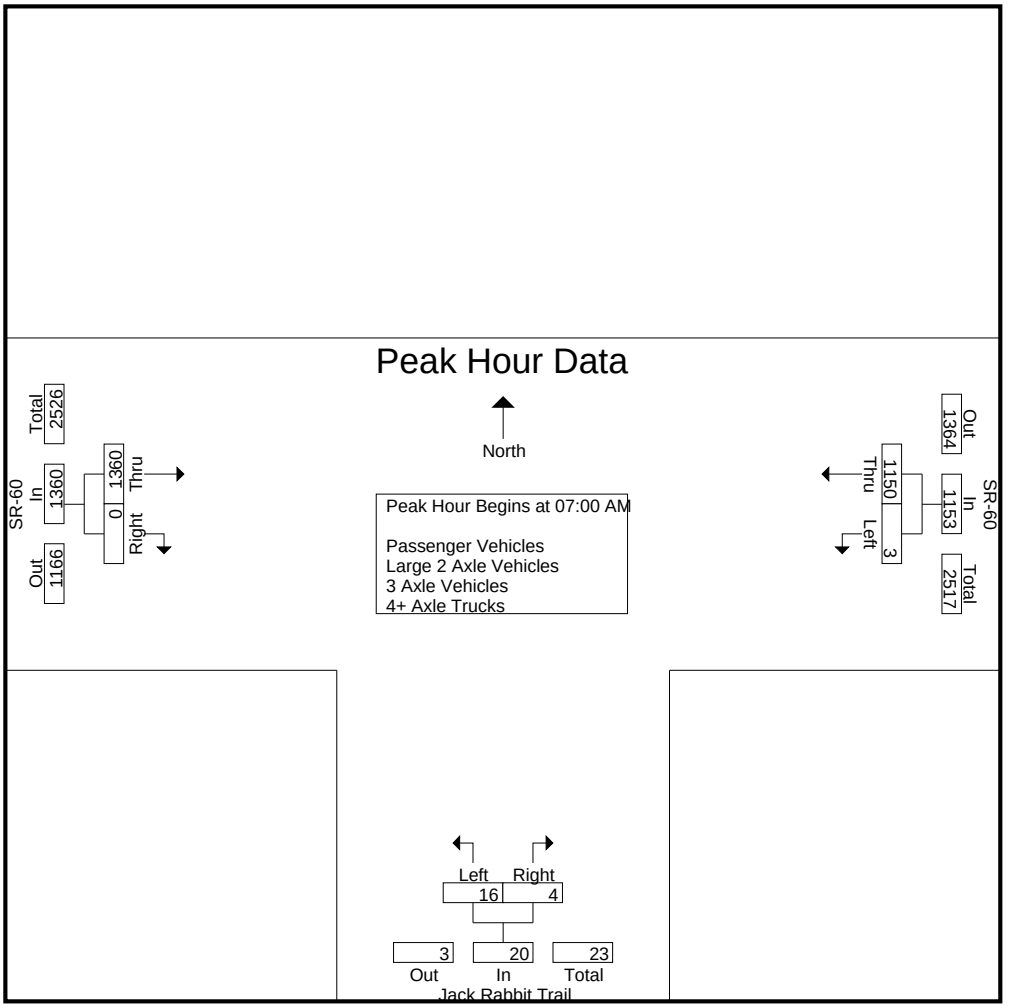
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	349	351	2	2	4	371	0	371	726
07:15 AM	1	277	278	1	1	2	314	0	314	594
07:30 AM	0	285	285	5	0	5	335	0	335	625
07:45 AM	0	239	239	8	1	9	340	0	340	588
Total	3	1150	1153	16	4	20	1360	0	1360	2533
08:00 AM	0	240	240	9	1	10	288	0	288	538
08:15 AM	1	258	259	3	1	4	328	0	328	591
08:30 AM	1	258	259	5	1	6	399	0	399	664
08:45 AM	0	247	247	1	2	3	302	0	302	552
Total	2	1003	1005	18	5	23	1317	0	1317	2345
Grand Total	5	2153	2158	34	9	43	2677	0	2677	4878
Apprch %	0.2	99.8		79.1	20.9		100	0		
Total %	0.1	44.1	44.2	0.7	0.2	0.9	54.9	0	54.9	
Passenger Vehicles	4	1936	1940	2	6	8	2306	0	2306	4254
% Passenger Vehicles	80	89.9	89.9	5.9	66.7	18.6	86.1	0	86.1	87.2
Large 2 Axle Vehicles	1	49	50	6	3	9	125	0	125	184
% Large 2 Axle Vehicles	20	2.3	2.3	17.6	33.3	20.9	4.7	0	4.7	3.8
3 Axle Vehicles	0	3	3	1	0	1	19	0	19	23
% 3 Axle Vehicles	0	0.1	0.1	2.9	0	2.3	0.7	0	0.7	0.5
4+ Axle Trucks	0	165	165	25	0	25	227	0	227	417
% 4+ Axle Trucks	0	7.7	7.6	73.5	0	58.1	8.5	0	8.5	8.5

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**2**	**349**	**351**	2	**2**	4	**371**	0	**371**	**726**
07:15 AM	1	277	278	1	1	2	314	0	314	594
07:30 AM	0	285	285	5	0	5	335	0	335	625
07:45 AM	0	239	239	**8**	1	**9**	340	0	340	588
Total Volume	3	1150	1153	16	4	20	1360	0	1360	2533
% App. Total	0.3	99.7		80	20		100	0		
PHF	.375	.824	.821	.500	.500	.556	.916	.000	.916	.872

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:45 AM			07:00 AM		
+0 mins.	**2**	**349**	**351**	8	**1**	9	**371**	0	**371**
+15 mins.	1	277	278	**9**	1	**10**	314	0	314
+30 mins.	0	285	285	3	1	4	335	0	335
+45 mins.	0	239	239	5	1	6	340	0	340
Total Volume	3	1150	1153	25	4	29	1360	0	1360
% App. Total	0.3	99.7		86.2	13.8		100	0	
PHF	.375	.824	.821	.694	1.000	.725	.916	.000	.916

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

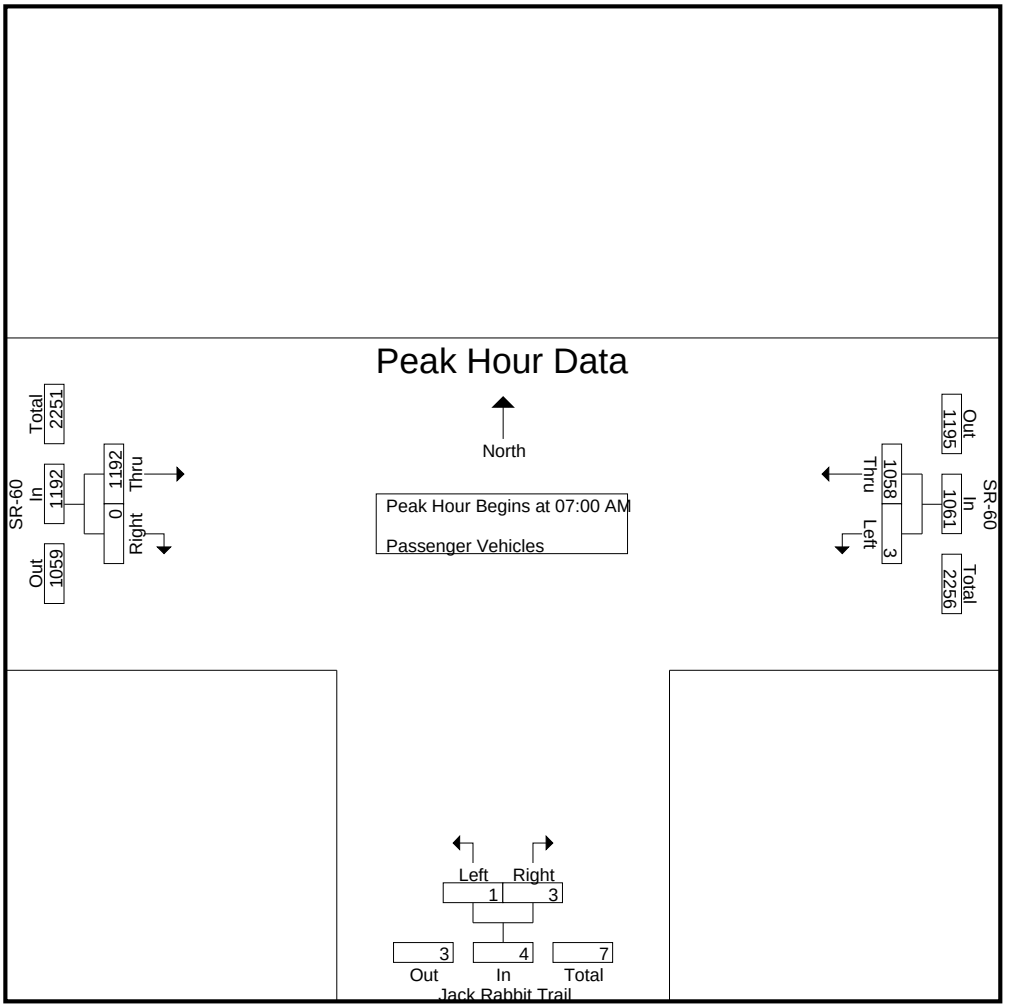
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	327	329	0	2	2	325	0	325	656
07:15 AM	1	256	257	1	1	2	280	0	280	539
07:30 AM	0	261	261	0	0	0	294	0	294	555
07:45 AM	0	214	214	0	0	0	293	0	293	507
Total	3	1058	1061	1	3	4	1192	0	1192	2257
08:00 AM	0	202	202	1	0	1	255	0	255	458
08:15 AM	0	229	229	0	0	0	271	0	271	500
08:30 AM	1	228	229	0	1	1	338	0	338	568
08:45 AM	0	219	219	0	2	2	250	0	250	471
Total	1	878	879	1	3	4	1114	0	1114	1997
Grand Total	4	1936	1940	2	6	8	2306	0	2306	4254
Apprch %	0.2	99.8		25	75		100	0		
Total %	0.1	45.5	45.6	0	0.1	0.2	54.2	0	54.2	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**2**	**327**	**329**	0	**2**	**2**	**325**	0	**325**	**656**
07:15 AM	1	256	257	**1**	1	2	280	0	280	539
07:30 AM	0	261	261	0	0	0	294	0	294	555
07:45 AM	0	214	214	0	0	0	293	0	293	507
Total Volume	3	1058	1061	1	3	4	1192	0	1192	2257
% App. Total	0.3	99.7		25	75		100	0		
PHF	.375	.809	.806	.250	.375	.500	.917	.000	.917	.860

Counts Unlimited
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**2**	**327**	**329**	0	**2**	**2**	**325**	0	**325**
+15 mins.	1	256	257	**1**	1	2	280	0	280
+30 mins.	0	261	261	0	0	0	294	0	294
+45 mins.	0	214	214	0	0	0	293	0	293
Total Volume	3	1058	1061	1	3	4	1192	0	1192
% App. Total	0.3	99.7		25	75		100	0	
PHF	.375	.809	.806	.250	.375	.500	.917	.000	.917

Counts Unlimited
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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

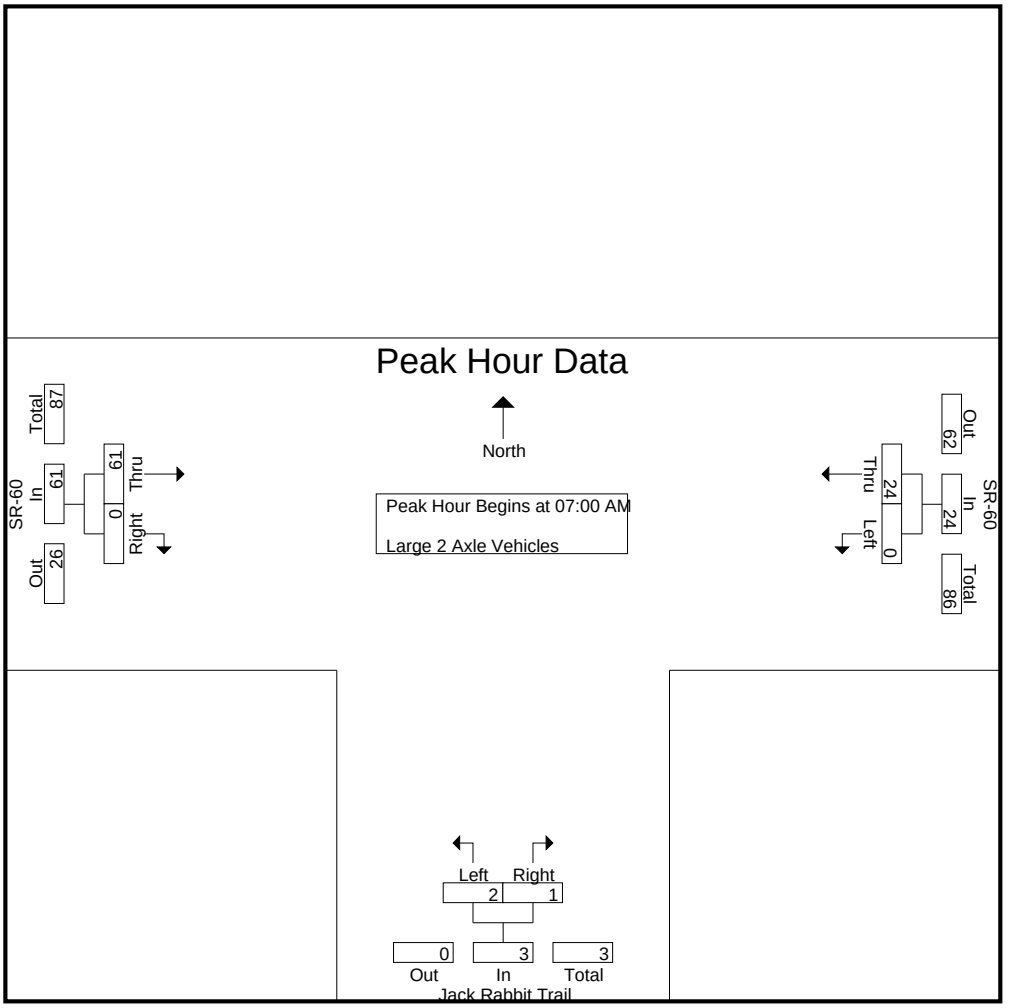
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	5	5	1	0	1	14	0	14	20
07:15 AM	0	6	6	0	0	0	7	0	7	13
07:30 AM	0	8	8	1	0	1	18	0	18	27
07:45 AM	0	5	5	0	1	1	22	0	22	28
Total	0	24	24	2	1	3	61	0	61	88
08:00 AM	0	7	7	3	1	4	13	0	13	24
08:15 AM	1	7	8	0	1	1	25	0	25	34
08:30 AM	0	7	7	1	0	1	17	0	17	25
08:45 AM	0	4	4	0	0	0	9	0	9	13
Total	1	25	26	4	2	6	64	0	64	96
Grand Total	1	49	50	6	3	9	125	0	125	184
Apprch %	2	98		66.7	33.3		100	0		
Total %	0.5	26.6	27.2	3.3	1.6	4.9	67.9	0	67.9	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	5	5	**1**	0	**1**	14	0	14	20
07:15 AM	0	6	6	0	0	0	7	0	7	13
07:30 AM	0	**8**	**8**	1	0	1	18	0	18	27
07:45 AM	0	5	5	0	**1**	1	**22**	0	**22**	**28**
Total Volume	0	24	24	2	1	3	61	0	61	88
% App. Total	0	100		66.7	33.3		100	0		
PHF	.000	.750	.750	.500	.250	.750	.693	.000	.693	.786

Counts Unlimited
PO Box 1178
Corona, CA 92878
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	5	5	**1**	0	**1**	14	0	14
+15 mins.	0	6	6	0	0	0	7	0	7
+30 mins.	0	**8**	**8**	1	0	1	18	0	18
+45 mins.	0	5	5	0	**1**	1	**22**	0	**22**
Total Volume	0	24	24	2	1	3	61	0	61
% App. Total	0	100		66.7	33.3		100	0	
PHF	.000	.750	.750	.500	.250	.750	.693	.000	.693

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

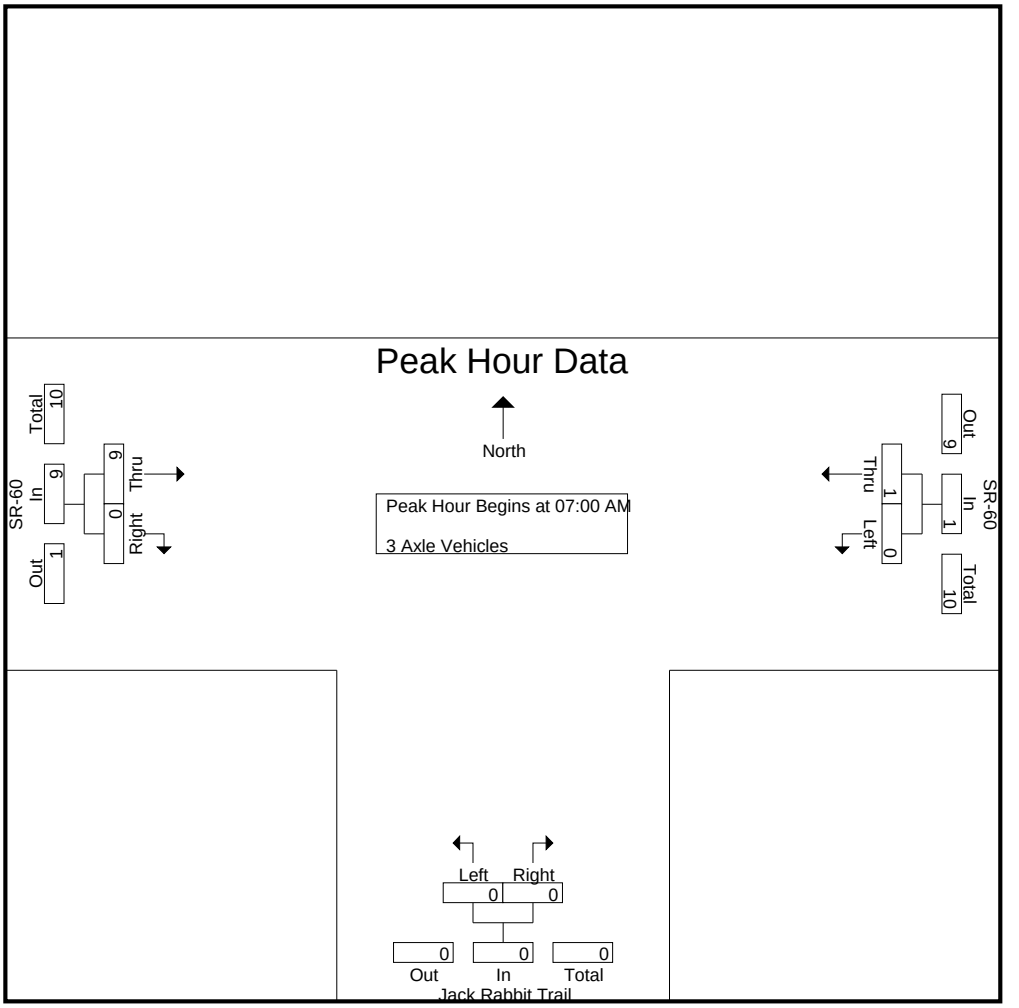
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	3	0	3	3
07:15 AM	0	0	0	0	0	0	3	0	3	3
07:30 AM	0	1	1	0	0	0	3	0	3	4
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	9	0	9	10
08:00 AM	0	0	0	1	0	1	0	0	0	1
08:15 AM	0	1	1	0	0	0	3	0	3	4
08:30 AM	0	1	1	0	0	0	1	0	1	2
08:45 AM	0	0	0	0	0	0	6	0	6	6
Total	0	2	2	1	0	1	10	0	10	13
Grand Total	0	3	3	1	0	1	19	0	19	23
Apprch %	0	100		100	0		100	0		
Total %	0	13	13	4.3	0	4.3	82.6	0	82.6	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	**3**	0	**3**	3
07:15 AM	0	0	0	0	0	0	3	0	3	3
07:30 AM	0	**1**	**1**	0	0	0	3	0	3	**4**
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	9	0	9	10
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.750	.000	.750	.625

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	**3**	0	**3**
+15 mins.	0	0	0	0	0	0	3	0	3
+30 mins.	0	**1**	**1**	0	0	0	3	0	3
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	9	0	9
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.750	.000	.750

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019

Groups Printed- 4+ Axle Trucks

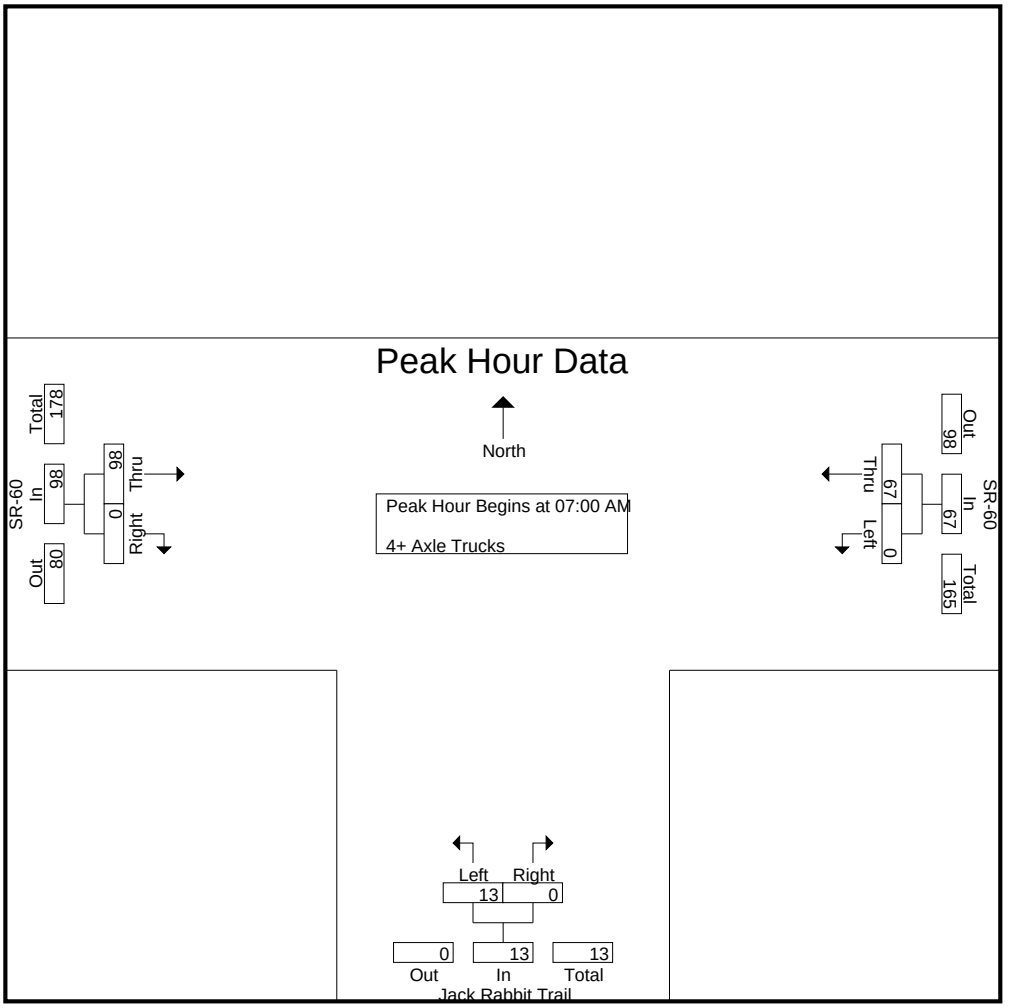
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	17	17	1	0	1	29	0	29	47
07:15 AM	0	15	15	0	0	0	24	0	24	39
07:30 AM	0	15	15	4	0	4	20	0	20	39
07:45 AM	0	20	20	8	0	8	25	0	25	53
Total	0	67	67	13	0	13	98	0	98	178
08:00 AM	0	31	31	4	0	4	20	0	20	55
08:15 AM	0	21	21	3	0	3	29	0	29	53
08:30 AM	0	22	22	4	0	4	43	0	43	69
08:45 AM	0	24	24	1	0	1	37	0	37	62
Total	0	98	98	12	0	12	129	0	129	239
Grand Total	0	165	165	25	0	25	227	0	227	417
Apprch %	0	100		100	0		100	0		
Total %	0	39.6	39.6	6	0	6	54.4	0	54.4	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	17	17	1	0	1	**29**	0	**29**	47
07:15 AM	0	15	15	0	0	0	24	0	24	39
07:30 AM	0	15	15	4	0	4	20	0	20	39
07:45 AM	0	**20**	**20**	**8**	0	**8**	25	0	25	**53**
Total Volume	0	67	67	13	0	13	98	0	98	178
% App. Total	0	100		100	0		100	0		
PHF	.000	.838	.838	.406	.000	.406	.845	.000	.845	.840

Counts Unlimited
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	17	17	1	0	1	**29**	0	**29**
+15 mins.	0	15	15	0	0	0	24	0	24
+30 mins.	0	15	15	4	0	4	20	0	20
+45 mins.	0	**20**	**20**	**8**	0	**8**	25	0	25
Total Volume	0	67	67	13	0	13	98	0	98
% App. Total	0	100		100	0		100	0	
PHF	.000	.838	.838	.406	.000	.406	.845	.000	.845

Counts Unlimited
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(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

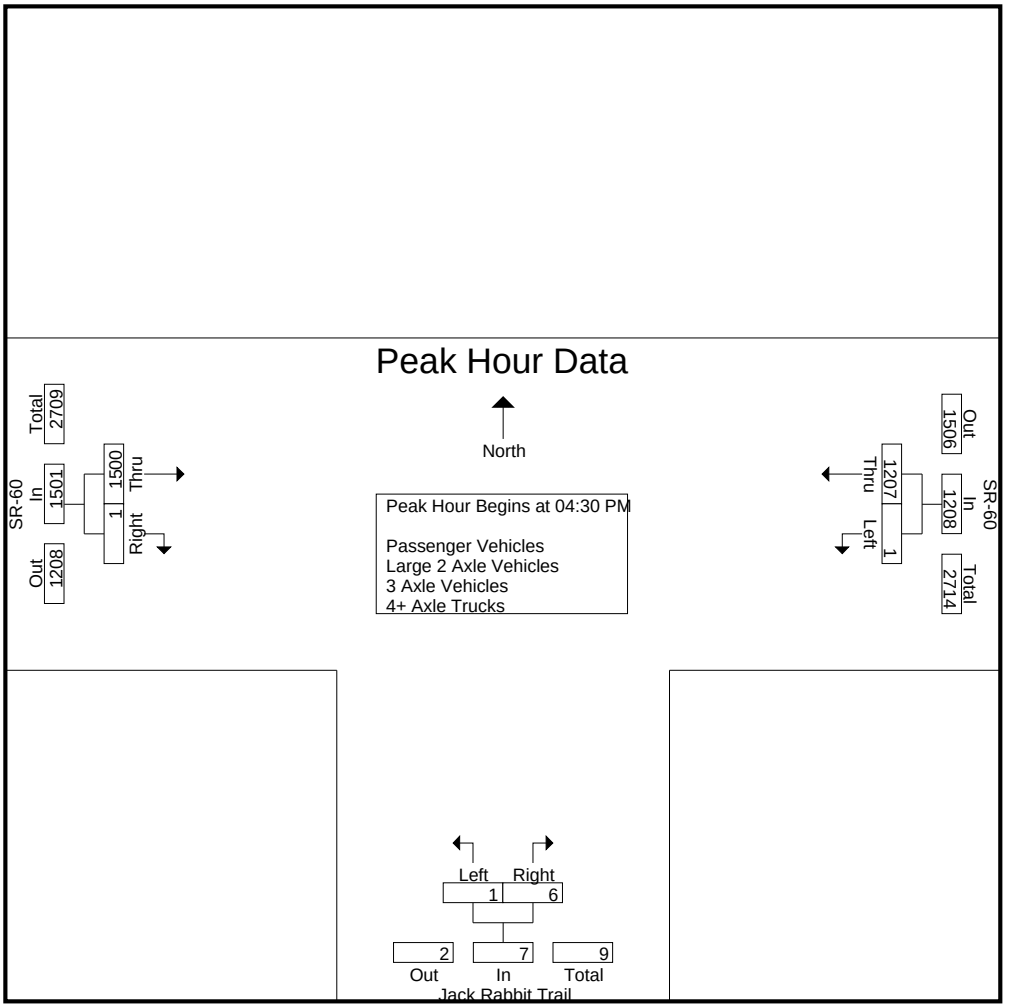
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	284	285	1	3	4	360	0	360	649
04:15 PM	3	269	272	1	5	6	342	0	342	620
04:30 PM	0	279	279	0	3	3	382	1	383	665
04:45 PM	0	329	329	1	0	1	398	0	398	728
Total	4	1161	1165	3	11	14	1482	1	1483	2662
05:00 PM	0	306	306	0	1	1	317	0	317	624
05:15 PM	1	293	294	0	2	2	403	0	403	699
05:30 PM	0	276	276	1	4	5	380	0	380	661
05:45 PM	0	247	247	0	0	0	361	0	361	608
Total	1	1122	1123	1	7	8	1461	0	1461	2592
Grand Total	5	2283	2288	4	18	22	2943	1	2944	5254
Apprch %	0.2	99.8		18.2	81.8		100	0		
Total %	0.1	43.5	43.5	0.1	0.3	0.4	56	0	56	
Passenger Vehicles	5	1981	1986	3	18	21	2621	1	2622	4629
% Passenger Vehicles	100	86.8	86.8	75	100	95.5	89.1	100	89.1	88.1
Large 2 Axle Vehicles	0	40	40	0	0	0	41	0	41	81
% Large 2 Axle Vehicles	0	1.8	1.7	0	0	0	1.4	0	1.4	1.5
3 Axle Vehicles	0	17	17	1	0	1	10	0	10	28
% 3 Axle Vehicles	0	0.7	0.7	25	0	4.5	0.3	0	0.3	0.5
4+ Axle Trucks	0	245	245	0	0	0	271	0	271	516
% 4+ Axle Trucks	0	10.7	10.7	0	0	0	9.2	0	9.2	9.8

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	279	279	0	**3**	**3**	382	**1**	383	665
04:45 PM	0	**329**	**329**	**1**	0	1	398	0	398	**728**
05:00 PM	0	306	306	0	1	1	317	0	317	624
05:15 PM	**1**	293	294	0	2	2	**403**	0	**403**	699
Total Volume	1	1207	1208	1	6	7	1500	1	1501	2716
% App. Total	0.1	99.9		14.3	85.7		99.9	0.1		
PHF	.250	.917	.918	.250	.500	.583	.931	.250	.931	.933

Counts Unlimited
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:30 PM		
+0 mins.	0	279	279	**1**	3	4	382	**1**	383
+15 mins.	0	**329**	**329**	1	**5**	**6**	398	0	398
+30 mins.	0	306	306	0	3	3	317	0	317
+45 mins.	**1**	293	294	1	0	1	**403**	0	**403**
Total Volume	1	1207	1208	3	11	14	1500	1	1501
% App. Total	0.1	99.9		21.4	78.6		99.9	0.1	
PHF	.250	.917	.918	.750	.550	.583	.931	.250	.931

Counts Unlimited
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019

Groups Printed- Passenger Vehicles

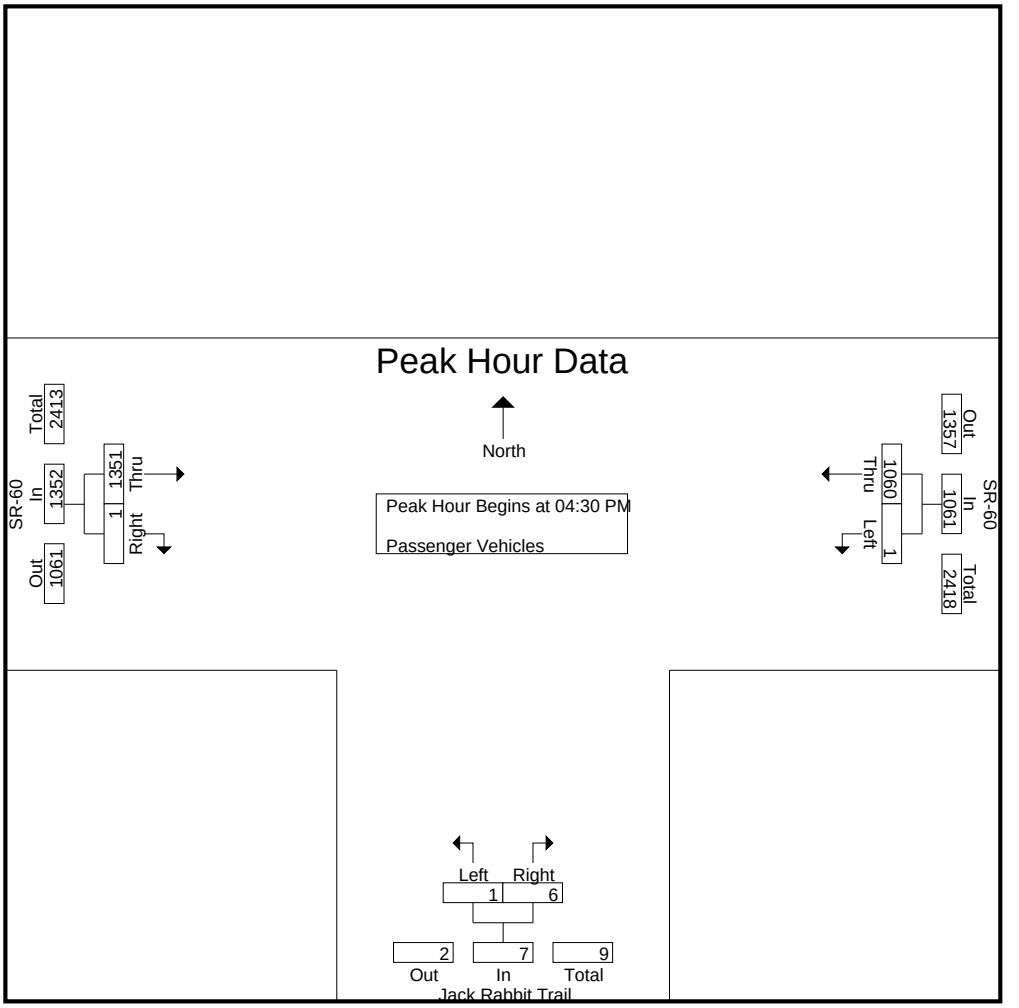
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	239	240	0	3	3	329	0	329	572
04:15 PM	3	235	238	1	5	6	291	0	291	535
04:30 PM	0	243	243	0	3	3	345	1	346	592
04:45 PM	0	293	293	1	0	1	360	0	360	654
Total	4	1010	1014	2	11	13	1325	1	1326	2353
05:00 PM	0	271	271	0	1	1	283	0	283	555
05:15 PM	1	253	254	0	2	2	363	0	363	619
05:30 PM	0	233	233	1	4	5	333	0	333	571
05:45 PM	0	214	214	0	0	0	317	0	317	531
Total	1	971	972	1	7	8	1296	0	1296	2276
Grand Total	5	1981	1986	3	18	21	2621	1	2622	4629
Apprch %	0.3	99.7		14.3	85.7		100	0		
Total %	0.1	42.8	42.9	0.1	0.4	0.5	56.6	0	56.6	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	243	243	0	**3**	**3**	345	**1**	346	592
04:45 PM	0	**293**	**293**	**1**	0	1	360	0	360	**654**
05:00 PM	0	271	271	0	1	1	283	0	283	555
05:15 PM	**1**	253	254	0	2	2	**363**	0	**363**	619
Total Volume	1	1060	1061	1	6	7	1351	1	1352	2420
% App. Total	0.1	99.9		14.3	85.7		99.9	0.1		
PHF	.250	.904	.905	.250	.500	.583	.930	.250	.931	.925

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	243	243	0	**3**	**3**	345	**1**	346
+15 mins.	0	**293**	**293**	**1**	0	1	360	0	360
+30 mins.	0	271	271	0	1	1	283	0	283
+45 mins.	**1**	253	254	0	2	2	**363**	0	**363**
Total Volume	1	1060	1061	1	6	7	1351	1	1352
% App. Total	0.1	99.9		14.3	85.7		99.9	0.1	
PHF	.250	.904	.905	.250	.500	.583	.930	.250	.931

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019

Groups Printed- Large 2 Axle Vehicles

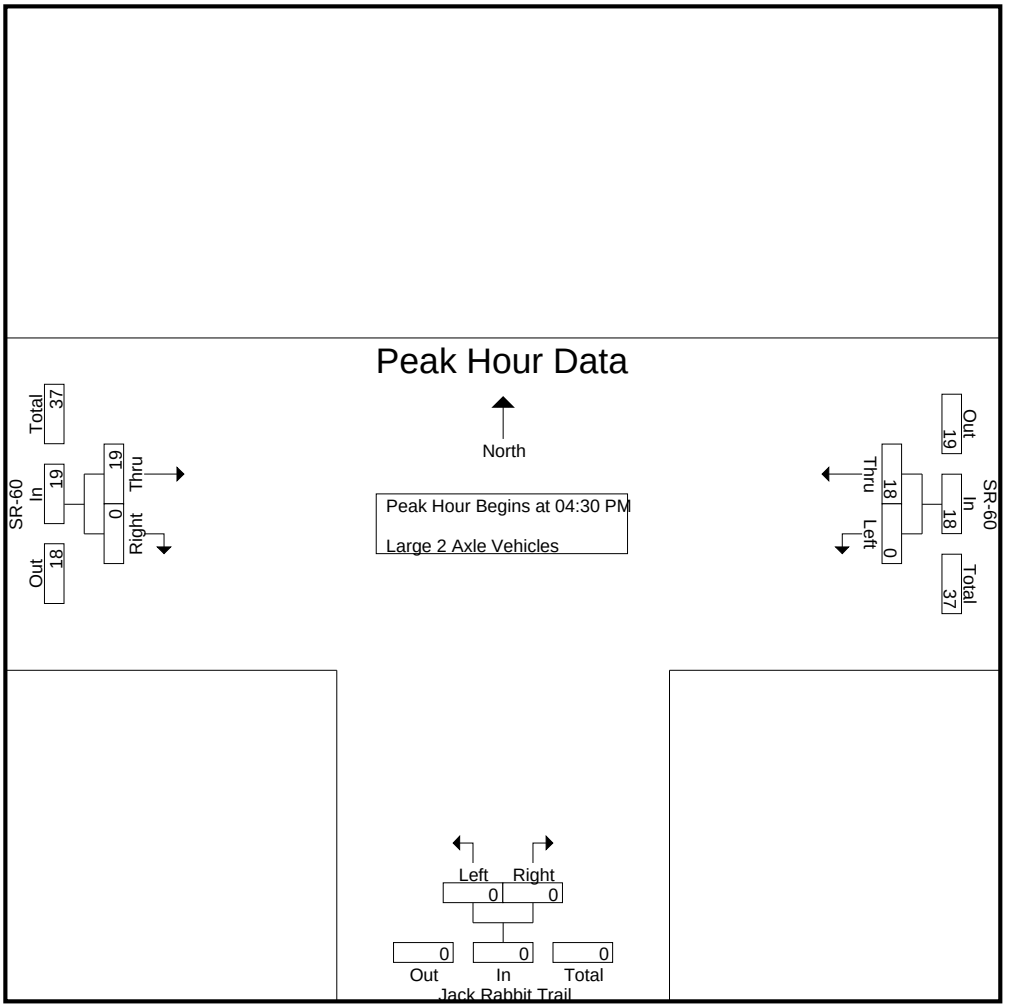
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	7	7	0	0	0	4	0	4	11
04:15 PM	0	4	4	0	0	0	6	0	6	10
04:30 PM	0	5	5	0	0	0	6	0	6	11
04:45 PM	0	6	6	0	0	0	5	0	5	11
Total	0	22	22	0	0	0	21	0	21	43
05:00 PM	0	3	3	0	0	0	5	0	5	8
05:15 PM	0	4	4	0	0	0	3	0	3	7
05:30 PM	0	6	6	0	0	0	7	0	7	13
05:45 PM	0	5	5	0	0	0	5	0	5	10
Total	0	18	18	0	0	0	20	0	20	38
Grand Total	0	40	40	0	0	0	41	0	41	81
Apprch %	0	100		0	0		100	0		
Total %	0	49.4	49.4	0	0	0	50.6	0	50.6	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	5	5	0	0	0	**6**	0	**6**	**11**
04:45 PM	0	**6**	**6**	0	0	0	5	0	5	11
05:00 PM	0	3	3	0	0	0	5	0	5	8
05:15 PM	0	4	4	0	0	0	3	0	3	7
Total Volume	0	18	18	0	0	0	19	0	19	37
% App. Total	0	100		0	0		100	0		
PHF	.000	.750	.750	.000	.000	.000	.792	.000	.792	.841

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	5	5	0	0	0	**6**	0	**6**
+15 mins.	0	**6**	**6**	0	0	0	5	0	5
+30 mins.	0	3	3	0	0	0	5	0	5
+45 mins.	0	4	4	0	0	0	3	0	3
Total Volume	0	18	18	0	0	0	19	0	19
% App. Total	0	100		0	0		100	0	
PHF	.000	.750	.750	.000	.000	.000	.792	.000	.792

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

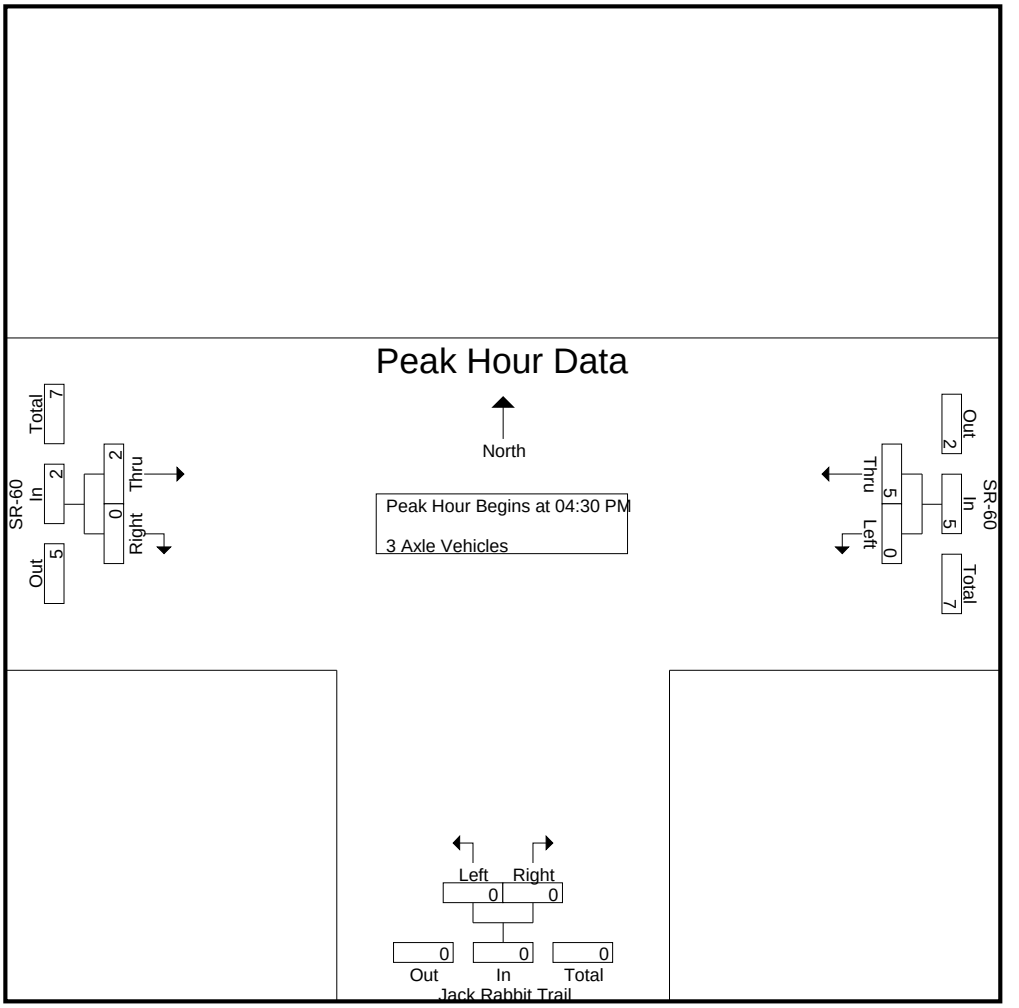
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	6	6	1	0	1	3	0	3	10
04:15 PM	0	4	4	0	0	0	3	0	3	7
04:30 PM	0	2	2	0	0	0	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	12	12	1	0	1	7	0	7	20
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	2	2	0	0	0	1	0	1	3
05:30 PM	0	2	2	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	5	5	0	0	0	3	0	3	8
Grand Total	0	17	17	1	0	1	10	0	10	28
Apprch %	0	100		100	0		100	0		
Total %	0	60.7	60.7	3.6	0	3.6	35.7	0	35.7	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	**2**	**2**	0	0	0	**1**	0	**1**	**3**
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	2	2	0	0	0	1	0	1	3
Total Volume	0	5	5	0	0	0	2	0	2	7
% App. Total	0	100		0	0		100	0		
PHF	.000	.625	.625	.000	.000	.000	.500	.000	.500	.583

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	**2**	**2**	0	0	0	**1**	0	**1**
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	2	2	0	0	0	1	0	1
Total Volume	0	5	5	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.500	.000	.500

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- 4+ Axle Trucks

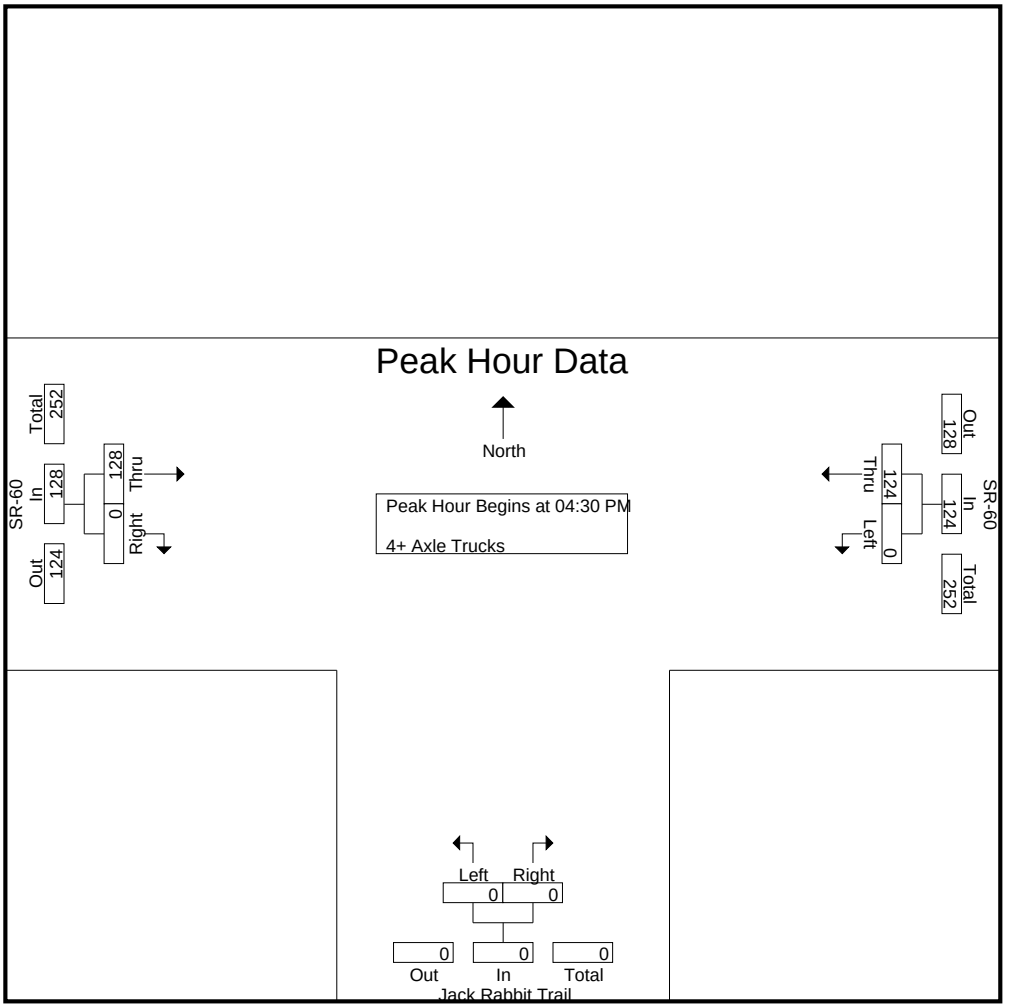
	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	32	32	0	0	0	24	0	24	56
04:15 PM	0	26	26	0	0	0	42	0	42	68
04:30 PM	0	29	29	0	0	0	30	0	30	59
04:45 PM	0	30	30	0	0	0	33	0	33	63
Total	0	117	117	0	0	0	129	0	129	246
05:00 PM	0	31	31	0	0	0	29	0	29	60
05:15 PM	0	34	34	0	0	0	36	0	36	70
05:30 PM	0	35	35	0	0	0	39	0	39	74
05:45 PM	0	28	28	0	0	0	38	0	38	66
Total	0	128	128	0	0	0	142	0	142	270
Grand Total	0	245	245	0	0	0	271	0	271	516
Apprch %	0	100		0	0		100	0		
Total %	0	47.5	47.5	0	0	0	52.5	0	52.5	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	29	29	0	0	0	30	0	30	59
04:45 PM	0	30	30	0	0	0	33	0	33	63
05:00 PM	0	31	31	0	0	0	29	0	29	60
05:15 PM	0	**34**	**34**	0	0	0	**36**	0	**36**	**70**
Total Volume	0	124	124	0	0	0	128	0	128	252
% App. Total	0	100		0	0		100	0		
PHF	.000	.912	.912	.000	.000	.000	.889	.000	.889	.900

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	29	29	0	0	0	30	0	30
+15 mins.	0	30	30	0	0	0	33	0	33
+30 mins.	0	31	31	0	0	0	29	0	29
+45 mins.	0	**34**	**34**	0	0	0	**36**	0	**36**
Total Volume	0	124	124	0	0	0	128	0	128
% App. Total	0	100		0	0		100	0	
PHF	.000	.912	.912	.000	.000	.000	.889	.000	.889

Location: Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg SR-60	South Leg Jack Rabbit Trail	West Leg SR-60	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg SR-60	South Leg Jack Rabbit Trail	West Leg SR-60	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound Dead End			Westbound SR-60			Northbound Jack Rabbit Trail			Eastbound SR-60			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	0	0	1	0	3

	Southbound Dead End			Westbound SR-60			Northbound Jack Rabbit Trail			Eastbound SR-60			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	4	0	0	0	0	0	1	0	5
4:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
5:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
5:45 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
TOTAL VOLUMES:	0	0	0	0	12	0	0	0	0	0	6	0	18

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

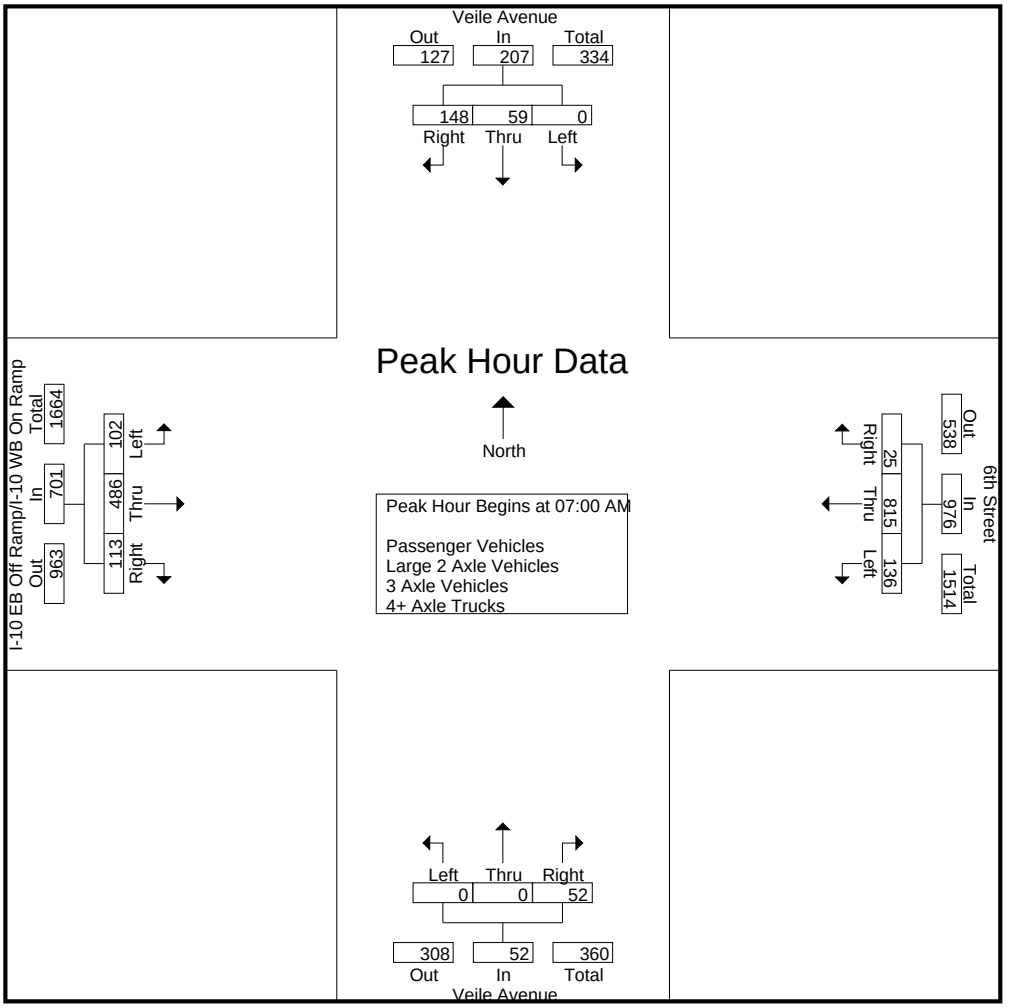
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	19	42	61	35	253	7	295	0	0	13	13	26	100	36	162	531
07:15 AM	0	15	53	68	34	207	9	250	0	0	6	6	26	113	26	165	489
07:30 AM	0	15	26	41	32	181	4	217	0	0	16	16	30	119	18	167	441
07:45 AM	0	10	27	37	35	174	5	214	0	0	17	17	20	154	33	207	475
Total	0	59	148	207	136	815	25	976	0	0	52	52	102	486	113	701	1936
08:00 AM	0	15	17	32	28	166	3	197	0	0	8	8	16	75	31	122	359
08:15 AM	0	4	18	22	30	155	0	185	0	0	9	9	21	85	15	121	337
08:30 AM	0	4	15	19	29	159	1	189	0	0	10	10	8	81	24	113	331
08:45 AM	0	4	16	20	20	171	1	192	0	0	6	6	19	81	28	128	346
Total	0	27	66	93	107	651	5	763	0	0	33	33	64	322	98	484	1373
Grand Total	0	86	214	300	243	1466	30	1739	0	0	85	85	166	808	211	1185	3309
Apprch %	0	28.7	71.3		14	84.3	1.7		0	0	100		14	68.2	17.8		
Total %	0	2.6	6.5	9.1	7.3	44.3	0.9	52.6	0	0	2.6	2.6	5	24.4	6.4	35.8	
Passenger Vehicles	0	84	208	292	224	1404	30	1658	0	0	78	78	157	771	176	1104	3132
% Passenger Vehicles	0	97.7	97.2	97.3	92.2	95.8	100	95.3	0	0	91.8	91.8	94.6	95.4	83.4	93.2	94.7
Large 2 Axle Vehicles	0	1	6	7	8	26	0	34	0	0	1	1	7	22	3	32	74
% Large 2 Axle Vehicles	0	1.2	2.8	2.3	3.3	1.8	0	2	0	0	1.2	1.2	4.2	2.7	1.4	2.7	2.2
3 Axle Vehicles	0	0	0	0	4	15	0	19	0	0	1	1	2	10	8	20	40
% 3 Axle Vehicles	0	0	0	0	1.6	1	0	1.1	0	0	1.2	1.2	1.2	1.2	3.8	1.7	1.2
4+ Axle Trucks	0	1	0	1	7	21	0	28	0	0	5	5	0	5	24	29	63
% 4+ Axle Trucks	0	1.2	0	0.3	2.9	1.4	0	1.6	0	0	5.9	5.9	0	0.6	11.4	2.4	1.9

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**19**	42	61	**35**	**253**	7	**295**	0	0	13	13	26	100	**36**	162	**531**
07:15 AM	0	15	**53**	**68**	34	207	**9**	250	0	0	6	6	26	113	26	165	489
07:30 AM	0	15	26	41	32	181	4	217	0	0	16	16	**30**	119	18	167	441
07:45 AM	0	10	27	37	35	174	5	214	0	0	**17**	**17**	20	**154**	33	**207**	475
Total Volume	0	59	148	207	136	815	25	976	0	0	52	52	102	486	113	701	1936
% App. Total	0	28.5	71.5		13.9	83.5	2.6		0	0	100		14.6	69.3	16.1		
PHF	.000	.776	.698	.761	.971	.805	.694	.827	.000	.000	.765	.765	.850	.789	.785	.847	.911

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	**19**	42	61	**35**	**253**	7	**295**	0	0	13	13	26	100	**36**	162
+15 mins.	0	15	**53**	**68**	34	207	**9**	250	0	0	6	6	26	113	26	165
+30 mins.	0	15	26	41	32	181	4	217	0	0	16	16	**30**	119	18	167
+45 mins.	0	10	27	37	35	174	5	214	0	0	**17**	**17**	20	**154**	33	**207**
Total Volume	0	59	148	207	136	815	25	976	0	0	52	52	102	486	113	701
% App. Total	0	28.5	71.5		13.9	83.5	2.6		0	0	100		14.6	69.3	16.1	
PHF	.000	.776	.698	.761	.971	.805	.694	.827	.000	.000	.765	.765	.850	.789	.785	.847

Counts Unlimited
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles

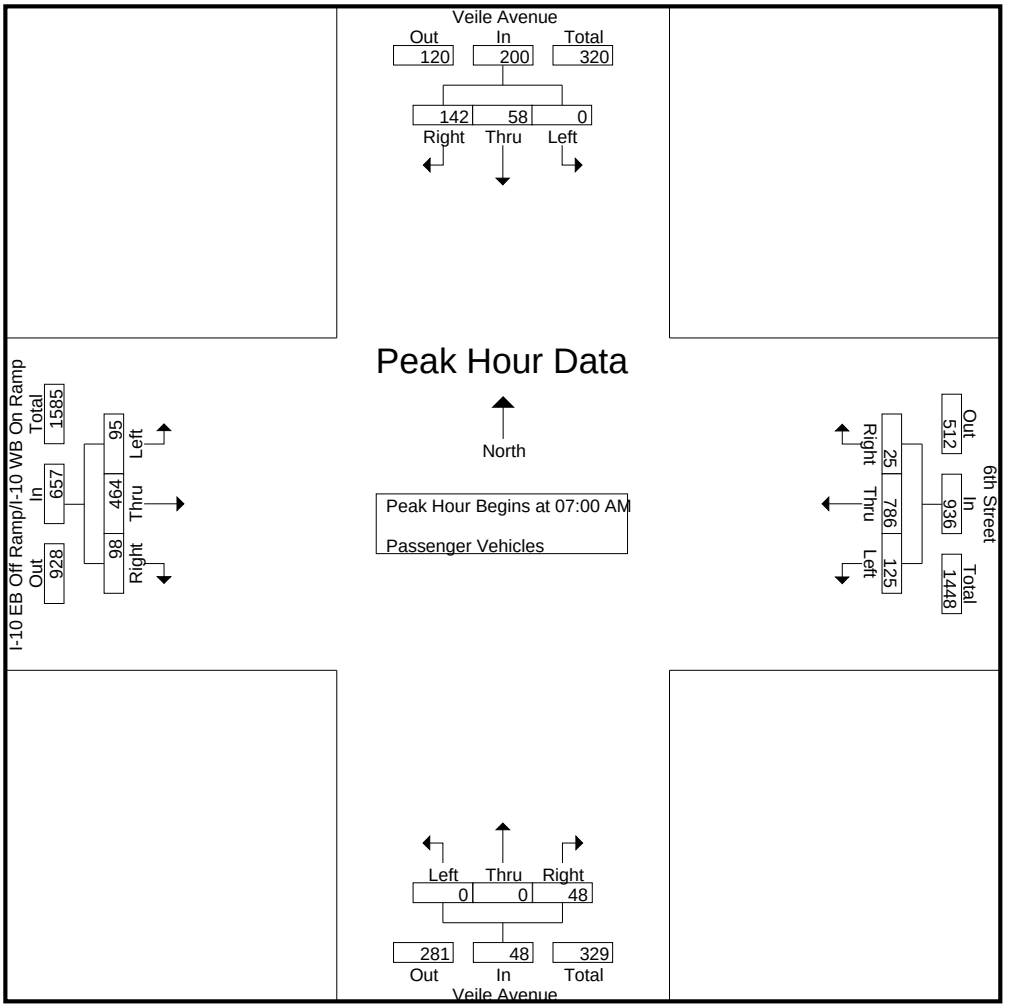
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	19	38	57	30	246	7	283	0	0	11	11	25	93	31	149	500
07:15 AM	0	15	52	67	33	200	9	242	0	0	5	5	25	110	23	158	472
07:30 AM	0	14	26	40	31	173	4	208	0	0	15	15	25	112	15	152	415
07:45 AM	0	10	26	36	31	167	5	203	0	0	17	17	20	149	29	198	454
Total	0	58	142	200	125	786	25	936	0	0	48	48	95	464	98	657	1841
08:00 AM	0	15	17	32	26	160	3	189	0	0	8	8	16	71	25	112	341
08:15 AM	0	4	18	22	29	149	0	178	0	0	8	8	21	83	11	115	323
08:30 AM	0	3	15	18	26	148	1	175	0	0	8	8	8	75	20	103	304
08:45 AM	0	4	16	20	18	161	1	180	0	0	6	6	17	78	22	117	323
Total	0	26	66	92	99	618	5	722	0	0	30	30	62	307	78	447	1291
Grand Total	0	84	208	292	224	1404	30	1658	0	0	78	78	157	771	176	1104	3132
Apprch %	0	28.8	71.2		13.5	84.7	1.8		0	0	100		14.2	69.8	15.9		
Total %	0	2.7	6.6	9.3	7.2	44.8	1	52.9	0	0	2.5	2.5	5	24.6	5.6	35.2	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**19**	38	57	30	**246**	7	**283**	0	0	11	11	**25**	93	**31**	149	**500**
07:15 AM	0	15	**52**	**67**	**33**	200	**9**	242	0	0	5	5	25	110	23	158	472
07:30 AM	0	14	26	40	31	173	4	208	0	0	15	15	25	112	15	152	415
07:45 AM	0	10	26	36	31	167	5	203	0	0	**17**	**17**	20	**149**	29	**198**	454
Total Volume	0	58	142	200	125	786	25	936	0	0	48	48	95	464	98	657	1841
% App. Total	0	29	71		13.4	84	2.7		0	0	100		14.5	70.6	14.9		
PHF	.000	.763	.683	.746	.947	.799	.694	.827	.000	.000	.706	.706	.950	.779	.790	.830	.921

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	**19**	38	57	30	**246**	7	**283**	0	0	11	11	**25**	93	**31**	149
+15 mins.	0	15	**52**	**67**	**33**	200	**9**	242	0	0	5	5	25	110	23	158
+30 mins.	0	14	26	40	31	173	4	208	0	0	15	15	25	112	15	152
+45 mins.	0	10	26	36	31	167	5	203	0	0	**17**	**17**	20	**149**	29	**198**
Total Volume	0	58	142	200	125	786	25	936	0	0	48	48	95	464	98	657
% App. Total	0	29	71		13.4	84	2.7		0	0	100		14.5	70.6	14.9	
PHF	.000	.763	.683	.746	.947	.799	.694	.827	.000	.000	.706	.706	.950	.779	.790	.830

Counts Unlimited
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

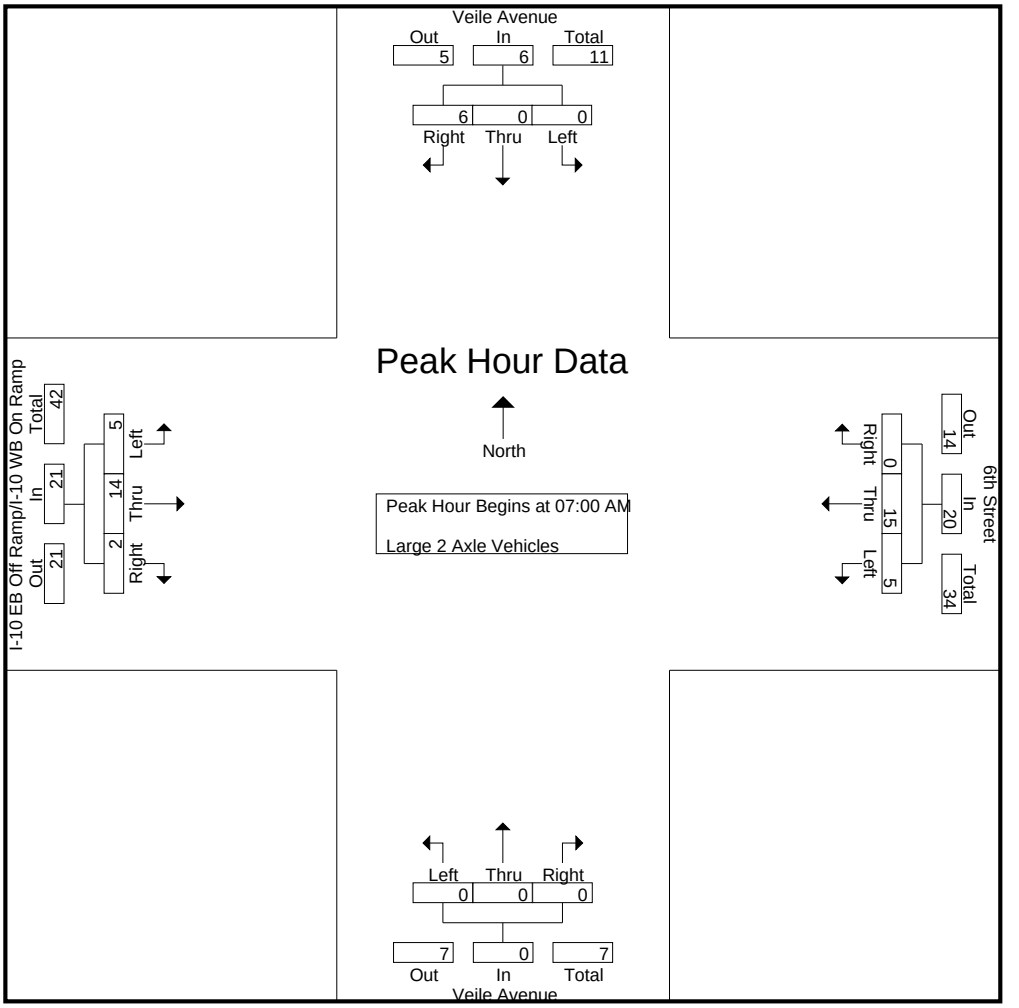
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	4	4	1	4	0	5	0	0	0	0	1	7	1	9	18
07:15 AM	0	0	1	1	0	4	0	4	0	0	0	0	1	0	0	1	6
07:30 AM	0	0	0	0	0	4	0	4	0	0	0	0	3	5	0	8	12
07:45 AM	0	0	1	1	4	3	0	7	0	0	0	0	0	2	1	3	11
Total	0	0	6	6	5	15	0	20	0	0	0	0	5	14	2	21	47
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	1	3	6
08:15 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
08:30 AM	0	1	0	1	1	5	0	6	0	0	1	1	0	3	0	3	11
08:45 AM	0	0	0	0	1	2	0	3	0	0	0	0	2	2	0	4	7
Total	0	1	0	1	3	11	0	14	0	0	1	1	2	8	1	11	27
Grand Total	0	1	6	7	8	26	0	34	0	0	1	1	7	22	3	32	74
Apprch %	0	14.3	85.7		23.5	76.5	0		0	0	100		21.9	68.8	9.4		
Total %	0	1.4	8.1	9.5	10.8	35.1	0	45.9	0	0	1.4	1.4	9.5	29.7	4.1	43.2	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**4**	**4**	1	**4**	0	5	0	0	0	0	1	**7**	**1**	**9**	**18**
07:15 AM	0	0	1	1	0	4	0	4	0	0	0	0	1	0	0	1	6
07:30 AM	0	0	0	0	0	4	0	4	0	0	0	0	**3**	5	0	8	12
07:45 AM	0	0	1	1	**4**	3	0	**7**	0	0	0	0	0	2	1	3	11
Total Volume	0	0	6	6	5	15	0	20	0	0	0	0	5	14	2	21	47
% App. Total	0	0	100		25	75	0		0	0	0		23.8	66.7	9.5		
PHF	.000	.000	.375	.375	.313	.938	.000	.714	.000	.000	.000	.000	.417	.500	.500	.583	.653

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	**4**	**4**	1	**4**	0	5	0	0	0	0	1	**7**	**1**	**9**
+15 mins.	0	0	1	1	0	4	0	4	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	4	0	4	0	0	0	0	**3**	5	0	8
+45 mins.	0	0	1	1	**4**	3	0	**7**	0	0	0	0	0	2	1	3
Total Volume	0	0	6	6	5	15	0	20	0	0	0	0	5	14	2	21
% App. Total	0	0	100		25	75	0		0	0	0		23.8	66.7	9.5	
PHF	.000	.000	.375	.375	.313	.938	.000	.714	.000	.000	.000	.000	.417	.500	.500	.583

Counts Unlimited
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

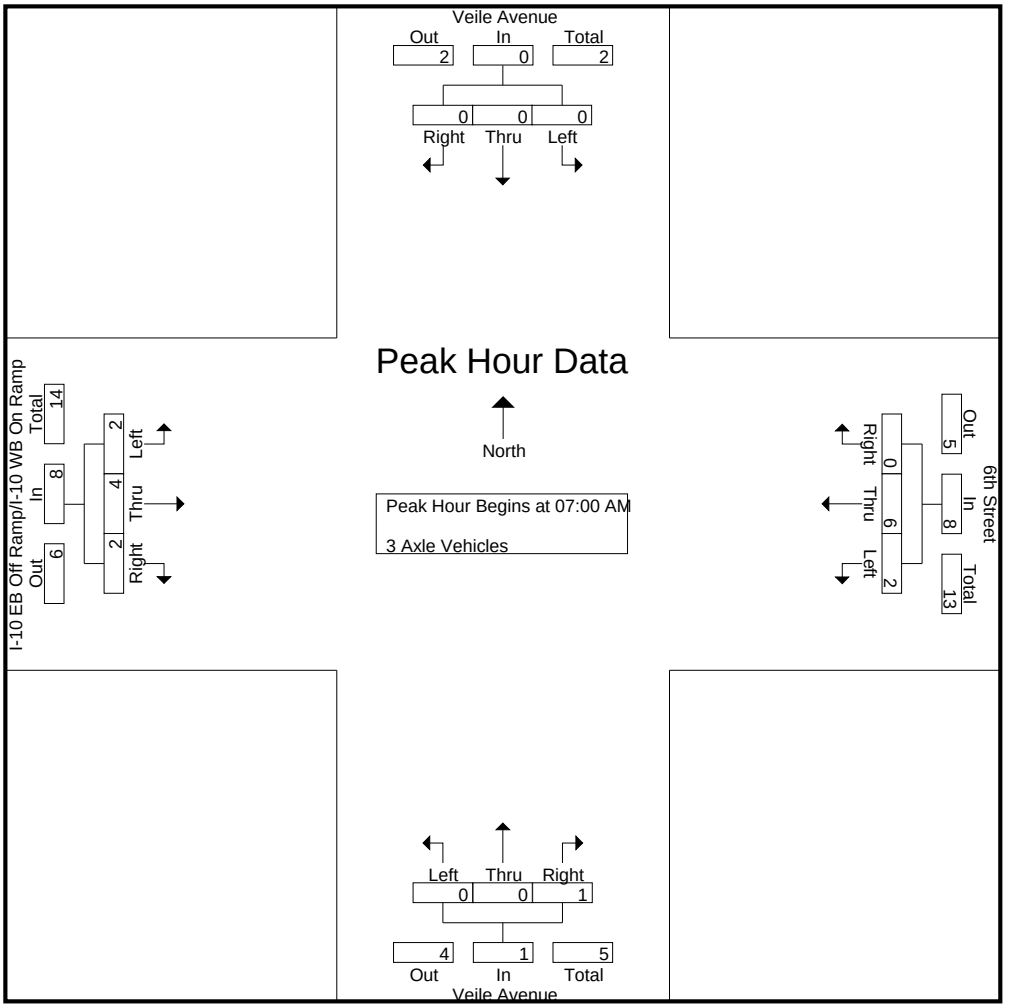
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
07:15 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	2	1	0	3	6
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	4	5
Total	0	0	0	0	2	6	0	8	0	0	1	1	2	4	2	8	17
08:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	2	3	4
08:30 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	3	2	5	9
08:45 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	1	2	3	8
Total	0	0	0	0	2	9	0	11	0	0	0	0	0	6	6	12	23
Grand Total	0	0	0	0	4	15	0	19	0	0	1	1	2	10	8	20	40
Apprch %	0	0	0		21.1	78.9	0		0	0	100		10	50	40		
Total %	0	0	0	0	10	37.5	0	47.5	0	0	2.5	2.5	5	25	20	50	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	**1**	1	0	2	0	0	**1**	**1**	0	0	**1**	1	4
07:15 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	**3**	0	**3**	0	0	0	0	**2**	1	0	3	**6**
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	**3**	1	**4**	5
Total Volume	0	0	0	0	2	6	0	8	0	0	1	1	2	4	2	8	17
% App. Total	0	0	0		25	75	0		0	0	100		25	50	25		
PHF	.000	.000	.000	.000	.500	.500	.000	.667	.000	.000	.250	.250	.250	.333	.500	.500	.708

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	**1**	1	0	2	0	0	**1**	**1**	0	0	**1**	1
+15 mins.	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	**3**	0	**3**	0	0	0	0	**2**	1	0	3
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	**3**	1	**4**
Total Volume	0	0	0	0	2	6	0	8	0	0	1	1	2	4	2	8
% App. Total	0	0	0		25	75	0		0	0	100		25	50	25	
PHF	.000	.000	.000	.000	.500	.500	.000	.667	.000	.000	.250	.250	.250	.333	.500	.500

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

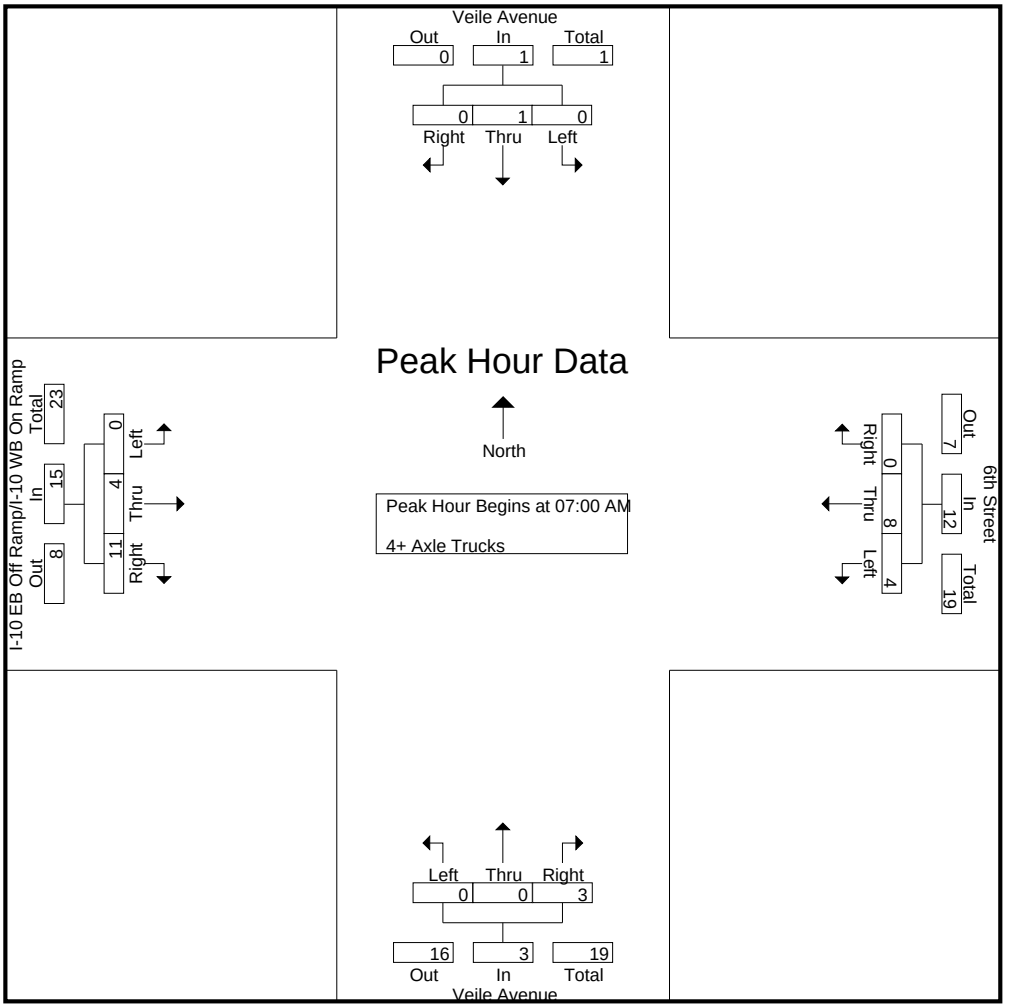
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	3	2	0	5	0	0	1	1	0	0	3	3	9
07:15 AM	0	0	0	0	0	2	0	2	0	0	1	1	0	3	3	6	9
07:30 AM	0	1	0	1	1	1	0	2	0	0	1	1	0	1	3	4	8
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	2	2	5
Total	0	1	0	1	4	8	0	12	0	0	3	3	0	4	11	15	31
08:00 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	1	5	6	10
08:15 AM	0	0	0	0	0	4	0	4	0	0	1	1	0	0	2	2	7
08:30 AM	0	0	0	0	1	3	0	4	0	0	1	1	0	0	2	2	7
08:45 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	0	4	4	8
Total	0	0	0	0	3	13	0	16	0	0	2	2	0	1	13	14	32
Grand Total	0	1	0	1	7	21	0	28	0	0	5	5	0	5	24	29	63
Apprch %	0	100	0		25	75	0		0	0	100		0	17.2	82.8		
Total %	0	1.6	0	1.6	11.1	33.3	0	44.4	0	0	7.9	7.9	0	7.9	38.1	46	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	**3**	2	0	**5**	0	0	**1**	**1**	0	0	**3**	3	**9**
07:15 AM	0	0	0	0	0	2	0	2	0	0	1	1	0	**3**	3	**6**	9
07:30 AM	0	**1**	0	**1**	1	1	0	2	0	0	1	1	0	1	3	4	8
07:45 AM	0	0	0	0	0	**3**	0	3	0	0	0	0	0	0	2	2	5
Total Volume	0	1	0	1	4	8	0	12	0	0	3	3	0	4	11	15	31
% App. Total	0	100	0		33.3	66.7	0		0	0	100		0	26.7	73.3		
PHF	.000	.250	.000	.250	.333	.667	.000	.600	.000	.000	.750	.750	.000	.333	.917	.625	.861

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	**3**	2	0	**5**	0	0	**1**	**1**	0	0	**3**	3
+15 mins.	0	0	0	0	0	2	0	2	0	0	1	1	0	**3**	3	**6**
+30 mins.	0	**1**	0	**1**	1	1	0	2	0	0	1	1	0	1	3	4
+45 mins.	0	0	0	0	0	**3**	0	3	0	0	0	0	0	0	2	2
Total Volume	0	1	0	1	4	8	0	12	0	0	3	3	0	4	11	15
% App. Total	0	100	0		33.3	66.7	0		0	0	100		0	26.7	73.3	
PHF	.000	.250	.000	.250	.333	.667	.000	.600	.000	.000	.750	.750	.000	.333	.917	.625

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

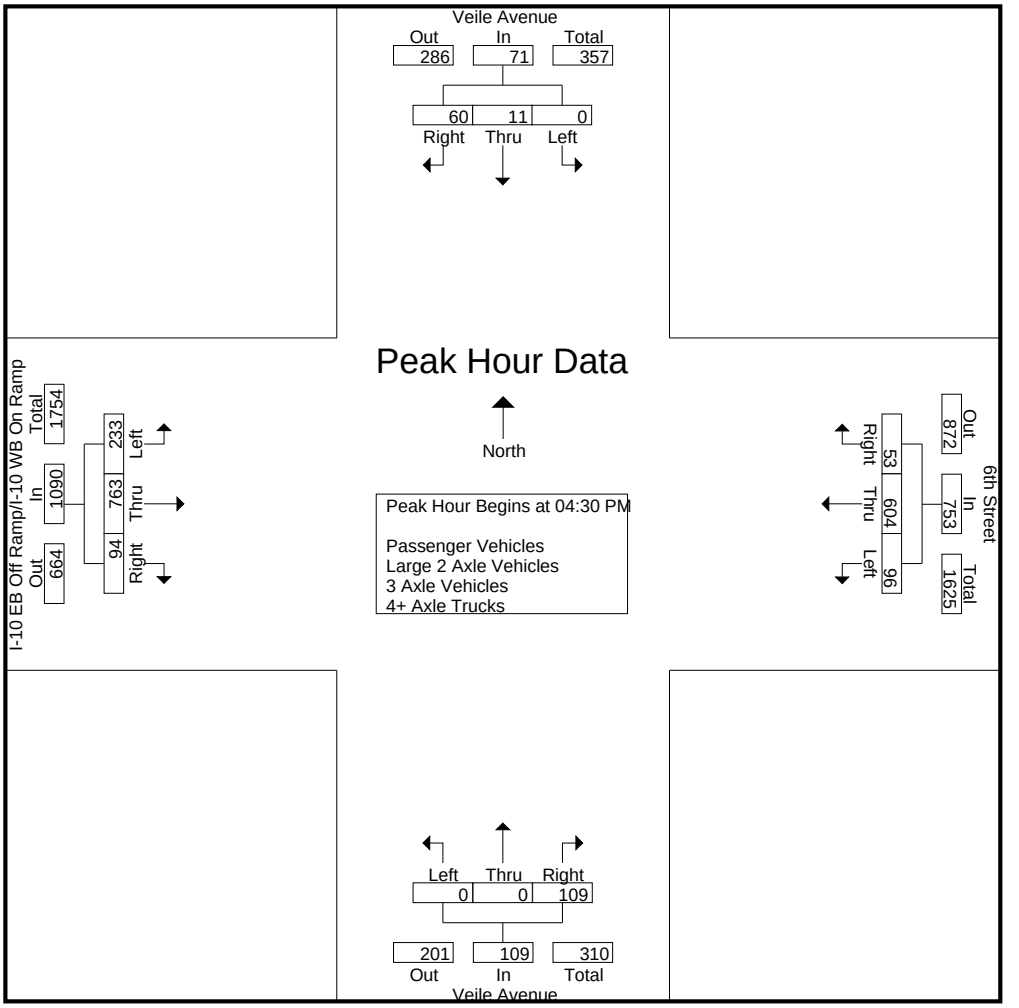
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	4	15	19	18	134	13	165	0	0	21	21	29	173	33	235	440
04:15 PM	0	7	15	22	15	148	9	172	0	0	40	40	57	194	25	276	510
04:30 PM	0	3	19	22	14	152	16	182	0	0	40	40	37	194	24	255	499
04:45 PM	0	2	14	16	25	131	17	173	0	0	14	14	64	190	24	278	481
Total	0	16	63	79	72	565	55	692	0	0	115	115	187	751	106	1044	1930
05:00 PM	0	3	14	17	24	132	8	164	0	0	28	28	70	192	25	287	496
05:15 PM	0	3	13	16	33	189	12	234	0	0	27	27	62	187	21	270	547
05:30 PM	0	1	15	16	18	142	17	177	0	0	20	20	63	202	21	286	499
05:45 PM	0	3	18	21	8	112	21	141	0	0	25	25	54	205	15	274	461
Total	0	10	60	70	83	575	58	716	0	0	100	100	249	786	82	1117	2003
Grand Total	0	26	123	149	155	1140	113	1408	0	0	215	215	436	1537	188	2161	3933
Apprch %	0	17.4	82.6		11	81	8		0	0	100		20.2	71.1	8.7		
Total %	0	0.7	3.1	3.8	3.9	29	2.9	35.8	0	0	5.5	5.5	11.1	39.1	4.8	54.9	
Passenger Vehicles	0	25	121	146	143	1106	113	1362	0	0	205	205	431	1522	159	2112	3825
% Passenger Vehicles	0	96.2	98.4	98	92.3	97	100	96.7	0	0	95.3	95.3	98.9	99	84.6	97.7	97.3
Large 2 Axle Vehicles	0	1	1	2	6	21	0	27	0	0	5	5	4	11	7	22	56
% Large 2 Axle Vehicles	0	3.8	0.8	1.3	3.9	1.8	0	1.9	0	0	2.3	2.3	0.9	0.7	3.7	1	1.4
3 Axle Vehicles	0	0	0	0	1	3	0	4	0	0	2	2	0	1	2	3	9
% 3 Axle Vehicles	0	0	0	0	0.6	0.3	0	0.3	0	0	0.9	0.9	0	0.1	1.1	0.1	0.2
4+ Axle Trucks	0	0	1	1	5	10	0	15	0	0	3	3	1	3	20	24	43
% 4+ Axle Trucks	0	0	0.8	0.7	3.2	0.9	0	1.1	0	0	1.4	1.4	0.2	0.2	10.6	1.1	1.1

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**3**	**19**	**22**	14	152	16	182	0	0	**40**	**40**	37	**194**	24	255	499
04:45 PM	0	2	14	16	25	131	**17**	173	0	0	14	14	64	190	24	278	481
05:00 PM	0	3	14	17	24	132	8	164	0	0	28	28	**70**	192	**25**	**287**	496
05:15 PM	0	3	13	16	**33**	**189**	12	**234**	0	0	27	27	62	187	21	270	**547**
Total Volume	0	11	60	71	96	604	53	753	0	0	109	109	233	763	94	1090	2023
% App. Total	0	15.5	84.5		12.7	80.2	7		0	0	100		21.4	70	8.6		
PHF	.000	.917	.789	.807	.727	.799	.779	.804	.000	.000	.681	.681	.832	.983	.940	.949	.925

Counts Unlimited
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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:15 PM				04:45 PM			
+0 mins.	0	4	15	19	14	152	16	182	0	0	**40**	**40**	64	190	24	278
+15 mins.	0	**7**	15	**22**	25	131	**17**	173	0	0	40	40	**70**	192	**25**	**287**
+30 mins.	0	3	**19**	22	24	132	8	164	0	0	14	14	62	187	21	270
+45 mins.	0	2	14	16	**33**	**189**	12	**234**	0	0	28	28	63	**202**	21	286
Total Volume	0	16	63	79	96	604	53	753	0	0	122	122	259	771	91	1121
% App. Total	0	20.3	79.7		12.7	80.2	7		0	0	100		23.1	68.8	8.1	
PHF	.000	.571	.829	.898	.727	.799	.779	.804	.000	.000	.763	.763	.925	.954	.910	.976

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020

Groups Printed- Passenger Vehicles

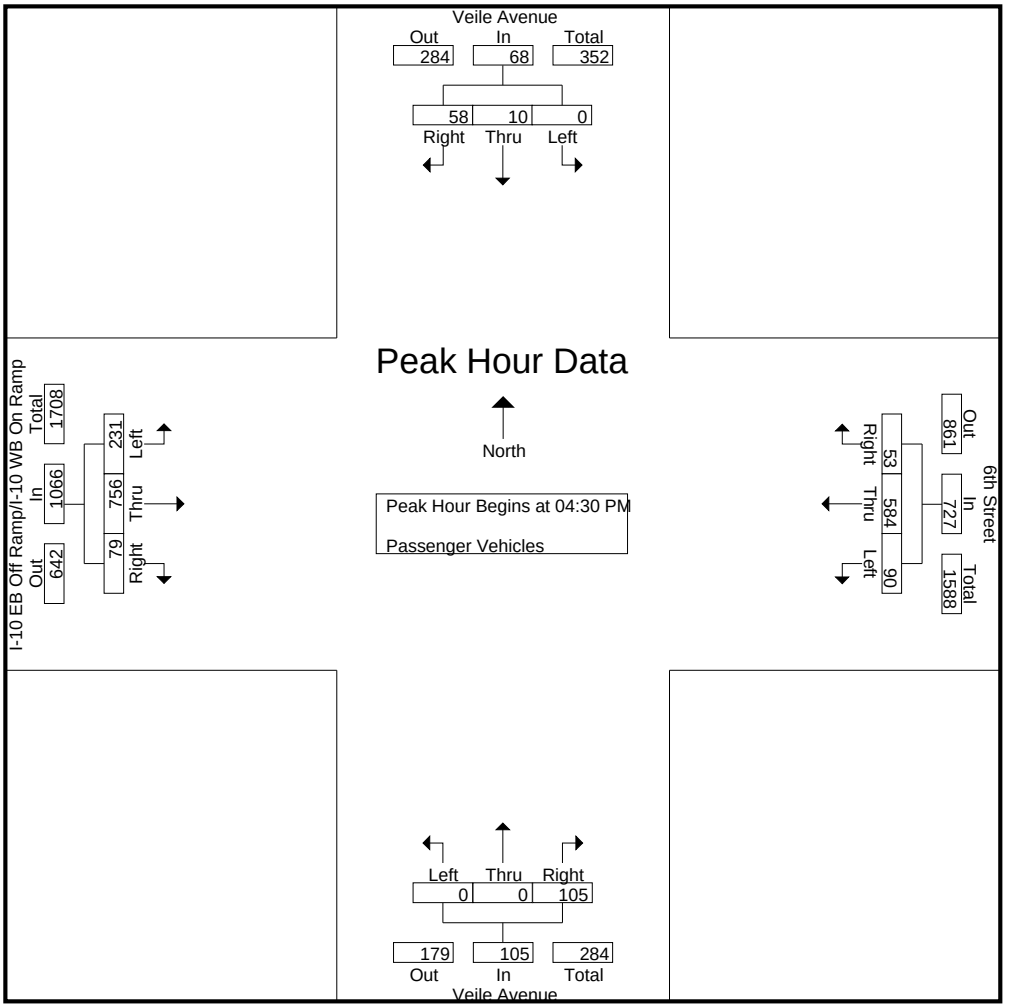
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	4	15	19	17	129	13	159	0	0	18	18	29	169	30	228	424
04:15 PM	0	7	15	22	15	145	9	169	0	0	39	39	55	191	20	266	496
04:30 PM	0	3	18	21	13	149	16	178	0	0	40	40	37	191	21	249	488
04:45 PM	0	2	14	16	24	122	17	163	0	0	13	13	64	188	18	270	462
Total	0	16	62	78	69	545	55	669	0	0	110	110	185	739	89	1013	1870
05:00 PM	0	2	13	15	21	128	8	157	0	0	27	27	69	190	20	279	478
05:15 PM	0	3	13	16	32	185	12	229	0	0	25	25	61	187	20	268	538
05:30 PM	0	1	15	16	14	139	17	170	0	0	19	19	62	201	18	281	486
05:45 PM	0	3	18	21	7	109	21	137	0	0	24	24	54	205	12	271	453
Total	0	9	59	68	74	561	58	693	0	0	95	95	246	783	70	1099	1955
Grand Total	0	25	121	146	143	1106	113	1362	0	0	205	205	431	1522	159	2112	3825
Apprch %	0	17.1	82.9		10.5	81.2	8.3		0	0	100		20.4	72.1	7.5		
Total %	0	0.7	3.2	3.8	3.7	28.9	3	35.6	0	0	5.4	5.4	11.3	39.8	4.2	55.2	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**3**	**18**	**21**	13	149	16	178	0	0	**40**	**40**	37	**191**	**21**	249	488
04:45 PM	0	2	14	16	24	122	**17**	163	0	0	13	13	64	188	18	270	462
05:00 PM	0	2	13	15	21	128	8	157	0	0	27	27	**69**	190	20	**279**	478
05:15 PM	0	3	13	16	**32**	**185**	12	**229**	0	0	25	25	61	187	20	268	**538**
Total Volume	0	10	58	68	90	584	53	727	0	0	105	105	231	756	79	1066	1966
% App. Total	0	14.7	85.3		12.4	80.3	7.3		0	0	100		21.7	70.9	7.4		
PHF	.000	.833	.806	.810	.703	.789	.779	.794	.000	.000	.656	.656	.837	.990	.940	.955	.914

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	**3**	**18**	**21**	13	149	16	178	0	0	**40**	**40**	37	**191**	**21**	249
+15 mins.	0	2	14	16	24	122	**17**	163	0	0	13	13	64	188	18	270
+30 mins.	0	2	13	15	21	128	8	157	0	0	27	27	**69**	190	20	**279**
+45 mins.	0	3	13	16	**32**	**185**	12	**229**	0	0	25	25	61	187	20	268
Total Volume	0	10	58	68	90	584	53	727	0	0	105	105	231	756	79	1066
% App. Total	0	14.7	85.3		12.4	80.3	7.3		0	0	100		21.7	70.9	7.4	
PHF	.000	.833	.806	.810	.703	.789	.779	.794	.000	.000	.656	.656	.837	.990	.940	.955

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020

Groups Printed- Large 2 Axle Vehicles

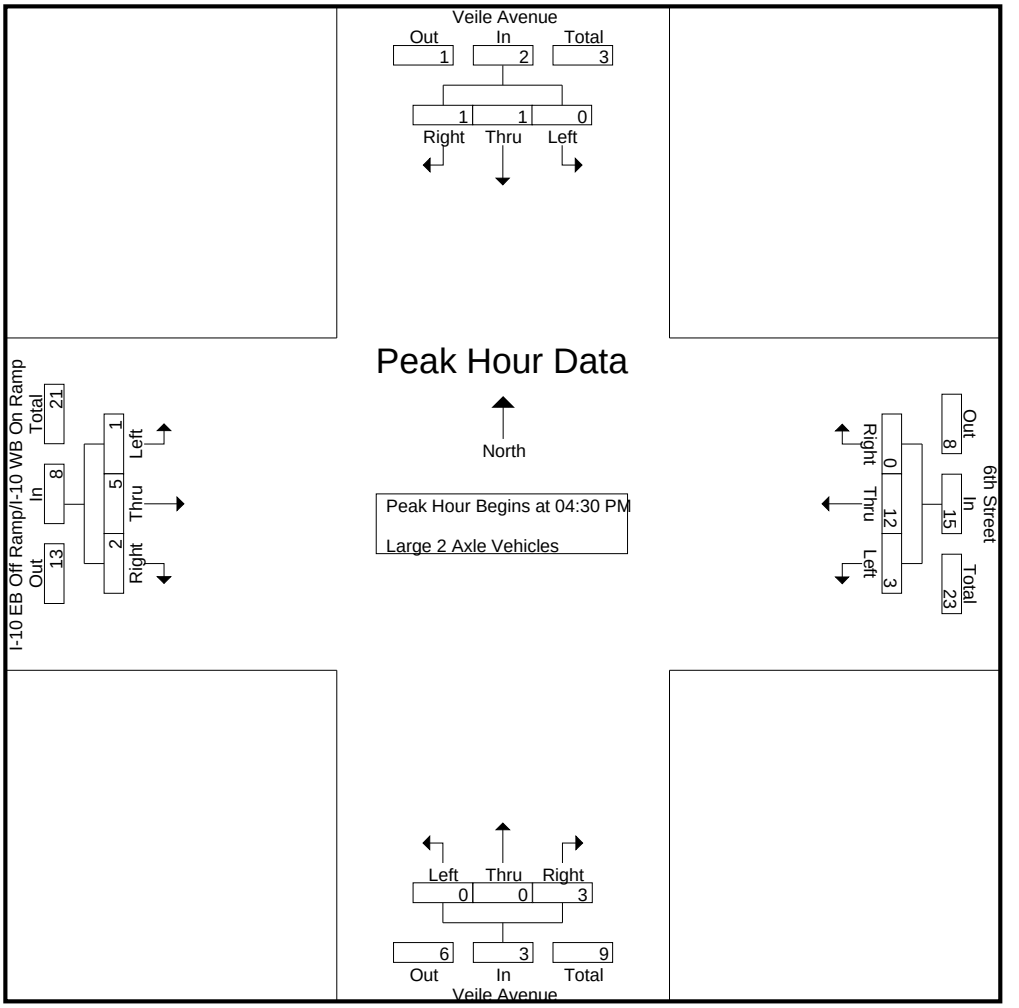
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	4	0	4	0	0	1	1	0	3	3	6	11
04:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	2	2	2	6	8
04:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	1	4	6
04:45 PM	0	0	0	0	0	6	0	6	0	0	1	1	0	1	1	2	9
Total	0	0	0	0	0	14	0	14	0	0	2	2	2	9	7	18	34
05:00 PM	0	1	1	2	3	3	0	6	0	0	1	1	0	1	0	1	10
05:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	1	0	0	1	3
05:30 PM	0	0	0	0	2	2	0	4	0	0	0	0	1	1	0	2	6
05:45 PM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	0	0	3
Total	0	1	1	2	6	7	0	13	0	0	3	3	2	2	0	4	22
Grand Total	0	1	1	2	6	21	0	27	0	0	5	5	4	11	7	22	56
Apprch %	0	50	50		22.2	77.8	0		0	0	100		18.2	50	31.8		
Total %	0	1.8	1.8	3.6	10.7	37.5	0	48.2	0	0	8.9	8.9	7.1	19.6	12.5	39.3	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	**3**	**1**	**4**	6
04:45 PM	0	0	0	0	0	**6**	0	**6**	0	0	**1**	**1**	0	1	1	2	9
05:00 PM	0	**1**	**1**	**2**	**3**	3	0	6	0	0	1	1	0	1	0	1	**10**
05:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	**1**	0	0	1	3
Total Volume	0	1	1	2	3	12	0	15	0	0	3	3	1	5	2	8	28
% App. Total	0	50	50		20	80	0		0	0	100		12.5	62.5	25		
PHF	.000	.250	.250	.250	.250	.500	.000	.625	.000	.000	.750	.750	.250	.417	.500	.500	.700

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	**3**	**1**	**4**
+15 mins.	0	0	0	0	0	**6**	0	**6**	0	0	**1**	**1**	0	1	1	2
+30 mins.	0	**1**	**1**	**2**	**3**	3	0	6	0	0	1	1	0	1	0	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	1	1	**1**	0	0	1
Total Volume	0	1	1	2	3	12	0	15	0	0	3	3	1	5	2	8
% App. Total	0	50	50		20	80	0		0	0	100		12.5	62.5	25	
PHF	.000	.250	.250	.250	.250	.500	.000	.625	.000	.000	.750	.750	.250	.417	.500	.500

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020

Groups Printed- 3 Axle Vehicles

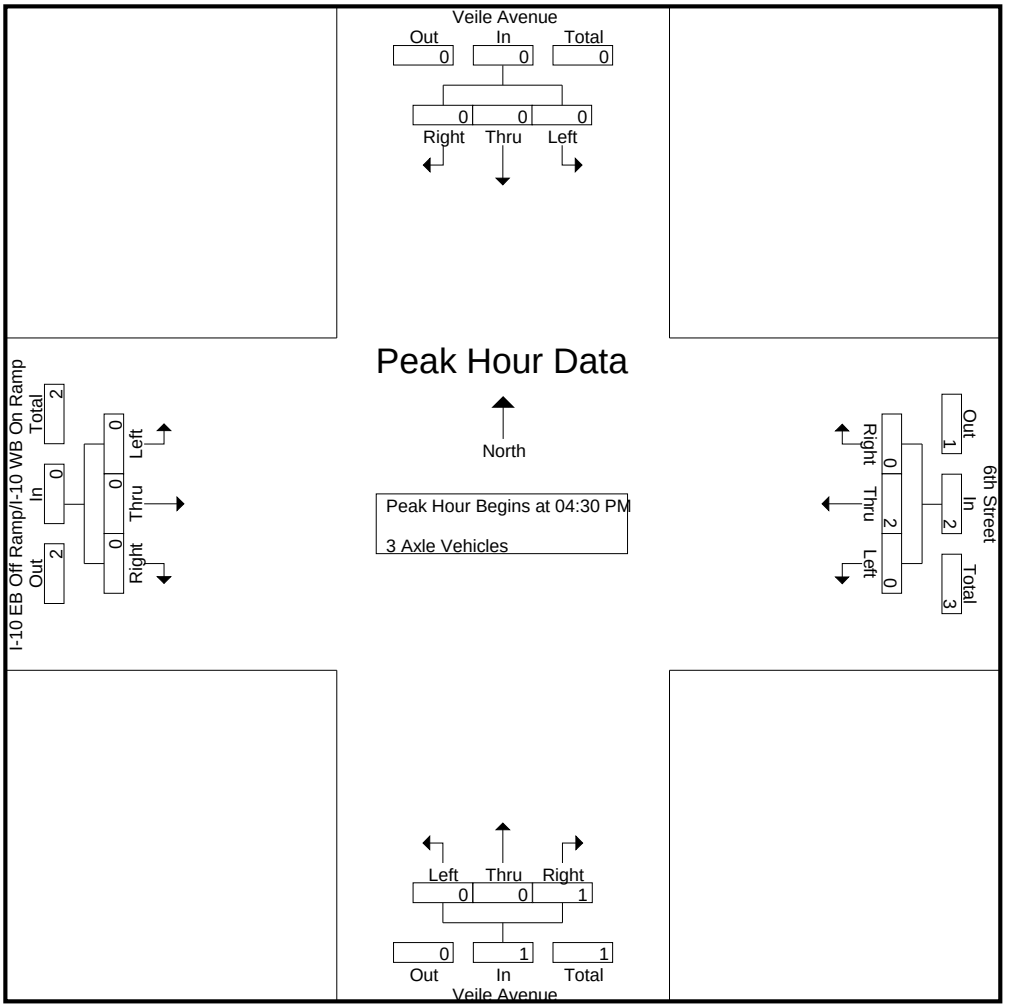
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	2	0	2	0	0	1	1	0	1	1	2	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
Grand Total	0	0	0	0	1	3	0	4	0	0	2	2	0	1	2	3	9
Apprch %	0	0	0		25	75	0		0	0	100		0	33.3	66.7		
Total %	0	0	0	0	11.1	33.3	0	44.4	0	0	22.2	22.2	0	11.1	22.2	33.3	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	1	0	0	**1**	**1**	0	0	0	0	**2**
Total Volume	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0	3
% App. Total	0	0	0		0	100	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000	.375

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	**1**	**1**	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0
% App. Total	0	0	0		0	100	0		0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

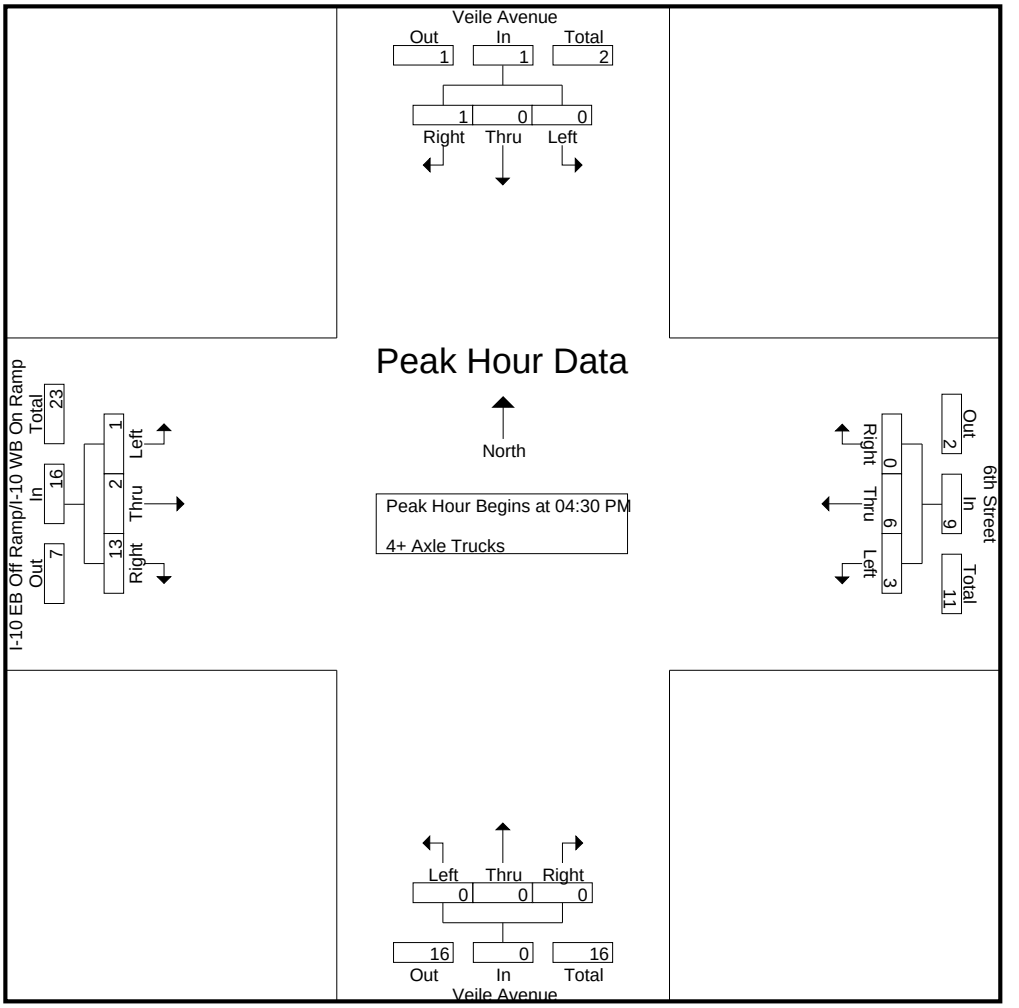
	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	2	3	5
04:30 PM	0	0	1	1	1	1	0	2	0	0	0	0	0	0	2	2	5
04:45 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	5	6	9
Total	0	0	1	1	3	4	0	7	0	0	2	2	0	2	9	11	21
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	5	7	8
05:15 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	0	1	1	4
05:30 PM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	3	3	6
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	2	4
Total	0	0	0	0	2	6	0	8	0	0	1	1	1	1	11	13	22
Grand Total	0	0	1	1	5	10	0	15	0	0	3	3	1	3	20	24	43
Apprch %	0	0	100		33.3	66.7	0		0	0	100		4.2	12.5	83.3		
Total %	0	0	2.3	2.3	11.6	23.3	0	34.9	0	0	7	7	2.3	7	46.5	55.8	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	**1**	**1**	**1**	1	0	2	0	0	0	0	0	0	2	2	5
04:45 PM	0	0	0	0	1	**2**	0	**3**	0	0	0	0	0	**1**	**5**	6	**9**
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	**1**	1	5	**7**	8
05:15 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	0	1	1	4
Total Volume	0	0	1	1	3	6	0	9	0	0	0	0	1	2	13	16	26
% App. Total	0	0	100		33.3	66.7	0		0	0	0		6.2	12.5	81.2		
PHF	.000	.000	.250	.250	.750	.750	.000	.750	.000	.000	.000	.000	.250	.500	.650	.571	.722

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City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	**1**	**1**	**1**	1	0	2	0	0	0	0	0	0	2	2
+15 mins.	0	0	0	0	1	**2**	0	**3**	0	0	0	0	0	**1**	**5**	6
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	**1**	1	5	**7**
+45 mins.	0	0	0	0	1	2	0	3	0	0	0	0	0	0	1	1
Total Volume	0	0	1	1	3	6	0	9	0	0	0	0	1	2	13	16
% App. Total	0	0	100		33.3	66.7	0		0	0	0		6.2	12.5	81.2	
PHF	.000	.000	.250	.250	.750	.750	.000	.750	.000	.000	.000	.000	.250	.500	.650	.571

Location: Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St

Date: 1/14/2020
Day: Tuesday

PEDESTRIANS

	North Leg Veile Avenue	East Leg 6th Street	South Leg Veile Avenue	West Leg I-10 EB Off/WB On Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Veile Avenue	East Leg 6th Street	South Leg Veile Avenue	West Leg I-10 EB Off/WB On Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

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Location: Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St

Date: 1/14/2020
Day: Tuesday

BICYCLES

	Southbound Veile Avenue			Westbound 6th Street			Northbound Veile Avenue			Eastbound I-10 EB Off/WB On Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Veile Avenue			Westbound 6th Street			Northbound Veile Avenue			Eastbound I-10 EB Off/WB On Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	0	0	0	0	1	0	0	0	2

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

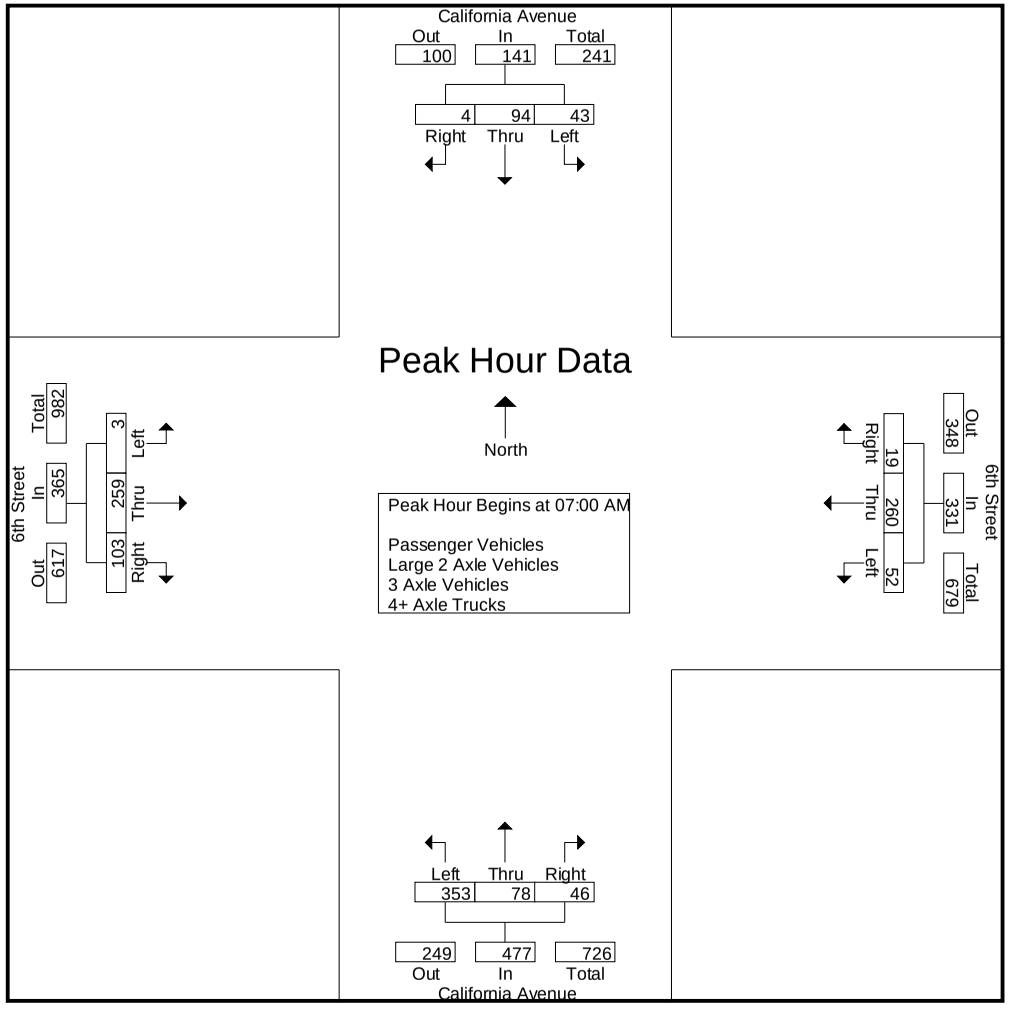
	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	8	19	0	0	27	10	64	2	1	76	108	33	14	4	155	0	43	30	0	73	5	331	336
07:15 AM	6	28	0	0	34	23	78	7	3	108	91	13	11	5	115	0	67	21	0	88	8	345	353
07:30 AM	21	24	3	2	48	5	41	5	1	51	73	15	6	3	94	3	56	27	1	86	7	279	286
07:45 AM	8	23	1	0	32	14	77	5	3	96	81	17	15	8	113	0	93	25	0	118	11	359	370
Total	43	94	4	2	141	52	260	19	8	331	353	78	46	20	477	3	259	103	1	365	31	1314	1345
08:00 AM	4	7	2	1	13	13	73	2	0	88	76	7	6	2	89	1	62	20	0	83	3	273	276
08:15 AM	9	5	0	0	14	12	63	0	0	75	73	2	8	4	83	2	63	15	0	80	4	252	256
08:30 AM	3	8	0	0	11	11	65	6	3	82	81	4	11	4	96	2	53	26	0	81	7	270	277
08:45 AM	3	9	1	1	13	10	57	2	0	69	84	7	14	4	105	1	60	16	1	77	6	264	270
Total	19	29	3	2	51	46	258	10	3	314	314	20	39	14	373	6	238	77	1	321	20	1059	1079
Grand Total	62	123	7	4	192	98	518	29	11	645	667	98	85	34	850	9	497	180	2	686	51	2373	2424
Apprch %	32.3	64.1	3.6			15.2	80.3	4.5			78.5	11.5	10			1.3	72.4	26.2					
Total %	2.6	5.2	0.3		8.1	4.1	21.8	1.2		27.2	28.1	4.1	3.6		35.8	0.4	20.9	7.6		28.9	2.1	97.9	
Passenger Vehicles	62	119	6		191	91	504	28		634	613	97	76		817	7	483	160		652	0	0	2294
% Passenger Vehicles	100	96.7	85.7	100	97.4	92.9	97.3	96.6	100	96.6	91.9	99	89.4	91.2	92.4	77.8	97.2	88.9	100	94.8	0	0	94.6
Large 2 Axle Vehicles	0	4	1		5	0	7	1		8	15	1	2		20	2	6	8		16	0	0	49
% Large 2 Axle Vehicles	0	3.3	14.3	0	2.6	0	1.4	3.4	0	1.2	2.2	1	2.4	5.9	2.3	22.2	1.2	4.4	0	2.3	0	0	2
3 Axle Vehicles	0	0	0		0	6	0	0		6	18	0	2		20	0	3	8		11	0	0	37
% 3 Axle Vehicles	0	0	0	0	0	6.1	0	0	0	0.9	2.7	0	2.4	0	2.3	0	0.6	4.4	0	1.6	0	0	1.5
4+ Axle Trucks	0	0	0		0	1	7	0		8	21	0	5		27	0	5	4		9	0	0	44
% 4+ Axle Trucks	0	0	0	0	0	1	1.4	0	0	1.2	3.1	0	5.9	2.9	3.1	0	1	2.2	0	1.3	0	0	1.8

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	19	0	27	10	64	2	76	**108**	**33**	14	**155**	0	43	**30**	73	331
07:15 AM	6	**28**	0	34	**23**	**78**	**7**	**108**	91	13	11	115	0	67	21	88	345
07:30 AM	**21**	24	**3**	**48**	5	41	5	51	73	15	6	94	**3**	56	27	86	279
07:45 AM	8	23	1	32	14	77	5	96	81	17	**15**	113	0	**93**	25	**118**	**359**
Total Volume	43	94	4	141	52	260	19	331	353	78	46	477	3	259	103	365	1314
% App. Total	30.5	66.7	2.8		15.7	78.5	5.7		74	16.4	9.6		0.8	71	28.2		
PHF	.512	.839	.333	.734	.565	.833	.679	.766	.817	.591	.767	.769	.250	.696	.858	.773	.915

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:15 AM				07:00 AM				07:15 AM				
+0 mins.	8	19	0	27	**23**	**78**	**7**	**108**	**108**	**33**	14	**155**	0	67	21	88	
+15 mins.	6	**28**	0	34	5	41	5	51	91	13	11	115	**3**	56	**27**	86	
+30 mins.	**21**	24	**3**	**48**	14	77	5	96	73	15	6	94	0	**93**	25	**118**	
+45 mins.	8	23	1	32	13	73	2	88	81	17	**15**	113	1	62	20	83	
Total Volume	43	94	4	141	55	269	19	343	353	78	46	477	4	278	93	375	
% App. Total	30.5	66.7	2.8		16	78.4	5.5		74	16.4	9.6		1.1	74.1	24.8		
PHF	.512	.839	.333	.734	.598	.862	.679	.794	.817	.591	.767	.769	.333	.747	.861	.794	

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles

	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	8	18	0	0	26	10	61	2	1	73	100	33	14	4	147	0	39	26	0	65	5	311	316
07:15 AM	6	26	0	0	32	23	77	7	3	107	85	12	9	4	106	0	65	20	0	85	7	330	337
07:30 AM	21	24	3	2	48	5	39	5	1	49	68	15	6	3	89	2	52	25	1	79	7	265	272
07:45 AM	8	22	1	0	31	12	75	5	3	92	74	17	15	8	106	0	93	22	0	115	11	344	355
Total	43	90	4	2	137	50	252	19	8	321	327	77	44	19	448	2	249	93	1	344	30	1250	1280
08:00 AM	4	7	1	1	12	10	70	2	0	82	68	7	6	2	81	0	61	15	0	76	3	251	254
08:15 AM	9	5	0	0	14	12	62	0	0	74	70	2	8	4	80	2	62	15	0	79	4	247	251
08:30 AM	3	8	0	0	11	9	63	5	3	77	72	4	7	2	83	2	52	22	0	76	5	247	252
08:45 AM	3	9	1	1	13	10	57	2	0	69	76	7	11	4	94	1	59	15	1	75	6	251	257
Total	19	29	2	2	50	41	252	9	3	302	286	20	32	12	338	5	234	67	1	306	18	996	1014
Grand Total	62	119	6	4	187	91	504	28	11	623	613	97	76	31	786	7	483	160	2	650	48	2246	2294
Apprch %	33.2	63.6	3.2			14.6	80.9	4.5			78	12.3	9.7			1.1	74.3	24.6					
Total %	2.8	5.3	0.3		8.3	4.1	22.4	1.2		27.7	27.3	4.3	3.4		35	0.3	21.5	7.1		28.9	2.1	97.9	

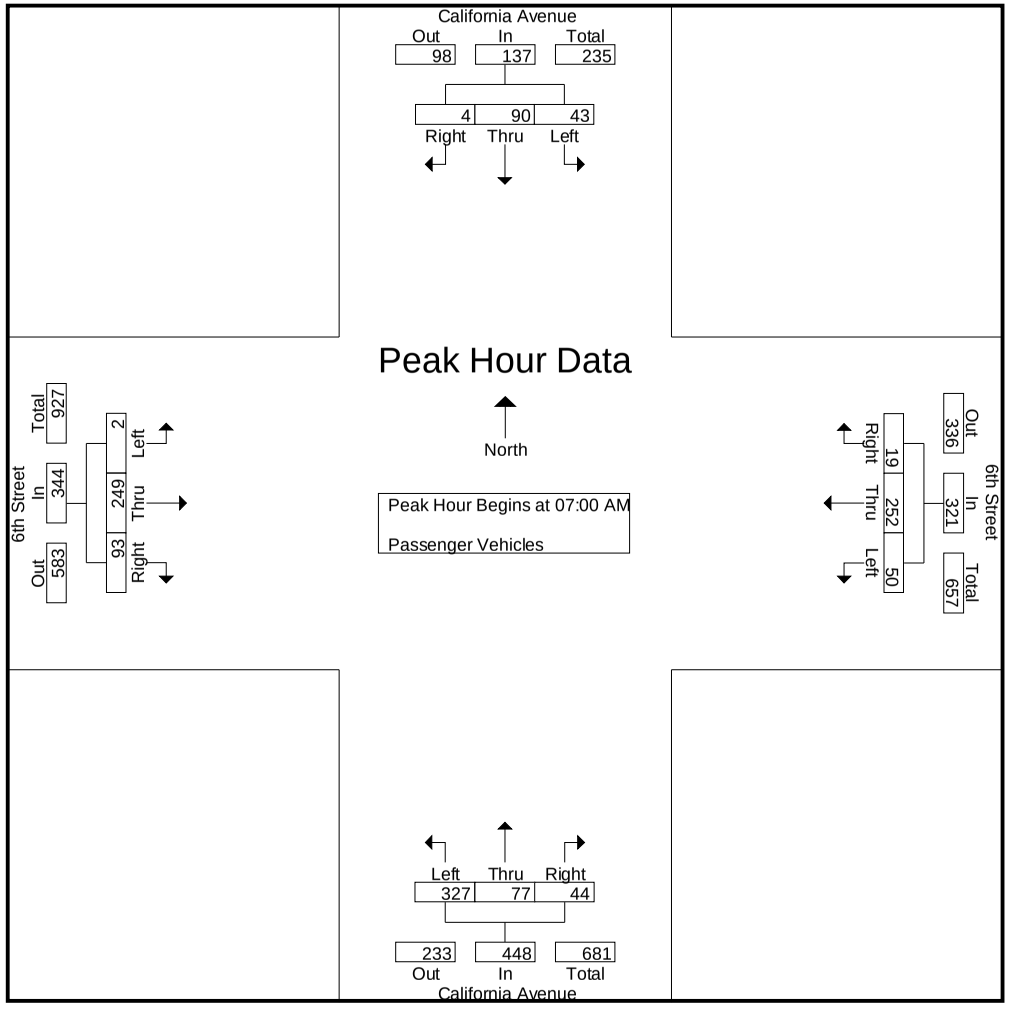
3.1-48

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	18	0	26	10	61	2	73	**100**	**33**	14	**147**	0	39	**26**	65	311
07:15 AM	6	**26**	0	32	**23**	**77**	**7**	**107**	85	12	9	106	0	65	20	85	330
07:30 AM	**21**	24	**3**	**48**	5	39	5	49	68	15	6	89	**2**	52	25	79	265
07:45 AM	8	22	1	31	12	75	5	92	74	17	**15**	106	0	**93**	22	**115**	**344**
Total Volume	43	90	4	137	50	252	19	321	327	77	44	448	2	249	93	344	1250
% App. Total	31.4	65.7	2.9		15.6	78.5	5.9		73	17.2	9.8		0.6	72.4	27		
PHF	.512	.865	.333	.714	.543	.818	.679	.750	.818	.583	.733	.762	.250	.669	.894	.748	.908

Counts Unlimited
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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



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(951) 268-6268

City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	8	18	0	26	10	61	2	73	**100**	**33**	14	**147**	0	39	**26**	65	
+15 mins.	6	**26**	0	32	**23**	**77**	**7**	**107**	85	12	9	106	0	65	20	85	
+30 mins.	**21**	24	**3**	**48**	5	39	5	49	68	15	6	89	**2**	52	25	79	
+45 mins.	8	22	1	31	12	75	5	92	74	17	**15**	106	0	**93**	22	**115**	
Total Volume	43	90	4	137	50	252	19	321	327	77	44	448	2	249	93	344	
% App. Total	31.4	65.7	2.9		15.6	78.5	5.9		73	17.2	9.8		0.6	72.4	27		
PHF	.512	.865	.333	.714	.543	.818	.679	.750	.818	.583	.733	.762	.250	.669	.894	.748	

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

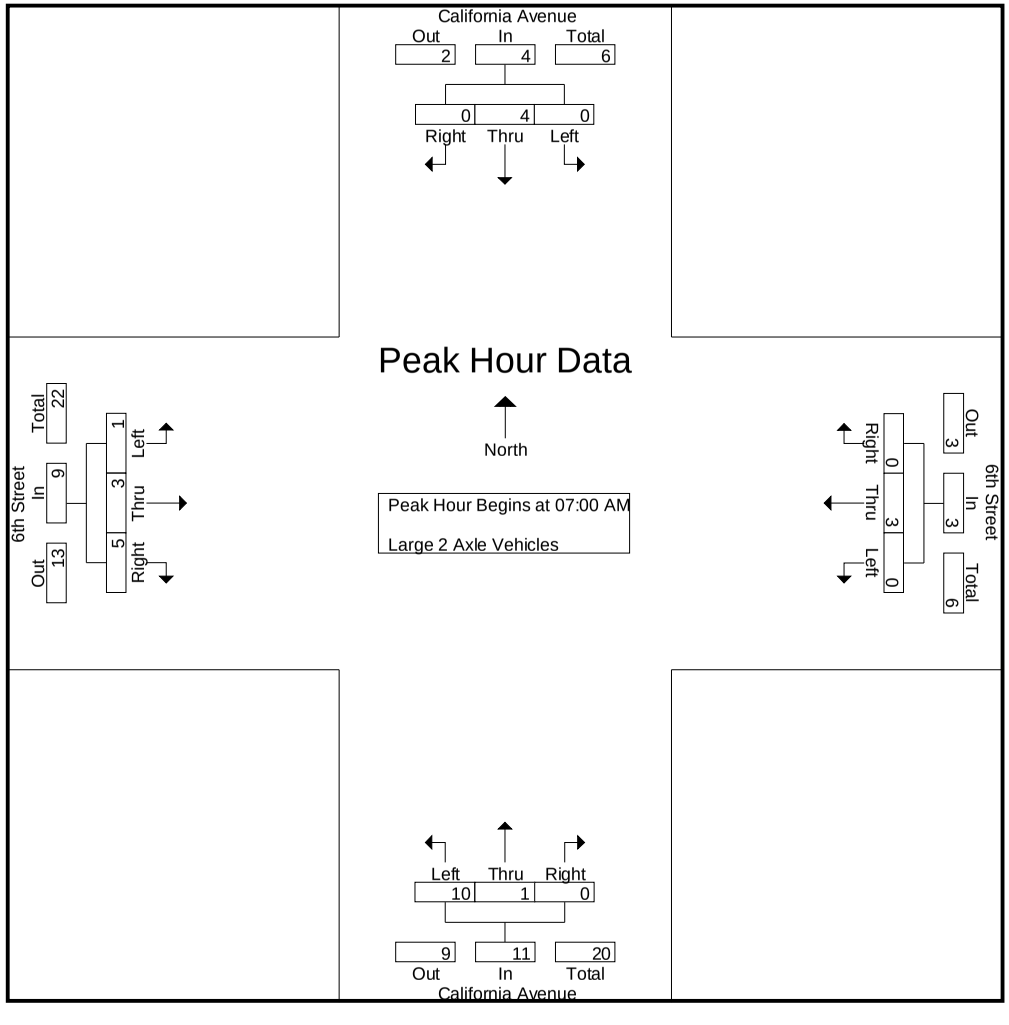
	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	0	1	0	2	0	0	2	2	0	0	0	2	0	1	4	0	5	0	10	10
07:15 AM	0	2	0	0	2	0	0	0	0	0	3	1	0	0	4	0	1	0	0	1	0	7	7
07:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	1	0	3	0	5	5
07:45 AM	0	1	0	0	1	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	5	5
Total	0	4	0	0	4	0	3	0	0	3	10	1	0	0	11	1	3	5	0	9	0	27	27
08:00 AM	0	0	1	0	1	0	2	0	0	2	3	0	0	0	3	1	1	2	0	4	0	10	10
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
08:30 AM	0	0	0	0	0	0	2	1	0	3	2	0	2	2	4	0	0	1	0	1	2	8	10
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	0	1	0	1	0	4	1	0	5	5	0	2	2	7	1	3	3	0	7	2	20	22
Grand Total	0	4	1	0	5	0	7	1	0	8	15	1	2	2	18	2	6	8	0	16	2	47	49
Apprch %	0	80	20			0	87.5	12.5			83.3	5.6	11.1			12.5	37.5	50					
Total %	0	8.5	2.1		10.6	0	14.9	2.1		17	31.9	2.1	4.3		38.3	4.3	12.8	17		34	4.1	95.9	

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	0	1	0	**2**	0	**2**	2	0	0	2	0	**1**	**4**	**5**	**10**
07:15 AM	0	**2**	0	**2**	0	0	0	0	3	**1**	0	**4**	0	1	0	1	7
07:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	**1**	1	1	3	5
07:45 AM	0	1	0	1	0	0	0	0	**4**	0	0	4	0	0	0	0	5
Total Volume	0	4	0	4	0	3	0	3	10	1	0	11	1	3	5	9	27
% App. Total	0	100	0		0	100	0		90.9	9.1	0		11.1	33.3	55.6		
PHF	.000	.500	.000	.500	.000	.375	.000	.375	.625	.250	.000	.688	.250	.750	.313	.450	.675

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 3

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	1	0	1	0	**2**	0	**2**	2	0	0	2	0	**1**	**4**	**5**	
+15 mins.	0	**2**	0	**2**	0	0	0	0	3	**1**	0	**4**	0	1	0	1	
+30 mins.	0	0	0	0	0	1	0	1	1	0	0	1	**1**	1	1	3	
+45 mins.	0	1	0	1	0	0	0	0	**4**	0	0	4	0	0	0	0	
Total Volume	0	4	0	4	0	3	0	3	10	1	0	11	1	3	5	9	
% App. Total	0	100	0		0	100	0		90.9	9.1	0		11.1	33.3	55.6		
PHF	.000	.500	.000	.500	.000	.375	.000	.375	.625	.250	.000	.688	.250	.750	.313	.450	

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

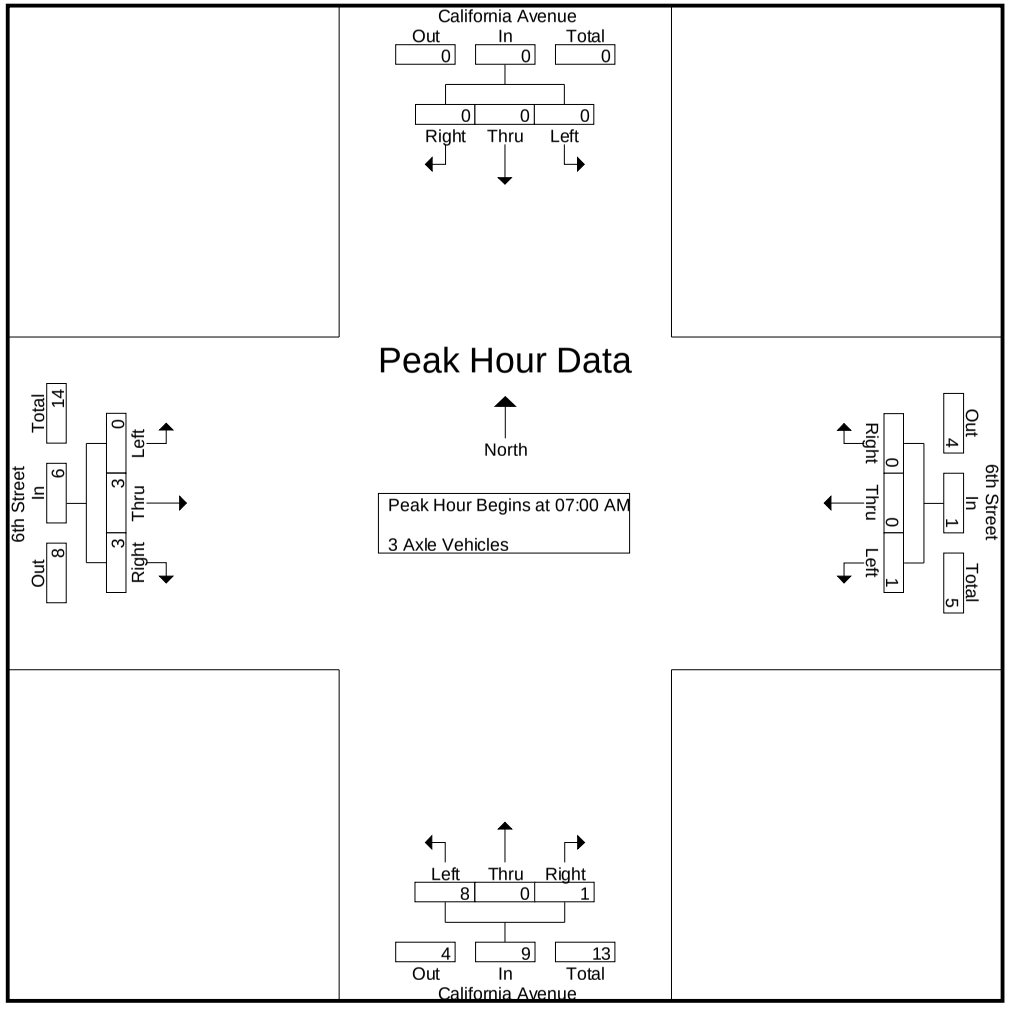
	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	0	0	2	0	4	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	1	0	3	0	0	0	0	0	0	3	3
07:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	1	0	0	1	0	4	4
07:45 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	3	0	3	0	5	5
Total	0	0	0	0	0	1	0	0	0	1	8	0	1	0	9	0	3	3	0	6	0	16	16
08:00 AM	0	0	0	0	0	3	0	0	0	3	1	0	0	0	1	0	0	1	0	1	0	5	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	0	0	3	0	3	0	8	8
08:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	1	0	6	0	0	1	0	1	0	7	7
Total	0	0	0	0	0	5	0	0	0	5	10	0	1	0	11	0	0	5	0	5	0	21	21
Grand Total	0	0	0	0	0	6	0	0	0	6	18	0	2	0	20	0	3	8	0	11	0	37	37
Apprch %	0	0	0			100	0	0			90	0	10			0	27.3	72.7					
Total %	0	0	0		0	16.2	0	0		16.2	48.6	0	5.4		54.1	0	8.1	21.6		29.7	0	100	

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	**2**	0	2	4
07:15 AM	0	0	0	0	0	0	0	0	2	0	**1**	**3**	0	0	0	0	3
07:30 AM	0	0	0	0	0	0	0	0	**3**	0	0	3	0	1	0	1	4
07:45 AM	0	0	0	0	**1**	0	0	**1**	1	0	0	1	0	0	**3**	**3**	**5**
Total Volume	0	0	0	0	1	0	0	1	8	0	1	9	0	3	3	6	16
% App. Total	0	0	0		100	0	0		88.9	0	11.1		0	50	50		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.667	.000	.250	.750	.000	.375	.250	.500	.800

Counts Unlimited
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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 3

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	2	0	0	2	0	**2**	0	2	
+15 mins.	0	0	0	0	0	0	0	0	2	0	**1**	**3**	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	**3**	0	0	3	0	1	0	1	
+45 mins.	0	0	0	0	**1**	0	0	**1**	1	0	0	1	0	0	**3**	**3**	
Total Volume	0	0	0	0	1	0	0	1	8	0	1	9	0	3	3	6	
% App. Total	0	0	0		100	0	0		88.9	0	11.1		0	50	50		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.667	.000	.250	.750	.000	.375	.250	.500	

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

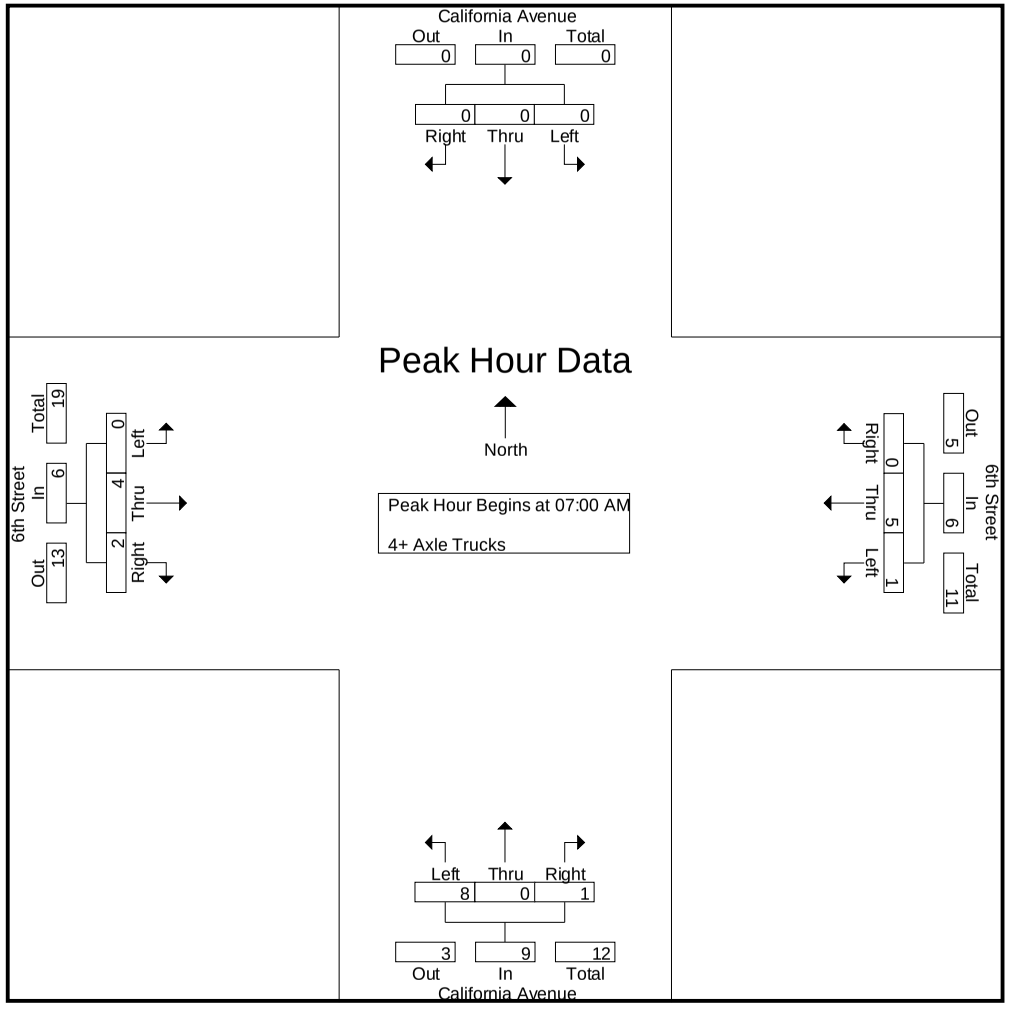
	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1	4	0	0	0	4	0	1	0	0	1	0	6	6
07:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	1	1	2	0	1	1	0	2	1	5	6
07:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	1	0	3	0	5	5
07:45 AM	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	0	0	0	0	0	0	5	5
Total	0	0	0	0	0	1	5	0	0	6	8	0	1	1	9	0	4	2	0	6	1	21	22
08:00 AM	0	0	0	0	0	0	1	0	0	1	4	0	0	0	4	0	0	2	0	2	0	7	7
08:15 AM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	0	0	0	0	0	3	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	2	0	6	0	1	0	0	1	0	7	7
08:45 AM	0	0	0	0	0	0	0	0	0	0	3	0	2	0	5	0	0	0	0	0	0	5	5
Total	0	0	0	0	0	0	2	0	0	2	13	0	4	0	17	0	1	2	0	3	0	22	22
Grand Total	0	0	0	0	0	1	7	0	0	8	21	0	5	1	26	0	5	4	0	9	1	43	44
Apprch %	0	0	0			12.5	87.5	0			80.8	0	19.2			0	55.6	44.4					
Total %	0	0	0		0	2.3	16.3	0		18.6	48.8	0	11.6		60.5	0	11.6	9.3		20.9	2.3	97.7	

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	**4**	0	0	**4**	0	1	0	1	**6**
07:15 AM	0	0	0	0	0	1	0	1	1	0	**1**	2	0	1	**1**	2	5
07:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	**2**	1	**3**	5
07:45 AM	0	0	0	0	**1**	**2**	0	**3**	2	0	0	2	0	0	0	0	5
Total Volume	0	0	0	0	1	5	0	6	8	0	1	9	0	4	2	6	21
% App. Total	0	0	0		16.7	83.3	0		88.9	0	11.1		0	66.7	33.3		
PHF	.000	.000	.000	.000	.250	.625	.000	.500	.500	.000	.250	.563	.000	.500	.500	.500	.875

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City of Beaumont
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File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	1	0	1	**4**	0	0	**4**	0	1	0	1	
+15 mins.	0	0	0	0	0	1	0	1	1	0	**1**	2	0	1	**1**	2	
+30 mins.	0	0	0	0	0	1	0	1	1	0	0	1	0	**2**	1	**3**	
+45 mins.	0	0	0	0	**1**	**2**	0	**3**	2	0	0	2	0	0	0	0	
Total Volume	0	0	0	0	1	5	0	6	8	0	1	9	0	4	2	6	
% App. Total	0	0	0		16.7	83.3	0		88.9	0	11.1		0	66.7	33.3		
PHF	.000	.000	.000	.000	.250	.625	.000	.500	.500	.000	.250	.563	.000	.500	.500	.500	

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

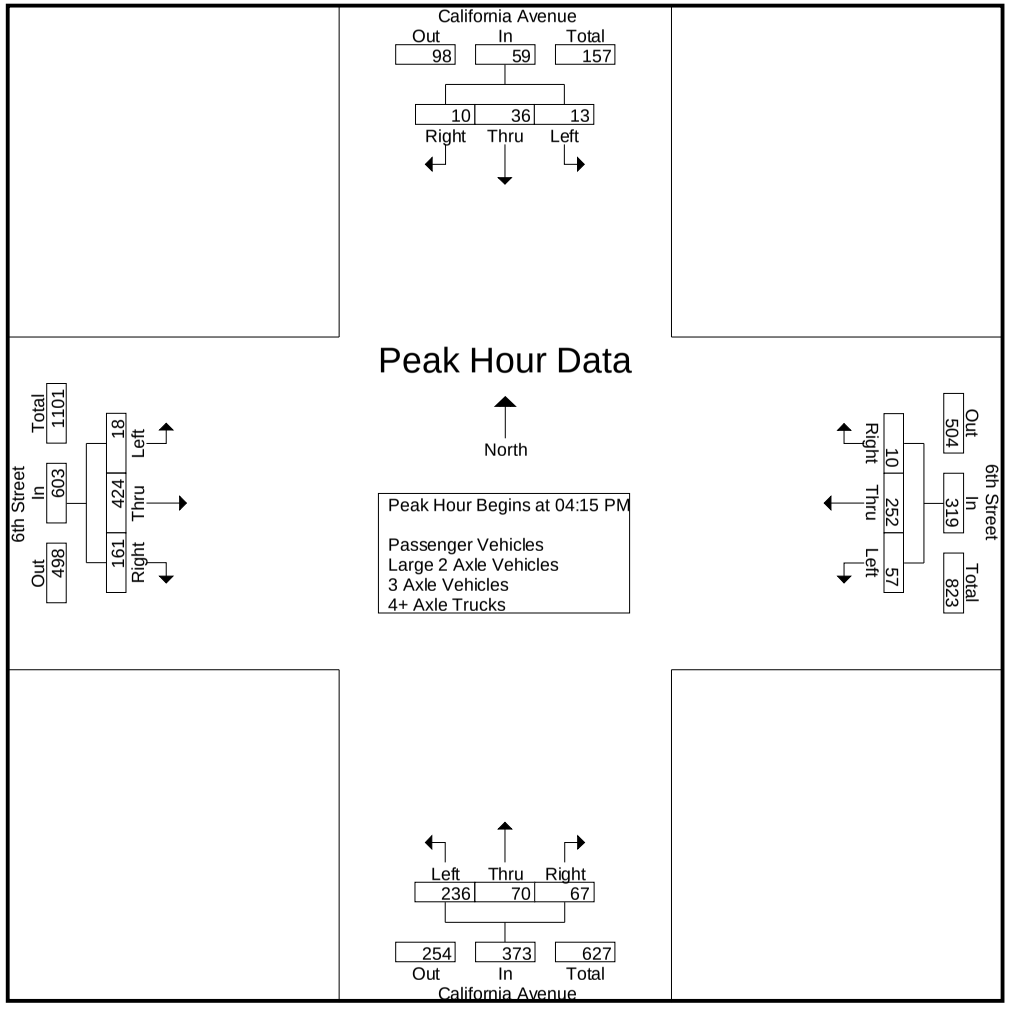
	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	12	2	1	18	21	71	0	0	92	71	14	21	11	106	2	96	33	0	131	12	347	359
04:15 PM	2	9	1	1	12	16	52	5	4	73	57	17	23	11	97	3	121	36	0	160	16	342	358
04:30 PM	5	11	1	1	17	18	60	4	1	82	58	16	16	8	90	5	107	55	2	167	12	356	368
04:45 PM	4	4	4	2	12	11	65	0	0	76	59	11	14	3	84	5	97	34	1	136	6	308	314
Total	15	36	8	5	59	66	248	9	5	323	245	58	74	33	377	15	421	158	3	594	46	1353	1399
05:00 PM	2	12	4	2	18	12	75	1	0	88	62	26	14	7	102	5	99	36	1	140	10	348	358
05:15 PM	1	9	2	2	12	12	89	6	3	107	65	8	10	8	83	1	93	44	1	138	14	340	354
05:30 PM	3	6	3	3	12	7	74	6	3	87	74	11	10	5	95	3	89	43	0	135	11	329	340
05:45 PM	5	5	1	0	11	9	49	4	1	62	44	7	11	6	62	0	122	41	0	163	7	298	305
Total	11	32	10	7	53	40	287	17	7	344	245	52	45	26	342	9	403	164	2	576	42	1315	1357
Grand Total	26	68	18	12	112	106	535	26	12	667	490	110	119	59	719	24	824	322	5	1170	88	2668	2756
Apprch %	23.2	60.7	16.1			15.9	80.2	3.9			68.2	15.3	16.6			2.1	70.4	27.5					
Total %	1	2.5	0.7		4.2	4	20.1	1		25	18.4	4.1	4.5		26.9	0.9	30.9	12.1		43.9	3.2	96.8	
Passenger Vehicles	26	68	15		119	104	525	26		667	469	108	118		754	22	815	317		1159	0	0	2699
% Passenger Vehicles	100	100	83.3	83.3	96	98.1	98.1	100	100	98.2	95.7	98.2	99.2	100	96.9	91.7	98.9	98.4	100	98.6	0	0	97.9
Large 2 Axle Vehicles	0	0	3		5	1	7	0		8	9	2	1		12	2	6	3		11	0	0	36
% Large 2 Axle Vehicles	0	0	16.7	16.7	4	0.9	1.3	0	0	1.2	1.8	1.8	0.8	0	1.5	8.3	0.7	0.9	0	0.9	0	0	1.3
3 Axle Vehicles	0	0	0		0	0	0	0		0	3	0	0		3	0	0	1		1	0	0	4
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0	0.4	0	0	0.3	0	0.1	0	0	0.1
4+ Axle Trucks	0	0	0		0	1	3	0		4	9	0	0		9	0	3	1		4	0	0	17
% 4+ Axle Trucks	0	0	0	0	0	0.9	0.6	0	0	0.6	1.8	0	0	0	1.2	0	0.4	0.3	0	0.3	0	0	0.6

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	2	9	1	12	16	52	**5**	73	57	17	**23**	97	3	**121**	36	160	342
04:30 PM	**5**	11	1	17	**18**	60	4	82	58	16	16	90	**5**	107	**55**	**167**	**356**
04:45 PM	4	4	**4**	12	11	65	0	76	59	11	14	84	5	97	34	136	308
05:00 PM	2	**12**	4	**18**	12	**75**	1	**88**	**62**	**26**	14	**102**	5	99	36	140	348
Total Volume	13	36	10	59	57	252	10	319	236	70	67	373	18	424	161	603	1354
% App. Total	22	61	16.9		17.9	79	3.1		63.3	18.8	18		3	70.3	26.7		
PHF	.650	.750	.625	.819	.792	.840	.500	.906	.952	.673	.728	.914	.900	.876	.732	.903	.951

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



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File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:45 PM				04:00 PM				04:15 PM				
+0 mins.	4	**12**	2	**18**	11	65	0	76	**71**	14	21	**106**	3	**121**	36	160	
+15 mins.	2	9	1	12	**12**	75	1	88	57	**17**	**23**	97	**5**	107	**55**	**167**	
+30 mins.	**5**	11	1	17	12	**89**	**6**	**107**	58	16	16	90	5	97	34	136	
+45 mins.	4	4	**4**	12	7	74	6	87	59	11	14	84	5	99	36	140	
Total Volume	15	36	8	59	42	303	13	358	245	58	74	377	18	424	161	603	
% App. Total	25.4	61	13.6		11.7	84.6	3.6		65	15.4	19.6		3	70.3	26.7		
PHF	.750	.750	.500	.819	.875	.851	.542	.836	.863	.853	.804	.889	.900	.876	.732	.903	

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Groups Printed- Passenger Vehicles

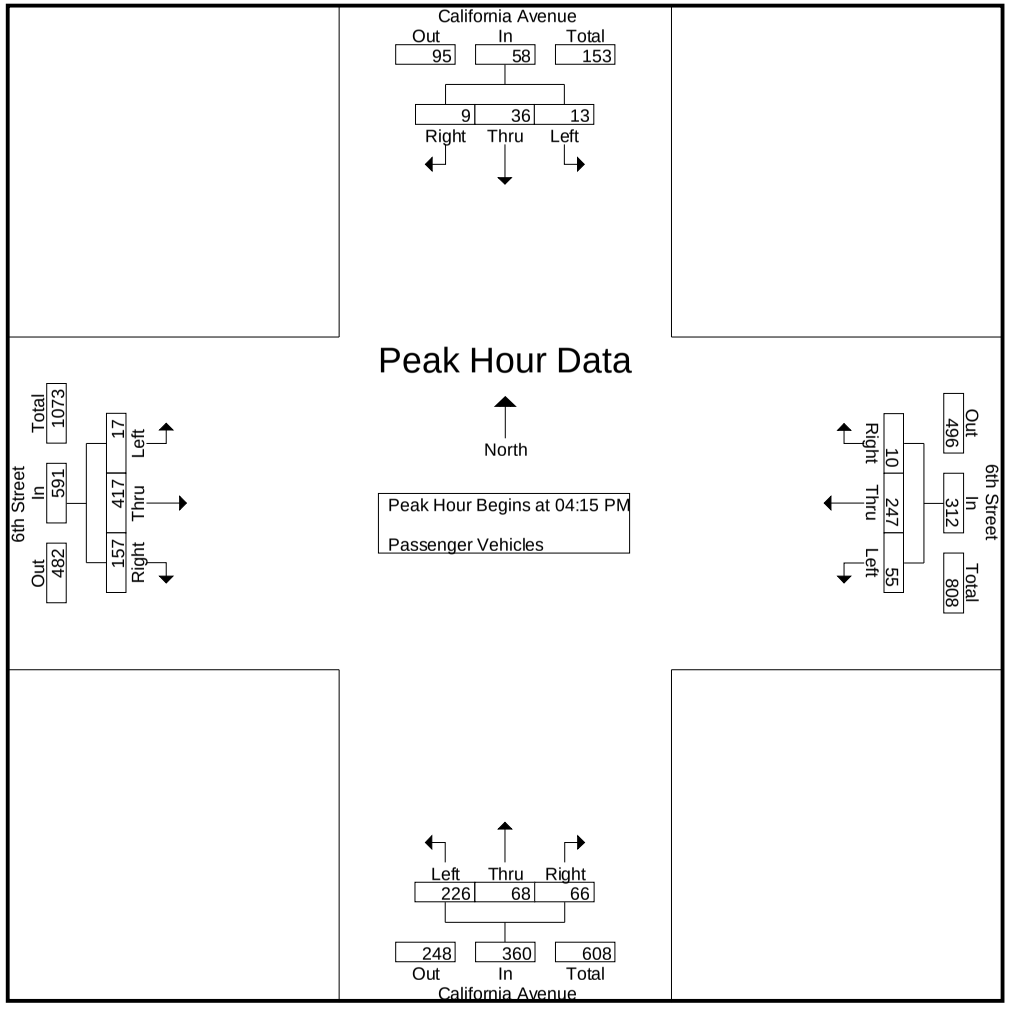
	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	4	12	2	1	18	21	70	0	0	91	69	14	21	11	104	2	94	33	0	129	12	342	354
04:15 PM	2	9	1	1	12	16	50	5	4	71	56	17	23	11	96	3	118	33	0	154	16	333	349
04:30 PM	5	11	1	1	17	17	60	4	1	81	56	14	16	8	86	5	105	54	2	164	12	348	360
04:45 PM	4	4	3	1	11	10	62	0	0	72	54	11	13	3	78	5	95	34	1	134	5	295	300
Total	15	36	7	4	58	64	242	9	5	315	235	56	73	33	364	15	412	154	3	581	45	1318	1363
05:00 PM	2	12	4	2	18	12	75	1	0	88	60	26	14	7	100	4	99	36	1	139	10	345	355
05:15 PM	1	9	2	2	12	12	87	6	3	105	61	8	10	8	79	1	93	43	1	137	14	333	347
05:30 PM	3	6	2	2	11	7	73	6	3	86	70	11	10	5	91	2	89	43	0	134	10	322	332
05:45 PM	5	5	0	0	10	9	48	4	1	61	43	7	11	6	61	0	122	41	0	163	7	295	302
Total	11	32	8	6	51	40	283	17	7	340	234	52	45	26	331	7	403	163	2	573	41	1295	1336
Grand Total	26	68	15	10	109	104	525	26	12	655	469	108	118	59	695	22	815	317	5	1154	86	2613	2699
Apprch %	23.9	62.4	13.8			15.9	80.2	4			67.5	15.5	17			1.9	70.6	27.5					
Total %	1	2.6	0.6		4.2	4	20.1	1		25.1	17.9	4.1	4.5		26.6	0.8	31.2	12.1		44.2	3.2	96.8	

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	2	9	1	12	16	50	**5**	71	56	17	**23**	96	3	**118**	33	154	333
04:30 PM	**5**	11	1	17	**17**	60	4	81	56	14	16	86	**5**	105	**54**	**164**	**348**
04:45 PM	4	4	3	11	10	62	0	72	54	11	13	78	5	95	34	134	295
05:00 PM	2	**12**	**4**	**18**	12	**75**	1	**88**	**60**	**26**	14	**100**	4	99	36	139	345
Total Volume	13	36	9	58	55	247	10	312	226	68	66	360	17	417	157	591	1321
% App. Total	22.4	62.1	15.5		17.6	79.2	3.2		62.8	18.9	18.3		2.9	70.6	26.6		
PHF	.650	.750	.563	.806	.809	.823	.500	.886	.942	.654	.717	.900	.850	.883	.727	.901	.949

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Start Date : 1/14/2020
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File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	2	9	1	12	16	50	**5**	71	56	17	**23**	96	3	**118**	33	154	
+15 mins.	**5**	11	1	17	**17**	60	4	81	56	14	16	86	**5**	105	**54**	**164**	
+30 mins.	4	4	3	11	10	62	0	72	54	11	13	78	5	95	34	134	
+45 mins.	2	**12**	**4**	**18**	12	**75**	1	**88**	**60**	**26**	14	**100**	4	99	36	139	
Total Volume	13	36	9	58	55	247	10	312	226	68	66	360	17	417	157	591	
% App. Total	22.4	62.1	15.5		17.6	79.2	3.2		62.8	18.9	18.3		2.9	70.6	26.6		
PHF	.650	.750	.563	.806	.809	.823	.500	.886	.942	.654	.717	.900	.850	.883	.727	.901	

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Site Code : 05120026
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Groups Printed- Large 2 Axle Vehicles

	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	2	0	0	2	0	5	5
04:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	2	0	3	0	5	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	1	0	3	0	6	6
04:45 PM	0	0	1	1	1	1	2	0	0	3	2	0	1	0	3	0	1	0	0	1	1	8	9
Total	0	0	1	1	1	1	5	0	0	6	5	2	1	0	8	0	6	3	0	9	1	24	25
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	2	2
05:15 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	0	0	0	0	0	3	3
05:30 PM	0	0	1	1	1	0	1	0	0	1	1	0	0	0	1	1	0	0	0	1	1	4	5
05:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	2	1	2	0	2	0	0	2	4	0	0	0	4	2	0	0	0	2	1	10	11
Grand Total	0	0	3	2	3	1	7	0	0	8	9	2	1	0	12	2	6	3	0	11	2	34	36
Apprch %	0	0	100			12.5	87.5	0			75	16.7	8.3			18.2	54.5	27.3					
Total %	0	0	8.8		8.8	2.9	20.6	0		23.5	26.5	5.9	2.9		35.3	5.9	17.6	8.8		32.4	5.6	94.4	

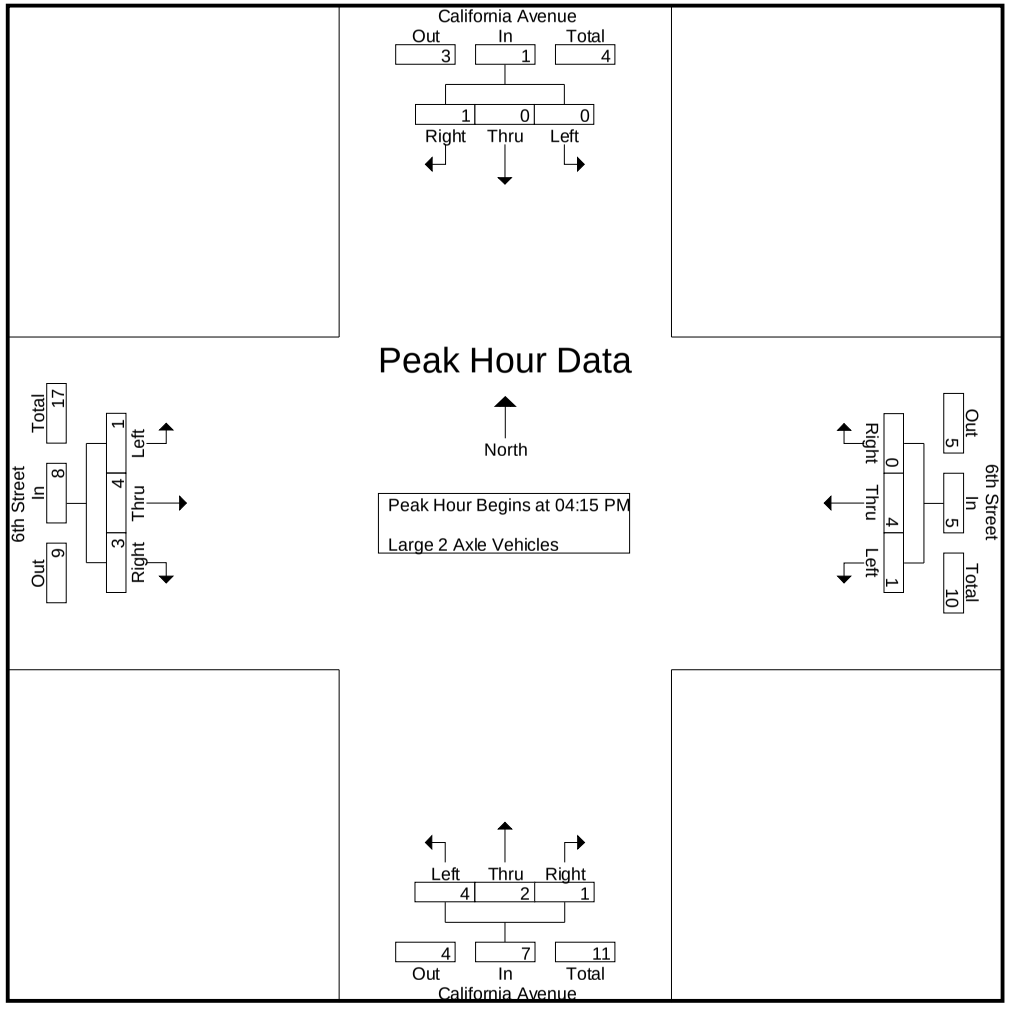
3.1-66

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**2**	0	2	0	0	0	0	0	1	**2**	**3**	5
04:30 PM	0	0	0	0	0	0	0	0	1	**2**	0	**3**	0	**2**	1	3	6
04:45 PM	0	0	**1**	**1**	**1**	2	0	**3**	**2**	0	**1**	3	0	1	0	1	**8**
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	**1**	0	0	1	2
Total Volume	0	0	1	1	1	4	0	5	4	2	1	7	1	4	3	8	21
% App. Total	0	0	100		20	80	0		57.1	28.6	14.3		12.5	50	37.5		
PHF	.000	.000	.250	.250	.250	.500	.000	.417	.500	.250	.250	.583	.250	.500	.375	.667	.656

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Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
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	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	**2**	0	2	0	0	0	0	0	1	**2**	**3**	
+15 mins.	0	0	0	0	0	0	0	0	1	**2**	0	**3**	0	**2**	1	3	
+30 mins.	0	0	**1**	**1**	**1**	2	0	**3**	**2**	0	**1**	3	0	1	0	1	
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	**1**	0	0	1	
Total Volume	0	0	1	1	1	4	0	5	4	2	1	7	1	4	3	8	
% App. Total	0	0	100		20	80	0		57.1	28.6	14.3		12.5	50	37.5		
PHF	.000	.000	.250	.250	.250	.500	.000	.417	.500	.250	.250	.583	.250	.500	.375	.667	

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Groups Printed- 3 Axle Vehicles

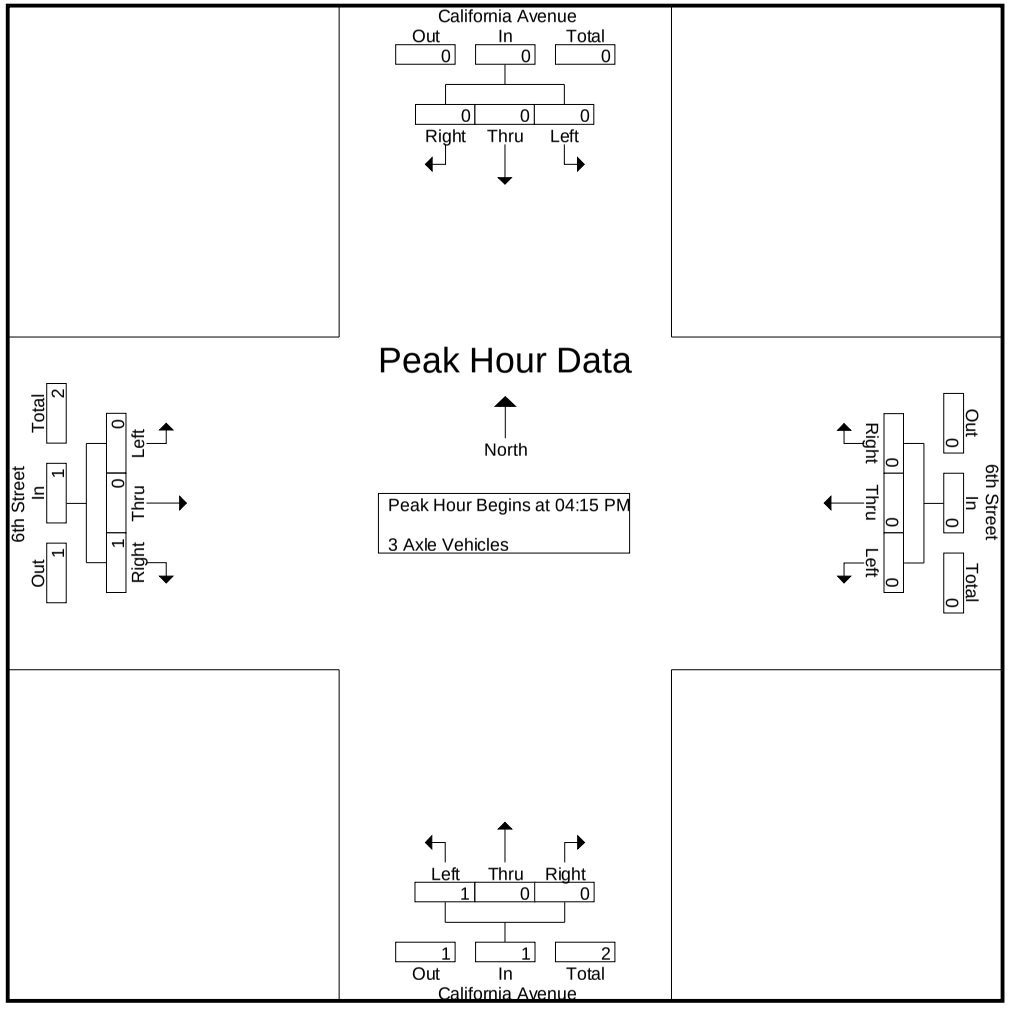
	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	2	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
Grand Total	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	1	0	1	0	4	4
Apprch %	0	0	0			0	0	0			100	0	0			0	0	100					
Total %	0	0	0		0	0	0	0		0	75	0	0		75	0	0	25		25	0	100	

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
% App. Total	0	0	0		0	0	0		100	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250	.500

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 3

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	
% App. Total	0	0	0		0	0	0		100	0	0		0	0	100		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250	

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

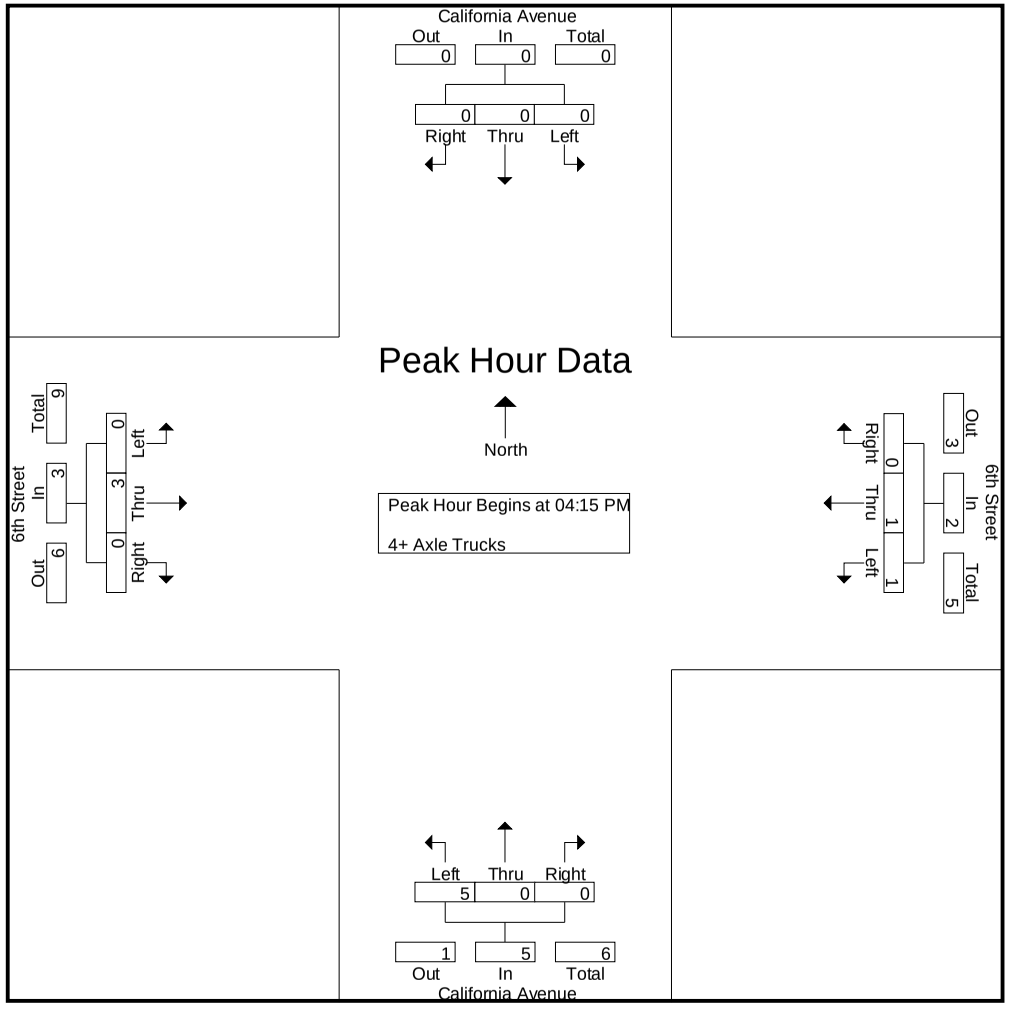
	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	3	3
04:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2	2
04:45 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	1	0	0	1	0	4	4
Total	0	0	0	0	0	1	1	0	0	2	4	0	0	0	4	0	3	0	0	3	0	9	9
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	0	1	0	1	0	4	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	2	0	0	2	5	0	0	0	5	0	0	1	0	1	0	8	8
Grand Total	0	0	0	0	0	1	3	0	0	4	9	0	0	0	9	0	3	1	0	4	0	17	17
Apprch %	0	0	0			25	75	0			100	0	0			0	75	25					
Total %	0	0	0		0	5.9	17.6	0		23.5	52.9	0	0		52.9	0	17.6	5.9		23.5	0	100	

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	**2**	0	**2**	3
04:30 PM	0	0	0	0	**1**	0	0	**1**	1	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	**1**	0	1	**2**	0	0	**2**	0	1	0	1	**4**
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	1	1	0	2	5	0	0	5	0	3	0	3	10
% App. Total	0	0	0		50	50	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.625	.000	.000	.625	.000	.375	.000	.375	.625

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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020

	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	**2**	0	**2**	
+15 mins.	0	0	0	0	**1**	0	0	**1**	1	0	0	1	0	0	0	0	
+30 mins.	0	0	0	0	0	**1**	0	1	**2**	0	0	**2**	0	1	0	1	
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	
Total Volume	0	0	0	0	1	1	0	2	5	0	0	5	0	3	0	3	
% App. Total	0	0	0		50	50	0		100	0	0		0	100	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.625	.000	.000	.625	.000	.375	.000	.375	

Location: Beaumont
N/S: California Avenue
E/W: 6th Street

Date: 1/14/2020
Day: Tuesday

PEDESTRIANS

	North Leg California Avenue	East Leg 6th Street	South Leg California Avenue	West Leg 6th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg California Avenue	East Leg 6th Street	South Leg California Avenue	West Leg 6th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	1	0	1	2
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	2	4

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Location: Beaumont
N/S: California Avenue
E/W: 6th Street

Date: 1/14/2020
Day: Tuesday

BICYCLES

	Southbound California Avenue			Westbound 6th Street			Northbound California Avenue			Eastbound 6th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

	Southbound California Avenue			Westbound 6th Street			Northbound California Avenue			Eastbound 6th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

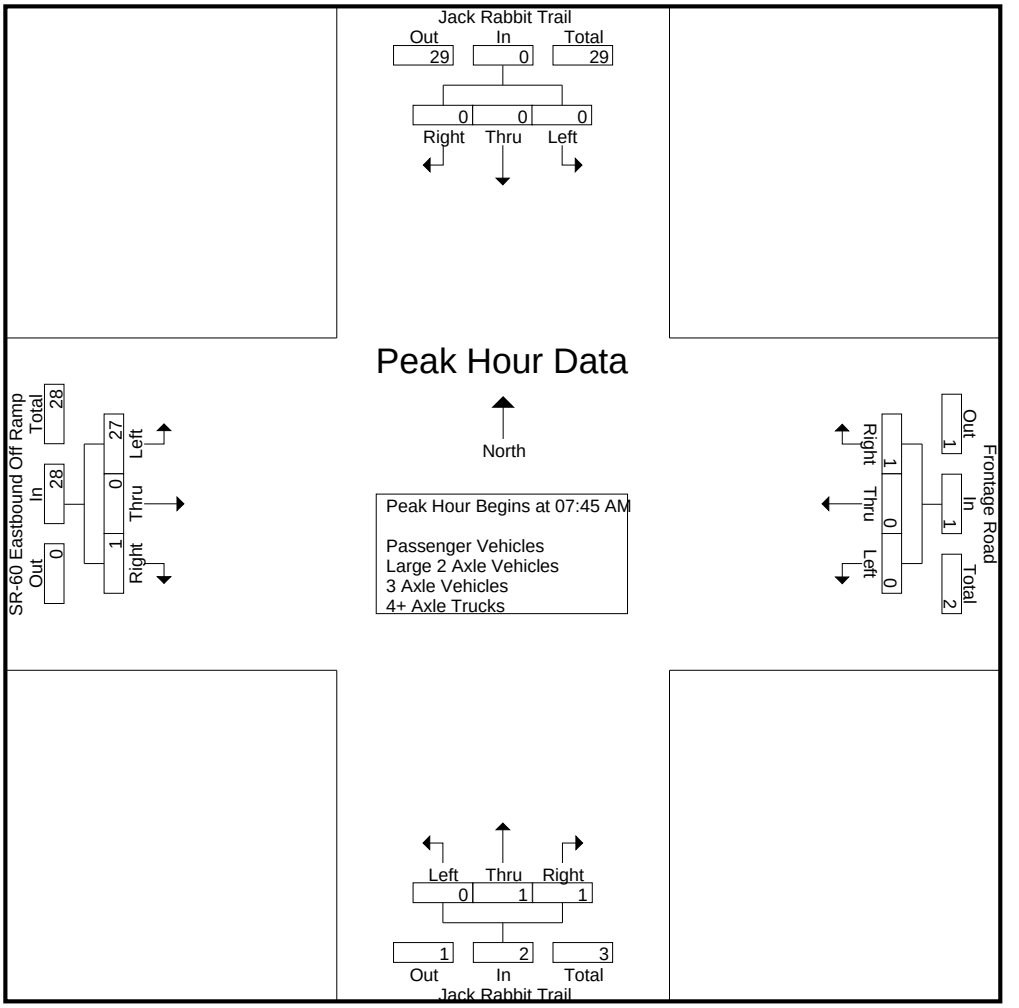
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	4	0	0	4	5
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	13	0	0	13	14
Total	0	1	0	1	0	0	0	0	0	0	1	1	25	0	0	25	27
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	6	0	0	6	7
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	4	0	1	5	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	1	0	1	0	1	15	0	1	16	18
Grand Total	0	1	0	1	0	0	1	1	0	1	1	2	40	0	1	41	45
Apprch %	0	100	0		0	0	100		0	50	50		97.6	0	2.4		
Total %	0	2.2	0	2.2	0	0	2.2	2.2	0	2.2	2.2	4.4	88.9	0	2.2	91.1	
Passenger Vehicles	0	1	0	1	0	0	1	1	0	1	1	2	8	0	1	9	13
% Passenger Vehicles	0	100	0	100	0	0	100	100	0	100	100	100	20	0	100	22	28.9
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	9.8	8.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	4.9	4.4
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	26	26
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	65	0	0	63.4	57.8

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**13**	0	0	**13**	**14**
08:00 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	6	0	0	6	7
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
08:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	1	4	0	**1**	5	6
Total Volume	0	0	0	0	0	0	1	1	0	1	1	2	27	0	1	28	31
% App. Total	0	0	0		0	0	100		0	50	50		96.4	0	3.6		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.250	.500	.519	.000	.250	.538	.554

Counts Unlimited
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:45 AM				07:45 AM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	0	**1**	**1**	**13**	0	0	**13**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
+45 mins.	0	0	0	0	0	0	**1**	**1**	0	**1**	0	1	4	0	**1**	5
Total Volume	0	1	0	1	0	0	1	1	0	1	1	2	27	0	1	28
% App. Total	0	100	0		0	0	100		0	50	50		96.4	0	3.6	
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.250	.250	.500	.519	.000	.250	.538

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

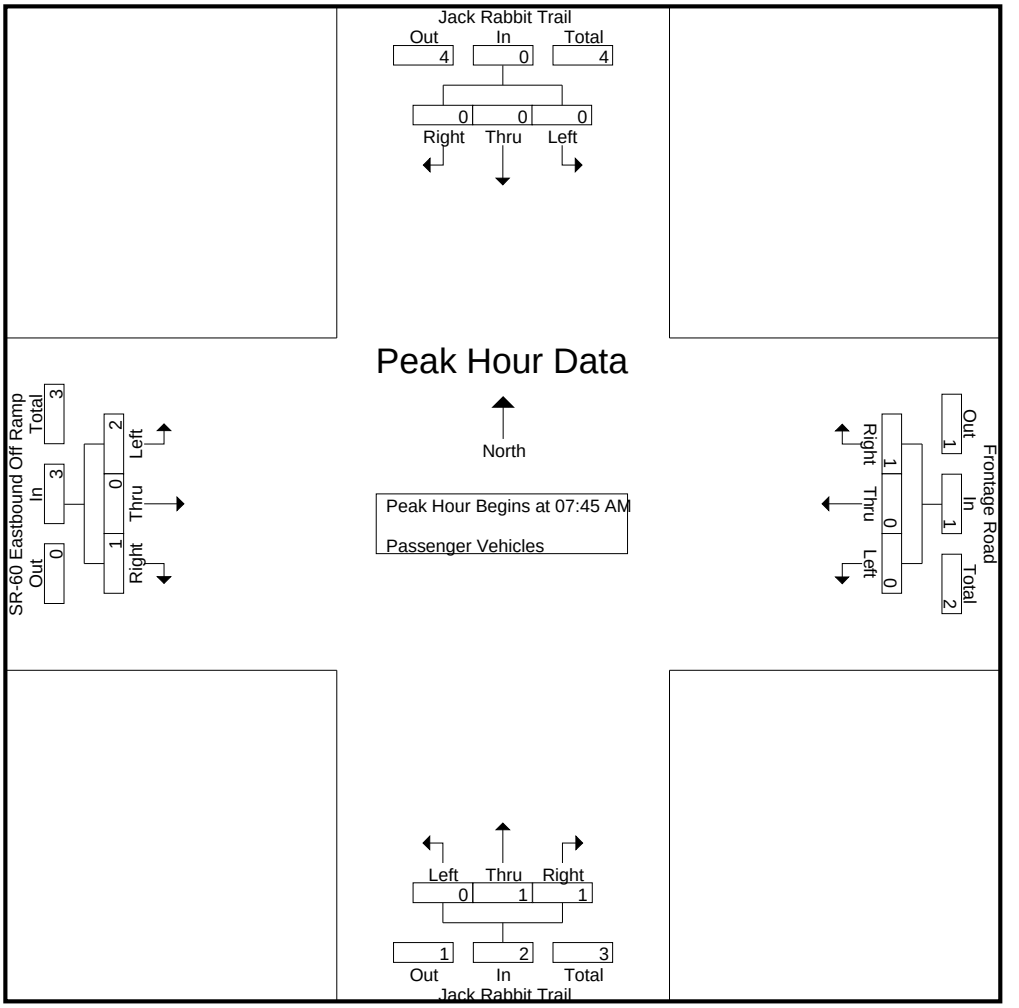
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	3	0	0	3	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	2
Total	0	1	0	1	0	0	0	0	0	0	1	1	6	0	0	6	8
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	1	0	1	0	1	2	0	1	3	5
Grand Total	0	1	0	1	0	0	1	1	0	1	1	2	8	0	1	9	13
Apprch %	0	100	0		0	0	100		0	50	50		88.9	0	11.1		
Total %	0	7.7	0	7.7	0	0	7.7	7.7	0	7.7	7.7	15.4	61.5	0	7.7	69.2	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**	0	0	**1**	**2**
08:00 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	1	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	**1**	1	2
Total Volume	0	0	0	0	0	0	1	1	0	1	1	2	2	0	1	3	6
% App. Total	0	0	0		0	0	100		0	50	50		66.7	0	33.3		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.250	.500	.500	.000	.250	.750	.750

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**1**	0	0	**1**
+15 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	**1**	1
Total Volume	0	0	0	0	0	0	1	1	0	1	1	2	2	0	1	3
% App. Total	0	0	0		0	0	100		0	50	50		66.7	0	33.3	
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.250	.500	.500	.000	.250	.750

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

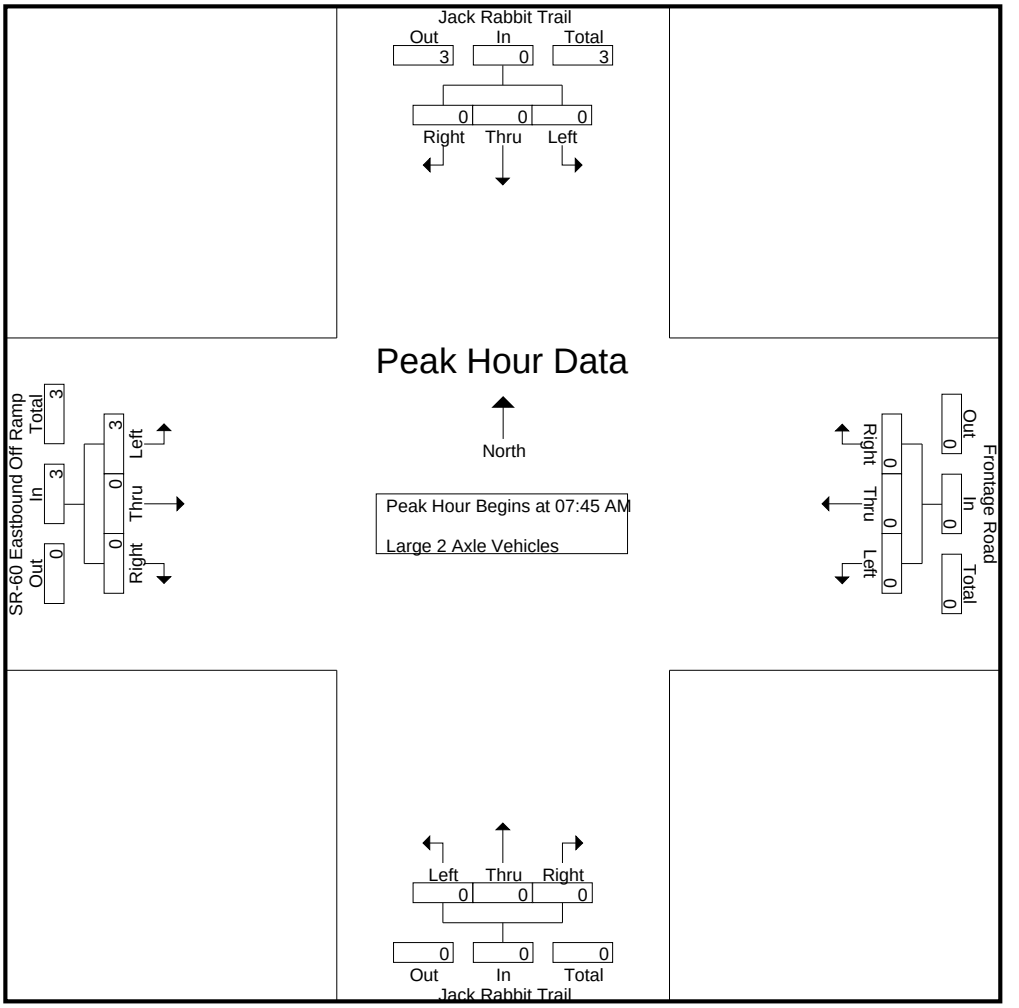
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.750

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750

Counts Unlimited
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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

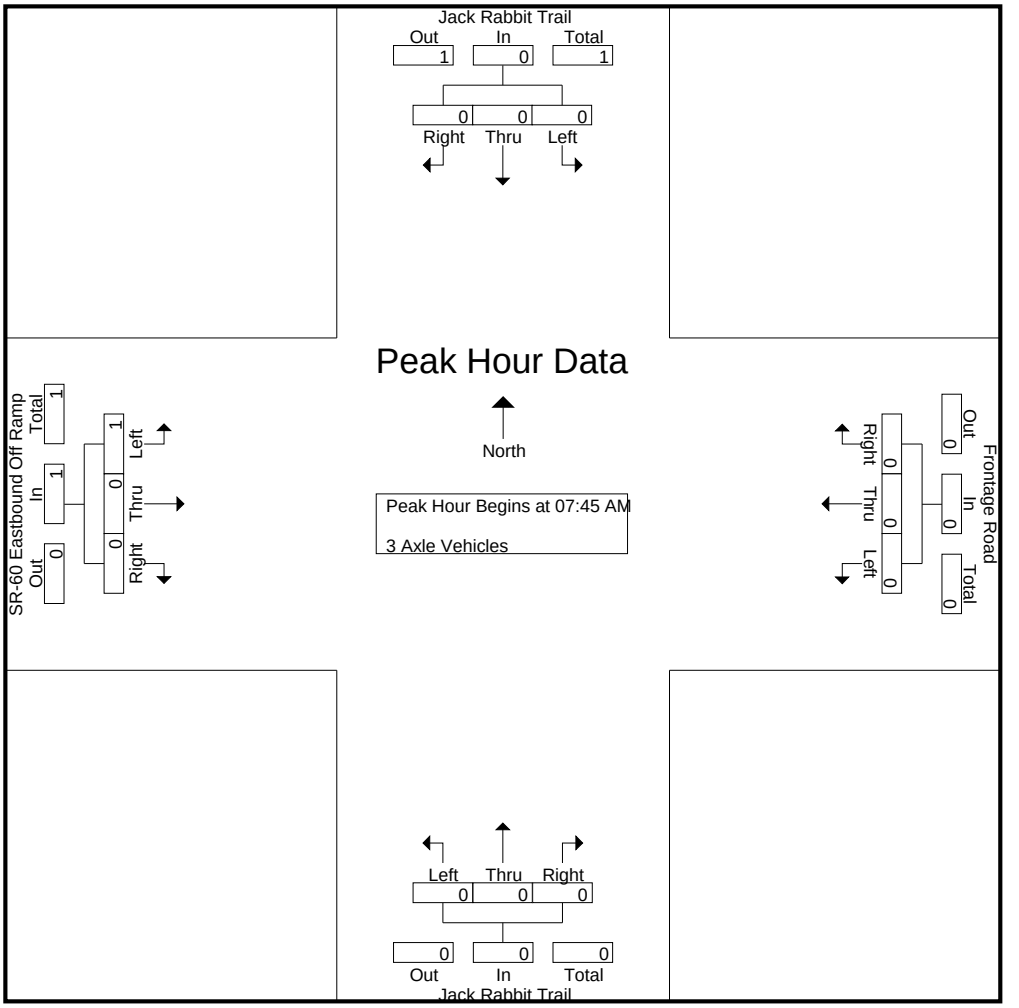
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

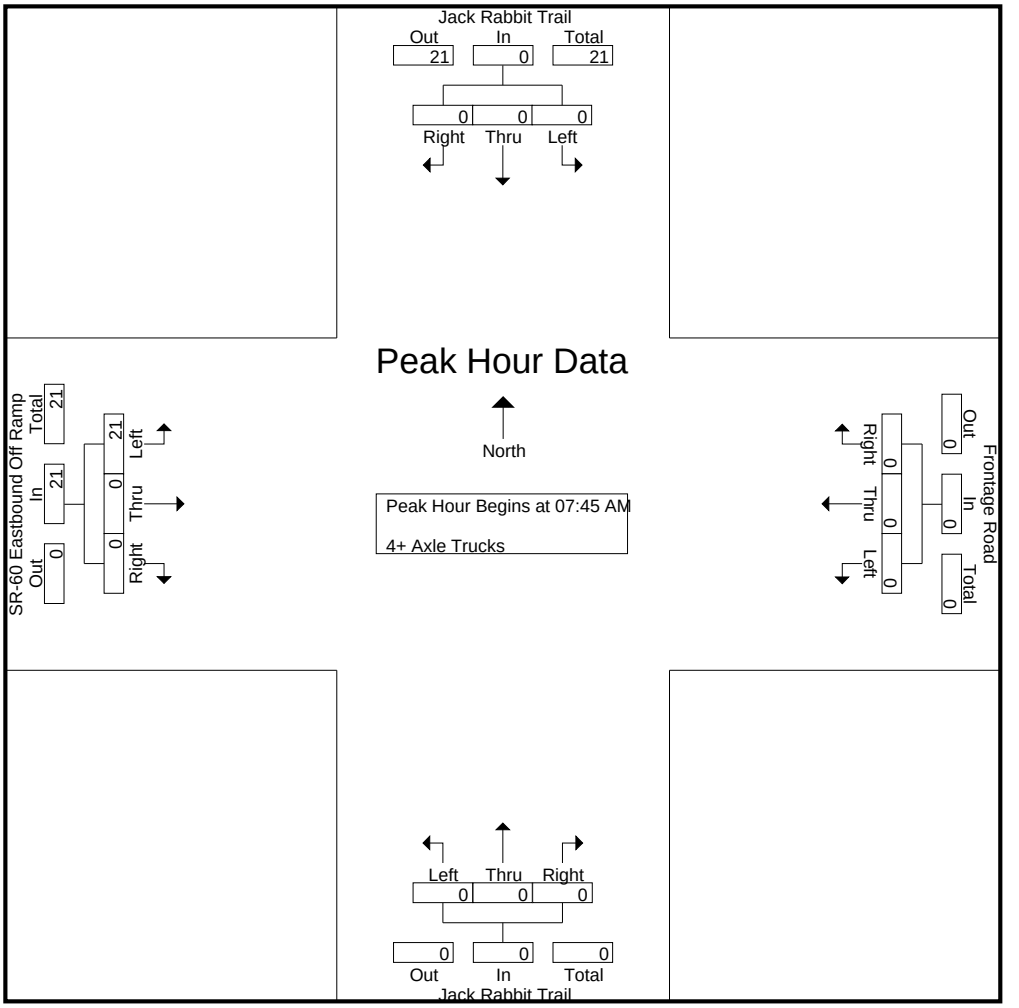
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	11
Total	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	16
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	10
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	26	26
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**11**	**11**
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	21
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.477	.000	.000	.477	.477

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**11**	0	0	**11**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.477	.000	.000	.477

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

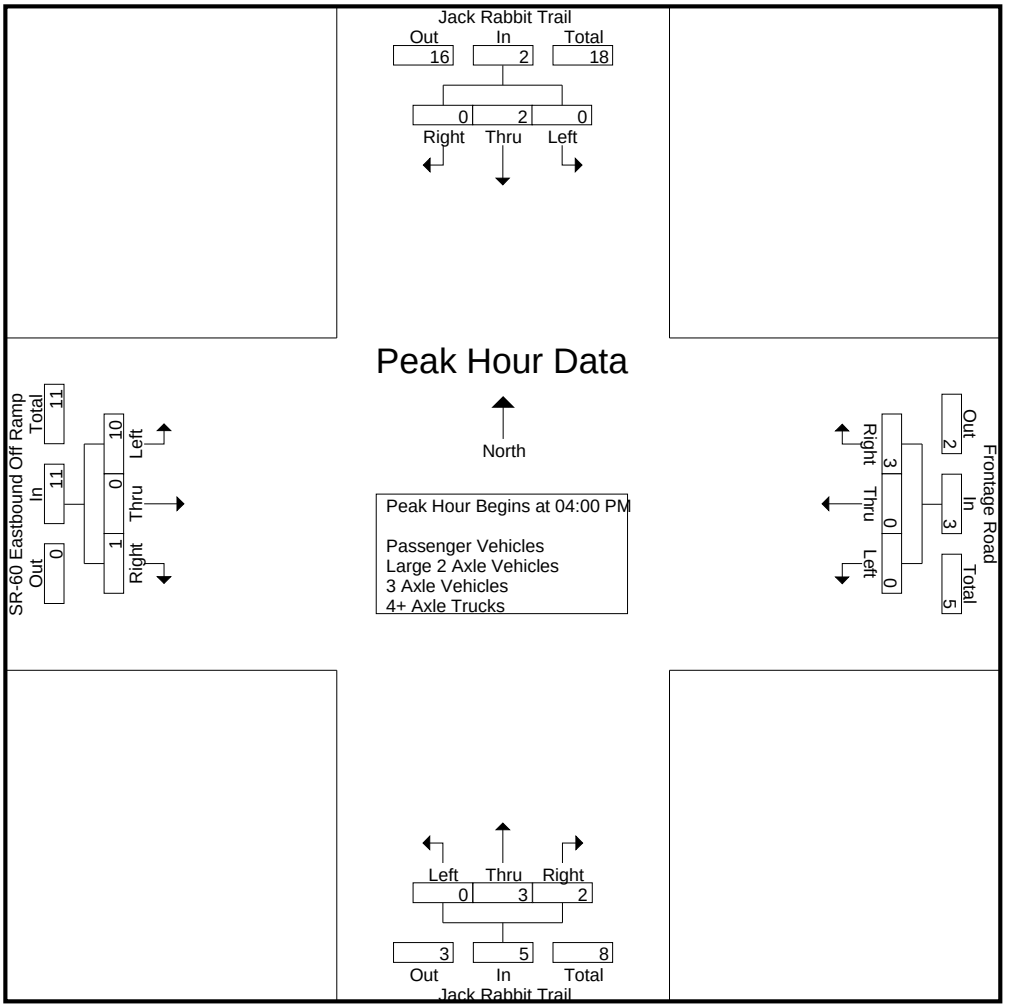
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	2	3
04:15 PM	0	2	0	2	0	0	2	2	0	1	2	3	5	0	1	6	13
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	2	0	2	0	0	3	3	0	3	2	5	10	0	1	11	21
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	3	0	0	3	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	4	0	4	3	0	0	3	7
Grand Total	0	2	0	2	0	0	3	3	0	7	2	9	13	0	1	14	28
Apprch %	0	100	0		0	0	100		0	77.8	22.2		92.9	0	7.1		
Total %	0	7.1	0	7.1	0	0	10.7	10.7	0	25	7.1	32.1	46.4	0	3.6	50	
Passenger Vehicles	0	2	0	2	0	0	3	3	0	7	2	9	12	0	1	13	27
% Passenger Vehicles	0	100	0	100	0	0	100	100	0	100	100	100	92.3	0	100	92.9	96.4
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	7.7	0	0	7.1	3.6
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	**1**	0	1	2	0	0	2	3
04:15 PM	0	**2**	0	**2**	0	0	**2**	**2**	0	1	**2**	**3**	**5**	0	**1**	**6**	**13**
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	2	0	2	0	0	3	3	0	3	2	5	10	0	1	11	21
% App. Total	0	100	0		0	0	100		0	60	40		90.9	0	9.1		
PHF	.000	.250	.000	.250	.000	.000	.375	.375	.000	.750	.250	.417	.500	.000	.250	.458	.404

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	1	2	0	0	2
+15 mins.	0	**2**	0	**2**	0	0	**2**	**2**	0	1	**2**	**3**	**5**	0	**1**	**6**
+30 mins.	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	2	0	2	0	0	3	3	0	3	2	5	10	0	1	11
% App. Total	0	100	0		0	0	100		0	60	40		90.9	0	9.1	
PHF	.000	.250	.000	.250	.000	.000	.375	.375	.000	.750	.250	.417	.500	.000	.250	.458

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

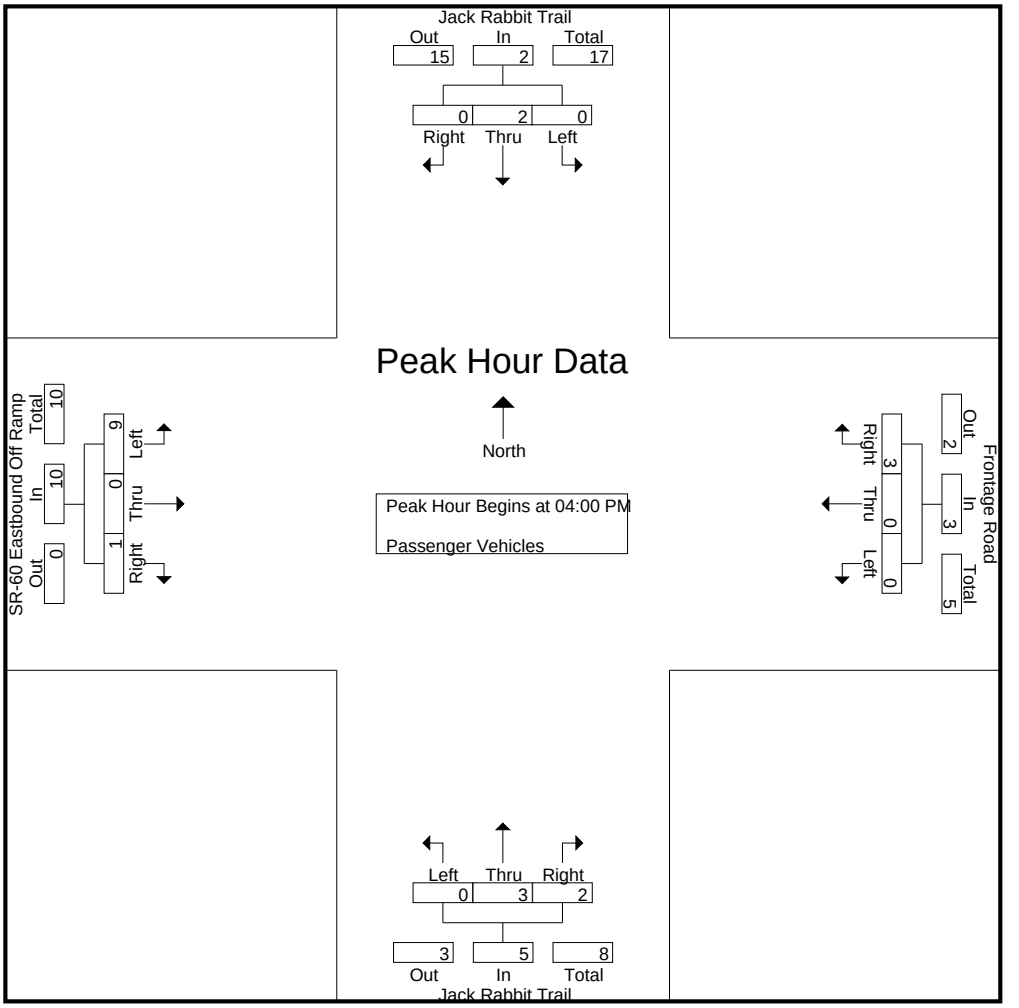
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
04:15 PM	0	2	0	2	0	0	2	2	0	1	2	3	5	0	1	6	13
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	2	0	2	0	0	3	3	0	3	2	5	9	0	1	10	20
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	3	0	0	3	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	4	0	4	3	0	0	3	7
Grand Total	0	2	0	2	0	0	3	3	0	7	2	9	12	0	1	13	27
Apprch %	0	100	0		0	0	100		0	77.8	22.2		92.3	0	7.7		
Total %	0	7.4	0	7.4	0	0	11.1	11.1	0	25.9	7.4	33.3	44.4	0	3.7	48.1	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	**1**	0	1	1	0	0	1	2
04:15 PM	0	**2**	0	**2**	0	0	**2**	**2**	0	1	**2**	**3**	**5**	0	**1**	**6**	**13**
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	2	0	2	0	0	3	3	0	3	2	5	9	0	1	10	20
% App. Total	0	100	0		0	0	100		0	60	40		90	0	10		
PHF	.000	.250	.000	.250	.000	.000	.375	.375	.000	.750	.250	.417	.450	.000	.250	.417	.385

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	1	1	0	0	1
+15 mins.	0	**2**	0	**2**	0	0	**2**	**2**	0	1	**2**	**3**	**5**	0	**1**	**6**
+30 mins.	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	2	0	2	0	0	3	3	0	3	2	5	9	0	1	10
% App. Total	0	100	0		0	0	100		0	60	40		90	0	10	
PHF	.000	.250	.000	.250	.000	.000	.375	.375	.000	.750	.250	.417	.450	.000	.250	.417

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

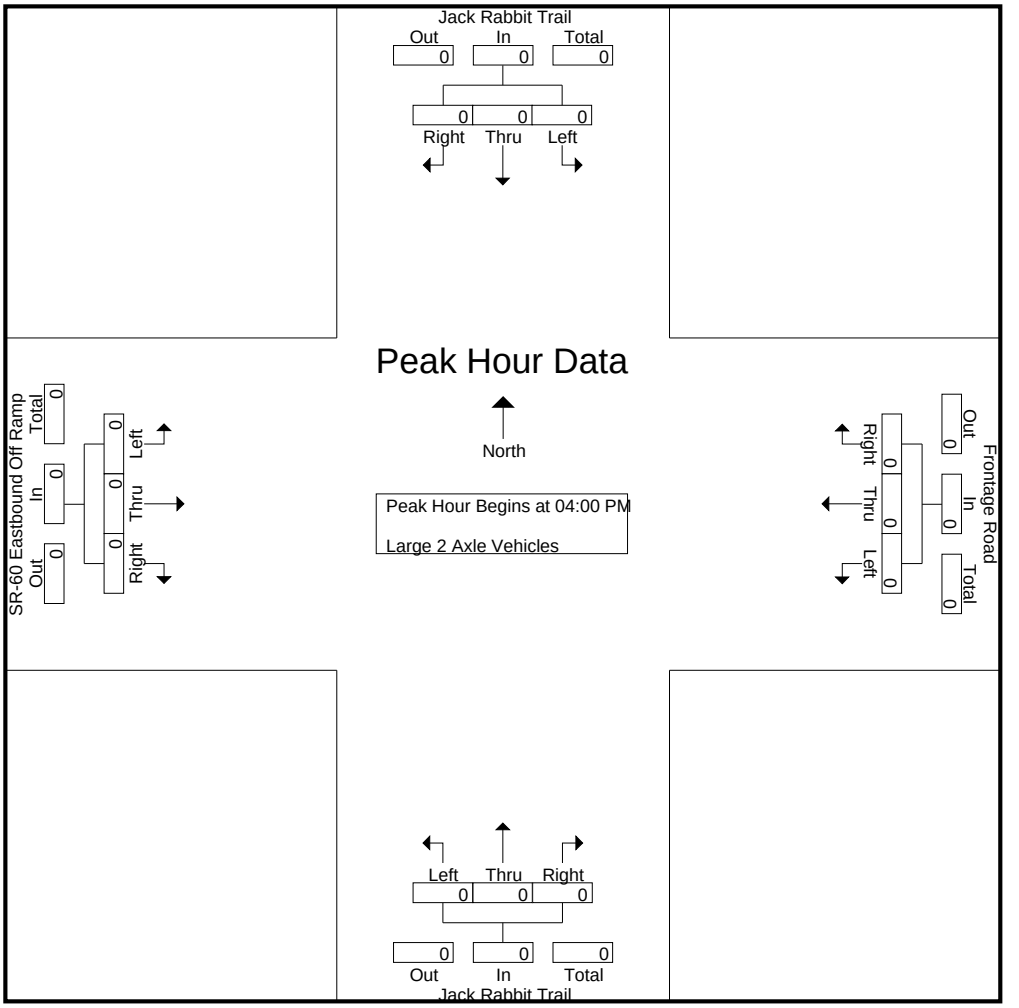
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

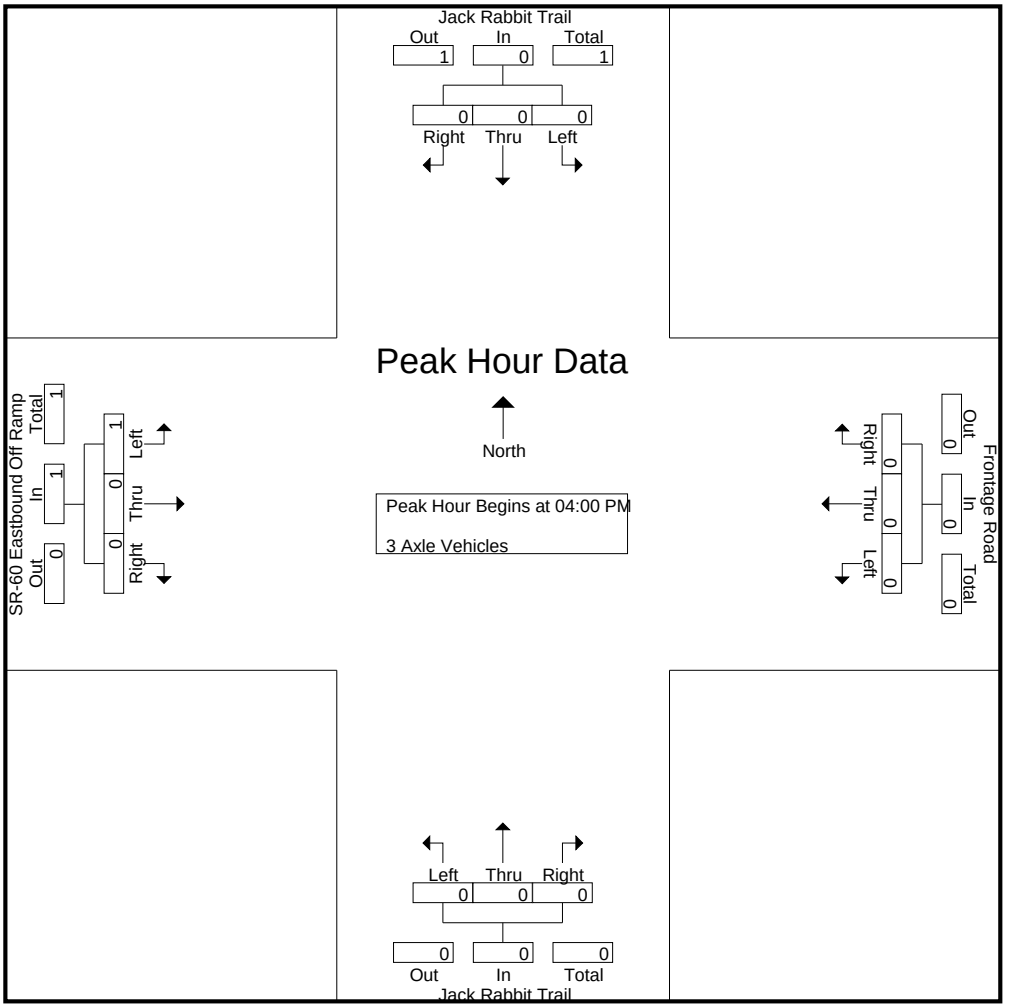
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**1**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

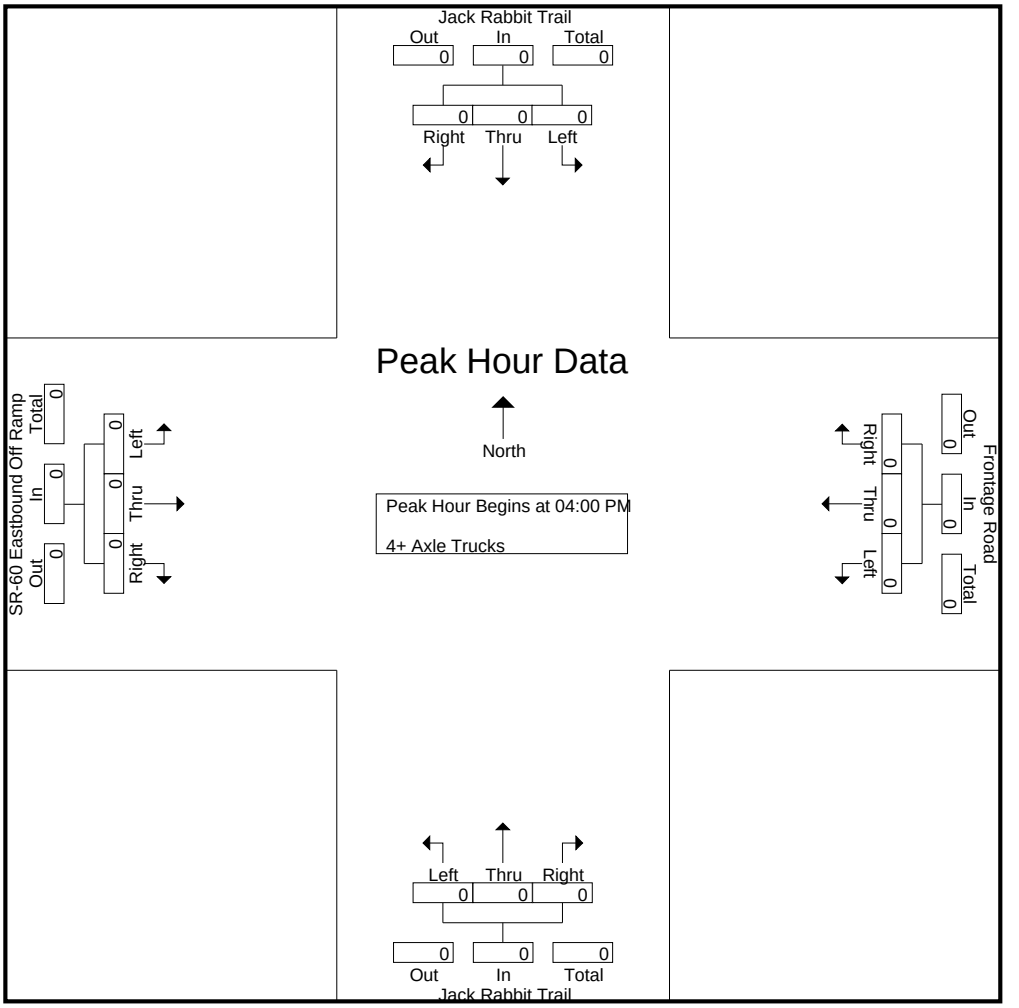
	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg Jack Rabbit Trail	East Leg Frontage Road	South Leg Jack Rabbit Trail	West Leg SR-60 EB Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Jack Rabbit Trail	East Leg Frontage Road	South Leg Jack Rabbit Trail	West Leg SR-60 EB Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound Jack Rabbit Trail			Westbound Frontage Road			Northbound Jack Rabbit Trail			Eastbound SR-60 EB Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Jack Rabbit Trail			Westbound Frontage Road			Northbound Jack Rabbit Trail			Eastbound SR-60 EB Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

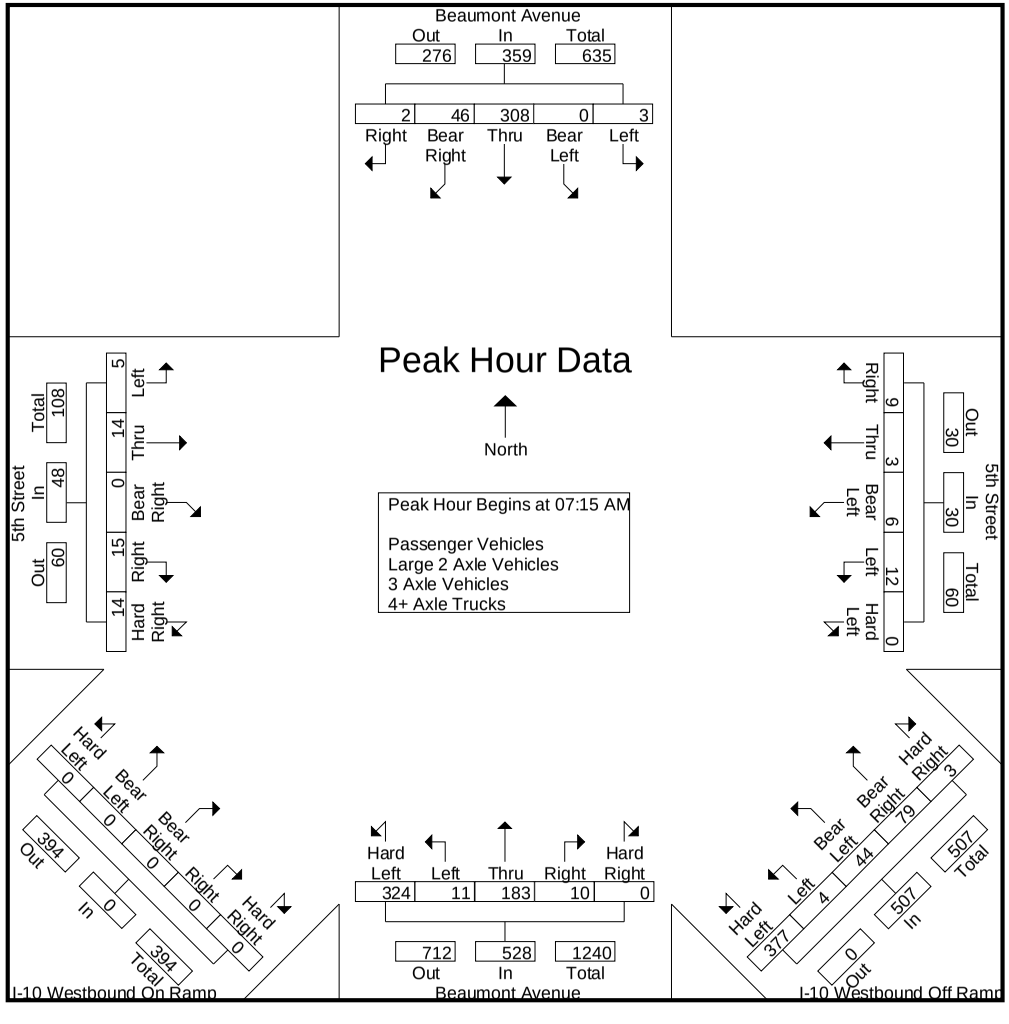
	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	59	16	0	0	76	0	2	3	0	4	0	9	99	0	7	16	3	125	89	2	33	2	0	126	0	0	0	0	0	0	1	0	0	3	2	6	0	342	342
07:15 AM	0	0	48	9	0	0	57	0	4	2	2	4	0	12	84	4	13	26	0	127	99	2	45	1	0	147	0	0	0	0	0	0	1	2	0	3	3	9	0	352	352
07:30 AM	1	0	91	5	1	0	98	0	2	3	1	1	0	7	109																											
07:45 AM	0	0	95	15	0	0	110	0	3	1	0	3	3	7	99	0	10	22	1	132	83	3	51	4	0	141	0	0	0	0	0	0	1	3	0	3	4	11	3	401	404
Total	2	0	293												391						339		171																1468	1471
08:00 AM	2	0	74	17	1	0	94	0	3	0	0	1	0	4	85	0	11	11	0	107	74	2	45	2	0	123	0	0	0	0	0	0	2	6	0	6	4	18	0	346	346
08:15 AM	1	0	64	13	1	1	79	0	1	6	1	1	0	9	66	0	7	11	1	85	75	0	43	0	0	118	0	0	0	0	0	0	1	3	0	5	4	13	1	304	305
08:30 AM	0	0	46	18	1	0	65	0	4	0	1	4	0	9	92	1	15	12	0	120	87	4	35	3	0	129	0	0	0	0	0	0	3	2	0	2	3	10	0	333	333
08:45 AM	0	0	49	12	2	0	63	0	2	0	0	1	0	3	84	0	3	14	1	102	93	0	52	6	0	151	0	0	0	0	0	0	0	1	0	1	2	4	0	323	323
Total	3	0	233												327						329		175																1306	1307
Grand Total	5	0	526	105	6	1	642	0	21	15	5	19	3	60	718	5	76	132	8	939	668	17	346	21	0	1052	0	0	0	0	0	0	10	20	0	26	25	81	4	2774	2778
Apprch %	0.8	0	81.9	16.4	0.9			0	35	25	8.3	31.7			76.5	0.5	8.1	14.1	0.9		63.5	1.6	32.9	2	0		0	0	0	0	0		12.3	24.7	0	32.1	30.9				
Total %	0.2	0	19	3.8	0.2		23.1	0	0.8	0.5	0.2	0.7		2.2	25.9	0.2	2.7	4.8	0.3	33.9	24.1	0.6	12.5	0.8	0	37.9	0	0	0	0	0	0	0.4	0.7	0	0.9	0.9	2.9	0.1	99.9	
Passenger Vehicles	5	0	507	98	6		617	0	19	15	5	18		60	635	1	75	128	8	847	629	17	328	21	0	995	0	0	0	0	0	0	9	19	0	26	25	79	0	0	2598
% Passenger Vehicles	100	0	96.4	93.3	100	100	96	0	90.5	100	100	94.7	100	95.2	88.4	20	98.7	97	100	90.2	94.2	100	94.8	100	0	94.6	0	0	0	0	0	0	90	95	0	100	100	97.5	0	0	93.5
Large 2 Axle Vehicles	0	0	14	2	0		16	0	2	0	0	0		2	20	2	0	1	0	23	20	0	8	0	0	28	0	0	0	0	0	0	1	0	0	0	0	1	0	0	70
% Large 2 Axle Vehicles	0	0	2.7	1.9	0	0	2.5	0	9.5	0	0	0	0	3.2	2.8	40	0	0.8	0	2.4	3	0	2.3	0	0	2.7	0	0	0	0	0	0	10	0	0	0	0	1.2	0	0	2.5
3 Axle Vehicles	0	0	1	0	0		1	0	0	0	0	1		1	11	0	1	1	0	13	4	0	6	0	0	10	0	0	0	0	0	0	0	1	0	0	0	1	0	0	26
% 3 Axle Vehicles	0	0	0.2	0	0	0	0.2	0	0	0	0	5.3	0	1.6	1.5	0	1.3	0.8	0	1.4	0.6	0	1.7	0	0	1	0	0	0	0	0	0	0	5	0	0	0	1.2	0	0	0.9
4+ Axle Trucks	0	0	4	5	0		9	0	0	0	0	0		0	52	2	0	2	0	56	15	0	4	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
% 4+ Axle Trucks	0	0	0.8	4.8	0	0	1.4	0	0	0	0	0	0	0	7.2	40	0	1.5	0	6	2.2	0	1.2	0	0	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound							
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																							
Peak Hour for Entire Intersection Begins at 07:15 AM																																							
07:15 AM	0	0	48	9	0	57	0	**4**	2	**2**	**4**	**12**	84	**4**	**13**	**26**	0	127	**99**	2	45	1	0	**147**	0	0	0	0	0	0	1	2	0	3	3	9	352
07:30 AM	1	0	91	5	**1**	98	0	2	**3**	1	1	7	**109**	0	10	20	**2**	**141**	68	**4**	42	3	0	117	0	0	0	0	0	0	1	3	0	3	3	10	373
07:45 AM	0	0	**95**	15	0	**110**	0	3	1	0	3	7	99	0	10	22	1	132	83	3	**51**	**4**	0	141	0	0	0	0	0	0	1	3	0	3	**4**	11	**401**
08:00 AM	**2**	0	74	**17**	1	94	0	3	0	0	1	4	85	0	11	11	0	107	74	2	45	2	0	123	0	0	0	0	0	0	**2**	**6**	0	**6**	4	**18**	346
Total Volume	3	0	308	46	2	359	0	12	6	3	9	30	377	4	44	79	3	507	324	11	183	10	0	528	0	0	0	0	0	0	5	14	0	15	14	48	1472
% App. Total	0.8	0	85.8	12.8	0.6		0	40	20	10	30		74.4	0.8	8.7	15.6	0.6		61.4	2.1	34.7	1.9	0		0	0	0	0	0		10.4	29.2	0	31.2	29.2		
PHF	.375	.000	.811	.676	.500	.816	.000	.750	.500	.375	.563	.625	.865	.250	.846	.760	.375	.899	.818	.688	.897	.625	.000	.898	.000	.000	.000	.000	.000	.000	.625	.583	.000	.625	.875	.667	.918

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:30 AM						07:00 AM						07:00 AM						07:00 AM						07:00 AM						07:30 AM						
+0 mins.	1	0	91	5	**1**	98	0	2	**3**	0	**4**	9	99	0	7	16	**3**	125	89	2	33	2	0	126	0	0	0	0	0	0	1	3	0	3	3	10	
+15 mins.	0	0	**95**	15	0	**110**	0	**4**	2	**2**	4	**12**	84	**4**	**13**	**26**	0	127	**99**	2	45	1	0	**147**	0	0	0	0	0	0	1	3	0	3	**4**	11	
+30 mins.	**2**	0	74	**17**	1	94	0	2	3	1	1	7	**109**	0	10	20	2	**141**	68	**4**	42	3	0	117	0	0	0	0	0	0	**2**	**6**	0	**6**	4	**18**	
+45 mins.	1	0	64	13	1	79	0	3	1	0	3	7	99	0	10	22	1	132	83	3	**51**	**4**	0	141	0	0	0	0	0	0	1	3	0	5	4	13	
Total Volume	4	0	324	50	3	381	0	11	9	3	12	35	391	4	40	84	6	525	339	11	171	10	0	531	0	0	0	0	0	0	5	15	0	17	15	52	
% App. Total	1	0	85	13.1	0.8		0	31.4	25.7	8.6	34.3		74.5	0.8	7.6	16	1.1		63.8	2.1	32.2	1.9	0		0	0	0	0	0		9.6	28.8	0	32.7	28.8		
PHF	.500	.000	.853	.735	.750	.866	.000	.688	.750	.375	.750	.729	.897	.250	.769	.808	.500	.931	.856	.688	.838	.625	.000	.903	.000	.000	.000	.000	.000	.000	.625	.625	.000	.708	.938	.722	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	55	16	0	0	72	0	2	3	0	4	0	9	84	0	7	16	3	110	84	2	30	2	0	118	0	0	0	0	0	0	1	0	0	3	2	6	0	315	315
07:15 AM	0	0	48	8	0	0	56	0	4	2	2	3	0	11	71	1	13	25	0	110	95	2	43	1	0	141	0	0	0	0	0	0	1	2	0	3	3	9	0	327	327
07:30 AM	1	0	91	4	1	0	97	0	2	3	1	1	0	7	100																											
07:45 AM	0	0	92	15	0	0	107	0	3	1	0	3	3	7	83	0	9	20	1	113	74	3	50	4	0	131	0	0	0	0	0	0	1	3	0	3	4	11	3	369	372
Total	2	0	286												338						320		160																1368	1371
08:00 AM	2	0	71	14	1	0	88	0	3	0	0	1	0	4	78	0	11	11	0	100	70	2	42	2	0	116	0	0	0	0	0	0	1	5	0	6	4	16	0	324	324
08:15 AM	1	0	61	13	1	1	76	0	1	6	1	1	0	9	57	0	7	11	1	76	72	0	43	0	0	115	0	0	0	0	0	0	1	3	0	5	4	13	1	289	290
08:30 AM	0	0	44	16	1	0	61	0	4	0	1	4	0	9	83	0	15	11	0	109	77	4	33	3	0	117	0	0	0	0	0	0	3	2	0	2	3	10	0	306	306
08:45 AM	0	0	45	12	2	0	59	0	0	0	0	1	0	1	79	0	3	14	1	97	90	0	50	6	0	146	0	0	0	0	0	0	0	1	0	1	2	4	0	307	307
Total	3	0	221												297						309		168																1226	1227
Grand Total	5	0	507	98	6	1	616	0	19	15	5	18	3	57	635	1	75	128	8	847	629	17	328	21	0	995	0	0	0	0	0	0	9	19	0	26	25	79	4	2594	2598
Apprch %	0.8	0	82.3	15.9	1			0	33.3	26.3	8.8	31.6			75	0.1	8.9	15.1	0.9		63.2	1.7	33	2.1	0		0	0	0	0	0		11.4	24.1	0	32.9	31.6				
Total %	0.2	0	19.5	3.8	0.2		23.7	0	0.7	0.6	0.2	0.7		2.2	24.5	0	2.9	4.9	0.3	32.7	24.2	0.7	12.6	0.8	0	38.4	0	0	0	0	0	0	0.3	0.7	0	1	1	3	0.2	99.8	

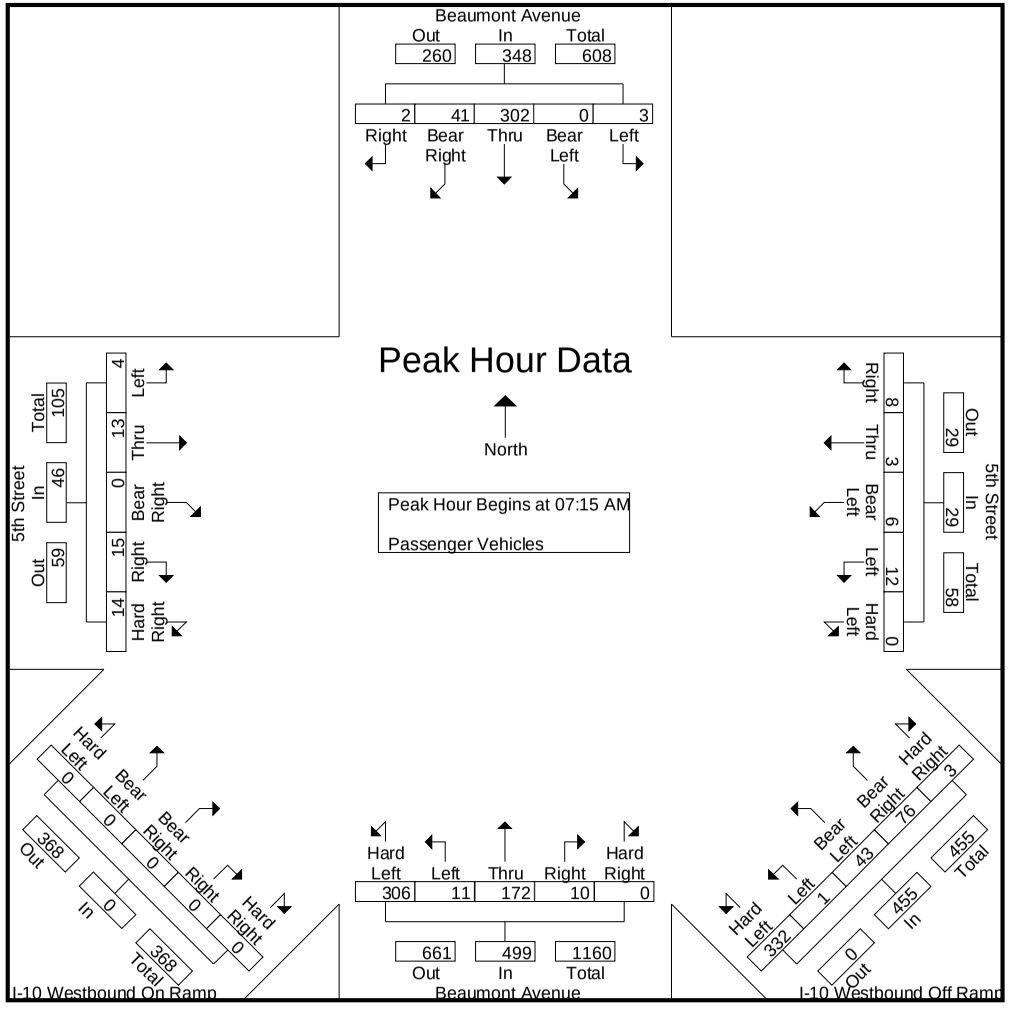
3.1-102

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 07:15 AM																																					
07:15 AM	0	0	48	8	0	56	0	**4**	2	**2**	**3**	**11**	71	**1**	**13**	**25**	0	110	**95**	2	43	1	0	**141**	0	0	0	0	0	0	**1**	2	0	3	3	9	327
07:30 AM	1	0	91	4	**1**	97	0	2	**3**	1	1	7	**100**	0	10	20	**2**	**132**	67	**4**	37	3	0	111	0	0	0	0	0	0	1	3	0	3	3	10	357
07:45 AM	0	0	**92**	**15**	0	**107**	0	3	1	0	3	7	83	0	9	20	1	113	74	3	**50**	**4**	0	131	0	0	0	0	0	0	1	3	0	3	**4**	11	**369**
08:00 AM	**2**	0	71	14	1	88	0	3	0	0	1	4	78	0	11	11	0	100	70	2	42	2	0	116	0	0	0	0	0	0	1	**5**	0	**6**	4	**16**	324
Total Volume	3	0	302	41	2	348	0	12	6	3	8	29	332	1	43	76	3	455	306	11	172	10	0	499	0	0	0	0	0	0	4	13	0	15	14	46	1377
% App. Total	0.9	0	86.8	11.8	0.6		0	41.4	20.7	10.3	27.6		73	0.2	9.5	16.7	0.7		61.3	2.2	34.5	2	0		0	0	0	0	0		8.7	28.3	0	32.6	30.4		
PHF	.375	.000	.821	.683	.500	.813	.000	.750	.500	.375	.667	.659	.830	.250	.827	.760	.375	.862	.805	.688	.860	.625	.000	.885	.000	.000	.000	.000	.000	.000	1.00	.650	.000	.625	.875	.719	.933

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
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E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						
+0 mins.	0	0	48	8	0	56	0	**4**	2	**2**	**3**	**11**	71	**1**	**13**	**25**	0	110	**95**	2	43	1	0	**141**	0	0	0	0	0	0	**1**	2	0	3	3	9	
+15 mins.	1	0	91	4	**1**	97	0	2	**3**	1	1	7	**100**	0	10	20	**2**	**132**	67	**4**	37	3	0	111	0	0	0	0	0	0	1	3	0	3	3	10	
+30 mins.	0	0	**92**	**15**	0	**107**	0	3	1	0	3	7	83	0	9	20	1	113	74	3	**50**	**4**	0	131	0	0	0	0	0	0	1	3	0	3	**4**	11	
+45 mins.	**2**	0	71	14	1	88	0	3	0	0	1	4	78	0	11	11	0	100	70	2	42	2	0	116	0	0	0	0	0	0	1	**5**	0	**6**	4	**16**	
Total Volume	3	0	302	41	2	348	0	12	6	3	8	29	332	1	43	76	3	455	306	11	172	10	0	499	0	0	0	0	0	0	4	13	0	15	14	46	
% App. Total	0.9	0	86.8	11.8	0.6		0	41.4	20.7	10.3	27.6		73	0.2	9.5	16.7	0.7		61.3	2.2	34.5	2	0		0	0	0	0	0		8.7	28.3	0	32.6	30.4		
PHF	.375	.000	.821	.683	.500	.813	.000	.750	.500	.375	.667	.659	.830	.250	.827	.760	.375	.862	.805	.688	.860	.625	.000	.885	.000	.000	.000	.000	.000	.000	1.000	.650	.000	.625	.875	.719	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	4	0	0	0	4	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	3	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
07:45 AM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	1	4	0	1	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9
Total	0	0	7	0	0	0	7	0	0	0	0	0	0	0	8	1	0	1	0	10	9	0	4	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30
08:00 AM	0	0	1	1	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	3	2	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	1	0	8	8
08:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	0	5	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
08:30 AM	0	0	1	1	0	0	2	0	0	0	0	0	0	0	3	1	0	0	0	4	7	0	2	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
08:45 AM	0	0	4	0	0	0	4	0	2	0	0	0	0	2	1	0	0	0	0	1	1	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10
Total	0	0	7	2	0	0	9	0	2	0	0	0	0	2	12	1	0	0	0	13	11	0	4	0	0	15	0	0	0	0	0	0	1	0	0	0	0	1	0	40	40
Grand Total																																										
Apprch %			87.5	12.5					100												71.4		28.6										100								
															28.6						28.6		11.4																		

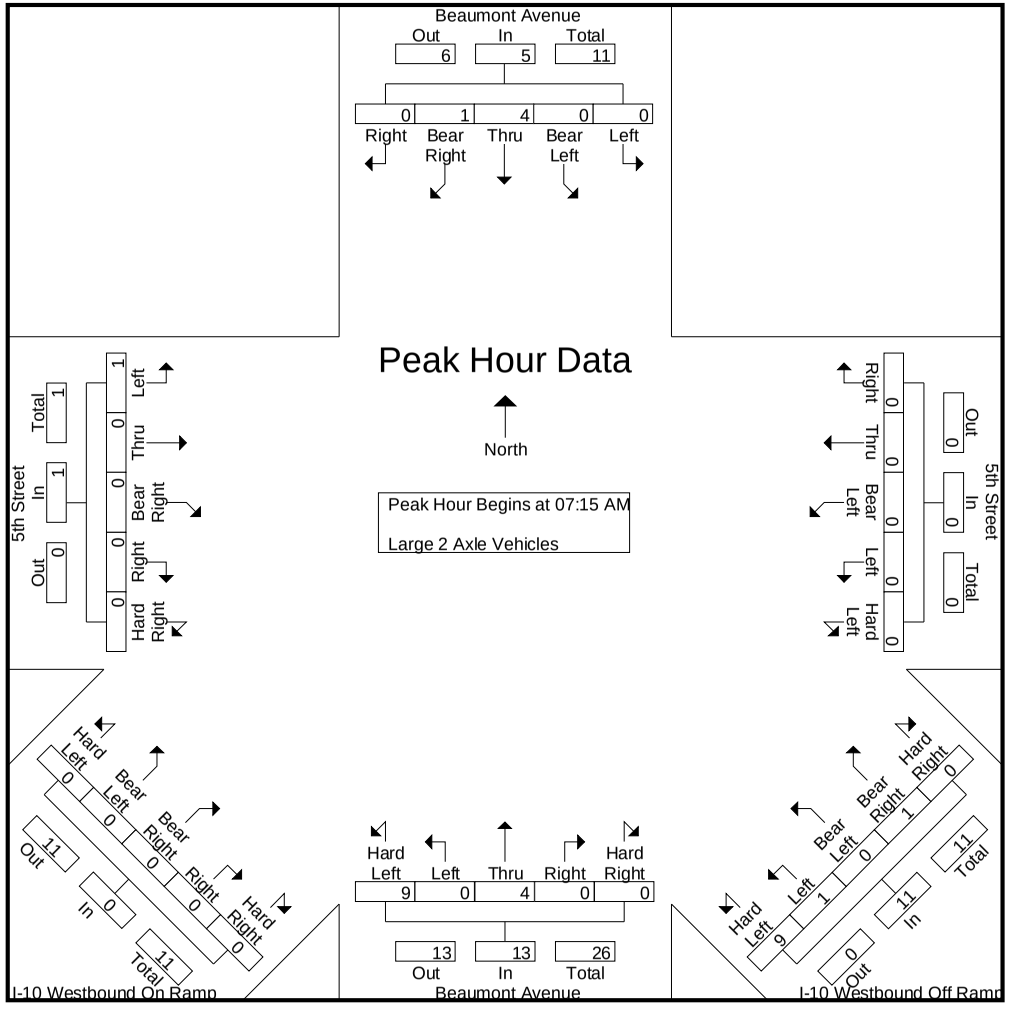
3.1-105

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound							
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 07:15 AM																																								
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	0	**1**	0	3	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	6
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	0	0	**4**	0	0	**3**	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	7
07:45 AM	0	0	**3**	0	0	**3**	0	0	0	0	0	0	1	0	0	0	0	1	**4**	0	1	0	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	**9**
08:00 AM	0	0	1	**1**	0	2	0	0	0	0	0	0	3	0	0	0	0	3	2	0	0	0	0	2	0	0	0	0	0	0	0	**1**	0	0	0	0	**1**	8
Total Volume	0	0	4	1	0	5	0	0	0	0	0	0	9	1	0	1	0	11	9	0	4	0	0	13	0	0	0	0	0	0	1	0	0	0	0	1	30
% App. Total	0	0	80	20	0		0	0	0	0	0		81.8	9.1	0	9.1	0		69.2	0	30.8	0	0		0	0	0	0	0		100	0	0	0	0		
PHF	.000	.000	.333	.250	.000	.417	.000	.000	.000	.000	.000	.000	.563	.250	.000	.250	.000	.688	.563	.000	.333	.000	.000	.650	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.000	.250	.833

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	0	**1**	0	3	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**4**	0	0	0	0	**4**	0	0	**3**	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	**3**	0	0	**3**	0	0	0	0	0	0	1	0	0	0	0	1	**4**	0	1	0	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	1	**1**	0	2	0	0	0	0	0	0	3	0	0	0	0	3	2	0	0	0	0	2	0	0	0	0	0	0	**1**	0	0	0	0	**1**	
Total Volume	0	0	4	1	0	5	0	0	0	0	0	0	9	1	0	1	0	11	9	0	4	0	0	13	0	0	0	0	0	0	1	0	0	0	0	1	
% App. Total	0	0	80	20	0		0	0	0	0	0		81.8	9.1	0	9.1	0		69.2	0	30.8	0	0		0	0	0	0	0		100	0	0	0	0		
PHF	.000	.000	.333	.250	.000	.417	.000	.000	.000	.000	.000	.000	.563	.250	.000	.250	.000	.688	.563	.000	.333	.000	.000	.650	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.000	.250	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	1	9	0	1	0	0	10	2	0	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
08:00 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	4	0	0	0	0	0	0	0	1	0	0	0	1	0	6	6
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	1	0	3	2	0	3	0	0	5	0	0	0	0	0	0	0	1	0	0	0	1	0	10	10
Grand Total																																										
Apprch %			100								100				84.6						15.4		23.1										100								
															42.3																										

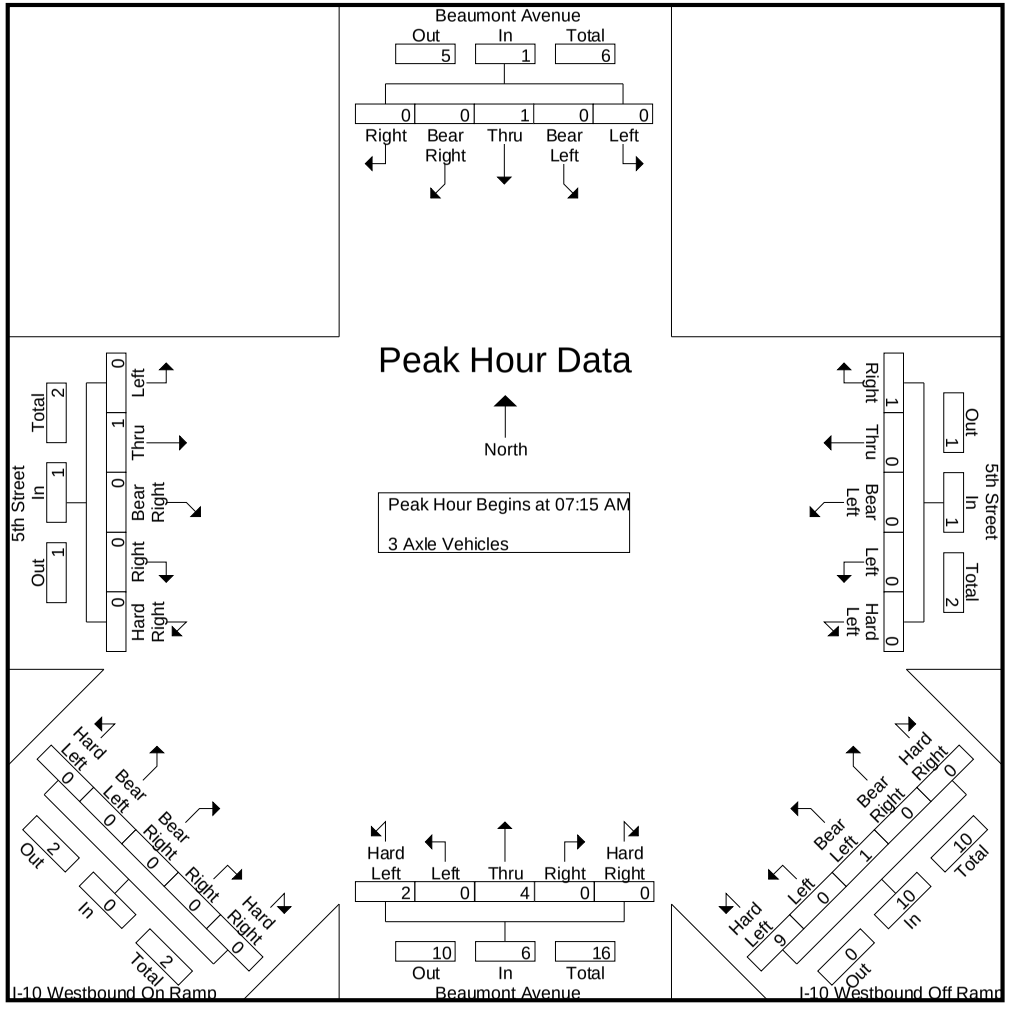
3.1-108

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound							
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 07:15 AM																																								
07:15 AM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	**1**	0	0	**6**	**1**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**7**
08:00 AM	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**3**	0	0	**4**	0	0	0	0	0	0	0	**1**	0	0	0	**1**	6
Total Volume	0	0	1	0	0	1	0	0	0	0	1	1	9	0	1	0	0	10	2	0	4	0	0	6	0	0	0	0	0	0	0	1	0	0	0	1	19
% App. Total	0	0	100	0	0		0	0	0	0	100		90	0	10	0	0		33.3	0	66.7	0	0		0	0	0	0	0		0	100	0	0	0		
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.250	.250	.450	.000	.250	.000	.000	.417	.500	.000	.333	.000	.000	.375	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.679

Counts Unlimited
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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						
+0 mins.	0	0	0	0	0	0	0	0	0	0	**1**	**1**	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	**1**	0	0	**6**	**1**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**3**	0	0	**4**	0	0	0	0	0	0	0	**1**	0	0	0	**1**	
Total Volume	0	0	1	0	0	1	0	0	0	0	1	1	9	0	1	0	0	10	2	0	4	0	0	6	0	0	0	0	0	0	0	1	0	0	0	1	
% App. Total	0	0	100	0	0		0	0	0	0	100		90	0	10	0	0		33.3	0	66.7	0	0		0	0	0	0	0		0	100	0	0	0		
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.250	.250	.450	.000	.250	.000	.000	.417	.500	.000	.333	.000	.000	.375	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	2	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
07:15 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	9	2	0	0	0	11	1	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	15	15
07:30 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	4	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	2	0	12	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16
Total	0	0	0	2	0	0	2	0	0	0	0	0	0	0	36	2	0	2	0	40	8	0	4	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	54	54
08:00 AM	0	0	1	2	0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
08:15 AM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	4	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
08:30 AM	0	0	1	1	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0	4	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Total	0	0	4	3	0	0	7	0	0	0	0	0	0	0	16	0	0	0	0	16	7	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	30	30
Grand Total																																										
Apprch %			44.4	55.6											92.9						78.9		21.1																		
															61.9						17.9																				

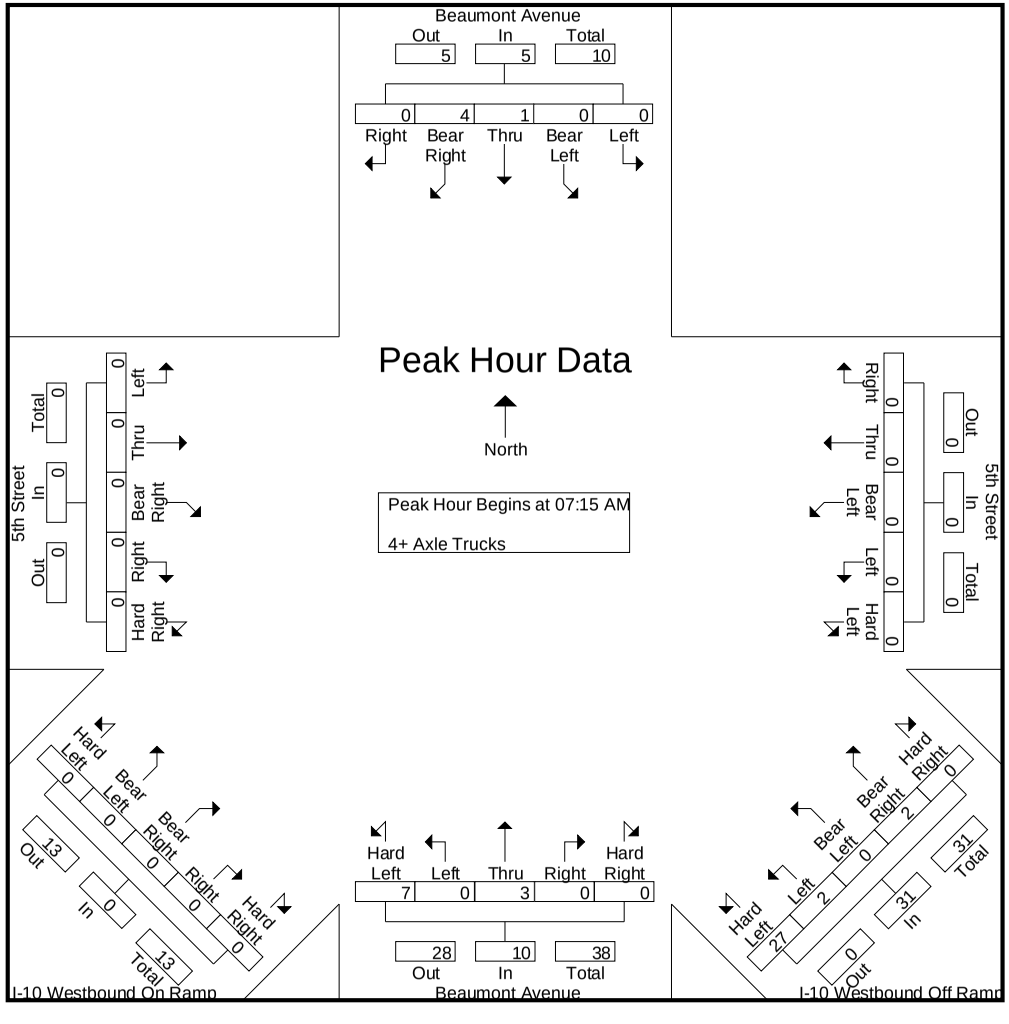
3.1-111

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound							
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 07:15 AM																																								
07:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	9	**2**	0	0	0	11	1	0	**2**	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	15
07:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	4	0	0	0	0	4	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	**10**	0	0	**2**	0	**12**	**4**	0	0	0	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	**16**
08:00 AM	0	0	**1**	**2**	0	**3**	0	0	0	0	0	0	4	0	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	8
Total Volume	0	0	1	4	0	5	0	0	0	0	0	0	27	2	0	2	0	31	7	0	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	46
% App. Total	0	0	20	80	0		0	0	0	0	0		87.1	6.5	0	6.5	0		70	0	30	0	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.250	.500	.000	.417	.000	.000	.000	.000	.000	.000	.675	.250	.000	.250	.000	.646	.438	.000	.375	.000	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.719

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PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



Counts Unlimited
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Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						
+0 mins.	0	0	0	1	0	1	0	0	0	0	0	0	9	**2**	0	0	0	11	1	0	**2**	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	1	0	1	0	0	0	0	0	0	4	0	0	0	0	4	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**10**	0	0	**2**	0	**12**	**4**	0	0	0	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	**1**	**2**	0	**3**	0	0	0	0	0	0	4	0	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	1	4	0	5	0	0	0	0	0	0	27	2	0	2	0	31	7	0	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	
% App. Total	0	0	20	80	0		0	0	0	0	0		87.1	6.5	0	6.5	0		70	0	30	0	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.250	.500	.000	.417	.000	.000	.000	.000	.000	.000	.675	.250	.000	.250	.000	.646	.438	.000	.375	.000	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

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Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound								
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	77	21	1	0	100	0	6	4	0	4	4	14	187	0	2	21	3	213	66	1	64	6	0	137	0	0	0	0	0	0	5	3	0	6	3	17	4	481	485
04:15 PM	0	0	85	11	2	0	98	0	9	4	5	2	1	20	146	0	8	19	2	175	60	2	56	7	0	125	0	0	0	0	0	0	3	4	0	4	4	15	1	433	434
04:30 PM	1	0	89	16	0	0	106	0	7	5	3	5	3	20	162	0	3	20	4	189	56	1	80	6	0	143	0	0	0	0	0	0	5	5	0	9	0	19	3	477	480
04:45 PM	2	0	94	14	6	0	116	0	4	6	2	3	0	15	136	0	5	6	1	148	73	0	62	2	0	137	0	0	0	0	0	0	5	3	0	8	3	19	0	435	435
Total	4	0	345	62	9	0	420	0	26	19	10	14	8	69	631	0	18	66	10	725	255	4	262	21	0	542	0	0	0	0	0	0	18	15	0	27	10	70	8	1826	1834
05:00 PM	5	0	79	8	0	0	92	0	19	5	0	6	4	30	164	0	5	18	4	191	51	0	74	6	0	131	0	0	0	0	0	0	8	1	0	4	3	16	4	460	464
05:15 PM	1	0	90	15	3	0	109	0	7	5	2	2	1	16	168	0	2	15	0	185	78	1	67	5	0	151	0	0	0	0	0	0	4	2	0	4	3	13	1	474	475
05:30 PM	1	0	84	16	0	0	101	0	7	14	0	4	3	25	144	0	3	10	1	158	74	4	55	8	0	141	0	0	0	0	0	0	3	2	0	7	0	12	3	437	440
05:45 PM	1	0	64	7	0	0	72	0	6	2	2	4	2	14	152	0	9	18	0	179	60	2	49	4	0	115	0	0	0	0	0	0	0	3	0	3	4	10	2	390	392
Total	8	0	317	46	3	0	374	0	39	26	4	16	10	85	628	0	19	61	5	713	263	7	245	23	0	538	0	0	0	0	0	0	15	8	0	18	10	51	10	1761	1771
Grand Total	12	0	662	108	12	0	794	0	65	45	14	30	18	154	1259	0	37	127	15	1438	518	11	507	44	0	1080	0	0	0	0	0	0	33	23	0	45	20	121	18	3587	3605
Apprch %	1.5	0	83.4	13.6	1.5			0	42.2	29.2	9.1	19.5			87.6	0	2.6	8.8	1		48	1	46.9	4.1	0		0	0	0	0	0		27.3	19	0	37.2	16.5				
Total %	0.3	0	18.5	3	0.3		22.1	0	1.8	1.3	0.4	0.8		4.3	35.1	0	1	3.5	0.4	40.1	14.4	0.3	14.1	1.2	0	30.1	0	0	0	0	0	0	0.9	0.6	0	1.3	0.6	3.4	0.5	99.5	
Passenger Vehicles	12	0	650	104	12		778	0	64	45	14	30		171	1170	0	32	124	15	1341	492	10	497	43	0	1042	0	0	0	0	0	0	33	23	0	44	20	120	0	0	3452
% Passenger Vehicles	100	0	98.2	96.3	100	0	98	0	98.5	100	100	100	100	99.4	92.9	0	86.5	97.6	100	93.3	95	90.9	98	97.7	0	96.5	0	0	0	0	0	0	100	100	0	97.8	100	99.2	0	0	95.8
Large 2 Axle Vehicles	0	0	8	3	0		11	0	0	0	0	0		0	28	0	0	1	0	29	10	1	6	0	0	17	0	0	0	0	0	0	0	0	0	1	0	1	0	0	58
% Large 2 Axle Vehicles	0	0	1.2	2.8	0	0	1.4	0	0	0	0	0	0	0	2.2	0	0	0.8	0	2	1.9	9.1	1.2	0	0	1.6	0	0	0	0	0	0	0	0	0	2.2	0	0.8	0	0	1.6
3 Axle Vehicles	0	0	2	0	0		2	0	0	0	0	0		0	5	0	0	0	0	5	6	0	3	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
% 3 Axle Vehicles	0	0	0.3	0	0	0	0.3	0	0	0	0	0	0	0	0.4	0	0	0	0	0.3	1.2	0	0.6	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
4+ Axle Trucks	0	0	2	1	0		3	0	1	0	0	0		1	56	0	5	2	0	63	10	0	1	1	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
% 4+ Axle Trucks	0	0	0.3	0.9	0	0	0.4	0	1.5	0	0	0	0	0.6	4.4	0	13.5	1.6	0	4.4	1.9	0	0.2	2.3	0	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2

3.1-214

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File Name : 03_BMT_Beaumont_10 W_PM
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Start Date : 1/14/2020
Page No : 2

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																				
Peak Hour for Entire Intersection Begins at 04:30 PM																																				
04:30 PM	1	0	89	**16**	0	106	0	7	5	**3**	5	20	162	0	3	**20**	**4**	189	56	**1**	**80**	**6**	0	143	0	0	0	0	0	0	5	**5**	0	**9**	0	**19**	**477**
04:45 PM	2	0	**94**	14	**6**	**116**	0	4	**6**	2	3	15	136	0	**5**	6	1	148	73	0	62	2	0	137	0	0	0	0	0	0	5	3	0	8	**3**	19	435
05:00 PM	**5**	0	79	8	0	92	0	**19**	5	0	**6**	**30**	164	0	5	18	4	**191**	51	0	74	6	0	131	0	0	0	0	0	0	**8**	1	0	4	3	16	460
05:15 PM	1	0	90	15	3	109	0	7	5	2	2	16	**168**	0	2	15	0	185	**78**	1	67	5	0	**151**	0	0	0	0	0	0	4	2	0	4	3	13	474
Total Volume	9	0	352	53	9	423	0	37	21	7	16	81	630	0	15	59	9	713	258	2	283	19	0	562	0	0	0	0	0	0	22	11	0	25	9	67	1846
% App. Total	2.1	0	83.2	12.5	2.1		0	45.7	25.9	8.6	19.8		88.4	0	2.1	8.3	1.3		45.9	0.4	50.4	3.4	0		0	0	0	0	0		32.8	16.4	0	37.3	13.4		
PHF	.450	.000	.936	.828	.375	.912	.000	.487	.875	.583	.667	.675	.938	.000	.750	.738	.563	.933	.827	.500	.884	.792	.000	.930	.000	.000	.000	.000	.000	.000	.688	.550	.000	.694	.750	.882	.968

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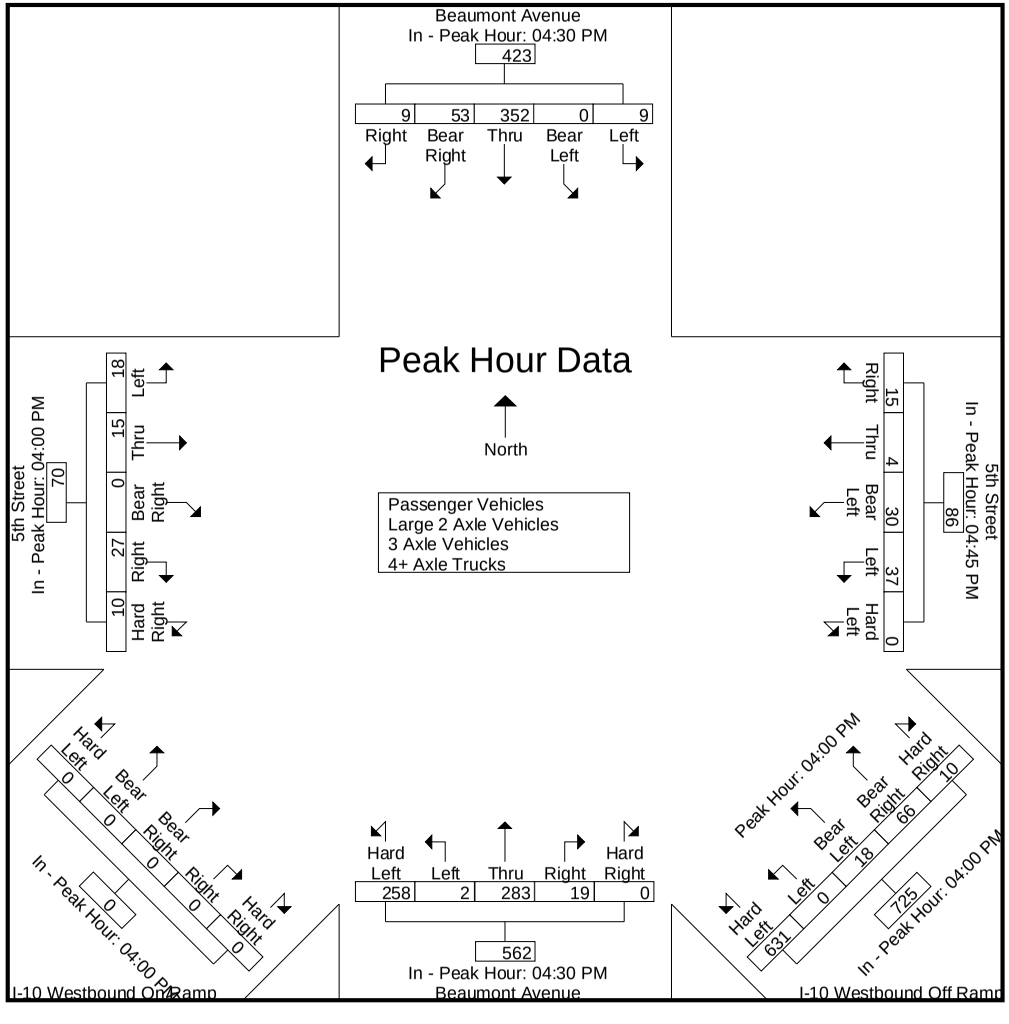
File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:45 PM						04:00 PM						04:30 PM						04:00 PM						04:00 PM						
+0 mins.	1	0	89	**16**	0	106	0	4	6	**2**	3	15	**187**	0	2	**21**	3	**213**	56	**1**	**80**	**6**	0	143	0	0	0	0	0	0	**5**	3	0	6	3	17	
+15 mins.	2	0	**94**	14	**6**	**116**	0	**19**	5	0	**6**	**30**	146	0	**8**	19	2	175	73	0	62	2	0	137	0	0	0	0	0	0	3	4	0	4	**4**	15	
+30 mins.	**5**	0	79	8	0	92	0	7	5	2	2	16	162	0	3	20	**4**	189	51	0	74	6	0	131	0	0	0	0	0	0	5	**5**	0	**9**	0	**19**	
+45 mins.	1	0	90	15	3	109	0	7	**14**	0	4	25	136	0	5	6	1	148	**78**	1	67	5	0	**151**	0	0	0	0	0	0	5	3	0	8	3	19	
Total Volume	9	0	352	53	9	423	0	37	30	4	15	86	631	0	18	66	10	725	258	2	283	19	0	562	0	0	0	0	0	0	18	15	0	27	10	70	
% App. Total	2.1	0	83.2	12.5	2.1		0	43	34.9	4.7	17.4		87	0	2.5	9.1	1.4		45.9	0.4	50.4	3.4	0		0	0	0	0	0		25.7	21.4	0	38.6	14.3		
PHF	.450	.000	.936	.828	.375	.912	.000	.487	.536	.500	.625	.717	.844	.000	.563	.786	.625	.851	.827	.500	.884	.792	.000	.930	.000	.000	.000	.000	.000	.000	.900	.750	.000	.750	.625	.921	

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Weather: Clear

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Groups Printed- Passenger Vehicles

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	73	21	1	0	96	0	6	4	0	4	4	14	171	0	2	20	3	196	62	1	63	6	0	132	0	0	0	0	0	0	5	3	0	6	3	17	4	455	459
04:15 PM	0	0	85	9	2	0	96	0	9	4	5	2	1	20	128	0	5	19	2	154	54	2	52	7	0	115	0	0	0	0	0	0	3	4	0	4	4	15	1	400	401
04:30 PM	1	0	87	15	0	0	103	0	7	5	3	5	3	20	153	0	3	19	4	179	52	1	80	6	0	139	0	0	0	0	0	0	5	5	0	9	0	19	3	460	463
04:45 PM	2	0	93	13	6	0	114	0	4	6	2	3	0	15	123	0	4	6	1	134	71	0	62	2	0	135	0	0	0	0	0	0	5	3	0	7	3	18	0	416	416
Total	4	0	338	58	9	0	409	0	26	19	10	14	8	69	575	0	14	64	10	663	239	4	257	21	0	521	0	0	0	0	0	0	18	15	0	26	10	69	8	1731	1739
05:00 PM	5	0	78	8	0	0	91	0	18	5	0	6	4	29	157	0	5	18	4	184	49	0	72	6	0	127	0	0	0	0	0	0	8	1	0	4	3	16	4	447	451
05:15 PM	1	0	90	15	3	0	109	0	7	5	2	2	1	16	159	0	2	15	0	176	77	1	64	5	0	147	0	0	0	0	0	0	4	2	0	4	3	13	1	461	462
05:30 PM	1	0	82	16	0	0	99	0	7	14	0	4	3	25	134	0	3	10	1	148	70	4	55	8	0	137	0	0	0	0	0	0	3	2	0	7	0	12	3	421	424
05:45 PM	1	0	62	7	0	0	70	0	6	2	2	4	2	14	145	0	8	17	0	170	57	1	49	3	0	110	0	0	0	0	0	0	0	3	0	3	4	10	2	374	376
Total	8	0	312	46	3	0	369	0	38	26	4	16	10	84	595	0	18	60	5	678	253	6	240	22	0	521	0	0	0	0	0	0	15	8	0	18	10	51	10	1703	1713
Grand Total	12	0	650	104	12	0	778	0	64	45	14	30	18	153	1170	0	32	124	15	1341	492	10	497	43	0	1042	0	0	0	0	0	0	33	23	0	44	20	120	18	3434	3452
Apprch %	1.5	0	83.5	13.4	1.5			0	41.8	29.4	9.2	19.6			87.2	0	2.4	9.2	1.1		47.2	1	47.7	4.1	0		0	0	0	0	0		27.5	19.2	0	36.7	16.7				
Total %	0.3	0	18.9	3	0.3		22.7	0	1.9	1.3	0.4	0.9		4.5	34.1	0	0.9	3.6	0.4	39.1	14.3	0.3	14.5	1.3	0	30.3	0	0	0	0	0	0	1	0.7	0	1.3	0.6	3.5	0.5	99.5	

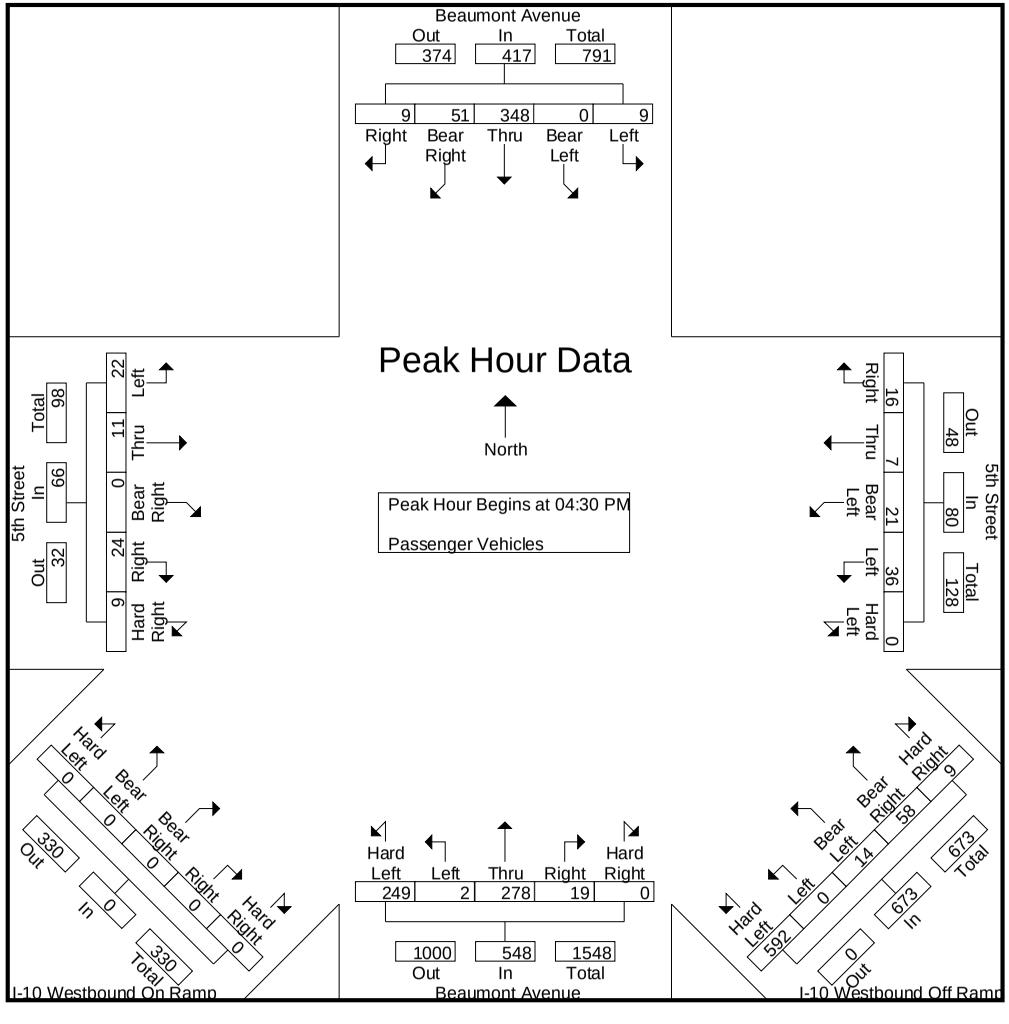
3.1-218

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound							
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 04:30 PM																																								
04:30 PM	1	0	87	**15**	0	103	0	7	5	**3**	5	20	153	0	3	**19**	**4**	179	52	**1**	**80**	**6**	0	139	0	0	0	0	0	0	5	**5**	0	**9**	0	**19**	460
04:45 PM	2	0	**93**	13	**6**	**114**	0	4	**6**	2	3	15	123	0	4	6	1	134	71	0	62	2	0	135	0	0	0	0	0	0	5	3	0	7	**3**	18	416
05:00 PM	**5**	0	78	8	0	91	0	**18**	5	0	**6**	**29**	157	0	**5**	18	4	**184**	49	0	72	6	0	127	0	0	0	0	0	0	**8**	1	0	4	3	16	447
05:15 PM	1	0	90	15	3	109	0	7	5	2	2	16	**159**	0	2	15	0	176	**77**	1	64	5	0	**147**	0	0	0	0	0	0	4	2	0	4	3	13	**461**
Total Volume	9	0	348	51	9	417	0	36	21	7	16	80	592	0	14	58	9	673	249	2	278	19	0	548	0	0	0	0	0	0	22	11	0	24	9	66	1784
% App. Total	2.2	0	83.5	12.2	2.2		0	45	26.2	8.8	20		88	0	2.1	8.6	1.3		45.4	0.4	50.7	3.5	0		0	0	0	0	0		33.3	16.7	0	36.4	13.6			
PHF	.450	.000	.935	.850	.375	.914	.000	.500	.875	.583	.667	.690	.931	.000	.700	.763	.563	.914	.808	.500	.869	.792	.000	.932	.000	.000	.000	.000	.000	.000	.688	.550	.000	.667	.750	.868	.967

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						
+0 mins.	1	0	87	**15**	0	103	0	7	5	**3**	5	20	153	0	3	**19**	**4**	179	52	**1**	**80**	**6**	0	139	0	0	0	0	0	0	5	**5**	0	**9**	0	**19**	
+15 mins.	2	0	**93**	13	**6**	**114**	0	4	**6**	2	3	15	123	0	4	6	1	134	71	0	62	2	0	135	0	0	0	0	0	0	5	3	0	7	**3**	18	
+30 mins.	**5**	0	78	8	0	91	0	**18**	5	0	**6**	**29**	157	0	**5**	18	4	**184**	49	0	72	6	0	127	0	0	0	0	0	0	**8**	1	0	4	3	16	
+45 mins.	1	0	90	15	3	109	0	7	5	2	2	16	**159**	0	2	15	0	176	**77**	1	64	5	0	**147**	0	0	0	0	0	0	4	2	0	4	3	13	
Total Volume	9	0	348	51	9	417	0	36	21	7	16	80	592	0	14	58	9	673	249	2	278	19	0	548	0	0	0	0	0	0	22	11	0	24	9	66	
% App. Total	2.2	0	83.5	12.2	2.2		0	45	26.2	8.8	20		88	0	2.1	8.6	1.3		45.4	0.4	50.7	3.5	0		0	0	0	0	0		33.3	16.7	0	36.4	13.6		
PHF	.450	.000	.935	.850	.375	.914	.000	.500	.875	.583	.667	.690	.931	.000	.700	.763	.563	.914	.808	.500	.869	.792	.000	.932	.000	.000	.000	.000	.000	.000	.688	.550	.000	.667	.750	.868	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	9	0	0	1	0	10	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13
04:15 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	2	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11
04:30 PM	0	0	1	1	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
04:45 PM	0	0	1	1	0	0	2	0	0	0	0	0	0	0	6	0	0	0	0	6	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	10	10
Total	0	0	4	3	0	0	7	0	0	0	0	0	0	0	22	0	0	1	0	23	6	0	3	0	0	9	0	0	0	0	0	0	0	0	0	1	0	1	0	40	40
05:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
05:30 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
05:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Total	0	0	4	0	0	0	4	0	0	0	0	0	0	0	6	0	0	0	0	6	4	1	3	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	18	18
Grand Total																																										
Apprch %			72.7	27.3											96.6						58.8		35.3												100						
			13.8												48.3						17.2		10.3																		

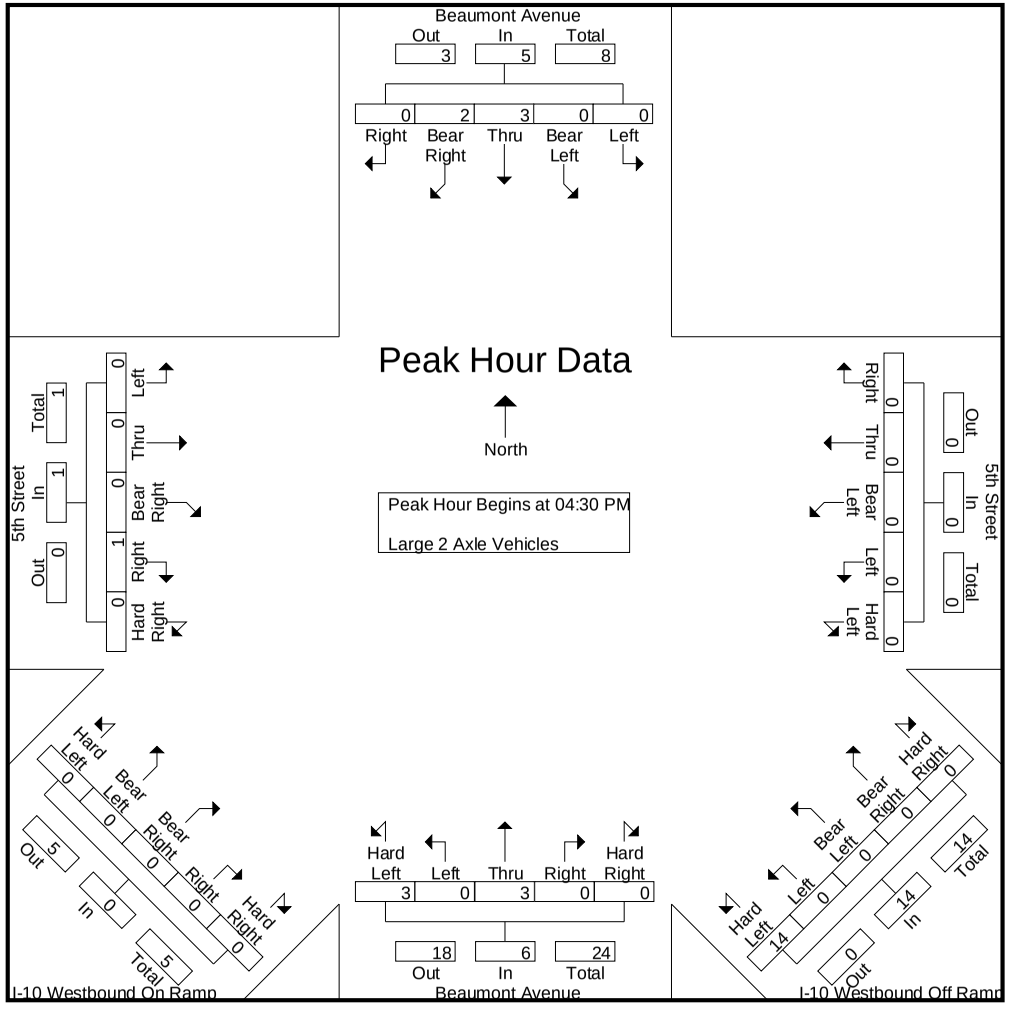
3.1-121

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound							
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 04:30 PM																																								
04:30 PM	0	0	**1**	**1**	0	**2**	0	0	0	0	0	0	3	0	0	0	0	3	**1**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
04:45 PM	0	0	1	1	0	2	0	0	0	0	0	0	**6**	0	0	0	0	**6**	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**10**
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	**2**	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total Volume	0	0	3	2	0	5	0	0	0	0	0	0	14	0	0	0	0	14	3	0	3	0	0	6	0	0	0	0	0	0	0	0	0	1	0	1	26
% App. Total	0	0	60	40	0		0	0	0	0	0		100	0	0	0	0		50	0	50	0	0		0	0	0	0	0		0	0	0	100	0		
PHF	.000	.000	.750	.500	.000	.625	.000	.000	.000	.000	.000	.000	.583	.000	.000	.000	.000	.583	.750	.000	.375	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.650

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						
+0 mins.	0	0	**1**	**1**	0	**2**	0	0	0	0	0	0	3	0	0	0	0	3	**1**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	1	1	0	2	0	0	0	0	0	0	**6**	0	0	0	0	**6**	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**1**	0	**1**	
+30 mins.	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	1	0	**2**	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	3	2	0	5	0	0	0	0	0	0	14	0	0	0	0	14	3	0	3	0	0	6	0	0	0	0	0	0	0	0	0	1	0	1	
% App. Total	0	0	60	40	0		0	0	0	0	0		100	0	0	0	0		50	0	50	0	0		0	0	0	0	0		0	0	0	100	0		
PHF	.000	.000	.750	.500	.000	.625	.000	.000	.000	.000	.000	.000	.583	.000	.000	.000	.000	.583	.750	.000	.375	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	2	6	0	2	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	1	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Grand Total																																										
Apprch %			100												100						66.7		33.3																		
			12.5												31.2						37.5		18.8																		

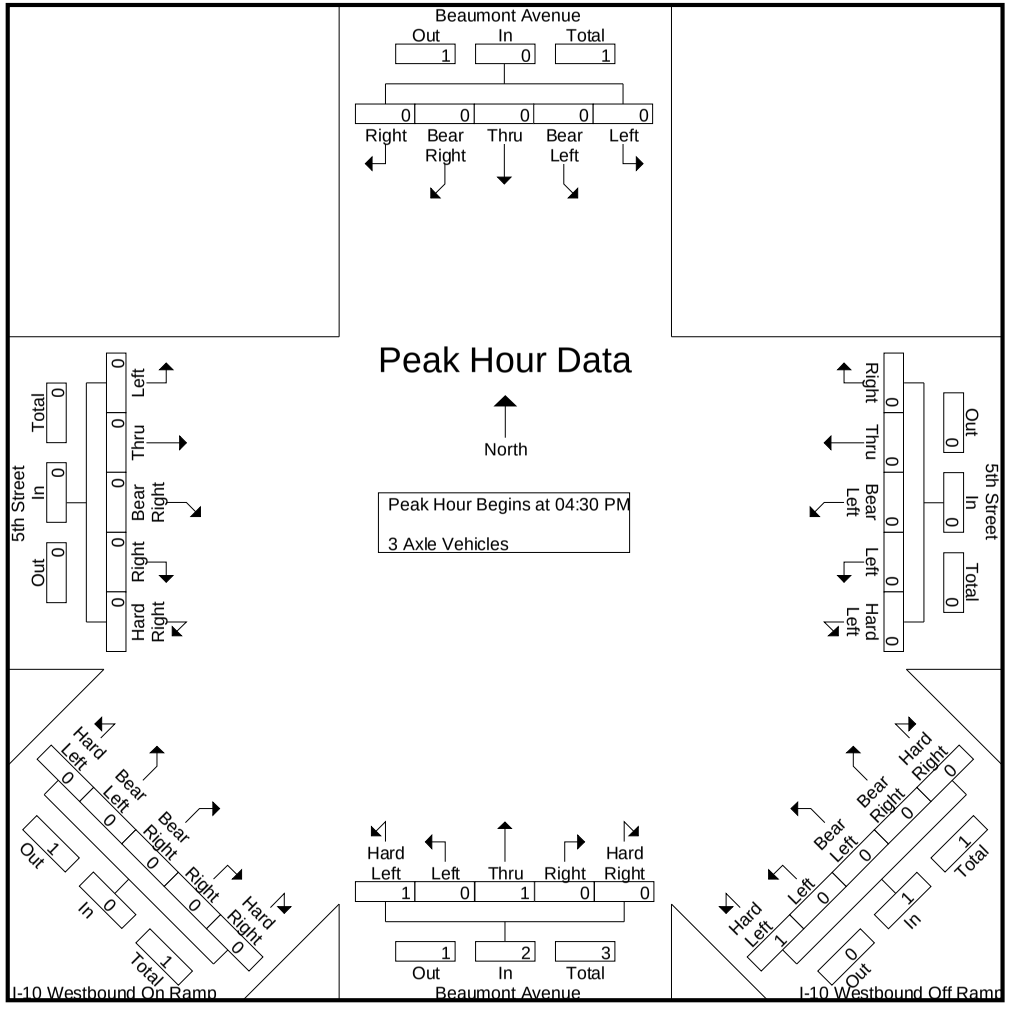
3.1-124

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound							
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 04:30 PM																																								
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
% App. Total	0	0	0	0	0		0	0	0	0	0		100	0	0	0	0		50	0	50	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.000	.250	.250	.000	.250	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
% App. Total	0	0	0	0	0		0	0	0	0	0		100	0	0	0	0		50	0	50	0	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.000	.250	.250	.000	.250	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020

Groups Printed- 4+ Axle Trucks

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound									
Start Time	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	6	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
04:15 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	13	0	3	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	17
04:30 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	6	0	0	1	0	7	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	8
Total	0	0	2	1	0	0	3	0	0	0	0	0	0	0	32	0	4	1	0	37	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	44	44
05:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	5	0	0	0	0	5	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	1	0	7	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9
Total	0	0	0	0	0	0	0	0	1	0	0	0	0	1	24	0	1	1	0	26	6	0	1	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	35	35
Grand Total																																										
Apprch %			66.7	33.3					100						88.9						83.3																				
															70.9						12.7																				

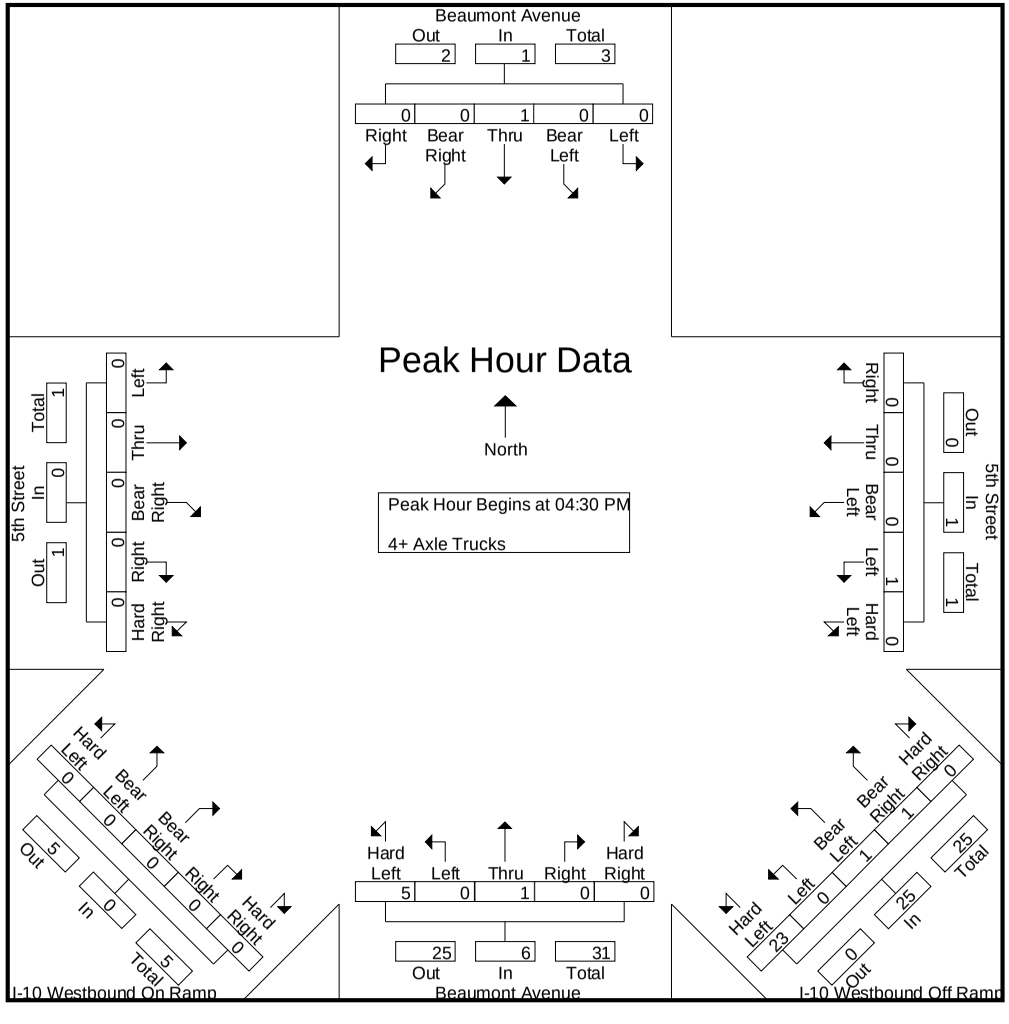
3.1-127

	Beaumont Avenue Southbound							5th Street Westbound							I-10 Westbound Off Ramp Northwestbound							Beaumont Avenue Northbound							I-10 Westbound On Ramp Northeastbound							5th Street Eastbound							
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 04:30 PM																																								
04:30 PM	0	0	**1**	0	0	**1**	0	0	0	0	0	0	6	0	0	**1**	0	7	**3**	0	0	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	**11**
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	**7**	0	**1**	0	0	**8**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
05:00 PM	0	0	0	0	0	0	0	**1**	0	0	0	**1**	5	0	0	0	0	5	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	1	0	**1**	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	7
Total Volume	0	0	1	0	0	1	0	1	0	0	0	1	23	0	1	1	0	25	5	0	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	33
% App. Total	0	0	100	0	0		0	100	0	0	0		92	0	4	4	0		83.3	0	16.7	0	0		0	0	0	0	0		0	0	0	0	0						
PHF	.000	.000	.250	.000	.000	.250	.000	.250	.000	.000	.000	.250	.821	.000	.250	.250	.000	.781	.417	.000	.250	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
Start Time	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						
+0 mins.	0	0	**1**	0	0	**1**	0	0	0	0	0	0	6	0	0	**1**	0	7	**3**	0	0	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**7**	0	**1**	0	0	**8**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	**1**	0	0	0	**1**	5	0	0	0	0	5	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	1	0	**1**	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	1	0	0	1	0	1	0	0	0	1	23	0	1	1	0	25	5	0	1	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	
% App. Total	0	0	100	0	0		0	100	0	0	0		92	0	4	4	0		83.3	0	16.7	0	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.250	.000	.000	.250	.000	.250	.000	.000	.000	.250	.821	.000	.250	.250	.000	.781	.417	.000	.250	.000	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

Location: Beaumont
N/S: Beaumont Avenue
E/W: 5th Street

Date: 1/14/2020
Day: Tuesday

PEDESTRIANS

	North Leg Beaumont Avenue	East Leg 5th Street	Southeast Leg I-10 WB Off Ramp	South Leg Beaumont Avenue	Southwest Leg I-10 WB On Ramp	West Leg 5th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	1
8:00 AM	0	1	1	0	0	0	2
8:15 AM	1	1	1	0	0	0	3
8:30 AM	0	1	1	0	0	0	2
8:45 AM	0	1	1	0	0	0	2
TOTAL VOLUMES:	2	4	4	0	0	0	10

	North Leg Beaumont Avenue	East Leg 5th Street	Southeast Leg I-10 WB Off Ramp	South Leg Beaumont Avenue	Southwest Leg I-10 WB On Ramp	West Leg 5th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	3	3	0	1	1	8
4:15 PM	0	1	1	0	0	0	2
4:30 PM	2	1	1	0	0	0	4
4:45 PM	1	0	2	0	1	1	5
5:00 PM	1	1	1	0	1	1	5
5:15 PM	1	0	0	0	1	1	3
5:30 PM	1	4	4	0	0	0	9
5:45 PM	1	1	1	0	0	0	3
TOTAL VOLUMES:	7	11	13	0	4	4	39

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Location: Beaumont
N/S: Beaumont Avenue
E/W: 5th Street

Date: 1/14/2020
Day: Tuesday

BICYCLES

	Southbound Beaumont Avenue					Westbound 5th Street					Northwestbound I-10 WB Off Ramp					Northbound Beaumont Avenue					Northeastbound I-10 Westbound On Ramp					Eastbound 5th Street					
	Left	Bear Left	Thru	Bear Right	Right	Hard Left	Left	Bear Left	Thru	Right	Hard Left	Left	Bear Left	Bear Right	Hard Right	Hard Left	Left	Thru	Right	Hard Right	Hard Left	Bear Left	Bear Right	Right	Hard Right	Left	Thru	Bear Right	Right	Hard Right	
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3

	Southbound Beaumont Avenue					Westbound 5th Street					Northwestbound I-10 WB Off Ramp					Northbound Beaumont Avenue					Northeastbound I-10 Westbound On Ramp					Eastbound 5th Street					
	Left	Bear Left	Thru	Bear Right	Right	Hard Left	Left	Bear Left	Thru	Right	Hard Left	Left	Bear Left	Bear Right	Hard Right	Hard Left	Left	Thru	Right	Hard Right	Hard Left	Bear Left	Bear Right	Right	Hard Right	Left	Thru	Bear Right	Right	Hard Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

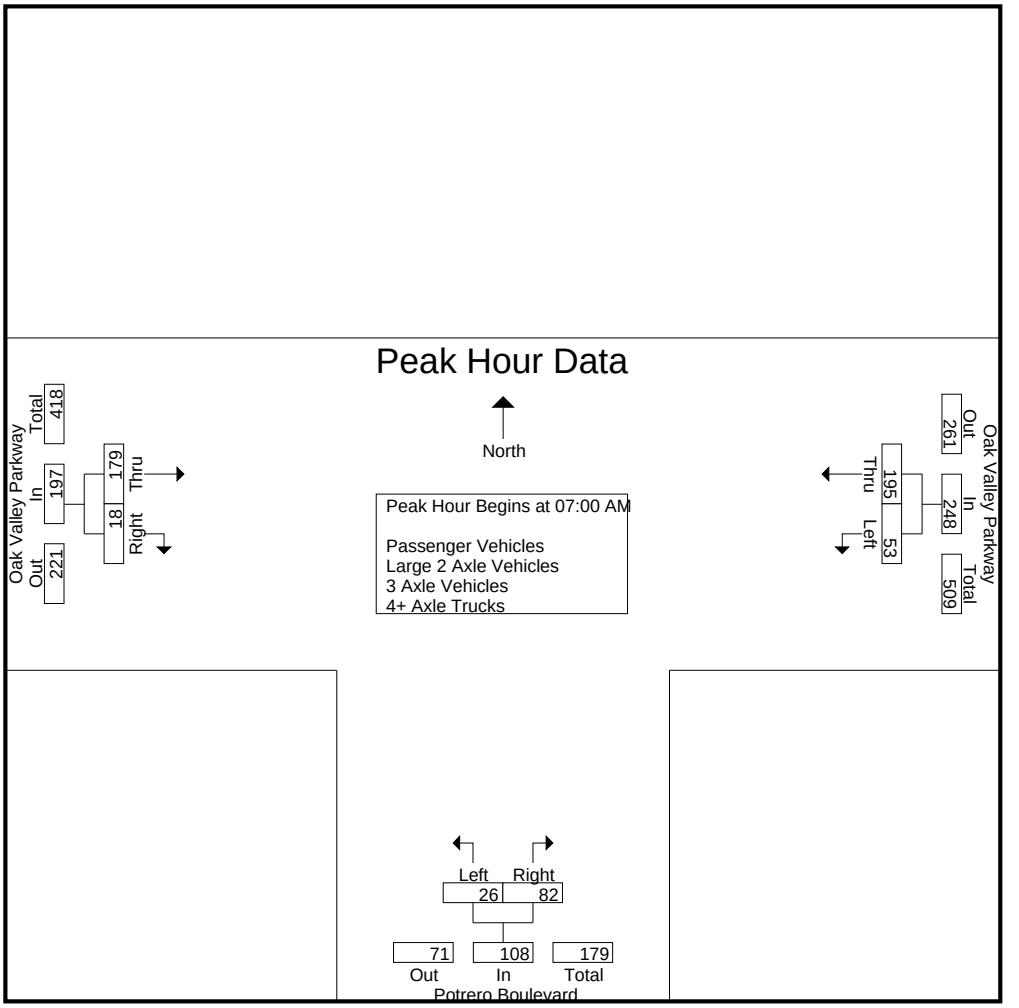
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	15	59	74	7	18	25	50	7	57	156
07:15 AM	16	62	78	9	34	43	35	4	39	160
07:30 AM	13	48	61	6	15	21	51	2	53	135
07:45 AM	9	26	35	4	15	19	43	5	48	102
Total	53	195	248	26	82	108	179	18	197	553
08:00 AM	9	36	45	3	17	20	26	5	31	96
08:15 AM	10	25	35	5	15	20	37	2	39	94
08:30 AM	8	25	33	4	7	11	30	5	35	79
08:45 AM	12	27	39	1	14	15	29	2	31	85
Total	39	113	152	13	53	66	122	14	136	354
Grand Total	92	308	400	39	135	174	301	32	333	907
Apprch %	23	77		22.4	77.6		90.4	9.6		
Total %	10.1	34	44.1	4.3	14.9	19.2	33.2	3.5	36.7	
Passenger Vehicles	78	296	374	37	122	159	294	29	323	856
% Passenger Vehicles	84.8	96.1	93.5	94.9	90.4	91.4	97.7	90.6	97	94.4
Large 2 Axle Vehicles	7	5	12	0	5	5	4	1	5	22
% Large 2 Axle Vehicles	7.6	1.6	3	0	3.7	2.9	1.3	3.1	1.5	2.4
3 Axle Vehicles	5	1	6	2	5	7	1	2	3	16
% 3 Axle Vehicles	5.4	0.3	1.5	5.1	3.7	4	0.3	6.2	0.9	1.8
4+ Axle Trucks	2	6	8	0	3	3	2	0	2	13
% 4+ Axle Trucks	2.2	1.9	2	0	2.2	1.7	0.7	0	0.6	1.4

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	15	59	74	7	18	25	50	**7**	**57**	156
07:15 AM	**16**	**62**	**78**	**9**	**34**	**43**	35	4	39	**160**
07:30 AM	13	48	61	6	15	21	**51**	2	53	135
07:45 AM	9	26	35	4	15	19	43	5	48	102
Total Volume	53	195	248	26	82	108	179	18	197	553
% App. Total	21.4	78.6		24.1	75.9		90.9	9.1		
PHF	.828	.786	.795	.722	.603	.628	.877	.643	.864	.864

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	15	59	74	7	18	25	50	**7**	**57**
+15 mins.	**16**	**62**	**78**	**9**	**34**	**43**	35	4	39
+30 mins.	13	48	61	6	15	21	**51**	2	53
+45 mins.	9	26	35	4	15	19	43	5	48
Total Volume	53	195	248	26	82	108	179	18	197
% App. Total	21.4	78.6		24.1	75.9		90.9	9.1	
PHF	.828	.786	.795	.722	.603	.628	.877	.643	.864

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

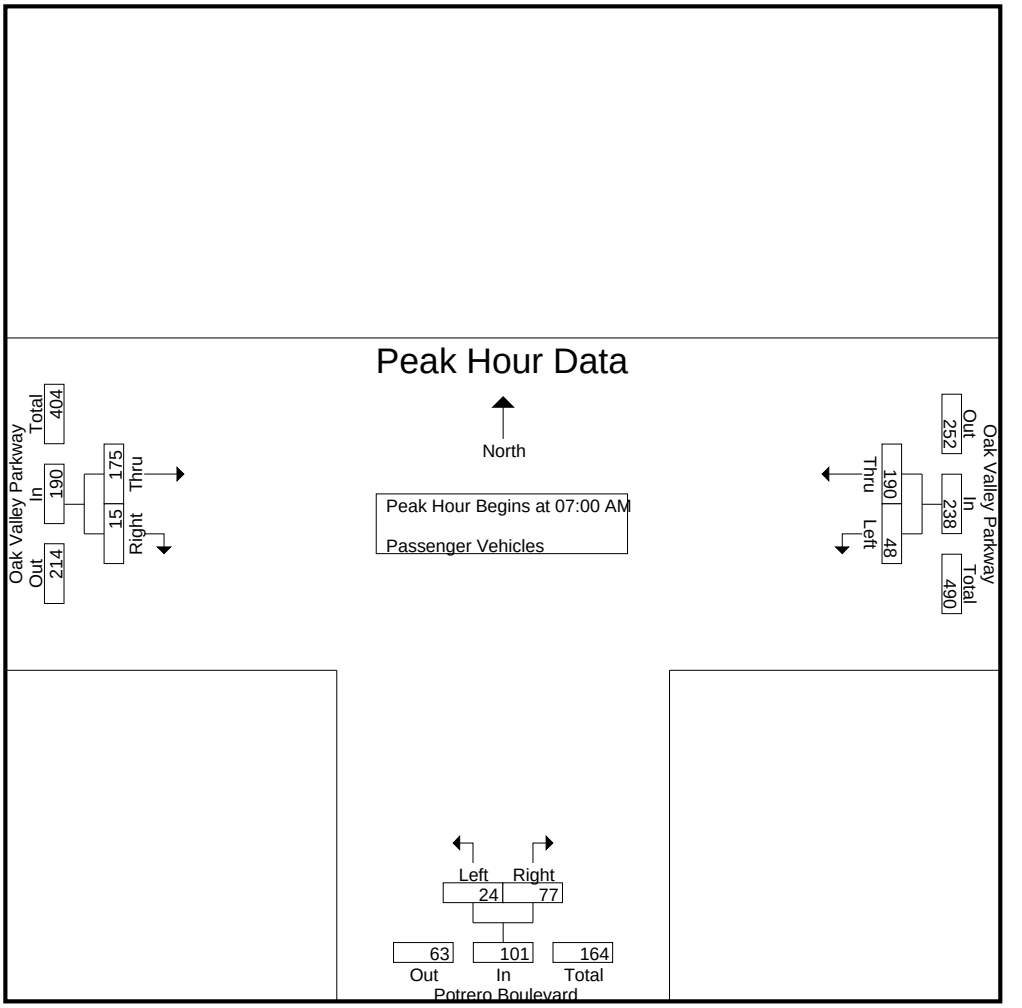
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	15	57	72	7	18	25	50	7	57	154
07:15 AM	14	60	74	9	31	40	34	3	37	151
07:30 AM	12	48	60	6	13	19	50	2	52	131
07:45 AM	7	25	32	2	15	17	41	3	44	93
Total	48	190	238	24	77	101	175	15	190	529
08:00 AM	8	34	42	3	14	17	26	5	31	90
08:15 AM	8	24	32	5	14	19	37	2	39	90
08:30 AM	4	23	27	4	5	9	28	5	33	69
08:45 AM	10	25	35	1	12	13	28	2	30	78
Total	30	106	136	13	45	58	119	14	133	327
Grand Total	78	296	374	37	122	159	294	29	323	856
Apprch %	20.9	79.1		23.3	76.7		91	9		
Total %	9.1	34.6	43.7	4.3	14.3	18.6	34.3	3.4	37.7	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**15**	57	72	7	18	25	**50**	**7**	**57**	**154**
07:15 AM	14	**60**	**74**	**9**	**31**	**40**	34	3	37	151
07:30 AM	12	48	60	6	13	19	50	2	52	131
07:45 AM	7	25	32	2	15	17	41	3	44	93
Total Volume	48	190	238	24	77	101	175	15	190	529
% App. Total	20.2	79.8		23.8	76.2		92.1	7.9		
PHF	.800	.792	.804	.667	.621	.631	.875	.536	.833	.859

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**15**	57	72	7	18	25	**50**	**7**	**57**
+15 mins.	14	**60**	**74**	**9**	**31**	**40**	34	3	37
+30 mins.	12	48	60	6	13	19	50	2	52
+45 mins.	7	25	32	2	15	17	41	3	44
Total Volume	48	190	238	24	77	101	175	15	190
% App. Total	20.2	79.8		23.8	76.2		92.1	7.9	
PHF	.800	.792	.804	.667	.621	.631	.875	.536	.833

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

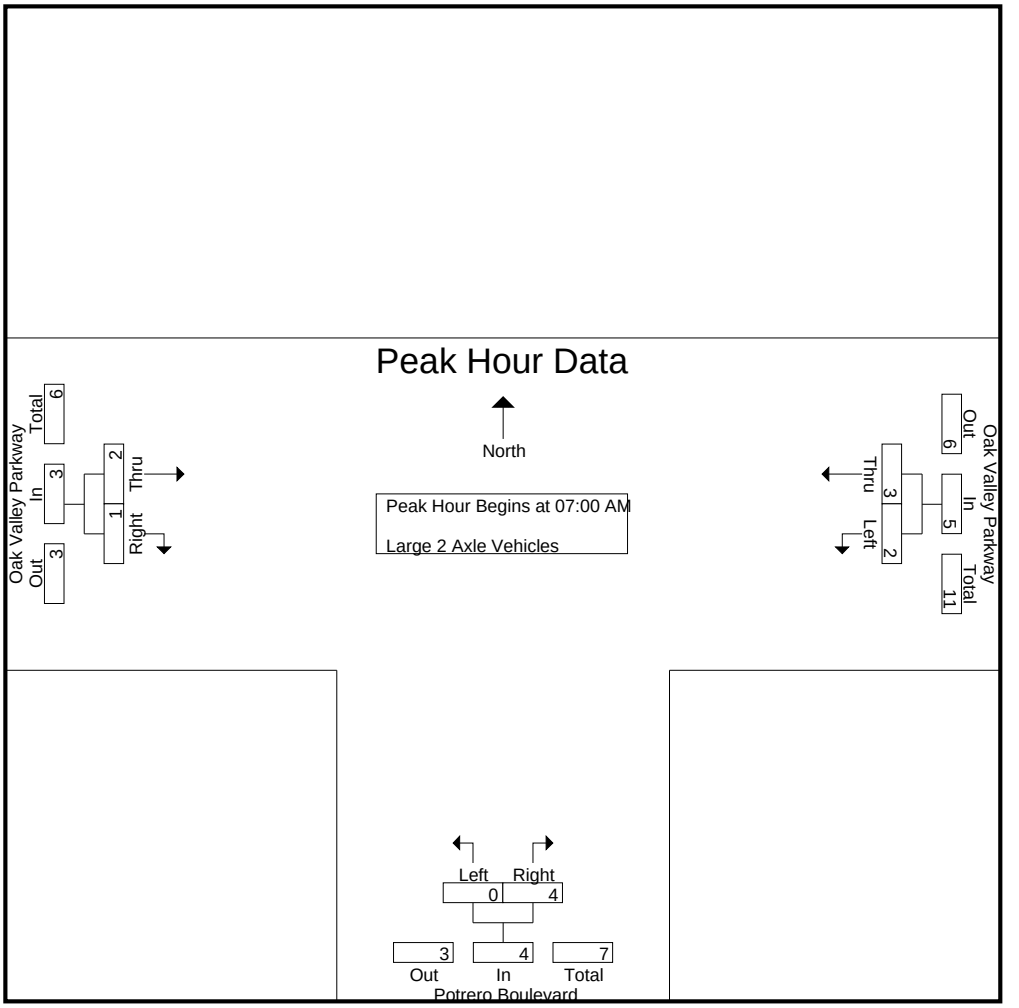
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	1	1	2	0	2	2	0	1	1	5
07:30 AM	0	0	0	0	2	2	1	0	1	3
07:45 AM	1	1	2	0	0	0	1	0	1	3
Total	2	3	5	0	4	4	2	1	3	12
08:00 AM	1	1	2	0	0	0	0	0	0	2
08:15 AM	1	0	1	0	0	0	0	0	0	1
08:30 AM	1	1	2	0	0	0	2	0	2	4
08:45 AM	2	0	2	0	1	1	0	0	0	3
Total	5	2	7	0	1	1	2	0	2	10
Grand Total	7	5	12	0	5	5	4	1	5	22
Apprch %	58.3	41.7		0	100		80	20		
Total %	31.8	22.7	54.5	0	22.7	22.7	18.2	4.5	22.7	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	1	0	0	0	0	0	0	1
07:15 AM	**1**	1	**2**	0	**2**	**2**	0	**1**	**1**	**5**
07:30 AM	0	0	0	0	2	2	**1**	0	1	3
07:45 AM	1	1	2	0	0	0	1	0	1	3
Total Volume	2	3	5	0	4	4	2	1	3	12
% App. Total	40	60		0	100		66.7	33.3		
PHF	.500	.750	.625	.000	.500	.500	.500	.250	.750	.600

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Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	1	0	0	0	0	0	0
+15 mins.	**1**	1	**2**	0	**2**	**2**	0	**1**	**1**
+30 mins.	0	0	0	0	2	2	**1**	0	1
+45 mins.	1	1	2	0	0	0	1	0	1
Total Volume	2	3	5	0	4	4	2	1	3
% App. Total	40	60		0	100		66.7	33.3	
PHF	.500	.750	.625	.000	.500	.500	.500	.250	.750

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

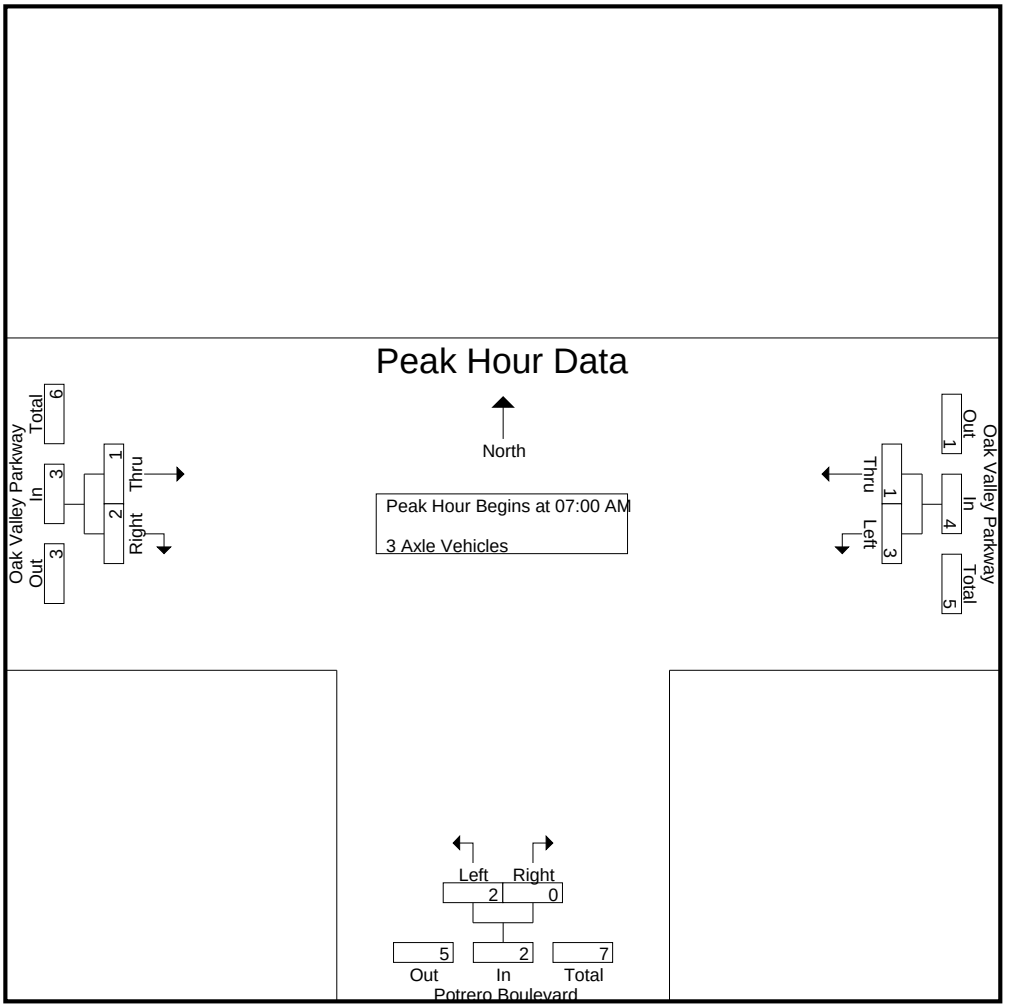
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	1	2	0	0	0	0	0	0	2
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	1	0	1	2	0	2	1	2	3	6
Total	3	1	4	2	0	2	1	2	3	9
08:00 AM	0	0	0	0	1	1	0	0	0	1
08:15 AM	1	0	1	0	1	1	0	0	0	2
08:30 AM	1	0	1	0	2	2	0	0	0	3
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	2	0	2	0	5	5	0	0	0	7
Grand Total	5	1	6	2	5	7	1	2	3	16
Apprch %	83.3	16.7		28.6	71.4		33.3	66.7		
Total %	31.2	6.2	37.5	12.5	31.2	43.8	6.2	12.5	18.8	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	**1**	**1**	**2**	0	0	0	0	0	0	2
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	1	0	1	**2**	0	**2**	**1**	**2**	**3**	**6**
Total Volume	3	1	4	2	0	2	1	2	3	9
% App. Total	75	25		100	0		33.3	66.7		
PHF	.750	.250	.500	.250	.000	.250	.250	.250	.250	.375

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Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	**1**	**1**	**2**	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	1	0	1	**2**	0	**2**	**1**	**2**	**3**
Total Volume	3	1	4	2	0	2	1	2	3
% App. Total	75	25		100	0		33.3	66.7	
PHF	.750	.250	.500	.250	.000	.250	.250	.250	.250

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Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- 4+ Axle Trucks

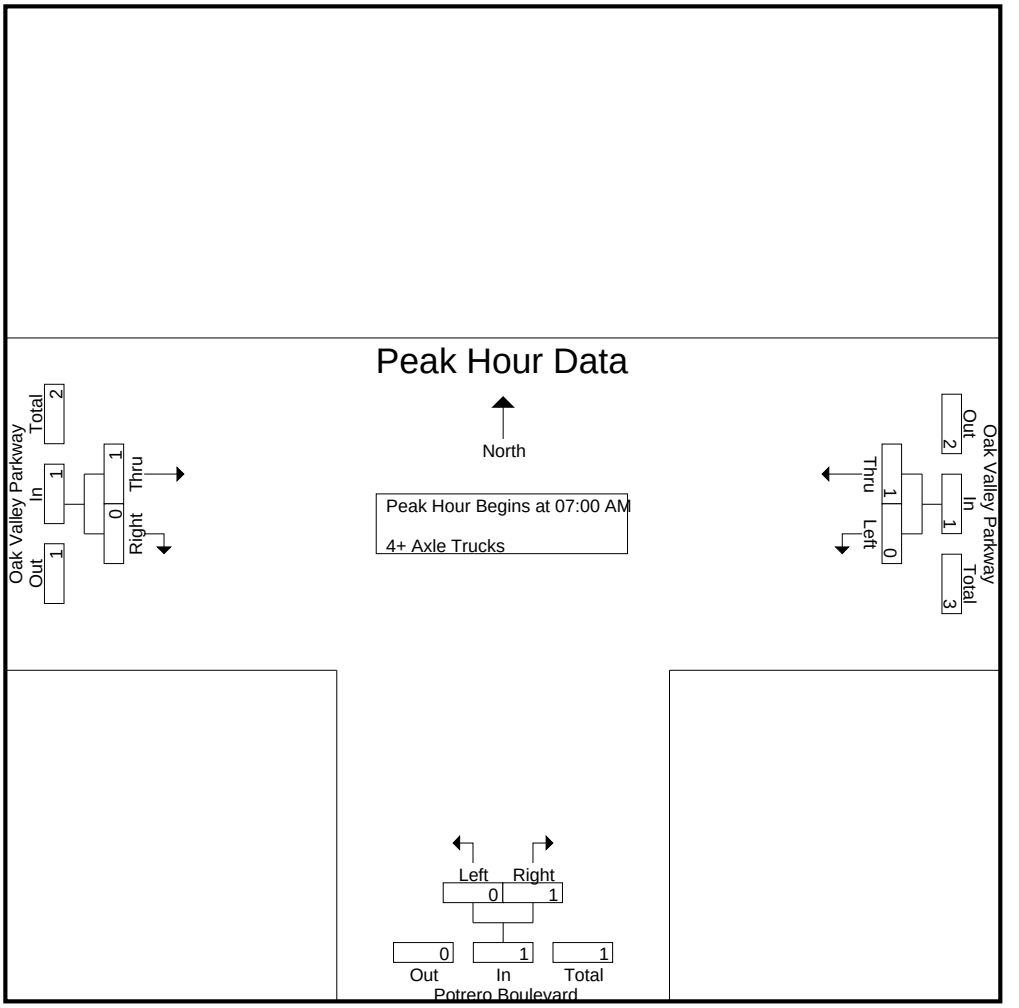
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	1	1	1	0	1	3
08:00 AM	0	1	1	0	2	2	0	0	0	3
08:15 AM	0	1	1	0	0	0	0	0	0	1
08:30 AM	2	1	3	0	0	0	0	0	0	3
08:45 AM	0	2	2	0	0	0	1	0	1	3
Total	2	5	7	0	2	2	1	0	1	10
Grand Total	2	6	8	0	3	3	2	0	2	13
Apprch %	25	75		0	100		100	0		
Total %	15.4	46.2	61.5	0	23.1	23.1	15.4	0	15.4	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	**1**	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	**1**	**1**	**1**	0	**1**	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	1	1	1	0	1	3
% App. Total	0	100		0	100		100	0		
PHF	.000	.250	.250	.000	.250	.250	.250	.000	.250	.375

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File Name : 03_BMT_Portero_Oak Valley AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	**1**	0	0	0	0	0	0
+15 mins.	0	0	0	0	**1**	**1**	**1**	0	**1**
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	1	1	1	0	1
% App. Total	0	100		0	100		100	0	
PHF	.000	.250	.250	.000	.250	.250	.250	.000	.250

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N/S: Potrero Boulevard
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File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

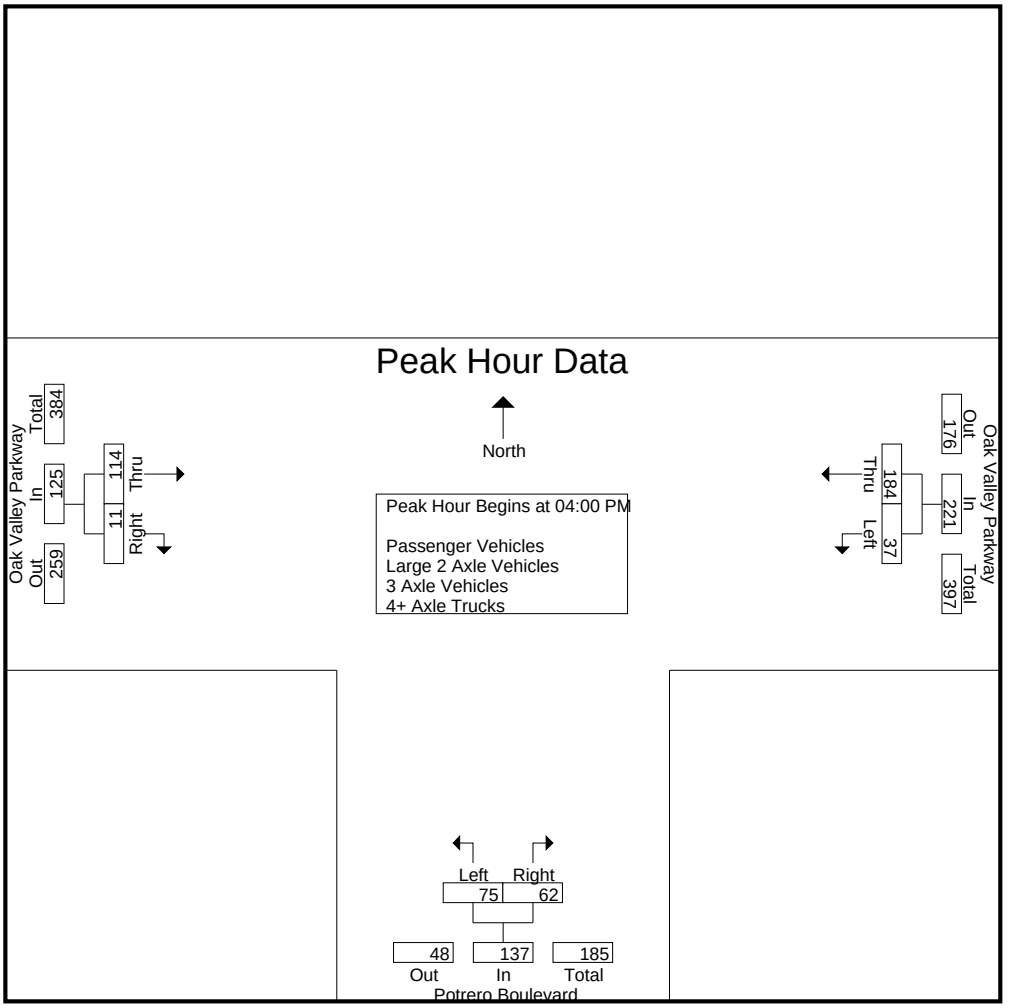
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	9	61	70	13	19	32	30	1	31	133
04:15 PM	6	49	55	21	16	37	35	6	41	133
04:30 PM	9	33	42	21	13	34	25	3	28	104
04:45 PM	13	41	54	20	14	34	24	1	25	113
Total	37	184	221	75	62	137	114	11	125	483
05:00 PM	6	49	55	10	18	28	33	1	34	117
05:15 PM	9	50	59	18	10	28	29	0	29	116
05:30 PM	9	46	55	6	6	12	30	1	31	98
05:45 PM	15	42	57	14	12	26	27	1	28	111
Total	39	187	226	48	46	94	119	3	122	442
Grand Total	76	371	447	123	108	231	233	14	247	925
Apprch %	17	83		53.2	46.8		94.3	5.7		
Total %	8.2	40.1	48.3	13.3	11.7	25	25.2	1.5	26.7	
Passenger Vehicles	76	368	444	123	107	230	230	13	243	917
% Passenger Vehicles	100	99.2	99.3	100	99.1	99.6	98.7	92.9	98.4	99.1
Large 2 Axle Vehicles	0	3	3	0	1	1	3	1	4	8
% Large 2 Axle Vehicles	0	0.8	0.7	0	0.9	0.4	1.3	7.1	1.6	0.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	9	**61**	**70**	13	**19**	32	30	1	31	**133**
04:15 PM	6	49	55	**21**	16	**37**	**35**	**6**	**41**	133
04:30 PM	9	33	42	21	13	34	25	3	28	104
04:45 PM	**13**	41	54	20	14	34	24	1	25	113
Total Volume	37	184	221	75	62	137	114	11	125	483
% App. Total	16.7	83.3		54.7	45.3		91.2	8.8		
PHF	.712	.754	.789	.893	.816	.926	.814	.458	.762	.908

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Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			04:15 PM		
+0 mins.	6	49	55	13	**19**	32	**35**	**6**	**41**
+15 mins.	9	**50**	**59**	**21**	16	**37**	25	3	28
+30 mins.	9	46	55	21	13	34	24	1	25
+45 mins.	**15**	42	57	20	14	34	33	1	34
Total Volume	39	187	226	75	62	137	117	11	128
% App. Total	17.3	82.7		54.7	45.3		91.4	8.6	
PHF	.650	.935	.958	.893	.816	.926	.836	.458	.780

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City of Beaumont
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E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- Passenger Vehicles

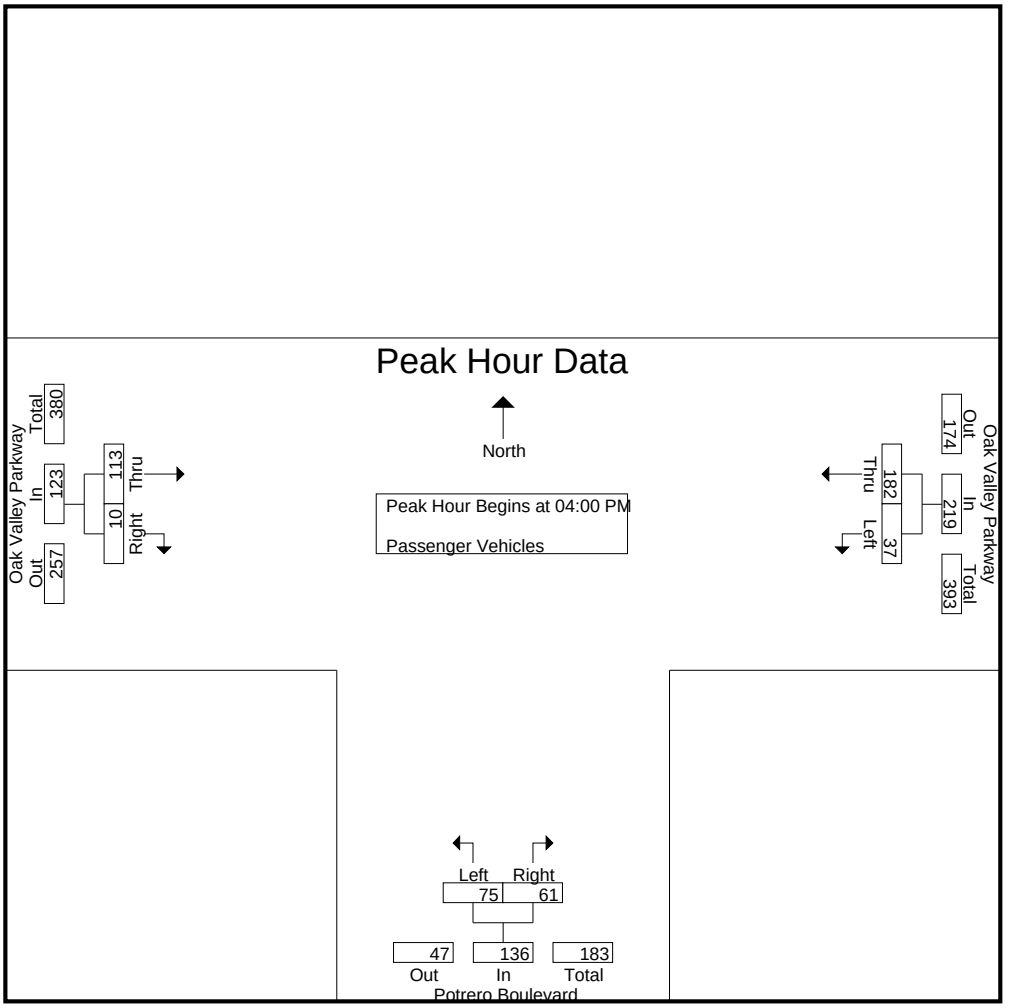
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	9	61	70	13	19	32	30	1	31	133
04:15 PM	6	49	55	21	15	36	34	6	40	131
04:30 PM	9	33	42	21	13	34	25	2	27	103
04:45 PM	13	39	52	20	14	34	24	1	25	111
Total	37	182	219	75	61	136	113	10	123	478
05:00 PM	6	49	55	10	18	28	32	1	33	116
05:15 PM	9	49	58	18	10	28	29	0	29	115
05:30 PM	9	46	55	6	6	12	29	1	30	97
05:45 PM	15	42	57	14	12	26	27	1	28	111
Total	39	186	225	48	46	94	117	3	120	439
Grand Total	76	368	444	123	107	230	230	13	243	917
Apprch %	17.1	82.9		53.5	46.5		94.7	5.3		
Total %	8.3	40.1	48.4	13.4	11.7	25.1	25.1	1.4	26.5	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	9	**61**	**70**	13	**19**	32	30	1	31	**133**
04:15 PM	6	49	55	**21**	15	**36**	**34**	**6**	**40**	131
04:30 PM	9	33	42	21	13	34	25	2	27	103
04:45 PM	**13**	39	52	20	14	34	24	1	25	111
Total Volume	37	182	219	75	61	136	113	10	123	478
% App. Total	16.9	83.1		55.1	44.9		91.9	8.1		
PHF	.712	.746	.782	.893	.803	.944	.831	.417	.769	.898

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E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	9	**61**	**70**	13	**19**	32	30	1	31
+15 mins.	6	49	55	**21**	15	**36**	**34**	**6**	**40**
+30 mins.	9	33	42	21	13	34	25	2	27
+45 mins.	**13**	39	52	20	14	34	24	1	25
Total Volume	37	182	219	75	61	136	113	10	123
% App. Total	16.9	83.1		55.1	44.9		91.9	8.1	
PHF	.712	.746	.782	.893	.803	.944	.831	.417	.769

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

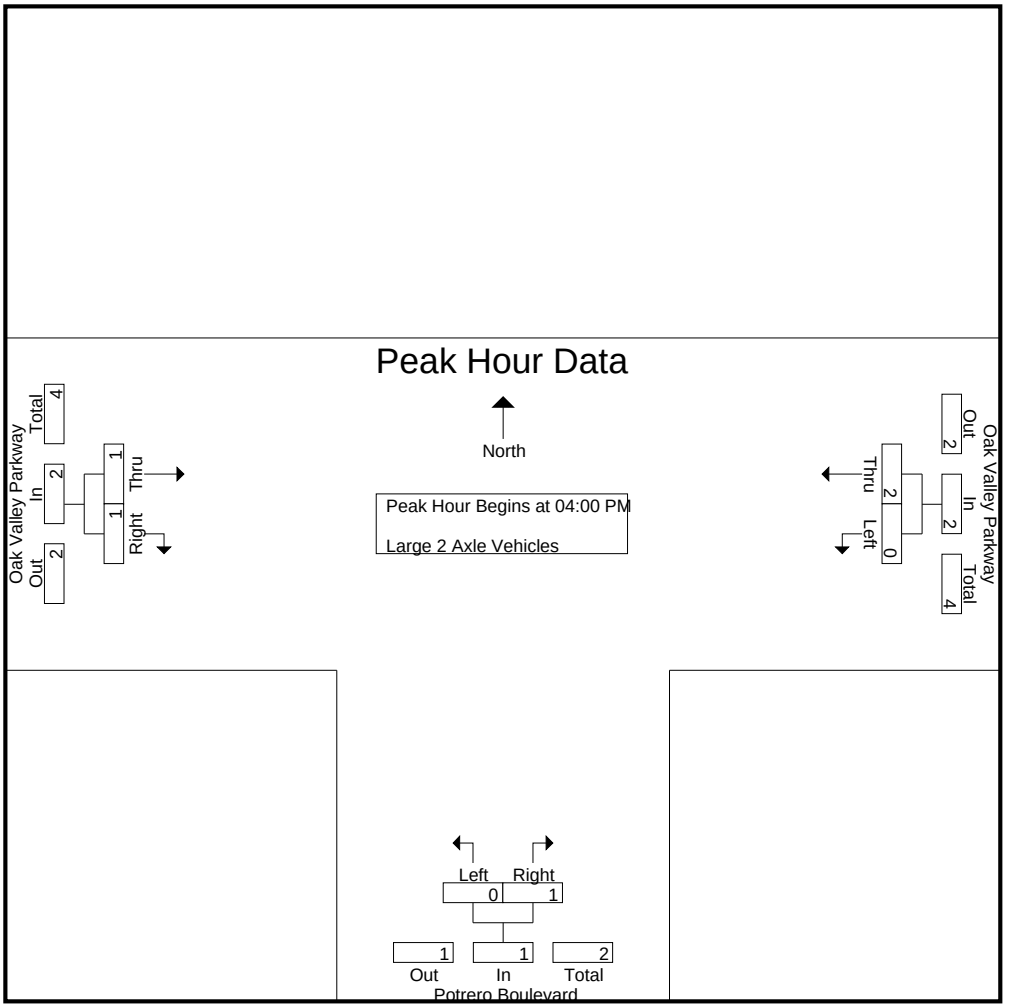
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	1	0	1	2
04:30 PM	0	0	0	0	0	0	0	1	1	1
04:45 PM	0	2	2	0	0	0	0	0	0	2
Total	0	2	2	0	1	1	1	1	2	5
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	1	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	2	0	2	3
Grand Total	0	3	3	0	1	1	3	1	4	8
Apprch %	0	100		0	100		75	25		
Total %	0	37.5	37.5	0	12.5	12.5	37.5	12.5	50	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	**1**	**1**	**1**	0	**1**	**2**
04:30 PM	0	0	0	0	0	0	0	**1**	1	1
04:45 PM	0	**2**	**2**	0	0	0	0	0	0	2
Total Volume	0	2	2	0	1	1	1	1	2	5
% App. Total	0	100		0	100		50	50		
PHF	.000	.250	.250	.000	.250	.250	.250	.250	.500	.625

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	**1**	**1**	**1**	0	**1**
+30 mins.	0	0	0	0	0	0	0	**1**	1
+45 mins.	0	**2**	**2**	0	0	0	0	0	0
Total Volume	0	2	2	0	1	1	1	1	2
% App. Total	0	100		0	100		50	50	
PHF	.000	.250	.250	.000	.250	.250	.250	.250	.500

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

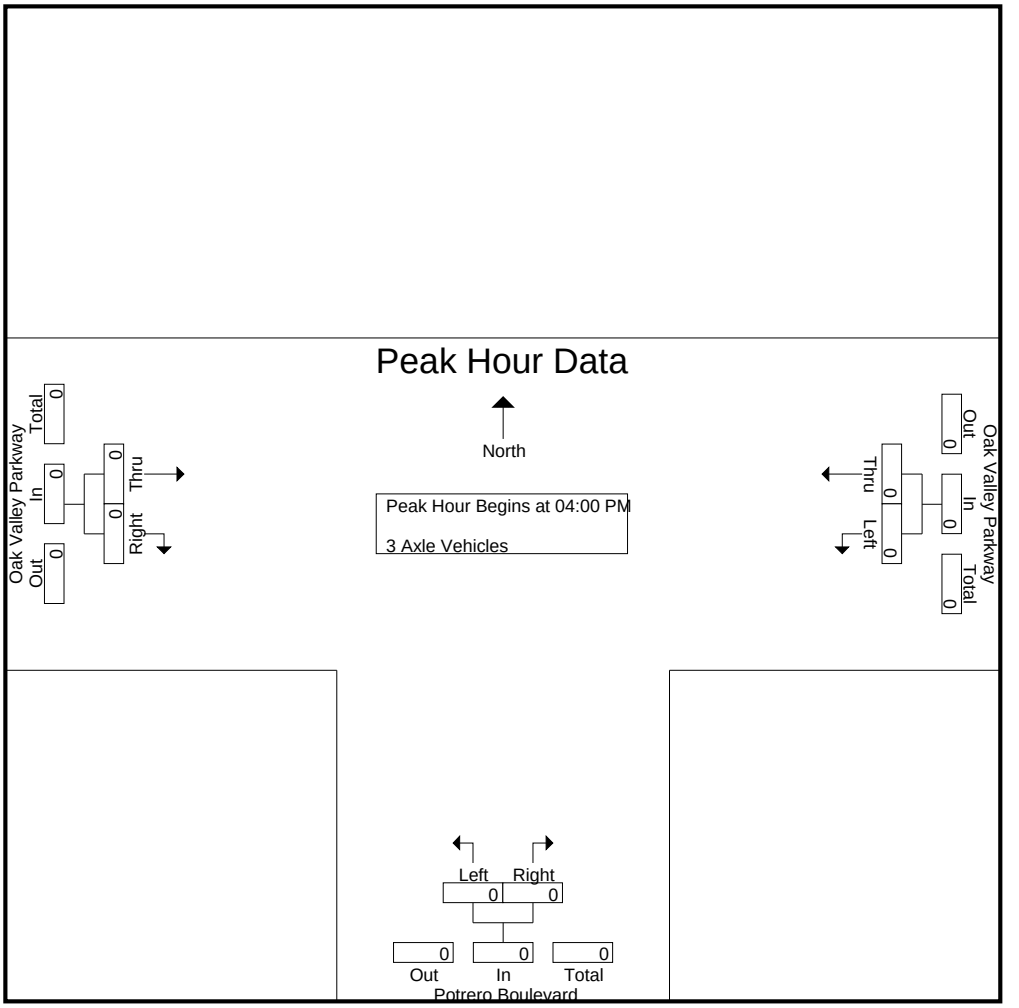
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

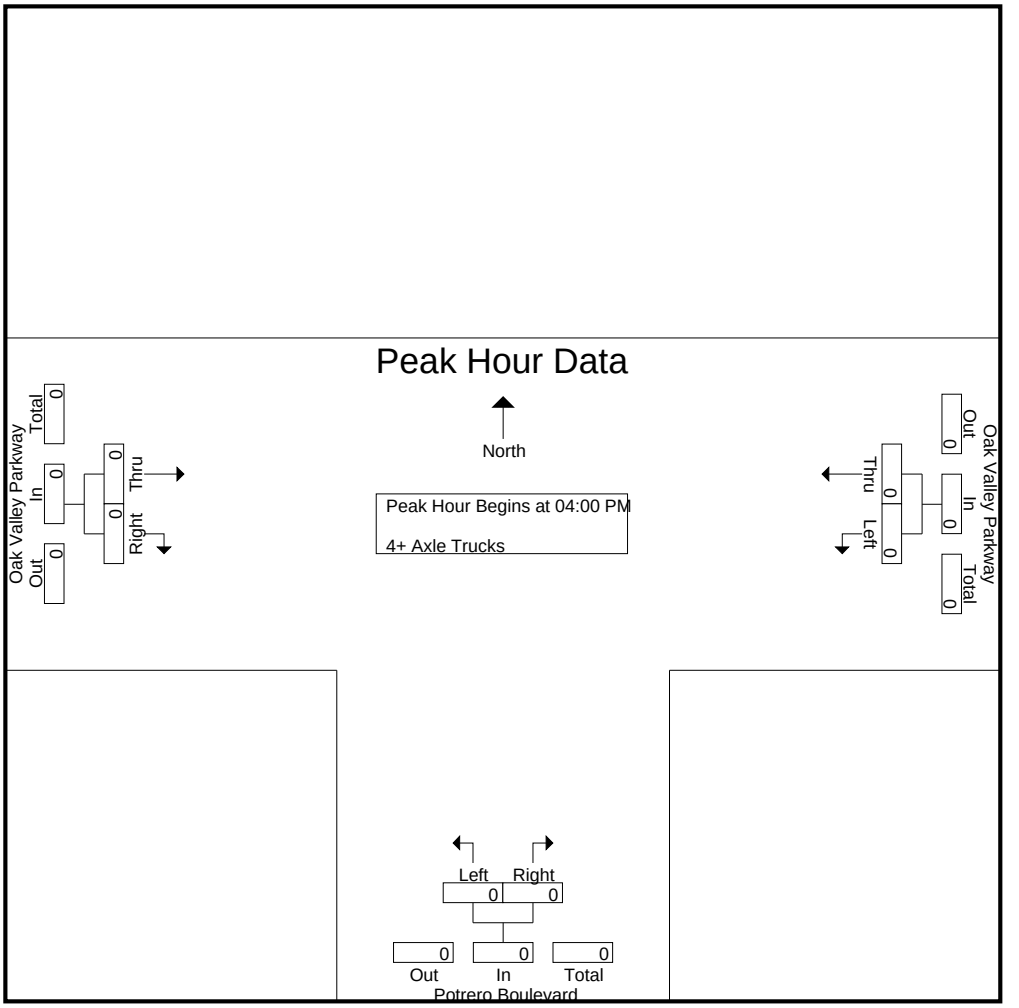
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Oak Valley Parkway	South Leg Potrero Boulevard	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Oak Valley Parkway	South Leg Potrero Boulevard	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound Dead End			Westbound Oak Valley Parkway			Northbound Potrero Boulevard			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Dead End			Westbound Oak Valley Parkway			Northbound Potrero Boulevard			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	13	5	134	5	0	157	0	0	0	0	0	0	1	0	0	2	1	4	0	0	120	78	3	0	201	0	1	8	0	6	2	15	8	0	3	102	4	117	2	494	496
07:15 AM	18	3	135	3	0	159	0	0	0	0	0	0	2	0	0	4	1	7	3	0	129	87	5	0	224	0	3	20	1	9	0	33	16	0	1	126	12	155	0	578	578
07:30 AM	27	1	148	1	0	177	0	0	0	0	0	0	1	0	0	3	2	6	3	0	104	85	2	0	194	0	2	16	2	7	6	27	18	0	3	122	6	149	6	553	559
07:45 AM	23	5	178	8	0	214	0	0	0	0	0	0	2	0	0	2	4	8	0	0	107	97	3	0	207	0	3	17	1	11	0	32	14	0	1	112	3	130	0	591	591
Total	81	14	595	17	0	707	0	0	0	0	0	0	6	0	0	11	8	25	6	0	460	347	13	0	826	0	9	61	4	33	8	107	56	0	8	462	25	551	8	2216	2224
08:00 AM	30	3	132	9	0	174	0	0	0	0	0	0	3	1	0	2	1	7	2	0	111	106	7	0	226	0	2	14	2	3	0	21	17	0	4	99	5	125	0	553	553
08:15 AM	25	3	104	2	0	134	0	0	0	0	0	0	0	1	0	3	1	5	5	0	102	93	1	0	201	0	3	10	1	6	1	20	17	0	2	98	8	125	1	485	486
08:30 AM	17	2	126	2	0	147	0	0	0	0	0	0	1	1	0	2	3	7	4	0	107	88	4	2	203	0	6	8	0	2	1	16	11	0	0	112	5	128	3	501	504
08:45 AM	14	6	119	3	0	142	0	0	0	0	0	0	0	0	0	4	4	8	3	0	109	108	3	0	223	0	1	12	1	0	0	14	18	0	2	84	7	111	0	498	498
Total	86	14	481	16	0	597	0	0	0	0	0	0	4	3	0	11	9	27	14	0	429	395	15	2	853	0	12	44	4	11	2	71	63	0	8	393	25	489	4	2037	2041
Grand Total	167	28	1076	33	0	1304	0	0	0	0	0	0	10	3	0	22	17	52	20	0	889	742	28	2	1679	0	21	105	8	44	10	178	119	0	16	855	50	1040	12	4253	4265
Apprch %	12.8	2.1	82.5	2.5	0		0	0	0	0	0		19.2	5.8	0	42.3	32.7		1.2	0	52.9	44.2	1.7			0	11.8	59	4.5	24.7			11.4	0	1.5	82.2	4.8				
Total %	3.9	0.7	25.3	0.8	0	30.7	0	0	0	0	0	0	0.2	0.1	0	0.5	0.4	1.2	0.5	0	20.9	17.4	0.7		39.5	0	0.5	2.5	0.2	1		4.2	2.8	0	0.4	20.1	1.2	24.5	0.3	99.7	
Passenger Vehicles	156	27	981	29	0	1193	0	0	0	0	0	0	10	2	0	19	16	47	20	0	848	669	26		1565	0	14	98	8	40		169	116	0	15	796	42	969	0	0	3943
% Passenger Vehicles	93.4	96.4	91.2	87.9	0	91.5	0	0	0	0	0	0	100	66.7	0	86.4	94.1	90.4	100	0	95.4	90.2	92.9	100	93.1	0	66.7	93.3	100	90.9	90	89.9	97.5	0	93.8	93.1	84	93.2	0	0	92.5
Large 2 Axle Vehicles	8	0	28	3	0	39	0	0	0	0	0	0	0	0	0	1	1	2	0	0	20	25	2		47	0	3	5	0	2		11	2	0	0	28	5	35	0	0	134
% Large 2 Axle Vehicles	4.8	0	2.6	9.1	0	3	0	0	0	0	0	0	0	0	0	4.5	5.9	3.8	0	0	2.2	3.4	7.1	0	2.8	0	14.3	4.8	0	4.5	10	5.9	1.7	0	0	3.3	10	3.4	0	0	3.1
3 Axle Vehicles	0	1	12	0	0	13	0	0	0	0	0	0	0	1	0	2	0	3	0	0	7	6	0		13	0	1	0	0	1		2	0	0	1	11	3	15	0	0	46
% 3 Axle Vehicles	0	3.6	1.1	0	0	1	0	0	0	0	0	0	0	33.3	0	9.1	0	5.8	0	0	0.8	0.8	0	0	0.8	0	4.8	0	0	2.3	0	1.1	0	0	6.2	1.3	6	1.4	0	0	1.1
4+ Axle Trucks	3	0	55	1	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	42	0		56	0	3	2	0	1		6	1	0	0	20	0	21	0	0	142
% 4+ Axle Trucks	1.8	0	5.1	3	0	4.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.6	5.7	0	0	3.3	0	14.3	1.9	0	2.3	0	3.2	0.8	0	0	2.3	0	2	0	0	3.3

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

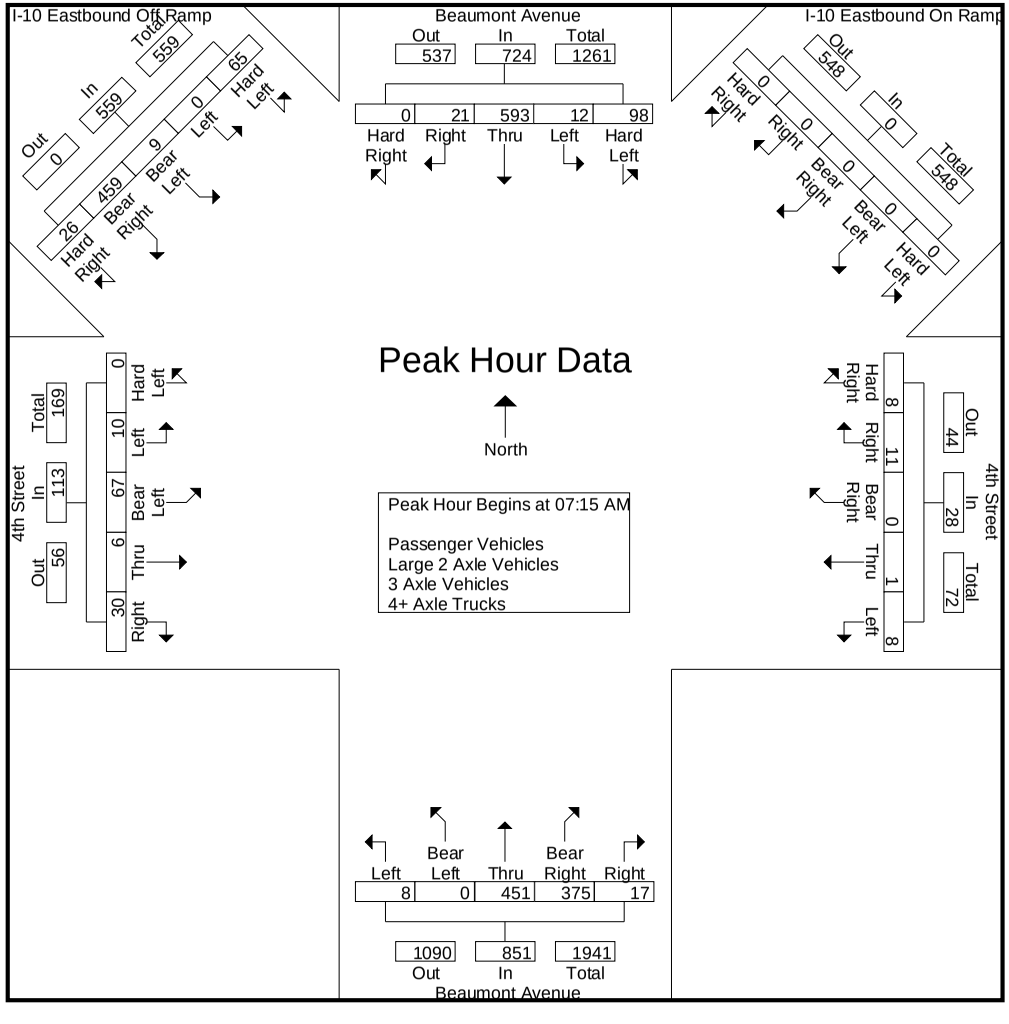
File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																				
Peak Hour for Entire Intersection Begins at 07:15 AM																																				
07:15 AM	18	3	135	3	0	159	0	0	0	0	0	0	2	0	0	**4**	1	7	**3**	0	**129**	87	5	224	0	**3**	**20**	1	9	**33**	16	0	1	**126**	**12**	**155**	578
07:30 AM	27	1	148	1	0	177	0	0	0	0	0	0	1	0	0	3	2	6	3	0	104	85	2	194	0	2	16	**2**	7	27	**18**	0	3	122	6	149	553
07:45 AM	23	**5**	**178**	8	0	**214**	0	0	0	0	0	0	2	0	0	2	**4**	**8**	0	0	107	97	3	207	0	3	17	1	**11**	32	14	0	1	112	3	130	**591**
08:00 AM	**30**	3	132	**9**	0	174	0	0	0	0	0	0	**3**	**1**	0	2	1	7	2	0	111	**106**	**7**	**226**	0	2	14	2	3	21	17	0	**4**	99	5	125	553
Total Volume	98	12	593	21	0	724	0	0	0	0	0	0	8	1	0	11	8	28	8	0	451	375	17	851	0	10	67	6	30	113	65	0	9	459	26	559	2275
% App. Total	13.5	1.7	81.9	2.9	0		0	0	0	0	0		28.6	3.6	0	39.3	28.6		0.9	0	53	44.1	2		0	8.8	59.3	5.3	26.5		11.6	0	1.6	82.1	4.7		
PHF	.817	.600	.833	.583	.000	.846	.000	.000	.000	.000	.000	.000	.667	.250	.000	.688	.500	.875	.667	.000	.874	.884	.607	.941	.000	.833	.838	.750	.682	.856	.903	.000	.563	.911	.542	.902	.962

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3



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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 4

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:00 AM						07:15 AM						08:00 AM						07:15 AM						07:15 AM						
+0 mins.	18	3	135	3	0	159	0	0	0	0	0	0	2	0	0	**4**	1	7	2	0	**111**	106	**7**	**226**	0	**3**	**20**	1	9	**33**	16	0	1	**126**	**12**	**155**	
+15 mins.	27	1	148	1	0	177	0	0	0	0	0	0	1	0	0	3	2	6	**5**	0	102	93	1	201	0	2	16	**2**	7	27	**18**	0	3	122	6	149	
+30 mins.	23	**5**	**178**	8	0	**214**	0	0	0	0	0	0	2	0	0	2	**4**	**8**	4	0	107	88	4	203	0	3	17	1	**11**	32	14	0	1	112	3	130	
+45 mins.	**30**	3	132	**9**	0	174	0	0	0	0	0	0	**3**	**1**	0	2	1	7	3	0	109	**108**	3	223	0	2	14	2	3	21	17	0	**4**	99	5	125	
Total Volume	98	12	593	21	0	724	0	0	0	0	0	0	8	1	0	11	8	28	14	0	429	395	15	853	0	10	67	6	30	113	65	0	9	459	26	559	
% App. Total	13.5	1.7	81.9	2.9	0		0	0	0	0	0		28.6	3.6	0	39.3	28.6		1.6	0	50.3	46.3	1.8		0	8.8	59.3	5.3	26.5		11.6	0	1.6	82.1	4.7		
PHF	.817	.600	.833	.583	.000	.846	.000	.000	.000	.000	.000	.000	.667	.250	.000	.688	.500	.875	.700	.000	.966	.914	.536	.944	.000	.833	.838	.750	.682	.856	.903	.000	.563	.911	.542	.902	

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	11	5	118	4	0	138	0	0	0	0	0	0	1	0	0	2	1	4	0	0	113	68	2	0	183	0	1	8	0	5	2	14	7	0	3	97	4	111	2	450	452
07:15 AM	18	3	120	3	0	144	0	0	0	0	0	0	2	0	0	2	1	5	3	0	125	83	5	0	216	0	2	20	1	9	0	32	16	0	1	117	10	144	0	541	541
07:30 AM	27	1	139	1	0	168	0	0	0	0	0	0	1	0	0	2	2	5	3	0	100	75	2	0	180	0	2	16	2	5	5	25	16	0	2	108	6	132	5	510	515
07:45 AM	23	5	158	6	0	192	0	0	0	0	0	0	2	0	0	2	4	8	0	0	100	88	3	0	191	0	1	16	1	11	0	29	14	0	1	105	3	123	0	543	543
Total	79	14	535	14	0	642	0	0	0	0	0	0	6	0	0	8	8	22	6	0	438	314	12	0	770	0	6	60	4	30	7	100	53	0	7	427	23	510	7	2044	2051
08:00 AM	29	2	125	8	0	164	0	0	0	0	0	0	3	1	0	2	1	7	2	0	107	96	7	0	212	0	1	12	2	2	0	17	17	0	4	93	4	118	0	518	518
08:15 AM	23	3	93	2	0	121	0	0	0	0	0	0	0	0	0	3	1	4	5	0	97	83	1	0	186	0	3	10	1	6	1	20	17	0	2	92	7	118	1	449	450
08:30 AM	14	2	117																		100															107				
08:45 AM	11	6	111	3	0	131	0	0	0	0	0	0	0	0	0	4	4	8	3	0	106	97	2	0	208	0	1	10	1	0	0	12	18	0	2	77	4	101	0	460	460
Total	77	13	446	15	0	551	0	0	0	0	0	0	4	2	0	11	8	25	14	0	410	355	14	2	793	0	8	38	4	10	2	60	63	0	8	369	19	459	4	1888	1892
Grand Total	156	27	981	29	0	1193	0	0	0	0	0	0	10	2	0	19	16	47	20	0	848	669	26	2	1563	0	14	98	8	40	9	160	116	0	15	796	42	969	11	3932	3943
Apprch %	13.1	2.3	82.2	2.4	0		0	0	0	0	0		21.3	4.3	0	40.4	34		1.3	0	54.3	42.8	1.7			0	8.8	61.2	5	25			12	0	1.5	82.1	4.3				
Total %	4	0.7	24.9	0.7	0	30.3	0	0	0	0	0	0	0.3	0.1	0	0.5	0.4	1.2	0.5	0	21.6	17	0.7		39.8	0	0.4	2.5	0.2	1		4.1	3	0	0.4	20.2	1.1	24.6	0.3	99.7	

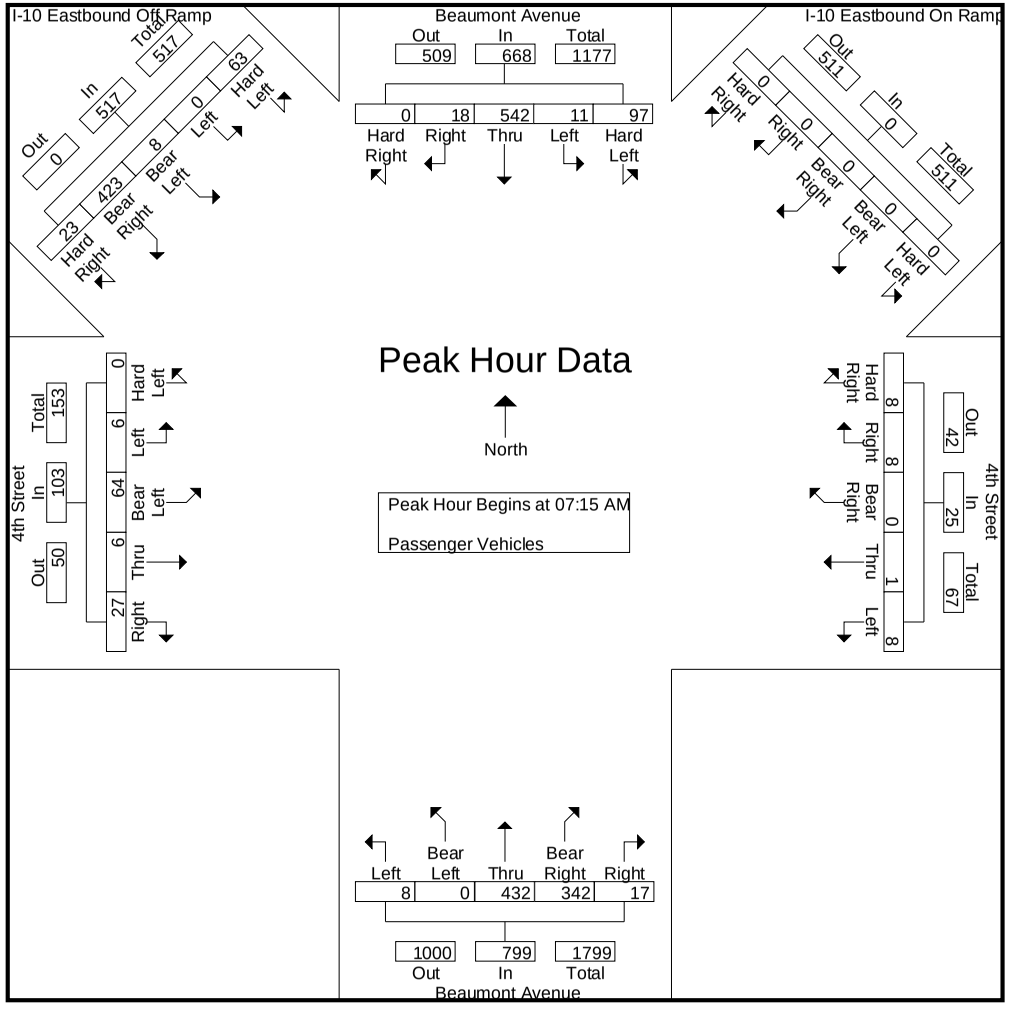
15-1158

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 07:15 AM																																					
07:15 AM	18	3	120	3	0	144	0	0	0	0	0	0	2	0	0	**2**	1	5	**3**	0	**125**	83	5	**216**	0	**2**	**20**	1	9	**32**	16	0	1	**117**	**10**	**144**	541
07:30 AM	27	1	139	1	0	168	0	0	0	0	0	0	1	0	0	2	2	5	3	0	100	75	2	180	0	2	16	**2**	5	25	16	0	2	108	6	132	510
07:45 AM	23	**5**	**158**	6	0	**192**	0	0	0	0	0	0	2	0	0	2	**4**	**8**	0	0	100	88	3	191	0	1	16	1	**11**	29	14	0	1	105	3	123	**543**
08:00 AM	**29**	2	125	**8**	0	164	0	0	0	0	0	0	**3**	**1**	0	2	1	7	2	0	107	**96**	**7**	212	0	1	12	2	2	17	**17**	0	**4**	93	4	118	518
Total Volume	97	11	542	18	0	668	0	0	0	0	0	0	8	1	0	8	8	25	8	0	432	342	17	799	0	6	64	6	27	103	63	0	8	423	23	517	2112
% App. Total	14.5	1.6	81.1	2.7	0		0	0	0	0	0		32	4	0	32	32		1	0	54.1	42.8	2.1		0	5.8	62.1	5.8	26.2		12.2	0	1.5	81.8	4.4		
PHF	.836	.550	.858	.563	.000	.870	.000	.000	.000	.000	.000	.000	.667	.250	.000	1.00	.500	.781	.667	.000	.864	.891	.607	.925	.000	.750	.800	.750	.614	.805	.926	.000	.500	.904	.575	.898	.972

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Beaumont Avenue
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Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
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Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						
+0 mins.	18	3	120	3	0	144	0	0	0	0	0	0	2	0	0	**2**	1	5	**3**	0	**125**	83	5	**216**	0	**2**	**20**	1	9	**32**	16	0	1	**117**	**10**	**144**	
+15 mins.	27	1	139	1	0	168	0	0	0	0	0	0	1	0	0	2	2	5	3	0	100	75	2	180	0	2	16	**2**	5	25	16	0	2	108	6	132	
+30 mins.	23	**5**	**158**	6	0	**192**	0	0	0	0	0	0	2	0	0	2	**4**	**8**	0	0	100	88	3	191	0	1	16	1	**11**	29	14	0	1	105	3	123	
+45 mins.	**29**	2	125	**8**	0	164	0	0	0	0	0	0	**3**	**1**	0	2	1	7	2	0	107	**96**	**7**	212	0	1	12	2	2	17	**17**	0	**4**	93	4	118	
Total Volume	97	11	542	18	0	668	0	0	0	0	0	0	8	1	0	8	8	25	8	0	432	342	17	799	0	6	64	6	27	103	63	0	8	423	23	517	
% App. Total	14.5	1.6	81.1	2.7	0		0	0	0	0	0		32	4	0	32	32		1	0	54.1	42.8	2.1		0	5.8	62.1	5.8	26.2		12.2	0	1.5	81.8	4.4		
PHF	.836	.550	.858	.563	.000	.870	.000	.000	.000	.000	.000	.000	.667	.250	.000	1.000	.500	.781	.667	.000	.864	.891	.607	.925	.000	.750	.800	.750	.614	.805	.926	.000	.500	.904	.575	.898	

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City of Beaumont
N/S: Beaumont Avenue
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Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	0	3	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	1	0	9	0	0	0	0	1	0	1	0	0	0	0	0	0	0	16	16
07:15 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	6	0	6	0	13	13
07:30 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	0	0	0	1	1	1	2	0	0	5	0	7	1	18	19
07:45 AM	0	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	0	1	0	0	0	1	0	0	0	3	0	3	0	14	14
Total	2	0	11	3	0	16	0	0	0	0	0	0	0	0	0	1	0	1	0	0	9	15	1	0	25	0	0	1	0	2	1	3	2	0	0	14	0	16	1	61	62
08:00 AM	1	0	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	1	1	0	0	0	2	0	0	0	5	1	6	0	15	15
08:15 AM	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	4	1	5	0	17	17
08:30 AM	2	0	3	0	0	5	0	0	0	0	0	0	0	0	0	0	1	1	0	0	4	2	0	0	6	0	2	2	0	0	0	4	0	0	0	2	1	3	0	19	19
08:45 AM	3	0	4	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	1	0	8	0	0	1	0	0	0	1	0	0	0	3	2	5	0	21	21
Total	6	0	17	0	0	23	0	0	0	0	0	0	0	0	0	0	1	1	0	0	11	10	1	0	22	0	3	4	0	0	0	7	0	0	0	14	5	19	0	72	72
Grand Total																																								
Apprch %	20.5		71.8																		42.6	53.2														14.3				
			21.1																			18.8													21.1				

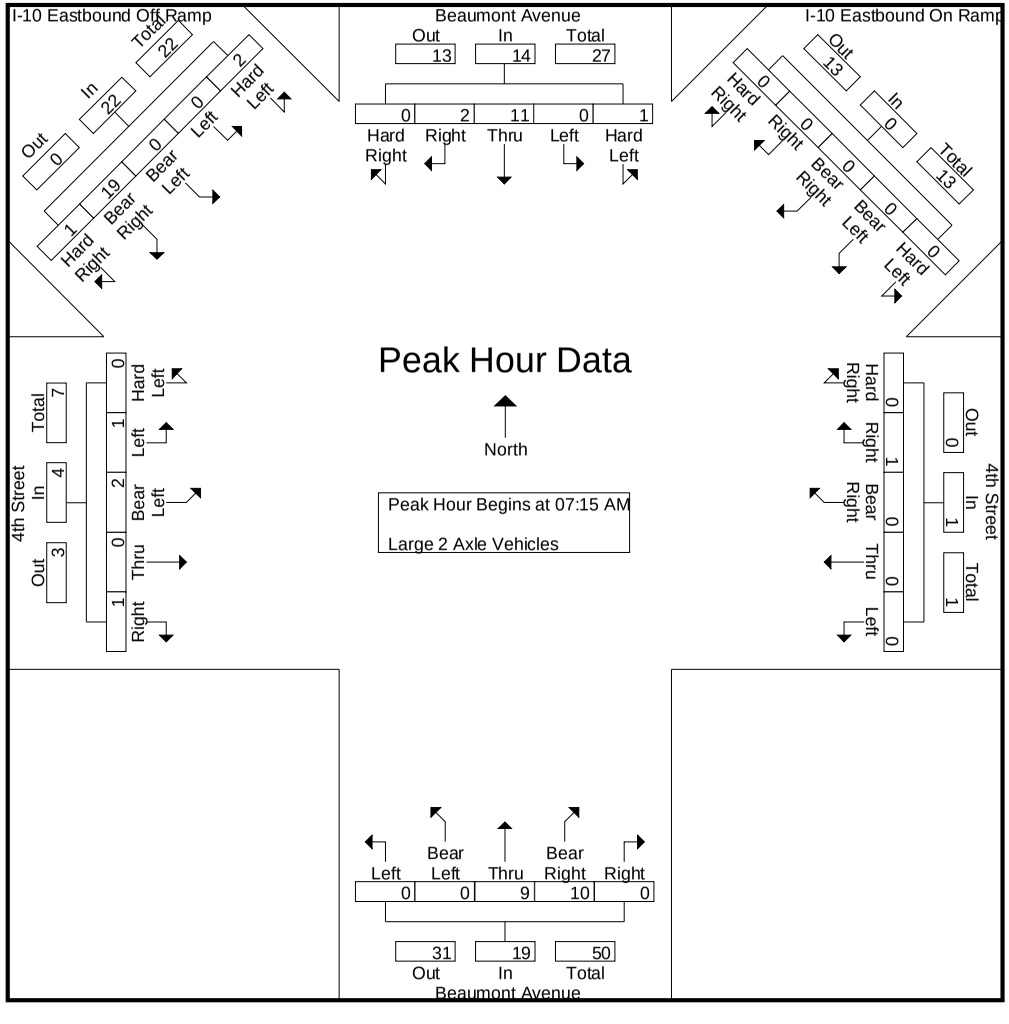
3.1-161

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 07:15 AM																																					
07:15 AM	0	0	**3**	0	0	3	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	**6**	0	6	13
07:30 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**4**	0	**7**	0	0	0	0	**1**	1	**2**	0	0	5	0	**7**	**18**
07:45 AM	0	0	2	**2**	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6	0	0	**1**	0	0	1	0	0	0	3	0	3	14
08:00 AM	**1**	0	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	**1**	1	0	0	**2**	0	0	0	5	**1**	6	15
Total Volume	1	0	11	2	0	14	0	0	0	0	0	0	0	0	0	1	0	1	0	0	9	10	0	19	0	1	2	0	1	4	2	0	0	19	1	22	60
% App. Total	7.1	0	78.6	14.3	0		0	0	0	0	0		0	0	0	100	0		0	0	47.4	52.6	0		0	25	50	0	25		9.1	0	0	86.4	4.5		
PHF	.250	.000	.917	.250	.000	.875	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.750	.625	.000	.679	.000	.250	.500	.000	.250	.500	.250	.000	.000	.792	.250	.786	.833

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

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Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						
+0 mins.	0	0	**3**	0	0	3	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	**6**	0	6	
+15 mins.	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**4**	0	**7**	0	0	0	0	**1**	1	**2**	0	0	5	0	**7**	
+30 mins.	0	0	2	**2**	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	6	0	0	**1**	0	0	1	0	0	0	3	0	3	
+45 mins.	**1**	0	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	0	**1**	1	0	0	**2**	0	0	0	5	**1**	6	
Total Volume	1	0	11	2	0	14	0	0	0	0	0	0	0	0	0	1	0	1	0	0	9	10	0	19	0	1	2	0	1	4	2	0	0	19	1	22	
% App. Total	7.1	0	78.6	14.3	0		0	0	0	0	0		0	0	0	100	0		0	0	47.4	52.6	0		0	25	50	0	25		9.1	0	0	86.4	4.5		
PHF	.250	.000	.917	.250	.000	.875	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.750	.625	.000	.679	.000	.250	.500	.000	.250	.500	.250	.000	.000	.792	.250	.786	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
07:15 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	3	8	8
07:30 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	0	1	7	0	8	13	13
07:45 AM	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	1	0	0	0	0	1	0	0	0	1	0	1	10	10
Total	0	0	10	0	0	10	0	0	0	0	0	0	0	0	0	2	0	2	0	0	4	4	0	0	8	0	1	0	0	1	0	2	0	0	1	9	2	12	34	34
08:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	1	5	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	1	4	4
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2
Total	0	1	2	0	0	3	0	0	0	0	0	0	0	1	0	0	0	1	0	0	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	2	1	3	12	12
Grand Total																																								
Apprch %			92.3											33.3		66.7					53.8	46.2														73.3					
			26.1																		15.2														23.9					

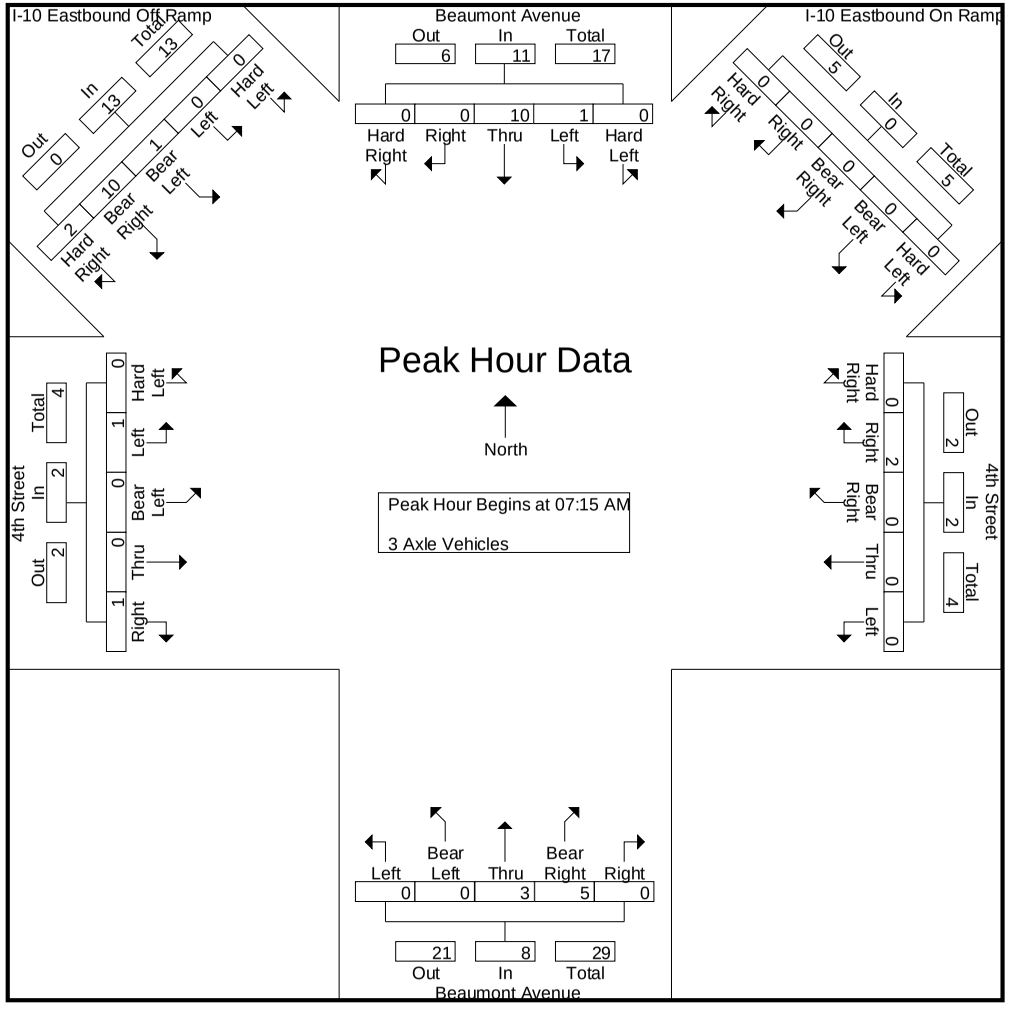
3.1-164

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 07:15 AM																																					
07:15 AM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	**2**	3	8
07:30 AM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	**1**	**1**	0	0	**1**	**7**	0	**8**	**13**
07:45 AM	0	0	**5**	0	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**2**	0	**3**	0	**1**	0	0	0	1	0	0	0	1	0	1	10
08:00 AM	0	**1**	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	1	0	3	0	0	0	0	0	0	0	0	0	1	0	1	5
Total Volume	0	1	10	0	0	11	0	0	0	0	0	0	0	0	0	2	0	2	0	0	3	5	0	8	0	1	0	0	1	2	0	0	1	10	2	13	36
% App. Total	0	9.1	90.9	0	0		0	0	0	0	0		0	0	0	100	0		0	0	37.5	62.5	0		0	50	0	0	50		0	0	7.7	76.9	15.4		
PHF	.000	.250	.500	.000	.000	.550	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.375	.625	.000	.667	.000	.250	.000	.000	.250	.500	.000	.000	.250	.357	.250	.406	.692

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						
+0 mins.	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	**2**	3	
+15 mins.	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	0	0	**1**	**1**	0	0	**1**	**7**	0	**8**	
+30 mins.	0	0	**5**	0	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**2**	0	**3**	0	**1**	0	0	0	1	0	0	0	1	0	1	
+45 mins.	0	**1**	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	1	0	3	0	0	0	0	0	0	0	0	0	1	0	1	
Total Volume	0	1	10	0	0	11	0	0	0	0	0	0	0	0	0	2	0	2	0	0	3	5	0	8	0	1	0	0	1	2	0	0	1	10	2	13	
% App. Total	0	9.1	90.9	0	0		0	0	0	0	0		0	0	0	100	0		0	0	37.5	62.5	0		0	50	0	0	50		0	0	7.7	76.9	15.4		
PHF	.000	.250	.500	.000	.000	.550	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.375	.625	.000	.667	.000	.250	.000	.000	.250	.500	.000	.000	.250	.357	.250	.406	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	6	0	0	0	0	0	0	0	1	0	0	5	0	6	0	25	25
07:15 AM	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	1	0	0	0	0	1	0	0	0	2	0	2	0	16	16
07:30 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0	2	0	2	0	12	12
07:45 AM	0	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	0	0	7	0	1	0	0	0	0	1	0	0	0	3	0	3	0	24	24
Total	0	0	39	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	14	0	0	23	0	2	0	0	0	0	2	1	0	0	12	0	13	0	77	77
08:00 AM	0	0	4	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	0	1	0	1	0	2	0	0	0	0	0	0	0	15	15
08:15 AM	2	0	4	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	0	0	10	0	0	0	0	0	0	0	0	0	0	2	0	2	0	18	18
08:30 AM	1	0	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	1	0	0	0	0	1	0	0	0	2	0	2	0	17	17
08:45 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	0	1	0	0	0	1	0	0	0	4	0	4	0	15	15
Total	3	0	16	1	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	28	0	0	33	0	1	2	0	1	0	4	0	0	0	8	0	8	0	65	65
Grand Total																																									
Apprch %			93.2																									33.3		16.7						95.2					
			38.7																			29.6														14.1					

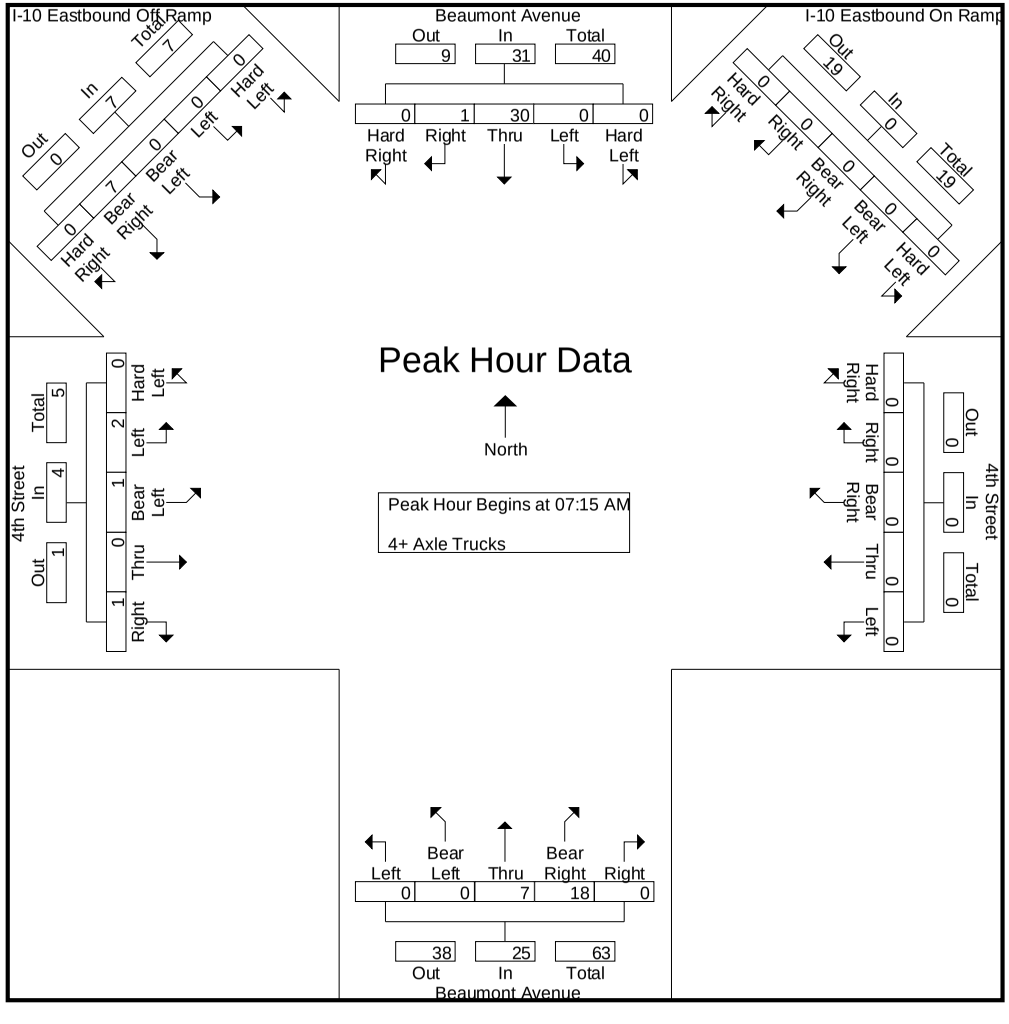
3.1-167

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 07:15 AM																																					
07:15 AM	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	**1**	0	0	0	1	0	0	0	2	0	2	16
07:30 AM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	6	0	0	0	0	0	0	0	0	0	2	0	2	12
07:45 AM	0	0	**13**	0	0	**13**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	4	0	7	0	1	0	0	0	1	0	0	0	**3**	0	**3**	**24**
08:00 AM	0	0	4	**1**	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**7**	0	**8**	0	0	**1**	0	**1**	**2**	0	0	0	0	0	0	15
Total Volume	0	0	30	1	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	18	0	25	0	2	1	0	1	4	0	0	0	7	0	7	67
% App. Total	0	0	96.8	3.2	0		0	0	0	0	0		0	0	0	0	0		0	0	28	72	0		0	50	25	0	25		0	0	0	100	0		
PHF	.000	.000	.577	.250	.000	.596	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.583	.643	.000	.781	.000	.500	.250	.000	.250	.500	.000	.000	.000	.583	.000	.583	.698

Counts Unlimited
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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						07:15 AM						
+0 mins.	0	0	9	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	**1**	0	0	0	1	0	0	0	2	0	2	
+15 mins.	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	6	0	0	0	0	0	0	0	0	0	2	0	2	
+30 mins.	0	0	**13**	0	0	**13**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	4	0	7	0	1	0	0	0	1	0	0	0	**3**	0	**3**	
+45 mins.	0	0	4	**1**	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**7**	0	**8**	0	0	**1**	0	**1**	**2**	0	0	0	0	0	0	
Total Volume	0	0	30	1	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	18	0	25	0	2	1	0	1	4	0	0	0	7	0	7	
% App. Total	0	0	96.8	3.2	0		0	0	0	0	0		0	0	0	0	0		0	0	28	72	0		0	50	25	0	25		0	0	0	100	0		
PHF	.000	.000	.577	.250	.000	.596	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.583	.643	.000	.781	.000	.500	.250	.000	.250	.500	.000	.000	.000	.583	.000	.583	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound									
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	15	6	246	4	0	271	0	0	0	0	0	0	6	0	0	7	7	20	2	0	113	76	2	2	193	0	2	22	3	11	7	38	24	0	4	159	6	193	9	715	724
04:15 PM	13	3	217	6	0	239	0	0	0	0	0	0	6	0	0	9	7	22	2	0	99	80	3	0	184	0	3	20	1	5	1	29	19	0	3	186	4	212	1	686	687
04:30 PM	17	8	218	3	0	246	0	0	0	0	0	0	3	0	0	6	1	10	2	0	112	68	2	0	184	0	2	15	1	36	24	54	25	0	3	194	5	227	24	721	745
04:45 PM	31	5	221	1	0	258	0	0	0	0	0	0	3	1	0	8	5	17	3	0	90	67	8	4	168	0	2	15	1	6	2	24	20	0	3	181	6	210	6	677	683
Total	76	22	902	14	0	1014	0	0	0	0	0	0	18	1	0	30	20	69	9	0	414	291	15	6	729	0	9	72	6	58	34	145	88	0	13	720	21	842	40	2799	2839
05:00 PM	19	5	216	4	0	244	0	0	0	0	0	0	3	0	0	7	7	17	4	0	126	92	7	1	229	0	3	23	2	32	10	60	20	0	2	172	7	201	11	751	762
05:15 PM	33	11	243	1	0	288	0	0	0	0	0	0	2	1	0	10	4	17	9	0	111	86	4	1	210	0	2	14	5	16	2	37	20	0	2	173	2	197	3	749	752
05:30 PM	20	6	209	2	0	237	0	0	0	0	0	0	2	3	0	9	3	17	2	0	91	70	5	0	168	0	5	23	0	16	6	44	24	0	2	189	7	222	6	688	694
05:45 PM	16	10	187	6	0	219	0	0	0	0	0	0	4	0	0	6	3	13	3	0	101	84	1	1	189	0	3	15	0	17	3	35	21	0	4	170	6	201	4	657	661
Total	88	32	855	13	0	988	0	0	0	0	0	0	11	4	0	32	17	64	18	0	429	332	17	3	796	0	13	75	7	81	21	176	85	0	10	704	22	821	24	2845	2869
Grand Total	164	54	1757	27	0	2002	0	0	0	0	0	0	29	5	0	62	37	133	27	0	843	623	32	9	1525	0	22	147	13	139	55	321	173	0	23	1424	43	1663	64	5644	5708
Apprch %	8.2	2.7	87.8	1.3	0		0	0	0	0	0		21.8	3.8	0	46.6	27.8		1.8	0	55.3	40.9	2.1			0	6.9	45.8	4	43.3			10.4	0	1.4	85.6	2.6				
Total %	2.9	1	31.1	0.5	0	35.5	0	0	0	0	0	0	0.5	0.1	0	1.1	0.7	2.4	0.5	0	14.9	11	0.6		27	0	0.4	2.6	0.2	2.5		5.7	3.1	0	0.4	25.2	0.8	29.5	1.1	98.9	
Passenger Vehicles	161	53	1671	19	0	1904	0	0	0	0	0	0	28	5	0	61	36	130	26	0	810	586	31		1462	0	19	134	12	139		359	172	0	23	1404	42	1641	0	0	5496
% Passenger Vehicles	98.2	98.1	95.1	70.4	0	95.1	0	0	0	0	0	0	96.6	100	0	98.4	97.3	97.7	96.3	0	96.1	94.1	96.9	100	95.3	0	86.4	91.2	92.3	100	100	95.5	99.4	0	100	98.6	97.7	98.7	0	0	96.3
Large 2 Axle Vehicles	2	1	30	0	0	33	0	0	0	0	0	0	1	0	0	1	1	3	1	0	16	15	1		33	0	0	2	1	0		3	0	0	0	13	1	14	0	0	86
% Large 2 Axle Vehicles	1.2	1.9	1.7	0	0	1.6	0	0	0	0	0	0	3.4	0	0	1.6	2.7	2.3	3.7	0	1.9	2.4	3.1	0	2.2	0	0	1.4	7.7	0	0	0.8	0	0	0	0.9	2.3	0.8	0	0	1.5
3 Axle Vehicles	0	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	6	0		16	0	0	0	0	0		0	0	0	0	2	0	2	0	0	24
% 3 Axle Vehicles	0	0	0.3	3.7	0	0.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0.1	0	0.1	0	0	0.4
4+ Axle Trucks	1	0	51	7	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	16	0		23	0	3	11	0	0		14	1	0	0	5	0	6	0	0	102
% 4+ Axle Trucks	0.6	0	2.9	25.9	0	2.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8	2.6	0	0	1.5	0	13.6	7.5	0	0	0	3.7	0.6	0	0	0.4	0	0.4	0	0	1.8

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

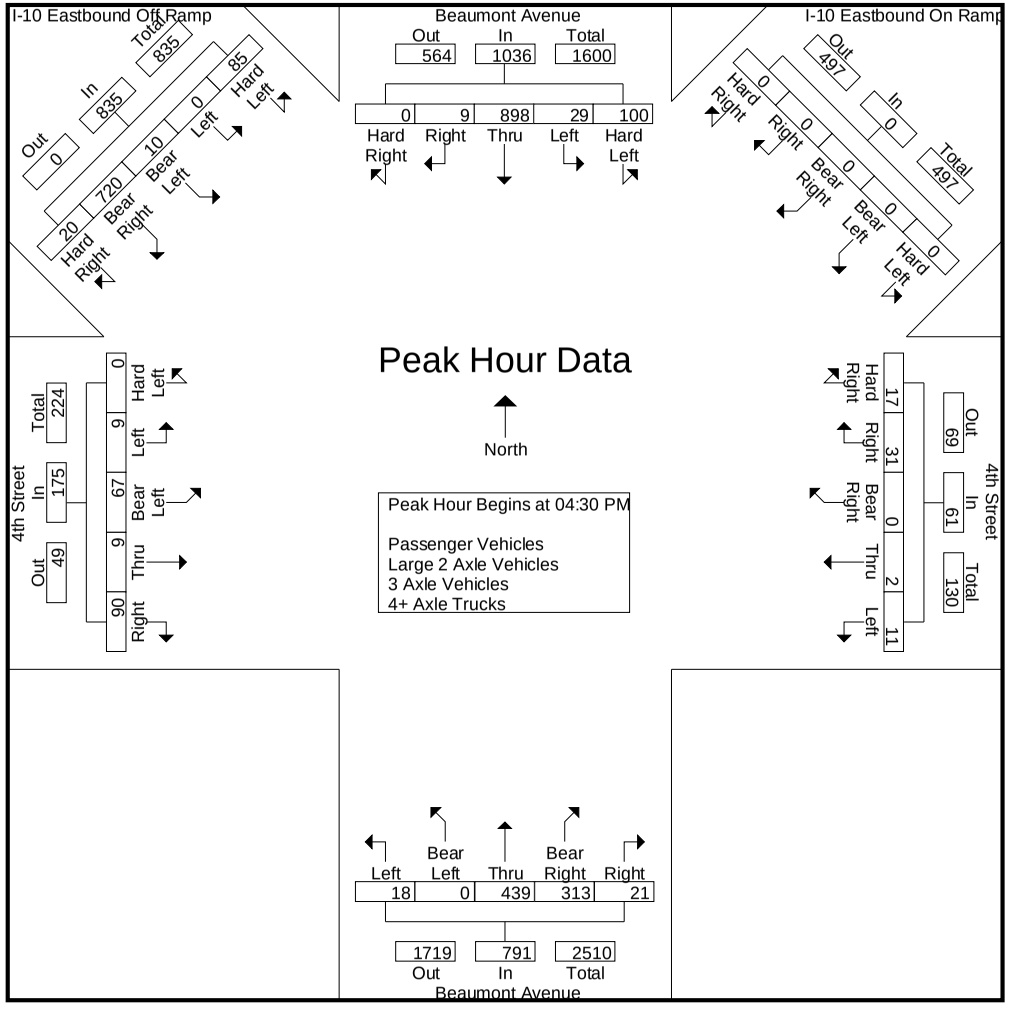
File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
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	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																				
Peak Hour for Entire Intersection Begins at 04:30 PM																																				
04:30 PM	17	8	218	3	0	246	0	0	0	0	0	0	**3**	0	0	6	1	10	2	0	112	68	2	184	0	2	15	1	**36**	54	**25**	0	**3**	**194**	5	**227**	721
04:45 PM	31	5	221	1	0	258	0	0	0	0	0	0	3	**1**	0	8	5	**17**	3	0	90	67	**8**	168	0	2	15	1	6	24	20	0	3	181	6	210	677
05:00 PM	19	5	216	**4**	0	244	0	0	0	0	0	0	3	0	0	7	**7**	17	4	0	**126**	**92**	7	**229**	0	**3**	**23**	2	32	**60**	20	0	2	172	**7**	201	**751**
05:15 PM	**33**	**11**	**243**	1	0	**288**	0	0	0	0	0	0	2	1	0	**10**	4	17	**9**	0	111	86	4	210	0	2	14	**5**	16	37	20	0	2	173	2	197	749
Total Volume	100	29	898	9	0	1036	0	0	0	0	0	0	11	2	0	31	17	61	18	0	439	313	21	791	0	9	67	9	90	175	85	0	10	720	20	835	2898
% App. Total	9.7	2.8	86.7	0.9	0		0	0	0	0	0		18	3.3	0	50.8	27.9		2.3	0	55.5	39.6	2.7		0	5.1	38.3	5.1	51.4		10.2	0	1.2	86.2	2.4		
PHF	.758	.659	.924	.563	.000	.899	.000	.000	.000	.000	.000	.000	.917	.500	.000	.775	.607	.897	.500	.000	.871	.851	.656	.864	.000	.750	.728	.450	.625	.729	.850	.000	.833	.928	.714	.920	.965

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City of Beaumont
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Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
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City of Beaumont
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File Name : 04_BMT_Beaumont_10 E_PM
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	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:00 PM						04:00 PM						05:00 PM						05:00 PM						04:15 PM						
+0 mins.	17	8	218	3	0	246	0	0	0	0	0	0	**6**	0	0	7	**7**	20	4	0	**126**	**92**	**7**	**229**	0	3	**23**	2	**32**	**60**	19	0	**3**	186	4	212	
+15 mins.	31	5	221	1	0	258	0	0	0	0	0	0	6	0	0	**9**	7	**22**	**9**	0	111	86	4	210	0	2	14	**5**	16	37	**25**	0	3	**194**	5	**227**	
+30 mins.	19	5	216	**4**	0	244	0	0	0	0	0	0	3	0	0	6	1	10	2	0	91	70	5	168	0	**5**	23	0	16	44	20	0	3	181	6	210	
+45 mins.	**33**	**11**	**243**	1	0	**288**	0	0	0	0	0	0	3	**1**	0	8	5	17	3	0	101	84	1	189	0	3	15	0	17	35	20	0	2	172	**7**	201	
Total Volume	100	29	898	9	0	1036	0	0	0	0	0	0	18	1	0	30	20	69	18	0	429	332	17	796	0	13	75	7	81	176	84	0	11	733	22	850	
% App. Total	9.7	2.8	86.7	0.9	0		0	0	0	0	0		26.1	1.4	0	43.5	29		2.3	0	53.9	41.7	2.1		0	7.4	42.6	4	46		9.9	0	1.3	86.2	2.6		
PHF	.758	.659	.924	.563	.000	.899	.000	.000	.000	.000	.000	.000	.750	.250	.000	.833	.714	.784	.500	.000	.851	.902	.607	.869	.000	.650	.815	.350	.633	.733	.840	.000	.917	.945	.786	.936	

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City of Beaumont
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Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
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Groups Printed- Passenger Vehicles

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	15	5	233	2	0	255	0	0	0	0	0	0	5	0	0	7	6	18	2	0	108	75	2	2	187	0	2	19	2	11	7	34	24	0	4	155	5	188	9	682	691
04:15 PM	13	3	200	3	0	219	0	0	0	0	0	0	6	0	0	9	7	22	2	0	88	77	3	0	170	0	3	17	1	5	1	26	19	0	3	182	4	208	1	645	646
04:30 PM	16	8	210	2	0	236	0	0	0	0	0	0	3	0	0	6	1	10	2	0	109	63	1	0	175	0	2	13	1	36	24	52	25	0	3	190	5	223	24	696	720
04:45 PM	30	5	210	1	0	246	0	0	0	0	0	0	3	1	0	8	5	17	3	0	87	58	8	4	156	0	2	14	1	6	2	23	20	0	3	180	6	209	6	651	657
Total	74	21	853	8	0	956	0	0	0	0	0	0	17	1	0	30	19	67	9	0	392	273	14	6	688	0	9	63	5	58	34	135	88	0	13	707	20	828	40	2674	2714
05:00 PM	19	5	208	4	0	236	0	0	0	0	0	0	3	0	0	6	7	16	4	0	122	87	7	1	220	0	3	21	2	32	10	58	20	0	2	170	7	199	11	729	740
05:15 PM	32	11	235	1	0	279	0	0	0	0	0	0	2	1	0	10	4	17	9	0	109	82	4	1	204	0	1	12	5	16	2	34	20	0	2	172	2	196	3	730	733
05:30 PM	20	6	195	2	0	223	0	0	0	0	0	0	2	3	0	9	3	17	2	0	89	64	5	0	160	0	3	23	0	16	6	42	24	0	2	189	7	222	6	664	670
05:45 PM	16	10	180	4	0	210	0	0	0	0	0	0	4	0	0	6	3	13	2	0	98	80	1	1	181	0	3	15	0	17	3	35	20	0	4	166	6	196	4	635	639
Total	87	32	818	11	0	948	0	0	0	0	0	0	11	4	0	31	17	63	17	0	418	313	17	3	765	0	10	71	7	81	21	169	84	0	10	697	22	813	24	2758	2782
Grand Total	161	53	1671	19	0	1904	0	0	0	0	0	0	28	5	0	61	36	130	26	0	810	586	31	9	1453	0	19	134	12	139	55	304	172	0	23	1404	42	1641	64	5432	5496
Apprch %	8.5	2.8	87.8	1	0		0	0	0	0	0		21.5	3.8	0	46.9	27.7		1.8	0	55.7	40.3	2.1			0	6.2	44.1	3.9	45.7			10.5	0	1.4	85.6	2.6				
Total %	3	1	30.8	0.3	0	35.1	0	0	0	0	0	0	0.5	0.1	0	1.1	0.7	2.4	0.5	0	14.9	10.8	0.6		26.7	0	0.3	2.5	0.2	2.6		5.6	3.2	0	0.4	25.8	0.8	30.2	1.2	98.8	

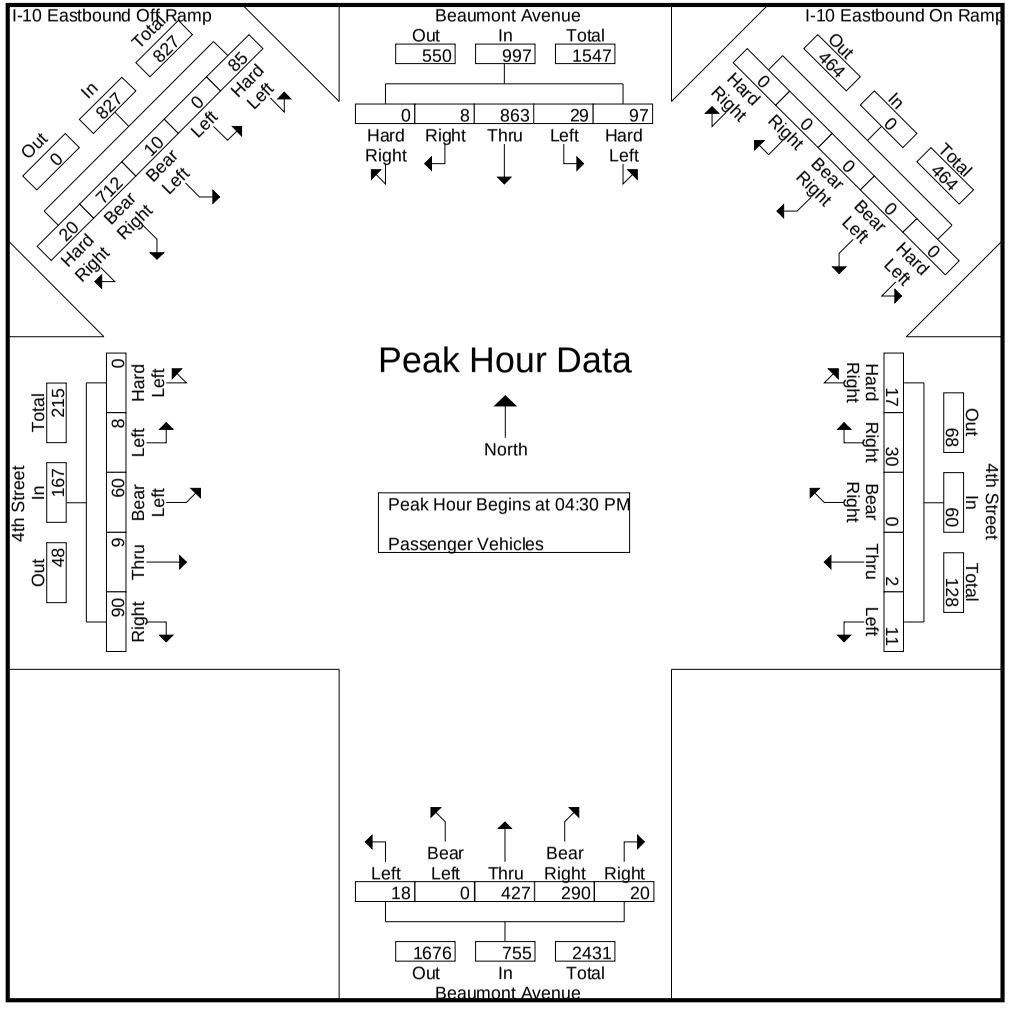
3:45 - 1/14

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 04:30 PM																																					
04:30 PM	16	8	210	2	0	236	0	0	0	0	0	0	**3**	0	0	6	1	10	2	0	109	63	1	175	0	2	13	1	**36**	52	**25**	0	**3**	**190**	5	**223**	696
04:45 PM	30	5	210	1	0	246	0	0	0	0	0	0	3	**1**	0	8	5	**17**	3	0	87	58	**8**	156	0	2	14	1	6	23	20	0	3	180	6	209	651
05:00 PM	19	5	208	**4**	0	236	0	0	0	0	0	0	3	0	0	6	**7**	16	4	0	**122**	**87**	7	**220**	0	**3**	**21**	2	32	**58**	20	0	2	170	**7**	199	729
05:15 PM	**32**	**11**	**235**	1	0	**279**	0	0	0	0	0	0	2	1	0	**10**	4	17	**9**	0	109	82	4	204	0	1	12	**5**	16	34	20	0	2	172	2	196	**730**
Total Volume	97	29	863	8	0	997	0	0	0	0	0	0	11	2	0	30	17	60	18	0	427	290	20	755	0	8	60	9	90	167	85	0	10	712	20	827	2806
% App. Total	9.7	2.9	86.6	0.8	0		0	0	0	0	0		18.3	3.3	0	50	28.3		2.4	0	56.6	38.4	2.6		0	4.8	35.9	5.4	53.9		10.3	0	1.2	86.1	2.4		
PHF	.758	.659	.918	.500	.000	.893	.000	.000	.000	.000	.000	.000	.917	.500	.000	.750	.607	.882	.500	.000	.875	.833	.625	.858	.000	.667	.714	.450	.625	.720	.850	.000	.833	.937	.714	.927	.961

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City of Beaumont
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Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
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File Name : 04_BMT_Beaumont_10 E_PM
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	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						
+0 mins.	16	8	210	2	0	236	0	0	0	0	0	0	**3**	0	0	6	1	10	2	0	109	63	1	175	0	2	13	1	**36**	52	**25**	0	**3**	**190**	5	**223**	
+15 mins.	30	5	210	1	0	246	0	0	0	0	0	0	3	**1**	0	8	5	**17**	3	0	87	58	**8**	156	0	2	14	1	6	23	20	0	3	180	6	209	
+30 mins.	19	5	208	**4**	0	236	0	0	0	0	0	0	3	0	0	6	**7**	16	4	0	**122**	**87**	7	**220**	0	**3**	**21**	2	32	**58**	20	0	2	170	**7**	199	
+45 mins.	**32**	**11**	**235**	1	0	**279**	0	0	0	0	0	0	2	1	0	**10**	4	17	**9**	0	109	82	4	204	0	1	12	**5**	16	34	20	0	2	172	2	196	
Total Volume	97	29	863	8	0	997	0	0	0	0	0	0	11	2	0	30	17	60	18	0	427	290	20	755	0	8	60	9	90	167	85	0	10	712	20	827	
% App. Total	9.7	2.9	86.6	0.8	0		0	0	0	0	0		18.3	3.3	0	50	28.3		2.4	0	56.6	38.4	2.6		0	4.8	35.9	5.4	53.9		10.3	0	1.2	86.1	2.4		
PHF	.758	.659	.918	.500	.000	.893	.000	.000	.000	.000	.000	.000	.917	.500	.000	.750	.607	.882	.500	.000	.875	.833	.625	.858	.000	.667	.714	.450	.625	.720	.850	.000	.833	.937	.714	.927	

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File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
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Groups Printed- Large 2 Axle Vehicles

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	7	0	0	8	0	0	0	0	0	0	1	0	0	0	1	2	0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0	0	3	1	4	0	16	16
04:15 PM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	0	0	8	0	0	2	0	0	0	2	0	0	0	1	0	1	0	17	17
04:30 PM	1	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	0	5	0	0	0	0	0	0	0	0	0	0	4	0	4	0	12	12
04:45 PM	1	0	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	1	0	9	9
Total	2	1	19	0	0	22	0	0	0	0	0	0	1	0	0	0	1	2	0	0	10	6	1	0	17	0	0	2	1	0	0	3	0	0	0	9	1	10	0	54	54
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	3	3	0	0	6	0	0	0	0	0	0	0	0	0	0	1	0	1	0	9	9
05:15 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	1	0	7	7
05:30 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
05:45 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	2	0	9	9
Total	0	0	11	0	0	11	0	0	0	0	0	0	0	0	0	1	0	1	1	0	6	9	0	0	16	0	0	0	0	0	0	0	0	0	0	4	0	4	0	32	32
Grand Total																																									
Apprch %			90.9										33.3			33.3	33.3				48.5	45.5						66.7	33.3							92.9					
			34.9																		18.6	17.4													15.1					

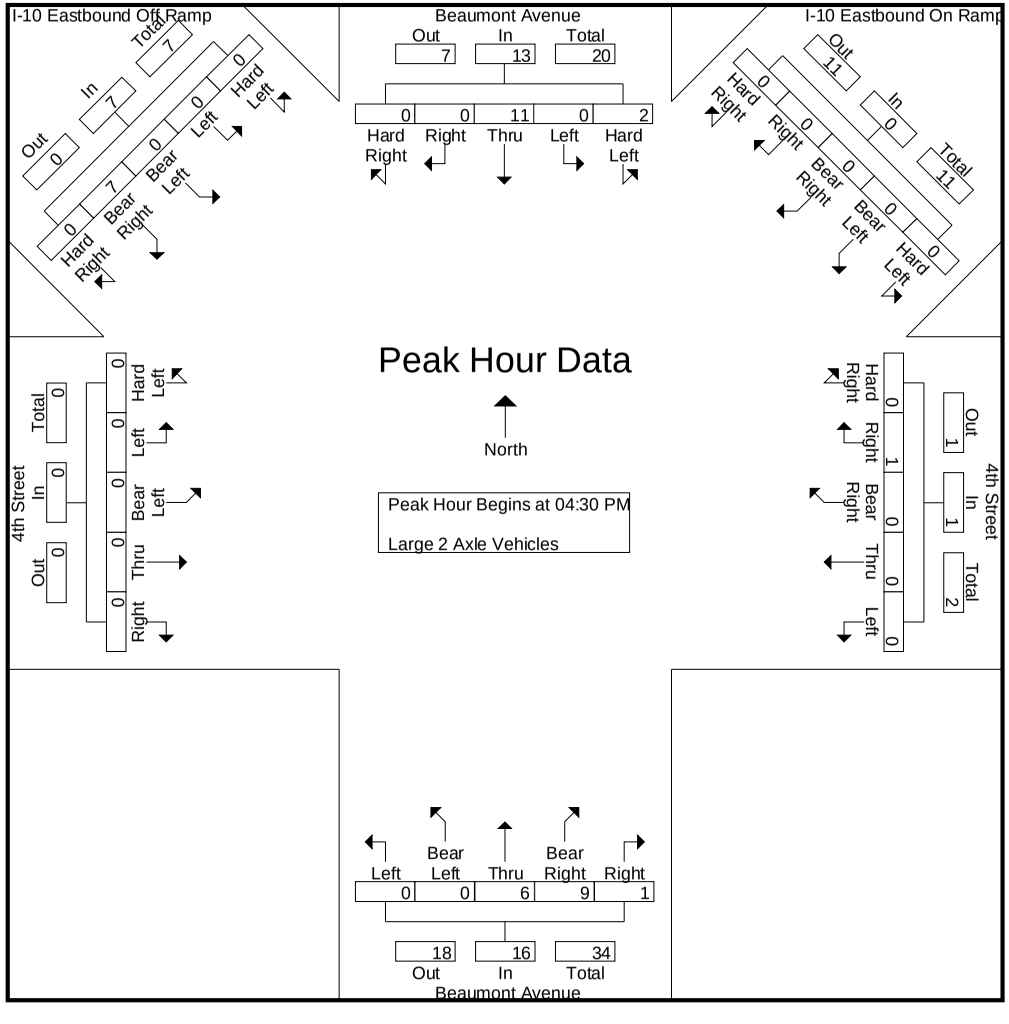
3.1-177

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 04:30 PM																																					
04:30 PM	**1**	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**3**	**1**	5	0	0	0	0	0	0	0	0	0	**4**	0	**4**	**12**
04:45 PM	1	0	**4**	0	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	1	0	1	9
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	**3**	3	0	**6**	0	0	0	0	0	0	0	0	0	1	0	1	9
05:15 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	7
Total Volume	2	0	11	0	0	13	0	0	0	0	0	0	0	0	0	1	0	1	0	0	6	9	1	16	0	0	0	0	0	0	0	0	0	7	0	7	37
% App. Total	15.4	0	84.6	0	0		0	0	0	0	0		0	0	0	100	0		0	0	37.5	56.2	6.2		0	0	0	0	0		0	0	0	100	0		
PHF	.500	.000	.688	.000	.000	.650	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.500	.750	.250	.667	.000	.000	.000	.000	.000	.000	.000	.000	.000	.438	.000	.438	.771

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						
+0 mins.	**1**	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**3**	**1**	5	0	0	0	0	0	0	0	0	0	**4**	0	**4**	
+15 mins.	1	0	**4**	0	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	1	0	1	
+30 mins.	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	**3**	3	0	**6**	0	0	0	0	0	0	0	0	0	1	0	1	
+45 mins.	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	1	0	1	
Total Volume	2	0	11	0	0	13	0	0	0	0	0	0	0	0	0	1	0	1	0	0	6	9	1	16	0	0	0	0	0	0	0	0	0	7	0	7	
% App. Total	15.4	0	84.6	0	0		0	0	0	0	0		0	0	0	100	0		0	0	37.5	56.2	6.2		0	0	0	0	0		0	0	0	100	0		
PHF	.500	.000	.688	.000	.000	.650	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.500	.750	.250	.667	.000	.000	.000	.000	.000	.000	.000	.000	.000	.438	.000	.438	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
04:15 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
Total	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
05:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	3
Total	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	2	0	2	10	10
Grand Total																																								
Apprch %			83.3	16.7																	62.5	37.5													100					
			20.8																		41.7																			

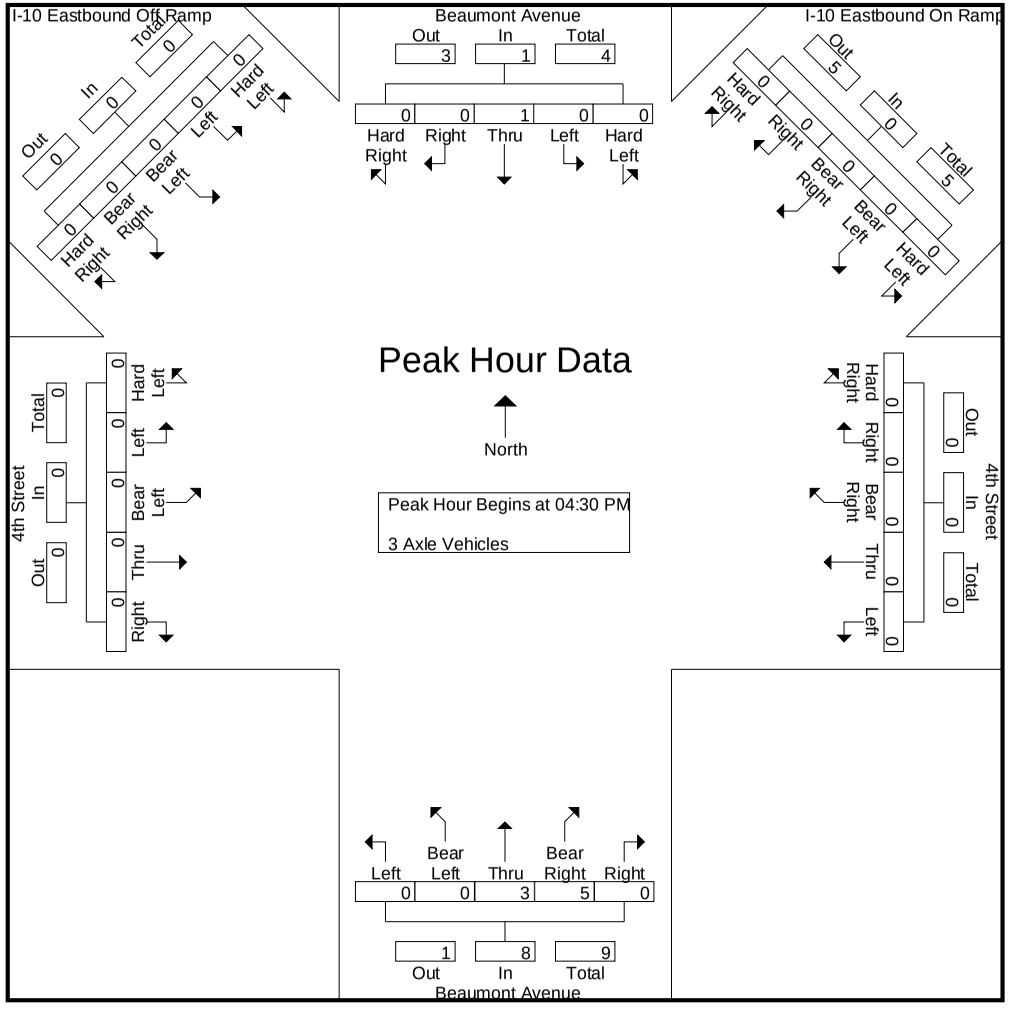
3.1-180

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 04:30 PM																																					
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**3**	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	**4**
05:00 PM	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	8	0	0	0	0	0	0	0	0	0	0	0	0	9
% App. Total	0	0	100	0	0		0	0	0	0	0		0	0	0	0	0		0	0	37.5	62.5	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.417	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.563

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**3**	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	8	0	0	0	0	0	0	0	0	0	0	0	0	
% App. Total	0	0	100	0	0		0	0	0	0	0		0	0	0	0	0		0	0	37.5	62.5	0		0	0	0	0	0		0	0	0	0	0		
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.417	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound							4th Street Eastbound							I-10 Eastbound Off Ramp Southeastbound								
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	3	0	0	0	3	0	0	0	1	0	1	0	12	12
04:15 PM	0	0	10	3	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	1	0	0	0	1	0	0	0	3	0	3	0	19	19
04:30 PM	0	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	2	0	0	0	2	0	0	0	0	0	0	0	13	13
04:45 PM	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	1	0	0	0	1	0	0	0	0	0	0	0	13	13
Total	0	0	28	5	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	9	0	0	13	0	0	7	0	0	0	7	0	0	0	4	0	4	0	57	57
05:00 PM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	2	0	0	0	2	0	0	0	1	0	1	0	11	11
05:15 PM	1	0	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	2	0	0	0	3	0	0	0	0	0	0	0	9	9
05:30 PM	0	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	0	0	0	0	2	0	0	0	0	0	0	0	15	15
05:45 PM	0	0	3	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	1	0	0	0	0	1	0	10	10
Total	1	0	23	2	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	7	0	0	10	0	3	4	0	0	0	7	1	0	0	1	0	2	0	45	45
Grand Total																																									
Apprch %			86.4	11.9																	30.4	69.6						21.4	78.6						16.7			83.3			
																						15.7							10.8											

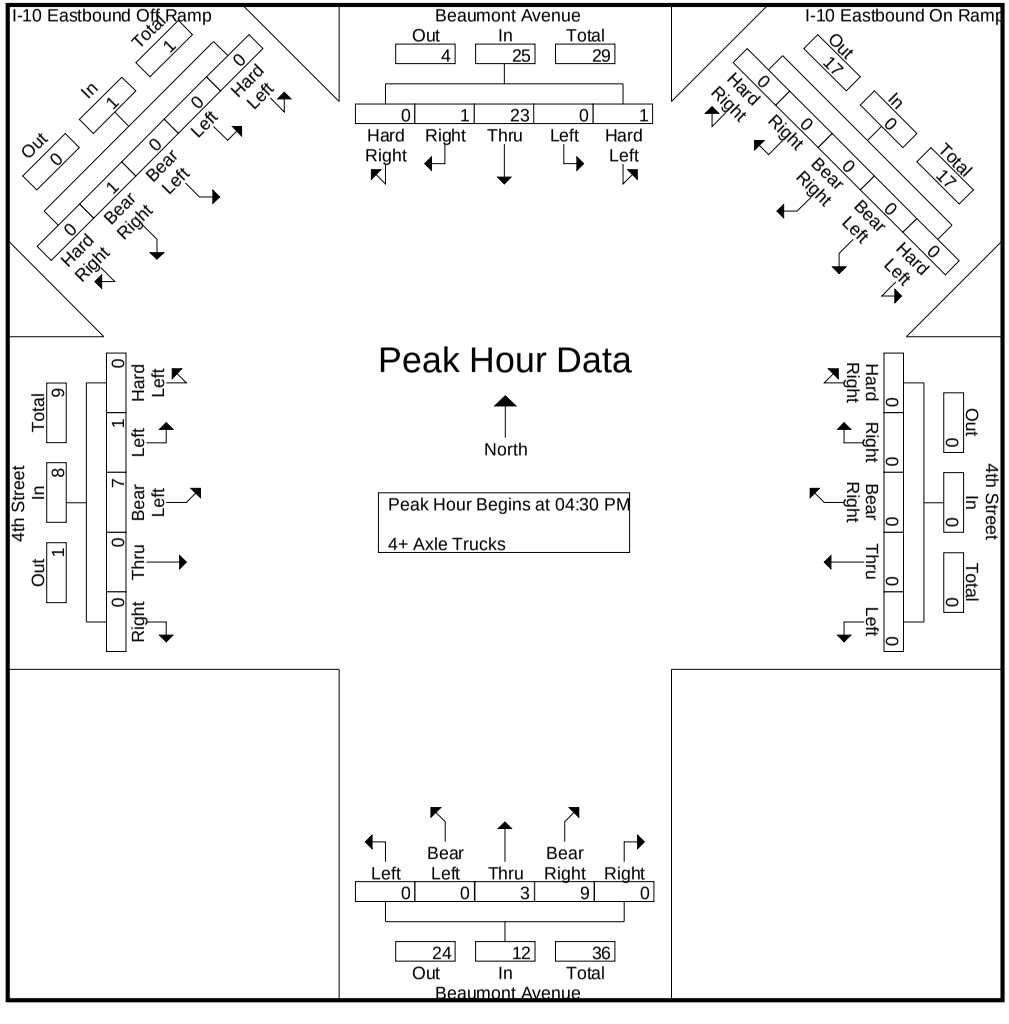
3.1-183

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 04:30 PM																																					
04:30 PM	0	0	6	**1**	0	**7**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	2	0	4	0	0	**2**	0	0	2	0	0	0	0	0	0	**13**
04:45 PM	0	0	**7**	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	**5**	0	0	1	0	0	1	0	0	0	0	0	0	13
05:00 PM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	2	0	0	2	0	0	0	**1**	0	**1**	11
05:15 PM	**1**	0	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	**1**	2	0	0	**3**	0	0	0	0	0	0	9
Total Volume	1	0	23	1	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	0	12	0	1	7	0	0	8	0	0	0	1	0	1	46
% App. Total	4	0	92	4	0		0	0	0	0	0		0	0	0	0	0		0	0	25	75	0		0	12.5	87.5	0	0		0	0	0	100	0		
PHF	.250	.000	.821	.250	.000	.893	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.450	.000	.600	.000	.250	.875	.000	.000	.667	.000	.000	.000	.250	.000	.250	.885

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City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020

	Beaumont Avenue Southbound						I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	Hard Right	App. Total	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																				
Peak Hour for Each Approach Begins at:																																				
	04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						04:30 PM						
+0 mins.	0	0	6	**1**	0	**7**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	2	0	4	0	0	**2**	0	0	2	0	0	0	0	0	0	
+15 mins.	0	0	**7**	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**	0	**5**	0	0	1	0	0	1	0	0	0	0	0	0	
+30 mins.	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	2	0	0	2	0	0	0	**1**	0	**1**	
+45 mins.	**1**	0	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	**1**	2	0	0	**3**	0	0	0	0	0	0	
Total Volume	1	0	23	1	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	9	0	12	0	1	7	0	0	8	0	0	0	1	0	1	
% App. Total	4	0	92	4	0		0	0	0	0	0		0	0	0	0	0		0	0	25	75	0		0	12.5	87.5	0	0		0	0	0	100	0		
PHF	.250	.000	.821	.250	.000	.893	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.450	.000	.600	.000	.250	.875	.000	.000	.667	.000	.000	.000	.250	.000	.250	

Location: Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street

Date: 1/14/2020
Day: Tuesday

PEDESTRIANS

	North Leg Beaumont Avenue	Northeast Leg I-10 EB On Ramp	East Leg 4th Street	South Leg Beaumont Avenue	West Leg 4th Street	Northwest Leg I-10 EB Off Ramp	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	0	0	1
7:15 AM	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	1
8:15 AM	0	1	1	1	0	0	3
8:30 AM	0	1	0	1	0	0	2
8:45 AM	0	1	1	0	0	0	2
TOTAL VOLUMES:	0	4	2	3	0	0	9

	North Leg Beaumont Avenue	Northeast Leg I-10 EB On Ramp	East Leg I-10 WB Off Ramp	South Leg Beaumont Avenue	West Leg I-10 WB On Ramp	Northwest Leg I-10 EB Off Ramp	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	1	1	1	3
4:15 PM	0	0	0	0	1	1	2
4:30 PM	0	1	1	0	0	0	2
4:45 PM	0	2	1	0	1	2	6
5:00 PM	0	1	1	1	0	1	4
5:15 PM	0	3	0	1	0	0	4
5:30 PM	0	0	0	0	0	0	0
5:45 PM	0	2	0	0	0	0	2
TOTAL VOLUMES:	0	9	3	3	3	5	23

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Location: Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street

Date: 1/14/2020
Day: Tuesday

BICYCLES

	Southbound Beaumont Avenue					Southwest Bound I-10 EB On Ramp					Westbound 4th Street					Northbound Beaumont Avenue					Eastbound 4th Street					Southeastbound I-10 EB Off Ramp					
	Hard Left	Left	Thru	Rigth	Hard Right	Hard Left	Bear Left	Bear Right	Right	Hard Right	Left	Thru	Bear Right	Right	Hard Right	Left	Bear Left	Thru	Bear Right	Right	Hard Left	Left	Bear Left	Thru	Right	Hard Left	Left	Bear Left	Bear Right	Hard Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Beaumont Avenue					Southwest Bound I-10 EB On Ramp					Westbound 4th Street					Northbound Beaumont Avenue					Eastbound 4th Street					Southeastbound I-10 EB Off Ramp					
	Left	Bear Left	Thru	Bear Right	Right	Hard Left	Left	Bear Left	Thru	Right	Hard Left	Left	Bear Left	Bear Right	Hard Right	Hard Left	Left	Thru	Right	Hard Right	Hard Left	Bear Left	Bear Right	Right	Hard Right	Left	Thru	Bear Right	Right	Hard Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

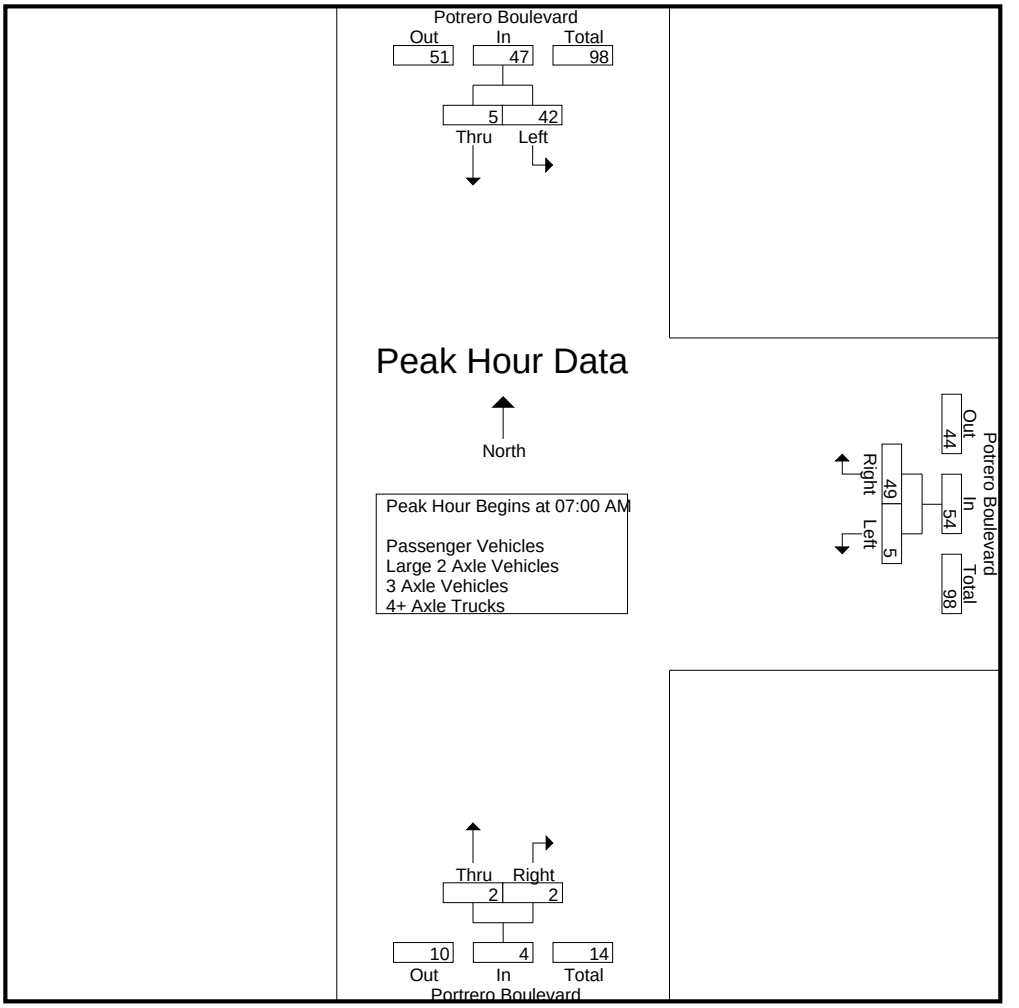
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	16	4	20	2	10	12	0	1	1	33
07:15 AM	12	1	13	1	23	24	1	0	1	38
07:30 AM	8	0	8	2	11	13	0	0	0	21
07:45 AM	6	0	6	0	5	5	1	1	2	13
Total	42	5	47	5	49	54	2	2	4	105
08:00 AM	4	0	4	1	10	11	0	1	1	16
08:15 AM	3	0	3	2	4	6	0	1	1	10
08:30 AM	8	2	10	1	9	10	1	1	2	22
08:45 AM	6	0	6	1	3	4	0	0	0	10
Total	21	2	23	5	26	31	1	3	4	58
Grand Total	63	7	70	10	75	85	3	5	8	163
Apprch %	90	10		11.8	88.2		37.5	62.5		
Total %	38.7	4.3	42.9	6.1	46	52.1	1.8	3.1	4.9	
Passenger Vehicles	61	5	66	5	71	76	3	0	3	145
% Passenger Vehicles	96.8	71.4	94.3	50	94.7	89.4	100	0	37.5	89
Large 2 Axle Vehicles	2	2	4	1	3	4	0	2	2	10
% Large 2 Axle Vehicles	3.2	28.6	5.7	10	4	4.7	0	40	25	6.1
3 Axle Vehicles	0	0	0	0	1	1	0	0	0	1
% 3 Axle Vehicles	0	0	0	0	1.3	1.2	0	0	0	0.6
4+ Axle Trucks	0	0	0	4	0	4	0	3	3	7
% 4+ Axle Trucks	0	0	0	40	0	4.7	0	60	37.5	4.3

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**16**	**4**	**20**	**2**	10	12	0	**1**	1	33
07:15 AM	12	1	13	1	**23**	**24**	**1**	0	1	**38**
07:30 AM	8	0	8	2	11	13	0	0	0	21
07:45 AM	6	0	6	0	5	5	1	1	**2**	13
Total Volume	42	5	47	5	49	54	2	2	4	105
% App. Total	89.4	10.6		9.3	90.7		50	50		
PHF	.656	.313	.588	.625	.533	.563	.500	.500	.500	.691

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City of Beaumont
N/S: Potrero Boulevard
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File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:45 AM		
+0 mins.	**16**	**4**	**20**	**2**	10	12	**1**	**1**	**2**
+15 mins.	12	1	13	1	**23**	**24**	0	1	1
+30 mins.	8	0	8	2	11	13	0	1	1
+45 mins.	6	0	6	0	5	5	1	1	2
Total Volume	42	5	47	5	49	54	2	4	6
% App. Total	89.4	10.6		9.3	90.7		33.3	66.7	
PHF	.656	.313	.588	.625	.533	.563	.500	1.000	.750

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City of Beaumont
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E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

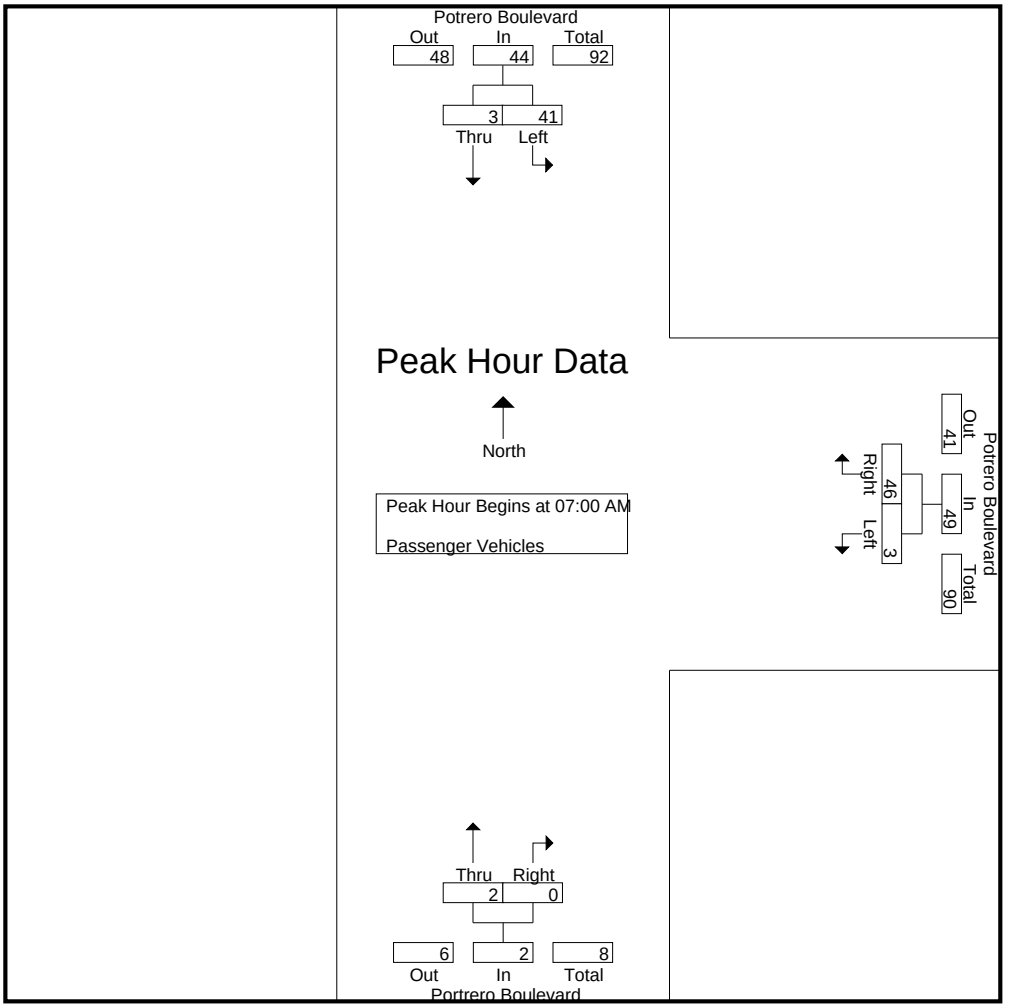
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	15	3	18	1	9	10	0	0	0	28
07:15 AM	12	0	12	0	22	22	1	0	1	35
07:30 AM	8	0	8	2	10	12	0	0	0	20
07:45 AM	6	0	6	0	5	5	1	0	1	12
Total	41	3	44	3	46	49	2	0	2	95
08:00 AM	3	0	3	0	10	10	0	0	0	13
08:15 AM	3	0	3	0	4	4	0	0	0	7
08:30 AM	8	2	10	1	9	10	1	0	1	21
08:45 AM	6	0	6	1	2	3	0	0	0	9
Total	20	2	22	2	25	27	1	0	1	50
Grand Total	61	5	66	5	71	76	3	0	3	145
Apprch %	92.4	7.6		6.6	93.4		100	0		
Total %	42.1	3.4	45.5	3.4	49	52.4	2.1	0	2.1	

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**15**	**3**	**18**	1	9	10	0	0	0	28
07:15 AM	12	0	12	0	**22**	**22**	**1**	0	**1**	**35**
07:30 AM	8	0	8	**2**	10	12	0	0	0	20
07:45 AM	6	0	6	0	5	5	1	0	1	12
Total Volume	41	3	44	3	46	49	2	0	2	95
% App. Total	93.2	6.8		6.1	93.9		100	0		
PHF	.683	.250	.611	.375	.523	.557	.500	.000	.500	.679

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City of Beaumont
N/S: Potrero Boulevard
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File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**15**	**3**	**18**	1	9	10	0	0	0
+15 mins.	12	0	12	0	**22**	**22**	**1**	0	**1**
+30 mins.	8	0	8	**2**	10	12	0	0	0
+45 mins.	6	0	6	0	5	5	1	0	1
Total Volume	41	3	44	3	46	49	2	0	2
% App. Total	93.2	6.8		6.1	93.9		100	0	
PHF	.683	.250	.611	.375	.523	.557	.500	.000	.500

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City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

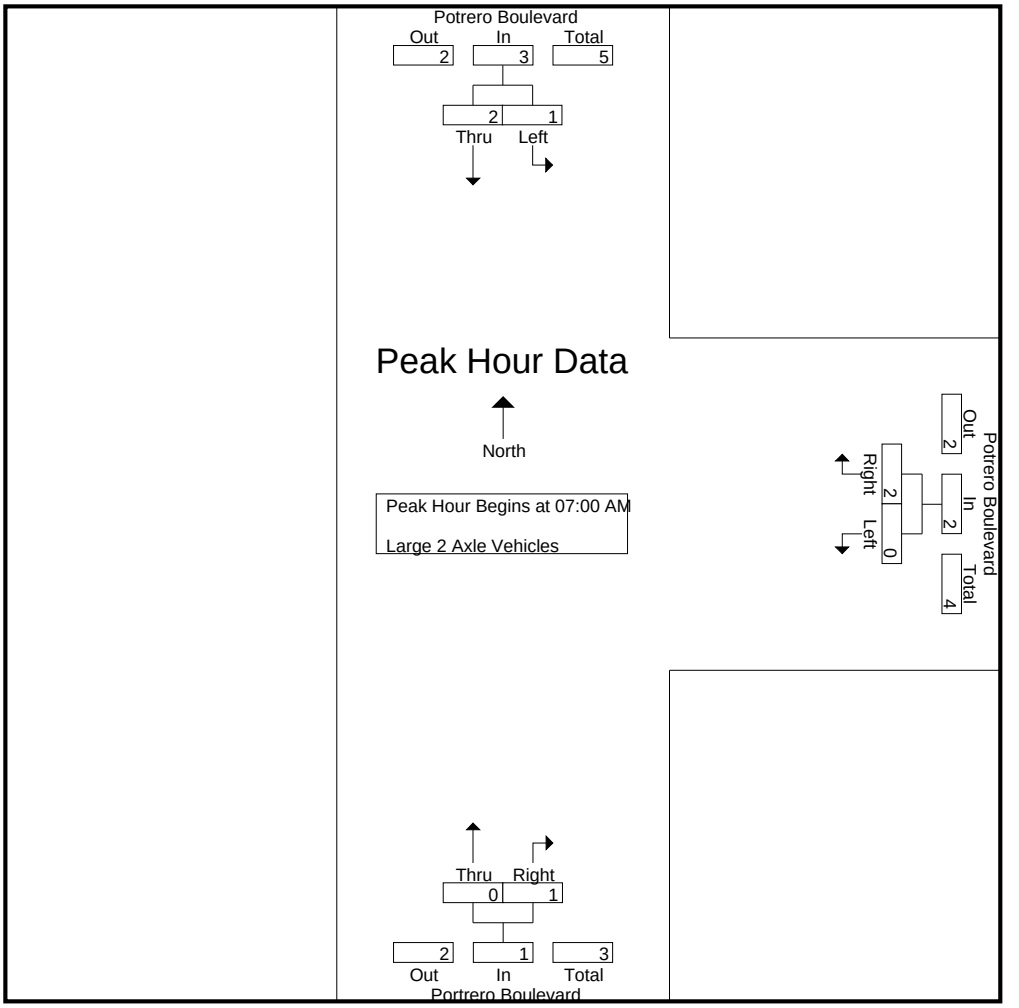
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	1	2	0	0	0	0	1	1	3
07:15 AM	0	1	1	0	1	1	0	0	0	2
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	2	3	0	2	2	0	1	1	6
08:00 AM	1	0	1	0	0	0	0	1	1	2
08:15 AM	0	0	0	1	0	1	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	1	0	1	1	1	2	0	1	1	4
Grand Total	2	2	4	1	3	4	0	2	2	10
Apprch %	50	50		25	75		0	100		
Total %	20	20	40	10	30	40	0	20	20	

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	**1**	**2**	0	0	0	0	**1**	**1**	**3**
07:15 AM	0	1	1	0	**1**	**1**	0	0	0	2
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	2	3	0	2	2	0	1	1	6
% App. Total	33.3	66.7		0	100		0	100		
PHF	.250	.500	.375	.000	.500	.500	.000	.250	.250	.500

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File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**1**	**1**	**2**	0	0	0	0	**1**	**1**
+15 mins.	0	1	1	0	**1**	**1**	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	2	3	0	2	2	0	1	1
% App. Total	33.3	66.7		0	100		0	100	
PHF	.250	.500	.375	.000	.500	.500	.000	.250	.250

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City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

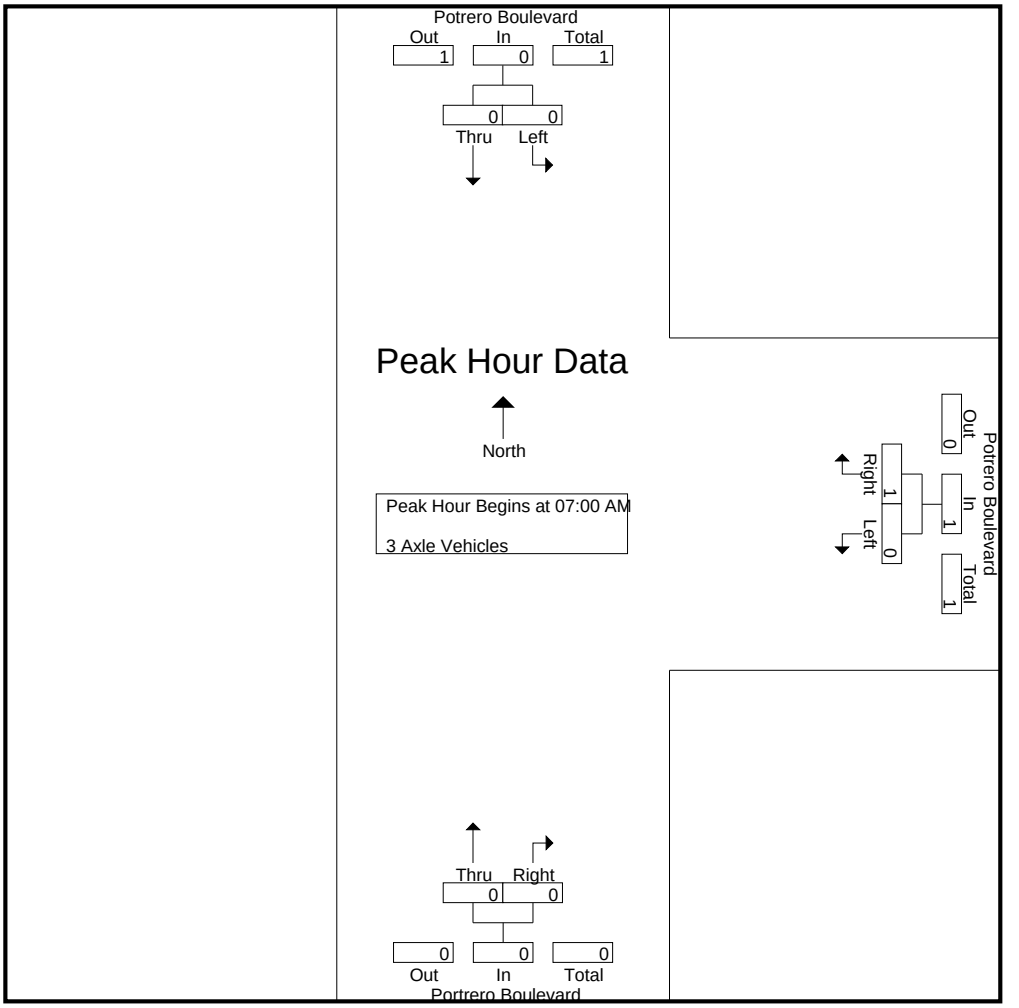
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	1	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	1	0	0	0	1
Apprch %	0	0		0	100		0	0		
Total %	0	0	0	0	100	100	0	0	0	

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	**1**	**1**	0	0	0	**1**
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250

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City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	**1**	**1**	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0		0	100		0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

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City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- 4+ Axle Trucks

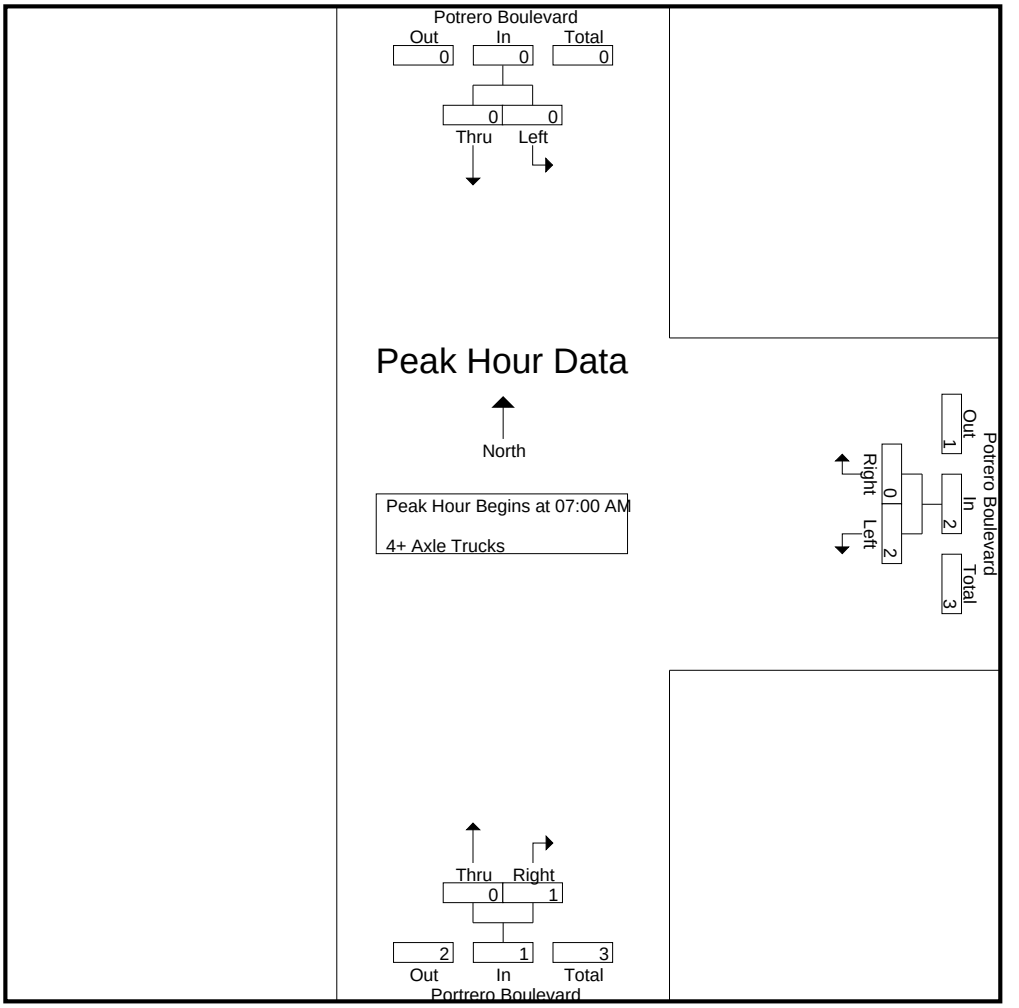
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	1	0	1	0	0	0	1
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	2	0	2	0	1	1	3
08:00 AM	0	0	0	1	0	1	0	0	0	1
08:15 AM	0	0	0	1	0	1	0	1	1	2
08:30 AM	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	2	2	4
Grand Total	0	0	0	4	0	4	0	3	3	7
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	57.1	0	57.1	0	42.9	42.9	

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	**1**	0	**1**	0	0	0	**1**
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	**1**	**1**	1
Total Volume	0	0	0	2	0	2	0	1	1	3
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250	.750

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File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	**1**	0	**1**	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	**1**	**1**
Total Volume	0	0	0	2	0	2	0	1	1
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250

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File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

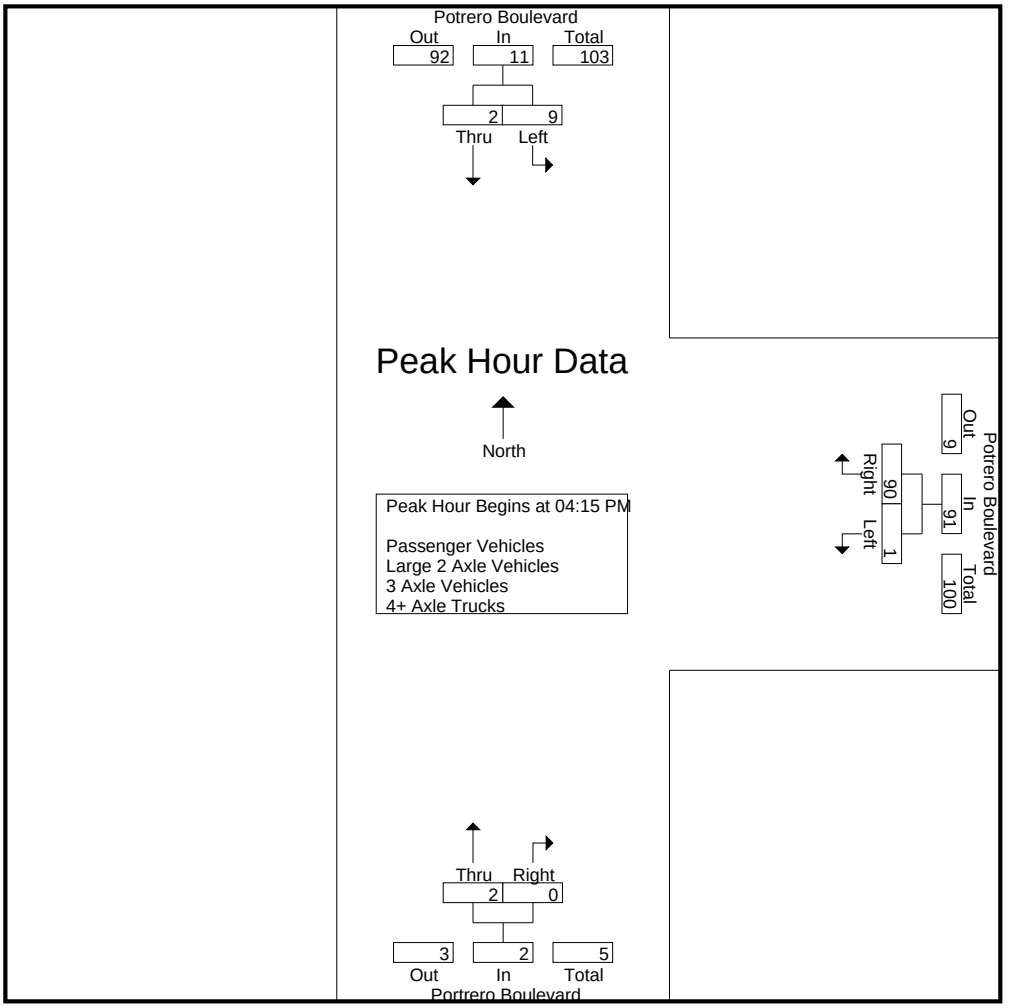
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	2	0	2	0	18	18	0	0	0	20
04:15 PM	2	0	2	0	24	24	1	0	1	27
04:30 PM	2	0	2	1	30	31	1	0	1	34
04:45 PM	3	2	5	0	16	16	0	0	0	21
Total	9	2	11	1	88	89	2	0	2	102
05:00 PM	2	0	2	0	20	20	0	0	0	22
05:15 PM	0	0	0	0	19	19	1	0	1	20
05:30 PM	1	0	1	0	11	11	0	0	0	12
05:45 PM	0	0	0	0	24	24	0	0	0	24
Total	3	0	3	0	74	74	1	0	1	78
Grand Total	12	2	14	1	162	163	3	0	3	180
Apprch %	85.7	14.3		0.6	99.4		100	0		
Total %	6.7	1.1	7.8	0.6	90	90.6	1.7	0	1.7	
Passenger Vehicles	12	2	14	0	161	161	3	0	3	178
% Passenger Vehicles	100	100	100	0	99.4	98.8	100	0	100	98.9
Large 2 Axle Vehicles	0	0	0	1	1	2	0	0	0	2
% Large 2 Axle Vehicles	0	0	0	100	0.6	1.2	0	0	0	1.1
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	2	0	2	0	24	24	**1**	0	**1**	27
04:30 PM	2	0	2	**1**	**30**	**31**	1	0	1	**34**
04:45 PM	**3**	**2**	**5**	0	16	16	0	0	0	21
05:00 PM	2	0	2	0	20	20	0	0	0	22
Total Volume	9	2	11	1	90	91	2	0	2	104
% App. Total	81.8	18.2		1.1	98.9		100	0		
PHF	.750	.250	.550	.250	.750	.734	.500	.000	.500	.765

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:15 PM			04:00 PM		
+0 mins.	2	0	2	0	24	24	0	0	0
+15 mins.	2	0	2	**1**	**30**	**31**	**1**	0	**1**
+30 mins.	2	0	2	0	16	16	1	0	1
+45 mins.	**3**	**2**	**5**	0	20	20	0	0	0
Total Volume	9	2	11	1	90	91	2	0	2
% App. Total	81.8	18.2		1.1	98.9		100	0	
PHF	.750	.250	.550	.250	.750	.734	.500	.000	.500

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Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
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Groups Printed- Passenger Vehicles

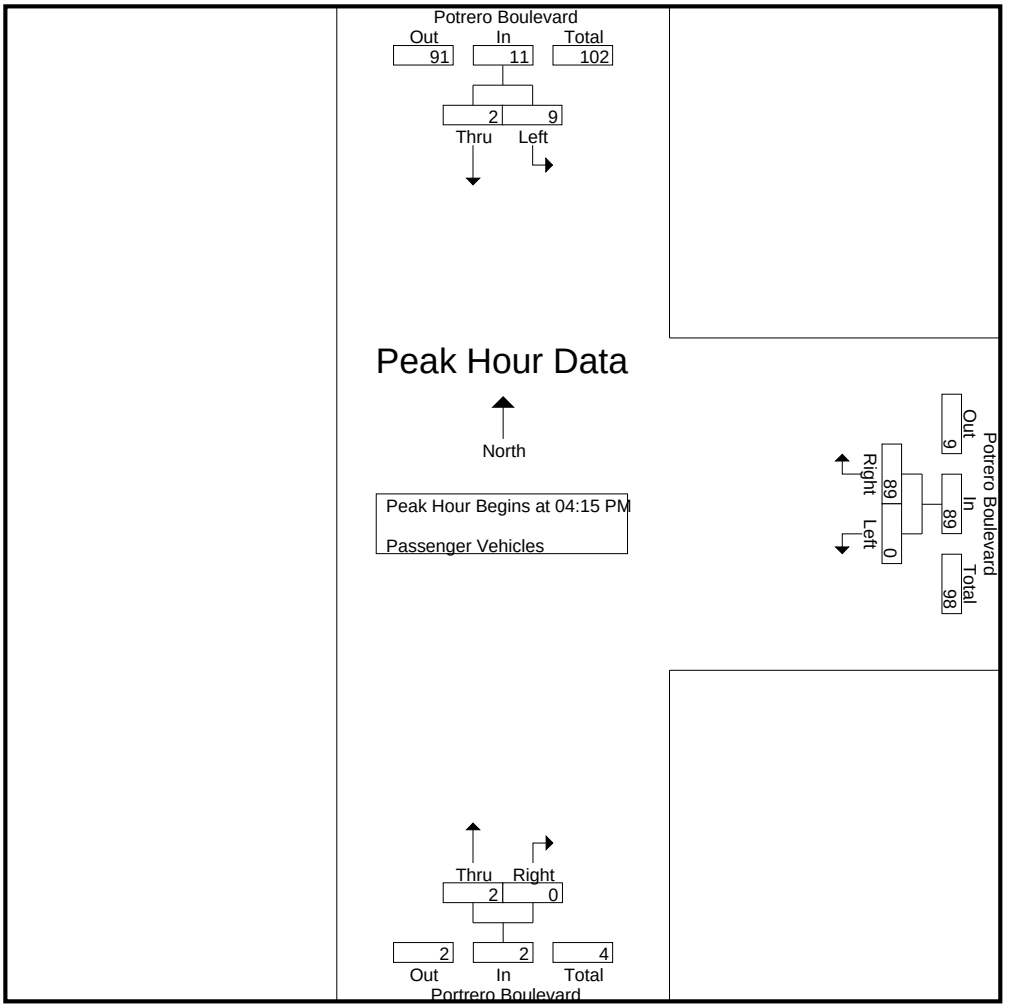
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	2	0	2	0	18	18	0	0	0	20
04:15 PM	2	0	2	0	23	23	1	0	1	26
04:30 PM	2	0	2	0	30	30	1	0	1	33
04:45 PM	3	2	5	0	16	16	0	0	0	21
Total	9	2	11	0	87	87	2	0	2	100
05:00 PM	2	0	2	0	20	20	0	0	0	22
05:15 PM	0	0	0	0	19	19	1	0	1	20
05:30 PM	1	0	1	0	11	11	0	0	0	12
05:45 PM	0	0	0	0	24	24	0	0	0	24
Total	3	0	3	0	74	74	1	0	1	78
Grand Total	12	2	14	0	161	161	3	0	3	178
Apprch %	85.7	14.3		0	100		100	0		
Total %	6.7	1.1	7.9	0	90.4	90.4	1.7	0	1.7	

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	2	0	2	0	23	23	**1**	0	**1**	26
04:30 PM	2	0	2	0	**30**	**30**	1	0	1	**33**
04:45 PM	**3**	**2**	**5**	0	16	16	0	0	0	21
05:00 PM	2	0	2	0	20	20	0	0	0	22
Total Volume	9	2	11	0	89	89	2	0	2	102
% App. Total	81.8	18.2		0	100		100	0		
PHF	.750	.250	.550	.000	.742	.742	.500	.000	.500	.773

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File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	2	0	2	0	23	23	**1**	0	**1**
+15 mins.	2	0	2	0	**30**	**30**	1	0	1
+30 mins.	**3**	**2**	**5**	0	16	16	0	0	0
+45 mins.	2	0	2	0	20	20	0	0	0
Total Volume	9	2	11	0	89	89	2	0	2
% App. Total	81.8	18.2		0	100		100	0	
PHF	.750	.250	.550	.000	.742	.742	.500	.000	.500

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City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

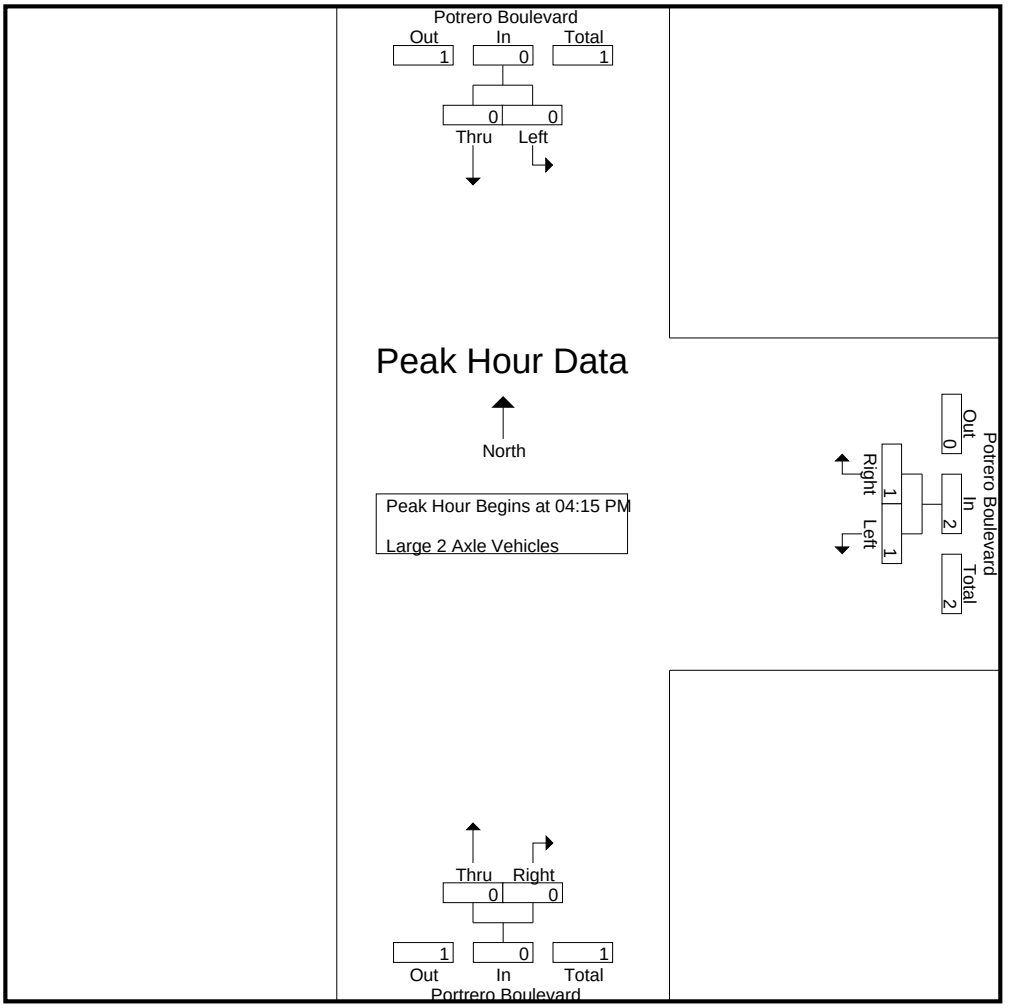
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	0	0	0	1
04:30 PM	0	0	0	1	0	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	1	2	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	1	2	0	0	0	2
Apprch %	0	0		50	50		0	0		
Total %	0	0	0	50	50	100	0	0	0	

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	**1**	**1**	0	0	0	**1**
04:30 PM	0	0	0	**1**	0	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	1	2	0	0	0	2
% App. Total	0	0		50	50		0	0		
PHF	.000	.000	.000	.250	.250	.500	.000	.000	.000	.500

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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	**1**	**1**	0	0	0
+15 mins.	0	0	0	**1**	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	1	2	0	0	0
% App. Total	0	0		50	50		0	0	
PHF	.000	.000	.000	.250	.250	.500	.000	.000	.000

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City of Beaumont
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E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
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Groups Printed- 3 Axle Vehicles

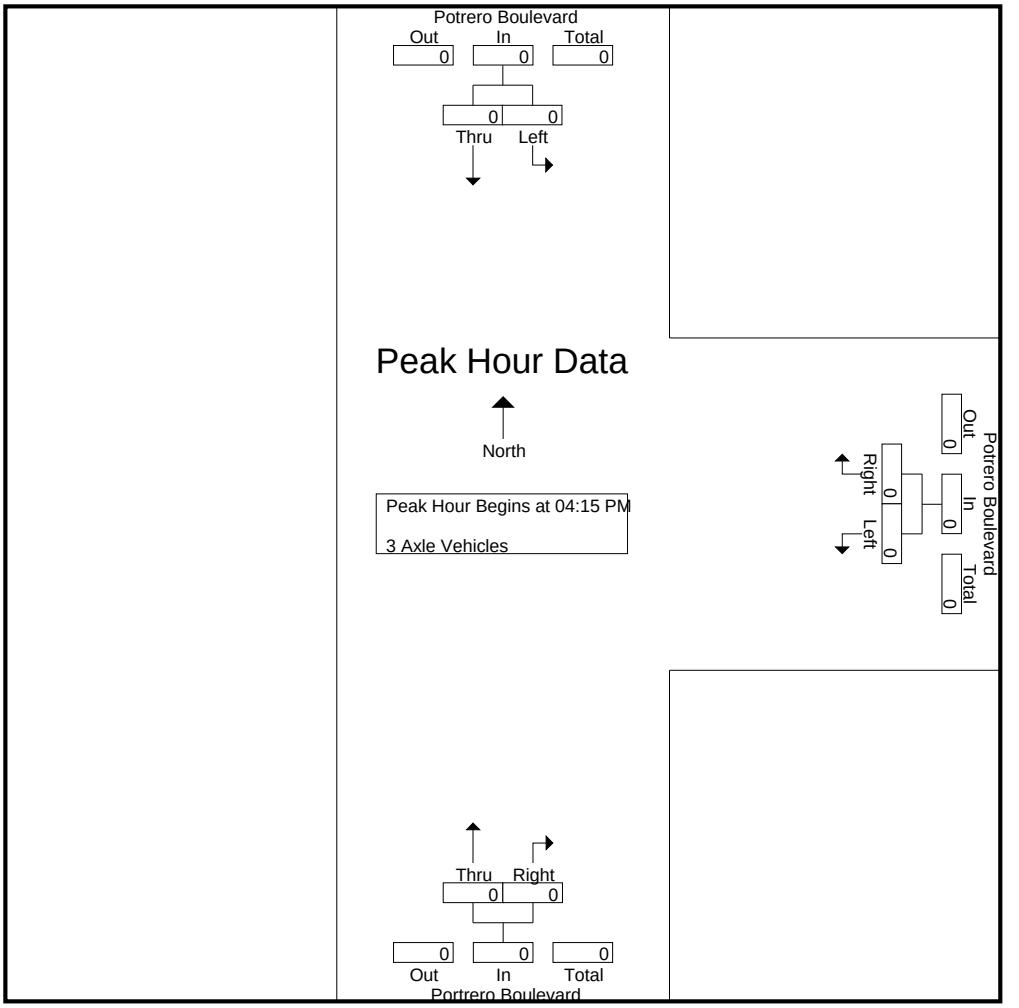
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
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Groups Printed- 4+ Axle Trucks

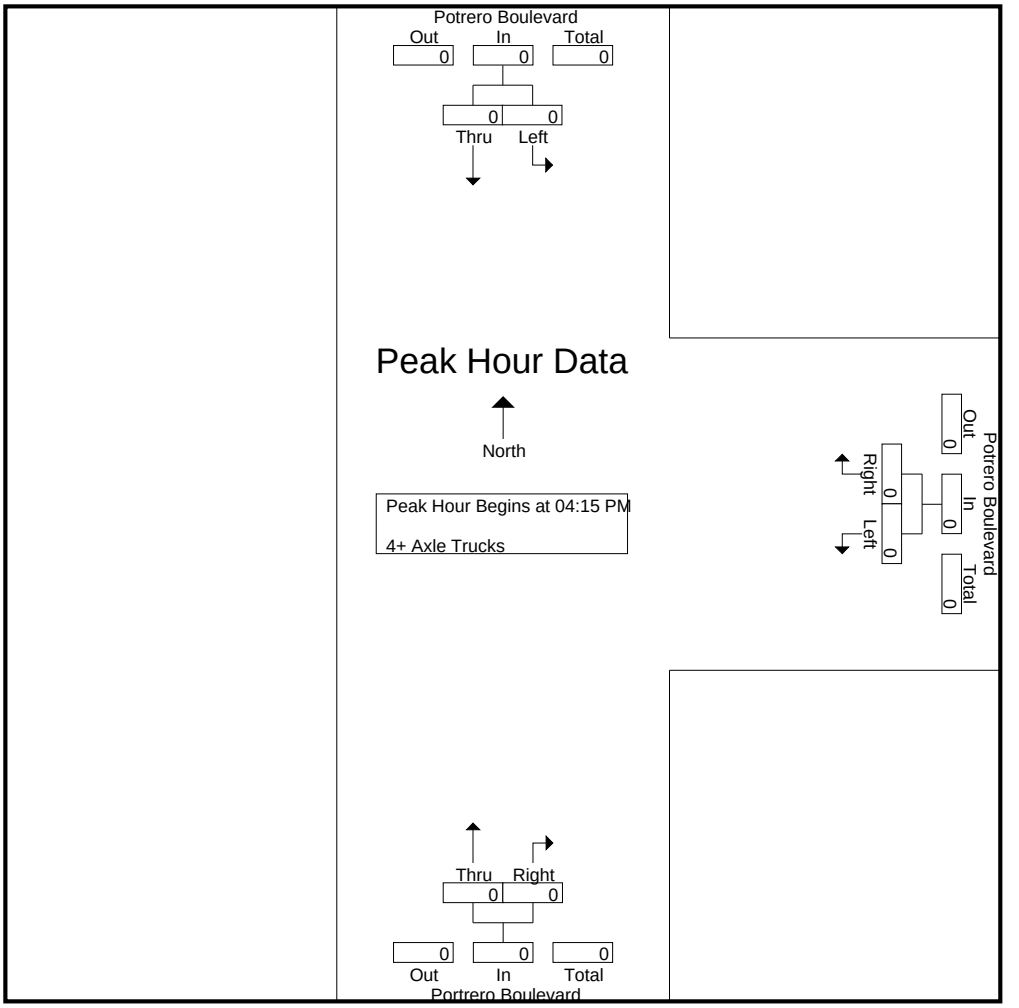
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg Potrero Boulevard	East Leg Potrero Boulevard	South Leg Potrero Boulevard	West Leg Dead End	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	5	0	5
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	5	0	5

	North Leg Potrero Boulevard	East Leg Potrero Boulevard	South Leg Potrero Boulevard	West Leg Dead End	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound Potrero Boulevard			Westbound Potrero Boulevard			Northbound Potrero Boulevard			Eastbound Dead End			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Potrero Boulevard			Westbound Potrero Boulevard			Northbound Potrero Boulevard			Eastbound Dead End			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

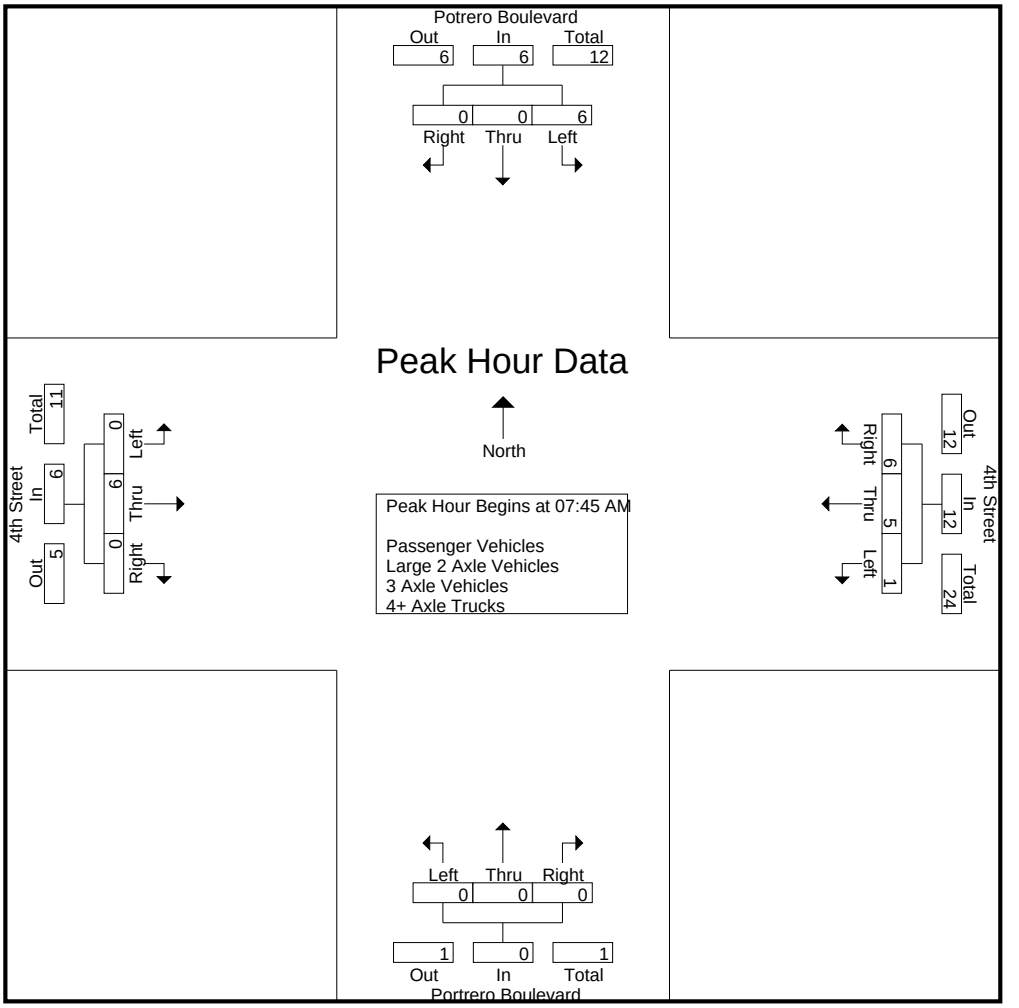
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	0	0	3	2	1	0	3	0	0	0	0	0	0	0	0	6
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	4
Total	5	0	0	5	2	5	1	8	0	0	0	0	0	0	0	0	13
08:00 AM	1	0	0	1	0	1	1	2	0	0	0	0	0	2	0	2	5
08:15 AM	2	0	0	2	1	0	1	2	0	0	0	0	0	2	0	2	6
08:30 AM	3	0	0	3	0	1	3	4	0	0	0	0	0	2	0	2	9
08:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	1	0	0	1	3
Total	6	0	0	6	1	4	5	10	0	0	0	0	1	6	0	7	23
Grand Total	11	0	0	11	3	9	6	18	0	0	0	0	1	6	0	7	36
Apprch %	100	0	0		16.7	50	33.3		0	0	0		14.3	85.7	0		
Total %	30.6	0	0	30.6	8.3	25	16.7	50	0	0	0	0	2.8	16.7	0	19.4	
Passenger Vehicles	6	0	0	6	2	7	1	10	0	0	0	0	0	5	0	5	21
% Passenger Vehicles	54.5	0	0	54.5	66.7	77.8	16.7	55.6	0	0	0	0	0	83.3	0	71.4	58.3
Large 2 Axle Vehicles	1	0	0	1	1	1	1	3	0	0	0	0	0	0	0	0	4
% Large 2 Axle Vehicles	9.1	0	0	9.1	33.3	11.1	16.7	16.7	0	0	0	0	0	0	0	0	11.1
3 Axle Vehicles	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
% 3 Axle Vehicles	0	0	0	0	0	0	16.7	5.6	0	0	0	0	100	0	0	14.3	5.6
4+ Axle Trucks	4	0	0	4	0	1	3	4	0	0	0	0	0	1	0	1	9
% 4+ Axle Trucks	36.4	0	0	36.4	0	11.1	50	22.2	0	0	0	0	0	16.7	0	14.3	25

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	**3**	1	**4**	0	0	0	0	0	0	0	0	4
08:00 AM	1	0	0	1	0	1	1	2	0	0	0	0	0	**2**	0	**2**	5
08:15 AM	2	0	0	2	**1**	0	1	2	0	0	0	0	0	2	0	2	6
08:30 AM	**3**	0	0	**3**	0	1	**3**	4	0	0	0	0	0	2	0	2	**9**
Total Volume	6	0	0	6	1	5	6	12	0	0	0	0	0	6	0	6	24
% App. Total	100	0	0		8.3	41.7	50		0	0	0		0	100	0		
PHF	.500	.000	.000	.500	.250	.417	.500	.750	.000	.000	.000	.000	.000	.750	.000	.750	.667

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	**3**	1	**4**	0	0	0	0	0	**2**	0	**2**
+15 mins.	1	0	0	1	0	1	1	2	0	0	0	0	0	2	0	2
+30 mins.	2	0	0	2	**1**	0	1	2	0	0	0	0	0	2	0	2
+45 mins.	**3**	0	0	**3**	0	1	**3**	4	0	0	0	0	**1**	0	0	1
Total Volume	6	0	0	6	1	5	6	12	0	0	0	0	1	6	0	7
% App. Total	100	0	0		8.3	41.7	50		0	0	0		14.3	85.7	0	
PHF	.500	.000	.000	.500	.250	.417	.500	.750	.000	.000	.000	.000	.250	.750	.000	.875

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

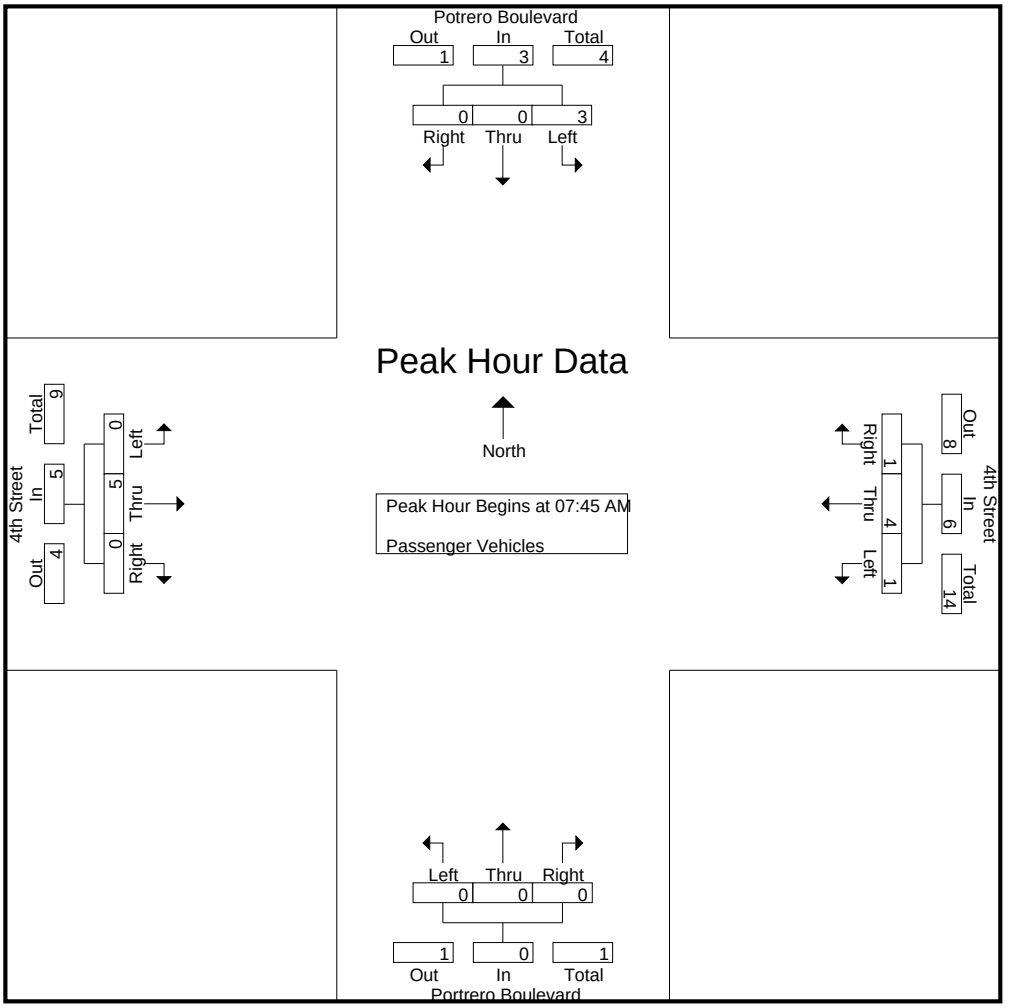
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	3	0	0	3	1	3	0	4	0	0	0	0	0	0	0	0	7
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
08:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
08:30 AM	3	0	0	3	0	1	1	2	0	0	0	0	0	2	0	2	7
08:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	3	0	0	3	1	4	1	6	0	0	0	0	0	5	0	5	14
Grand Total	6	0	0	6	2	7	1	10	0	0	0	0	0	5	0	5	21
Apprch %	100	0	0		20	70	10		0	0	0		0	100	0		
Total %	28.6	0	0	28.6	9.5	33.3	4.8	47.6	0	0	0	0	0	23.8	0	23.8	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	**2**	3
08:15 AM	0	0	0	0	**1**	0	0	1	0	0	0	0	0	1	0	1	2
08:30 AM	**3**	0	0	**3**	0	1	**1**	2	0	0	0	0	0	2	0	2	**7**
Total Volume	3	0	0	3	1	4	1	6	0	0	0	0	0	5	0	5	14
% App. Total	100	0	0		16.7	66.7	16.7		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.250	.500	.250	.750	.000	.000	.000	.000	.000	.625	.000	.625	.500

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	**2**	0	**2**
+30 mins.	0	0	0	0	**1**	0	0	1	0	0	0	0	0	1	0	1
+45 mins.	**3**	0	0	**3**	0	1	**1**	2	0	0	0	0	0	2	0	2
Total Volume	3	0	0	3	1	4	1	6	0	0	0	0	0	5	0	5
% App. Total	100	0	0		16.7	66.7	16.7		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.250	.500	.250	.750	.000	.000	.000	.000	.000	.625	.000	.625

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

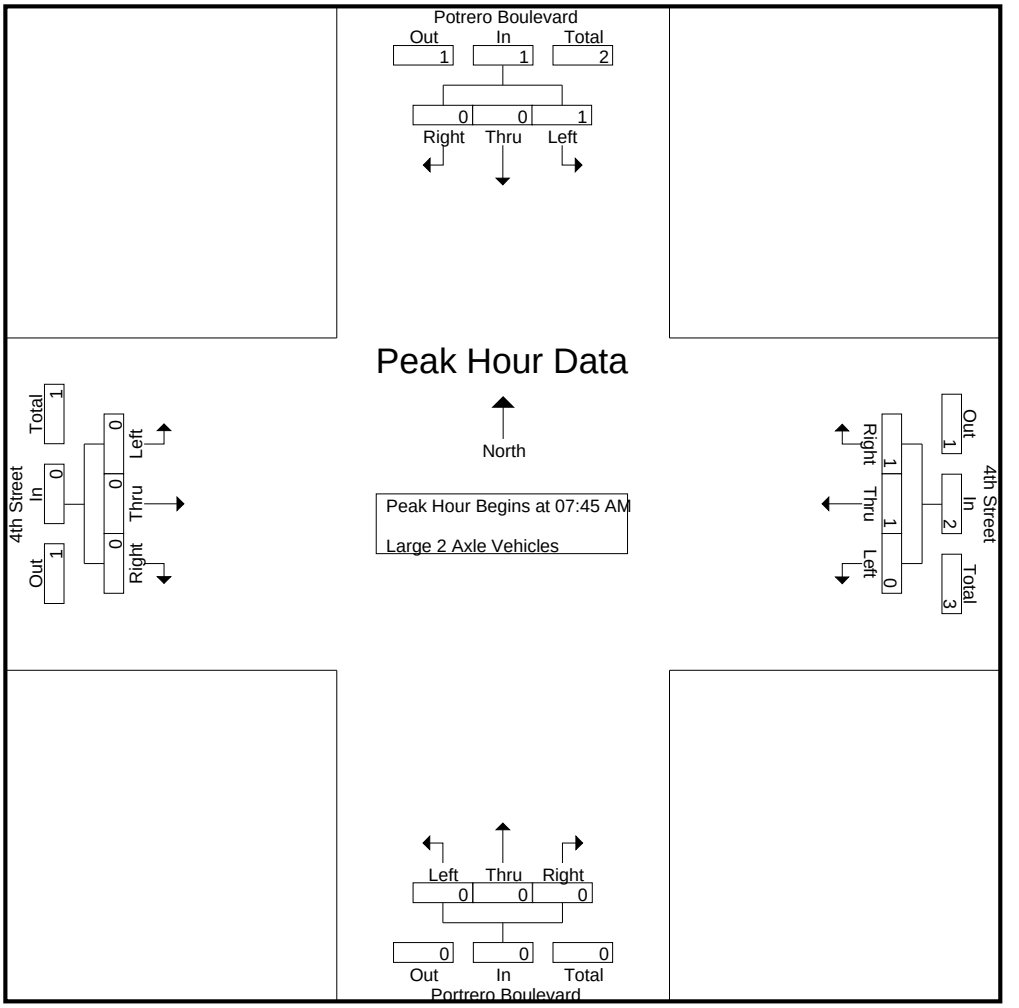
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
Grand Total	1	0	0	1	1	1	1	3	0	0	0	0	0	0	0	0	4
Apprch %	100	0	0		33.3	33.3	33.3		0	0	0		0	0	0		
Total %	25	0	0	25	25	25	25	75	0	0	0	0	0	0	0	0	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**
08:00 AM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0	1
08:15 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0	3
% App. Total	100	0	0		0	50	50		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.250	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.750

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	0	0	0
+30 mins.	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0
% App. Total	100	0	0		0	50	50		0	0	0		0	0	0	
PHF	.250	.000	.000	.250	.000	.250	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

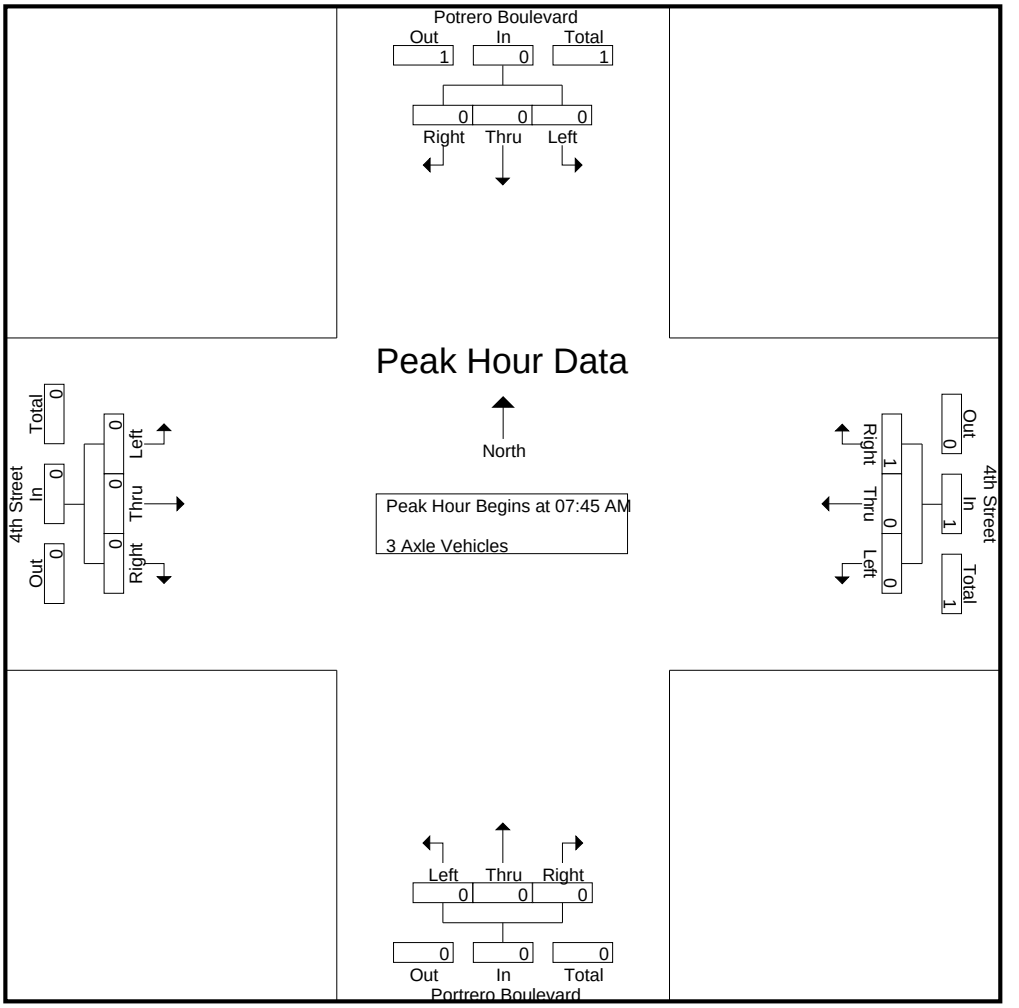
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
Apprch %	0	0	0		0	0	100		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	50	50	0	0	0	0	50	0	0	50	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	**1**
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		0	0	100		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	100		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

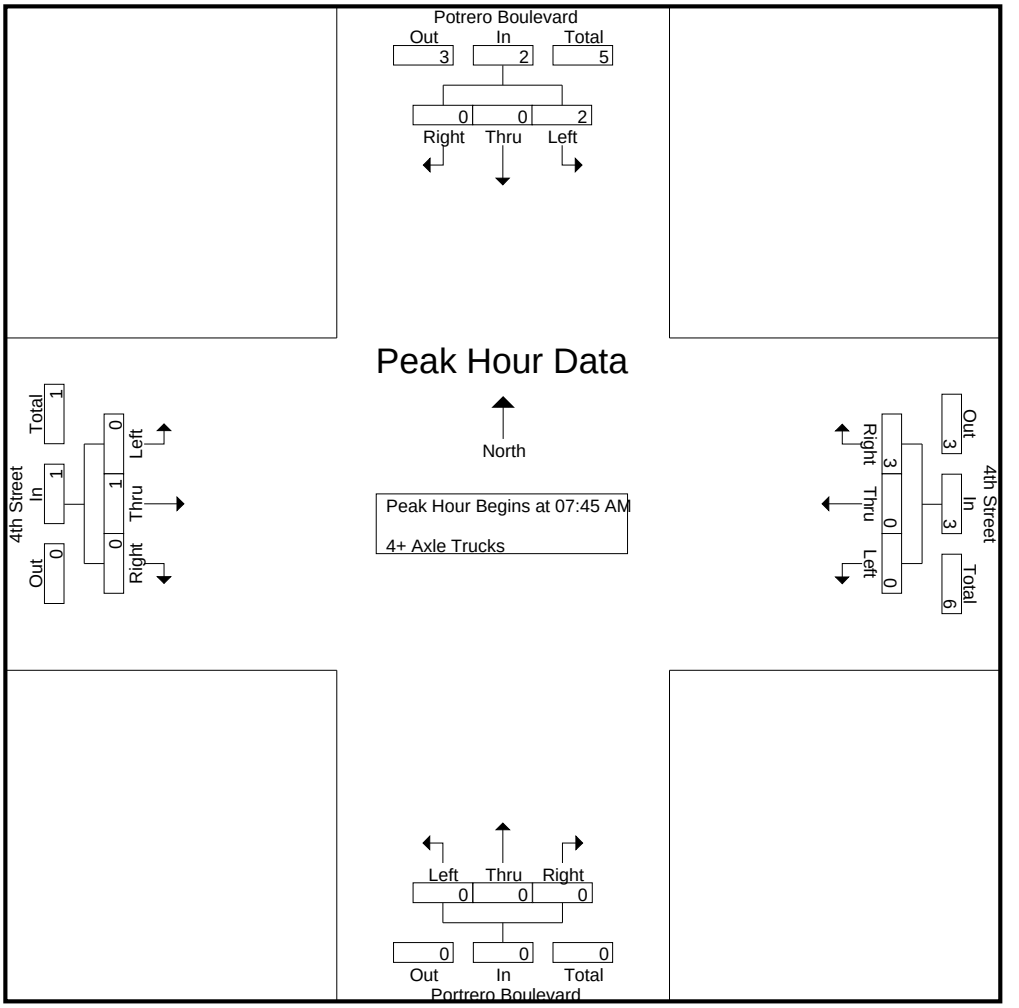
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total	2	0	0	2	0	1	1	2	0	0	0	0	0	0	0	0	4
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	1	0	0	1	1	0	0	0	0	0	1	0	1	3
08:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	2	2	0	0	0	0	0	1	0	1	5
Grand Total	4	0	0	4	0	1	3	4	0	0	0	0	0	1	0	1	9
Apprch %	100	0	0		0	25	75		0	0	0		0	100	0		
Total %	44.4	0	0	44.4	0	11.1	33.3	44.4	0	0	0	0	0	11.1	0	11.1	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	1
08:00 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	1	0	0	1	1	0	0	0	0	0	**1**	0	**1**	**3**
08:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total Volume	2	0	0	2	0	0	3	3	0	0	0	0	0	1	0	1	6
% App. Total	100	0	0		0	0	100		0	0	0		0	100	0		
PHF	.500	.000	.000	.500	.000	.000	.750	.750	.000	.000	.000	.000	.000	.250	.000	.250	.500

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City of Beaumont
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E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0
+15 mins.	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	0	0	1	1	0	0	0	0	0	**1**	0	**1**
+45 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	0	0	3	3	0	0	0	0	0	1	0	1
% App. Total	100	0	0		0	0	100		0	0	0		0	100	0	
PHF	.500	.000	.000	.500	.000	.000	.750	.750	.000	.000	.000	.000	.000	.250	.000	.250

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

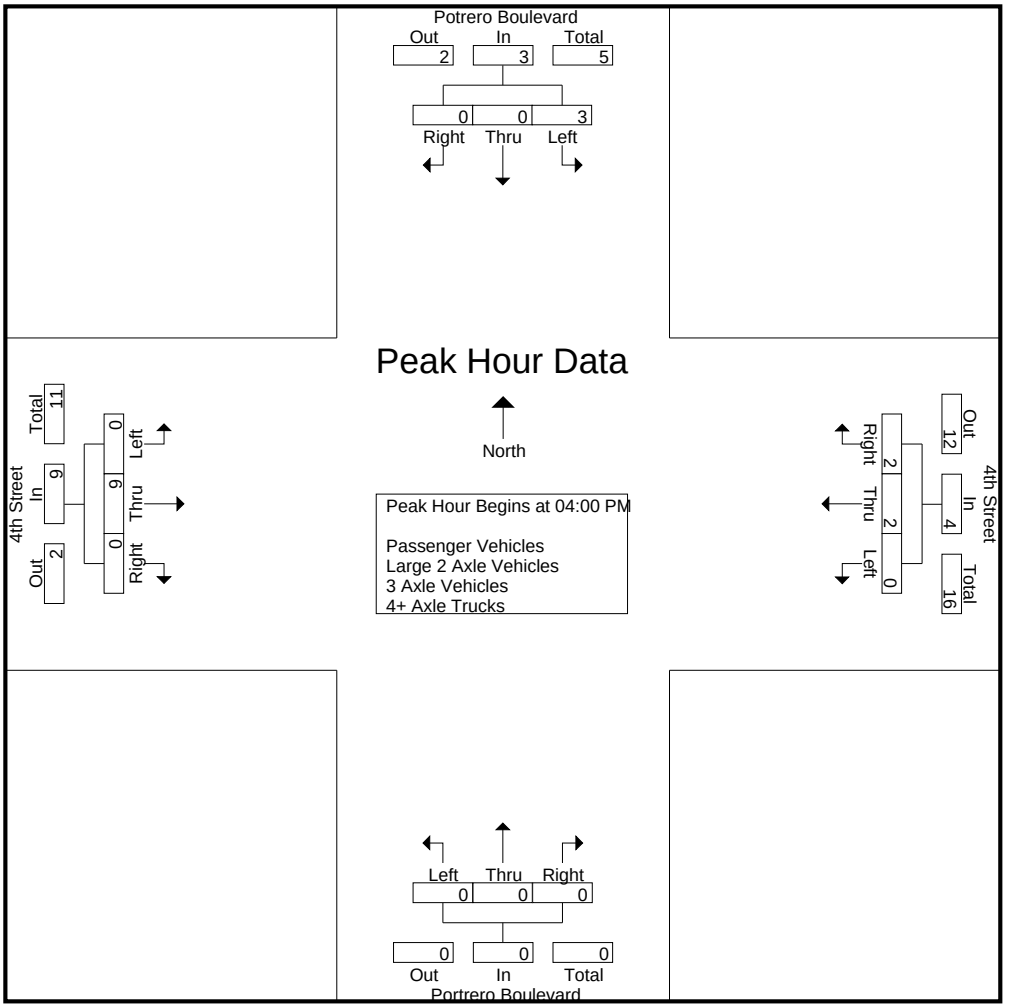
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	3	0	3	6
Total	3	0	0	3	0	2	2	4	0	0	0	0	0	9	0	9	16
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Grand Total	3	0	0	3	0	2	3	5	0	0	0	0	0	9	0	9	17
Apprch %	100	0	0		0	40	60		0	0	0		0	100	0		
Total %	17.6	0	0	17.6	0	11.8	17.6	29.4	0	0	0	0	0	52.9	0	52.9	
Passenger Vehicles	3	0	0	3	0	2	3	5	0	0	0	0	0	7	0	7	15
% Passenger Vehicles	100	0	0	100	0	100	100	100	0	0	0	0	0	77.8	0	77.8	88.2
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	11.1	0	11.1	5.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	11.1	0	11.1	5.9

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	**3**	0	**3**	5
04:15 PM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	**3**	0	0	**3**	0	0	0	0	0	0	0	0	0	3	0	3	**6**
Total Volume	3	0	0	3	0	2	2	4	0	0	0	0	0	9	0	9	16
% App. Total	100	0	0		0	50	50		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.250	.500	.500	.000	.000	.000	.000	.000	.750	.000	.750	.667

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	**3**	0	**3**
+15 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2
+45 mins.	**3**	0	0	**3**	0	0	0	0	0	0	0	0	0	3	0	3
Total Volume	3	0	0	3	0	2	2	4	0	0	0	0	0	9	0	9
% App. Total	100	0	0		0	50	50		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.250	.500	.500	.000	.000	.000	.000	.000	.750	.000	.750

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

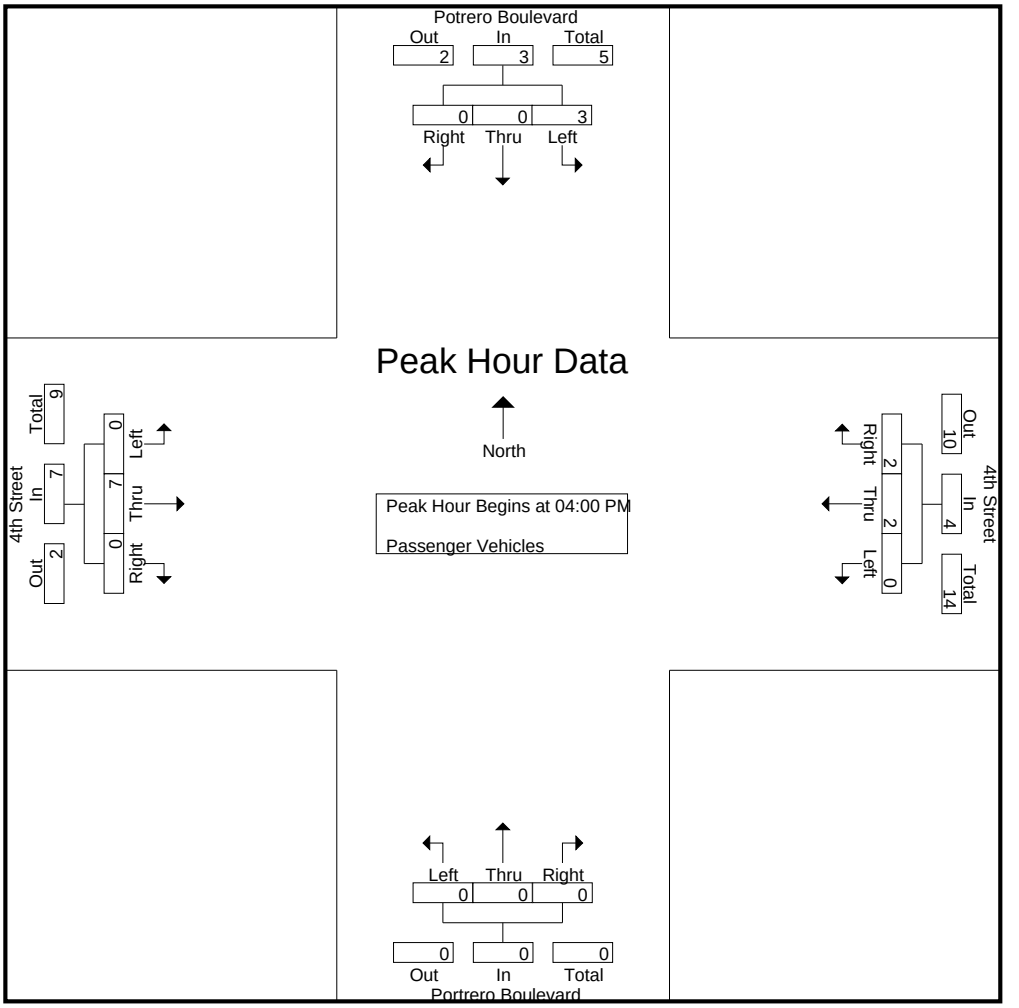
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	2	0	2	5
Total	3	0	0	3	0	2	2	4	0	0	0	0	0	7	0	7	14
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Grand Total	3	0	0	3	0	2	3	5	0	0	0	0	0	7	0	7	15
Apprch %	100	0	0		0	40	60		0	0	0		0	100	0		
Total %	20	0	0	20	0	13.3	20	33.3	0	0	0	0	0	46.7	0	46.7	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	**2**	0	**2**	4
04:15 PM	0	0	0	0	0	0	**1**	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	**3**	0	0	**3**	0	0	0	0	0	0	0	0	0	2	0	2	**5**
Total Volume	3	0	0	3	0	2	2	4	0	0	0	0	0	7	0	7	14
% App. Total	100	0	0		0	50	50		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.250	.500	.500	.000	.000	.000	.000	.000	.875	.000	.875	.700

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City of Beaumont
N/S: Potrero Boulevard
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Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	**2**	0	**2**
+15 mins.	0	0	0	0	0	0	**1**	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2
+45 mins.	**3**	0	0	**3**	0	0	0	0	0	0	0	0	0	2	0	2
Total Volume	3	0	0	3	0	2	2	4	0	0	0	0	0	7	0	7
% App. Total	100	0	0		0	50	50		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.250	.500	.500	.000	.000	.000	.000	.000	.875	.000	.875

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

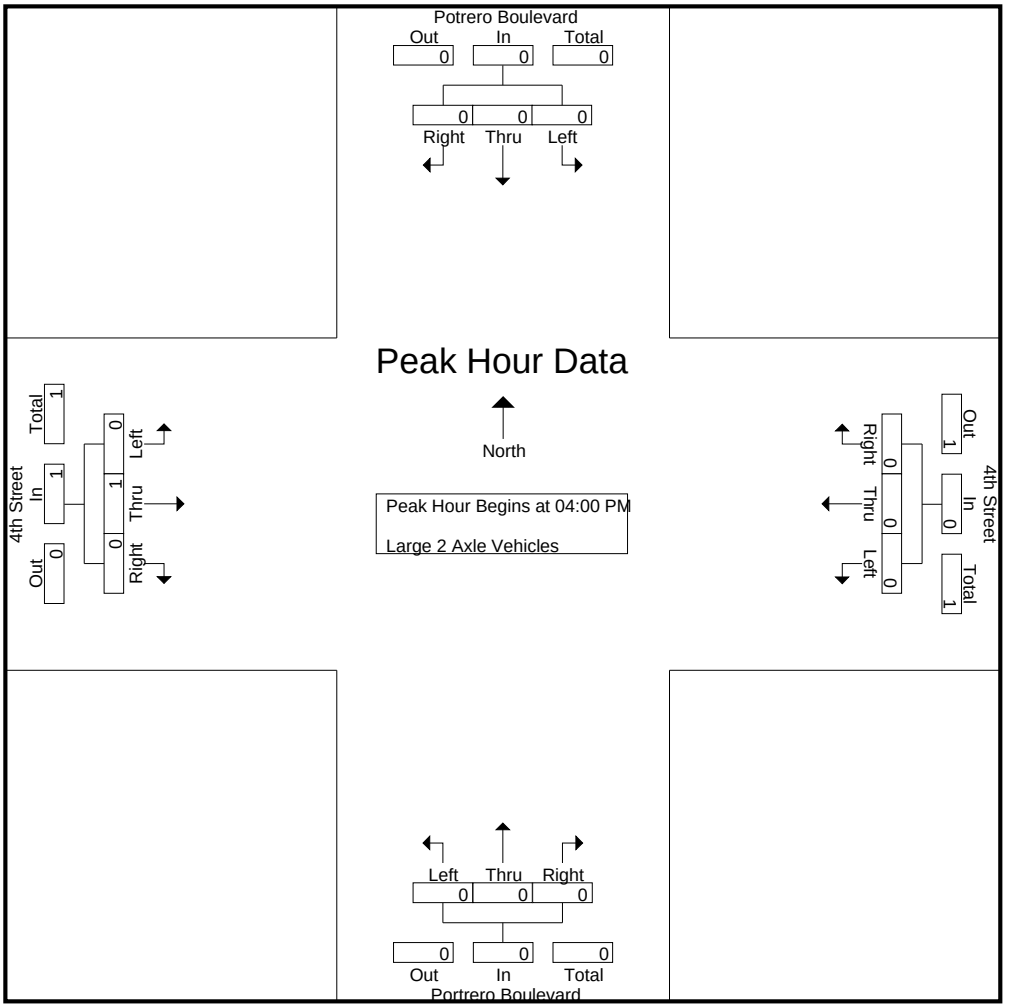
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

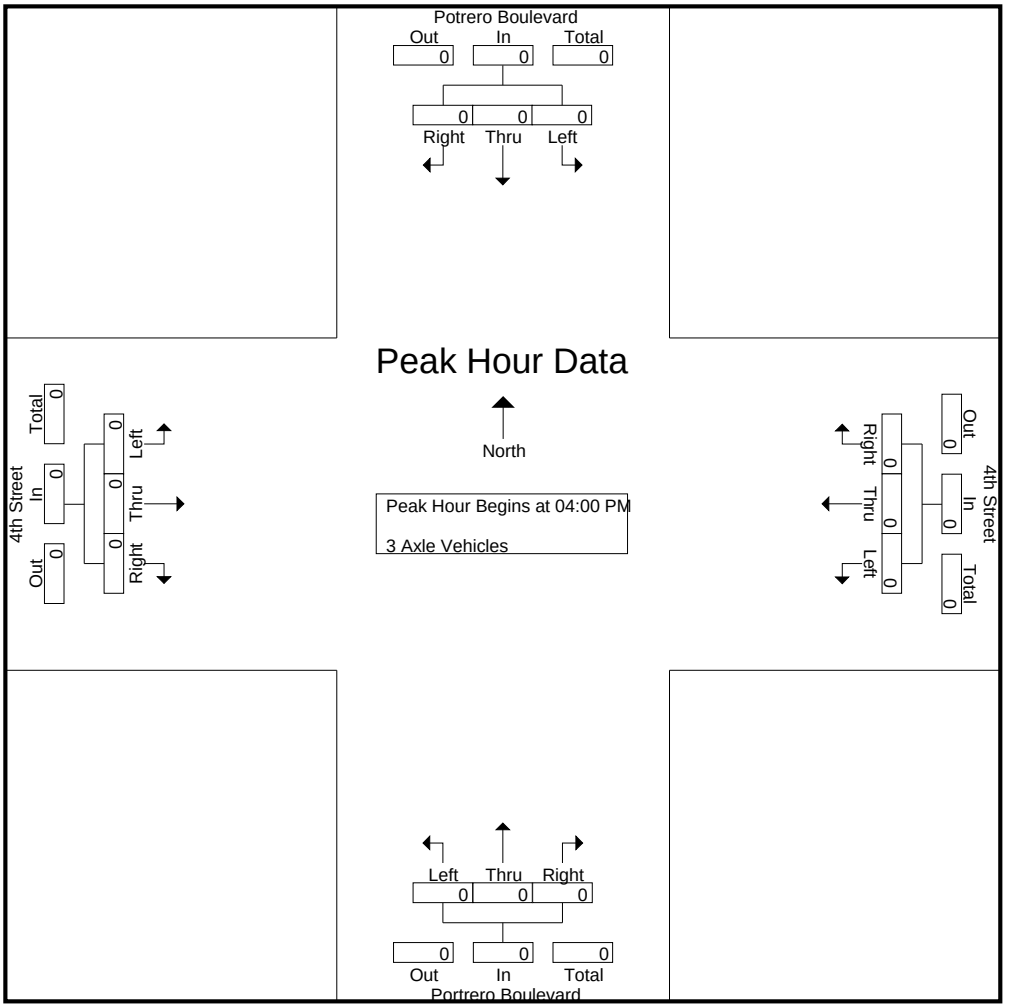
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

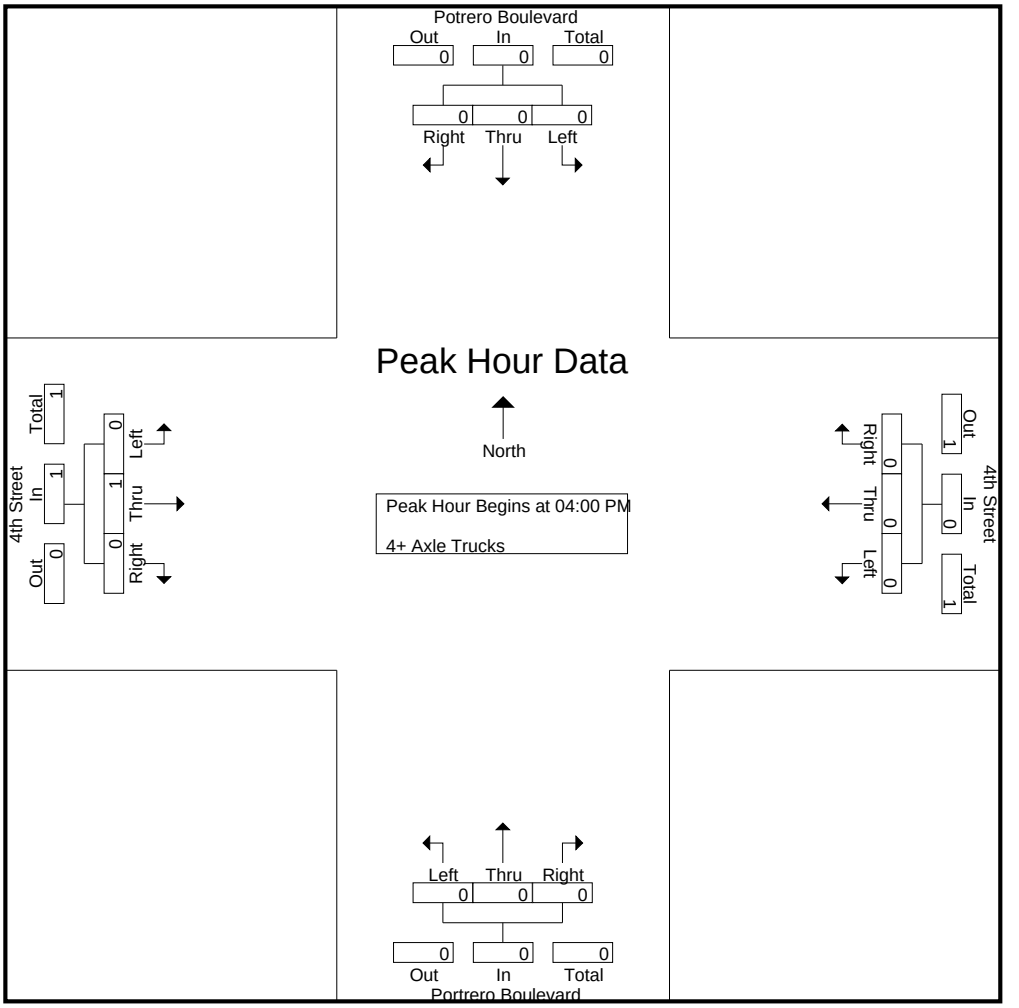
	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**1**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

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City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

Location: Beaumont
N/S: Potrero Boulevard
E/W: 4th Street

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg Potrero Boulevard	East Leg 4th Street	South Leg Potrero Boulevard	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Potrero Boulevard	East Leg 4th Street	South Leg Potrero Boulevard	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Beaumont
N/S: Potrero Boulevard
E/W: 4th Street

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound Potrero Boulevard			Westbound 4th Street			Northbound Potrero Boulevard			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Potrero Boulevard			Westbound 4th Street			Northbound Potrero Boulevard			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

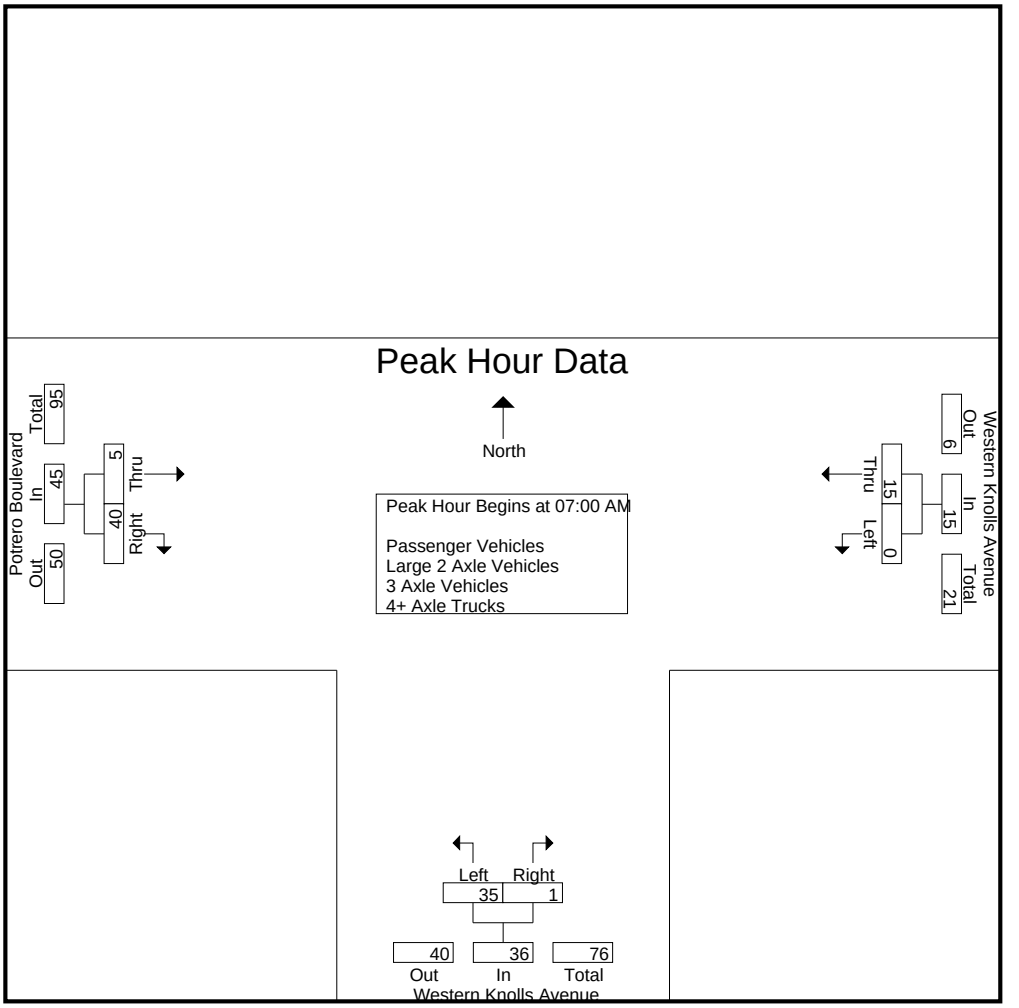
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	4	7	0	7	3	15	18	29
07:15 AM	0	7	7	17	1	18	1	11	12	37
07:30 AM	0	3	3	9	0	9	0	10	10	22
07:45 AM	0	1	1	2	0	2	1	4	5	8
Total	0	15	15	35	1	36	5	40	45	96
08:00 AM	1	2	3	9	1	10	1	1	2	15
08:15 AM	1	1	2	3	0	3	0	3	3	8
08:30 AM	0	2	2	8	0	8	0	7	7	17
08:45 AM	0	2	2	1	1	2	2	6	8	12
Total	2	7	9	21	2	23	3	17	20	52
Grand Total	2	22	24	56	3	59	8	57	65	148
Apprch %	8.3	91.7		94.9	5.1		12.3	87.7		
Total %	1.4	14.9	16.2	37.8	2	39.9	5.4	38.5	43.9	
Passenger Vehicles	1	21	22	54	3	57	7	57	64	143
% Passenger Vehicles	50	95.5	91.7	96.4	100	96.6	87.5	100	98.5	96.6
Large 2 Axle Vehicles	1	1	2	2	0	2	1	0	1	5
% Large 2 Axle Vehicles	50	4.5	8.3	3.6	0	3.4	12.5	0	1.5	3.4
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	7	0	7	**3**	**15**	**18**	29
07:15 AM	0	**7**	**7**	**17**	**1**	**18**	1	11	12	**37**
07:30 AM	0	3	3	9	0	9	0	10	10	22
07:45 AM	0	1	1	2	0	2	1	4	5	8
Total Volume	0	15	15	35	1	36	5	40	45	96
% App. Total	0	100		97.2	2.8		11.1	88.9		
PHF	.000	.536	.536	.515	.250	.500	.417	.667	.625	.649

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:15 AM			07:00 AM		
+0 mins.	0	4	4	**17**	**1**	**18**	**3**	**15**	**18**
+15 mins.	0	**7**	**7**	9	0	9	1	11	12
+30 mins.	0	3	3	2	0	2	0	10	10
+45 mins.	0	1	1	9	1	10	1	4	5
Total Volume	0	15	15	37	2	39	5	40	45
% App. Total	0	100		94.9	5.1		11.1	88.9	
PHF	.000	.536	.536	.544	.500	.542	.417	.667	.625

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

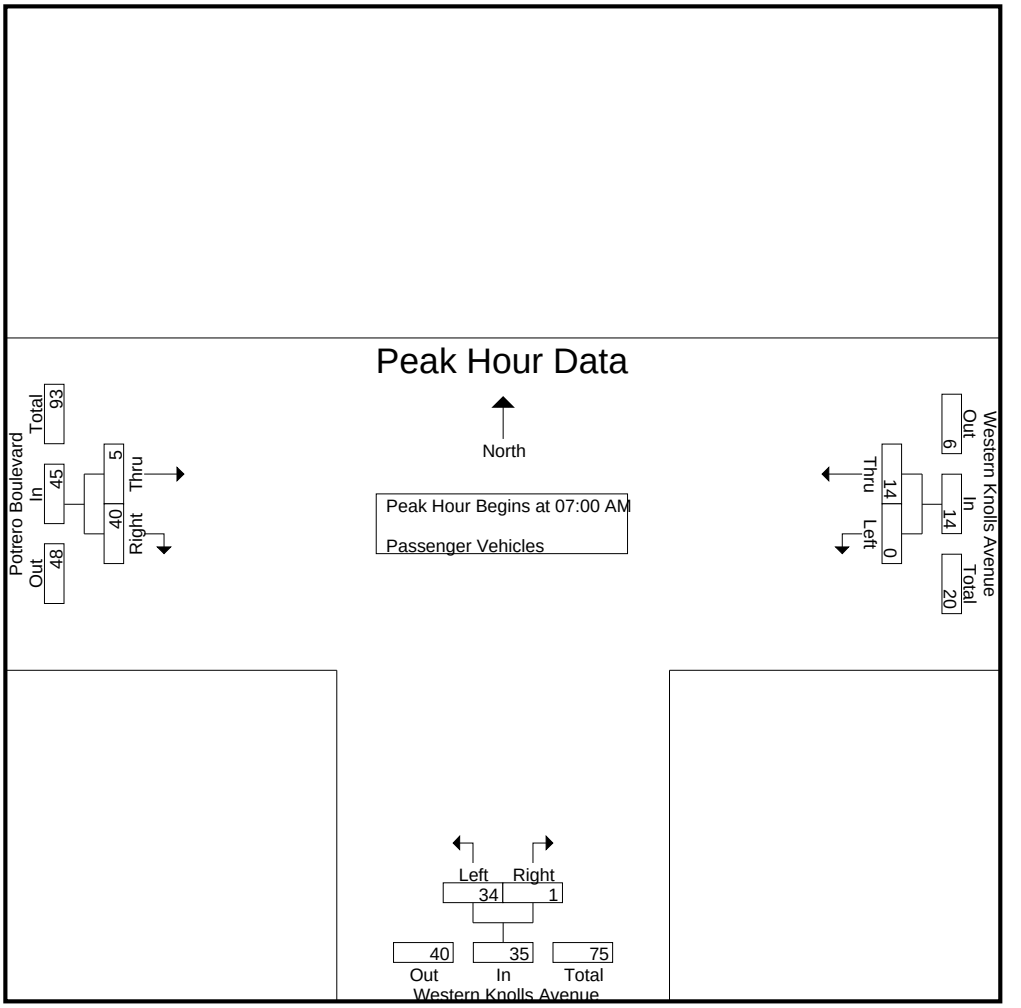
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	4	7	0	7	3	15	18	29
07:15 AM	0	6	6	16	1	17	1	11	12	35
07:30 AM	0	3	3	9	0	9	0	10	10	22
07:45 AM	0	1	1	2	0	2	1	4	5	8
Total	0	14	14	34	1	35	5	40	45	94
08:00 AM	0	2	2	9	1	10	0	1	1	13
08:15 AM	1	1	2	3	0	3	0	3	3	8
08:30 AM	0	2	2	8	0	8	0	7	7	17
08:45 AM	0	2	2	0	1	1	2	6	8	11
Total	1	7	8	20	2	22	2	17	19	49
Grand Total	1	21	22	54	3	57	7	57	64	143
Apprch %	4.5	95.5		94.7	5.3		10.9	89.1		
Total %	0.7	14.7	15.4	37.8	2.1	39.9	4.9	39.9	44.8	

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	7	0	7	**3**	**15**	**18**	29
07:15 AM	0	**6**	**6**	**16**	**1**	**17**	1	11	12	**35**
07:30 AM	0	3	3	9	0	9	0	10	10	22
07:45 AM	0	1	1	2	0	2	1	4	5	8
Total Volume	0	14	14	34	1	35	5	40	45	94
% App. Total	0	100		97.1	2.9		11.1	88.9		
PHF	.000	.583	.583	.531	.250	.515	.417	.667	.625	.671

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City of Beaumont
N/S: Western Knolls Avenue
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Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	4	4	7	0	7	**3**	**15**	**18**
+15 mins.	0	**6**	**6**	**16**	**1**	**17**	1	11	12
+30 mins.	0	3	3	9	0	9	0	10	10
+45 mins.	0	1	1	2	0	2	1	4	5
Total Volume	0	14	14	34	1	35	5	40	45
% App. Total	0	100		97.1	2.9		11.1	88.9	
PHF	.000	.583	.583	.531	.250	.515	.417	.667	.625

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

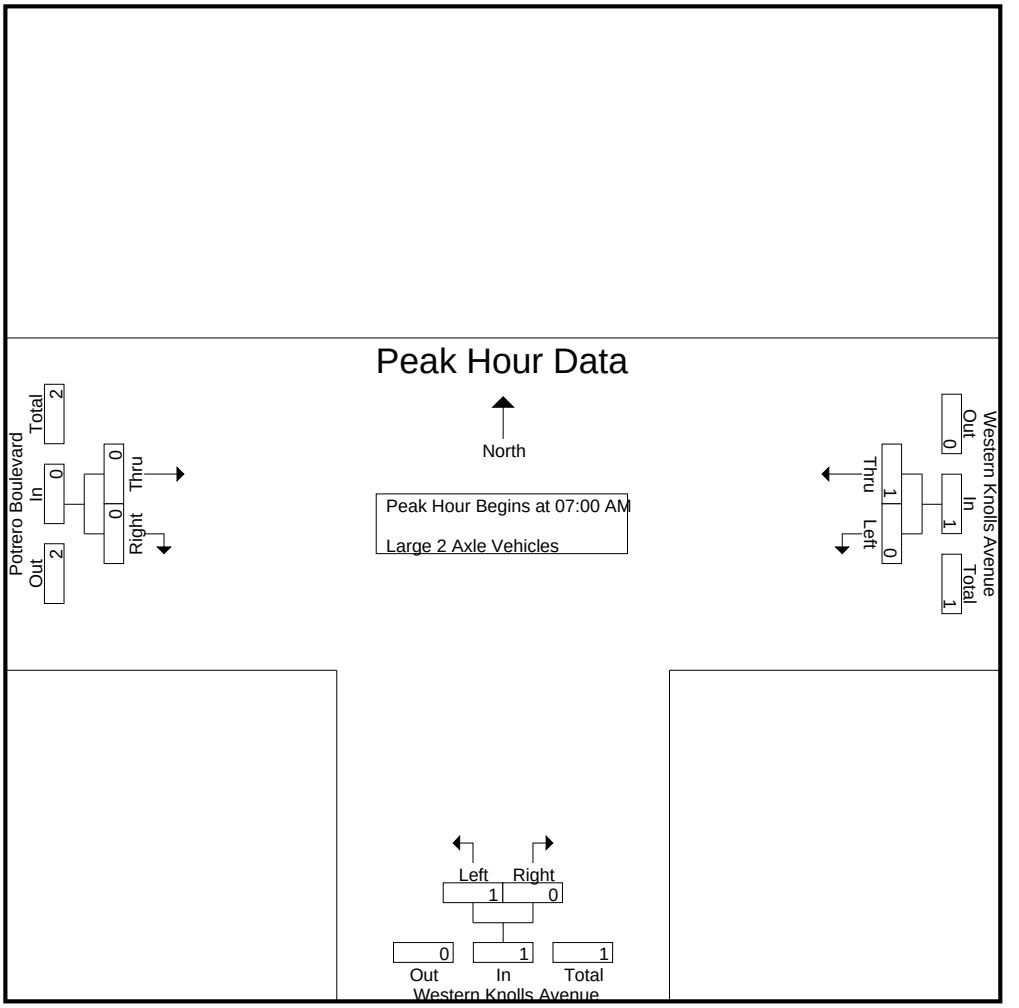
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	1	1	0	1	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	1	0	1	0	0	0	2
08:00 AM	1	0	1	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	1	0	0	0	1
Total	1	0	1	1	0	1	1	0	1	3
Grand Total	1	1	2	2	0	2	1	0	1	5
Apprch %	50	50		100	0		100	0		
Total %	20	20	40	40	0	40	20	0	20	

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	**1**	**1**	**1**	0	**1**	0	0	0	**2**
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	1	0	1	0	0	0	2
% App. Total	0	100		100	0		0	0		
PHF	.000	.250	.250	.250	.000	.250	.000	.000	.000	.250

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	**1**	**1**	**1**	0	**1**	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	1	0	1	0	0	0
% App. Total	0	100		100	0		0	0	
PHF	.000	.250	.250	.250	.000	.250	.000	.000	.000

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

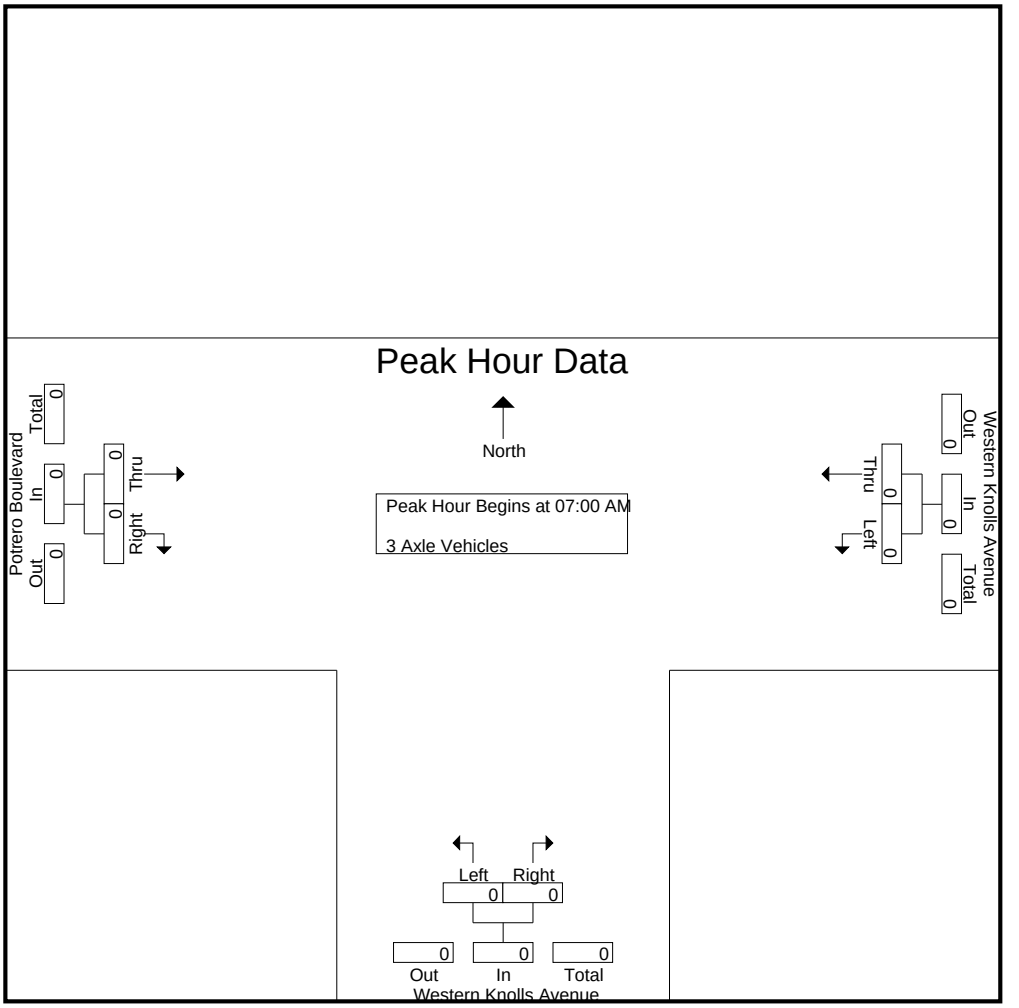
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

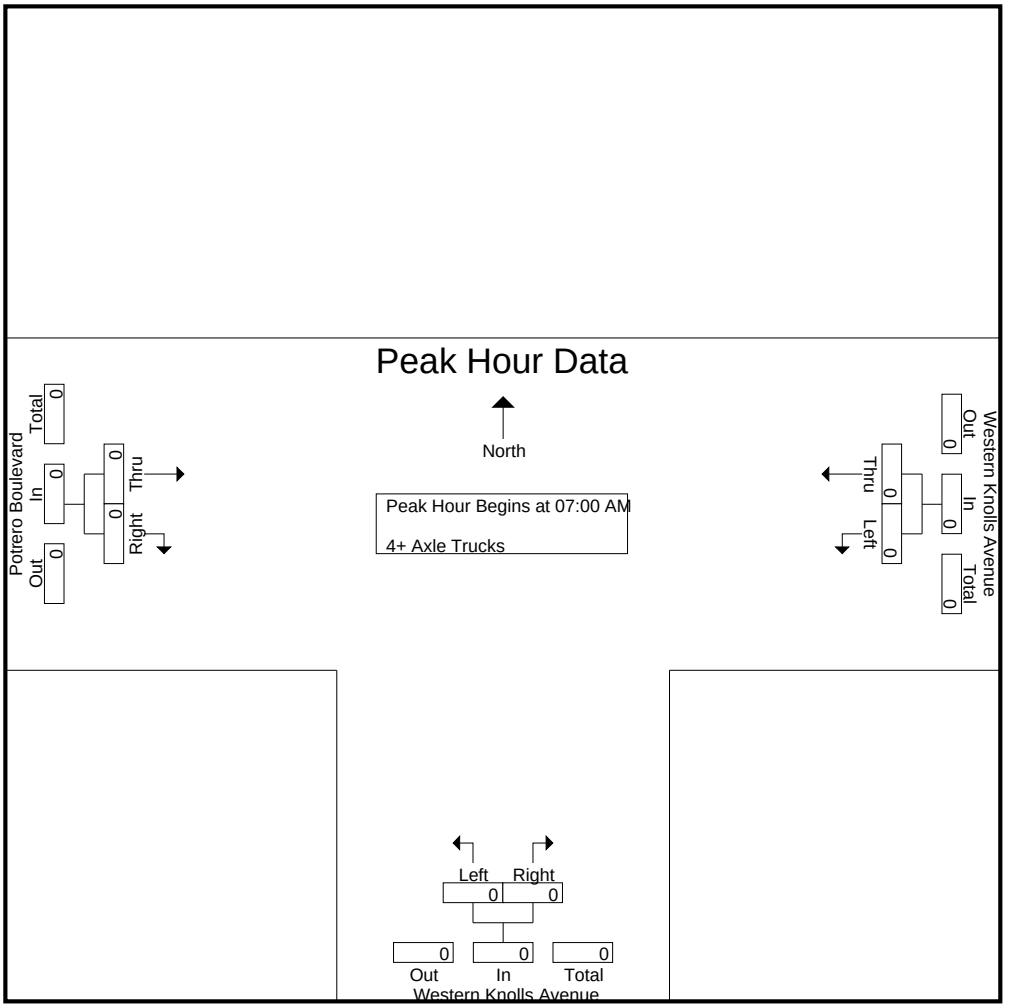
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

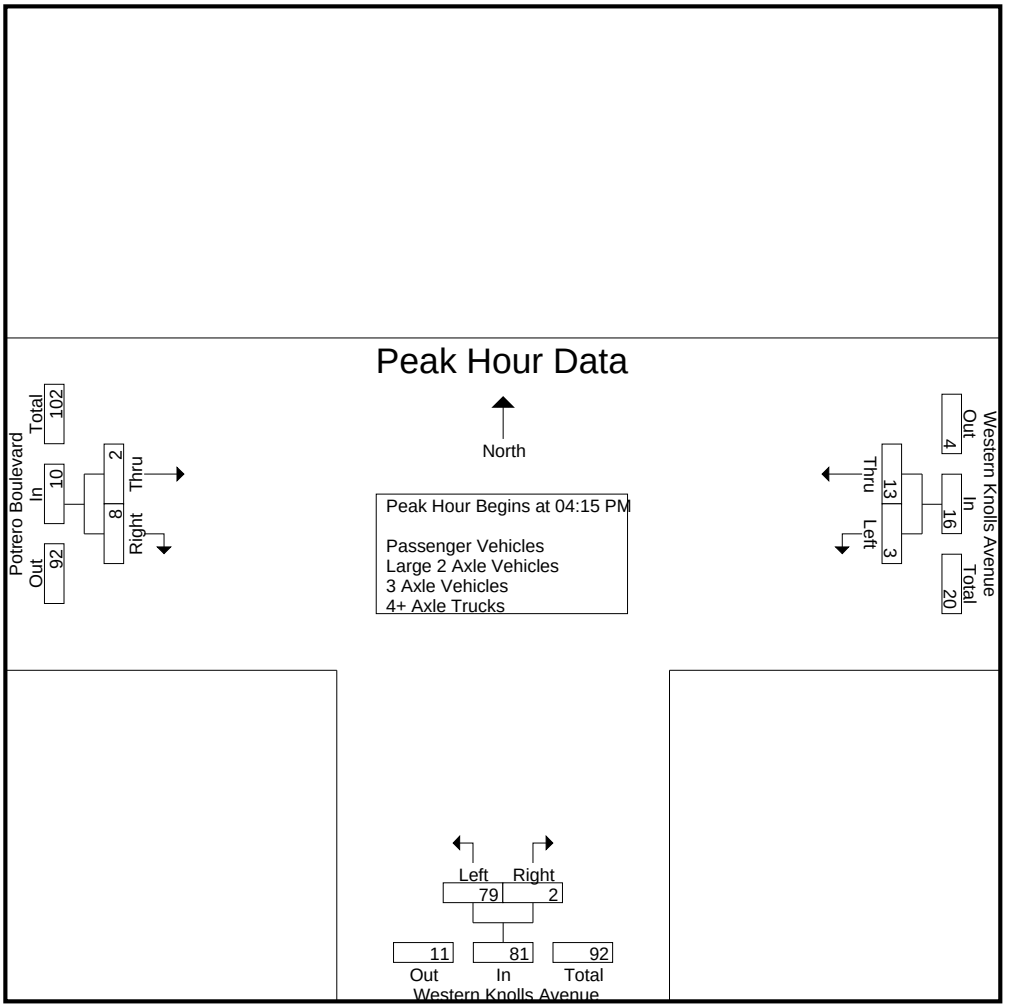
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	5	6	8	1	9	0	2	2	17
04:15 PM	0	4	4	22	0	22	0	3	3	29
04:30 PM	1	3	4	27	1	28	0	3	3	35
04:45 PM	1	4	5	12	1	13	2	1	3	21
Total	3	16	19	69	3	72	2	9	11	102
05:00 PM	1	2	3	18	0	18	0	1	1	22
05:15 PM	0	3	3	16	0	16	0	0	0	19
05:30 PM	0	2	2	18	2	20	0	2	2	24
05:45 PM	0	1	1	16	0	16	0	0	0	17
Total	1	8	9	68	2	70	0	3	3	82
Grand Total	4	24	28	137	5	142	2	12	14	184
Apprch %	14.3	85.7		96.5	3.5		14.3	85.7		
Total %	2.2	13	15.2	74.5	2.7	77.2	1.1	6.5	7.6	
Passenger Vehicles	4	23	27	136	5	141	2	11	13	181
% Passenger Vehicles	100	95.8	96.4	99.3	100	99.3	100	91.7	92.9	98.4
Large 2 Axle Vehicles	0	1	1	1	0	1	0	1	1	3
% Large 2 Axle Vehicles	0	4.2	3.6	0.7	0	0.7	0	8.3	7.1	1.6
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	**4**	4	22	0	22	0	**3**	**3**	29
04:30 PM	**1**	3	4	**27**	**1**	**28**	0	3	3	**35**
04:45 PM	1	4	**5**	12	1	13	**2**	1	3	21
05:00 PM	1	2	3	18	0	18	0	1	1	22
Total Volume	3	13	16	79	2	81	2	8	10	107
% App. Total	18.8	81.2		97.5	2.5		20	80		
PHF	.750	.813	.800	.731	.500	.723	.250	.667	.833	.764

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:15 PM			04:00 PM		
+0 mins.	**1**	**5**	**6**	22	0	22	0	2	2
+15 mins.	0	4	4	**27**	**1**	**28**	0	**3**	**3**
+30 mins.	1	3	4	12	1	13	0	3	3
+45 mins.	1	4	5	18	0	18	**2**	1	3
Total Volume	3	16	19	79	2	81	2	9	11
% App. Total	15.8	84.2		97.5	2.5		18.2	81.8	
PHF	.750	.800	.792	.731	.500	.723	.250	.750	.917

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

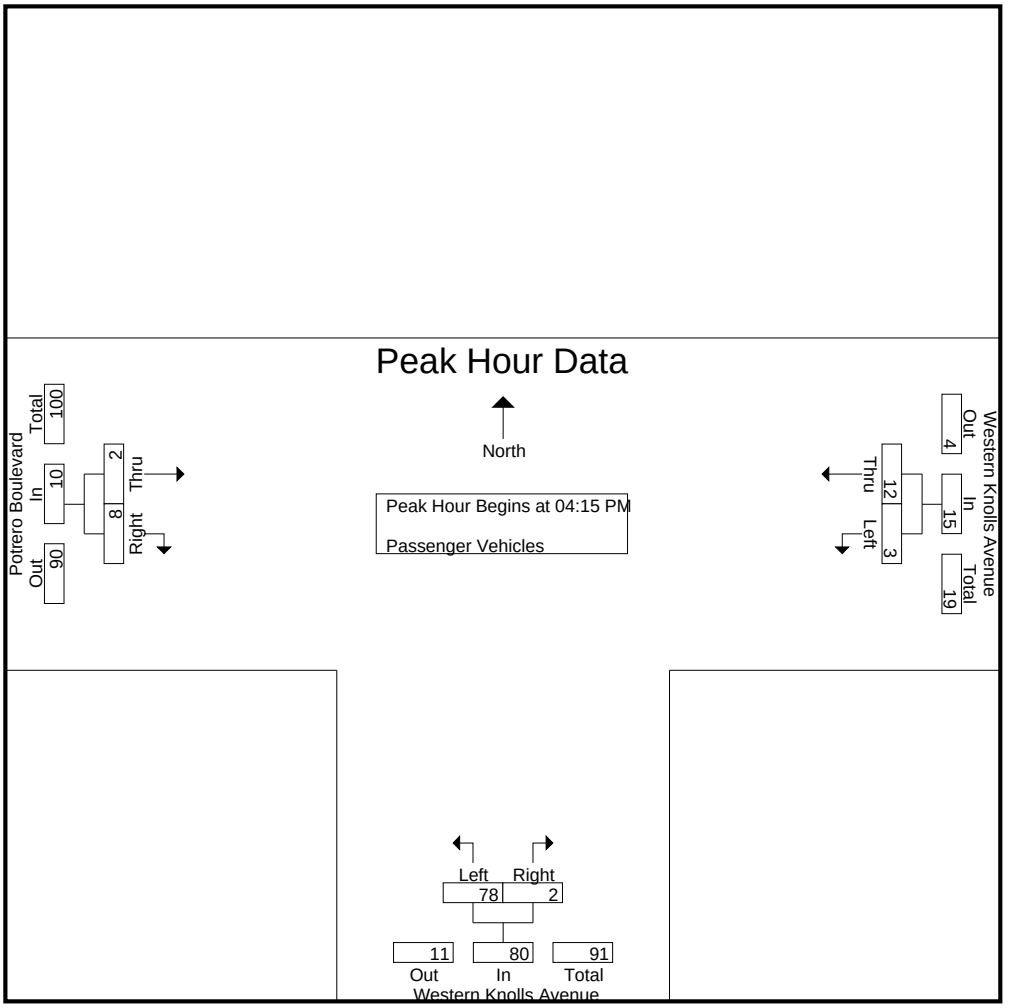
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	5	6	8	1	9	0	2	2	17
04:15 PM	0	4	4	21	0	21	0	3	3	28
04:30 PM	1	2	3	27	1	28	0	3	3	34
04:45 PM	1	4	5	12	1	13	2	1	3	21
Total	3	15	18	68	3	71	2	9	11	100
05:00 PM	1	2	3	18	0	18	0	1	1	22
05:15 PM	0	3	3	16	0	16	0	0	0	19
05:30 PM	0	2	2	18	2	20	0	1	1	23
05:45 PM	0	1	1	16	0	16	0	0	0	17
Total	1	8	9	68	2	70	0	2	2	81
Grand Total	4	23	27	136	5	141	2	11	13	181
Apprch %	14.8	85.2		96.5	3.5		15.4	84.6		
Total %	2.2	12.7	14.9	75.1	2.8	77.9	1.1	6.1	7.2	

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	**4**	4	21	0	21	0	**3**	**3**	28
04:30 PM	**1**	2	3	**27**	**1**	**28**	0	3	3	**34**
04:45 PM	1	4	**5**	12	1	13	**2**	1	3	21
05:00 PM	1	2	3	18	0	18	0	1	1	22
Total Volume	3	12	15	78	2	80	2	8	10	105
% App. Total	20	80		97.5	2.5		20	80		
PHF	.750	.750	.750	.722	.500	.714	.250	.667	.833	.772

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	**4**	4	21	0	21	0	**3**	**3**
+15 mins.	**1**	2	3	**27**	**1**	**28**	0	3	3
+30 mins.	1	4	**5**	12	1	13	**2**	1	3
+45 mins.	1	2	3	18	0	18	0	1	1
Total Volume	3	12	15	78	2	80	2	8	10
% App. Total	20	80		97.5	2.5		20	80	
PHF	.750	.750	.750	.722	.500	.714	.250	.667	.833

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

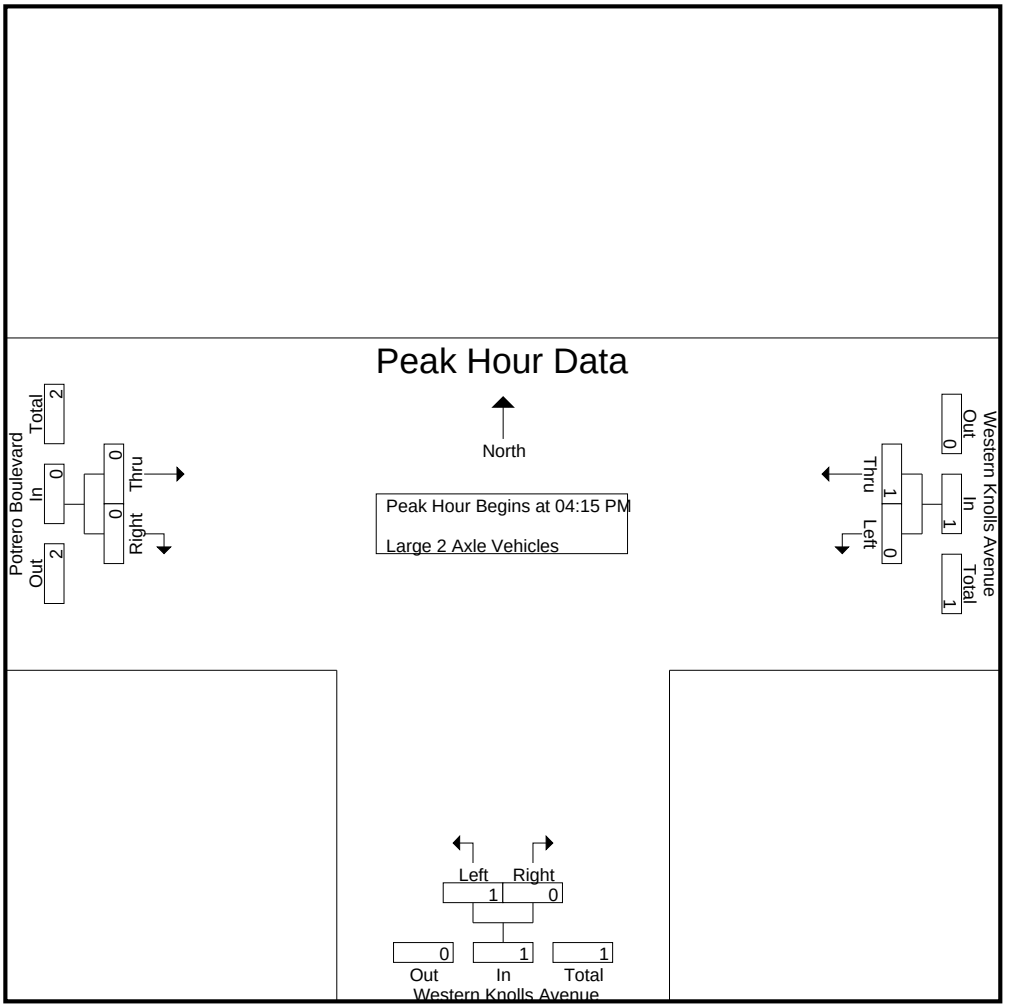
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	1	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	1	0	1	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	1	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	1	1
Grand Total	0	1	1	1	0	1	0	1	1	3
Apprch %	0	100		100	0		0	100		
Total %	0	33.3	33.3	33.3	0	33.3	0	33.3	33.3	

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	**1**	0	**1**	0	0	0	**1**
04:30 PM	0	**1**	**1**	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	1	0	1	0	0	0	2
% App. Total	0	100		100	0		0	0		
PHF	.000	.250	.250	.250	.000	.250	.000	.000	.000	.500

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	**1**	0	**1**	0	0	0
+15 mins.	0	**1**	**1**	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	1	0	1	0	0	0
% App. Total	0	100		100	0		0	0	
PHF	.000	.250	.250	.250	.000	.250	.000	.000	.000

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

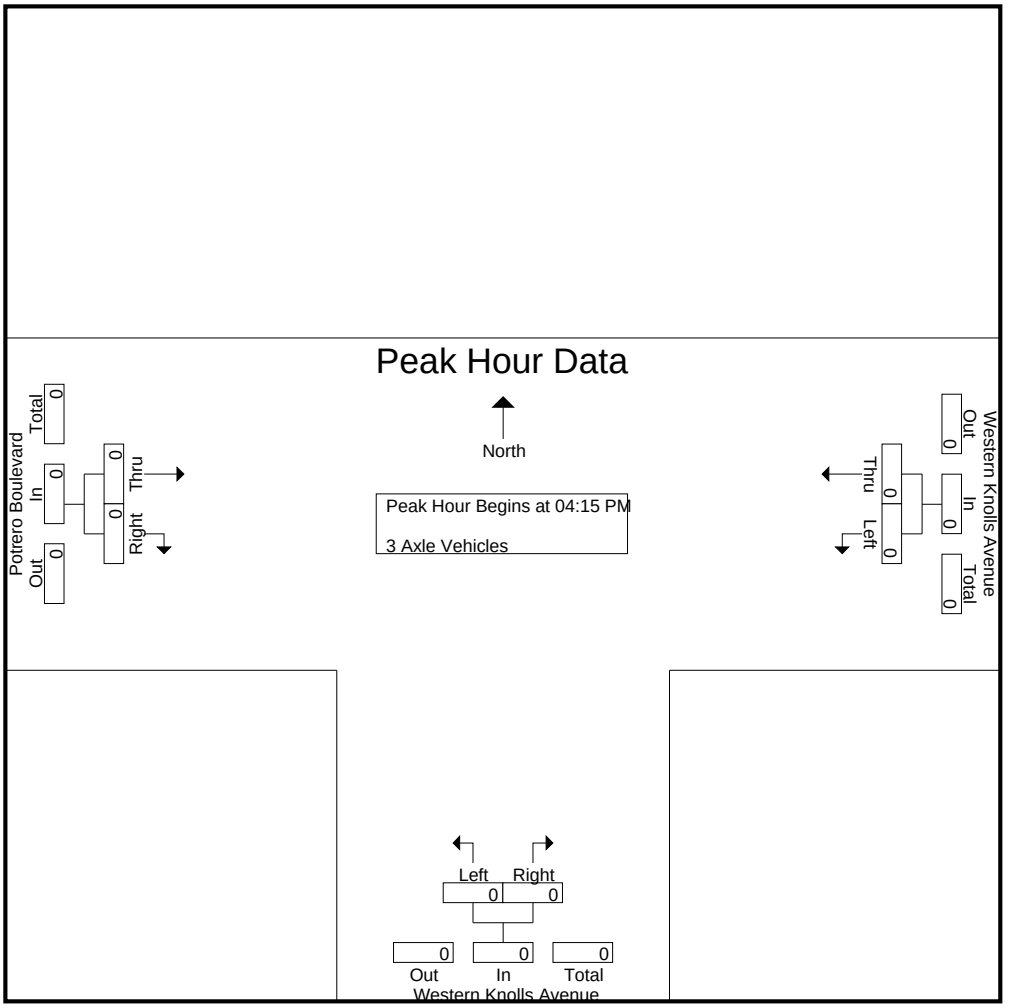
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
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(951) 268-6268

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

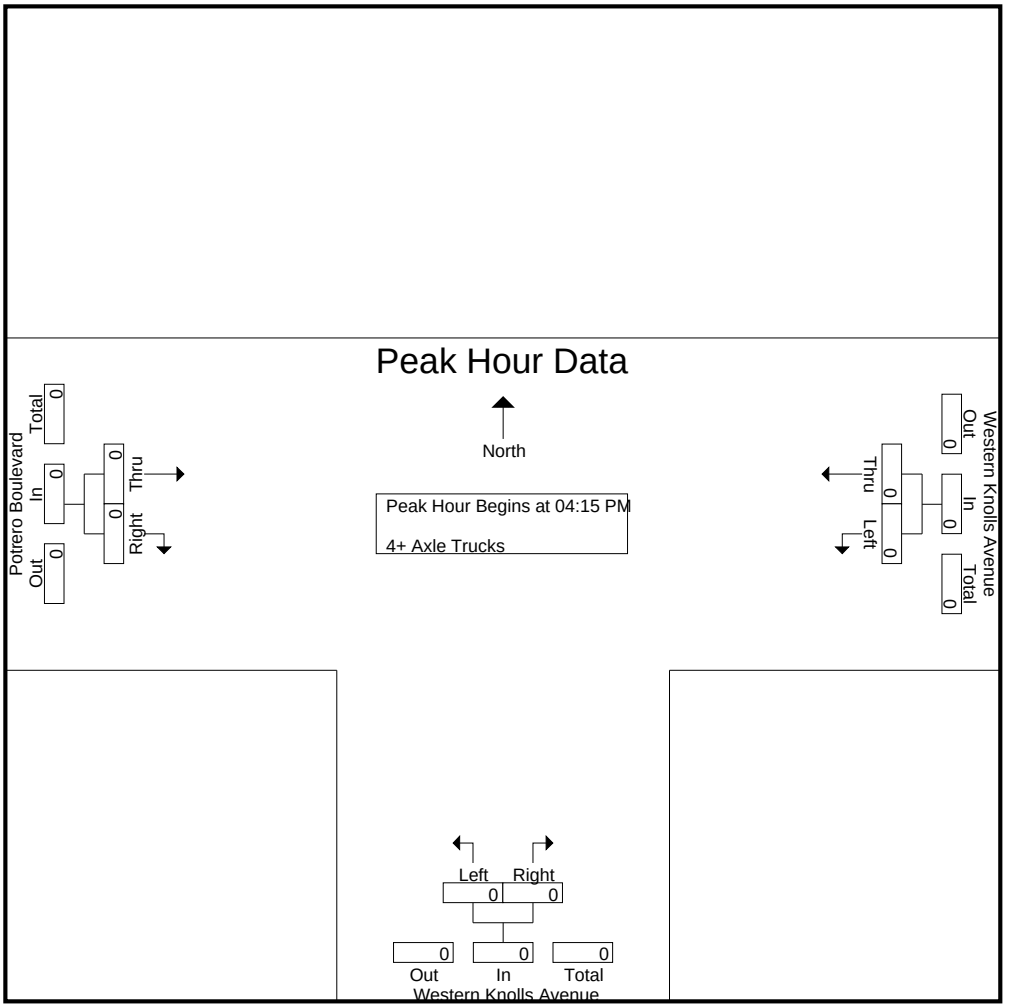
	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Ave

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Western Knolls Avenue	South Leg Western Knolls Avenue	West Leg Potrero Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Western Knolls Avenue	South Leg Western Knolls Avenue	West Leg Potrero Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Ave

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound Dead End			Westbound Western Knolls Avenue			Northbound Western Knolls Avenue			Eastbound Potrero Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Dead End			Westbound Western Knolls Avenue			Northbound Western Knolls Avenue			Eastbound Potrero Boulevard			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

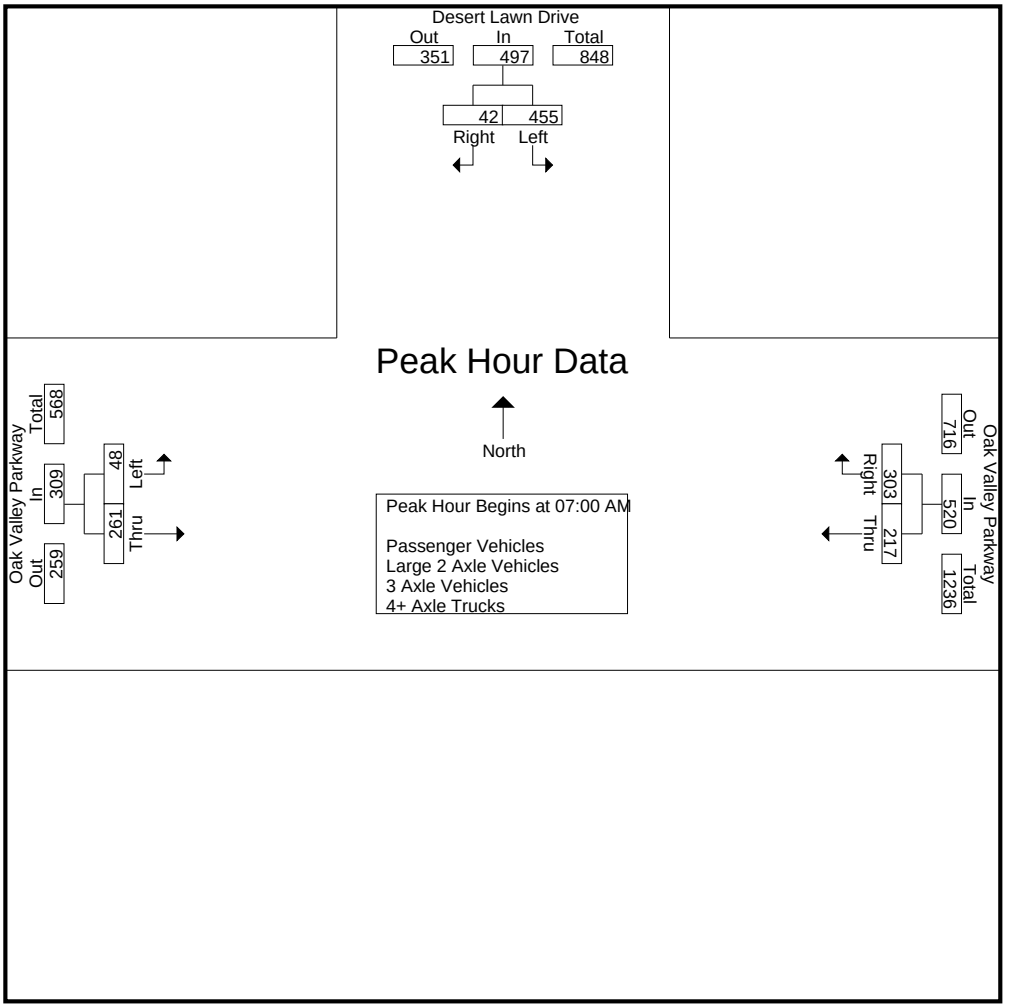
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	122	12	134	71	88	159	15	61	76	369
07:15 AM	129	12	141	60	98	158	16	66	82	381
07:30 AM	142	16	158	43	67	110	11	68	79	347
07:45 AM	62	2	64	43	50	93	6	66	72	229
Total	455	42	497	217	303	520	48	261	309	1326
08:00 AM	65	3	68	49	55	104	1	44	45	217
08:15 AM	57	2	59	37	43	80	1	57	58	197
08:30 AM	53	1	54	31	35	66	1	42	43	163
08:45 AM	51	2	53	39	29	68	6	44	50	171
Total	226	8	234	156	162	318	9	187	196	748
Grand Total	681	50	731	373	465	838	57	448	505	2074
Apprch %	93.2	6.8		44.5	55.5		11.3	88.7		
Total %	32.8	2.4	35.2	18	22.4	40.4	2.7	21.6	24.3	
Passenger Vehicles	673	49	722	349	453	802	55	426	481	2005
% Passenger Vehicles	98.8	98	98.8	93.6	97.4	95.7	96.5	95.1	95.2	96.7
Large 2 Axle Vehicles	8	1	9	12	12	24	2	10	12	45
% Large 2 Axle Vehicles	1.2	2	1.2	3.2	2.6	2.9	3.5	2.2	2.4	2.2
3 Axle Vehicles	0	0	0	6	0	6	0	5	5	11
% 3 Axle Vehicles	0	0	0	1.6	0	0.7	0	1.1	1	0.5
4+ Axle Trucks	0	0	0	6	0	6	0	7	7	13
% 4+ Axle Trucks	0	0	0	1.6	0	0.7	0	1.6	1.4	0.6

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	122	12	134	**71**	88	**159**	15	61	76	369
07:15 AM	129	12	141	60	**98**	158	**16**	66	**82**	**381**
07:30 AM	**142**	**16**	**158**	43	67	110	11	**68**	79	347
07:45 AM	62	2	64	43	50	93	6	66	72	229
Total Volume	455	42	497	217	303	520	48	261	309	1326
% App. Total	91.5	8.5		41.7	58.3		15.5	84.5		
PHF	.801	.656	.786	.764	.773	.818	.750	.960	.942	.870

Counts Unlimited
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(951) 268-6268

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	122	12	134	**71**	88	**159**	15	61	76
+15 mins.	129	12	141	60	**98**	158	**16**	66	**82**
+30 mins.	**142**	**16**	**158**	43	67	110	11	**68**	79
+45 mins.	62	2	64	43	50	93	6	66	72
Total Volume	455	42	497	217	303	520	48	261	309
% App. Total	91.5	8.5		41.7	58.3		15.5	84.5	
PHF	.801	.656	.786	.764	.773	.818	.750	.960	.942

Counts Unlimited
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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

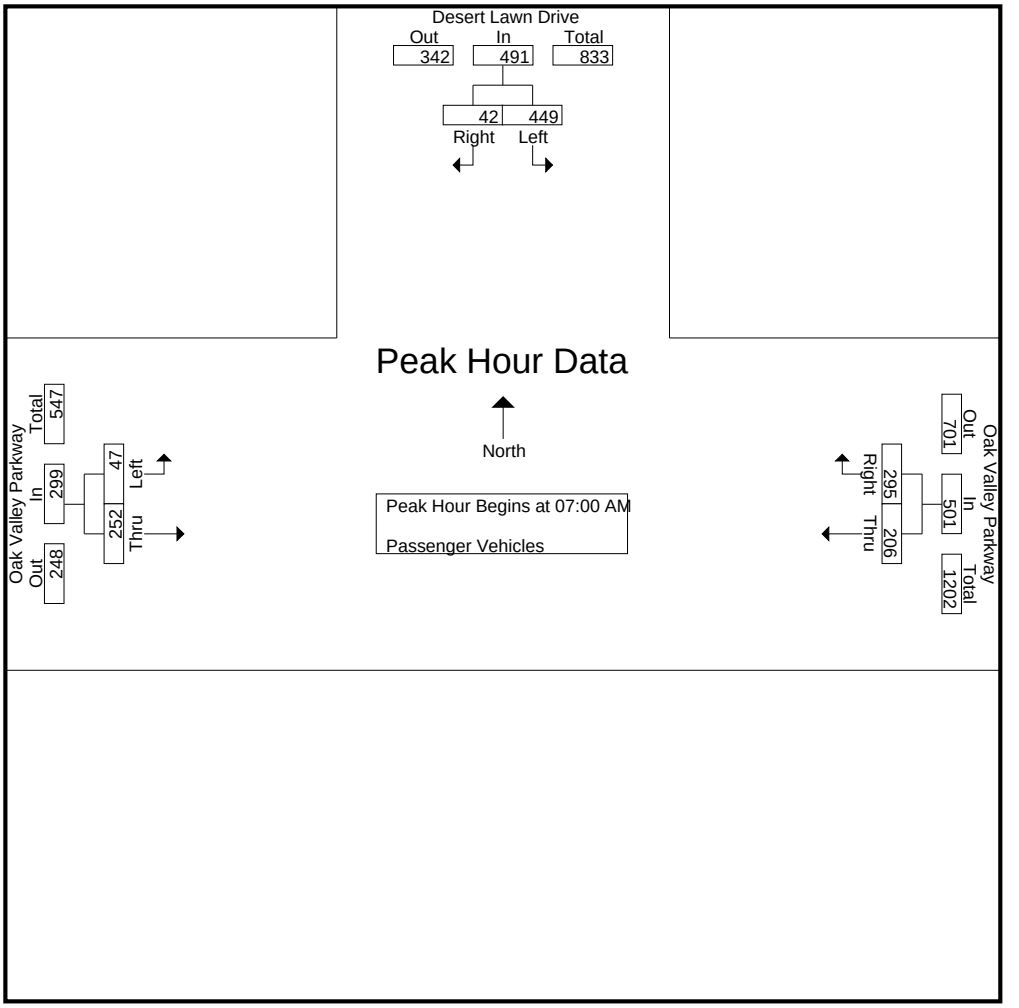
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	121	12	133	69	87	156	15	58	73	362
07:15 AM	129	12	141	56	93	149	16	63	79	369
07:30 AM	138	16	154	42	66	108	10	66	76	338
07:45 AM	61	2	63	39	49	88	6	65	71	222
Total	449	42	491	206	295	501	47	252	299	1291
08:00 AM	65	2	67	48	53	101	1	41	42	210
08:15 AM	56	2	58	34	42	76	1	55	56	190
08:30 AM	52	1	53	26	34	60	1	38	39	152
08:45 AM	51	2	53	35	29	64	5	40	45	162
Total	224	7	231	143	158	301	8	174	182	714
Grand Total	673	49	722	349	453	802	55	426	481	2005
Apprch %	93.2	6.8		43.5	56.5		11.4	88.6		
Total %	33.6	2.4	36	17.4	22.6	40	2.7	21.2	24	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	121	12	133	**69**	87	**156**	15	58	73	362
07:15 AM	129	12	141	56	**93**	149	**16**	63	**79**	**369**
07:30 AM	**138**	**16**	**154**	42	66	108	10	**66**	76	338
07:45 AM	61	2	63	39	49	88	6	65	71	222
Total Volume	449	42	491	206	295	501	47	252	299	1291
% App. Total	91.4	8.6		41.1	58.9		15.7	84.3		
PHF	.813	.656	.797	.746	.793	.803	.734	.955	.946	.875

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	121	12	133	**69**	87	**156**	15	58	73
+15 mins.	129	12	141	56	**93**	149	**16**	63	**79**
+30 mins.	**138**	**16**	**154**	42	66	108	10	**66**	76
+45 mins.	61	2	63	39	49	88	6	65	71
Total Volume	449	42	491	206	295	501	47	252	299
% App. Total	91.4	8.6		41.1	58.9		15.7	84.3	
PHF	.813	.656	.797	.746	.793	.803	.734	.955	.946

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

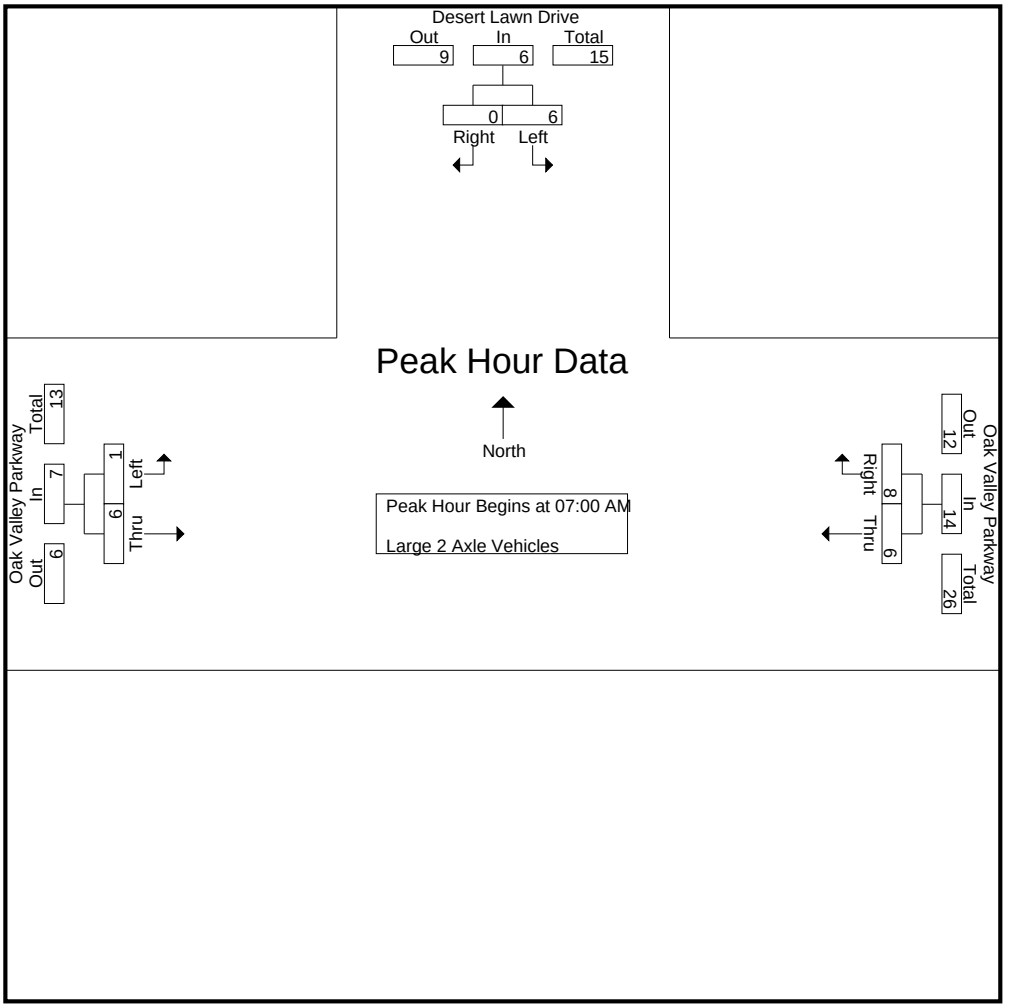
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	1	0	1	1	1	2	0	2	2	5
07:15 AM	0	0	0	2	5	7	0	2	2	9
07:30 AM	4	0	4	0	1	1	1	1	2	7
07:45 AM	1	0	1	3	1	4	0	1	1	6
Total	6	0	6	6	8	14	1	6	7	27
08:00 AM	0	1	1	0	2	2	0	1	1	4
08:15 AM	1	0	1	1	1	2	0	0	0	3
08:30 AM	1	0	1	3	1	4	0	2	2	7
08:45 AM	0	0	0	2	0	2	1	1	2	4
Total	2	1	3	6	4	10	1	4	5	18
Grand Total	8	1	9	12	12	24	2	10	12	45
Apprch %	88.9	11.1		50	50		16.7	83.3		
Total %	17.8	2.2	20	26.7	26.7	53.3	4.4	22.2	26.7	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	0	1	1	1	2	0	**2**	**2**	5
07:15 AM	0	0	0	2	**5**	**7**	0	2	2	**9**
07:30 AM	**4**	0	**4**	0	1	1	**1**	1	2	7
07:45 AM	1	0	1	**3**	1	4	0	1	1	6
Total Volume	6	0	6	6	8	14	1	6	7	27
% App. Total	100	0		42.9	57.1		14.3	85.7		
PHF	.375	.000	.375	.500	.400	.500	.250	.750	.875	.750

Counts Unlimited
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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	0	1	1	1	2	0	**2**	**2**
+15 mins.	0	0	0	2	**5**	**7**	0	2	2
+30 mins.	**4**	0	**4**	0	1	1	**1**	1	2
+45 mins.	1	0	1	**3**	1	4	0	1	1
Total Volume	6	0	6	6	8	14	1	6	7
% App. Total	100	0		42.9	57.1		14.3	85.7	
PHF	.375	.000	.375	.500	.400	.500	.250	.750	.875

Counts Unlimited
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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

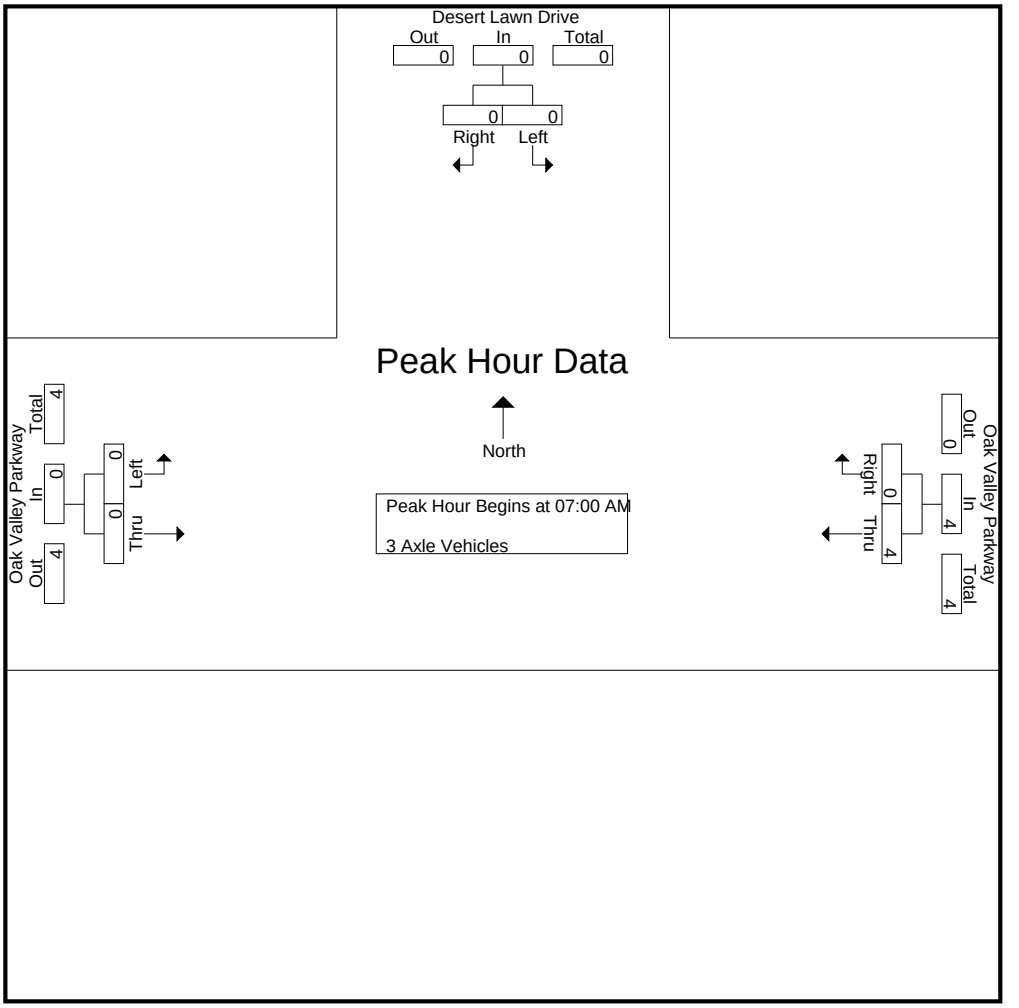
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	2	0	2	0	0	0	2
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	0	0	4	0	4	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	1	0	2	2	3
08:30 AM	0	0	0	1	0	1	0	2	2	3
08:45 AM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	2	0	2	0	5	5	7
Grand Total	0	0	0	6	0	6	0	5	5	11
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	54.5	0	54.5	0	45.5	45.5	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	**2**	0	**2**	0	0	0	**2**
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	0	0	4	0	4	0	0	0	4
% App. Total	0	0		100	0		0	0		
PHF	.000	.000	.000	.500	.000	.500	.000	.000	.000	.500

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	**2**	0	**2**	0	0	0
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	0	0	4	0	4	0	0	0
% App. Total	0	0		100	0		0	0	
PHF	.000	.000	.000	.500	.000	.500	.000	.000	.000

Counts Unlimited
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(951) 268-6268

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

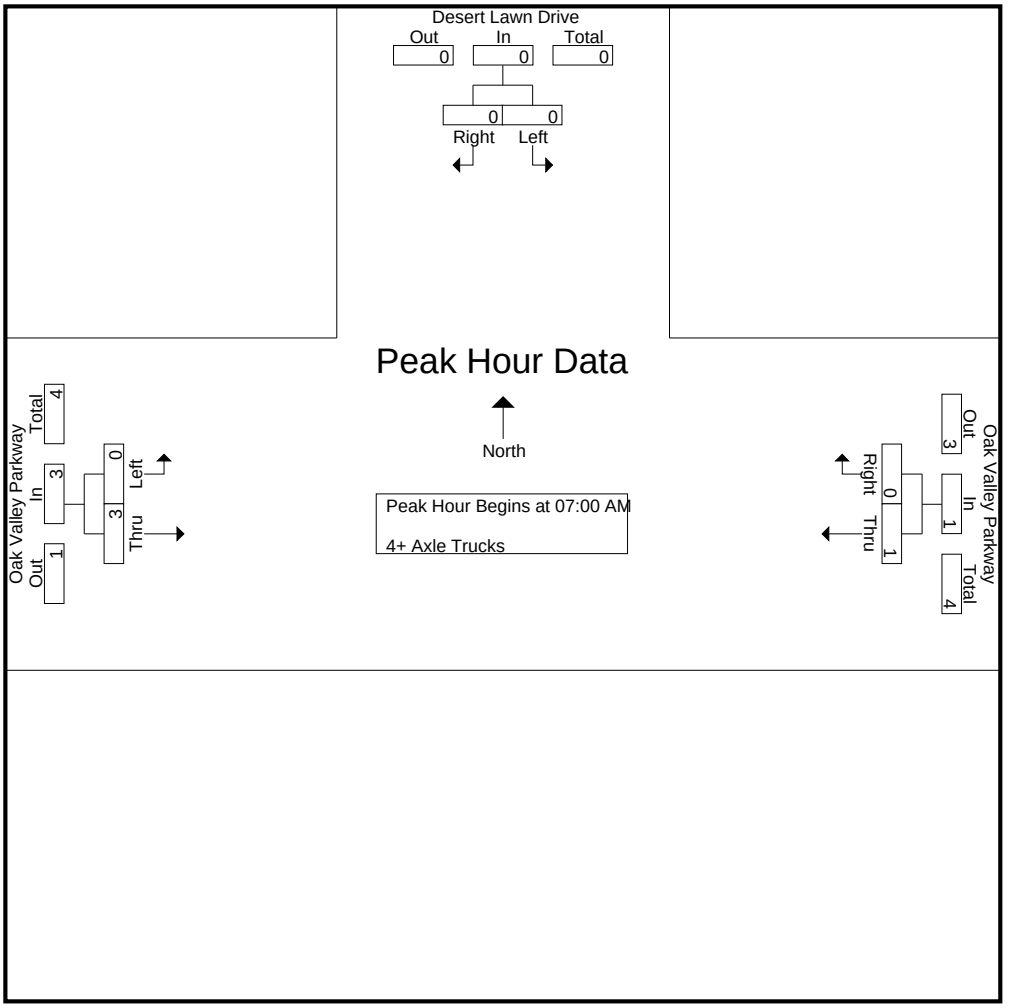
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	1	0	1	0	1	1	2
07:15 AM	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	3	3	4
08:00 AM	0	0	0	1	0	1	0	2	2	3
08:15 AM	0	0	0	1	0	1	0	0	0	1
08:30 AM	0	0	0	1	0	1	0	0	0	1
08:45 AM	0	0	0	2	0	2	0	2	2	4
Total	0	0	0	5	0	5	0	4	4	9
Grand Total	0	0	0	6	0	6	0	7	7	13
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	46.2	0	46.2	0	53.8	53.8	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	**1**	0	**1**	0	**1**	**1**	**2**
07:15 AM	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	3	3	4
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.750	.750	.500

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	**1**	0	**1**	0	**1**	**1**
+15 mins.	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	3	3
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.250	.000	.250	.000	.750	.750

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

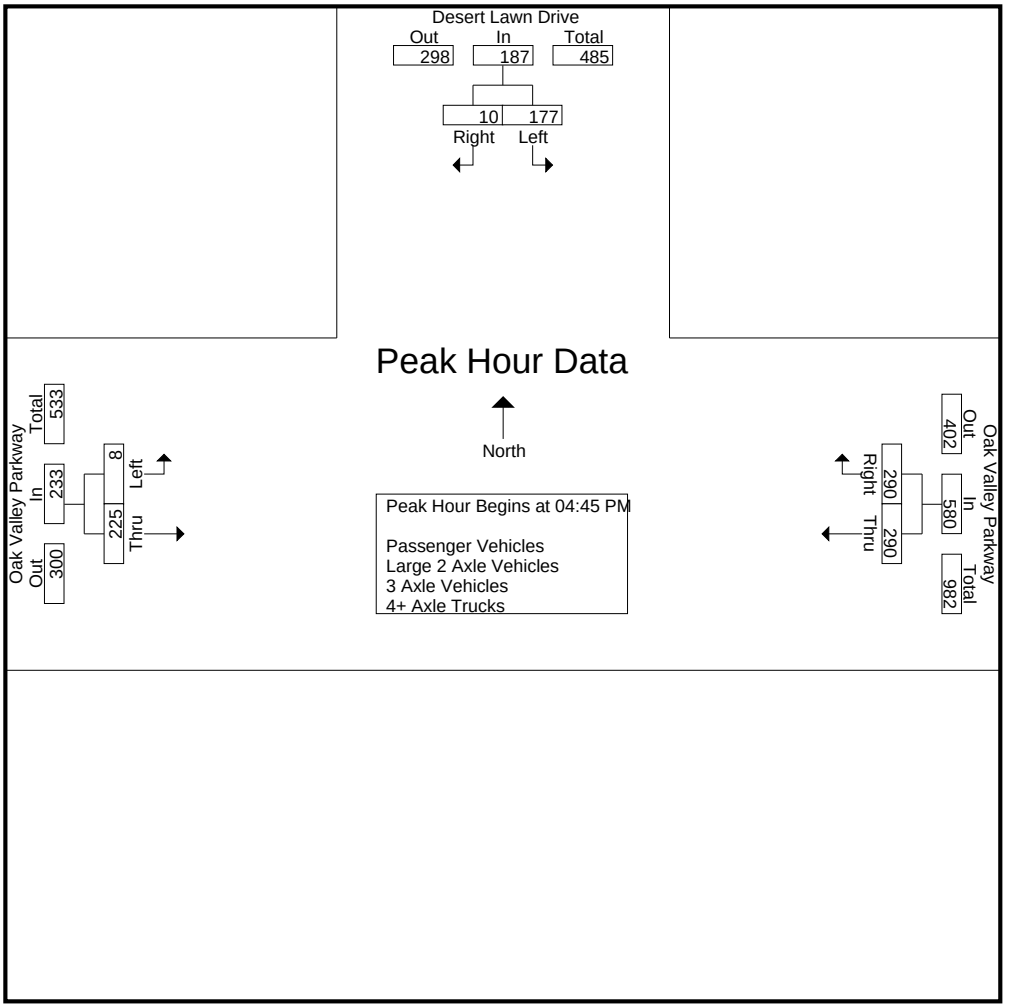
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	51	6	57	75	69	144	1	50	51	252
04:15 PM	55	2	57	73	73	146	1	55	56	259
04:30 PM	52	1	53	62	64	126	3	35	38	217
04:45 PM	44	4	48	81	74	155	3	50	53	256
Total	202	13	215	291	280	571	8	190	198	984
05:00 PM	52	1	53	72	66	138	1	66	67	258
05:15 PM	40	1	41	63	82	145	0	60	60	246
05:30 PM	41	4	45	74	68	142	4	49	53	240
05:45 PM	45	1	46	72	77	149	4	57	61	256
Total	178	7	185	281	293	574	9	232	241	1000
Grand Total	380	20	400	572	573	1145	17	422	439	1984
Apprch %	95	5		50	50		3.9	96.1		
Total %	19.2	1	20.2	28.8	28.9	57.7	0.9	21.3	22.1	
Passenger Vehicles	379	20	399	565	570	1135	17	419	436	1970
% Passenger Vehicles	99.7	100	99.8	98.8	99.5	99.1	100	99.3	99.3	99.3
Large 2 Axle Vehicles	1	0	1	5	3	8	0	3	3	12
% Large 2 Axle Vehicles	0.3	0	0.2	0.9	0.5	0.7	0	0.7	0.7	0.6
3 Axle Vehicles	0	0	0	1	0	1	0	0	0	1
% 3 Axle Vehicles	0	0	0	0.2	0	0.1	0	0	0	0.1
4+ Axle Trucks	0	0	0	1	0	1	0	0	0	1
% 4+ Axle Trucks	0	0	0	0.2	0	0.1	0	0	0	0.1

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	44	**4**	48	**81**	74	**155**	3	50	53	256
05:00 PM	**52**	1	**53**	72	66	138	1	**66**	**67**	**258**
05:15 PM	40	1	41	63	**82**	145	0	60	60	246
05:30 PM	41	4	45	74	68	142	**4**	49	53	240
Total Volume	177	10	187	290	290	580	8	225	233	1000
% App. Total	94.7	5.3		50	50		3.4	96.6		
PHF	.851	.625	.882	.895	.884	.935	.500	.852	.869	.969

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			05:00 PM		
+0 mins.	51	**6**	**57**	**81**	74	**155**	1	**66**	**67**
+15 mins.	**55**	2	57	72	66	138	0	60	60
+30 mins.	52	1	53	63	**82**	145	**4**	49	53
+45 mins.	44	4	48	74	68	142	4	57	61
Total Volume	202	13	215	290	290	580	9	232	241
% App. Total	94	6		50	50		3.7	96.3	
PHF	.918	.542	.943	.895	.884	.935	.563	.879	.899

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

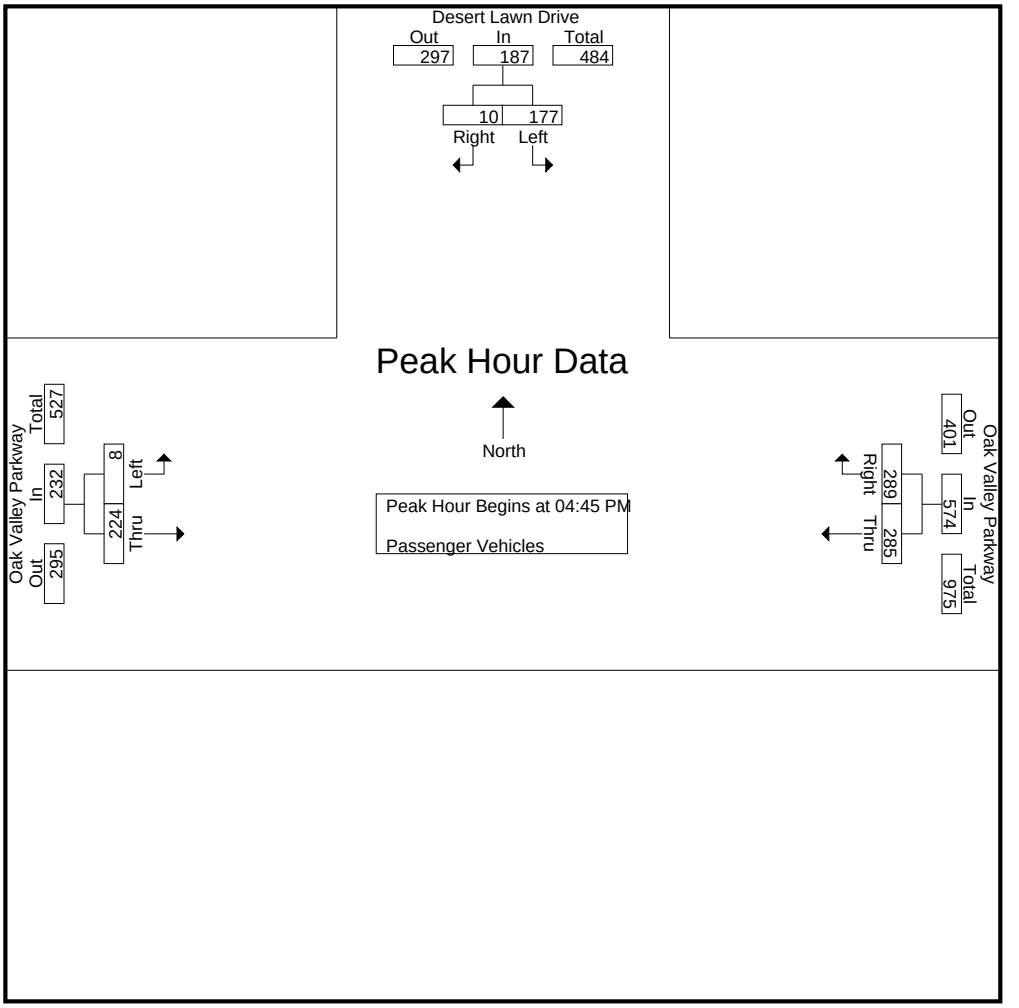
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	50	6	56	74	69	143	1	50	51	250
04:15 PM	55	2	57	72	72	144	1	53	54	255
04:30 PM	52	1	53	62	63	125	3	35	38	216
04:45 PM	44	4	48	78	74	152	3	50	53	253
Total	201	13	214	286	278	564	8	188	196	974
05:00 PM	52	1	53	72	66	138	1	66	67	258
05:15 PM	40	1	41	62	81	143	0	60	60	244
05:30 PM	41	4	45	73	68	141	4	48	52	238
05:45 PM	45	1	46	72	77	149	4	57	61	256
Total	178	7	185	279	292	571	9	231	240	996
Grand Total	379	20	399	565	570	1135	17	419	436	1970
Apprch %	95	5		49.8	50.2		3.9	96.1		
Total %	19.2	1	20.3	28.7	28.9	57.6	0.9	21.3	22.1	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	44	**4**	48	**78**	74	**152**	3	50	53	253
05:00 PM	**52**	1	**53**	72	66	138	1	**66**	**67**	**258**
05:15 PM	40	1	41	62	**81**	143	0	60	60	244
05:30 PM	41	4	45	73	68	141	**4**	48	52	238
Total Volume	177	10	187	285	289	574	8	224	232	993
% App. Total	94.7	5.3		49.7	50.3		3.4	96.6		
PHF	.851	.625	.882	.913	.892	.944	.500	.848	.866	.962

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	44	**4**	48	**78**	74	**152**	3	50	53
+15 mins.	**52**	1	**53**	72	66	138	1	**66**	**67**
+30 mins.	40	1	41	62	**81**	143	0	60	60
+45 mins.	41	4	45	73	68	141	**4**	48	52
Total Volume	177	10	187	285	289	574	8	224	232
% App. Total	94.7	5.3		49.7	50.3		3.4	96.6	
PHF	.851	.625	.882	.913	.892	.944	.500	.848	.866

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019

Groups Printed- Large 2 Axle Vehicles

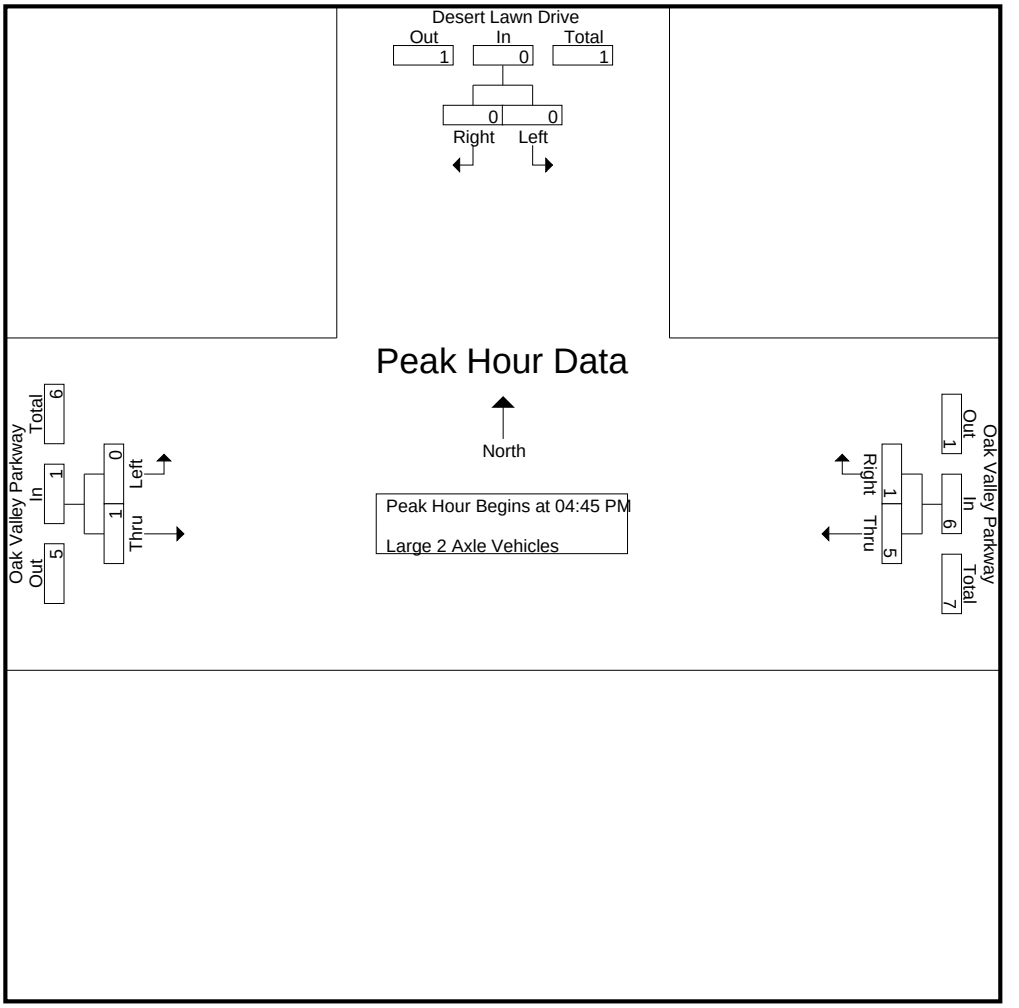
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	1	0	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	1	1	0	2	2	3
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	0	0	0	3	0	3	0	0	0	3
Total	1	0	1	3	2	5	0	2	2	8
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	1	1	2	0	0	0	2
05:30 PM	0	0	0	1	0	1	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	1	3	0	1	1	4
Grand Total	1	0	1	5	3	8	0	3	3	12
Apprch %	100	0		62.5	37.5		0	100		
Total %	8.3	0	8.3	41.7	25	66.7	0	25	25	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	**3**	0	**3**	0	0	0	**3**
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	1	**1**	2	0	0	0	2
05:30 PM	0	0	0	1	0	1	0	**1**	**1**	2
Total Volume	0	0	0	5	1	6	0	1	1	7
% App. Total	0	0		83.3	16.7		0	100		
PHF	.000	.000	.000	.417	.250	.500	.000	.250	.250	.583

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	**3**	0	**3**	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	1	**1**	2	0	0	0
+45 mins.	0	0	0	1	0	1	0	**1**	**1**
Total Volume	0	0	0	5	1	6	0	1	1
% App. Total	0	0		83.3	16.7		0	100	
PHF	.000	.000	.000	.417	.250	.500	.000	.250	.250

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

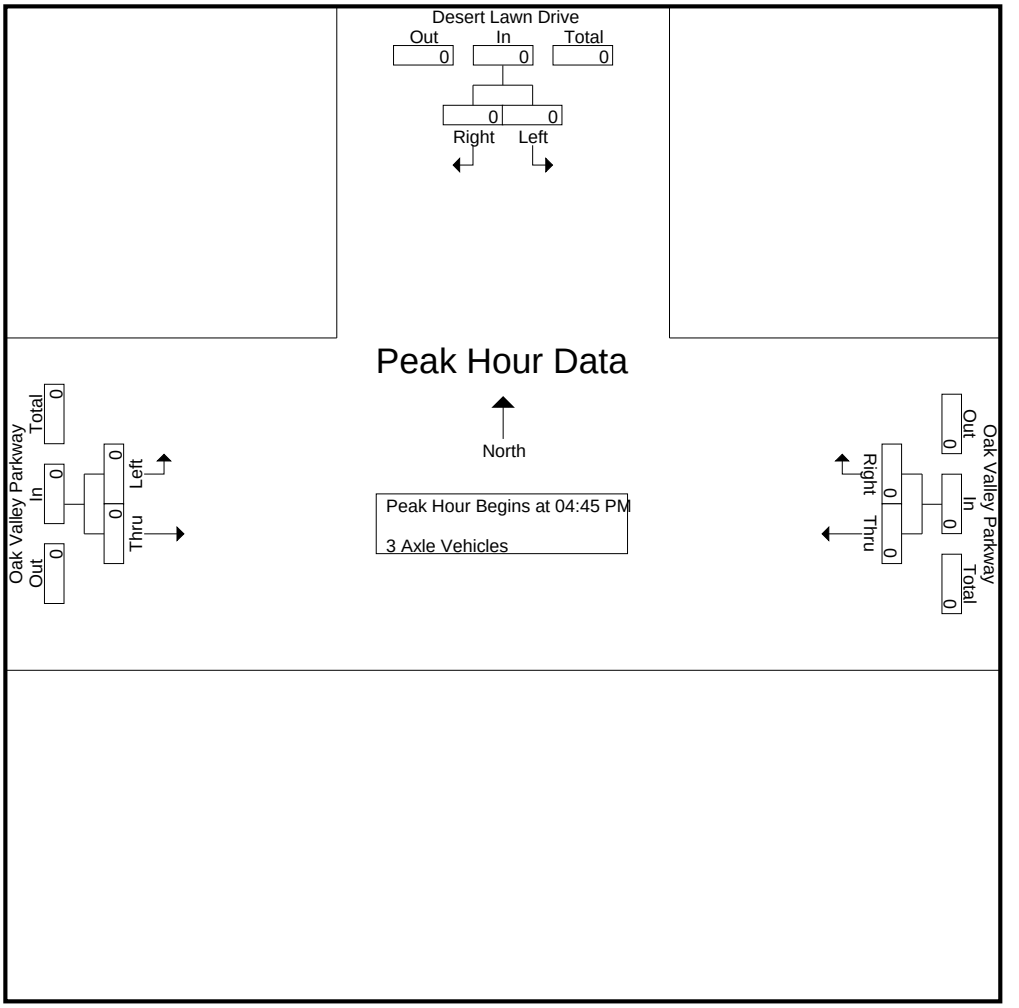
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	0	1	0	0	0	1
Apprch %	0	0		100	0		0	0		
Total %	0	0	0	100	0	100	0	0	0	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

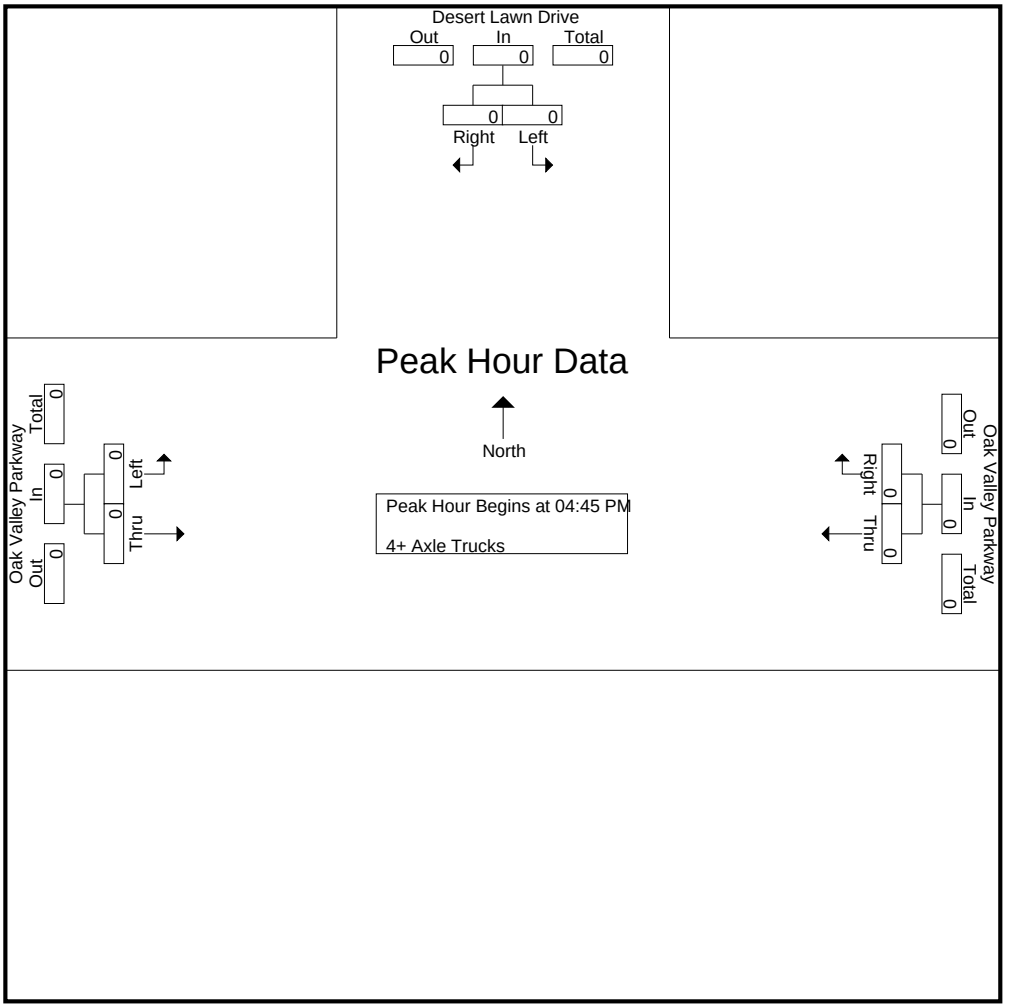
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	1	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	0	1	0	0	0	1
Apprch %	0	0		100	0		0	0		
Total %	0	0	0	100	0	100	0	0	0	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019



Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg Desert Lawn Drive	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Desert Lawn Drive	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound Desert Lawn Drive			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	1	0	0	0	0	0	0	1

	Southbound Desert Lawn Drive			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

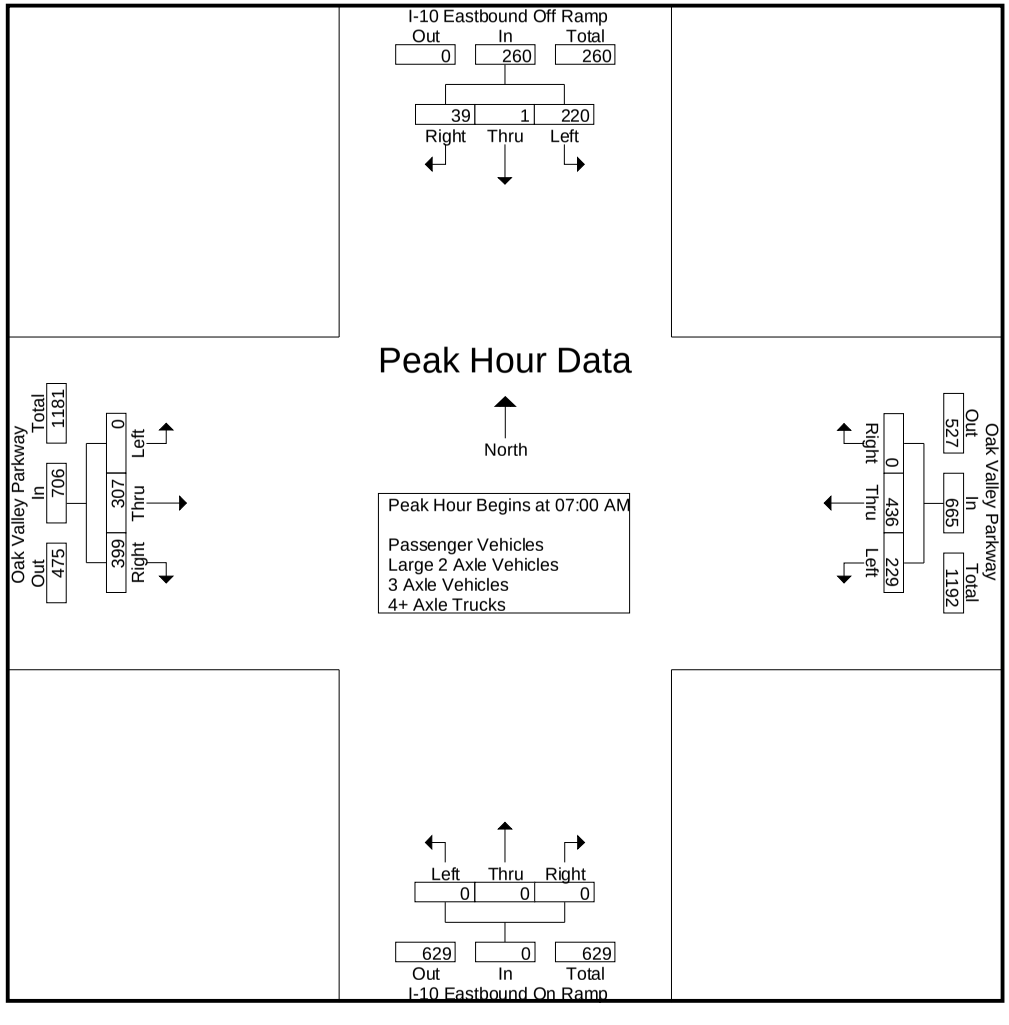
	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	50	0	12	7	62	61	134	0	0	195	0	0	0	0	0	0	79	83	11	162	18	419	437
07:15 AM	49	0	8	4	57	57	133	0	0	190	0	0	0	0	0	0	83	127	27	210	31	457	488
07:30 AM	50	1	8	2	59	62	90	0	0	152	0	0	0	0	0	0	77	100	19	177	21	388	409
07:45 AM	71	0	11	4	82	49	79	0	0	128	0	0	0	0	0	0	68	89	20	157	24	367	391
Total	220	1	39	17	260	229	436	0	0	665	0	0	0	0	0	0	307	399	77	706	94	1631	1725
08:00 AM	48	0	12	5	60	52	79	0	0	131	0	0	0	0	0	0	49	64	13	113	18	304	322
08:15 AM	39	1	15	9	55	38	65	0	0	103	0	0	0	0	0	0	48	64	10	112	19	270	289
08:30 AM	36	0	11	6	47	59	64	0	0	123	0	0	0	0	0	0	41	58	14	99	20	269	289
08:45 AM	40	0	11	5	51	60	58	0	0	118	0	0	0	0	0	0	42	46	6	88	11	257	268
Total	163	1	49	25	213	209	266	0	0	475	0	0	0	0	0	0	180	232	43	412	68	1100	1168
Grand Total	383	2	88	42	473	438	702	0	0	1140	0	0	0	0	0	0	487	631	120	1118	162	2731	2893
Apprch %	81	0.4	18.6			38.4	61.6	0			0	0	0			0	43.6	56.4					
Total %	14	0.1	3.2		17.3	16	25.7	0		41.7	0	0	0		0	0	17.8	23.1		40.9	5.6	94.4	
Passenger Vehicles	373	1	82		494	427	678	0		1105	0	0	0		0	0	478	612		1205	0	0	2804
% Passenger Vehicles	97.4	50	93.2	90.5	95.9	97.5	96.6	0	0	96.9	0	0	0	0	0	0	98.2	97	95.8	97.3	0	0	96.9
Large 2 Axle Vehicles	6	0	4		12	5	12	0		17	0	0	0		0	0	5	12		22	0	0	51
% Large 2 Axle Vehicles	1.6	0	4.5	4.8	2.3	1.1	1.7	0	0	1.5	0	0	0	0	0	0	1	1.9	4.2	1.8	0	0	1.8
3 Axle Vehicles	4	0	1		6	4	5	0		9	0	0	0		0	0	1	4		5	0	0	20
% 3 Axle Vehicles	1	0	1.1	2.4	1.2	0.9	0.7	0	0	0.8	0	0	0	0	0	0	0.2	0.6	0	0.4	0	0	0.7
4+ Axle Trucks	0	1	1		3	2	7	0		9	0	0	0		0	0	3	3		6	0	0	18
% 4+ Axle Trucks	0	50	1.1	2.4	0.6	0.5	1	0	0	0.8	0	0	0	0	0	0	0.6	0.5	0	0.5	0	0	0.6

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	50	0	**12**	62	61	**134**	0	**195**	0	0	0	0	0	79	83	162	419
07:15 AM	49	0	8	57	57	133	0	190	0	0	0	0	0	**83**	**127**	**210**	**457**
07:30 AM	50	**1**	8	59	**62**	90	0	152	0	0	0	0	0	77	100	177	388
07:45 AM	**71**	0	11	**82**	49	79	0	128	0	0	0	0	0	68	89	157	367
Total Volume	220	1	39	260	229	436	0	665	0	0	0	0	0	307	399	706	1631
% App. Total	84.6	0.4	15		34.4	65.6	0		0	0	0		0	43.5	56.5		
PHF	.775	.250	.813	.793	.923	.813	.000	.853	.000	.000	.000	.000	.000	.925	.785	.840	.892

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
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File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	50	0	**12**	62	61	**134**	0	**195**	0	0	0	0	0	79	83	162	
+15 mins.	49	0	8	57	57	133	0	190	0	0	0	0	0	**83**	**127**	**210**	
+30 mins.	50	**1**	8	59	**62**	90	0	152	0	0	0	0	0	77	100	177	
+45 mins.	**71**	0	11	**82**	49	79	0	128	0	0	0	0	0	68	89	157	
Total Volume	220	1	39	260	229	436	0	665	0	0	0	0	0	307	399	706	
% App. Total	84.6	0.4	15		34.4	65.6	0		0	0	0		0	43.5	56.5		
PHF	.775	.250	.813	.793	.923	.813	.000	.853	.000	.000	.000	.000	.000	.925	.785	.840	

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

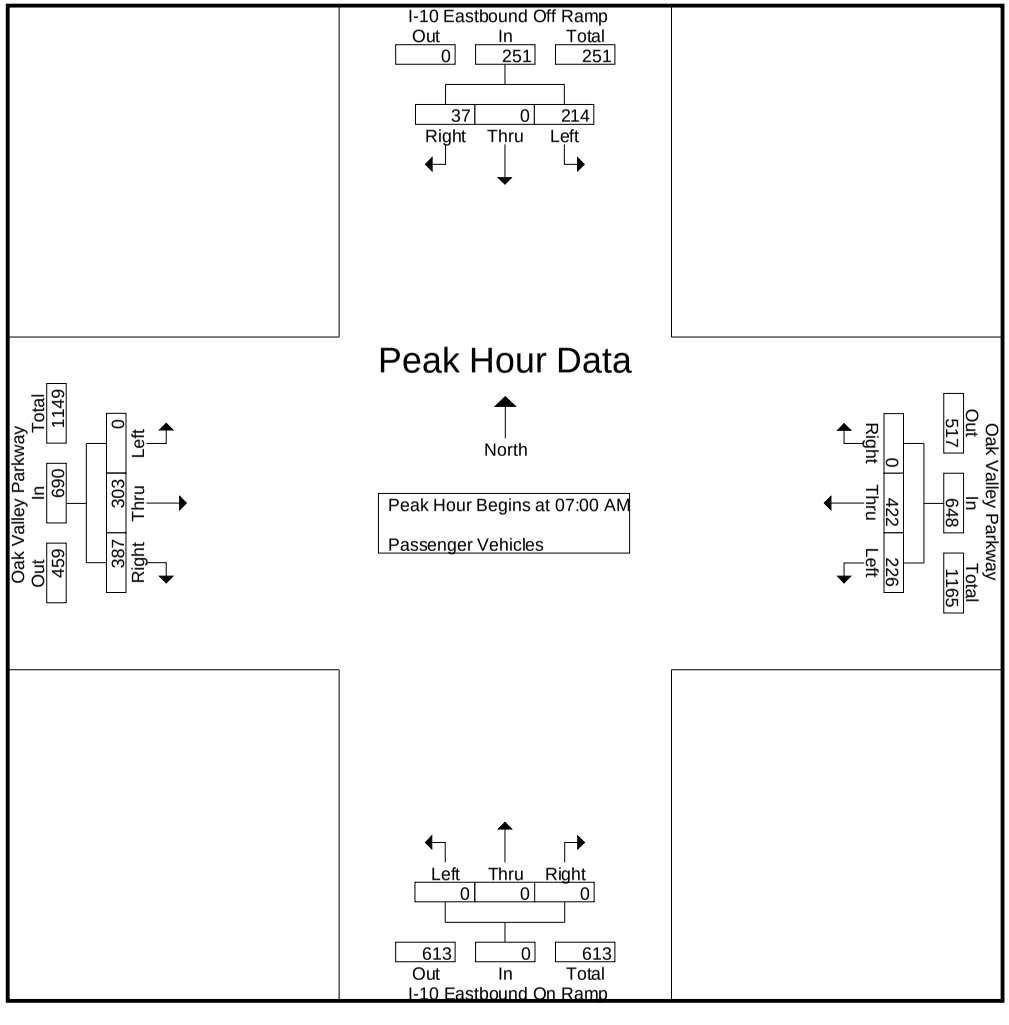
	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	49	0	12	7	61	59	131	0	0	190	0	0	0	0	0	0	78	79	10	157	17	408	425
07:15 AM	47	0	7	4	54	56	125	0	0	181	0	0	0	0	0	0	82	125	26	207	30	442	472
07:30 AM	49	0	8	2	57	62	88	0	0	150	0	0	0	0	0	0	76	98	19	174	21	381	402
07:45 AM	69	0	10	4	79	49	78	0	0	127	0	0	0	0	0	0	67	85	17	152	21	358	379
Total	214	0	37	17	251	226	422	0	0	648	0	0	0	0	0	0	303	387	72	690	89	1589	1678
08:00 AM	47	0	12	5	59	48	76	0	0	124	0	0	0	0	0	0	47	64	13	111	18	294	312
08:15 AM	37	1	13	7	51	36	64	0	0	100	0	0	0	0	0	0	48	61	10	109	17	260	277
08:30 AM	36	0	10	5	46	58	60	0	0	118	0	0	0	0	0	0	40	55	14	95	19	259	278
08:45 AM	39	0	10	4	49	59	56	0	0	115	0	0	0	0	0	0	40	45	6	85	10	249	259
Total	159	1	45	21	205	201	256	0	0	457	0	0	0	0	0	0	175	225	43	400	64	1062	1126
Grand Total	373	1	82	38	456	427	678	0	0	1105	0	0	0	0	0	0	478	612	115	1090	153	2651	2804
Apprch %	81.8	0.2	18			38.6	61.4	0			0	0	0			0	43.9	56.1					
Total %	14.1	0	3.1		17.2	16.1	25.6	0		41.7	0	0	0		0	0	18	23.1		41.1	5.5	94.5	

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	49	0	**12**	61	59	**131**	0	**190**	0	0	0	0	0	78	79	157	408
07:15 AM	47	0	7	54	56	125	0	181	0	0	0	0	0	**82**	**125**	**207**	**442**
07:30 AM	49	0	8	57	**62**	88	0	150	0	0	0	0	0	76	98	174	381
07:45 AM	**69**	0	10	**79**	49	78	0	127	0	0	0	0	0	67	85	152	358
Total Volume	214	0	37	251	226	422	0	648	0	0	0	0	0	303	387	690	1589
% App. Total	85.3	0	14.7		34.9	65.1	0		0	0	0		0	43.9	56.1		
PHF	.775	.000	.771	.794	.911	.805	.000	.853	.000	.000	.000	.000	.000	.924	.774	.833	.899

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	49	0	**12**	61	59	**131**	0	**190**	0	0	0	0	0	78	79	157	
+15 mins.	47	0	7	54	56	125	0	181	0	0	0	0	0	**82**	**125**	**207**	
+30 mins.	49	0	8	57	**62**	88	0	150	0	0	0	0	0	76	98	174	
+45 mins.	**69**	0	10	**79**	49	78	0	127	0	0	0	0	0	67	85	152	
Total Volume	214	0	37	251	226	422	0	648	0	0	0	0	0	303	387	690	
% App. Total	85.3	0	14.7		34.9	65.1	0		0	0	0		0	43.9	56.1		
PHF	.775	.000	.771	.794	.911	.805	.000	.853	.000	.000	.000	.000	.000	.924	.774	.833	

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
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File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

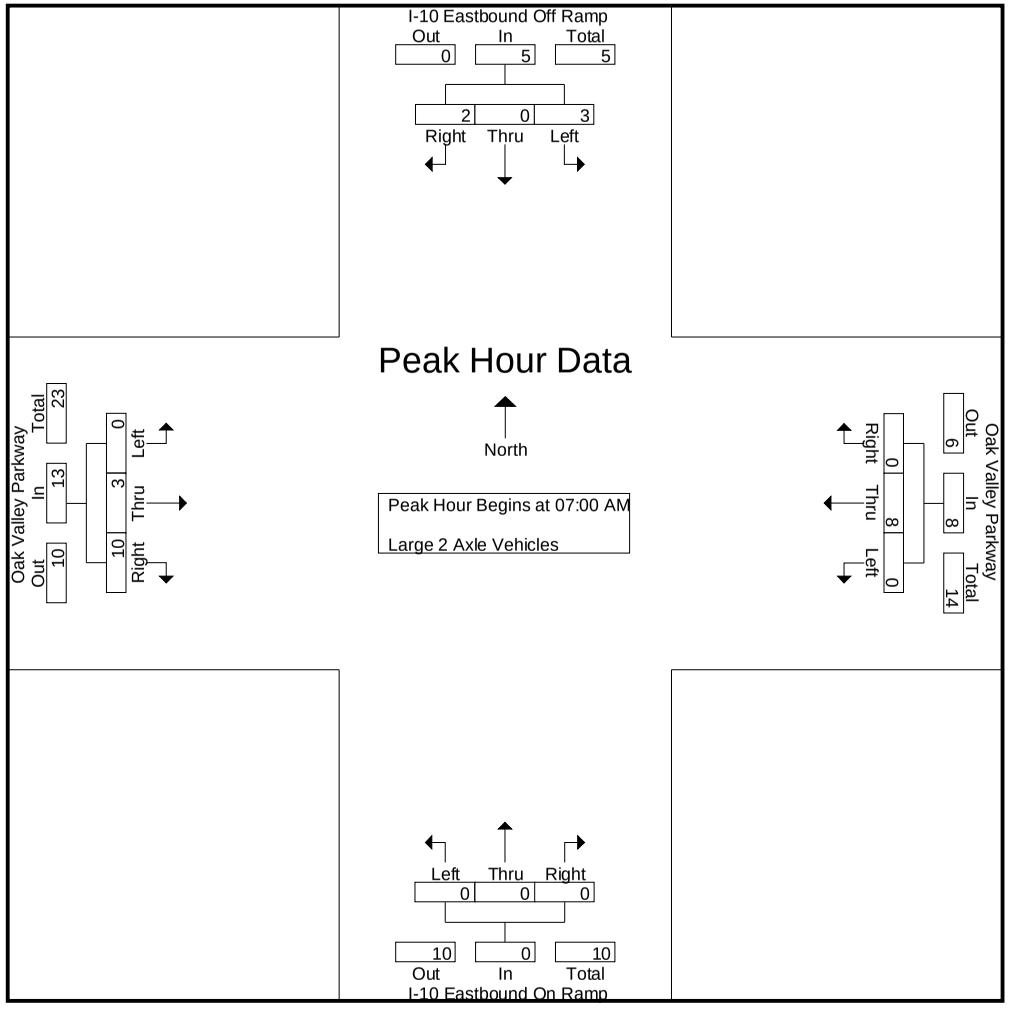
	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	3	1	4	1	6	7
07:15 AM	2	0	1	0	3	0	5	0	0	5	0	0	0	0	0	0	1	1	1	2	1	10	11
07:30 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	0	4	4
07:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4	3	5	3	6	9
Total	3	0	2	0	5	0	8	0	0	8	0	0	0	0	0	0	3	10	5	13	5	26	31
08:00 AM	1	0	0	0	1	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0	0	6	6
08:15 AM	1	0	1	1	2	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	1	4	5
08:30 AM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	1	1	0	2	0	5	5
08:45 AM	1	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	3	4
Total	3	0	2	2	5	5	4	0	0	9	0	0	0	0	0	0	2	2	0	4	2	18	20
Grand Total	6	0	4	2	10	5	12	0	0	17	0	0	0	0	0	0	5	12	5	17	7	44	51
Apprch %	60	0	40			29.4	70.6	0			0	0	0			0	29.4	70.6					
Total %	13.6	0	9.1		22.7	11.4	27.3	0		38.6	0	0	0		0	0	11.4	27.3		38.6	13.7	86.3	

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	**1**	3	4	6
07:15 AM	**2**	0	**1**	**3**	0	**5**	0	**5**	0	0	0	0	0	1	1	2	**10**
07:30 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	2	2	4
07:45 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	**4**	**5**	6
Total Volume	3	0	2	5	0	8	0	8	0	0	0	0	0	3	10	13	26
% App. Total	60	0	40		0	100	0		0	0	0		0	23.1	76.9		
PHF	.375	.000	.500	.417	.000	.400	.000	.400	.000	.000	.000	.000	.000	.750	.625	.650	.650

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(951) 268-6268

City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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PO Box 1178
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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	**1**	3	4	
+15 mins.	**2**	0	**1**	**3**	0	**5**	0	**5**	0	0	0	0	0	1	1	2	
+30 mins.	1	0	0	1	0	1	0	1	0	0	0	0	0	0	2	2	
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	1	**4**	**5**	
Total Volume	3	0	2	5	0	8	0	8	0	0	0	0	0	3	10	13	
% App. Total	60	0	40		0	100	0		0	0	0		0	23.1	76.9		
PHF	.375	.000	.500	.417	.000	.400	.000	.400	.000	.000	.000	.000	.000	.750	.625	.650	

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File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

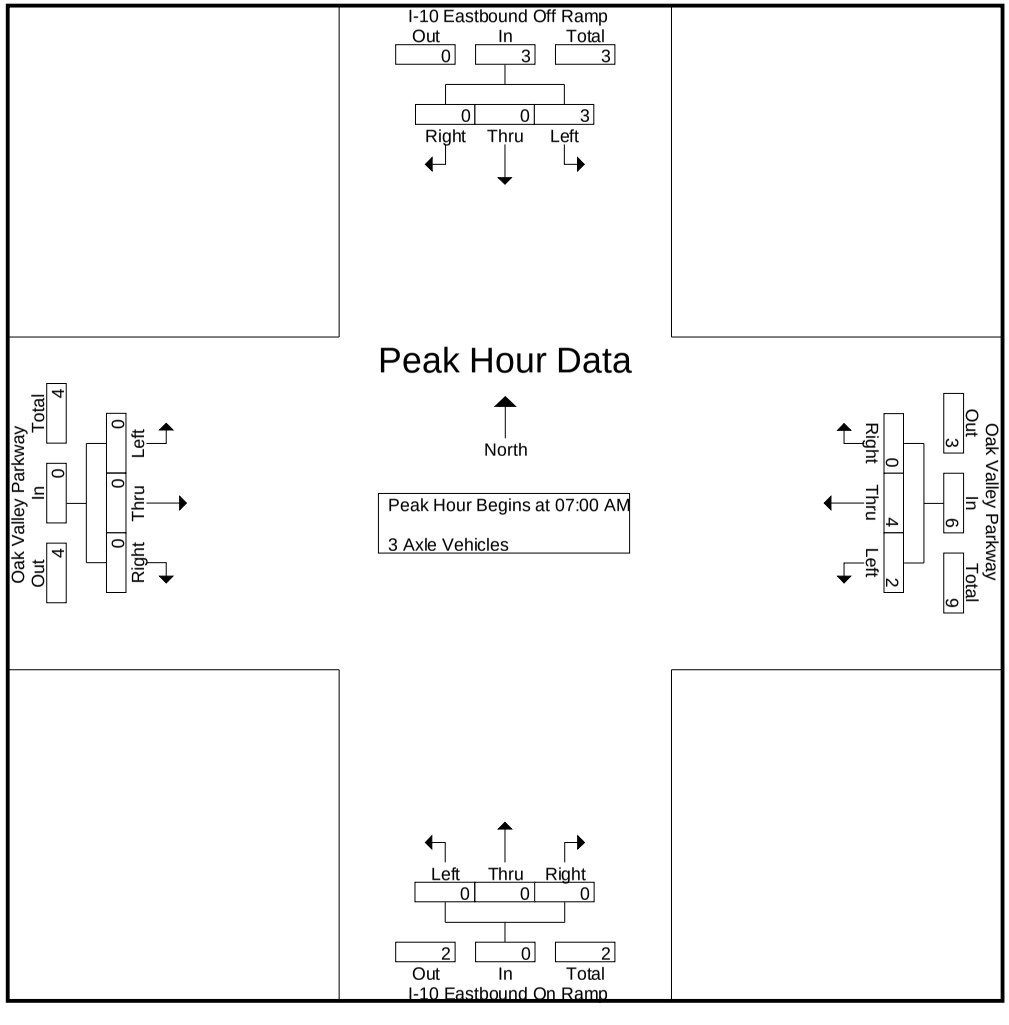
	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	3
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3
Total	3	0	0	0	3	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0	0	9	9
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	1	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	4	5
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	0	3	3
08:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
Total	1	0	1	1	2	2	1	0	0	3	0	0	0	0	0	0	1	4	0	5	1	10	11
Grand Total	4	0	1	1	5	4	5	0	0	9	0	0	0	0	0	0	1	4	0	5	1	19	20
Apprch %	80	0	20			44.4	55.6	0			0	0	0			0	20	80					
Total %	21.1	0	5.3		26.3	21.1	26.3	0		47.4	0	0	0		0	0	5.3	21.1		26.3	5	95	

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	0	1	**1**	0	0	1	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	1	**2**	0	**3**	0	0	0	0	0	0	0	0	**3**
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	**2**	0	0	**2**	0	1	0	1	0	0	0	0	0	0	0	0	3
Total Volume	3	0	0	3	2	4	0	6	0	0	0	0	0	0	0	0	9
% App. Total	100	0	0		33.3	66.7	0		0	0	0		0	0	0		
PHF	.375	.000	.000	.375	.500	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.750

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
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File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	1	0	0	1	**1**	0	0	1	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	1	**2**	0	**3**	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
+45 mins.	**2**	0	0	**2**	0	1	0	1	0	0	0	0	0	0	0	0	
Total Volume	3	0	0	3	2	4	0	6	0	0	0	0	0	0	0	0	
% App. Total	100	0	0		33.3	66.7	0		0	0	0		0	0	0		
PHF	.375	.000	.000	.375	.500	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	

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Groups Printed- 4+ Axle Trucks

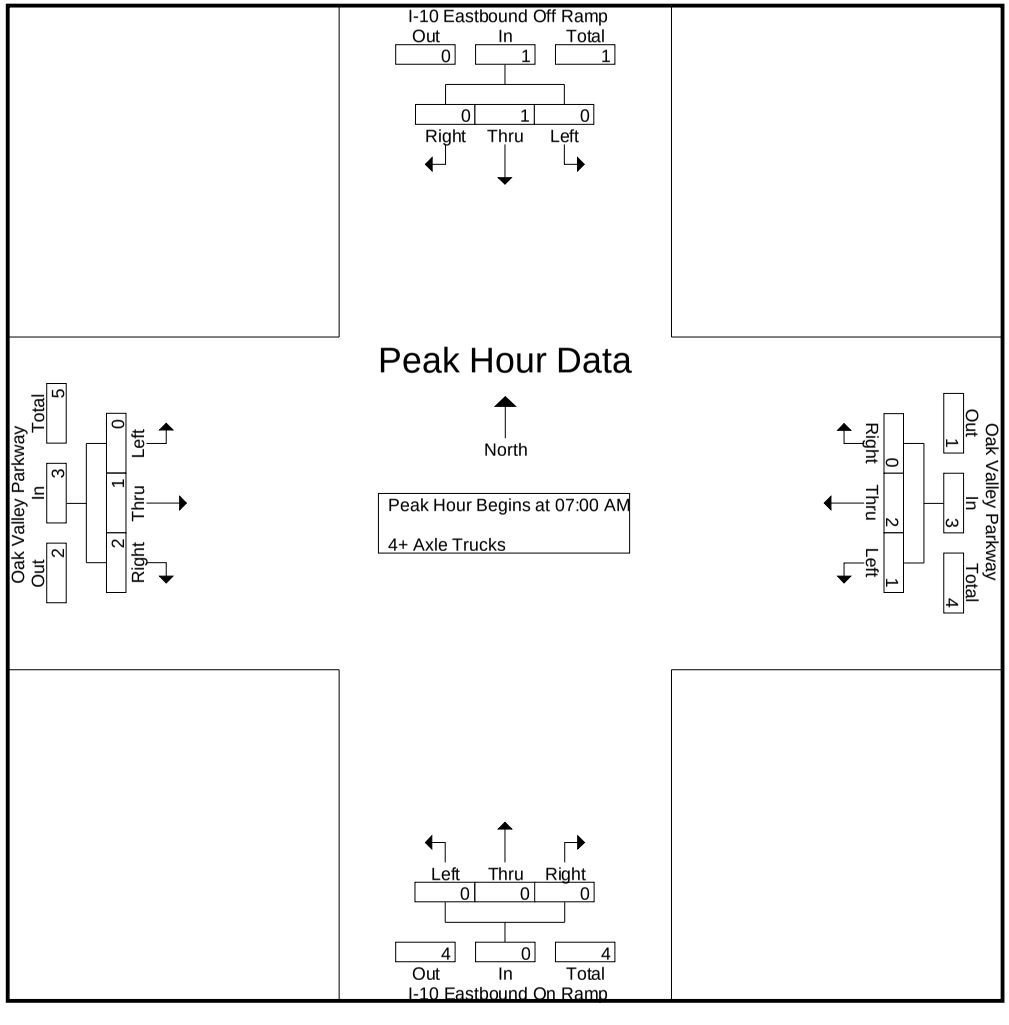
	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	1	0	1	0	3	3
07:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	2
07:30 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	1	2	0	0	3	0	0	0	0	0	0	1	2	0	3	0	7	7
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
08:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
08:30 AM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	3
08:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	0	3	3
Total	0	0	1	1	1	1	5	0	0	6	0	0	0	0	0	0	2	1	0	3	1	10	11
Grand Total	0	1	1	1	2	2	7	0	0	9	0	0	0	0	0	0	3	3	0	6	1	17	18
Apprch %	0	50	50			22.2	77.8	0			0	0	0			0	50	50					
Total %	0	5.9	5.9		11.8	11.8	41.2	0		52.9	0	0	0		0	0	17.6	17.6		35.3	5.6	94.4	

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	**1**	**1**	0	**2**	0	0	0	0	0	0	**1**	**1**	**3**
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
07:30 AM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	**1**	0	1	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	1	2	0	3	0	0	0	0	0	1	2	3	7
% App. Total	0	100	0		33.3	66.7	0		0	0	0		0	33.3	66.7		
PHF	.000	.250	.000	.250	.250	.500	.000	.375	.000	.000	.000	.000	.000	.250	.500	.750	.583

Counts Unlimited
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E/W: Oak Valley Parkway
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File Name : 08_BMT_10E_Oak Valley AM
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	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	**1**	**1**	0	**2**	0	0	0	0	0	0	**1**	**1**	
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	**1**	0	1	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	1	0	1	1	2	0	3	0	0	0	0	0	1	2	3	
% App. Total	0	100	0		33.3	66.7	0		0	0	0		0	33.3	66.7		
PHF	.000	.250	.000	.250	.250	.500	.000	.375	.000	.000	.000	.000	.000	.250	.500	.750	

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Site Code : 05119803
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

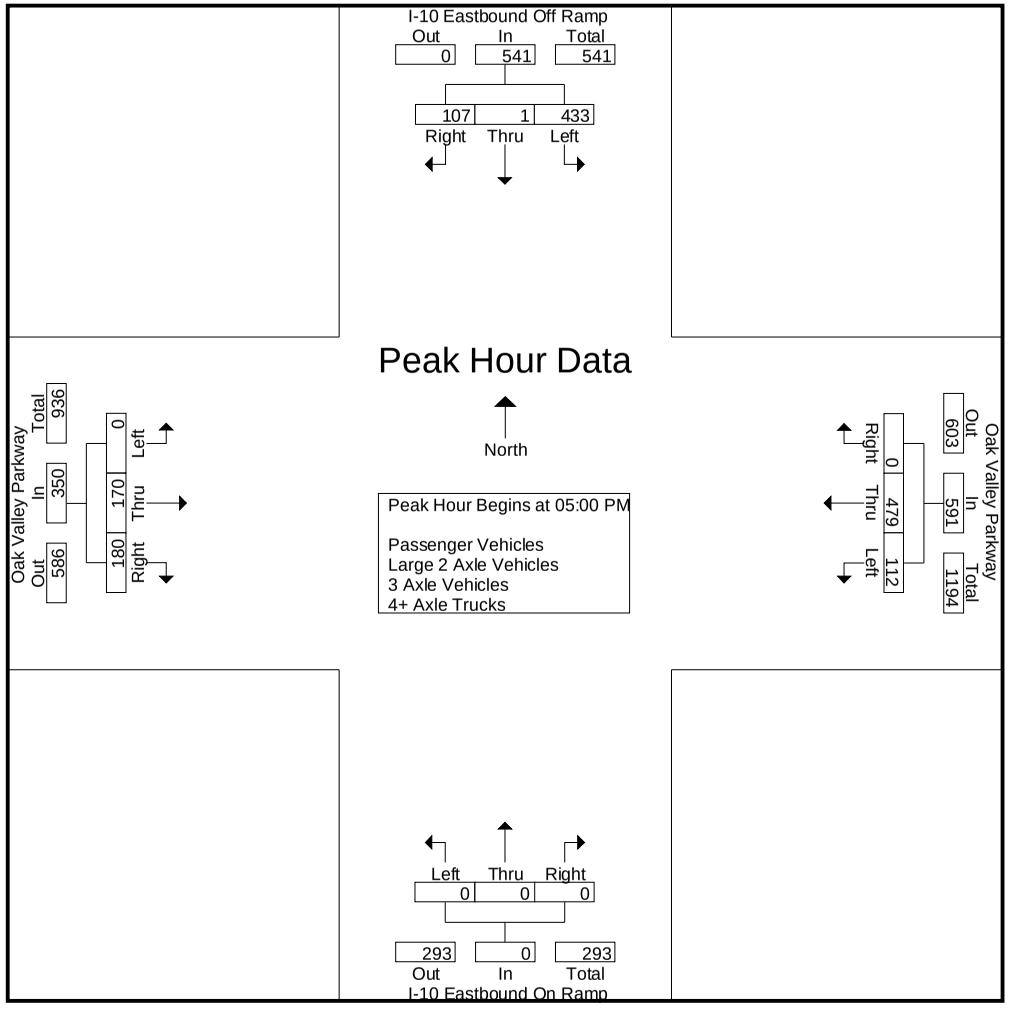
	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	81	1	22	7	104	30	117	0	0	147	0	0	0	0	0	0	56	51	10	107	17	358	375
04:15 PM	71	1	14	8	86	35	120	0	0	155	0	0	0	0	0	0	45	56	9	101	17	342	359
04:30 PM	85	0	17	6	102	36	123	0	0	159	0	0	0	0	0	0	48	46	14	94	20	355	375
04:45 PM	72	0	25	9	97	35	116	0	0	151	0	0	0	0	0	0	38	41	7	79	16	327	343
Total	309	2	78	30	389	136	476	0	0	612	0	0	0	0	0	0	187	194	40	381	70	1382	1452
05:00 PM	86	1	20	11	107	31	124	0	0	155	0	0	0	0	0	0	55	45	7	100	18	362	380
05:15 PM	97	0	23	8	120	35	133	0	0	168	0	0	0	0	0	0	45	46	14	91	22	379	401
05:30 PM	127	0	23	7	150	24	111	0	0	135	0	0	0	0	0	0	33	36	12	69	19	354	373
05:45 PM	123	0	41	24	164	22	111	0	0	133	0	0	0	0	0	0	37	53	11	90	35	387	422
Total	433	1	107	50	541	112	479	0	0	591	0	0	0	0	0	0	170	180	44	350	94	1482	1576
Grand Total	742	3	185	80	930	248	955	0	0	1203	0	0	0	0	0	0	357	374	84	731	164	2864	3028
Apprch %	79.8	0.3	19.9			20.6	79.4	0			0	0	0			0	48.8	51.2					
Total %	25.9	0.1	6.5		32.5	8.7	33.3	0		42	0	0	0		0	0	12.5	13.1		25.5	5.4	94.6	
Passenger Vehicles	738	3	184		1005	240	946	0		1186	0	0	0		0	0	354	372		809	0	0	3000
% Passenger Vehicles	99.5	100	99.5	100	99.5	96.8	99.1	0	0	98.6	0	0	0	0	0	0	99.2	99.5	98.8	99.3	0	0	99.1
Large 2 Axle Vehicles	3	0	1		4	7	8	0		15	0	0	0		0	0	3	2		6	0	0	25
% Large 2 Axle Vehicles	0.4	0	0.5	0	0.4	2.8	0.8	0	0	1.2	0	0	0	0	0	0	0.8	0.5	1.2	0.7	0	0	0.8
3 Axle Vehicles	0	0	0		0	0	1	0		1	0	0	0		0	0	0	0		0	0	0	1
% 3 Axle Vehicles	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	1	0	0		1	1	0	0		1	0	0	0		0	0	0	0		0	0	0	2
% 4+ Axle Trucks	0.1	0	0	0	0.1	0.4	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0.1

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	86	**1**	20	107	31	124	0	155	0	0	0	0	0	**55**	45	**100**	362
05:15 PM	97	0	23	120	**35**	**133**	0	**168**	0	0	0	0	0	45	46	91	379
05:30 PM	**127**	0	23	150	24	111	0	135	0	0	0	0	0	33	36	69	354
05:45 PM	123	0	**41**	**164**	22	111	0	133	0	0	0	0	0	37	**53**	90	**387**
Total Volume	433	1	107	541	112	479	0	591	0	0	0	0	0	170	180	350	1482
% App. Total	80	0.2	19.8		19	81	0		0	0	0		0	48.6	51.4		
PHF	.852	.250	.652	.825	.800	.900	.000	.879	.000	.000	.000	.000	.000	.773	.849	.875	.957

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Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:30 PM				04:00 PM				04:00 PM				
+0 mins.	86	**1**	20	107	**36**	123	0	159	0	0	0	0	0	**56**	51	**107**	
+15 mins.	97	0	23	120	35	116	0	151	0	0	0	0	0	45	**56**	101	
+30 mins.	**127**	0	23	150	31	124	0	155	0	0	0	0	0	48	46	94	
+45 mins.	123	0	**41**	**164**	35	**133**	0	**168**	0	0	0	0	0	38	41	79	
Total Volume	433	1	107	541	137	496	0	633	0	0	0	0	0	187	194	381	
% App. Total	80	0.2	19.8		21.6	78.4	0		0	0	0		0	49.1	50.9		
PHF	.852	.250	.652	.825	.951	.932	.000	.942	.000	.000	.000	.000	.000	.835	.866	.890	

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Groups Printed- Passenger Vehicles

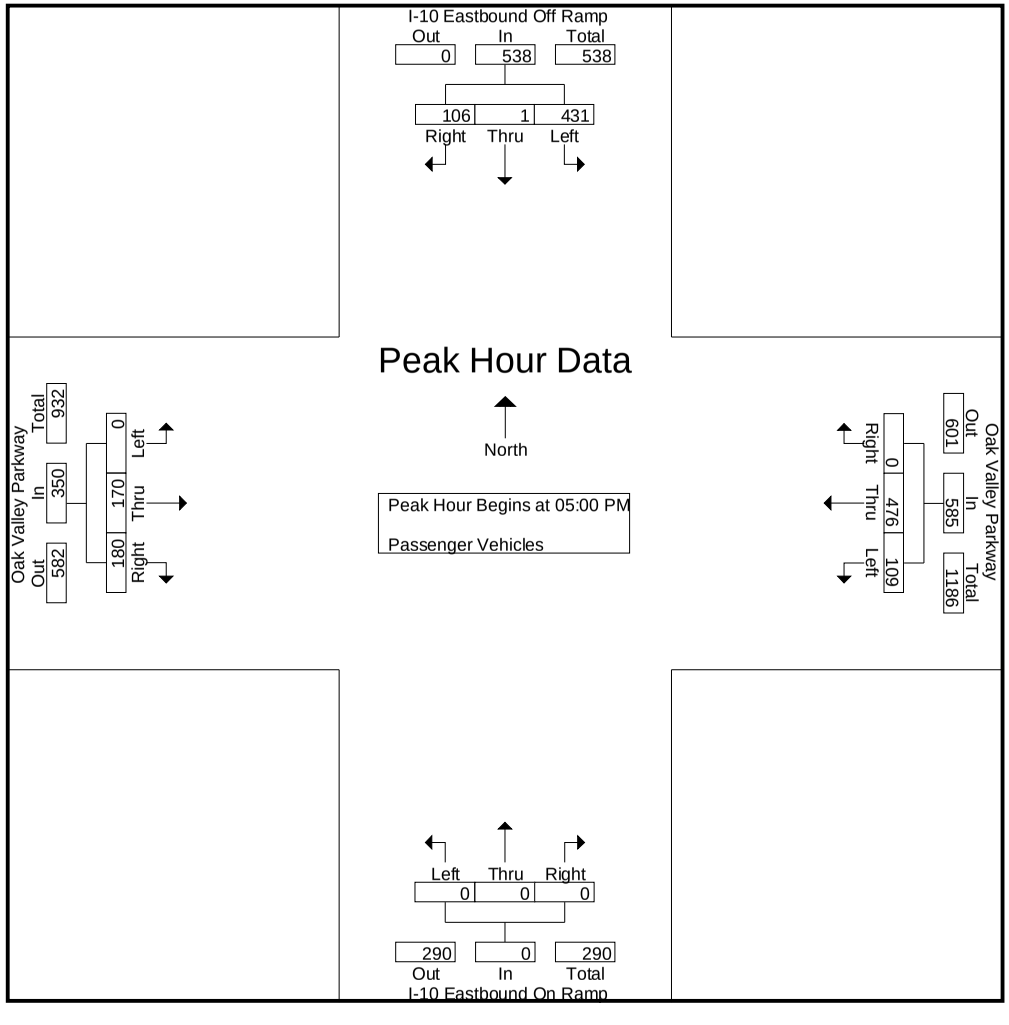
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04:00 PM	81	1	22	7	104	29	116	0	0	145	0	0	0	0	0	0	55	50	9	105	16	354	370
04:15 PM	69	1	14	8	84	33	118	0	0	151	0	0	0	0	0	0	43	55	9	98	17	333	350
04:30 PM	85	0	17	6	102	34	122	0	0	156	0	0	0	0	0	0	48	46	14	94	20	352	372
04:45 PM	72	0	25	9	97	35	114	0	0	149	0	0	0	0	0	0	38	41	7	79	16	325	341
Total	307	2	78	30	387	131	470	0	0	601	0	0	0	0	0	0	184	192	39	376	69	1364	1433
05:00 PM	86	1	20	11	107	31	124	0	0	155	0	0	0	0	0	0	55	45	7	100	18	362	380
05:15 PM	97	0	23	8	120	34	131	0	0	165	0	0	0	0	0	0	45	46	14	91	22	376	398
05:30 PM	126	0	23	7	149	24	110	0	0	134	0	0	0	0	0	0	33	36	12	69	19	352	371
05:45 PM	122	0	40	24	162	20	111	0	0	131	0	0	0	0	0	0	37	53	11	90	35	383	418
Total	431	1	106	50	538	109	476	0	0	585	0	0	0	0	0	0	170	180	44	350	94	1473	1567
Grand Total	738	3	184	80	925	240	946	0	0	1186	0	0	0	0	0	0	354	372	83	726	163	2837	3000
Apprch %	79.8	0.3	19.9			20.2	79.8	0			0	0	0			0	48.8	51.2					
Total %	26	0.1	6.5		32.6	8.5	33.3	0		41.8	0	0	0		0	0	12.5	13.1		25.6	5.4	94.6	

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	86	**1**	20	107	31	124	0	155	0	0	0	0	0	**55**	45	**100**	362
05:15 PM	97	0	23	120	**34**	**131**	0	**165**	0	0	0	0	0	45	46	91	376
05:30 PM	**126**	0	23	149	24	110	0	134	0	0	0	0	0	33	36	69	352
05:45 PM	122	0	**40**	**162**	20	111	0	131	0	0	0	0	0	37	**53**	90	**383**
Total Volume	431	1	106	538	109	476	0	585	0	0	0	0	0	170	180	350	1473
% App. Total	80.1	0.2	19.7		18.6	81.4	0		0	0	0		0	48.6	51.4		
PHF	.855	.250	.663	.830	.801	.908	.000	.886	.000	.000	.000	.000	.000	.773	.849	.875	.961

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	86	**1**	20	107	31	124	0	155	0	0	0	0	0	**55**	45	**100**	
+15 mins.	97	0	23	120	**34**	**131**	0	**165**	0	0	0	0	0	45	46	91	
+30 mins.	**126**	0	23	149	24	110	0	134	0	0	0	0	0	33	36	69	
+45 mins.	122	0	**40**	**162**	20	111	0	131	0	0	0	0	0	37	**53**	90	
Total Volume	431	1	106	538	109	476	0	585	0	0	0	0	0	170	180	350	
% App. Total	80.1	0.2	19.7		18.6	81.4	0		0	0	0		0	48.6	51.4		
PHF	.855	.250	.663	.830	.801	.908	.000	.886	.000	.000	.000	.000	.000	.773	.849	.875	

Counts Unlimited
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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

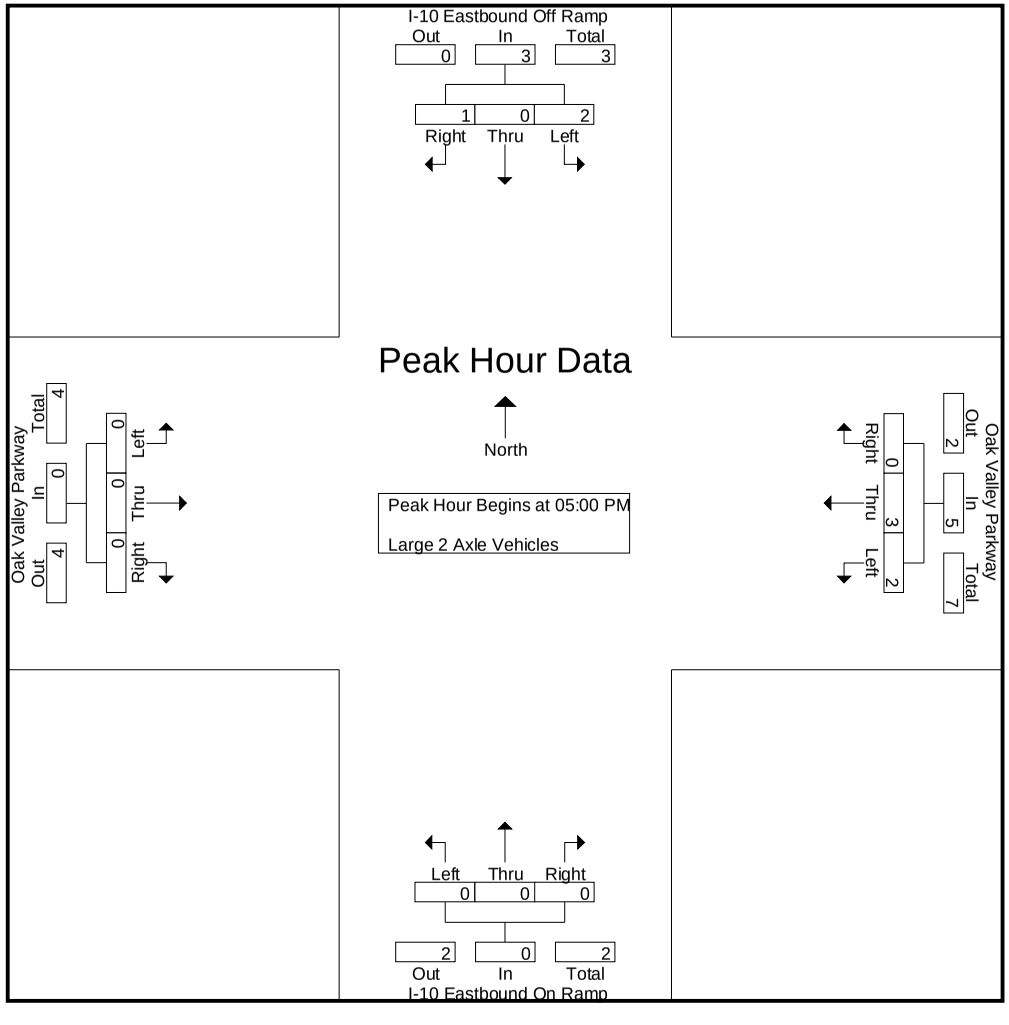
	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	1	1	1	2	1	4	5
04:15 PM	1	0	0	0	1	2	1	0	0	3	0	0	0	0	0	0	2	1	0	3	0	7	7
04:30 PM	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	3
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	1	0	0	0	1	5	5	0	0	10	0	0	0	0	0	0	3	2	1	5	1	16	17
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	3
05:30 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
05:45 PM	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3
Total	2	0	1	0	3	2	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	8	8
Grand Total	3	0	1	0	4	7	8	0	0	15	0	0	0	0	0	0	3	2	1	5	1	24	25
Apprch %	75	0	25			46.7	53.3	0			0	0	0			0	60	40					
Total %	12.5	0	4.2		16.7	29.2	33.3	0		62.5	0	0	0		0	0	12.5	8.3		20.8	4	96	

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	**1**	**2**	0	**3**	0	0	0	0	0	0	0	0	**3**
05:30 PM	**1**	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
05:45 PM	1	0	**1**	**2**	1	0	0	1	0	0	0	0	0	0	0	0	3
Total Volume	2	0	1	3	2	3	0	5	0	0	0	0	0	0	0	0	8
% App. Total	66.7	0	33.3		40	60	0		0	0	0		0	0	0		
PHF	.500	.000	.250	.375	.500	.375	.000	.417	.000	.000	.000	.000	.000	.000	.000	.000	.667

Counts Unlimited
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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	**1**	**2**	0	**3**	0	0	0	0	0	0	0	0	
+30 mins.	**1**	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	
+45 mins.	1	0	**1**	**2**	1	0	0	1	0	0	0	0	0	0	0	0	
Total Volume	2	0	1	3	2	3	0	5	0	0	0	0	0	0	0	0	
% App. Total	66.7	0	33.3		40	60	0		0	0	0		0	0	0		
PHF	.500	.000	.250	.375	.500	.375	.000	.417	.000	.000	.000	.000	.000	.000	.000	.000	

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Apprch %	0	0	0			0	100	0			0	0	0			0	0	0					
Total %	0	0	0		0	0	100	0		100	0	0	0		0	0	0	0		0	0	100	

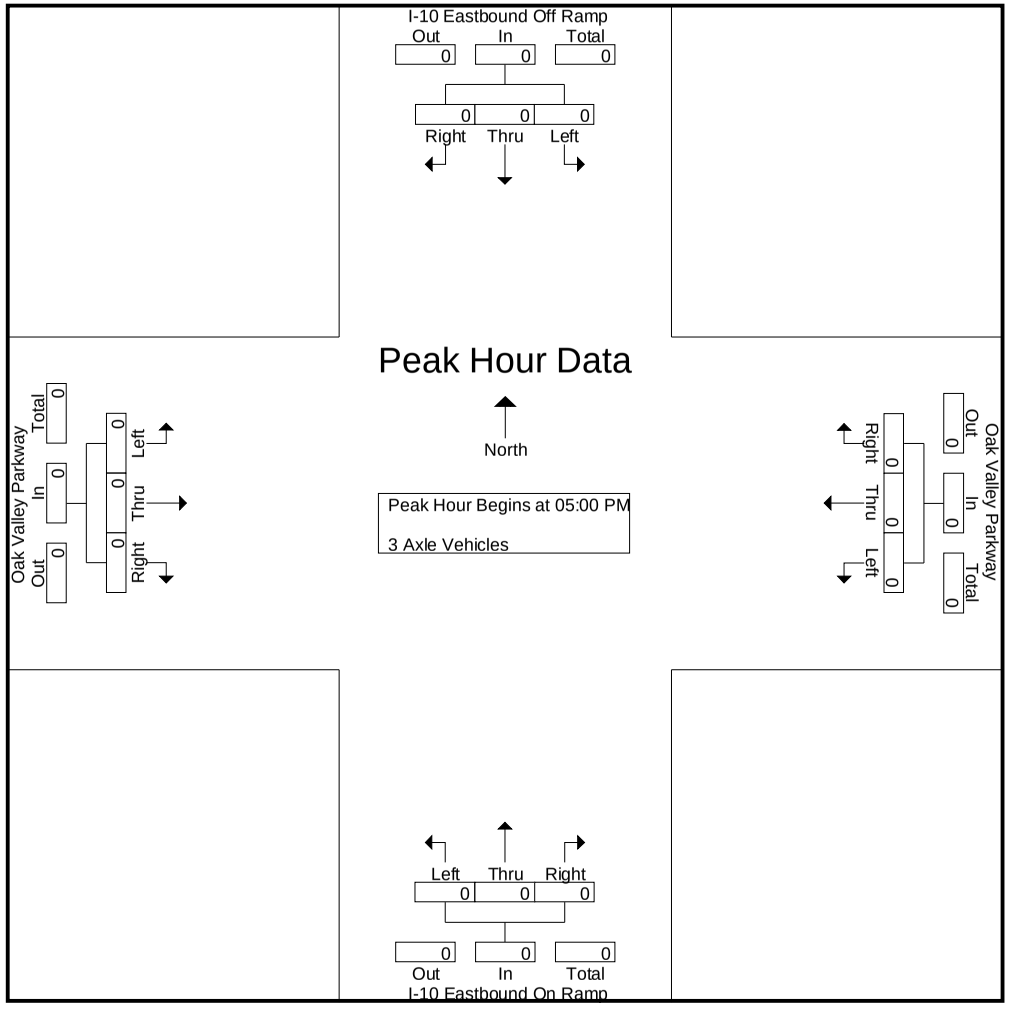
3.1-300

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

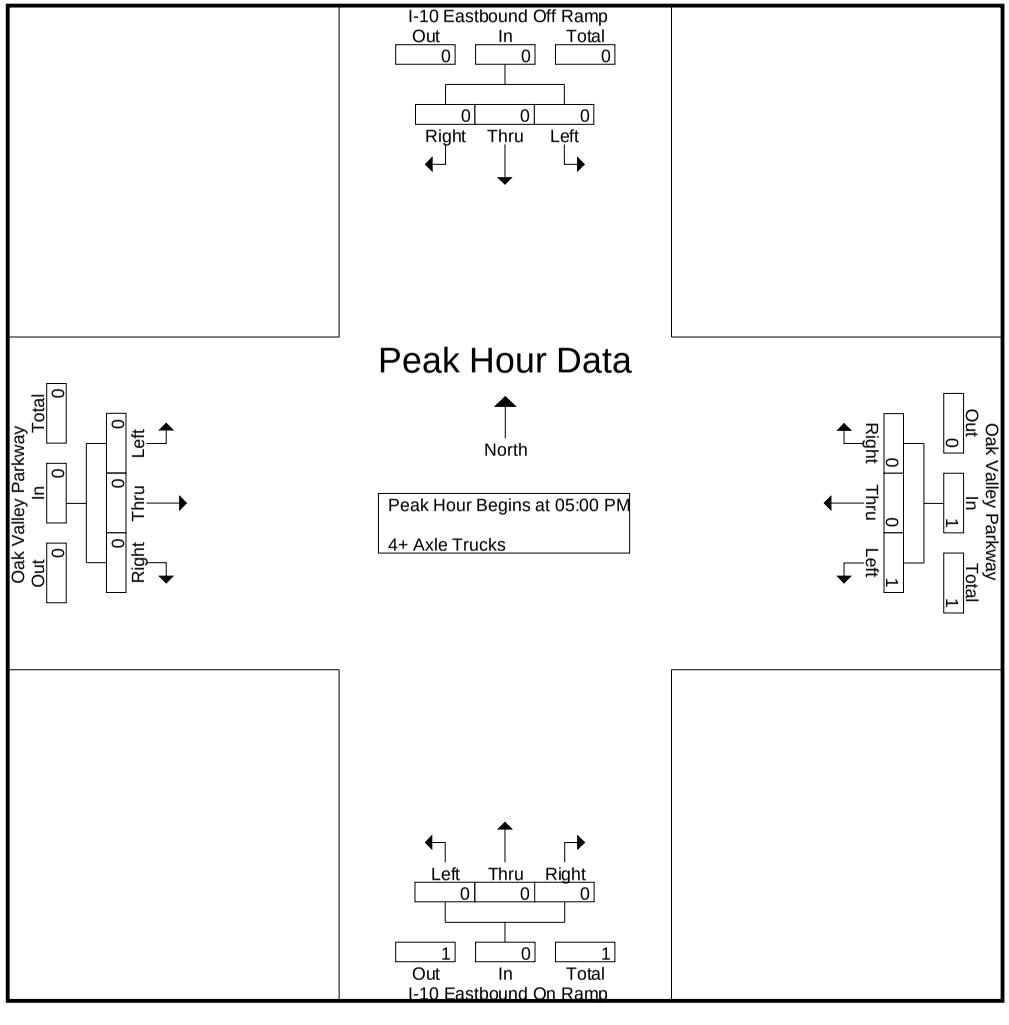
	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
Apprch %	100	0	0			100	0	0			0	0	0			0	0	0					
Total %	50	0	0		50	50	0	0		50	0	0	0		0	0	0	0		0	0	100	

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	**1**
Total Volume	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		100	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				05:00 PM				05:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	
% App. Total	0	0	0		100	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	

Location: Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg I-10 Eastbound Ramps	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	2	0	0	0	2
TOTAL VOLUMES:	2	0	0	0	2

	North Leg I-10 Eastbound Ramps	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound I-10 Eastbound Ramps			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

	Southbound I-10 Eastbound Ramps			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

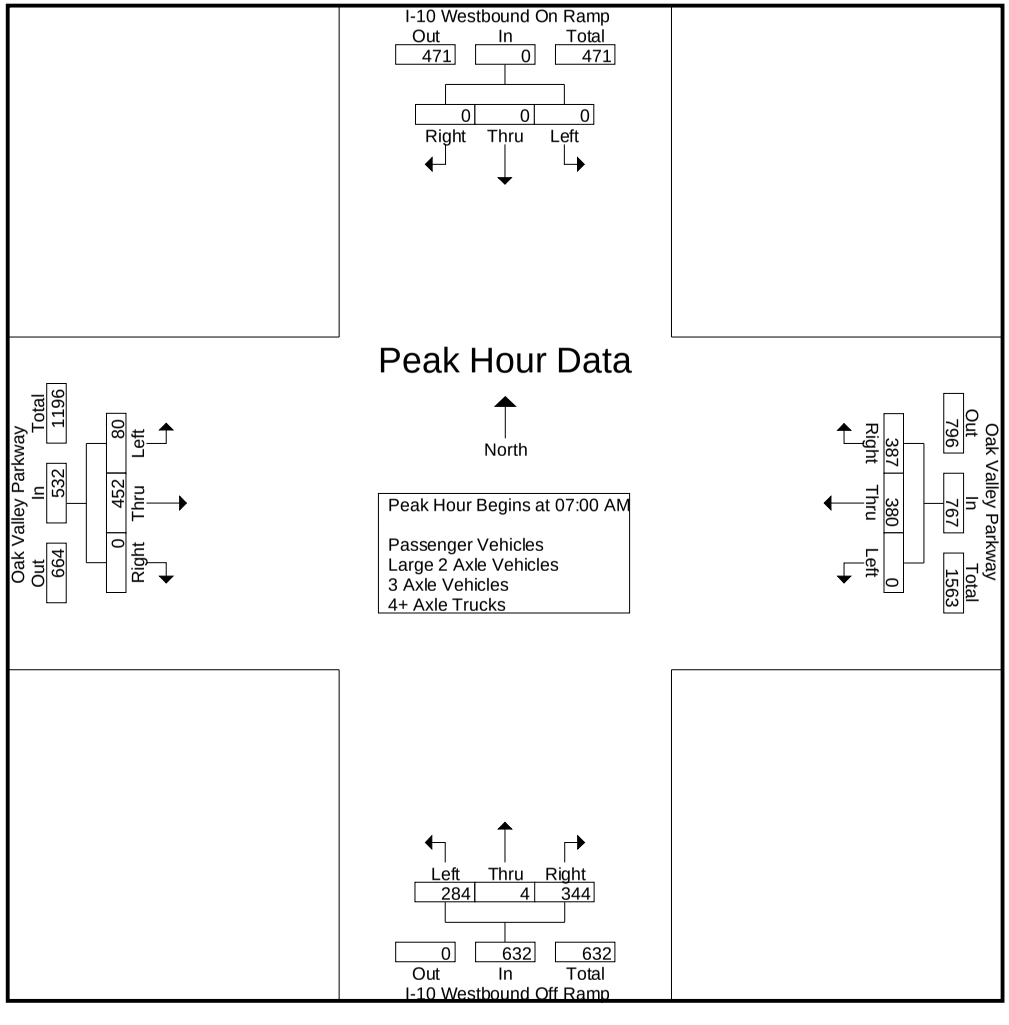
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	83	106	42	189	110	1	78	22	189	24	108	0	0	132	64	510	574
07:15 AM	0	0	0	0	0	0	90	89	36	179	98	1	136	47	235	22	104	0	0	126	83	540	623
07:30 AM	0	0	0	0	0	0	103	109	19	212	48	2	75	31	125	21	114	0	0	135	50	472	522
07:45 AM	0	0	0	0	0	0	104	83	17	187	28	0	55	20	83	13	126	0	0	139	37	409	446
Total	0	0	0	0	0	0	380	387	114	767	284	4	344	120	632	80	452	0	0	532	234	1931	2165
08:00 AM	0	0	0	0	0	0	98	94	26	192	32	0	44	20	76	23	68	0	0	91	46	359	405
08:15 AM	0	0	0	0	0	0	66	92	30	158	30	1	48	27	79	22	65	0	0	87	57	324	381
08:30 AM	0	0	0	0	0	0	86	108	37	194	39	0	51	18	90	20	55	0	0	75	55	359	414
08:45 AM	0	0	0	0	0	0	88	78	24	166	31	0	32	12	63	19	65	0	0	84	36	313	349
Total	0	0	0	0	0	0	338	372	117	710	132	1	175	77	308	84	253	0	0	337	194	1355	1549
Grand Total	0	0	0	0	0	0	718	759	231	1477	416	5	519	197	940	164	705	0	0	869	428	3286	3714
Apprch %	0	0	0			0	48.6	51.4			44.3	0.5	55.2			18.9	81.1	0					
Total %	0	0	0		0	0	21.9	23.1		44.9	12.7	0.2	15.8		28.6	5	21.5	0		26.4	11.5	88.5	
Passenger Vehicles	0	0	0		0	0	697	752		1677	394	5	503		1096	157	690	0		847	0	0	3620
% Passenger Vehicles	0	0	0	0	0	0	97.1	99.1	98.7	98.2	94.7	100	96.9	98.5	96.4	95.7	97.9	0	0	97.5	0	0	97.5
Large 2 Axle Vehicles	0	0	0		0	0	17	4		23	8	0	15		25	2	8	0		10	0	0	58
% Large 2 Axle Vehicles	0	0	0	0	0	0	2.4	0.5	0.9	1.3	1.9	0	2.9	1	2.2	1.2	1.1	0	0	1.2	0	0	1.6
3 Axle Vehicles	0	0	0		0	0	2	1		3	6	0	0		6	1	7	0		8	0	0	17
% 3 Axle Vehicles	0	0	0	0	0	0	0.3	0.1	0	0.2	1.4	0	0	0	0.5	0.6	1	0	0	0.9	0	0	0.5
4+ Axle Trucks	0	0	0		0	0	2	2		5	8	0	1		10	4	0	0		4	0	0	19
% 4+ Axle Trucks	0	0	0	0	0	0	0.3	0.3	0.4	0.3	1.9	0	0.2	0.5	0.9	2.4	0	0	0	0.5	0	0	0.5

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	83	106	189	**110**	1	78	189	**24**	108	0	132	510
07:15 AM	0	0	0	0	0	90	89	179	98	1	**136**	**235**	22	104	0	126	**540**
07:30 AM	0	0	0	0	0	103	**109**	**212**	48	**2**	75	125	21	114	0	135	472
07:45 AM	0	0	0	0	0	**104**	83	187	28	0	55	83	13	**126**	0	**139**	409
Total Volume	0	0	0	0	0	380	387	767	284	4	344	632	80	452	0	532	1931
% App. Total	0	0	0		0	49.5	50.5		44.9	0.6	54.4		15	85	0		
PHF	.000	.000	.000	.000	.000	.913	.888	.904	.645	.500	.632	.672	.833	.897	.000	.957	.894

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
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File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:15 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	90	89	179	**110**	1	78	189	**24**	108	0	132	
+15 mins.	0	0	0	0	0	103	**109**	**212**	98	1	**136**	**235**	22	104	0	126	
+30 mins.	0	0	0	0	0	**104**	83	187	48	**2**	75	125	21	114	0	135	
+45 mins.	0	0	0	0	0	98	94	192	28	0	55	83	13	**126**	0	**139**	
Total Volume	0	0	0	0	0	395	375	770	284	4	344	632	80	452	0	532	
% App. Total	0	0	0		0	51.3	48.7		44.9	0.6	54.4		15	85	0		
PHF	.000	.000	.000	.000	.000	.950	.860	.908	.645	.500	.632	.672	.833	.897	.000	.957	

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City of Beaumont
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Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- Passenger Vehicles

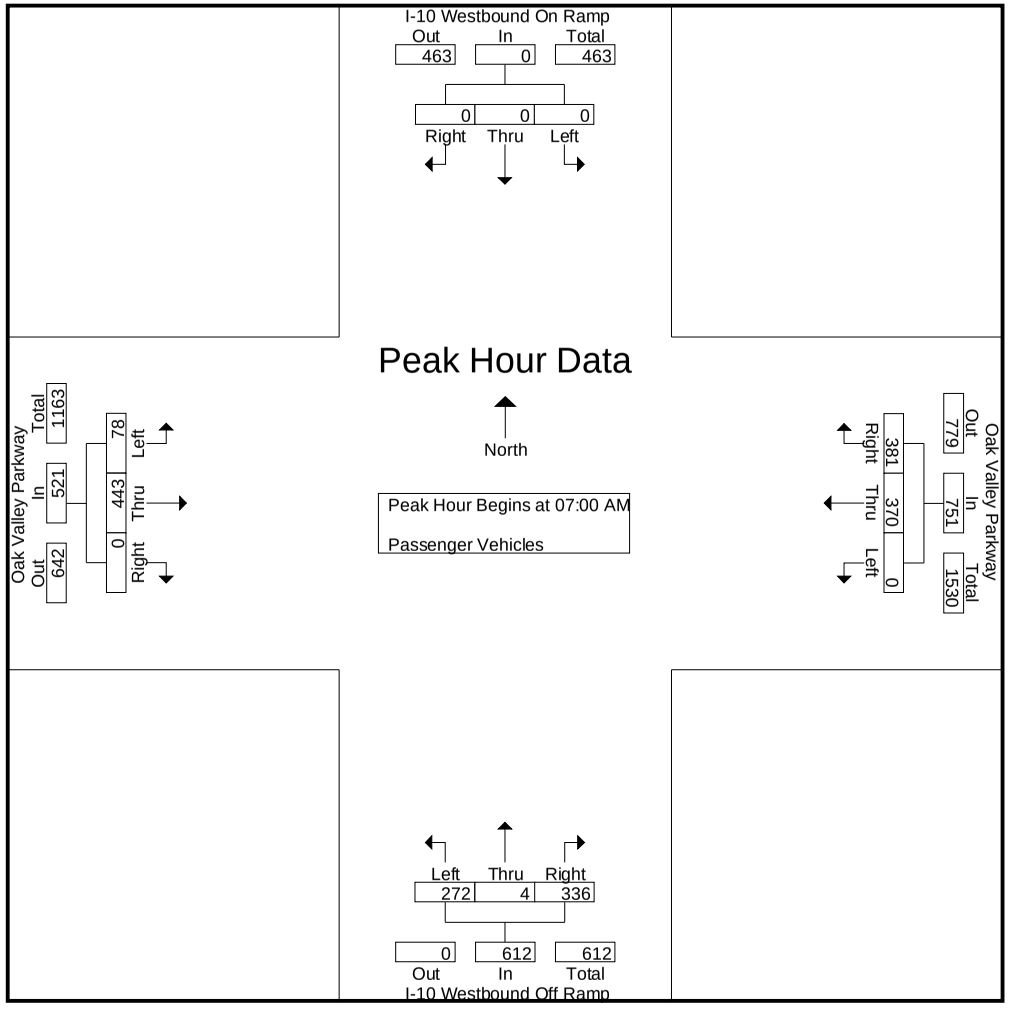
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	81	105	41	186	106	1	76	22	183	24	106	0	0	130	63	499	562
07:15 AM	0	0	0	0	0	0	86	86	36	172	94	1	133	45	228	21	102	0	0	123	81	523	604
07:30 AM	0	0	0	0	0	0	102	109	19	211	46	2	75	31	123	20	112	0	0	132	50	466	516
07:45 AM	0	0	0	0	0	0	101	81	16	182	26	0	52	20	78	13	123	0	0	136	36	396	432
Total	0	0	0	0	0	0	370	381	112	751	272	4	336	118	612	78	443	0	0	521	230	1884	2114
08:00 AM	0	0	0	0	0	0	93	94	26	187	30	0	44	20	74	21	68	0	0	89	46	350	396
08:15 AM	0	0	0	0	0	0	65	92	30	157	28	1	44	26	73	22	63	0	0	85	56	315	371
08:30 AM	0	0	0	0	0	0	83	107	36	190	35	0	49	18	84	20	53	0	0	73	54	347	401
08:45 AM	0	0	0	0	0	0	86	78	24	164	29	0	30	12	59	16	63	0	0	79	36	302	338
Total	0	0	0	0	0	0	327	371	116	698	122	1	167	76	290	79	247	0	0	326	192	1314	1506
Grand Total	0	0	0	0	0	0	697	752	228	1449	394	5	503	194	902	157	690	0	0	847	422	3198	3620
Apprch %	0	0	0			0	48.1	51.9			43.7	0.6	55.8			18.5	81.5	0					
Total %	0	0	0		0	0	21.8	23.5		45.3	12.3	0.2	15.7		28.2	4.9	21.6	0		26.5	11.7	88.3	

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	81	105	186	**106**	1	76	183	**24**	106	0	130	499
07:15 AM	0	0	0	0	0	86	86	172	94	1	**133**	**228**	21	102	0	123	**523**
07:30 AM	0	0	0	0	0	**102**	**109**	**211**	46	**2**	75	123	20	112	0	132	466
07:45 AM	0	0	0	0	0	101	81	182	26	0	52	78	13	**123**	0	**136**	396
Total Volume	0	0	0	0	0	370	381	751	272	4	336	612	78	443	0	521	1884
% App. Total	0	0	0		0	49.3	50.7		44.4	0.7	54.9		15	85	0		
PHF	.000	.000	.000	.000	.000	.907	.874	.890	.642	.500	.632	.671	.813	.900	.000	.958	.901

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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City of Beaumont
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File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	81	105	186	**106**	1	76	183	**24**	106	0	130	
+15 mins.	0	0	0	0	0	86	86	172	94	1	**133**	**228**	21	102	0	123	
+30 mins.	0	0	0	0	0	**102**	**109**	**211**	46	**2**	75	123	20	112	0	132	
+45 mins.	0	0	0	0	0	101	81	182	26	0	52	78	13	**123**	0	**136**	
Total Volume	0	0	0	0	0	370	381	751	272	4	336	612	78	443	0	521	
% App. Total	0	0	0		0	49.3	50.7		44.4	0.7	54.9		15	85	0		
PHF	.000	.000	.000	.000	.000	.907	.874	.890	.642	.500	.632	.671	.813	.900	.000	.958	

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City of Beaumont
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File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
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Page No : 1

Groups Printed- Large 2 Axle Vehicles

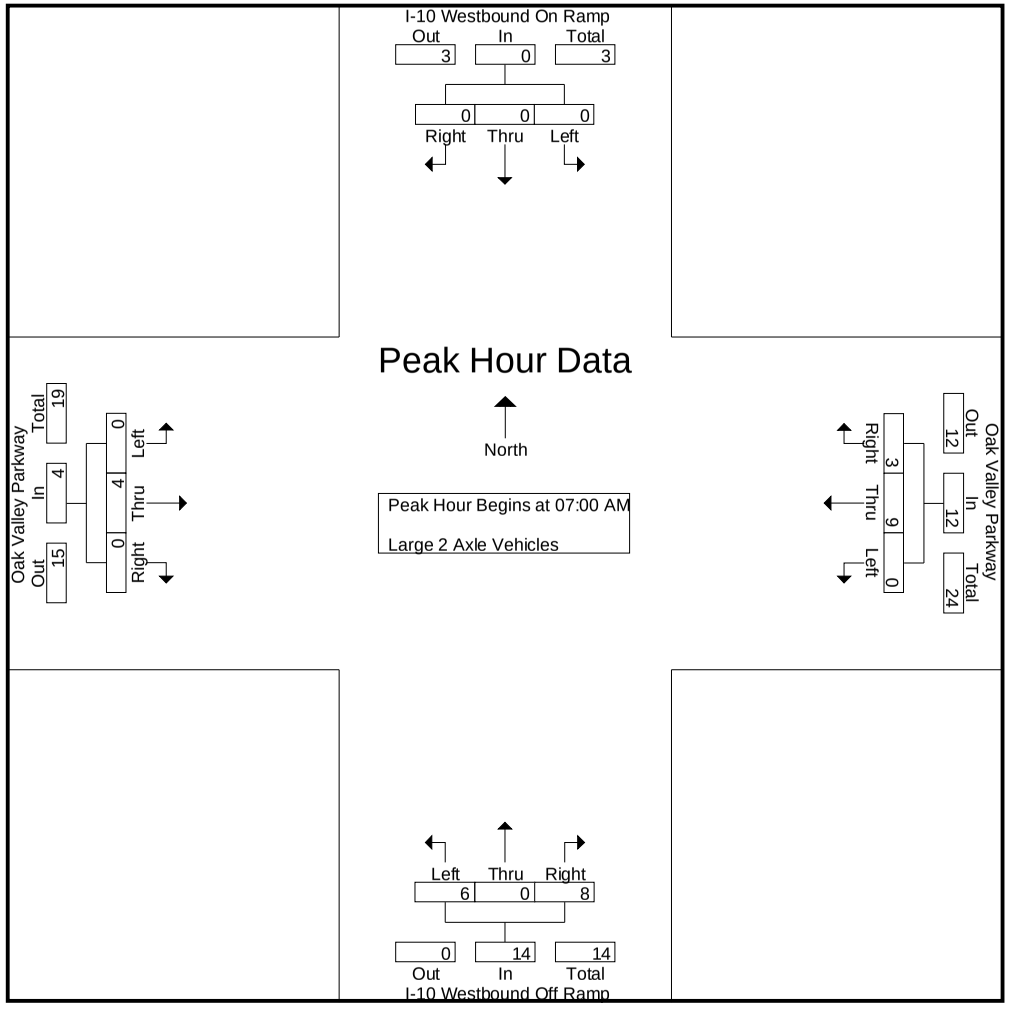
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	2	1	1	3	2	0	2	0	4	0	0	0	0	0	1	7	8
07:15 AM	0	0	0	0	0	0	3	1	0	4	2	0	3	2	5	0	2	0	0	2	2	11	13
07:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	0	4	4
07:45 AM	0	0	0	0	0	0	3	1	0	4	1	0	3	0	4	0	0	0	0	0	0	8	8
Total	0	0	0	0	0	0	9	3	1	12	6	0	8	2	14	0	4	0	0	4	3	30	33
08:00 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	0	0	0	0	0	4	4
08:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	3	0	3	0	1	0	0	1	0	5	5
08:30 AM	0	0	0	0	0	0	2	1	1	3	1	0	2	0	3	0	2	0	0	2	1	8	9
08:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	2	1	0	0	3	0	7	7
Total	0	0	0	0	0	0	8	1	1	9	2	0	7	0	9	2	4	0	0	6	1	24	25
Grand Total	0	0	0	0	0	0	17	4	2	21	8	0	15	2	23	2	8	0	0	10	4	54	58
Apprch %	0	0	0			0	81	19			34.8	0	65.2			20	80	0					
Total %	0	0	0		0	0	31.5	7.4		38.9	14.8	0	27.8		42.6	3.7	14.8	0		18.5	6.9	93.1	

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	**1**	3	**2**	0	2	4	0	0	0	0	7
07:15 AM	0	0	0	0	0	**3**	1	**4**	2	0	**3**	**5**	0	**2**	0	**2**	**11**
07:30 AM	0	0	0	0	0	1	0	1	1	0	0	1	0	2	0	2	4
07:45 AM	0	0	0	0	0	3	1	4	1	0	3	4	0	0	0	0	8
Total Volume	0	0	0	0	0	9	3	12	6	0	8	14	0	4	0	4	30
% App. Total	0	0	0		0	75	25		42.9	0	57.1		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.750	.750	.750	.000	.667	.700	.000	.500	.000	.500	.682

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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City of Beaumont
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File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	2	**1**	3	**2**	0	2	4	0	0	0	0	
+15 mins.	0	0	0	0	0	**3**	1	**4**	2	0	**3**	**5**	0	**2**	0	**2**	
+30 mins.	0	0	0	0	0	1	0	1	1	0	0	1	0	2	0	2	
+45 mins.	0	0	0	0	0	3	1	4	1	0	3	4	0	0	0	0	
Total Volume	0	0	0	0	0	9	3	12	6	0	8	14	0	4	0	4	
% App. Total	0	0	0		0	75	25		42.9	0	57.1		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.750	.750	.750	.000	.667	.700	.000	.500	.000	.500	

Counts Unlimited
PO Box 1178
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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

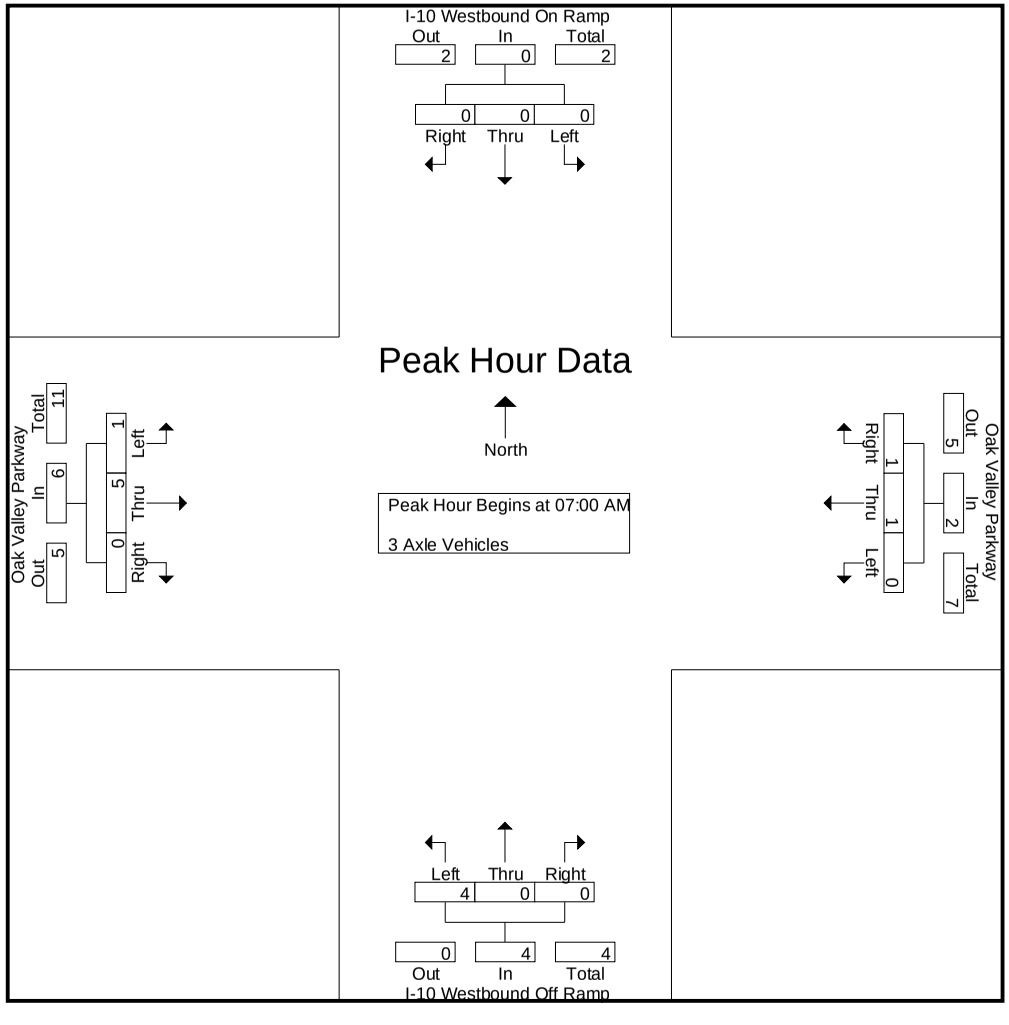
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
07:15 AM	0	0	0	0	0	0	1	1	0	2	2	0	0	0	2	1	0	0	0	1	0	5	5
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	0	4	4
Total	0	0	0	0	0	0	1	1	0	2	4	0	0	0	4	1	5	0	0	6	0	12	12
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	2	0	0	2	0	5	5
Grand Total	0	0	0	0	0	0	2	1	0	3	6	0	0	0	6	1	7	0	0	8	0	17	17
Apprch %	0	0	0			0	66.7	33.3			100	0	0			12.5	87.5	0					
Total %	0	0	0		0	0	11.8	5.9		17.6	35.3	0	0		35.3	5.9	41.2	0		47.1	0	100	

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
07:15 AM	0	0	0	0	0	**1**	**1**	**2**	**2**	0	0	**2**	**1**	0	0	1	**5**
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	**3**	0	**3**	4
Total Volume	0	0	0	0	0	1	1	2	4	0	0	4	1	5	0	6	12
% App. Total	0	0	0		0	50	50		100	0	0		16.7	83.3	0		
PHF	.000	.000	.000	.000	.000	.250	.250	.250	.500	.000	.000	.500	.250	.417	.000	.500	.600

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Westbound Ramps
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File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	
+15 mins.	0	0	0	0	0	**1**	**1**	**2**	**2**	0	0	**2**	**1**	0	0	1	
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	**3**	0	**3**	
Total Volume	0	0	0	0	0	1	1	2	4	0	0	4	1	5	0	6	
% App. Total	0	0	0		0	50	50		100	0	0		16.7	83.3	0		
PHF	.000	.000	.000	.000	.000	.250	.250	.250	.500	.000	.000	.500	.250	.417	.000	.500	

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
07:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Total	0	0	0	0	0	0	0	2	1	2	2	0	0	0	2	1	0	0	0	1	1	5	6
08:00 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2	0	0	0	2	0	4	4
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	1	1	3	0	0	0	0	0	1	3	4
08:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	0	3	3
Total	0	0	0	0	0	0	2	0	0	2	6	0	1	1	7	3	0	0	0	3	1	12	13
Grand Total	0	0	0	0	0	0	2	2	1	4	8	0	1	1	9	4	0	0	0	4	2	17	19
Apprch %	0	0	0			0	50	50			88.9	0	11.1			100	0	0					
Total %	0	0	0		0	0	11.8	11.8		23.5	47.1	0	5.9		52.9	23.5	0	0		23.5	10.5	89.5	

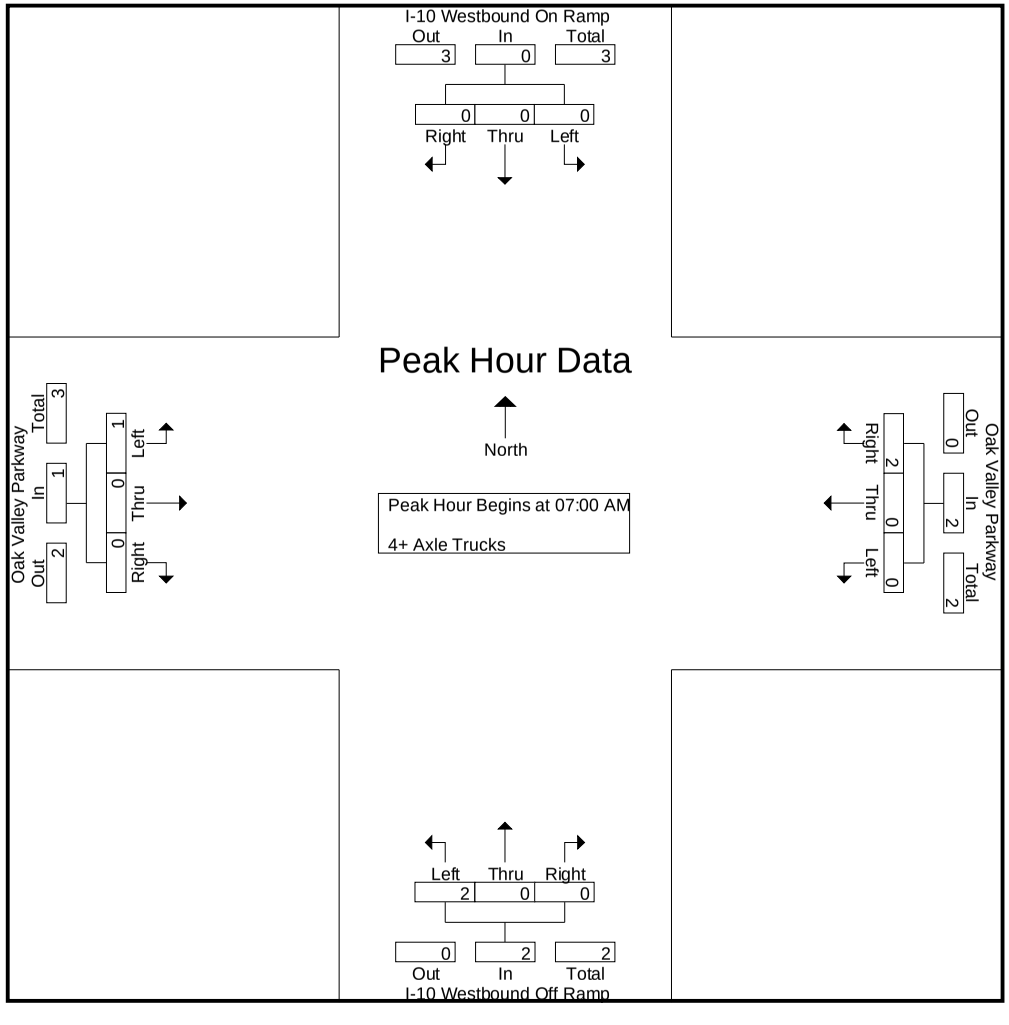
3.1-320

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	0	0	**2**
07:15 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	1
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	2	2	2	0	0	2	1	0	0	1	5
% App. Total	0	0	0		0	0	100		100	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.250	.000	.000	.250	.250	.000	.000	.250	.625

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Westbound Ramps
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Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	0	0	
+15 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	**1**	
+45 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	2	2	2	0	0	2	1	0	0	1	
% App. Total	0	0	0		0	0	100		100	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.250	.000	.000	.250	.250	.000	.000	.250	

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

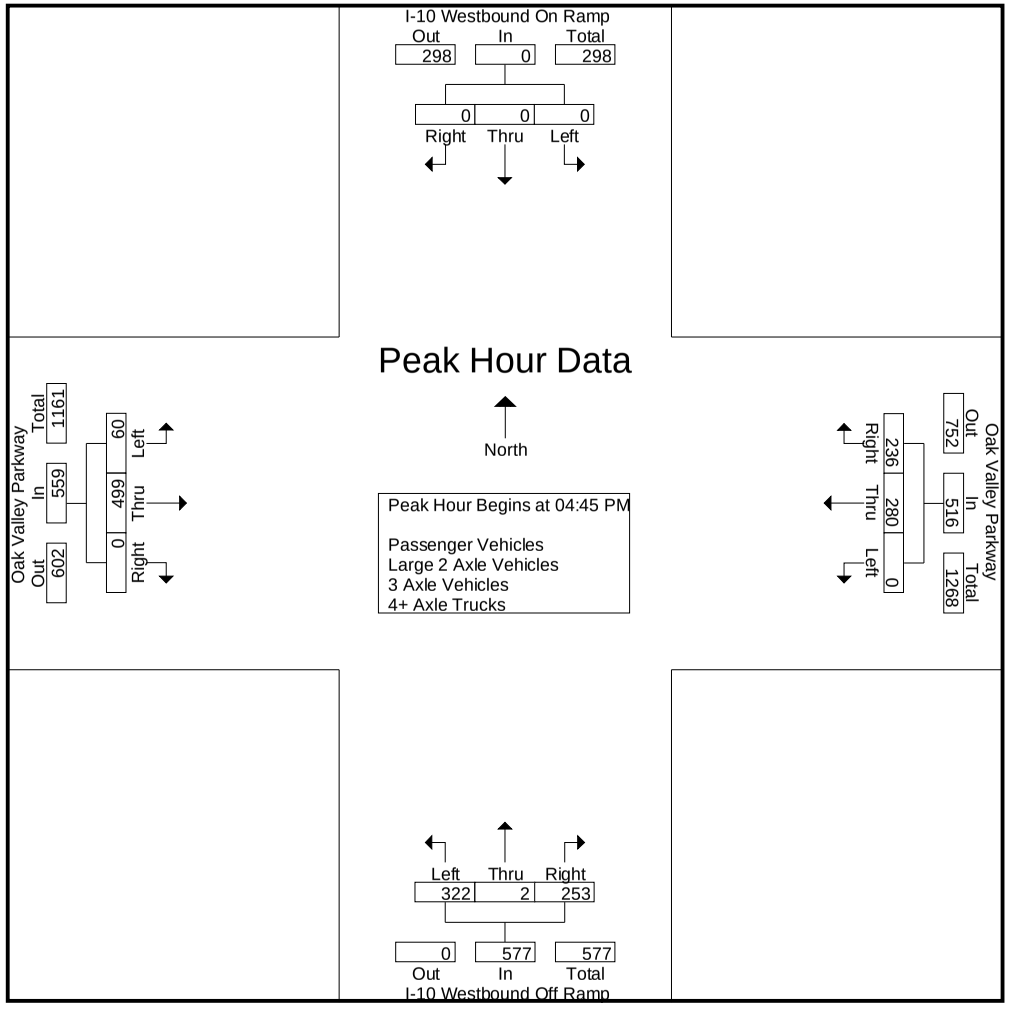
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	69	79	29	148	77	1	50	15	128	21	112	0	0	133	44	409	453
04:15 PM	0	0	0	0	0	0	62	57	23	119	94	0	64	16	158	17	107	0	0	124	39	401	440
04:30 PM	0	0	0	0	0	0	76	70	30	146	77	0	57	22	134	17	111	0	0	128	52	408	460
04:45 PM	0	0	0	0	0	0	77	59	20	136	75	0	62	15	137	14	101	0	0	115	35	388	423
Total	0	0	0	0	0	0	284	265	102	549	323	1	233	68	557	69	431	0	0	500	170	1606	1776
05:00 PM	0	0	0	0	0	0	70	64	21	134	81	0	60	11	141	21	118	0	0	139	32	414	446
05:15 PM	0	0	0	0	0	0	68	61	10	129	99	1	57	16	157	9	133	0	0	142	26	428	454
05:30 PM	0	0	0	0	0	0	65	52	17	117	67	1	74	8	142	16	147	0	0	163	25	422	447
05:45 PM	0	0	0	0	0	0	67	48	19	115	58	0	46	3	104	12	145	0	0	157	22	376	398
Total	0	0	0	0	0	0	270	225	67	495	305	2	237	38	544	58	543	0	0	601	105	1640	1745
Grand Total	0	0	0	0	0	0	554	490	169	1044	628	3	470	106	1101	127	974	0	0	1101	275	3246	3521
Apprch %	0	0	0			0	53.1	46.9			57	0.3	42.7			11.5	88.5	0					
Total %	0	0	0		0	0	17.1	15.1		32.2	19.3	0.1	14.5		33.9	3.9	30	0		33.9	7.8	92.2	
Passenger Vehicles	0	0	0		0	0	538	486		1193	614	2	463		1184	124	961	0		1085	0	0	3462
% Passenger Vehicles	0	0	0	0	0	0	97.1	99.2	100	98.4	97.8	66.7	98.5	99.1	98.1	97.6	98.7	0	0	98.5	0	0	98.3
Large 2 Axle Vehicles	0	0	0		0	0	16	4		20	12	0	7		20	3	12	0		15	0	0	55
% Large 2 Axle Vehicles	0	0	0	0	0	0	2.9	0.8	0	1.6	1.9	0	1.5	0.9	1.7	2.4	1.2	0	0	1.4	0	0	1.6
3 Axle Vehicles	0	0	0		0	0	0	0		0	1	0	0		1	0	0	0		0	0	0	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0	0.1	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0		0	0	0	0		0	1	1	0		2	0	1	0		1	0	0	3
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0.2	33.3	0	0	0.2	0	0.1	0	0	0.1	0	0	0.1

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	**77**	59	**136**	75	0	62	137	14	101	0	115	388
05:00 PM	0	0	0	0	0	70	**64**	134	81	0	60	141	**21**	118	0	139	414
05:15 PM	0	0	0	0	0	68	61	129	**99**	**1**	57	**157**	9	133	0	142	**428**
05:30 PM	0	0	0	0	0	65	52	117	67	1	**74**	142	16	**147**	0	**163**	422
Total Volume	0	0	0	0	0	280	236	516	322	2	253	577	60	499	0	559	1652
% App. Total	0	0	0		0	54.3	45.7		55.8	0.3	43.8		10.7	89.3	0		
PHF	.000	.000	.000	.000	.000	.909	.922	.949	.813	.500	.855	.919	.714	.849	.000	.857	.965

Counts Unlimited
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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
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File Name : 09_BMT_10W_Oak Valley PM
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Start Date : 11/19/2019

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:45 PM				05:00 PM				
+0 mins.	0	0	0	0	0	69	**79**	**148**	75	0	62	137	**21**	118	0	139	
+15 mins.	0	0	0	0	0	62	57	119	81	0	60	141	9	133	0	142	
+30 mins.	0	0	0	0	0	76	70	146	**99**	**1**	57	**157**	16	**147**	0	**163**	
+45 mins.	0	0	0	0	0	**77**	59	136	67	1	**74**	142	12	145	0	157	
Total Volume	0	0	0	0	0	284	265	549	322	2	253	577	58	543	0	601	
% App. Total	0	0	0		0	51.7	48.3		55.8	0.3	43.8		9.7	90.3	0		
PHF	.000	.000	.000	.000	.000	.922	.839	.927	.813	.500	.855	.919	.690	.923	.000	.922	

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019

Groups Printed- Passenger Vehicles

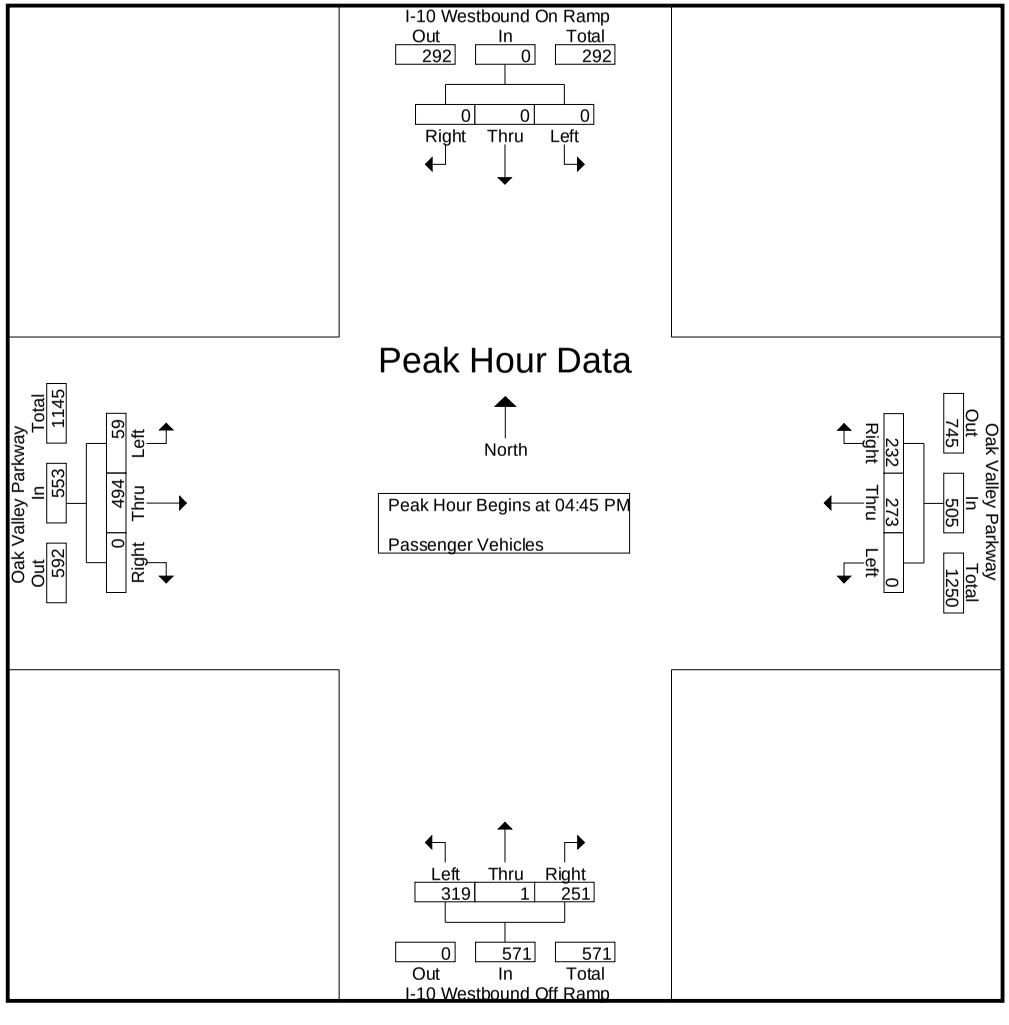
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	67	79	29	146	74	1	49	15	124	20	111	0	0	131	44	401	445
04:15 PM	0	0	0	0	0	0	60	57	23	117	88	0	64	16	152	16	102	0	0	118	39	387	426
04:30 PM	0	0	0	0	0	0	73	70	30	143	76	0	55	21	131	17	111	0	0	128	51	402	453
04:45 PM	0	0	0	0	0	0	75	58	20	133	74	0	61	15	135	13	99	0	0	112	35	380	415
Total	0	0	0	0	0	0	275	264	102	539	312	1	229	67	542	66	423	0	0	489	169	1570	1739
05:00 PM	0	0	0	0	0	0	69	63	21	132	81	0	59	11	140	21	117	0	0	138	32	410	442
05:15 PM	0	0	0	0	0	0	66	59	10	125	97	1	57	16	155	9	132	0	0	141	26	421	447
05:30 PM	0	0	0	0	0	0	63	52	17	115	67	0	74	8	141	16	146	0	0	162	25	418	443
05:45 PM	0	0	0	0	0	0	65	48	19	113	57	0	44	3	101	12	143	0	0	155	22	369	391
Total	0	0	0	0	0	0	263	222	67	485	302	1	234	38	537	58	538	0	0	596	105	1618	1723
Grand Total	0	0	0	0	0	0	538	486	169	1024	614	2	463	105	1079	124	961	0	0	1085	274	3188	3462
Apprch %	0	0	0			0	52.5	47.5			56.9	0.2	42.9			11.4	88.6	0					
Total %	0	0	0		0	0	16.9	15.2		32.1	19.3	0.1	14.5		33.8	3.9	30.1	0		34	7.9	92.1	

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	**75**	58	**133**	74	0	61	135	13	99	0	112	380
05:00 PM	0	0	0	0	0	69	**63**	132	81	0	59	140	**21**	117	0	138	410
05:15 PM	0	0	0	0	0	66	59	125	**97**	**1**	57	**155**	9	132	0	141	**421**
05:30 PM	0	0	0	0	0	63	52	115	67	0	**74**	141	16	**146**	0	**162**	418
Total Volume	0	0	0	0	0	273	232	505	319	1	251	571	59	494	0	553	1629
% App. Total	0	0	0		0	54.1	45.9		55.9	0.2	44		10.7	89.3	0		
PHF	.000	.000	.000	.000	.000	.910	.921	.949	.822	.250	.848	.921	.702	.846	.000	.853	.967

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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(951) 268-6268

City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	**75**	58	**133**	74	0	61	135	13	99	0	112	
+15 mins.	0	0	0	0	0	69	**63**	132	81	0	59	140	**21**	117	0	138	
+30 mins.	0	0	0	0	0	66	59	125	**97**	**1**	57	**155**	9	132	0	141	
+45 mins.	0	0	0	0	0	63	52	115	67	0	**74**	141	16	**146**	0	**162**	
Total Volume	0	0	0	0	0	273	232	505	319	1	251	571	59	494	0	553	
% App. Total	0	0	0		0	54.1	45.9		55.9	0.2	44		10.7	89.3	0		
PHF	.000	.000	.000	.000	.000	.910	.921	.949	.822	.250	.848	.921	.702	.846	.000	.853	

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019

Groups Printed- Large 2 Axle Vehicles

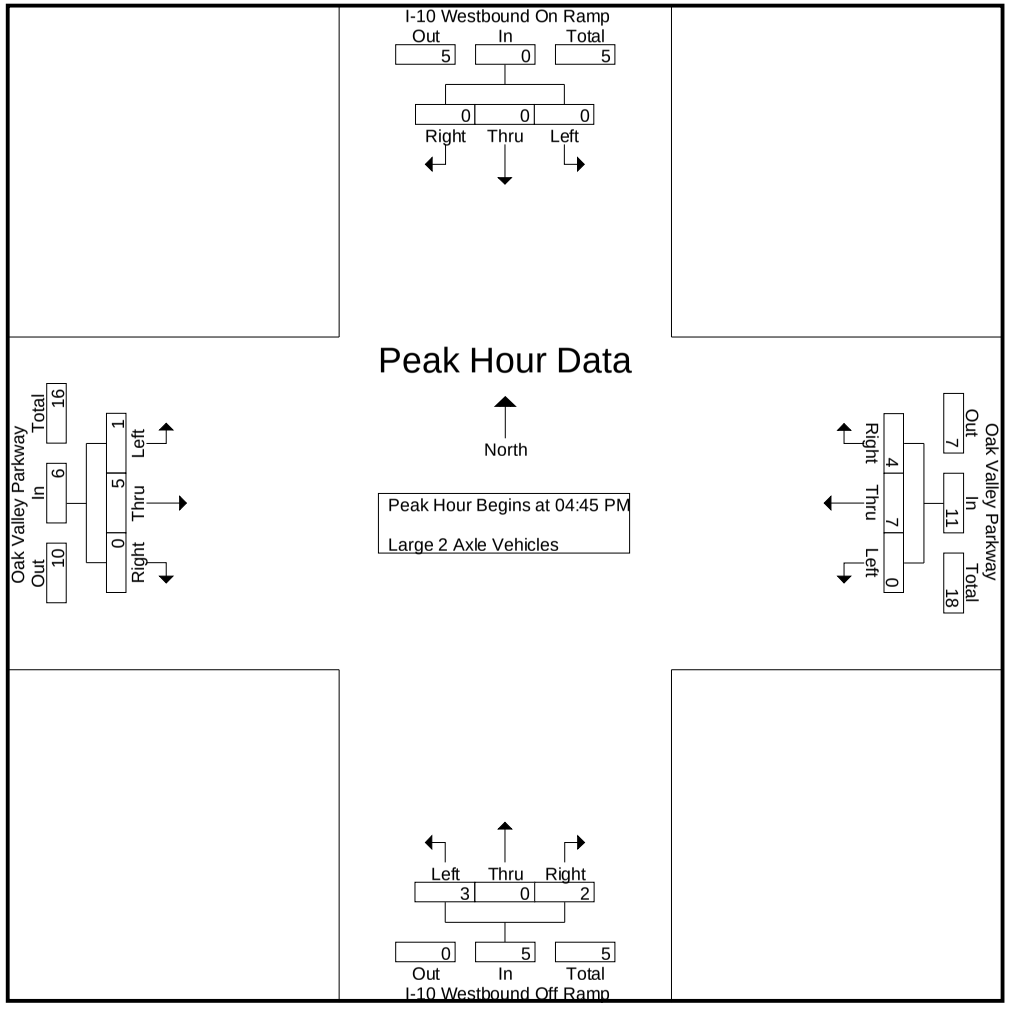
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	2	0	0	2	3	0	1	0	4	1	1	0	0	2	0	8	8
04:15 PM	0	0	0	0	0	0	2	0	0	2	5	0	0	0	5	1	4	0	0	5	0	12	12
04:30 PM	0	0	0	0	0	0	3	0	0	3	1	0	2	1	3	0	0	0	0	0	1	6	7
04:45 PM	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	1	2	0	0	3	0	8	8
Total	0	0	0	0	0	0	9	1	0	10	10	0	4	1	14	3	7	0	0	10	1	34	35
05:00 PM	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	0	1	0	0	1	0	4	4
05:15 PM	0	0	0	0	0	0	2	2	0	4	2	0	0	0	2	0	1	0	0	1	0	7	7
05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
05:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	2	0	0	2	0	6	6
Total	0	0	0	0	0	0	7	3	0	10	2	0	3	0	5	0	5	0	0	5	0	20	20
Grand Total	0	0	0	0	0	0	16	4	0	20	12	0	7	1	19	3	12	0	0	15	1	54	55
Apprch %	0	0	0			0	80	20			63.2	0	36.8			20	80	0					
Total %	0	0	0		0	0	29.6	7.4		37	22.2	0	13		35.2	5.6	22.2	0		27.8	1.8	98.2	

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	**2**	1	3	1	0	**1**	**2**	**1**	**2**	0	**3**	**8**
05:00 PM	0	0	0	0	0	1	1	2	0	0	1	1	0	1	0	1	4
05:15 PM	0	0	0	0	0	2	**2**	**4**	**2**	0	0	2	0	1	0	1	7
05:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
Total Volume	0	0	0	0	0	7	4	11	3	0	2	5	1	5	0	6	22
% App. Total	0	0	0		0	63.6	36.4		60	0	40		16.7	83.3	0		
PHF	.000	.000	.000	.000	.000	.875	.500	.688	.375	.000	.500	.625	.250	.625	.000	.500	.688

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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(951) 268-6268

City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	**2**	1	3	1	0	**1**	**2**	**1**	**2**	0	**3**	
+15 mins.	0	0	0	0	0	1	1	2	0	0	1	1	0	1	0	1	
+30 mins.	0	0	0	0	0	2	**2**	**4**	**2**	0	0	2	0	1	0	1	
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	
Total Volume	0	0	0	0	0	7	4	11	3	0	2	5	1	5	0	6	
% App. Total	0	0	0		0	63.6	36.4		60	0	40		16.7	83.3	0		
PHF	.000	.000	.000	.000	.000	.875	.500	.688	.375	.000	.500	.625	.250	.625	.000	.500	

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

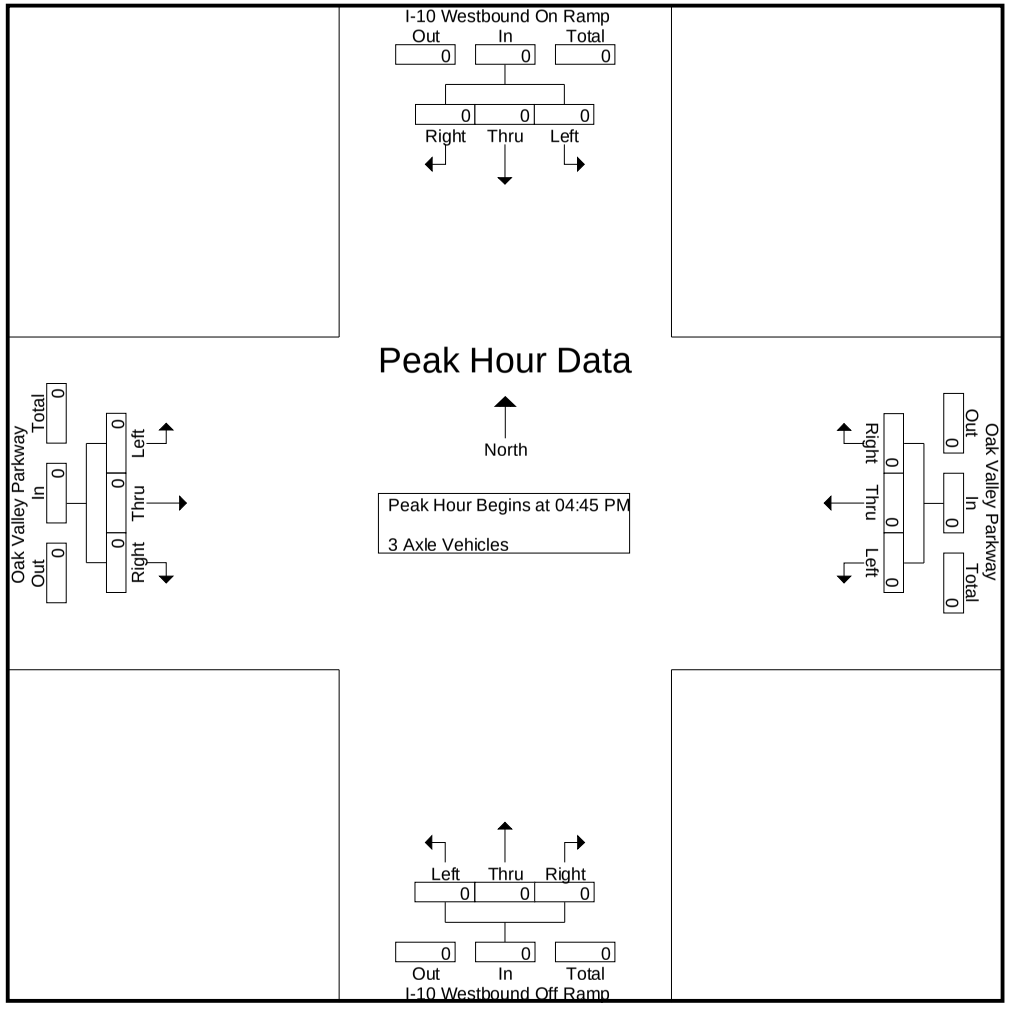
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
Apprch %	0	0	0			0	0	0			100	0	0			0	0	0					
Total %	0	0	0		0	0	0	0		0	100	0	0		100	0	0	0		0	0	100	

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Counts Unlimited
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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

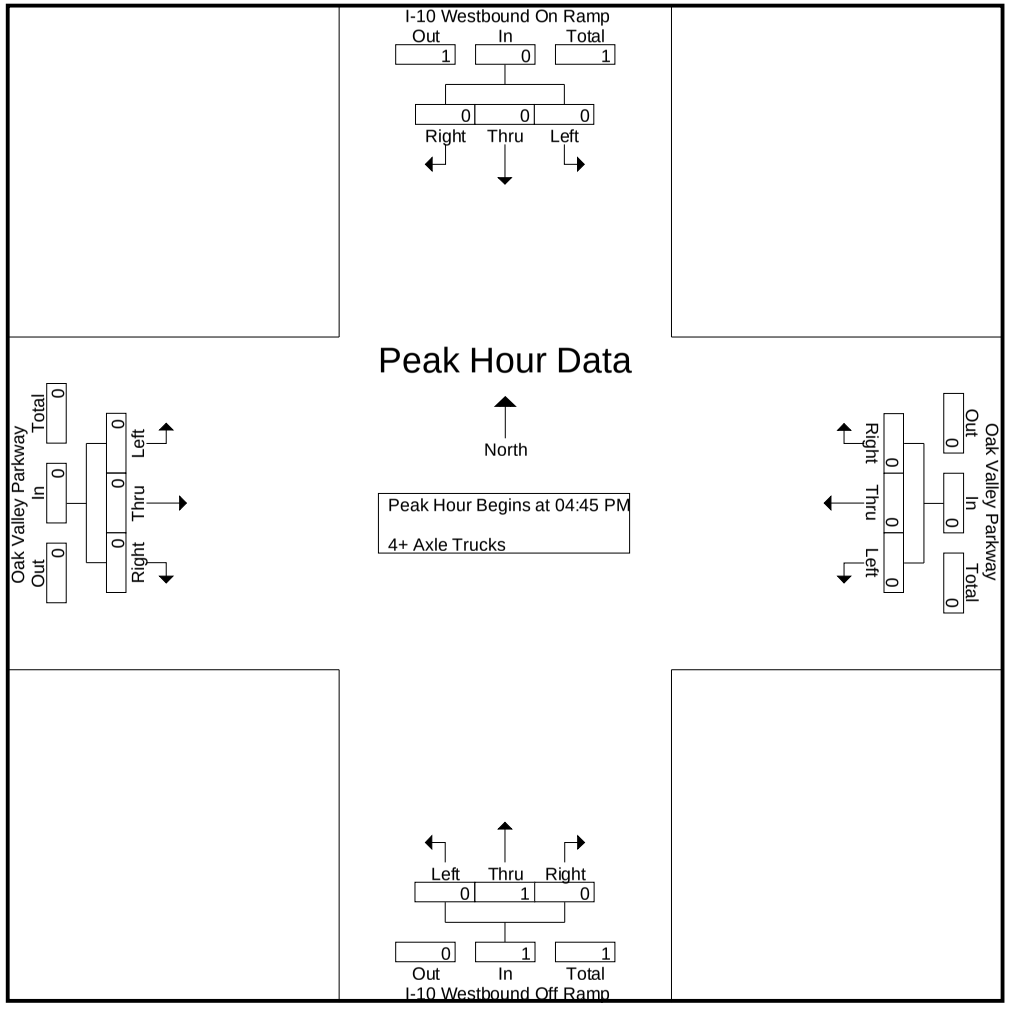
	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2	2
Grand Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	0	3	3
Apprch %	0	0	0			0	0	0			50	50	0			0	100	0					
Total %	0	0	0		0	0	0	0		0	33.3	33.3	0		66.7	0	33.3	0		33.3	0	100	

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.250

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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



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City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	

Location: Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg I-10 Westbound Ramps	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	2	0	0	0	2
TOTAL VOLUMES:	2	0	0	0	2

	North Leg I-10 Westbound Ramps	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound I-10 Westbound Ramps			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound I-10 Westbound Ramps			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

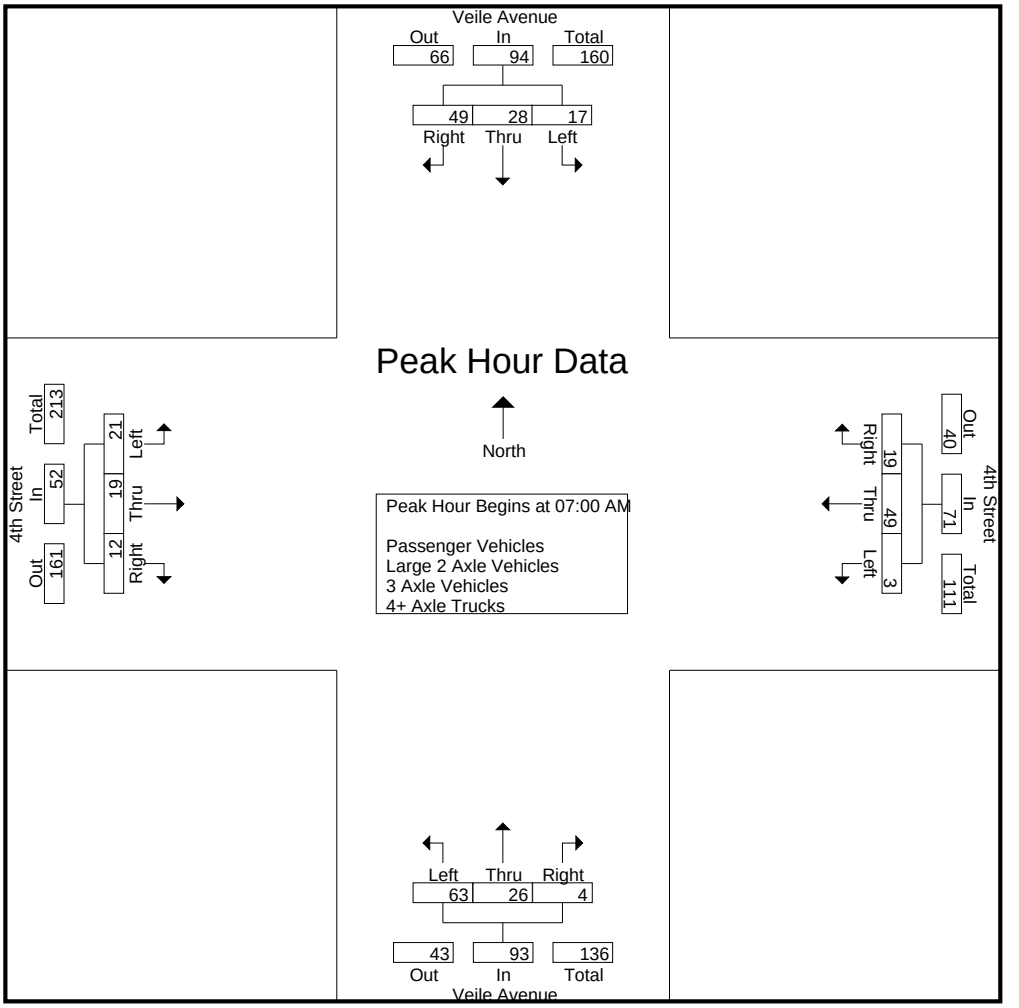
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	6	20	34	0	18	8	26	13	8	1	22	9	10	3	22	104
07:15 AM	1	7	10	18	0	16	2	18	38	4	2	44	3	3	7	13	93
07:30 AM	4	6	2	12	2	7	4	13	4	8	1	13	5	3	0	8	46
07:45 AM	4	9	17	30	1	8	5	14	8	6	0	14	4	3	2	9	67
Total	17	28	49	94	3	49	19	71	63	26	4	93	21	19	12	52	310
08:00 AM	1	3	9	13	0	10	7	17	7	2	2	11	8	6	2	16	57
08:15 AM	5	12	21	38	2	13	1	16	4	1	2	7	6	7	5	18	79
08:30 AM	1	9	13	23	2	7	0	9	4	2	3	9	2	6	6	14	55
08:45 AM	3	5	9	17	0	7	1	8	5	2	2	9	3	8	6	17	51
Total	10	29	52	91	4	37	9	50	20	7	9	36	19	27	19	65	242
Grand Total	27	57	101	185	7	86	28	121	83	33	13	129	40	46	31	117	552
Apprch %	14.6	30.8	54.6		5.8	71.1	23.1		64.3	25.6	10.1		34.2	39.3	26.5		
Total %	4.9	10.3	18.3	33.5	1.3	15.6	5.1	21.9	15	6	2.4	23.4	7.2	8.3	5.6	21.2	
Passenger Vehicles	21	52	75	148	7	76	27	110	77	30	11	118	23	30	21	74	450
% Passenger Vehicles	77.8	91.2	74.3	80	100	88.4	96.4	90.9	92.8	90.9	84.6	91.5	57.5	65.2	67.7	63.2	81.5
Large 2 Axle Vehicles	2	4	6	12	0	6	1	7	2	3	1	6	6	6	0	12	37
% Large 2 Axle Vehicles	7.4	7	5.9	6.5	0	7	3.6	5.8	2.4	9.1	7.7	4.7	15	13	0	10.3	6.7
3 Axle Vehicles	1	1	3	5	0	0	0	0	1	0	1	2	4	1	0	5	12
% 3 Axle Vehicles	3.7	1.8	3	2.7	0	0	0	0	1.2	0	7.7	1.6	10	2.2	0	4.3	2.2
4+ Axle Trucks	3	0	17	20	0	4	0	4	3	0	0	3	7	9	10	26	53
% 4+ Axle Trucks	11.1	0	16.8	10.8	0	4.7	0	3.3	3.6	0	0	2.3	17.5	19.6	32.3	22.2	9.6

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**8**	6	**20**	**34**	0	**18**	**8**	**26**	13	**8**	1	22	**9**	**10**	3	**22**	**104**
07:15 AM	1	7	10	18	0	16	2	18	**38**	4	**2**	**44**	3	3	**7**	13	93
07:30 AM	4	6	2	12	**2**	7	4	13	4	8	1	13	5	3	0	8	46
07:45 AM	4	**9**	17	30	1	8	5	14	8	6	0	14	4	3	2	9	67
Total Volume	17	28	49	94	3	49	19	71	63	26	4	93	21	19	12	52	310
% App. Total	18.1	29.8	52.1		4.2	69	26.8		67.7	28	4.3		40.4	36.5	23.1		
PHF	.531	.778	.613	.691	.375	.681	.594	.683	.414	.813	.500	.528	.583	.475	.429	.591	.745

Counts Unlimited
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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:00 AM				08:00 AM			
+0 mins.	4	9	17	30	0	**18**	**8**	**26**	13	**8**	1	22	**8**	6	2	16
+15 mins.	1	3	9	13	0	16	2	18	**38**	4	**2**	**44**	6	7	5	**18**
+30 mins.	**5**	**12**	**21**	**38**	**2**	7	4	13	4	8	1	13	2	6	**6**	14
+45 mins.	1	9	13	23	1	8	5	14	8	6	0	14	3	**8**	6	17
Total Volume	11	33	60	104	3	49	19	71	63	26	4	93	19	27	19	65
% App. Total	10.6	31.7	57.7		4.2	69	26.8		67.7	28	4.3		29.2	41.5	29.2	
PHF	.550	.688	.714	.684	.375	.681	.594	.683	.414	.813	.500	.528	.594	.844	.792	.903

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

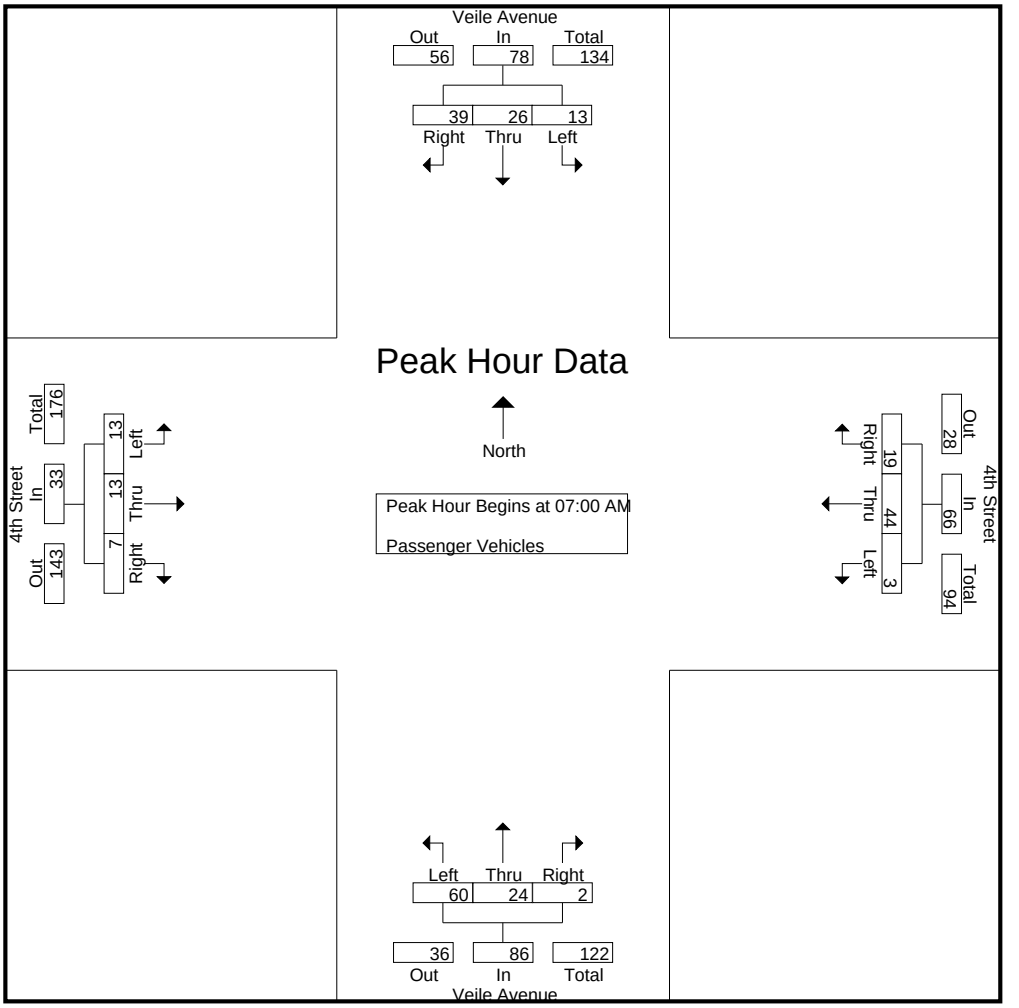
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	6	17	29	0	18	8	26	13	7	0	20	4	8	1	13	88
07:15 AM	1	7	8	16	0	16	2	18	36	4	2	42	2	1	4	7	83
07:30 AM	3	6	2	11	2	5	4	11	4	7	0	11	5	2	0	7	40
07:45 AM	3	7	12	22	1	5	5	11	7	6	0	13	2	2	2	6	52
Total	13	26	39	78	3	44	19	66	60	24	2	86	13	13	7	33	263
08:00 AM	0	3	7	10	0	8	6	14	6	2	2	10	4	3	2	9	43
08:15 AM	4	10	15	29	2	13	1	16	4	1	2	7	4	5	3	12	64
08:30 AM	1	9	9	19	2	5	0	7	4	1	3	8	1	4	5	10	44
08:45 AM	3	4	5	12	0	6	1	7	3	2	2	7	1	5	4	10	36
Total	8	26	36	70	4	32	8	44	17	6	9	32	10	17	14	41	187
Grand Total	21	52	75	148	7	76	27	110	77	30	11	118	23	30	21	74	450
Apprch %	14.2	35.1	50.7		6.4	69.1	24.5		65.3	25.4	9.3		31.1	40.5	28.4		
Total %	4.7	11.6	16.7	32.9	1.6	16.9	6	24.4	17.1	6.7	2.4	26.2	5.1	6.7	4.7	16.4	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**6**	6	**17**	**29**	0	**18**	**8**	**26**	13	**7**	0	20	4	**8**	1	**13**	**88**
07:15 AM	1	**7**	8	16	0	16	2	18	**36**	4	**2**	**42**	2	1	**4**	7	83
07:30 AM	3	6	2	11	**2**	5	4	11	4	7	0	11	**5**	2	0	7	40
07:45 AM	3	7	12	22	1	5	5	11	7	6	0	13	2	2	2	6	52
Total Volume	13	26	39	78	3	44	19	66	60	24	2	86	13	13	7	33	263
% App. Total	16.7	33.3	50		4.5	66.7	28.8		69.8	27.9	2.3		39.4	39.4	21.2		
PHF	.542	.929	.574	.672	.375	.611	.594	.635	.417	.857	.250	.512	.650	.406	.438	.635	.747

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**6**	6	**17**	**29**	0	**18**	**8**	**26**	13	**7**	0	20	4	**8**	1	**13**
+15 mins.	1	**7**	8	16	0	16	2	18	**36**	4	**2**	**42**	2	1	**4**	7
+30 mins.	3	6	2	11	**2**	5	4	11	4	7	0	11	**5**	2	0	7
+45 mins.	3	7	12	22	1	5	5	11	7	6	0	13	2	2	2	6
Total Volume	13	26	39	78	3	44	19	66	60	24	2	86	13	13	7	33
% App. Total	16.7	33.3	50		4.5	66.7	28.8		69.8	27.9	2.3		39.4	39.4	21.2	
PHF	.542	.929	.574	.672	.375	.611	.594	.635	.417	.857	.250	.512	.650	.406	.438	.635

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

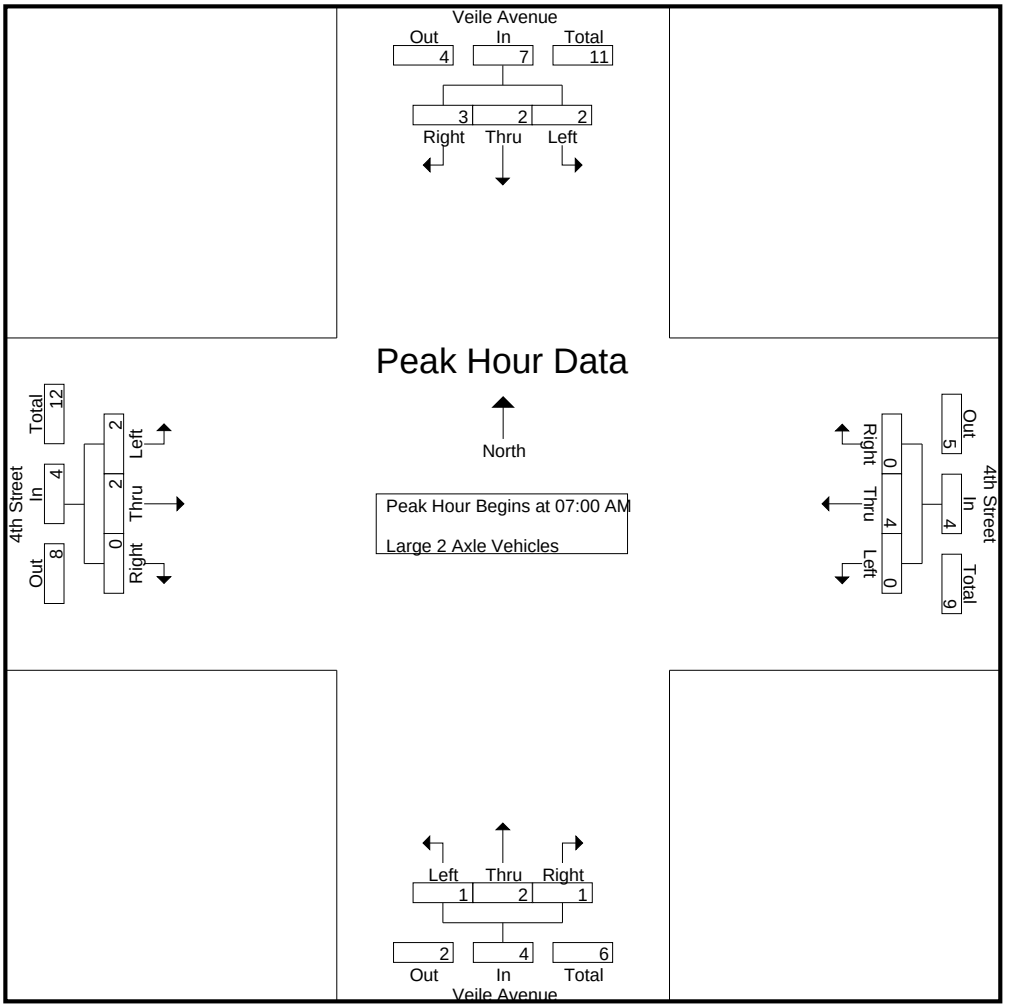
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	0	1	3	0	0	0	0	0	1	0	1	1	1	0	2	6
07:15 AM	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	1	0	1	0	1	1	2	0	0	0	0	3
07:45 AM	0	2	1	3	0	3	0	3	0	0	0	0	1	1	0	2	8
Total	2	2	3	7	0	4	0	4	1	2	1	4	2	2	0	4	19
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	3	0	0	3	4
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
08:30 AM	0	0	1	1	0	1	0	1	0	1	0	1	1	1	0	2	5
08:45 AM	0	1	2	3	0	1	0	1	1	0	0	1	0	2	0	2	7
Total	0	2	3	5	0	2	1	3	1	1	0	2	4	4	0	8	18
Grand Total	2	4	6	12	0	6	1	7	2	3	1	6	6	6	0	12	37
Apprch %	16.7	33.3	50		0	85.7	14.3		33.3	50	16.7		50	50	0		
Total %	5.4	10.8	16.2	32.4	0	16.2	2.7	18.9	5.4	8.1	2.7	16.2	16.2	16.2	0	32.4	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**2**	0	**1**	**3**	0	0	0	0	0	**1**	0	1	**1**	**1**	0	**2**	6
07:15 AM	0	0	1	1	0	0	0	0	**1**	0	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	1	0	1	0	1	**1**	**2**	0	0	0	0	3
07:45 AM	0	**2**	1	3	0	**3**	0	**3**	0	0	0	0	1	1	0	2	**8**
Total Volume	2	2	3	7	0	4	0	4	1	2	1	4	2	2	0	4	19
% App. Total	28.6	28.6	42.9		0	100	0		25	50	25		50	50	0		
PHF	.250	.250	.750	.583	.000	.333	.000	.333	.250	.500	.250	.500	.500	.500	.000	.500	.594

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	**2**	0	**1**	**3**	0	0	0	0	0	**1**	0	1	**1**	**1**	0	**2**
+15 mins.	0	0	1	1	0	0	0	0	**1**	0	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	1	**1**	**2**	0	0	0	0
+45 mins.	0	**2**	1	3	0	**3**	0	**3**	0	0	0	0	1	1	0	2
Total Volume	2	2	3	7	0	4	0	4	1	2	1	4	2	2	0	4
% App. Total	28.6	28.6	42.9		0	100	0		25	50	25		50	50	0	
PHF	.250	.250	.750	.583	.000	.333	.000	.333	.250	.500	.250	.500	.500	.500	.000	.500

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

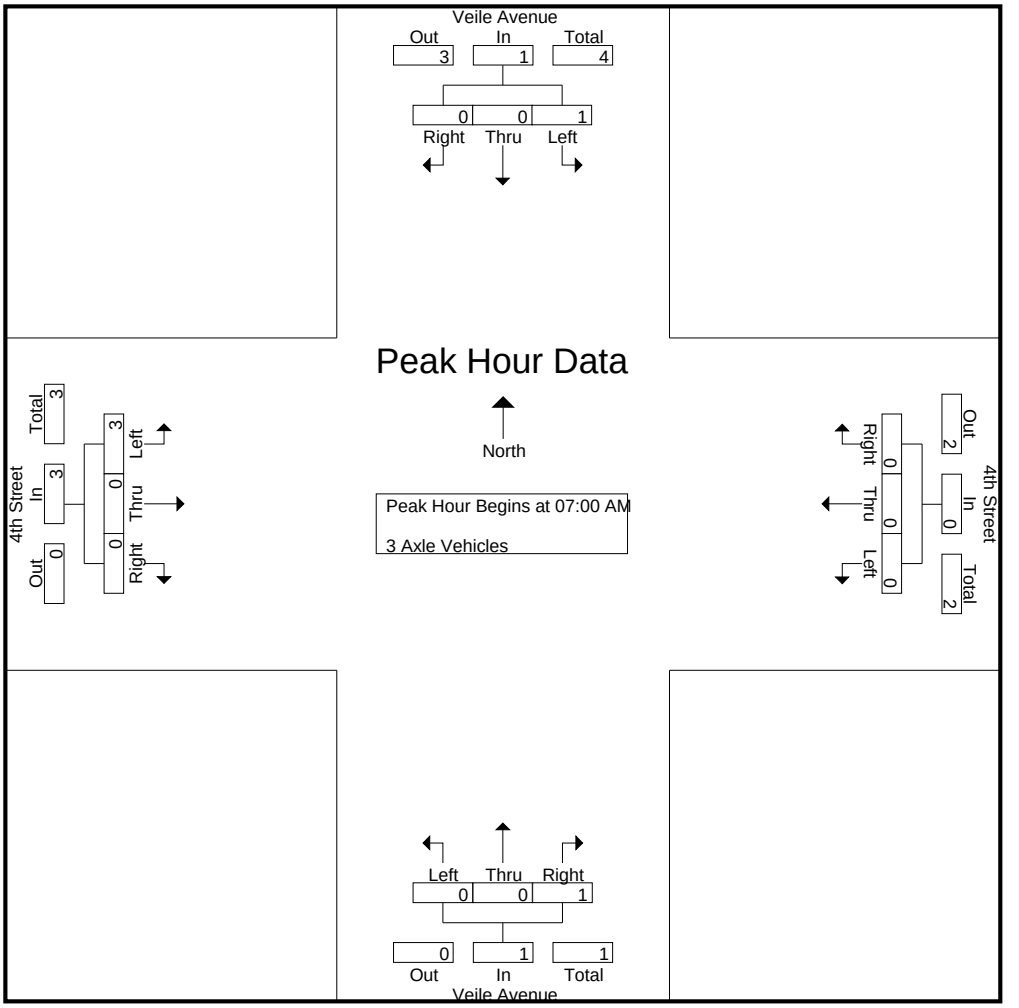
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	2	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	1	0	0	1	0	0	0	0	0	0	1	1	3	0	0	3	5
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
08:15 AM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	1	3	4	0	0	0	0	1	0	0	1	1	1	0	2	7
Grand Total	1	1	3	5	0	0	0	0	1	0	1	2	4	1	0	5	12
Apprch %	20	20	60		0	0	0		50	0	50		80	20	0		
Total %	8.3	8.3	25	41.7	0	0	0	0	8.3	0	8.3	16.7	33.3	8.3	0	41.7	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**	0	0	**2**	**3**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	1	0	0	1	0	0	0	0	0	0	1	1	3	0	0	3	5
% App. Total	100	0	0		0	0	0		0	0	100		100	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.250	.250	.375	.000	.000	.375	.417

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	**1**	**1**	**2**	0	0	**2**
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	1	0	0	1	0	0	0	0	0	0	1	1	3	0	0	3
% App. Total	100	0	0		0	0	0		0	0	100		100	0	0	
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.250	.250	.375	.000	.000	.375

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

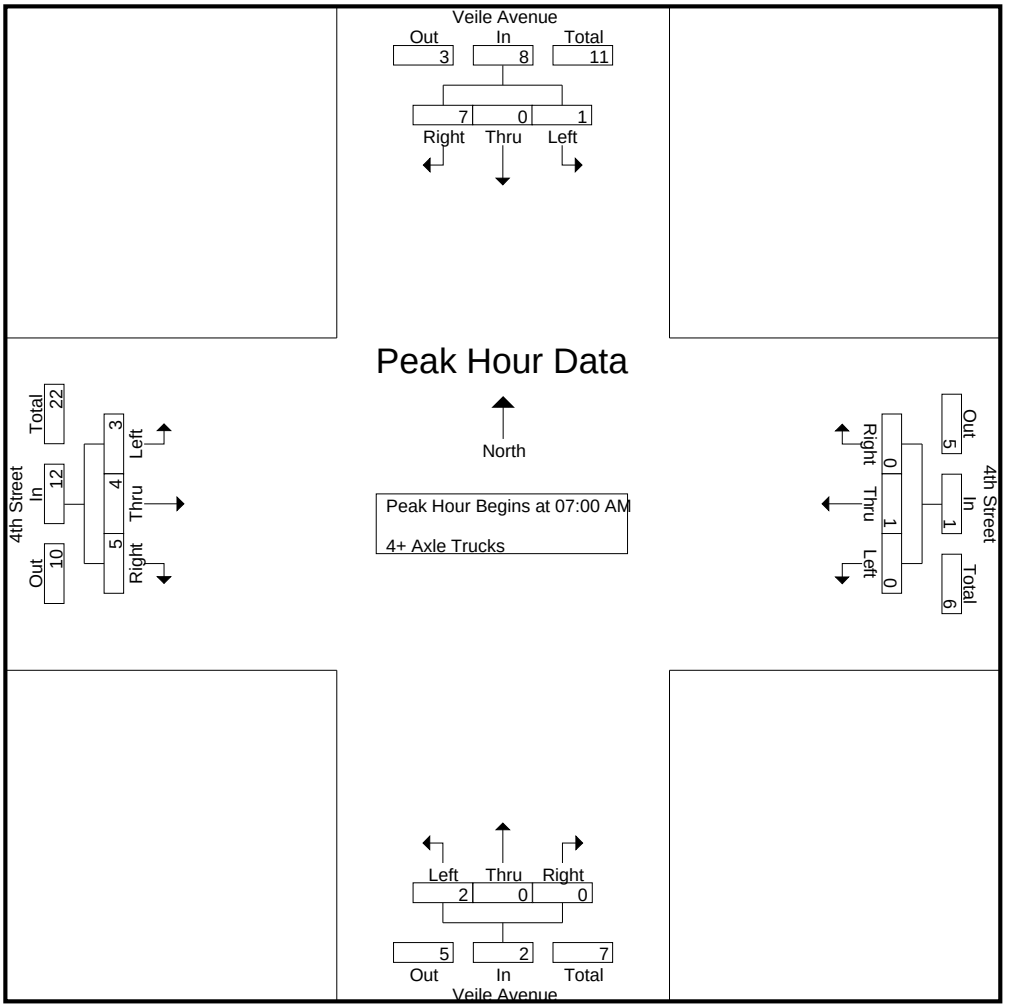
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	2	1	2	5	7
07:15 AM	0	0	1	1	0	0	0	0	1	0	0	1	1	2	3	6	8
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	1	0	4	5	0	0	0	0	1	0	0	1	0	0	0	0	6
Total	1	0	7	8	0	1	0	1	2	0	0	2	3	4	5	12	23
08:00 AM	1	0	2	3	0	2	0	2	0	0	0	0	1	2	0	3	8
08:15 AM	1	0	5	6	0	0	0	0	0	0	0	0	2	1	2	5	11
08:30 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	1	2	4
08:45 AM	0	0	2	2	0	0	0	0	1	0	0	1	1	1	2	4	7
Total	2	0	10	12	0	3	0	3	1	0	0	1	4	5	5	14	30
Grand Total	3	0	17	20	0	4	0	4	3	0	0	3	7	9	10	26	53
Apprch %	15	0	85		0	100	0		100	0	0		26.9	34.6	38.5		
Total %	5.7	0	32.1	37.7	0	7.5	0	7.5	5.7	0	0	5.7	13.2	17	18.9	49.1	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	**2**	1	2	5	7
07:15 AM	0	0	1	1	0	0	0	0	**1**	0	0	**1**	1	**2**	**3**	**6**	**8**
07:30 AM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	1	0	1	2
07:45 AM	**1**	0	**4**	**5**	0	0	0	0	1	0	0	1	0	0	0	0	6
Total Volume	1	0	7	8	0	1	0	1	2	0	0	2	3	4	5	12	23
% App. Total	12.5	0	87.5		0	100	0		100	0	0		25	33.3	41.7		
PHF	.250	.000	.438	.400	.000	.250	.000	.250	.500	.000	.000	.500	.375	.500	.417	.500	.719

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	2	2	0	0	0	0	0	0	0	0	**2**	1	2	5
+15 mins.	0	0	1	1	0	0	0	0	**1**	0	0	**1**	1	**2**	**3**	**6**
+30 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	1	0	1
+45 mins.	**1**	0	**4**	**5**	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	1	0	7	8	0	1	0	1	2	0	0	2	3	4	5	12
% App. Total	12.5	0	87.5		0	100	0		100	0	0		25	33.3	41.7	
PHF	.250	.000	.438	.400	.000	.250	.000	.250	.500	.000	.000	.500	.375	.500	.417	.500

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

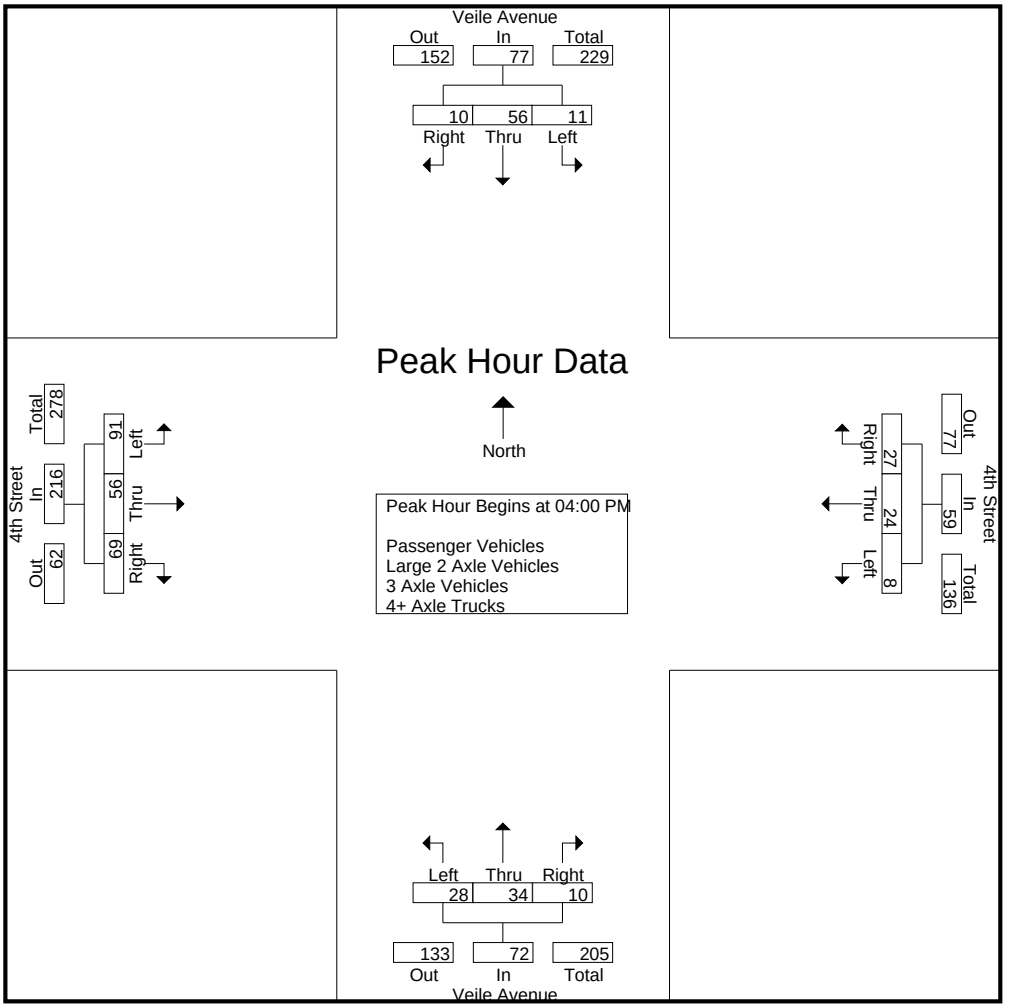
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	15	2	21	2	9	2	13	10	5	2	17	24	19	24	67	118
04:15 PM	1	15	5	21	2	12	2	16	11	6	4	21	40	24	30	94	152
04:30 PM	3	13	2	18	4	0	16	20	5	16	1	22	18	6	8	32	92
04:45 PM	3	13	1	17	0	3	7	10	2	7	3	12	9	7	7	23	62
Total	11	56	10	77	8	24	27	59	28	34	10	72	91	56	69	216	424
05:00 PM	3	20	1	24	0	1	0	1	2	3	0	5	12	2	8	22	52
05:15 PM	2	16	5	23	0	1	1	2	1	2	0	3	2	5	3	10	38
05:30 PM	6	12	2	20	0	3	1	4	4	0	1	5	11	23	5	39	68
05:45 PM	5	18	4	27	0	4	0	4	2	2	0	4	10	5	3	18	53
Total	16	66	12	94	0	9	2	11	9	7	1	17	35	35	19	89	211
Grand Total	27	122	22	171	8	33	29	70	37	41	11	89	126	91	88	305	635
Apprch %	15.8	71.3	12.9		11.4	47.1	41.4		41.6	46.1	12.4		41.3	29.8	28.9		
Total %	4.3	19.2	3.5	26.9	1.3	5.2	4.6	11	5.8	6.5	1.7	14	19.8	14.3	13.9	48	
Passenger Vehicles	24	120	11	155	7	30	28	65	29	39	10	78	117	86	82	285	583
% Passenger Vehicles	88.9	98.4	50	90.6	87.5	90.9	96.6	92.9	78.4	95.1	90.9	87.6	92.9	94.5	93.2	93.4	91.8
Large 2 Axle Vehicles	0	0	2	2	1	1	0	2	1	0	1	2	4	4	2	10	16
% Large 2 Axle Vehicles	0	0	9.1	1.2	12.5	3	0	2.9	2.7	0	9.1	2.2	3.2	4.4	2.3	3.3	2.5
3 Axle Vehicles	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1	5
% 3 Axle Vehicles	0	0.8	0	0.6	0	0	0	0	8.1	0	0	3.4	0.8	0	0	0.3	0.8
4+ Axle Trucks	3	1	9	13	0	2	1	3	4	2	0	6	4	1	4	9	31
% 4+ Axle Trucks	11.1	0.8	40.9	7.6	0	6.1	3.4	4.3	10.8	4.9	0	6.7	3.2	1.1	4.5	3	4.9

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**4**	**15**	2	**21**	2	9	2	13	10	5	2	17	24	19	24	67	118
04:15 PM	1	15	**5**	21	2	**12**	2	16	**11**	6	**4**	21	**40**	**24**	**30**	**94**	**152**
04:30 PM	3	13	2	18	**4**	0	**16**	**20**	5	**16**	1	**22**	18	6	8	32	92
04:45 PM	3	13	1	17	0	3	7	10	2	7	3	12	9	7	7	23	62
Total Volume	11	56	10	77	8	24	27	59	28	34	10	72	91	56	69	216	424
% App. Total	14.3	72.7	13		13.6	40.7	45.8		38.9	47.2	13.9		42.1	25.9	31.9		
PHF	.688	.933	.500	.917	.500	.500	.422	.738	.636	.531	.625	.818	.569	.583	.575	.574	.697

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	3	**20**	1	24	2	9	2	13	10	5	2	17	24	19	24	67
+15 mins.	2	16	**5**	23	2	**12**	2	16	**11**	6	**4**	21	**40**	**24**	**30**	**94**
+30 mins.	**6**	12	2	20	**4**	0	**16**	**20**	5	**16**	1	**22**	18	6	8	32
+45 mins.	5	18	4	**27**	0	3	7	10	2	7	3	12	9	7	7	23
Total Volume	16	66	12	94	8	24	27	59	28	34	10	72	91	56	69	216
% App. Total	17	70.2	12.8		13.6	40.7	45.8		38.9	47.2	13.9		42.1	25.9	31.9	
PHF	.667	.825	.600	.870	.500	.500	.422	.738	.636	.531	.625	.818	.569	.583	.575	.574

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City of Beaumont
N/S: Veile Avenue
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File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

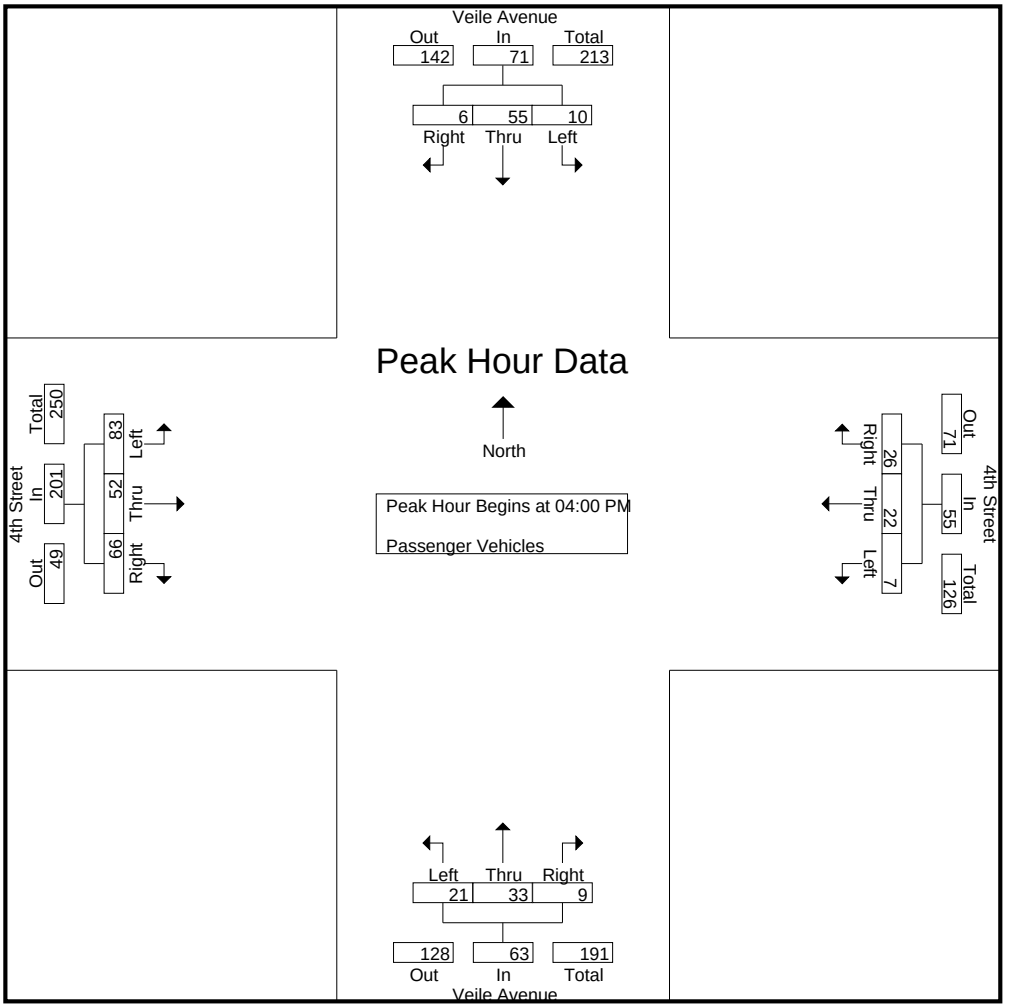
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	15	1	19	2	9	2	13	7	5	2	14	23	19	23	65	111
04:15 PM	1	15	3	19	2	11	2	15	8	6	3	17	37	24	29	90	141
04:30 PM	3	12	2	17	3	0	15	18	4	15	1	20	17	5	7	29	84
04:45 PM	3	13	0	16	0	2	7	9	2	7	3	12	6	4	7	17	54
Total	10	55	6	71	7	22	26	55	21	33	9	63	83	52	66	201	390
05:00 PM	3	19	0	22	0	1	0	1	2	3	0	5	12	2	6	20	48
05:15 PM	1	16	2	19	0	0	1	1	0	2	0	2	2	4	3	9	31
05:30 PM	5	12	1	18	0	3	1	4	4	0	1	5	11	23	4	38	65
05:45 PM	5	18	2	25	0	4	0	4	2	1	0	3	9	5	3	17	49
Total	14	65	5	84	0	8	2	10	8	6	1	15	34	34	16	84	193
Grand Total	24	120	11	155	7	30	28	65	29	39	10	78	117	86	82	285	583
Apprch %	15.5	77.4	7.1		10.8	46.2	43.1		37.2	50	12.8		41.1	30.2	28.8		
Total %	4.1	20.6	1.9	26.6	1.2	5.1	4.8	11.1	5	6.7	1.7	13.4	20.1	14.8	14.1	48.9	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**3**	**15**	1	**19**	2	9	2	13	7	5	2	14	23	19	23	65	111
04:15 PM	1	15	**3**	19	2	**11**	2	15	**8**	6	**3**	17	**37**	**24**	**29**	**90**	**141**
04:30 PM	3	12	2	17	**3**	0	**15**	**18**	4	**15**	1	**20**	17	5	7	29	84
04:45 PM	3	13	0	16	0	2	7	9	2	7	3	12	6	4	7	17	54
Total Volume	10	55	6	71	7	22	26	55	21	33	9	63	83	52	66	201	390
% App. Total	14.1	77.5	8.5		12.7	40	47.3		33.3	52.4	14.3		41.3	25.9	32.8		
PHF	.833	.917	.500	.934	.583	.500	.433	.764	.656	.550	.750	.788	.561	.542	.569	.558	.691

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City of Beaumont
N/S: Veile Avenue
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File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	**3**	**15**	1	**19**	2	9	2	13	7	5	2	14	23	19	23	65
+15 mins.	1	15	**3**	19	2	**11**	2	15	**8**	6	**3**	17	**37**	**24**	**29**	**90**
+30 mins.	3	12	2	17	**3**	0	**15**	**18**	4	**15**	1	**20**	17	5	7	29
+45 mins.	3	13	0	16	0	2	7	9	2	7	3	12	6	4	7	17
Total Volume	10	55	6	71	7	22	26	55	21	33	9	63	83	52	66	201
% App. Total	14.1	77.5	8.5		12.7	40	47.3		33.3	52.4	14.3		41.3	25.9	32.8	
PHF	.833	.917	.500	.934	.583	.500	.433	.764	.656	.550	.750	.788	.561	.542	.569	.558

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City of Beaumont
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File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

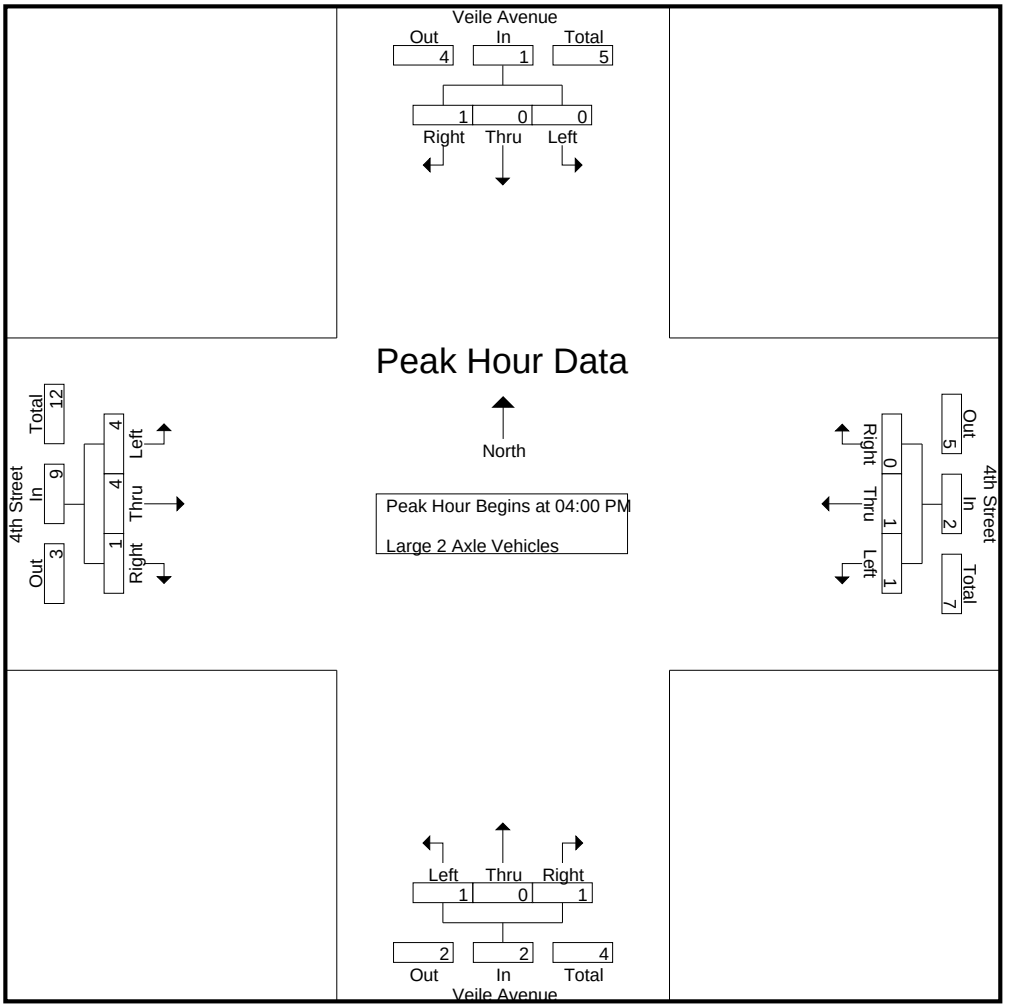
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	1	0	1	1	0	1	2	2	0	0	2	5
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1	1	1	3	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	4
Total	0	0	1	1	1	1	0	2	1	0	1	2	4	4	1	9	14
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Grand Total	0	0	2	2	1	1	0	2	1	0	1	2	4	4	2	10	16
Apprch %	0	0	100		50	50	0		50	0	50		40	40	20		
Total %	0	0	12.5	12.5	6.2	6.2	0	12.5	6.2	0	6.2	12.5	25	25	12.5	62.5	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	**1**	0	**1**	**1**	0	**1**	**2**	**2**	0	0	2	**5**
04:30 PM	0	0	0	0	**1**	0	0	1	0	0	0	0	1	1	**1**	3	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	**3**	0	**4**	4
Total Volume	0	0	1	1	1	1	0	2	1	0	1	2	4	4	1	9	14
% App. Total	0	0	100		50	50	0		50	0	50		44.4	44.4	11.1		
PHF	.000	.000	.250	.250	.250	.250	.000	.500	.250	.000	.250	.250	.500	.333	.250	.563	.700

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File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	**1**	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	**1**	0	**1**	**1**	0	**1**	**2**	**2**	0	0	2
+30 mins.	0	0	0	0	**1**	0	0	1	0	0	0	0	1	1	**1**	3
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	**3**	0	**4**
Total Volume	0	0	1	1	1	1	0	2	1	0	1	2	4	4	1	9
% App. Total	0	0	100		50	50	0		50	0	50		44.4	44.4	11.1	
PHF	.000	.000	.250	.250	.250	.250	.000	.500	.250	.000	.250	.250	.500	.333	.250	.563

Counts Unlimited
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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019

Groups Printed- 3 Axle Vehicles

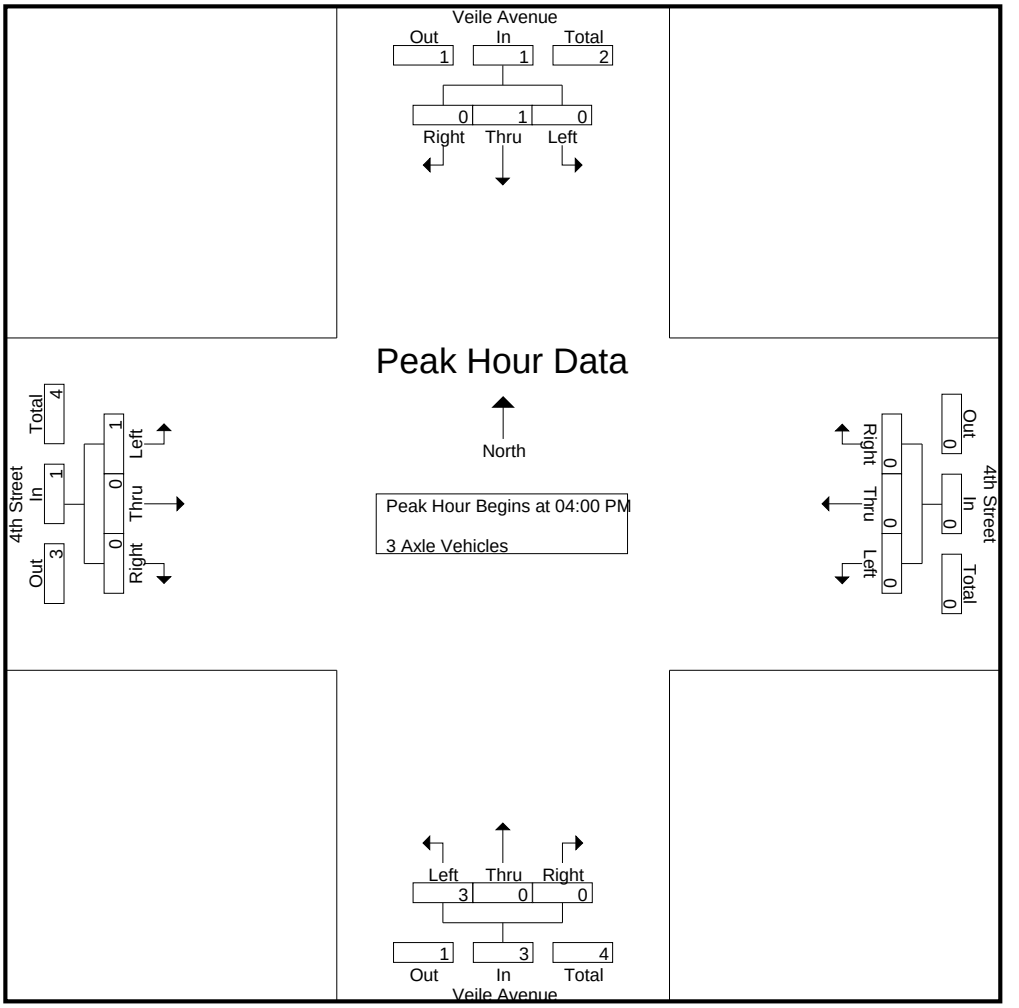
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	2
04:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1	5
Apprch %	0	100	0		0	0	0		100	0	0		100	0	0		
Total %	0	20	0	20	0	0	0	0	60	0	0	60	20	0	0	20	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	**1**	0	0	**1**	**2**
04:30 PM	0	**1**	0	**1**	0	0	0	0	1	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1	5
% App. Total	0	100	0		0	0	0		100	0	0		100	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.750	.000	.000	.750	.250	.000	.000	.250	.625

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	1	0	0	1	**1**	0	0	**1**
+30 mins.	0	**1**	0	**1**	0	0	0	0	1	0	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1
% App. Total	0	100	0		0	0	0		100	0	0		100	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.750	.000	.000	.750	.250	.000	.000	.250

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

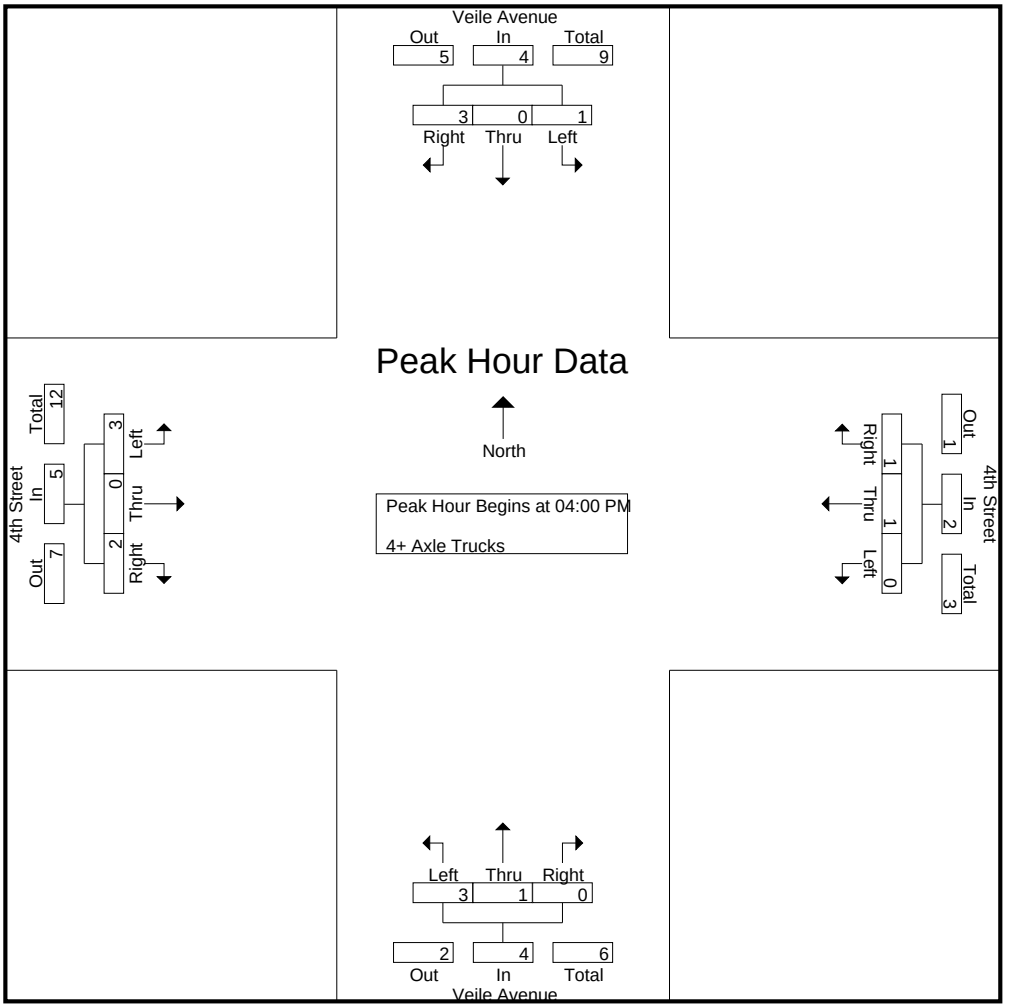
	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	0	1	0	0	0	0	2	0	0	2	1	0	1	2	5
04:15 PM	0	0	2	2	0	0	0	0	1	0	0	1	0	0	1	1	4
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	1	1	0	1	0	1	0	0	0	0	2	0	0	2	4
Total	1	0	3	4	0	1	1	2	3	1	0	4	3	0	2	5	15
05:00 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	1	3
05:15 PM	1	0	2	3	0	1	0	1	1	0	0	1	0	1	0	1	6
05:30 PM	1	0	1	2	0	0	0	0	0	0	0	0	0	0	1	1	3
05:45 PM	0	0	2	2	0	0	0	0	0	1	0	1	1	0	0	1	4
Total	2	1	6	9	0	1	0	1	1	1	0	2	1	1	2	4	16
Grand Total	3	1	9	13	0	2	1	3	4	2	0	6	4	1	4	9	31
Apprch %	23.1	7.7	69.2		0	66.7	33.3		66.7	33.3	0		44.4	11.1	44.4		
Total %	9.7	3.2	29	41.9	0	6.5	3.2	9.7	12.9	6.5	0	19.4	12.9	3.2	12.9	29	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	0	0	1	0	0	0	0	**2**	0	0	**2**	1	0	**1**	**2**	**5**
04:15 PM	0	0	**2**	**2**	0	0	0	0	1	0	0	1	0	0	1	1	4
04:30 PM	0	0	0	0	0	0	**1**	**1**	0	**1**	0	1	0	0	0	0	2
04:45 PM	0	0	1	1	0	**1**	0	1	0	0	0	0	**2**	0	0	2	4
Total Volume	1	0	3	4	0	1	1	2	3	1	0	4	3	0	2	5	15
% App. Total	25	0	75		0	50	50		75	25	0		60	0	40		
PHF	.250	.000	.375	.500	.000	.250	.250	.500	.375	.250	.000	.500	.375	.000	.500	.625	.750

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City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	**1**	0	0	1	0	0	0	0	**2**	0	0	**2**	1	0	**1**	**2**
+15 mins.	0	0	**2**	**2**	0	0	0	0	1	0	0	1	0	0	1	1
+30 mins.	0	0	0	0	0	0	**1**	**1**	0	**1**	0	1	0	0	0	0
+45 mins.	0	0	1	1	0	**1**	0	1	0	0	0	0	**2**	0	0	2
Total Volume	1	0	3	4	0	1	1	2	3	1	0	4	3	0	2	5
% App. Total	25	0	75		0	50	50		75	25	0		60	0	40	
PHF	.250	.000	.375	.500	.000	.250	.250	.500	.375	.250	.000	.500	.375	.000	.500	.625

Location: Beaumont
N/S: Veile Avenue
E/W: 4th Street

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg Veile Avenue	East Leg 4th Street	South Leg Dead End	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Veile Avenue	East Leg 4th Street	South Leg Dead End	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

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Location: Beaumont
N/S: Veile Avenue
E/W: 4th Street

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound Veile Avenue			Westbound 4th Street			Northbound Dead End			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Veile Avenue			Westbound 4th Street			Northbound Dead End			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	0	0	0	0	1	0	0	0	2

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City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

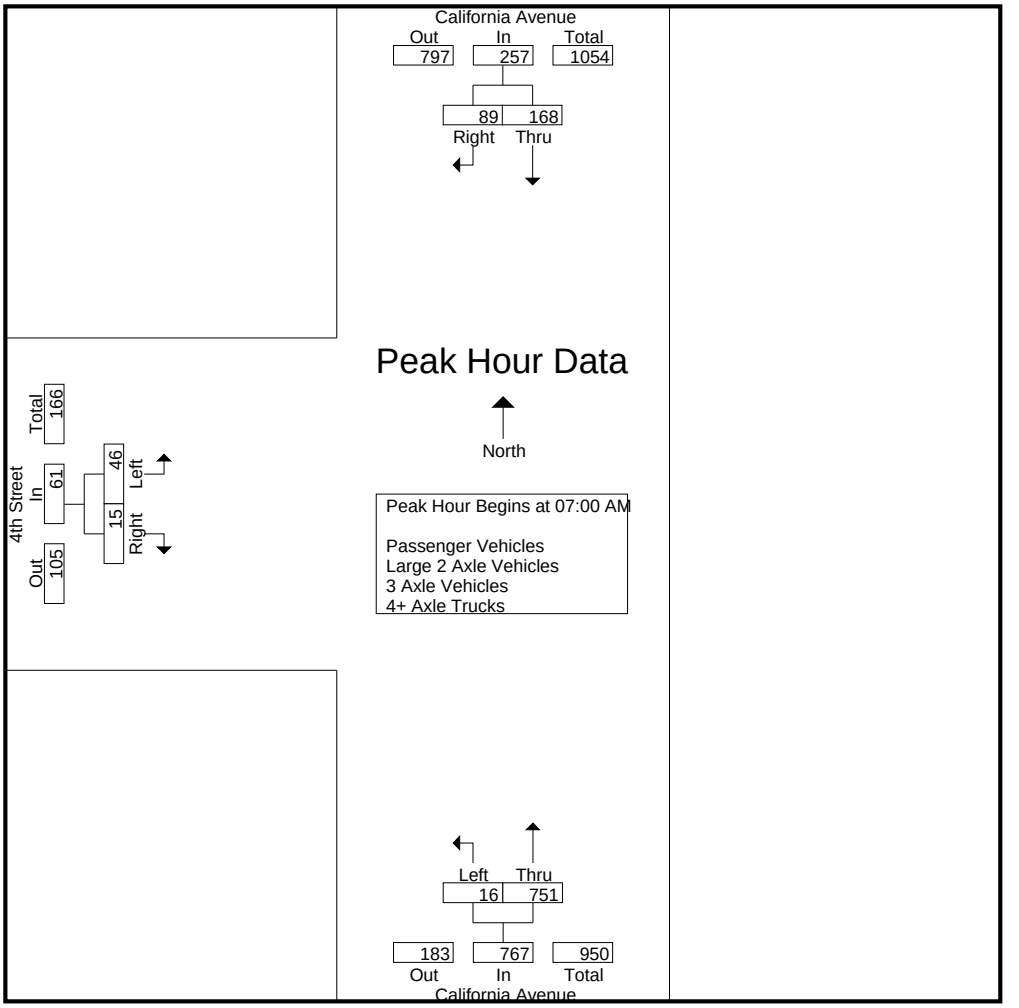
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	40	22	62	3	269	272	16	3	19	353
07:15 AM	39	26	65	2	178	180	6	5	11	256
07:30 AM	49	21	70	5	146	151	9	3	12	233
07:45 AM	40	20	60	6	158	164	15	4	19	243
Total	168	89	257	16	751	767	46	15	61	1085
08:00 AM	29	15	44	3	114	117	15	2	17	178
08:15 AM	28	23	51	2	150	152	11	1	12	215
08:30 AM	30	17	47	2	150	152	13	3	16	215
08:45 AM	29	12	41	1	111	112	18	3	21	174
Total	116	67	183	8	525	533	57	9	66	782
Grand Total	284	156	440	24	1276	1300	103	24	127	1867
Apprch %	64.5	35.5		1.8	98.2		81.1	18.9		
Total %	15.2	8.4	23.6	1.3	68.3	69.6	5.5	1.3	6.8	
Passenger Vehicles	277	150	427	23	1242	1265	85	20	105	1797
% Passenger Vehicles	97.5	96.2	97	95.8	97.3	97.3	82.5	83.3	82.7	96.3
Large 2 Axle Vehicles	5	5	10	1	22	23	8	3	11	44
% Large 2 Axle Vehicles	1.8	3.2	2.3	4.2	1.7	1.8	7.8	12.5	8.7	2.4
3 Axle Vehicles	0	0	0	0	3	3	1	1	2	5
% 3 Axle Vehicles	0	0	0	0	0.2	0.2	1	4.2	1.6	0.3
4+ Axle Trucks	2	1	3	0	9	9	9	0	9	21
% 4+ Axle Trucks	0.7	0.6	0.7	0	0.7	0.7	8.7	0	7.1	1.1

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	40	22	62	3	**269**	**272**	**16**	3	**19**	**353**
07:15 AM	39	**26**	65	2	178	180	6	**5**	11	256
07:30 AM	**49**	21	**70**	5	146	151	9	3	12	233
07:45 AM	40	20	60	**6**	158	164	15	4	19	243
Total Volume	168	89	257	16	751	767	46	15	61	1085
% App. Total	65.4	34.6		2.1	97.9		75.4	24.6		
PHF	.857	.856	.918	.667	.698	.705	.719	.750	.803	.768

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City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	40	22	62	3	**269**	**272**	15	2	17
+15 mins.	39	**26**	65	2	178	180	11	1	12
+30 mins.	**49**	21	**70**	5	146	151	13	**3**	16
+45 mins.	40	20	60	**6**	158	164	**18**	3	**21**
Total Volume	168	89	257	16	751	767	57	9	66
% App. Total	65.4	34.6		2.1	97.9		86.4	13.6	
PHF	.857	.856	.918	.667	.698	.705	.792	.750	.786

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City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

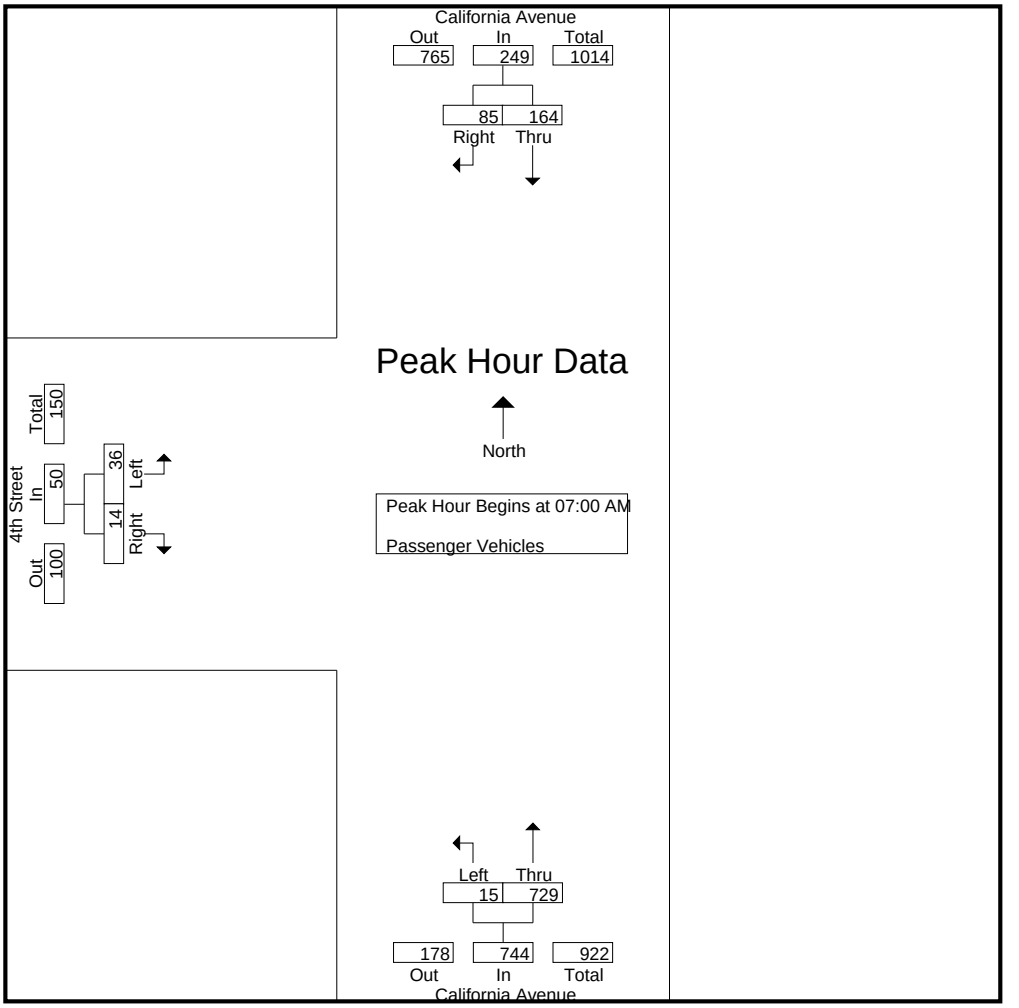
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	39	21	60	3	259	262	13	2	15	337
07:15 AM	38	26	64	2	175	177	5	5	10	251
07:30 AM	47	20	67	4	140	144	8	3	11	222
07:45 AM	40	18	58	6	155	161	10	4	14	233
Total	164	85	249	15	729	744	36	14	50	1043
08:00 AM	29	15	44	3	111	114	13	1	14	172
08:15 AM	28	23	51	2	148	150	11	1	12	213
08:30 AM	29	17	46	2	148	150	13	2	15	211
08:45 AM	27	10	37	1	106	107	12	2	14	158
Total	113	65	178	8	513	521	49	6	55	754
Grand Total	277	150	427	23	1242	1265	85	20	105	1797
Apprch %	64.9	35.1		1.8	98.2		81	19		
Total %	15.4	8.3	23.8	1.3	69.1	70.4	4.7	1.1	5.8	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	39	21	60	3	**259**	**262**	**13**	2	**15**	**337**
07:15 AM	38	**26**	64	2	175	177	5	**5**	10	251
07:30 AM	**47**	20	**67**	4	140	144	8	3	11	222
07:45 AM	40	18	58	**6**	155	161	10	4	14	233
Total Volume	164	85	249	15	729	744	36	14	50	1043
% App. Total	65.9	34.1		2	98		72	28		
PHF	.872	.817	.929	.625	.704	.710	.692	.700	.833	.774

Counts Unlimited
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City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	39	21	60	3	**259**	**262**	**13**	2	**15**
+15 mins.	38	**26**	64	2	175	177	5	**5**	10
+30 mins.	**47**	20	**67**	4	140	144	8	3	11
+45 mins.	40	18	58	**6**	155	161	10	4	14
Total Volume	164	85	249	15	729	744	36	14	50
% App. Total	65.9	34.1		2	98		72	28	
PHF	.872	.817	.929	.625	.704	.710	.692	.700	.833

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City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

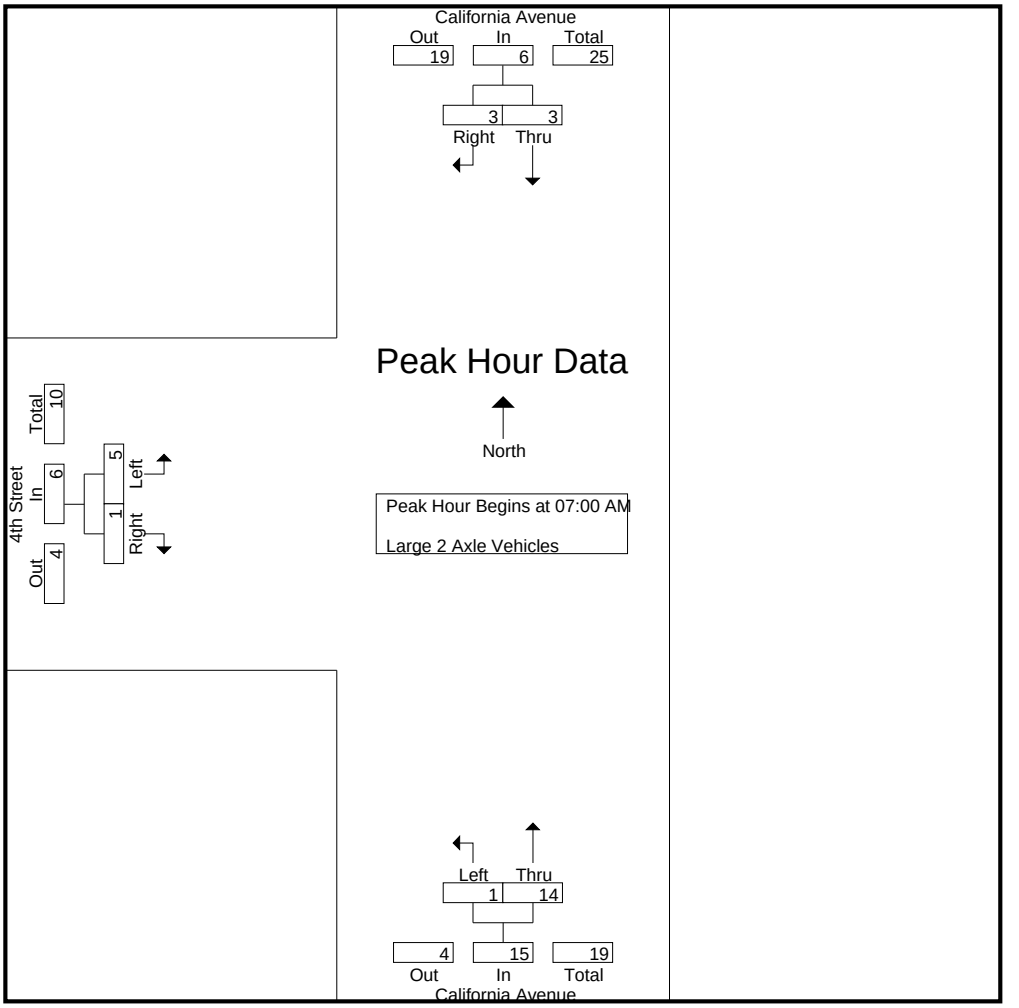
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	1	0	1	0	5	5	1	1	2	8
07:15 AM	1	0	1	0	2	2	0	0	0	3
07:30 AM	1	1	2	1	5	6	1	0	1	9
07:45 AM	0	2	2	0	2	2	3	0	3	7
Total	3	3	6	1	14	15	5	1	6	27
08:00 AM	0	0	0	0	3	3	0	1	1	4
08:15 AM	0	0	0	0	2	2	0	0	0	2
08:30 AM	1	0	1	0	1	1	0	0	0	2
08:45 AM	1	2	3	0	2	2	3	1	4	9
Total	2	2	4	0	8	8	3	2	5	17
Grand Total	5	5	10	1	22	23	8	3	11	44
Apprch %	50	50		4.3	95.7		72.7	27.3		
Total %	11.4	11.4	22.7	2.3	50	52.3	18.2	6.8	25	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	**1**	0	1	0	**5**	5	1	**1**	2	8
07:15 AM	1	0	1	0	2	2	0	0	0	3
07:30 AM	1	1	**2**	**1**	5	**6**	1	0	1	**9**
07:45 AM	0	**2**	2	0	2	2	**3**	0	**3**	7
Total Volume	3	3	6	1	14	15	5	1	6	27
% App. Total	50	50		6.7	93.3		83.3	16.7		
PHF	.750	.375	.750	.250	.700	.625	.417	.250	.500	.750

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	**1**	0	1	0	**5**	5	1	**1**	2
+15 mins.	1	0	1	0	2	2	0	0	0
+30 mins.	1	1	**2**	**1**	5	**6**	1	0	1
+45 mins.	0	**2**	2	0	2	2	**3**	0	**3**
Total Volume	3	3	6	1	14	15	5	1	6
% App. Total	50	50		6.7	93.3		83.3	16.7	
PHF	.750	.375	.750	.250	.700	.625	.417	.250	.500

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Weather: Clear

File Name : 11_BMT_California_4th AM
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Groups Printed- 3 Axle Vehicles

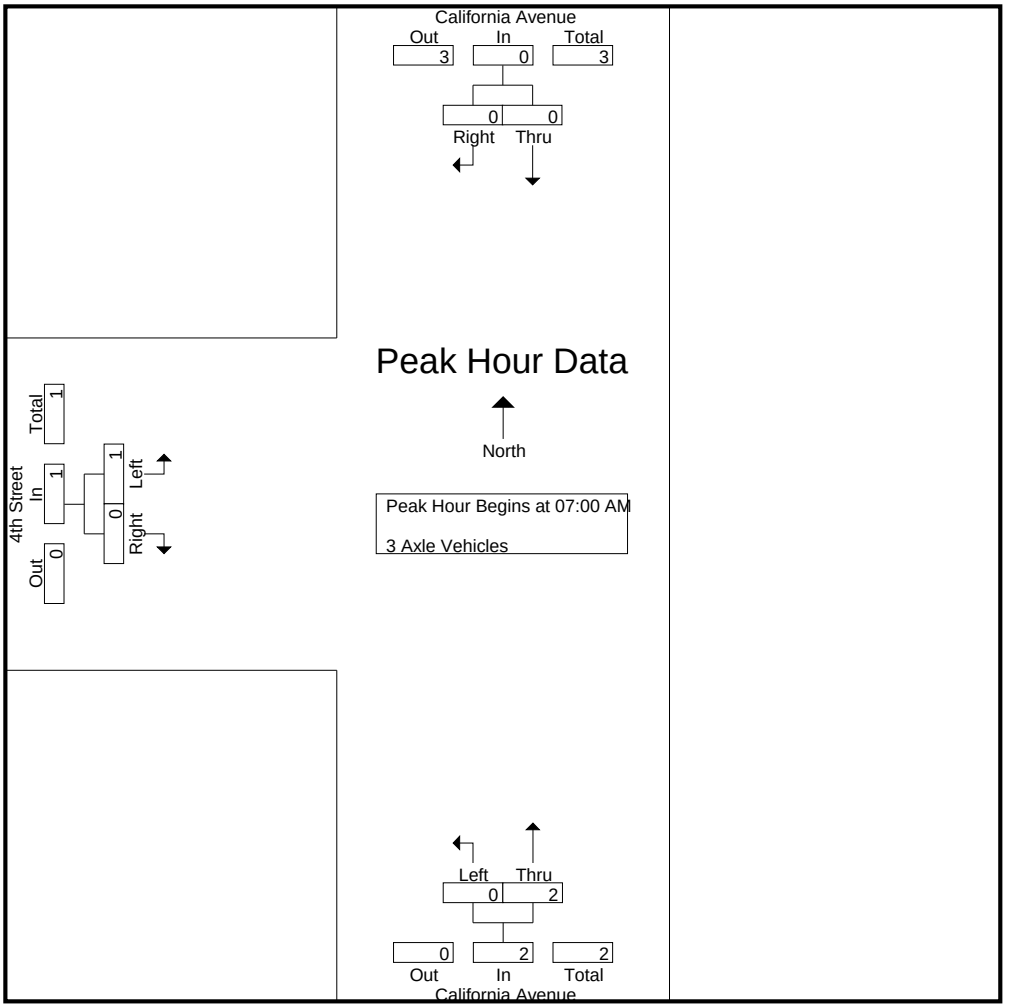
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	2	2	1	0	1	3
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	2	1	0	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	0	1	1	0	1	1	2
Grand Total	0	0	0	0	3	3	1	1	2	5
Apprch %	0	0		0	100		50	50		
Total %	0	0	0	0	60	60	20	20	40	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	**2**	**2**	**1**	0	**1**	**3**
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	2	1	0	1	3
% App. Total	0	0		0	100		100	0		
PHF	.000	.000	.000	.000	.250	.250	.250	.000	.250	.250

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	**2**	**2**	**1**	0	**1**
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	2	1	0	1
% App. Total	0	0		0	100		100	0	
PHF	.000	.000	.000	.000	.250	.250	.250	.000	.250

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Groups Printed- 4+ Axle Trucks

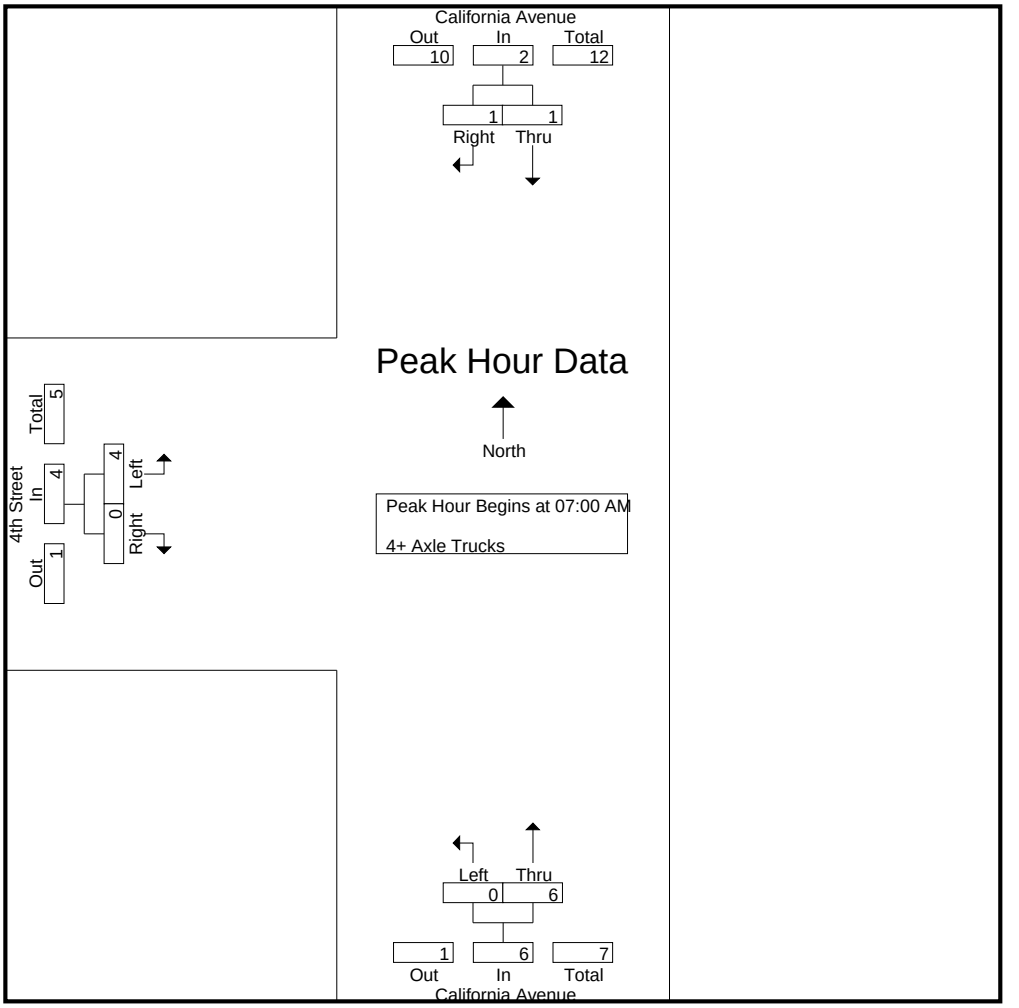
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	3	3	1	0	1	5
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	1	0	1	0	1	1	0	0	0	2
07:45 AM	0	0	0	0	1	1	2	0	2	3
Total	1	1	2	0	6	6	4	0	4	12
08:00 AM	0	0	0	0	0	0	2	0	2	2
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	1	0	0	0	1
08:45 AM	1	0	1	0	2	2	3	0	3	6
Total	1	0	1	0	3	3	5	0	5	9
Grand Total	2	1	3	0	9	9	9	0	9	21
Apprch %	66.7	33.3		0	100		100	0		
Total %	9.5	4.8	14.3	0	42.9	42.9	42.9	0	42.9	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	**1**	0	**3**	**3**	1	0	1	**5**
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	**1**	0	1	0	1	1	0	0	0	2
07:45 AM	0	0	0	0	1	1	**2**	0	**2**	3
Total Volume	1	1	2	0	6	6	4	0	4	12
% App. Total	50	50		0	100		100	0		
PHF	.250	.250	.500	.000	.500	.500	.500	.000	.500	.600

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	**1**	0	**3**	**3**	1	0	1
+15 mins.	0	0	0	0	1	1	1	0	1
+30 mins.	**1**	0	1	0	1	1	0	0	0
+45 mins.	0	0	0	0	1	1	**2**	0	**2**
Total Volume	1	1	2	0	6	6	4	0	4
% App. Total	50	50		0	100		100	0	
PHF	.250	.250	.500	.000	.500	.500	.500	.000	.500

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

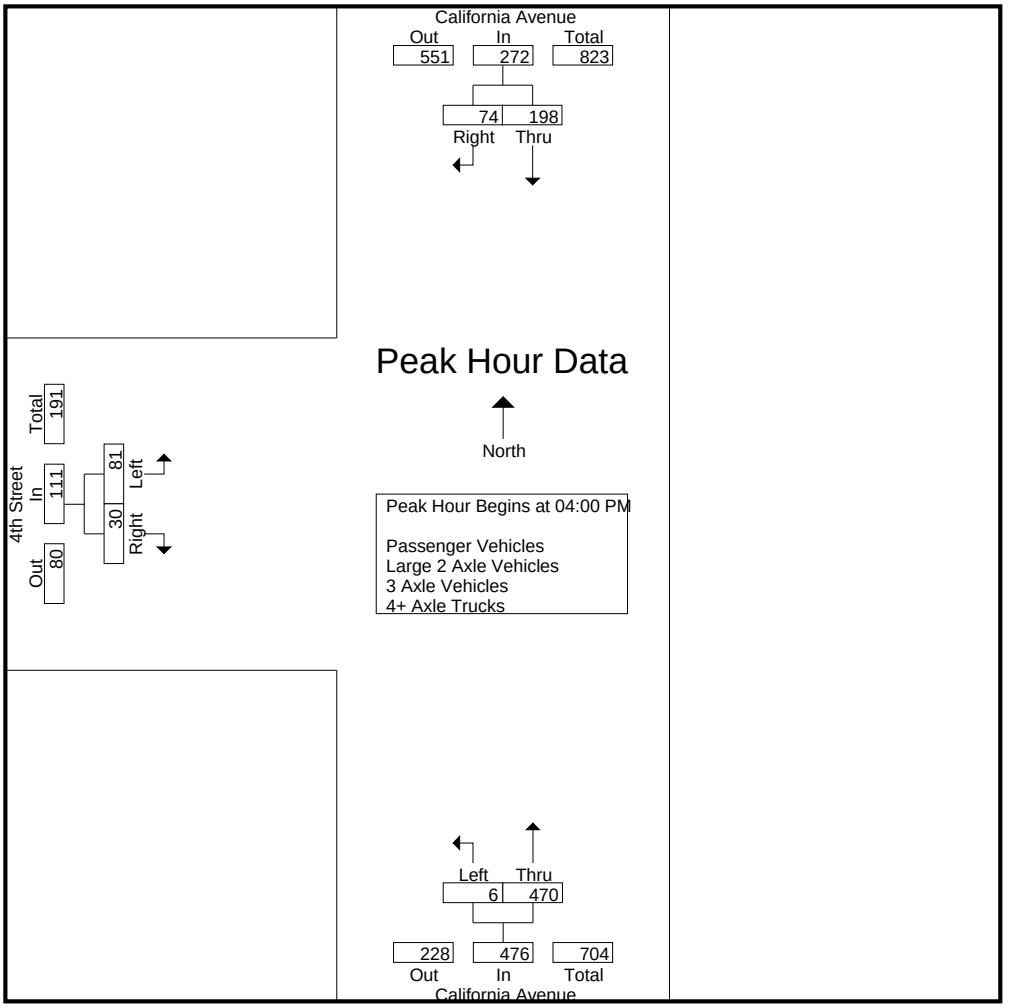
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	49	20	69	4	120	124	21	9	30	223
04:15 PM	45	27	72	0	117	117	39	5	44	233
04:30 PM	54	13	67	1	124	125	10	12	22	214
04:45 PM	50	14	64	1	109	110	11	4	15	189
Total	198	74	272	6	470	476	81	30	111	859
05:00 PM	56	6	62	0	112	112	12	5	17	191
05:15 PM	54	3	57	0	106	106	9	3	12	175
05:30 PM	59	9	68	0	94	94	19	6	25	187
05:45 PM	78	6	84	7	80	87	11	6	17	188
Total	247	24	271	7	392	399	51	20	71	741
Grand Total	445	98	543	13	862	875	132	50	182	1600
Apprch %	82	18		1.5	98.5		72.5	27.5		
Total %	27.8	6.1	33.9	0.8	53.9	54.7	8.2	3.1	11.4	
Passenger Vehicles	436	92	528	13	852	865	126	47	173	1566
% Passenger Vehicles	98	93.9	97.2	100	98.8	98.9	95.5	94	95.1	97.9
Large 2 Axle Vehicles	7	4	11	0	4	4	6	1	7	22
% Large 2 Axle Vehicles	1.6	4.1	2	0	0.5	0.5	4.5	2	3.8	1.4
3 Axle Vehicles	1	0	1	0	2	2	0	0	0	3
% 3 Axle Vehicles	0.2	0	0.2	0	0.2	0.2	0	0	0	0.2
4+ Axle Trucks	1	2	3	0	4	4	0	2	2	9
% 4+ Axle Trucks	0.2	2	0.6	0	0.5	0.5	0	4	1.1	0.6

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	49	20	69	**4**	120	124	21	9	30	223
04:15 PM	45	**27**	**72**	0	117	117	**39**	5	**44**	**233**
04:30 PM	**54**	13	67	1	**124**	**125**	10	**12**	22	214
04:45 PM	50	14	64	1	109	110	11	4	15	189
Total Volume	198	74	272	6	470	476	81	30	111	859
% App. Total	72.8	27.2		1.3	98.7		73	27		
PHF	.917	.685	.944	.375	.948	.952	.519	.625	.631	.922

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	49	20	69	**4**	120	124	21	9	30
+15 mins.	45	**27**	**72**	0	117	117	**39**	5	**44**
+30 mins.	**54**	13	67	1	**124**	**125**	10	**12**	22
+45 mins.	50	14	64	1	109	110	11	4	15
Total Volume	198	74	272	6	470	476	81	30	111
% App. Total	72.8	27.2		1.3	98.7		73	27	
PHF	.917	.685	.944	.375	.948	.952	.519	.625	.631

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Weather: Clear

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Groups Printed- Passenger Vehicles

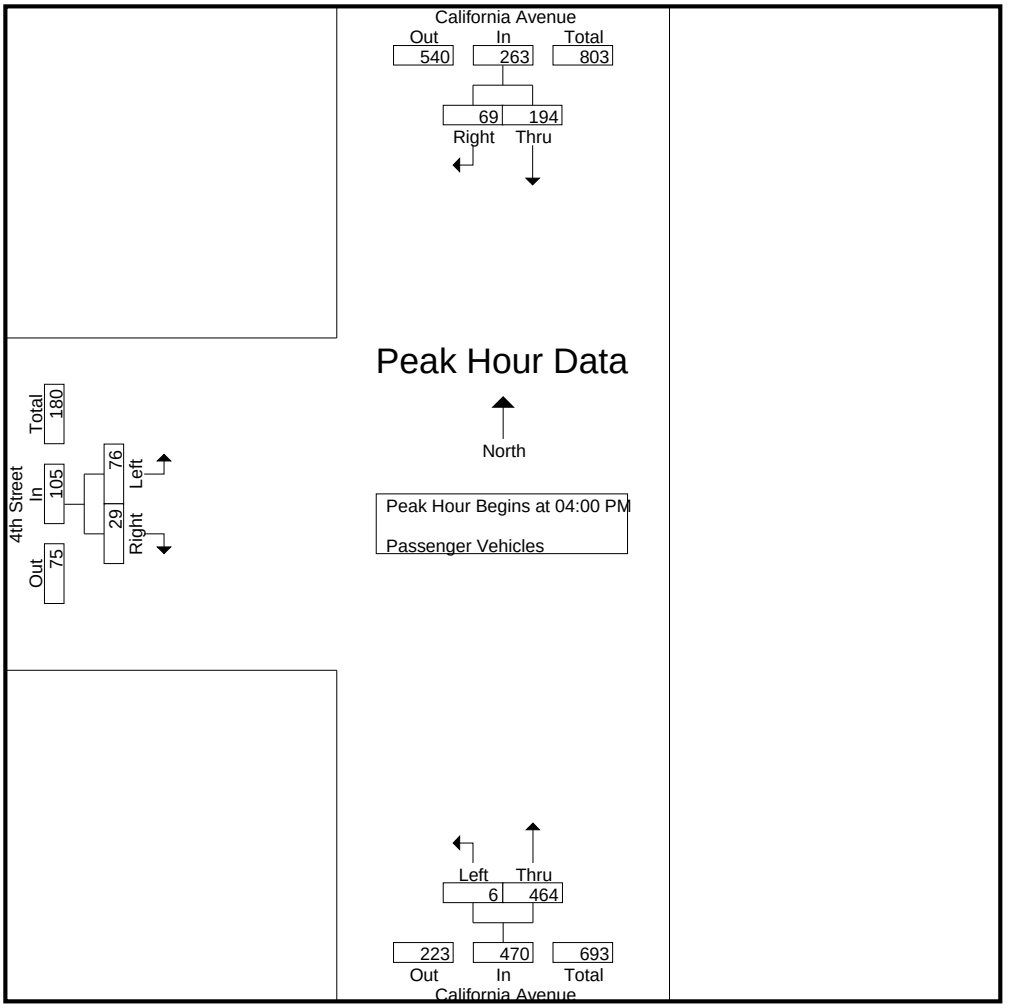
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	48	20	68	4	117	121	21	9	30	219
04:15 PM	45	25	70	0	116	116	37	4	41	227
04:30 PM	52	11	63	1	123	124	9	12	21	208
04:45 PM	49	13	62	1	108	109	9	4	13	184
Total	194	69	263	6	464	470	76	29	105	838
05:00 PM	56	6	62	0	111	111	11	4	15	188
05:15 PM	54	2	56	0	106	106	9	2	11	173
05:30 PM	58	9	67	0	93	93	19	6	25	185
05:45 PM	74	6	80	7	78	85	11	6	17	182
Total	242	23	265	7	388	395	50	18	68	728
Grand Total	436	92	528	13	852	865	126	47	173	1566
Apprch %	82.6	17.4		1.5	98.5		72.8	27.2		
Total %	27.8	5.9	33.7	0.8	54.4	55.2	8	3	11	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	48	20	68	**4**	117	121	21	9	30	219
04:15 PM	45	**25**	**70**	0	116	116	**37**	4	**41**	**227**
04:30 PM	**52**	11	63	1	**123**	**124**	9	**12**	21	208
04:45 PM	49	13	62	1	108	109	9	4	13	184
Total Volume	194	69	263	6	464	470	76	29	105	838
% App. Total	73.8	26.2		1.3	98.7		72.4	27.6		
PHF	.933	.690	.939	.375	.943	.948	.514	.604	.640	.923

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	48	20	68	**4**	117	121	21	9	30
+15 mins.	45	**25**	**70**	0	116	116	**37**	4	**41**
+30 mins.	**52**	11	63	1	**123**	**124**	9	**12**	21
+45 mins.	49	13	62	1	108	109	9	4	13
Total Volume	194	69	263	6	464	470	76	29	105
% App. Total	73.8	26.2		1.3	98.7		72.4	27.6	
PHF	.933	.690	.939	.375	.943	.948	.514	.604	.640

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Groups Printed- Large 2 Axle Vehicles

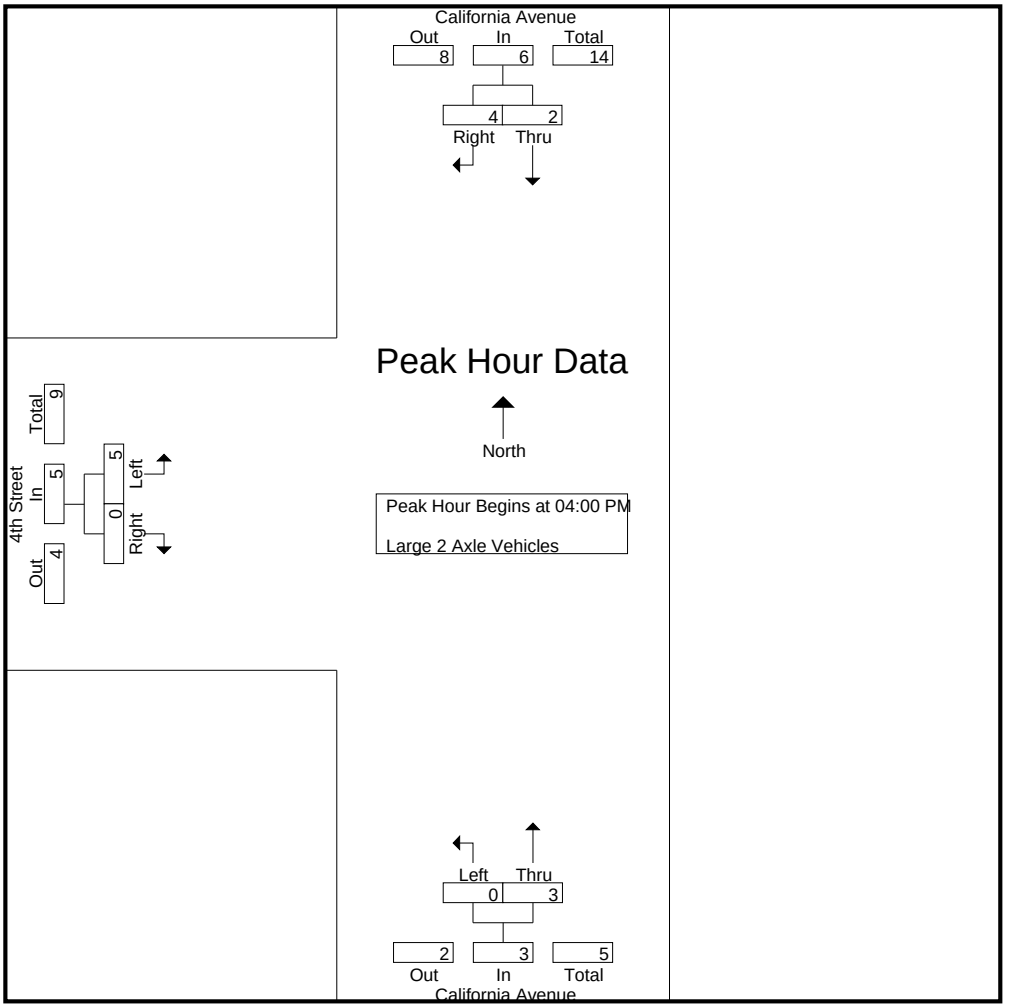
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	1	0	1	0	0	0	0	0	0	1
04:15 PM	0	2	2	0	1	1	2	0	2	5
04:30 PM	0	2	2	0	1	1	1	0	1	4
04:45 PM	1	0	1	0	1	1	2	0	2	4
Total	2	4	6	0	3	3	5	0	5	14
05:00 PM	0	0	0	0	0	0	1	1	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	1	0	0	0	0	0	0	1
05:45 PM	4	0	4	0	1	1	0	0	0	5
Total	5	0	5	0	1	1	1	1	2	8
Grand Total	7	4	11	0	4	4	6	1	7	22
Apprch %	63.6	36.4		0	100		85.7	14.3		
Total %	31.8	18.2	50	0	18.2	18.2	27.3	4.5	31.8	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**1**	0	1	0	0	0	0	0	0	1
04:15 PM	0	**2**	**2**	0	**1**	**1**	**2**	0	**2**	**5**
04:30 PM	0	2	2	0	1	1	1	0	1	4
04:45 PM	1	0	1	0	1	1	2	0	2	4
Total Volume	2	4	6	0	3	3	5	0	5	14
% App. Total	33.3	66.7		0	100		100	0		
PHF	.500	.500	.750	.000	.750	.750	.625	.000	.625	.700

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	**1**	0	1	0	0	0	0	0	0
+15 mins.	0	**2**	**2**	0	**1**	**1**	**2**	0	**2**
+30 mins.	0	2	2	0	1	1	1	0	1
+45 mins.	1	0	1	0	1	1	2	0	2
Total Volume	2	4	6	0	3	3	5	0	5
% App. Total	33.3	66.7		0	100		100	0	
PHF	.500	.500	.750	.000	.750	.750	.625	.000	.625

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Groups Printed- 3 Axle Vehicles

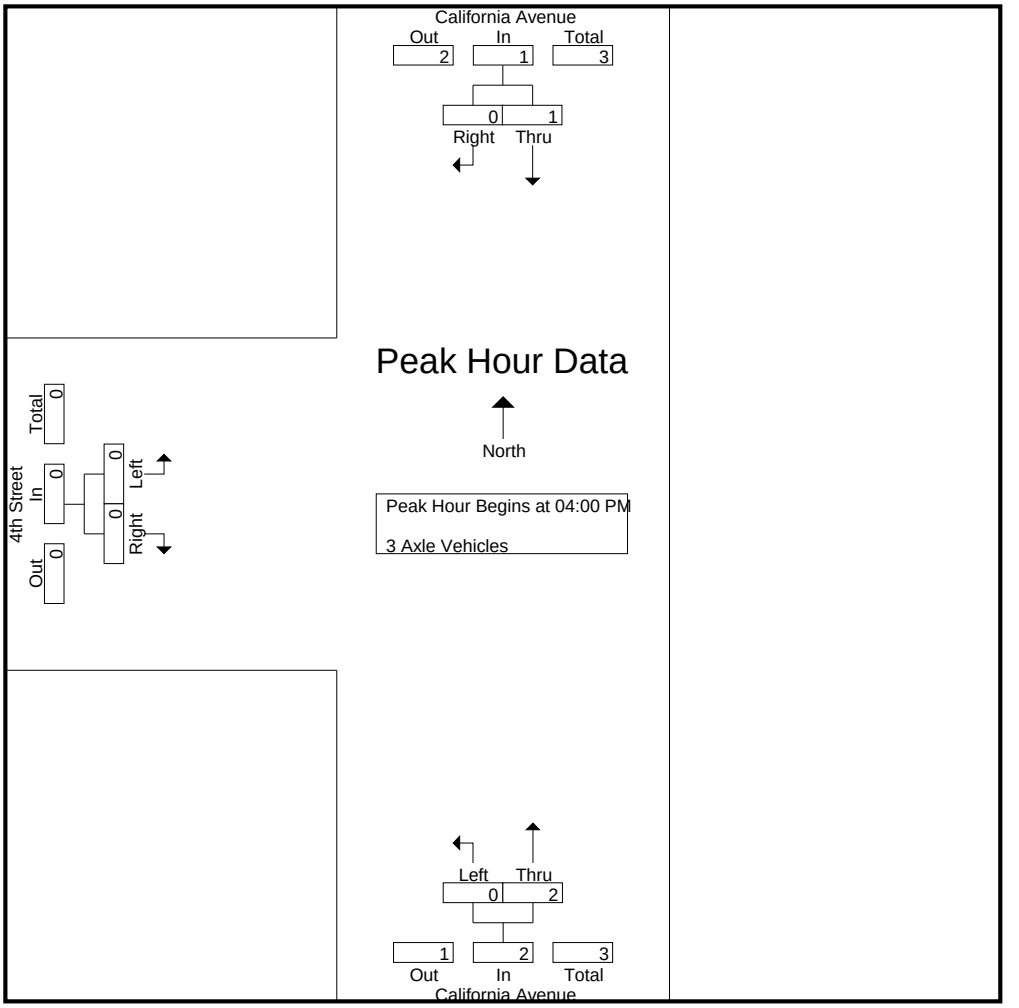
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	2	2	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	2	2	0	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	1	0	2	2	0	0	0	3
Apprch %	100	0		0	100		0	0		
Total %	33.3	0	33.3	0	66.7	66.7	0	0	0	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	**2**	**2**	0	0	0	**2**
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	**1**	0	**1**	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	2	2	0	0	0	3
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.375

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City of Beaumont
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File Name : 11_BMT_California_4th PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	**2**	**2**	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	**1**	0	**1**	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	2	2	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000

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City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

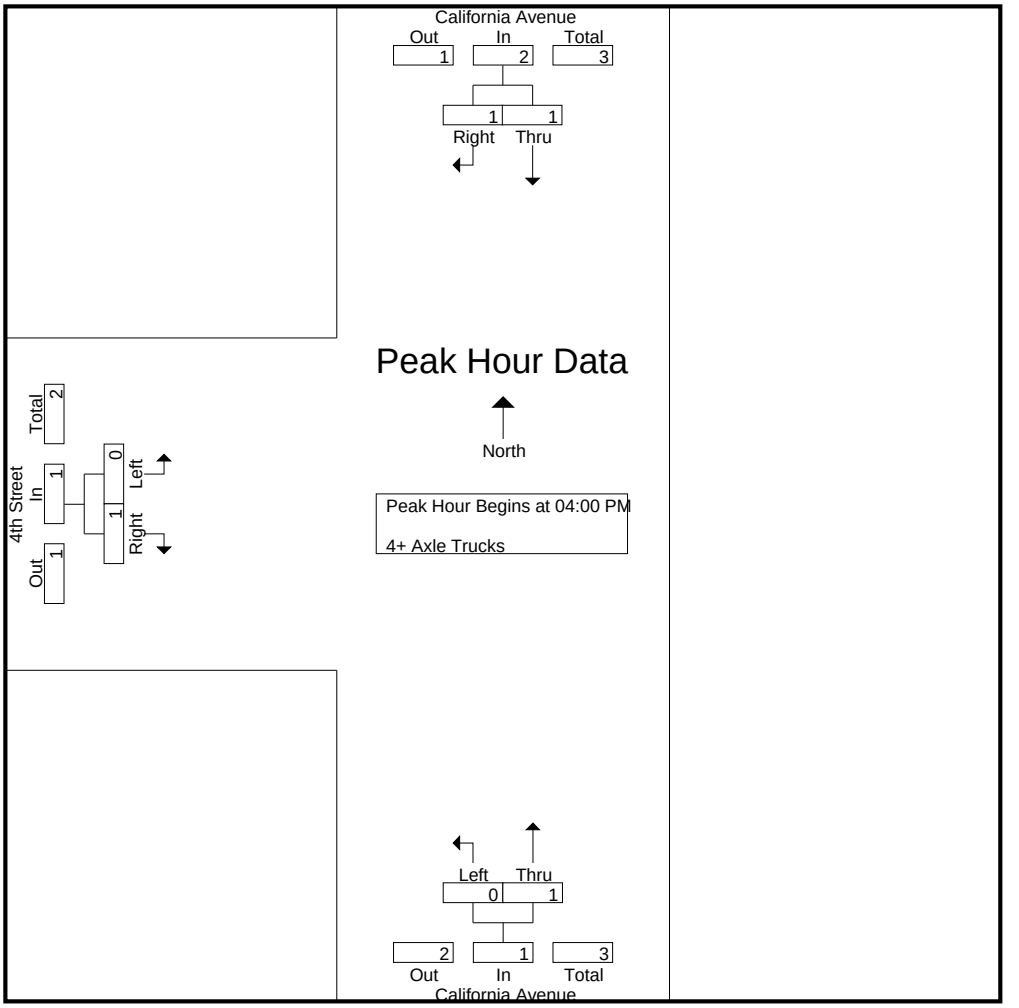
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	1	1	0	0	0	0	0	0	1
Total	1	1	2	0	1	1	0	1	1	4
05:00 PM	0	0	0	0	1	1	0	0	0	1
05:15 PM	0	1	1	0	0	0	0	1	1	2
05:30 PM	0	0	0	0	1	1	0	0	0	1
05:45 PM	0	0	0	0	1	1	0	0	0	1
Total	0	1	1	0	3	3	0	1	1	5
Grand Total	1	2	3	0	4	4	0	2	2	9
Apprch %	33.3	66.7		0	100		0	100		
Total %	11.1	22.2	33.3	0	44.4	44.4	0	22.2	22.2	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	**1**	**1**	0	0	0	**1**
04:15 PM	0	0	0	0	0	0	0	**1**	**1**	1
04:30 PM	**1**	0	**1**	0	0	0	0	0	0	1
04:45 PM	0	**1**	1	0	0	0	0	0	0	1
Total Volume	1	1	2	0	1	1	0	1	1	4
% App. Total	50	50		0	100		0	100		
PHF	.250	.250	.500	.000	.250	.250	.000	.250	.250	1.00

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City of Beaumont
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File Name : 11_BMT_California_4th PM
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	**1**	**1**	0	0	0
+15 mins.	0	0	0	0	0	0	0	**1**	**1**
+30 mins.	**1**	0	**1**	0	0	0	0	0	0
+45 mins.	0	**1**	1	0	0	0	0	0	0
Total Volume	1	1	2	0	1	1	0	1	1
% App. Total	50	50		0	100		0	100	
PHF	.250	.250	.500	.000	.250	.250	.000	.250	.250

Location: Beaumont
N/S: California Avenue
E/W: 4th Street

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg California Avenue	East Leg Dead End	South Leg California Avenue	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg California Avenue	East Leg Dead End	South Leg California Avenue	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

Location: Beaumont
N/S: California Avenue
E/W: 4th Street

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound California Avenue			Westbound Dead End			Northbound California Avenue			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	0	0	0	0	0	0	0	0	2

	Southbound California Avenue			Westbound Dead End			Northbound California Avenue			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	0	0	0	0	0	1	0	0	2

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City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th AM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

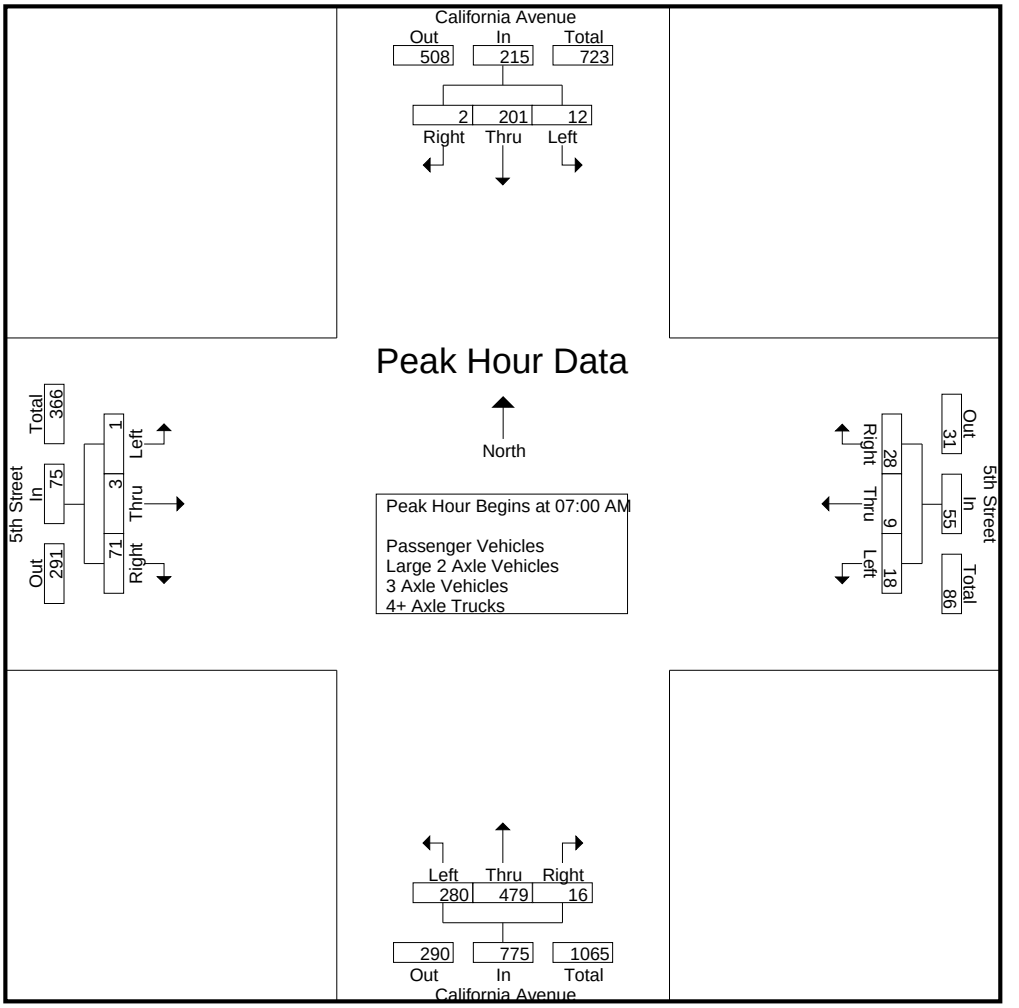
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	51	0	54	4	2	8	14	112	157	3	272	0	0	15	15	355
07:15 AM	4	58	0	62	4	1	7	12	69	119	1	189	1	0	18	19	282
07:30 AM	0	51	1	52	6	2	7	15	51	91	3	145	0	2	19	21	233
07:45 AM	5	41	1	47	4	4	6	14	48	112	9	169	0	1	19	20	250
Total	12	201	2	215	18	9	28	55	280	479	16	775	1	3	71	75	1120
08:00 AM	1	45	2	48	8	2	4	14	41	82	4	127	0	0	8	8	197
08:15 AM	1	39	1	41	4	1	6	11	56	94	2	152	2	0	8	10	214
08:30 AM	3	36	0	39	6	1	6	13	49	107	0	156	0	2	11	13	221
08:45 AM	0	31	1	32	2	2	9	13	50	78	1	129	1	1	12	14	188
Total	5	151	4	160	20	6	25	51	196	361	7	564	3	3	39	45	820
Grand Total	17	352	6	375	38	15	53	106	476	840	23	1339	4	6	110	120	1940
Apprch %	4.5	93.9	1.6		35.8	14.2	50		35.5	62.7	1.7		3.3	5	91.7		
Total %	0.9	18.1	0.3	19.3	2	0.8	2.7	5.5	24.5	43.3	1.2	69	0.2	0.3	5.7	6.2	
Passenger Vehicles	16	328	6	350	35	15	50	100	471	790	21	1282	3	6	110	119	1851
% Passenger Vehicles	94.1	93.2	100	93.3	92.1	100	94.3	94.3	98.9	94	91.3	95.7	75	100	100	99.2	95.4
Large 2 Axle Vehicles	1	13	0	14	2	0	3	5	2	21	2	25	1	0	0	1	45
% Large 2 Axle Vehicles	5.9	3.7	0	3.7	5.3	0	5.7	4.7	0.4	2.5	8.7	1.9	25	0	0	0.8	2.3
3 Axle Vehicles	0	8	0	8	1	0	0	1	2	10	0	12	0	0	0	0	21
% 3 Axle Vehicles	0	2.3	0	2.1	2.6	0	0	0.9	0.4	1.2	0	0.9	0	0	0	0	1.1
4+ Axle Trucks	0	3	0	3	0	0	0	0	1	19	0	20	0	0	0	0	23
% 4+ Axle Trucks	0	0.9	0	0.8	0	0	0	0	0.2	2.3	0	1.5	0	0	0	0	1.2

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	51	0	54	4	2	**8**	14	**112**	**157**	3	**272**	0	0	15	15	**355**
07:15 AM	4	**58**	0	**62**	4	1	7	12	69	119	1	189	**1**	0	18	19	282
07:30 AM	0	51	**1**	52	**6**	2	7	**15**	51	91	3	145	0	**2**	**19**	**21**	233
07:45 AM	**5**	41	1	47	4	**4**	6	14	48	112	**9**	169	0	1	19	20	250
Total Volume	12	201	2	215	18	9	28	55	280	479	16	775	1	3	71	75	1120
% App. Total	5.6	93.5	0.9		32.7	16.4	50.9		36.1	61.8	2.1		1.3	4	94.7		
PHF	.600	.866	.500	.867	.750	.563	.875	.917	.625	.763	.444	.712	.250	.375	.934	.893	.789

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City of Beaumont
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File Name : 12_BMT_California_5th AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	51	0	54	4	2	**8**	14	**112**	**157**	3	**272**	0	0	15	15
+15 mins.	4	**58**	0	**62**	4	1	7	12	69	119	1	189	**1**	0	18	19
+30 mins.	0	51	**1**	52	**6**	2	7	**15**	51	91	3	145	0	**2**	**19**	**21**
+45 mins.	**5**	41	1	47	4	**4**	6	14	48	112	**9**	169	0	1	19	20
Total Volume	12	201	2	215	18	9	28	55	280	479	16	775	1	3	71	75
% App. Total	5.6	93.5	0.9		32.7	16.4	50.9		36.1	61.8	2.1		1.3	4	94.7	
PHF	.600	.866	.500	.867	.750	.563	.875	.917	.625	.763	.444	.712	.250	.375	.934	.893

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Weather: Clear

File Name : 12_BMT_California_5th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

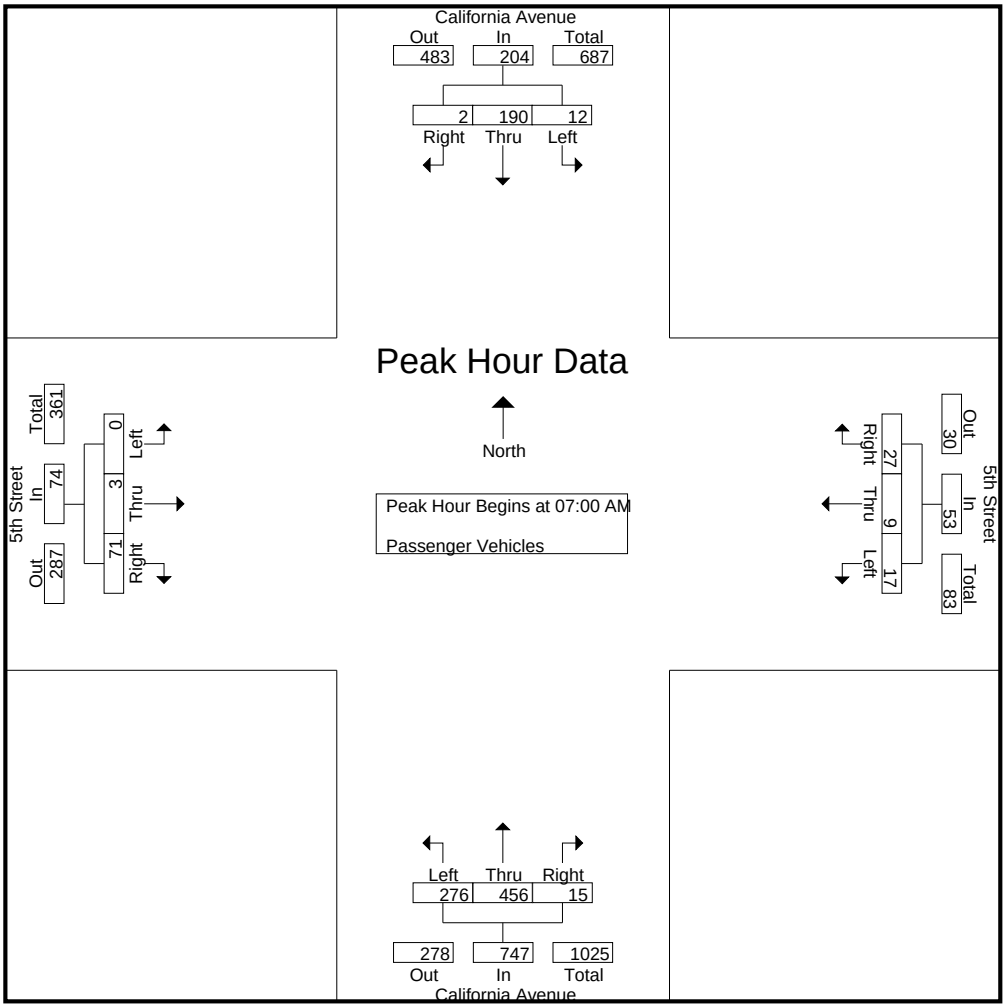
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	48	0	51	4	2	7	13	110	145	3	258	0	0	15	15	337
07:15 AM	4	57	0	61	4	1	7	12	68	114	1	183	0	0	18	18	274
07:30 AM	0	46	1	47	5	2	7	14	51	88	3	142	0	2	19	21	224
07:45 AM	5	39	1	45	4	4	6	14	47	109	8	164	0	1	19	20	243
Total	12	190	2	204	17	9	27	53	276	456	15	747	0	3	71	74	1078
08:00 AM	1	43	2	46	7	2	3	12	41	77	3	121	0	0	8	8	187
08:15 AM	0	34	1	35	4	1	6	11	56	88	2	146	2	0	8	10	202
08:30 AM	3	35	0	38	5	1	5	11	49	102	0	151	0	2	11	13	213
08:45 AM	0	26	1	27	2	2	9	13	49	67	1	117	1	1	12	14	171
Total	4	138	4	146	18	6	23	47	195	334	6	535	3	3	39	45	773
Grand Total	16	328	6	350	35	15	50	100	471	790	21	1282	3	6	110	119	1851
Apprch %	4.6	93.7	1.7		35	15	50		36.7	61.6	1.6		2.5	5	92.4		
Total %	0.9	17.7	0.3	18.9	1.9	0.8	2.7	5.4	25.4	42.7	1.1	69.3	0.2	0.3	5.9	6.4	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	48	0	51	4	2	**7**	13	**110**	**145**	3	**258**	0	0	15	15	**337**
07:15 AM	4	**57**	0	**61**	4	1	7	12	68	114	1	183	0	0	18	18	274
07:30 AM	0	46	**1**	47	**5**	2	7	**14**	51	88	3	142	0	**2**	**19**	**21**	224
07:45 AM	**5**	39	1	45	4	**4**	6	14	47	109	**8**	164	0	1	19	20	243
Total Volume	12	190	2	204	17	9	27	53	276	456	15	747	0	3	71	74	1078
% App. Total	5.9	93.1	1		32.1	17	50.9		36.9	61	2		0	4.1	95.9		
PHF	.600	.833	.500	.836	.850	.563	.964	.946	.627	.786	.469	.724	.000	.375	.934	.881	.800

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City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	48	0	51	4	2	**7**	13	**110**	**145**	3	**258**	0	0	15	15
+15 mins.	4	**57**	0	**61**	4	1	7	12	68	114	1	183	0	0	18	18
+30 mins.	0	46	**1**	47	**5**	2	7	**14**	51	88	3	142	0	**2**	**19**	**21**
+45 mins.	**5**	39	1	45	4	**4**	6	14	47	109	**8**	164	0	1	19	20
Total Volume	12	190	2	204	17	9	27	53	276	456	15	747	0	3	71	74
% App. Total	5.9	93.1	1		32.1	17	50.9		36.9	61	2		0	4.1	95.9	
PHF	.600	.833	.500	.836	.850	.563	.964	.946	.627	.786	.469	.724	.000	.375	.934	.881

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City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th AM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- Large 2 Axle Vehicles

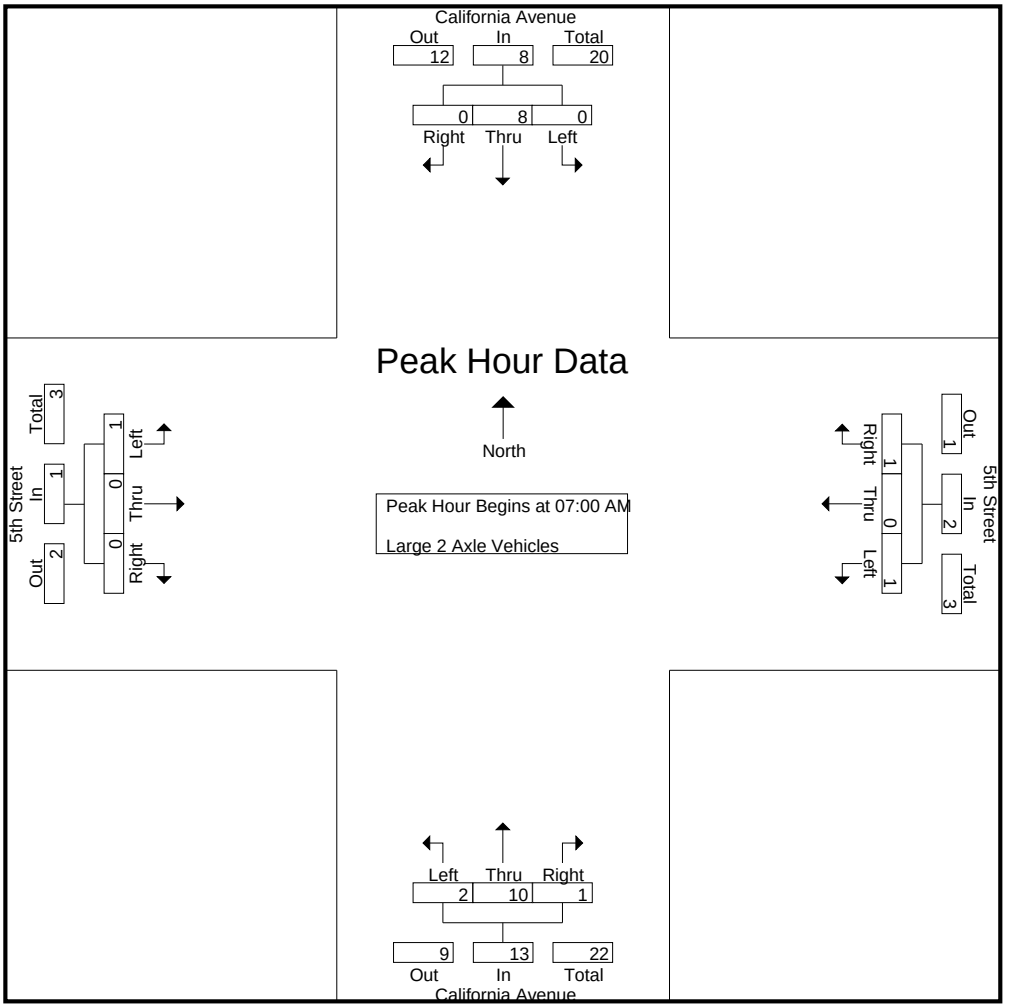
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	0	2	0	0	1	1	1	5	0	6	0	0	0	0	9
07:15 AM	0	0	0	0	0	0	0	0	1	2	0	3	1	0	0	1	4
07:30 AM	0	4	0	4	1	0	0	1	0	2	0	2	0	0	0	0	7
07:45 AM	0	2	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
Total	0	8	0	8	1	0	1	2	2	10	1	13	1	0	0	1	24
08:00 AM	0	1	0	1	0	0	1	1	0	2	1	3	0	0	0	0	5
08:15 AM	1	0	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
08:30 AM	0	1	0	1	1	0	1	2	0	2	0	2	0	0	0	0	5
08:45 AM	0	3	0	3	0	0	0	0	0	5	0	5	0	0	0	0	8
Total	1	5	0	6	1	0	2	3	0	11	1	12	0	0	0	0	21
Grand Total	1	13	0	14	2	0	3	5	2	21	2	25	1	0	0	1	45
Apprch %	7.1	92.9	0		40	0	60		8	84	8		100	0	0		
Total %	2.2	28.9	0	31.1	4.4	0	6.7	11.1	4.4	46.7	4.4	55.6	2.2	0	0	2.2	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	2	0	2	0	0	**1**	**1**	**1**	**5**	0	**6**	0	0	0	0	**9**
07:15 AM	0	0	0	0	0	0	0	0	1	2	0	3	**1**	0	0	**1**	4
07:30 AM	0	**4**	0	**4**	**1**	0	0	1	0	2	0	2	0	0	0	0	7
07:45 AM	0	2	0	2	0	0	0	0	0	1	**1**	2	0	0	0	0	4
Total Volume	0	8	0	8	1	0	1	2	2	10	1	13	1	0	0	1	24
% App. Total	0	100	0		50	0	50		15.4	76.9	7.7		100	0	0		
PHF	.000	.500	.000	.500	.250	.000	.250	.500	.500	.500	.250	.542	.250	.000	.000	.250	.667

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City of Beaumont
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File Name : 12_BMT_California_5th AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	**1**	**1**	**1**	**5**	0	**6**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	1	2	0	3	**1**	0	0	**1**
+30 mins.	0	**4**	0	**4**	**1**	0	0	1	0	2	0	2	0	0	0	0
+45 mins.	0	2	0	2	0	0	0	0	0	1	**1**	2	0	0	0	0
Total Volume	0	8	0	8	1	0	1	2	2	10	1	13	1	0	0	1
% App. Total	0	100	0		50	0	50		15.4	76.9	7.7		100	0	0	
PHF	.000	.500	.000	.500	.250	.000	.250	.500	.500	.500	.250	.542	.250	.000	.000	.250

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Site Code : 05119803
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Groups Printed- 3 Axle Vehicles

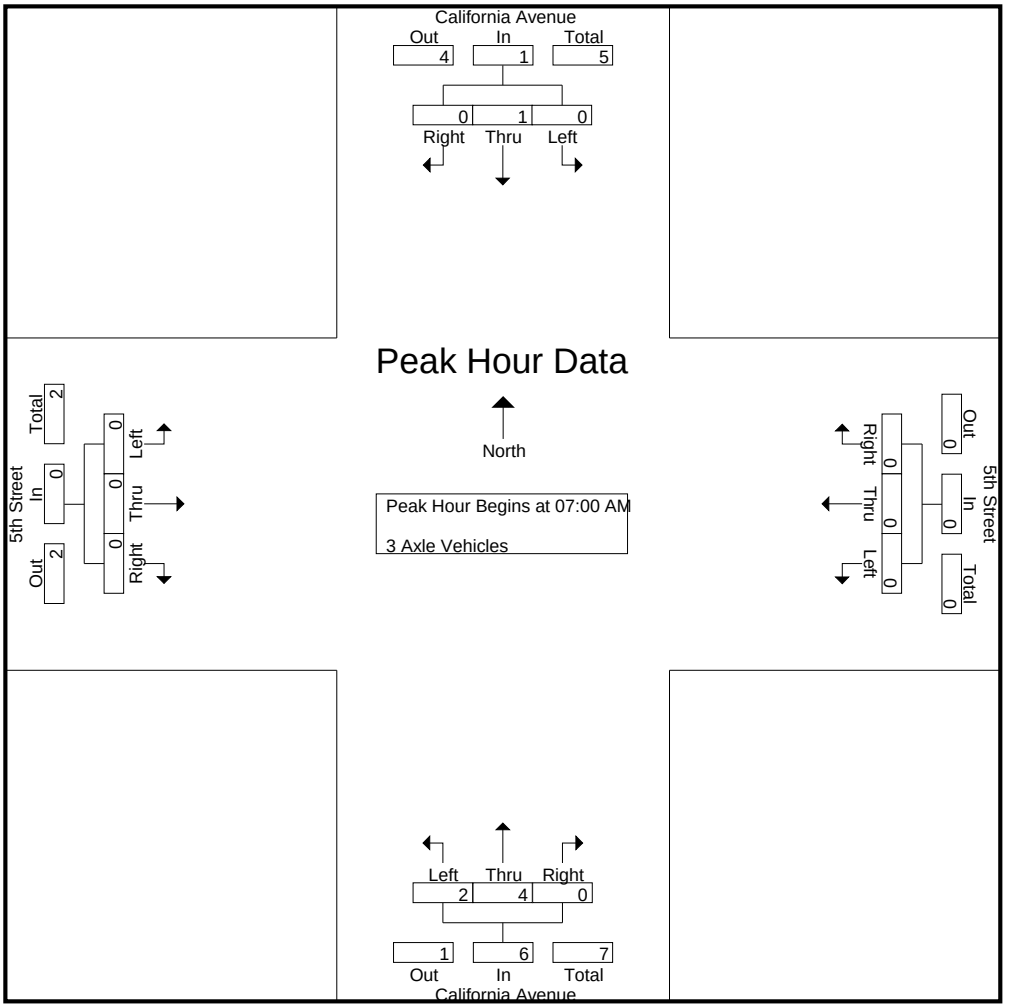
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	3
07:15 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	2	4	0	6	0	0	0	0	7
08:00 AM	0	1	0	1	1	0	0	1	0	1	0	1	0	0	0	0	3
08:15 AM	0	5	0	5	0	0	0	0	0	3	0	3	0	0	0	0	8
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	7	0	7	1	0	0	1	0	6	0	6	0	0	0	0	14
Grand Total	0	8	0	8	1	0	0	1	2	10	0	12	0	0	0	0	21
Apprch %	0	100	0		100	0	0		16.7	83.3	0		0	0	0		
Total %	0	38.1	0	38.1	4.8	0	0	4.8	9.5	47.6	0	57.1	0	0	0	0	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	**1**	**2**	0	**3**	0	0	0	0	**3**
07:15 AM	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	2	4	0	6	0	0	0	0	7
% App. Total	0	100	0		0	0	0		33.3	66.7	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.500	.500	.000	.500	.000	.000	.000	.000	.583

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	**1**	**2**	0	**3**	0	0	0	0
+15 mins.	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	2	4	0	6	0	0	0	0
% App. Total	0	100	0		0	0	0		33.3	66.7	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.500	.500	.000	.500	.000	.000	.000	.000

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Groups Printed- 4+ Axle Trucks

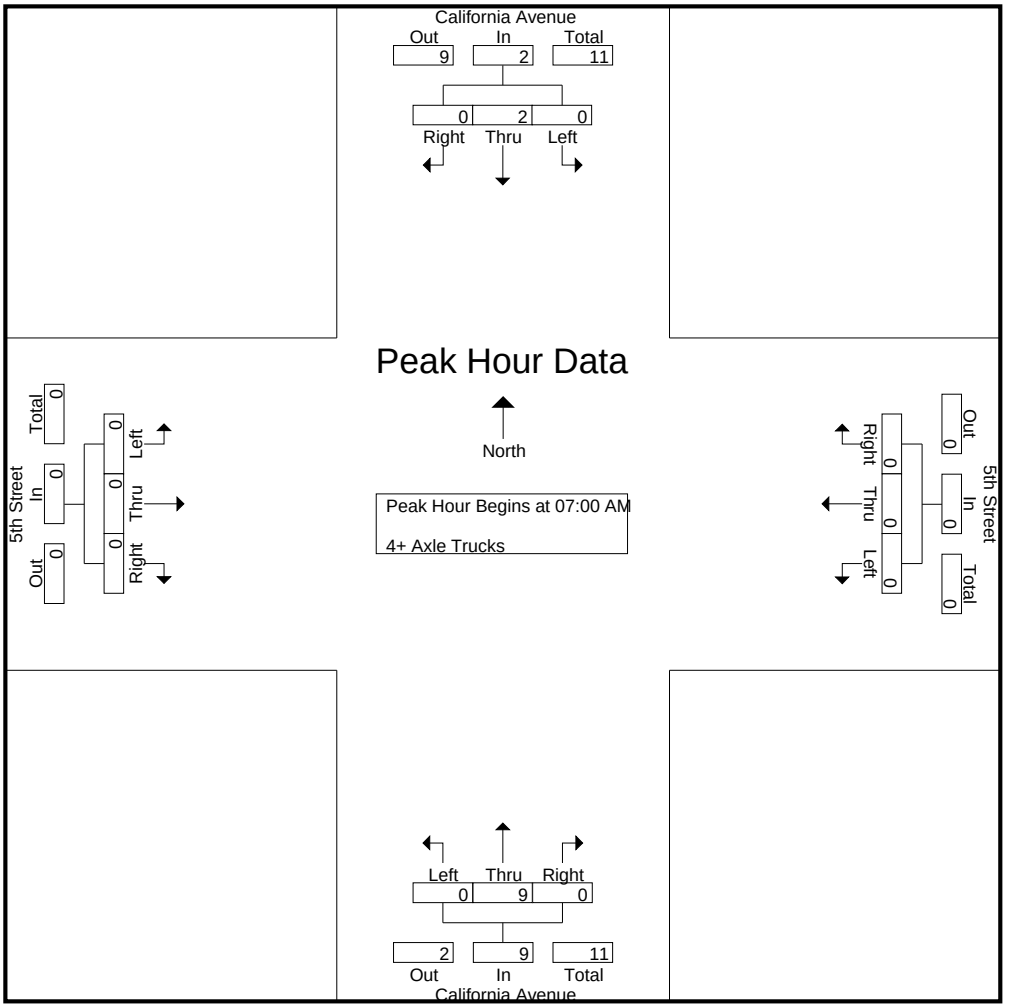
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	5	0	5	0	0	0	0	6
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total	0	2	0	2	0	0	0	0	0	9	0	9	0	0	0	0	11
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:45 AM	0	1	0	1	0	0	0	0	1	6	0	7	0	0	0	0	8
Total	0	1	0	1	0	0	0	0	1	10	0	11	0	0	0	0	12
Grand Total	0	3	0	3	0	0	0	0	1	19	0	20	0	0	0	0	23
Apprch %	0	100	0		0	0	0		5	95	0		0	0	0		
Total %	0	13	0	13	0	0	0	0	4.3	82.6	0	87	0	0	0	0	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**1**	0	**1**	0	0	0	0	0	**5**	0	**5**	0	0	0	0	**6**
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total Volume	0	2	0	2	0	0	0	0	0	9	0	9	0	0	0	0	11
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.450	.000	.450	.000	.000	.000	.000	.458

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	**1**	0	**1**	0	0	0	0	0	**5**	0	**5**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	9	0	9	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.450	.000	.450	.000	.000	.000	.000

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Weather: Clear

File Name : 12_BMT_California_5th PM
Site Code : 05119803
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Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

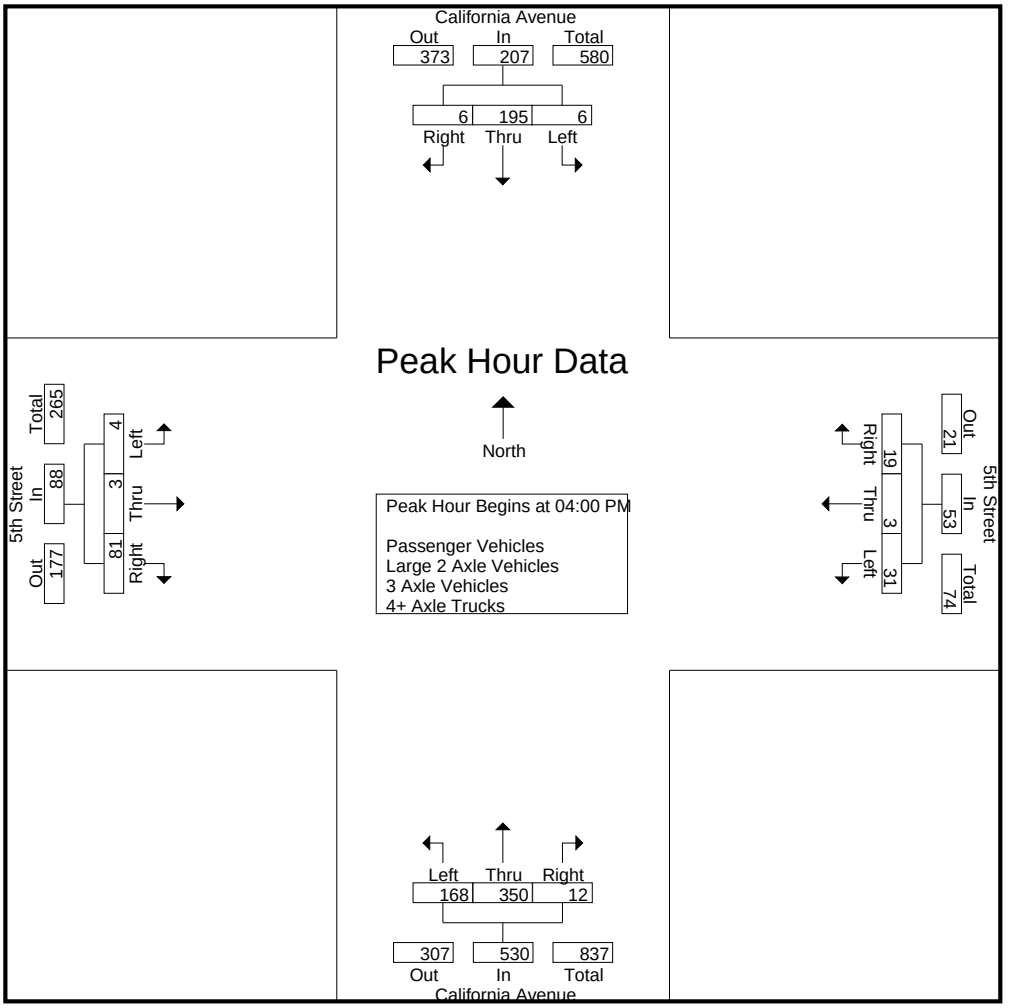
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	56	3	60	7	1	6	14	46	95	1	142	1	0	14	15	231
04:15 PM	1	58	0	59	7	1	2	10	42	92	4	138	2	0	23	25	232
04:30 PM	1	50	1	52	9	1	6	16	44	83	4	131	1	2	26	29	228
04:45 PM	3	31	2	36	8	0	5	13	36	80	3	119	0	1	18	19	187
Total	6	195	6	207	31	3	19	53	168	350	12	530	4	3	81	88	878
05:00 PM	3	42	5	50	5	3	7	15	39	83	2	124	1	0	17	18	207
05:15 PM	2	49	6	57	6	3	8	17	36	76	1	113	1	1	19	21	208
05:30 PM	1	52	1	54	5	2	6	13	31	65	4	100	1	1	16	18	185
05:45 PM	1	54	2	57	3	3	8	14	21	58	1	80	1	0	26	27	178
Total	7	197	14	218	19	11	29	59	127	282	8	417	4	2	78	84	778
Grand Total	13	392	20	425	50	14	48	112	295	632	20	947	8	5	159	172	1656
Apprch %	3.1	92.2	4.7		44.6	12.5	42.9		31.2	66.7	2.1		4.7	2.9	92.4		
Total %	0.8	23.7	1.2	25.7	3	0.8	2.9	6.8	17.8	38.2	1.2	57.2	0.5	0.3	9.6	10.4	
Passenger Vehicles	13	380	19	412	42	14	46	102	293	612	19	924	8	5	158	171	1609
% Passenger Vehicles	100	96.9	95	96.9	84	100	95.8	91.1	99.3	96.8	95	97.6	100	100	99.4	99.4	97.2
Large 2 Axle Vehicles	0	8	0	8	3	0	2	5	2	10	1	13	0	0	1	1	27
% Large 2 Axle Vehicles	0	2	0	1.9	6	0	4.2	4.5	0.7	1.6	5	1.4	0	0	0.6	0.6	1.6
3 Axle Vehicles	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
% 3 Axle Vehicles	0	0.8	0	0.7	0	0	0	0	0	0.2	0	0.1	0	0	0	0	0.2
4+ Axle Trucks	0	1	1	2	5	0	0	5	0	9	0	9	0	0	0	0	16
% 4+ Axle Trucks	0	0.3	5	0.5	10	0	0	4.5	0	1.4	0	1	0	0	0	0	1

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	56	**3**	**60**	7	**1**	**6**	14	**46**	**95**	1	**142**	1	0	14	15	231
04:15 PM	1	**58**	0	59	7	1	2	10	42	92	**4**	138	**2**	0	23	25	**232**
04:30 PM	1	50	1	52	**9**	1	6	**16**	44	83	4	131	1	**2**	**26**	**29**	228
04:45 PM	**3**	31	2	36	8	0	5	13	36	80	3	119	0	1	18	19	187
Total Volume	6	195	6	207	31	3	19	53	168	350	12	530	4	3	81	88	878
% App. Total	2.9	94.2	2.9		58.5	5.7	35.8		31.7	66	2.3		4.5	3.4	92		
PHF	.500	.841	.500	.863	.861	.750	.792	.828	.913	.921	.750	.933	.500	.375	.779	.759	.946

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:30 PM				04:00 PM				04:15 PM			
+0 mins.	**3**	42	5	50	**9**	1	6	16	**46**	**95**	1	**142**	**2**	0	23	25
+15 mins.	2	49	**6**	**57**	8	0	5	13	42	92	**4**	138	1	**2**	**26**	**29**
+30 mins.	1	52	1	54	5	**3**	7	15	44	83	4	131	0	1	18	19
+45 mins.	1	**54**	2	57	6	3	**8**	**17**	36	80	3	119	1	0	17	18
Total Volume	7	197	14	218	28	7	26	61	168	350	12	530	4	3	84	91
% App. Total	3.2	90.4	6.4		45.9	11.5	42.6		31.7	66	2.3		4.4	3.3	92.3	
PHF	.583	.912	.583	.956	.778	.583	.813	.897	.913	.921	.750	.933	.500	.375	.808	.784

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File Name : 12_BMT_California_5th PM
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Groups Printed- Passenger Vehicles

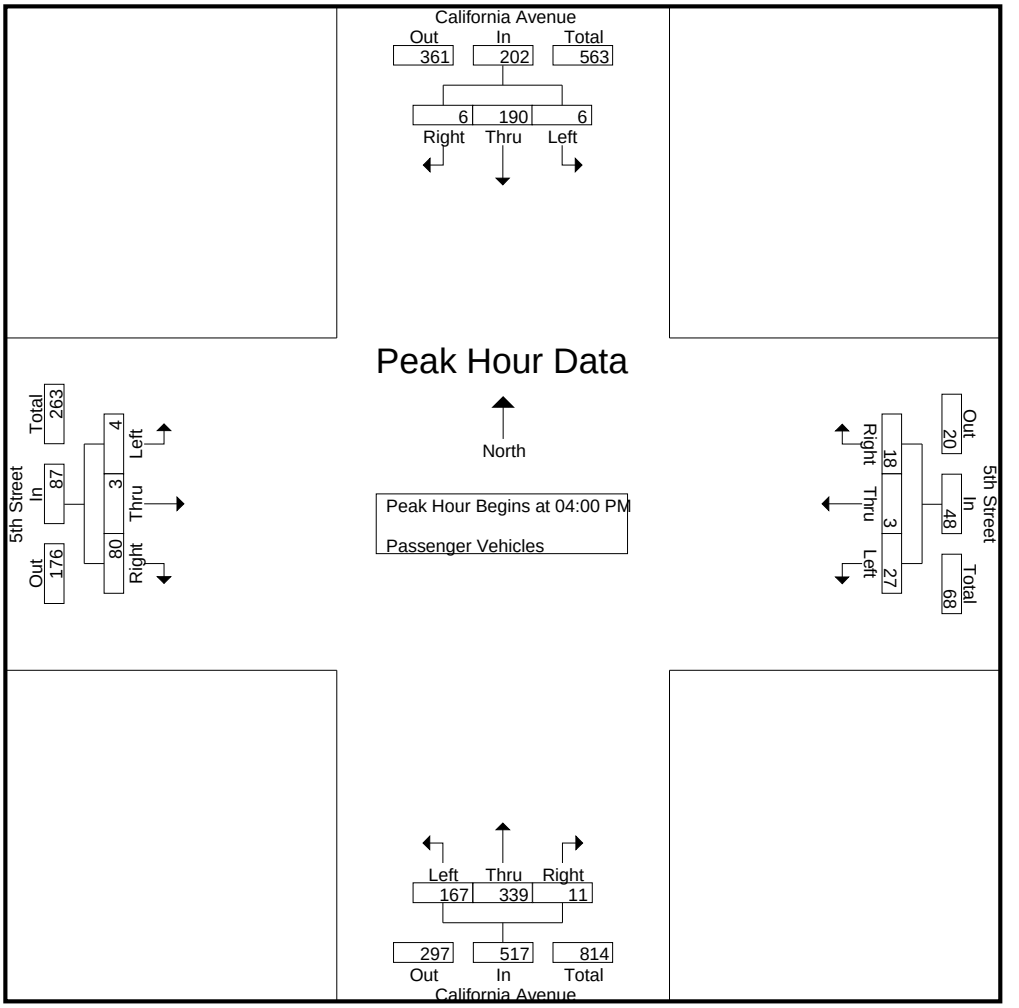
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	56	3	60	7	1	5	13	46	93	0	139	1	0	13	14	226
04:15 PM	1	56	0	57	6	1	2	9	42	88	4	134	2	0	23	25	225
04:30 PM	1	47	1	49	8	1	6	15	44	82	4	130	1	2	26	29	223
04:45 PM	3	31	2	36	6	0	5	11	35	76	3	114	0	1	18	19	180
Total	6	190	6	202	27	3	18	48	167	339	11	517	4	3	80	87	854
05:00 PM	3	40	5	48	5	3	7	15	39	81	2	122	1	0	17	18	203
05:15 PM	2	49	6	57	4	3	8	15	36	74	1	111	1	1	19	21	204
05:30 PM	1	50	1	52	4	2	6	12	31	62	4	97	1	1	16	18	179
05:45 PM	1	51	1	53	2	3	7	12	20	56	1	77	1	0	26	27	169
Total	7	190	13	210	15	11	28	54	126	273	8	407	4	2	78	84	755
Grand Total	13	380	19	412	42	14	46	102	293	612	19	924	8	5	158	171	1609
Apprch %	3.2	92.2	4.6		41.2	13.7	45.1		31.7	66.2	2.1		4.7	2.9	92.4		
Total %	0.8	23.6	1.2	25.6	2.6	0.9	2.9	6.3	18.2	38	1.2	57.4	0.5	0.3	9.8	10.6	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	**56**	**3**	**60**	7	**1**	5	13	**46**	**93**	0	**139**	1	0	13	14	**226**
04:15 PM	1	56	0	57	6	1	2	9	42	88	**4**	134	**2**	0	23	25	225
04:30 PM	1	47	1	49	**8**	1	**6**	**15**	44	82	4	130	1	**2**	**26**	**29**	223
04:45 PM	**3**	31	2	36	6	0	5	11	35	76	3	114	0	1	18	19	180
Total Volume	6	190	6	202	27	3	18	48	167	339	11	517	4	3	80	87	854
% App. Total	3	94.1	3		56.2	6.2	37.5		32.3	65.6	2.1		4.6	3.4	92		
PHF	.500	.848	.500	.842	.844	.750	.750	.800	.908	.911	.688	.930	.500	.375	.769	.750	.945

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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	1	**56**	**3**	**60**	7	**1**	5	13	**46**	**93**	0	**139**	1	0	13	14
+15 mins.	1	56	0	57	6	1	2	9	42	88	**4**	134	**2**	0	23	25
+30 mins.	1	47	1	49	**8**	1	**6**	**15**	44	82	4	130	1	**2**	**26**	**29**
+45 mins.	**3**	31	2	36	6	0	5	11	35	76	3	114	0	1	18	19
Total Volume	6	190	6	202	27	3	18	48	167	339	11	517	4	3	80	87
% App. Total	3	94.1	3		56.2	6.2	37.5		32.3	65.6	2.1		4.6	3.4	92	
PHF	.500	.848	.500	.842	.844	.750	.750	.800	.908	.911	.688	.930	.500	.375	.769	.750

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
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File Name : 12_BMT_California_5th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

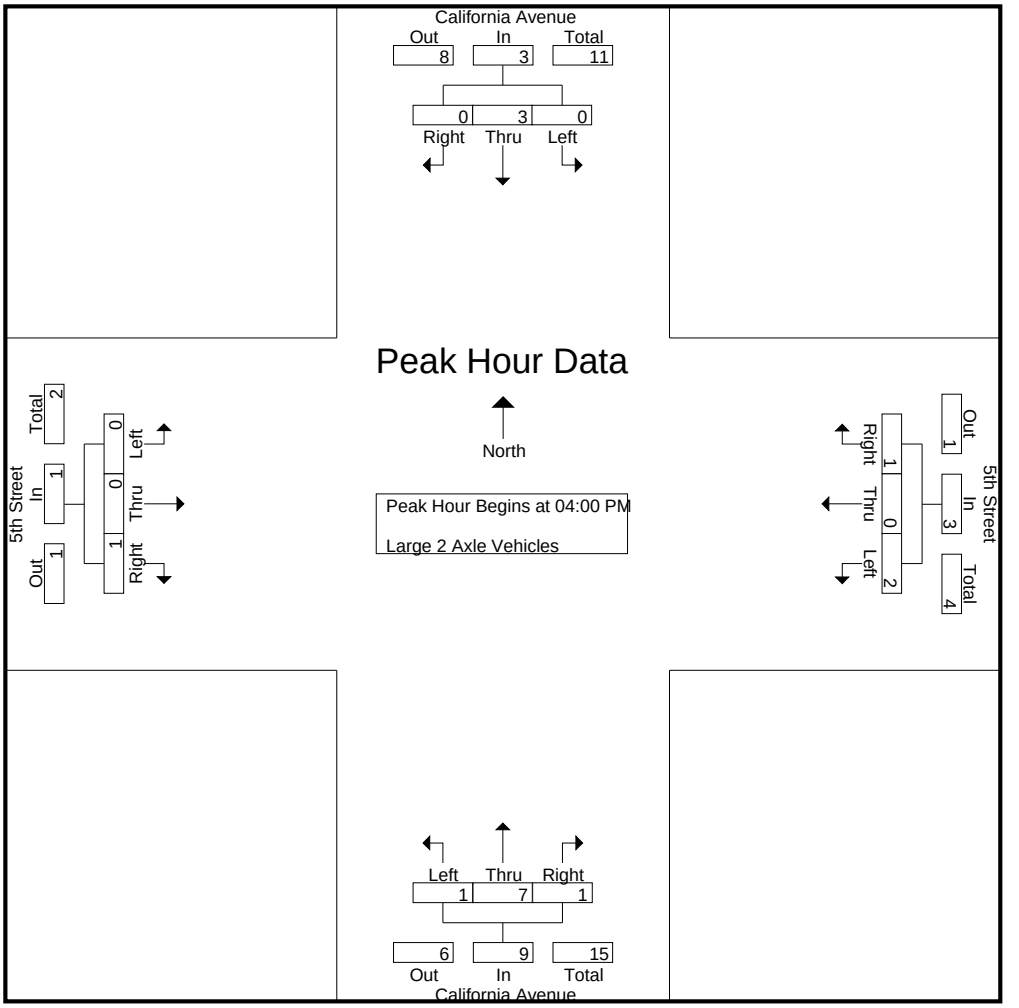
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	1	3
04:15 PM	0	2	0	2	1	0	0	1	0	4	0	4	0	0	0	0	7
04:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	4
Total	0	3	0	3	2	0	1	3	1	7	1	9	0	0	1	1	16
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:30 PM	0	2	0	2	1	0	0	1	0	1	0	1	0	0	0	0	4
05:45 PM	0	3	0	3	0	0	1	1	1	0	0	1	0	0	0	0	5
Total	0	5	0	5	1	0	1	2	1	3	0	4	0	0	0	0	11
Grand Total	0	8	0	8	3	0	2	5	2	10	1	13	0	0	1	1	27
Apprch %	0	100	0		60	0	40		15.4	76.9	7.7		0	0	100		
Total %	0	29.6	0	29.6	11.1	0	7.4	18.5	7.4	37	3.7	48.1	0	0	3.7	3.7	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	**1**	**1**	0	0	**1**	1	0	0	**1**	**1**	3
04:15 PM	0	**2**	0	**2**	**1**	0	0	1	0	**4**	0	**4**	0	0	0	0	**7**
04:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	**1**	3	0	4	0	0	0	0	4
Total Volume	0	3	0	3	2	0	1	3	1	7	1	9	0	0	1	1	16
% App. Total	0	100	0		66.7	0	33.3		11.1	77.8	11.1		0	0	100		
PHF	.000	.375	.000	.375	.500	.000	.250	.750	.250	.438	.250	.563	.000	.000	.250	.250	.571

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	**1**	**1**	0	0	**1**	1	0	0	**1**	**1**
+15 mins.	0	**2**	0	**2**	**1**	0	0	1	0	**4**	0	**4**	0	0	0	0
+30 mins.	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	**1**	3	0	4	0	0	0	0
Total Volume	0	3	0	3	2	0	1	3	1	7	1	9	0	0	1	1
% App. Total	0	100	0		66.7	0	33.3		11.1	77.8	11.1		0	0	100	
PHF	.000	.375	.000	.375	.500	.000	.250	.750	.250	.438	.250	.563	.000	.000	.250	.250

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City of Beaumont
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E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

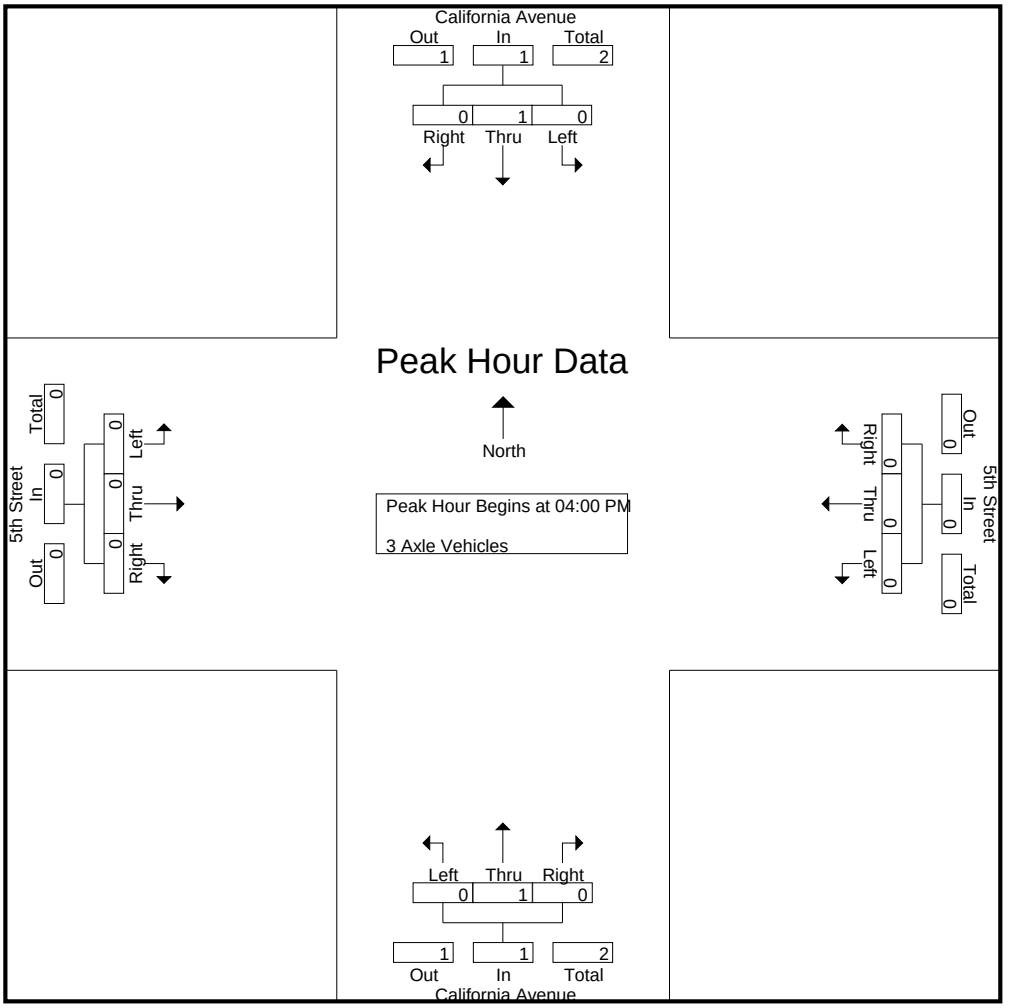
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	75	0	75	0	0	0	0	0	25	0	25	0	0	0	0	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	**1**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.500

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

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Page No : 1

Groups Printed- 4+ Axle Trucks

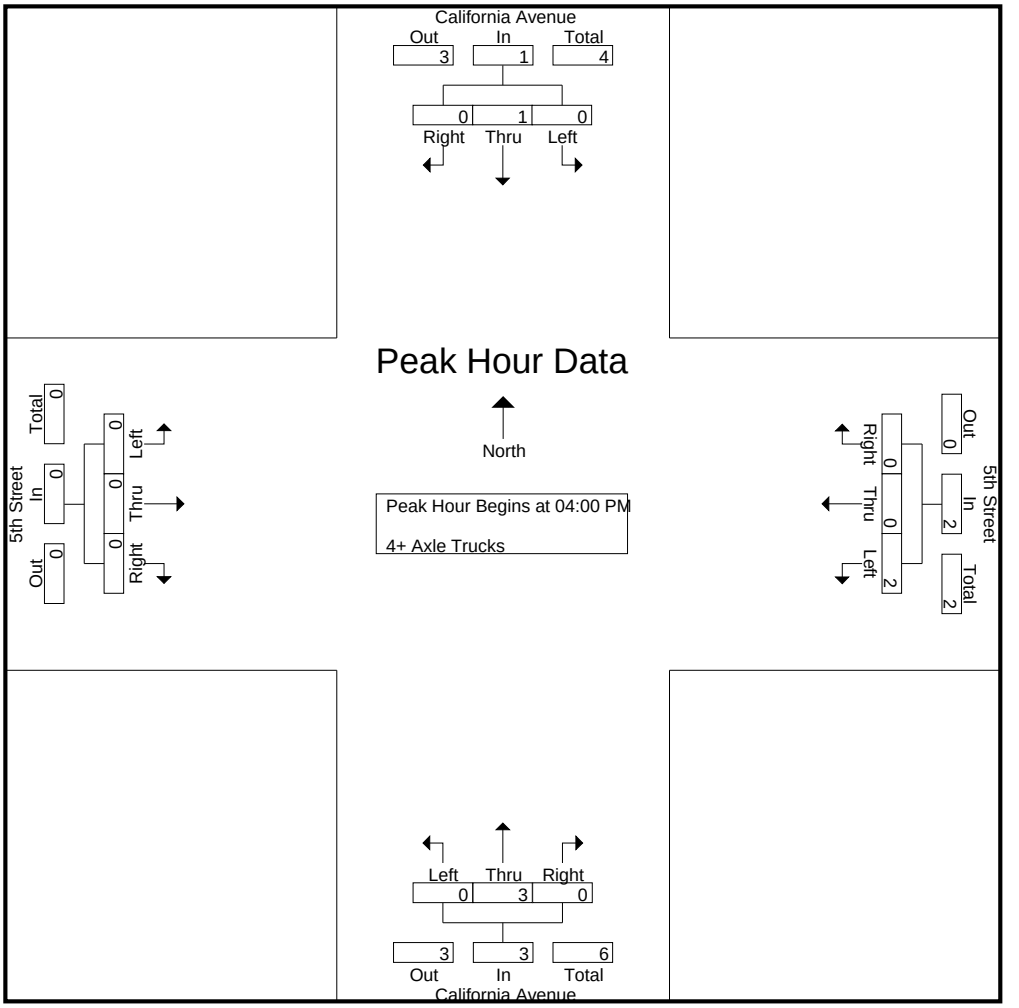
	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	2	0	0	2	0	1	0	1	0	0	0	0	3
Total	0	1	0	1	2	0	0	2	0	3	0	3	0	0	0	0	6
05:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:45 PM	0	0	1	1	1	0	0	1	0	2	0	2	0	0	0	0	4
Total	0	0	1	1	3	0	0	3	0	6	0	6	0	0	0	0	10
Grand Total	0	1	1	2	5	0	0	5	0	9	0	9	0	0	0	0	16
Apprch %	0	50	50		100	0	0		0	100	0		0	0	0		
Total %	0	6.2	6.2	12.5	31.2	0	0	31.2	0	56.2	0	56.2	0	0	0	0	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	**2**	0	0	**2**	0	1	0	1	0	0	0	0	**3**
Total Volume	0	1	0	1	2	0	0	2	0	3	0	3	0	0	0	0	6
% App. Total	0	100	0		100	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000	.500

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	**1**	0	**1**	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	**2**	0	0	**2**	0	1	0	1	0	0	0	0
Total Volume	0	1	0	1	2	0	0	2	0	3	0	3	0	0	0	0
% App. Total	0	100	0		100	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000

Location: Beaumont
N/S: California Avenue
E/W: 5th Street

Date: 11/19/2019
Day: Tuesday

PEDESTRIANS

	North Leg California Avenue	East Leg 5th Street	South Leg California Avenue	West Leg 5th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	1	1	0	0	2
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	1	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	2	0	0	3

	North Leg California Avenue	East Leg 5th Street	South Leg California Avenue	West Leg 5th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
N/S: California Avenue
E/W: 5th Street

Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound California Avenue			Westbound 5th Street			Northbound California Avenue			Eastbound 5th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

	Southbound California Avenue			Westbound 5th Street			Northbound California Avenue			Eastbound 5th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	0	0	0	1	0	0	0	0	3

Counts Unlimited, Inc

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

County of Riverside
Jack Rabit Trail
S/ Frontage Road
24 Hour Directional Classification Count

CRV003
Site Code: 051-19803

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	**1**	0	0	0	0	0	1
07:00	0	1	0	0	**1**	0	0	0	0	0	0	0	0	2
08:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
09:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	**3**	**2**	0	0	0	0	0	0	0	0	0	0	**5**
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	**4**
14:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
15:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
16:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
17:00	0	1	1	0	**2**	0	0	0	0	0	0	0	0	4
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	16	8	0	3	0	0	1	0	0	0	0	0	28
Percent	0.0%	57.1%	28.6%	0.0%	10.7%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	11:00		07:00			06:00						11:00
Vol.		3	2		1			1						5
PM Peak		13:00	13:00		17:00									13:00
Vol.		2	2		2									4
Grand Total	0	16	8	0	3	0	0	1	0	0	0	0	0	28
Percent	0.0%	57.1%	28.6%	0.0%	10.7%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

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email: counts@countsunlimited.com

County of Riverside
Jack Rabit Trail
S/ Frontage Road
24 Hour Directional Classification Count

CRV003
Site Code: 051-19803

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	**1**	0	0	**2**	0	0	0	0	0	0	0	0	**3**
06:00	0	1	**1**	0	0	0	0	0	0	0	0	0	0	2
07:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
11:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
14:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
15:00	0	1	**2**	0	**2**	0	0	**1**	0	0	0	0	0	**6**
16:00	0	**2**	0	0	0	0	0	1	0	0	0	0	0	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	10	8	0	7	0	0	2	0	0	0	0	0	27
Percent	0.0%	37.0%	29.6%	0.0%	25.9%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		05:00	06:00		05:00									05:00
Vol.		1	1		2									3
PM Peak		16:00	15:00		15:00			15:00						15:00
Vol.		2	2		2			1						6
Grand Total	0	10	8	0	7	0	0	2	0	0	0	0	0	27
Percent	0.0%	37.0%	29.6%	0.0%	25.9%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

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County of Riverside
Jack Rabit Trail
S/ Frontage Road
24 Hour Directional Classification Count

CRV003
Site Code: 051-19803

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	0	0	**2**	0	0	0	0	0	0	0	0	3
06:00	0	1	1	0	0	0	0	**1**	0	0	0	0	0	3
07:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
08:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
09:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
11:00	0	**4**	**3**	0	0	0	0	0	0	0	0	0	0	**7**
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
14:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
15:00	0	3	**3**	0	**2**	0	0	**1**	0	0	0	0	0	**9**
16:00	0	**4**	1	0	0	0	0	1	0	0	0	0	0	6
17:00	0	1	1	0	2	0	0	0	0	0	0	0	0	4
18:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
21:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	26	16	0	10	0	0	3	0	0	0	0	0	55
Percent	0.0%	47.3%	29.1%	0.0%	18.2%	0.0%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	11:00		05:00			06:00						11:00
Vol.		4	3		2			1						7
PM Peak		16:00	15:00		15:00			15:00						15:00
Vol.		4	3		2			1						9
Grand Total	0	26	16	0	10	0	0	3	0	0	0	0	0	55
Percent	0.0%	47.3%	29.1%	0.0%	18.2%	0.0%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	

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County of Riverside
Oak Valley Parkway
E/ Desert Lawn Drive
24 Hour Directional Classification Count

CRV001
Site Code: 051-19803

Eastbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	12	3	0	5	0	0	0	0	0	0	0	0	20
01:00	0	5	4	0	2	0	0	0	0	0	0	0	0	11
02:00	0	15	3	0	3	0	0	0	0	0	0	0	0	21
03:00	0	29	12	0	4	0	0	0	0	0	0	0	0	45
04:00	0	51	28	1	16	0	0	0	0	0	0	0	0	96
05:00	0	117	46	0	21	0	0	0	0	0	0	0	0	184
06:00	1	313	77	1	35	1	0	0	0	0	0	0	0	428
07:00	**4**	**455**	**143**	**4**	**52**	2	**1**	2	1	0	0	**1**	0	**665**
08:00	1	284	66	0	26	**4**	0	**5**	2	0	0	0	0	388
09:00	1	219	70	3	28	2	0	0	**4**	0	0	0	0	327
10:00	0	215	77	1	26	1	0	3	4	0	0	0	0	327
11:00	3	196	85	0	31	2	0	3	2	**1**	0	0	0	323
12 PM	0	270	89	3	36	1	0	1	**4**	0	0	0	0	404
13:00	0	240	87	**4**	44	1	0	**4**	1	0	0	0	0	381
14:00	**6**	245	94	0	38	0	0	2	2	0	0	0	0	387
15:00	3	270	**96**	2	**51**	**5**	**1**	3	1	0	0	0	0	**432**
16:00	1	242	96	4	26	0	0	3	0	0	0	0	0	372
17:00	4	**278**	90	0	26	0	0	0	0	0	0	0	0	398
18:00	2	199	54	1	23	1	0	1	0	0	0	0	0	281
19:00	0	150	37	0	16	1	0	2	0	0	0	0	0	206
20:00	2	134	15	0	0	0	0	0	0	0	0	0	0	151
21:00	0	71	6	0	3	1	0	0	0	0	0	0	0	81
22:00	0	48	11	0	3	0	0	0	0	0	0	0	0	62
23:00	0	34	5	0	2	0	0	0	0	0	0	0	0	41
Total	28	4092	1294	24	517	22	2	29	21	1	0	1	0	6031
Percent	0.5%	67.8%	21.5%	0.4%	8.6%	0.4%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	07:00	08:00	07:00	08:00	09:00	11:00		07:00		07:00
Vol.	4	455	143	4	52	4	1	5	4	1		1		665
PM Peak	14:00	17:00	15:00	13:00	15:00	15:00	15:00	13:00	12:00					15:00
Vol.	6	278	96	4	51	5	1	4	4					432
Grand Total	28	4092	1294	24	517	22	2	29	21	1	0	1	0	6031
Percent	0.5%	67.8%	21.5%	0.4%	8.6%	0.4%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	

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County of Riverside
Oak Valley Parkway
E/ Desert Lawn Drive
24 Hour Directional Classification Count

CRV001
Site Code: 051-19803

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	29	4	0	0	0	0	0	0	0	0	0	0	33
01:00	0	23	4	0	1	0	0	0	0	0	0	0	0	28
02:00	1	22	3	0	1	1	0	0	0	0	0	0	0	28
03:00	1	58	22	1	2	1	0	0	1	0	**1**	0	0	87
04:00	0	86	17	1	10	0	0	0	0	0	1	0	0	115
05:00	0	38	22	1	10	0	0	0	0	0	0	0	0	71
06:00	0	144	66	**7**	27	2	0	5	1	**2**	0	0	0	254
07:00	2	**305**	**117**	3	27	2	0	**6**	0	1	0	0	0	**463**
08:00	0	191	76	2	**30**	1	0	6	**7**	0	0	0	0	313
09:00	0	167	51	2	17	0	0	3	1	0	1	0	0	242
10:00	**3**	171	63	0	25	**3**	0	0	6	0	0	0	0	271
11:00	0	192	58	1	14	2	0	2	3	0	0	0	0	272
12 PM	3	264	70	1	31	0	0	1	1	0	0	0	0	371
13:00	1	255	72	0	23	2	0	2	1	0	0	0	0	356
14:00	4	253	87	1	20	**4**	0	2	0	0	0	**1**	0	372
15:00	1	400	**125**	**3**	**34**	3	0	**5**	**2**	0	0	0	0	**573**
16:00	1	394	106	2	23	2	**1**	3	0	0	0	0	0	532
17:00	2	**405**	116	0	24	2	0	4	0	0	0	0	0	553
18:00	1	317	81	0	17	1	0	1	0	0	0	0	0	418
19:00	0	199	116	0	26	1	0	1	0	0	0	0	0	343
20:00	**5**	272	23	0	2	0	0	0	0	0	0	0	0	302
21:00	1	145	16	0	3	0	0	0	0	0	0	0	0	165
22:00	1	113	12	0	3	0	0	0	0	0	0	0	0	129
23:00	0	50	7	0	3	0	0	0	0	0	0	0	0	60
Total	27	4493	1334	25	373	27	1	41	23	3	3	1	0	6351
Percent	0.4%	70.7%	21.0%	0.4%	5.9%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	06:00	08:00	10:00		07:00	08:00	06:00	03:00			07:00
Vol.	3	305	117	7	30	3		6	7	2	1			463
PM Peak	20:00	17:00	15:00	15:00	15:00	14:00	16:00	15:00	15:00			14:00		15:00
Vol.	5	405	125	3	34	4	1	5	2			1		573
Grand Total	27	4493	1334	25	373	27	1	41	23	3	3	1	0	6351
Percent	0.4%	70.7%	21.0%	0.4%	5.9%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	

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County of Riverside
Oak Valley Parkway
E/ Desert Lawn Drive
24 Hour Directional Classification Count

CRV001
Site Code: 051-19803

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	41	7	0	5	0	0	0	0	0	0	0	0	53
01:00	0	28	8	0	3	0	0	0	0	0	0	0	0	39
02:00	1	37	6	0	4	1	0	0	0	0	0	0	0	49
03:00	1	87	34	1	6	1	0	0	1	0	**1**	0	0	132
04:00	0	137	45	2	26	0	0	0	0	0	1	0	0	211
05:00	0	155	68	1	31	0	0	0	0	0	0	0	0	255
06:00	1	457	143	**8**	62	3	0	5	1	**2**	0	0	0	682
07:00	**6**	**760**	**260**	7	**79**	4	**1**	8	1	1	0	**1**	0	**1128**
08:00	1	475	142	2	56	**5**	0	**11**	9	0	0	0	0	701
09:00	1	386	121	5	45	2	0	3	5	0	1	0	0	569
10:00	3	386	140	1	51	4	0	3	**10**	0	0	0	0	598
11:00	3	388	143	1	45	4	0	5	5	1	0	0	0	595
12 PM	3	534	159	4	67	1	0	2	**5**	0	0	0	0	775
13:00	1	495	159	4	67	3	0	6	2	0	0	0	0	737
14:00	**10**	498	181	1	58	4	0	4	2	0	0	**1**	0	759
15:00	4	670	**221**	5	**85**	**8**	**1**	**8**	3	0	0	0	0	**1005**
16:00	2	636	202	**6**	49	2	1	6	0	0	0	0	0	904
17:00	6	**683**	206	0	50	2	0	4	0	0	0	0	0	951
18:00	3	516	135	1	40	2	0	2	0	0	0	0	0	699
19:00	0	349	153	0	42	2	0	3	0	0	0	0	0	549
20:00	7	406	38	0	2	0	0	0	0	0	0	0	0	453
21:00	1	216	22	0	6	1	0	0	0	0	0	0	0	246
22:00	1	161	23	0	6	0	0	0	0	0	0	0	0	191
23:00	0	84	12	0	5	0	0	0	0	0	0	0	0	101
Total	55	8585	2628	49	890	49	3	70	44	4	3	2	0	12382
Percent	0.4%	69.3%	21.2%	0.4%	7.2%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	06:00	07:00	08:00	07:00	08:00	10:00	06:00	03:00	07:00		07:00
Vol.	6	760	260	8	79	5	1	11	10	2	1	1		1128
PM Peak	14:00	17:00	15:00	16:00	15:00	15:00	15:00	15:00	12:00			14:00		15:00
Vol.	10	683	221	6	85	8	1	8	5			1		1005
Grand Total	55	8585	2628	49	890	49	3	70	44	4	3	2	0	12382
Percent	0.4%	69.3%	21.2%	0.4%	7.2%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

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County of Riverside
Portrero Boulevard
N/ 4th Street
24 Hour Directional Classification Count

CRV002
Site Code: 051-19803

Northbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
06:00	0	1	2	0	**1**	0	0	0	0	0	0	0	0	4
07:00	0	0	1	0	0	0	0	0	1	0	0	0	0	2
08:00	0	0	1	0	1	**1**	0	0	**2**	0	0	0	0	5
09:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:00	0	**3**	2	0	0	0	0	0	0	0	0	0	0	5
11:00	0	3	**3**	0	0	0	0	0	0	0	0	0	0	**6**
12 PM	0	**5**	0	0	0	0	0	0	0	0	0	0	0	5
13:00	0	4	**4**	0	0	0	0	0	0	0	0	0	0	**8**
14:00	0	2	3	0	**3**	0	0	0	0	0	0	0	0	8
15:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
16:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	30	20	0	5	1	0	0	3	0	0	0	0	59
Percent	0.0%	50.8%	33.9%	0.0%	8.5%	1.7%	0.0%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak		10:00	11:00		06:00	08:00			08:00					11:00
Vol.		3	3		1	1			2					6
PM Peak		12:00	13:00		14:00									13:00
Vol.		5	4		3									8
Grand Total	0	30	20	0	5	1	0	0	3	0	0	0	0	59
Percent	0.0%	50.8%	33.9%	0.0%	8.5%	1.7%	0.0%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	

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County of Riverside
Portrero Boulevard
N/ 4th Street
24 Hour Directional Classification Count

CRV002
Site Code: 051-19803

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:00	0	1	**2**	0	0	0	0	0	**2**	0	0	0	0	5
08:00	0	**2**	1	0	**1**	0	0	0	2	0	0	0	0	**6**
09:00	0	0	0	0	1	**1**	0	0	1	0	0	0	0	3
10:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
11:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
12 PM	0	2	1	0	**1**	0	0	0	0	0	0	0	0	4
13:00	0	**5**	1	0	1	0	0	0	0	0	0	0	0	**7**
14:00	**1**	2	**2**	0	1	0	0	0	0	0	0	0	0	6
15:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
16:00	0	0	2	0	1	0	0	0	0	0	0	0	0	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	21	14	0	7	1	0	0	5	0	0	0	0	49
Percent	2.0%	42.9%	28.6%	0.0%	14.3%	2.0%	0.0%	0.0%	10.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak		08:00	07:00		08:00	09:00			07:00					08:00
Vol.		2	2		1	1			2					6
PM Peak	14:00	13:00	14:00		12:00									13:00
Vol.	1	5	2		1									7
Grand Total	1	21	14	0	7	1	0	0	5	0	0	0	0	49
Percent	2.0%	42.9%	28.6%	0.0%	14.3%	2.0%	0.0%	0.0%	10.2%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

County of Riverside
Portrero Boulevard
N/ 4th Street
24 Hour Directional Classification Count

CRV002
Site Code: 051-19803

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
06:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
07:00	0	1	3	0	0	0	0	0	3	0	0	0	0	7
08:00	0	2	2	0	**2**	**1**	0	0	**4**	0	0	0	0	**11**
09:00	0	1	0	0	1	1	0	0	1	0	0	0	0	4
10:00	0	3	**4**	0	0	0	0	0	0	0	0	0	0	7
11:00	0	**5**	3	0	1	0	0	0	0	0	0	0	0	9
12 PM	0	7	1	0	1	0	0	0	0	0	0	0	0	9
13:00	0	**9**	**5**	0	1	0	0	0	0	0	0	0	0	**15**
14:00	**1**	4	5	0	**4**	0	0	0	0	0	0	0	0	14
15:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
16:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
18:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	51	34	0	12	2	0	0	8	0	0	0	0	108
Percent	0.9%	47.2%	31.5%	0.0%	11.1%	1.9%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	10:00		08:00	08:00			08:00					08:00
Vol.		5	4		2	1			4					11
PM Peak	14:00	13:00	13:00		14:00									13:00
Vol.	1	9	5		4									15
Grand Total	1	51	34	0	12	2	0	0	8	0	0	0	0	108
Percent	0.9%	47.2%	31.5%	0.0%	11.1%	1.9%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	

APPENDIX 3.2:

EXISTING (2020) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	183	21	57	200	28	86
Future Vol, veh/h	183	21	57	200	28	86
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	24	66	233	33	100
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.9	8.3	8.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	86	92	92	21	57	100	100
LT Vol	28	0	0	0	0	57	0	0
Through Vol	0	0	92	92	0	0	100	100
RT Vol	0	86	0	0	21	0	0	0
Lane Flow Rate	33	100	106	106	24	66	116	116
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.057	0.14	0.16	0.16	0.02	0.108	0.173	0.118
Departure Headway (Hd)	6.251	5.053	5.423	5.423	3.01	5.86	5.358	3.649
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	570	704	658	658	1172	610	667	974
Service Time	4.018	2.821	3.185	3.185	0.772	3.613	3.11	1.401
HCM Lane V/C Ratio	0.058	0.142	0.161	0.161	0.02	0.108	0.174	0.119
HCM Control Delay	9.4	8.7	9.2	9.2	5.8	9.3	9.2	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.5	0.6	0.6	0.1	0.4	0.6	0.4

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	0	51	0	2	5	43	6	0
Future Vol, veh/h	0	0	0	9	0	51	0	2	5	43	6	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	14	0	78	0	3	8	66	9	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7	6.8	7.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	88%
Vol Thru, %	29%	0%	12%
Vol Right, %	71%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	7	60	49
LT Vol	0	9	43
Through Vol	2	0	6
RT Vol	5	51	0
Lane Flow Rate	11	92	75
Geometry Grp	1	1	1
Degree of Util (X)	0.011	0.092	0.089
Departure Headway (Hd)	3.69	3.569	4.246
Convergence, Y/N	Yes	Yes	Yes
Cap	966	998	845
Service Time	1.729	1.614	2.267
HCM Lane V/C Ratio	0.011	0.092	0.089
HCM Control Delay	6.8	7	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.3	0.3

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	0	8	1	6	14	11	0
Future Vol, veh/h	0	8	1	6	14	11	0
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	0	12	1	9	21	16	0
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	7.4	6.8	7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	0%	100%	100%
Vol Thru, %	100%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	1	6	14	6	6
LT Vol	0	0	0	0	6	6
Through Vol	8	1	6	0	0	0
RT Vol	0	0	0	14	0	0
Lane Flow Rate	12	1	9	21	8	8
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.015	0.002	0.011	0.022	0.012	0.008
Departure Headway (Hd)	4.572	4.533	4.533	3.833	5.08	3.38
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	784	792	792	936	706	1058
Service Time	2.296	2.247	2.247	1.547	2.803	1.103
HCM Lane V/C Ratio	0.015	0.001	0.011	0.022	0.011	0.008
HCM Control Delay	7.4	7.3	7.3	6.6	7.9	6.1
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0	0	0	0.1	0	0

Intersection	
Intersection Delay, s/veh	58.5
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	49	271	228	307	458	42
Future Vol, veh/h	49	271	228	307	458	42
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	56	311	262	353	526	48
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	25	14.1	127.4
HCM LOS	C	B	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	92%
Vol Thru, %	0%	100%	100%	100%	13%	0%
Vol Right, %	0%	0%	0%	0%	87%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	271	91	91	353	500
LT Vol	49	0	0	0	0	458
Through Vol	0	271	91	91	46	0
RT Vol	0	0	0	0	307	42
Lane Flow Rate	56	311	105	105	405	575
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.13	0.675	0.211	0.211	0.556	1.185
Departure Headway (Hd)	9.012	8.487	7.887	7.887	5.487	7.421
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	400	430	458	458	661	489
Service Time	6.712	6.187	5.587	5.587	3.187	5.172
HCM Lane V/C Ratio	0.14	0.723	0.229	0.229	0.613	1.176
HCM Control Delay	13.1	27.1	12.7	12.7	14.8	127.4
HCM Lane LOS	B	D	B	B	B	F
HCM 95th-tile Q	0.4	4.9	0.8	0.8	3.4	21.2

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	40	0	16	0	36	0	1	0	0	0
Future Vol, veh/h	0	5	40	0	16	0	36	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	62	0	25	0	55	0	2	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	114	2	148	113	-	2	0	0	2	0	0
Stage 1	-	2	-	111	111	-	-	-	-	-	-	-
Stage 2	-	112	-	37	2	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	780	1088	825	781	0	1634	-	-	1634	-	-
Stage 1	0	898	-	899	807	0	-	-	-	-	-	-
Stage 2	0	807	-	984	898	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	753	1088	752	754	-	1634	-	-	1634	-	-
Mov Cap-2 Maneuver	-	753	-	752	754	-	-	-	-	-	-	-
Stage 1	-	898	-	868	780	-	-	-	-	-	-	-
Stage 2	-	780	-	920	898	-	-	-	-	-	-	-

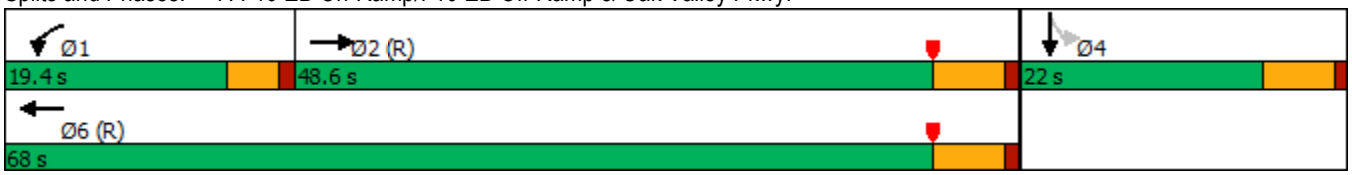
Approach	EB	WB	NB	SB
HCM Control Delay, s	8.7	9.9	7.1	0
HCM LOS	A	A		

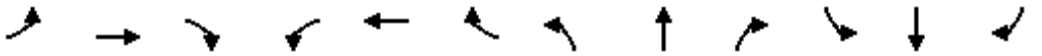
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1634	-	-	1037	754	1634	-	-
HCM Lane V/C Ratio	0.034	-	-	0.067	0.033	-	-	-
HCM Control Delay (s)	7.3	0	-	8.7	9.9	0	-	-
HCM Lane LOS	A	A	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	315	235	491	3
Future Volume (vph)	315	235	491	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	43.1	14.5	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	0.92	0.91	0.42	0.95
Control Delay	36.5	64.9	3.8	74.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	36.5	64.9	3.8	74.9
LOS	D	E	A	E
Approach Delay	36.5		23.6	74.9
Approach LOS	D		C	E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 37.2	Intersection LOS: D
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	315	414	235	491	0	0	0	0	229	3	45
Future Volume (veh/h)	0	315	414	235	491	0	0	0	0	229	3	45
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	354	378	264	552	0				257	3	32
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	402	429	292	1313	0				283	3	35
Arrive On Green	0.00	0.48	0.48	0.32	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	841	898	1810	1900	0				1572	18	196
Grp Volume(v), veh/h	0	0	732	264	552	0				292	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1738	1810	1900	0				1786	0	0
Q Serve(g_s), s	0.0	0.0	34.1	12.5	0.0	0.0				14.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	34.1	12.5	0.0	0.0				14.4	0.0	0.0
Prop In Lane	0.00		0.52	1.00		0.00				0.88		0.11
Lane Grp Cap(c), veh/h	0	0	832	292	1313	0				322	0	0
V/C Ratio(X)	0.00	0.00	0.88	0.90	0.42	0.00				0.91	0.00	0.00
Avail Cap(c_a), veh/h	0	0	832	298	1313	0				322	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.42	0.42	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.1	29.8	0.0	0.0				36.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	12.8	14.4	0.4	0.0				28.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	15.0	5.4	0.2	0.0				8.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	34.0	44.1	0.4	0.0				64.4	0.0	0.0
LnGrp LOS	A	A	C	D	A	A				E	A	A
Approach Vol, veh/h		732			816						292	
Approach Delay, s/veh		34.0			14.6						64.4	
Approach LOS		C			B						E	

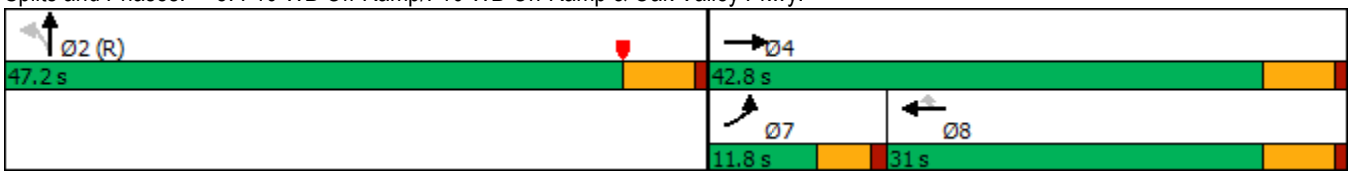
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.1	48.9		22.0		68.0
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2
Max Q Clear Time (g_c+I1), s	14.5	36.1		16.4		2.0
Green Ext Time (p_c), s	0.0	2.6		0.0		3.6

Intersection Summary		
HCM 6th Ctrl Delay		30.2
HCM 6th LOS		C

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	84	459	413	394	4
Future Volume (vph)	84	459	413	394	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	11.8	42.8	31.0	31.0	47.2
Total Split (%)	13.1%	47.6%	34.4%	34.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	6.8	33.1	23.6	23.6	45.3
Actuated g/C Ratio	0.08	0.37	0.26	0.26	0.50
v/c Ratio	0.63	0.67	0.85	0.56	0.75
Control Delay	51.3	16.6	48.0	6.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	16.6	48.0	6.1	23.5
LOS	D	B	D	A	C
Approach Delay		22.0	27.5		23.5
Approach LOS		C	C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 24.7	Intersection LOS: C
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	459	0	0	413	394	313	4	348	0	0	0
Future Volume (veh/h)	84	459	0	0	413	394	313	4	348	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	86	468	0	0	421	286	319	4	233			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	111	689	0	0	475	403	502	6	367			
Arrive On Green	0.02	0.12	0.00	0.00	0.25	0.25	0.51	0.51	0.51			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	987	12	721			
Grp Volume(v), veh/h	86	468	0	0	421	286	556	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1721	0	0			
Q Serve(g_s), s	4.3	21.2	0.0	0.0	19.2	14.6	21.1	0.0	0.0			
Cycle Q Clear(g_c), s	4.3	21.2	0.0	0.0	19.2	14.6	21.1	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.42			
Lane Grp Cap(c), veh/h	111	689	0	0	475	403	875	0	0			
V/C Ratio(X)	0.77	0.68	0.00	0.00	0.89	0.71	0.64	0.00	0.00			
Avail Cap(c_a), veh/h	145	781	0	0	532	451	875	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.28	0.28	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.5	34.6	0.0	0.0	32.5	30.8	16.1	0.0	0.0			
Incr Delay (d2), s/veh	3.8	0.6	0.0	0.0	15.2	4.5	3.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	10.7	0.0	0.0	10.2	5.8	8.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	35.2	0.0	0.0	47.7	35.3	19.6	0.0	0.0			
LnGrp LOS	D	D	A	A	D	D	B	A	A			
Approach Vol, veh/h		554			707			556				
Approach Delay, s/veh		37.0			42.7			19.6				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		51.5		38.5			10.1	28.3				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			7.2	25.2				
Max Q Clear Time (g_c+I1), s		23.1		23.2			6.3	21.2				
Green Ext Time (p_c), s		3.3		2.2			0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			33.9									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	505	138	149	845	25	0	0	59	0	61	151
Future Vol, veh/h	0	505	138	149	845	25	0	0	59	0	61	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	555	152	164	929	27	0	0	65	0	67	166

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	707	0	0	-	-	354	-	1978	943
Stage 1	-	-	-	-	-	-	-	-	-	-	1271	-
Stage 2	-	-	-	-	-	-	-	-	-	-	707	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	4	3.3
Pot Cap-1 Maneuver	0	-	-	901	-	-	0	0	648	0	~ 63	321
Stage 1	0	-	-	-	-	-	0	0	-	0	241	-
Stage 2	0	-	-	-	-	-	0	0	-	0	441	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	901	-	-	-	-	648	-	~ 52	321
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	~ 52	-
Stage 1	-	-	-	-	-	-	-	-	-	-	197	-
Stage 2	-	-	-	-	-	-	-	-	-	-	441	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	11.2	27.6
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	648	-	-	901	-	-	321
HCM Lane V/C Ratio	0.1	-	-	0.182	-	-	0.517
HCM Control Delay (s)	11.2	-	-	9.9	-	-	27.6
HCM Lane LOS	B	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	0.7	-	-	2.8

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	28	22	3	53	19	68	27	6	21	29	65
Future Vol, veh/h	31	28	22	3	53	19	68	27	6	21	29	65
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	41	37	29	4	71	25	91	36	8	28	39	87
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

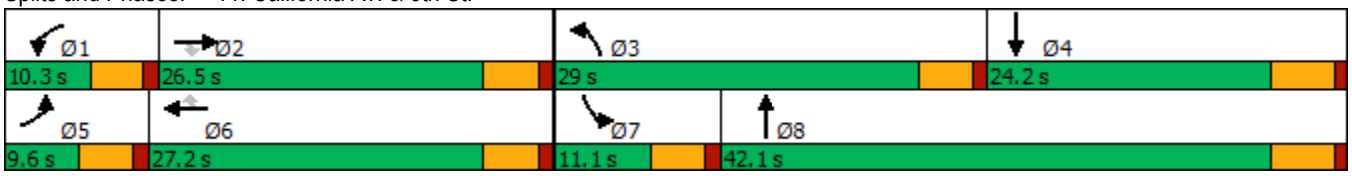
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	8.6	9	9.9	8.3
HCM LOS	A	A	A	A

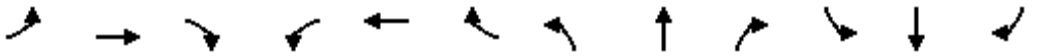
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	72%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	28%	0%	0%	100%	0%	0%	74%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	26%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	6	31	28	22	3	72	21	29	65
LT Vol	68	0	31	0	0	3	0	21	0	0
Through Vol	27	0	0	28	0	0	53	0	29	0
RT Vol	0	6	0	0	22	0	19	0	0	65
Lane Flow Rate	127	8	41	37	29	4	96	28	39	87
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.202	0.01	0.069	0.057	0.039	0.007	0.142	0.046	0.058	0.113
Departure Headway (Hd)	5.743	4.681	6.013	5.511	4.809	6.031	5.343	5.895	5.393	4.691
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	622	759	593	646	739	591	667	605	661	759
Service Time	3.504	2.443	3.778	3.276	2.573	3.796	3.108	3.653	3.151	2.449
HCM Lane V/C Ratio	0.204	0.011	0.069	0.057	0.039	0.007	0.144	0.046	0.059	0.115
HCM Control Delay	10	7.5	9.2	8.6	7.8	8.8	9	8.9	8.5	8.1
HCM Lane LOS	A	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.8	0	0.2	0.2	0.1	0	0.5	0.1	0.2	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	272	113	55	272	19	382	79	43	96
Future Volume (vph)	4	272	113	55	272	19	382	79	43	96
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	26.5	26.5	10.3	27.2	27.2	29.0	42.1	11.1	24.2
Total Split (%)	10.7%	29.4%	29.4%	11.4%	30.2%	30.2%	32.2%	46.8%	12.3%	26.9%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.1	17.2	17.2	5.7	23.2	23.2	21.4	39.6	6.1	19.5
Actuated g/C Ratio	0.06	0.21	0.21	0.07	0.29	0.29	0.26	0.49	0.08	0.24
v/c Ratio	0.04	0.73	0.25	0.48	0.54	0.03	0.87	0.15	0.35	0.24
Control Delay	40.8	42.3	2.0	53.5	29.4	0.1	49.7	11.8	46.7	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	42.3	2.0	53.5	29.4	0.1	49.7	11.8	46.7	29.9
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		30.6			31.6			40.1		35.0
Approach LOS		C			C			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 80.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 64.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	113	55	272	19	382	79	49	43	96	4
Future Volume (veh/h)	4	272	113	55	272	19	382	79	49	43	96	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	296	122	60	296	12	415	86	31	47	104	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	365	309	84	444	376	457	631	228	74	487	9
Arrive On Green	0.01	0.19	0.19	0.05	0.23	0.23	0.25	0.47	0.47	0.04	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1333	481	1810	1858	36
Grp Volume(v), veh/h	4	296	122	60	296	12	415	0	117	47	0	106
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1814	1810	0	1894
Q Serve(g_s), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	2.8	2.0	0.0	3.4
Cycle Q Clear(g_c), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	2.8	2.0	0.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.02
Lane Grp Cap(c), veh/h	10	365	309	84	444	376	457	0	859	74	0	497
V/C Ratio(X)	0.42	0.81	0.39	0.71	0.67	0.03	0.91	0.00	0.14	0.63	0.00	0.21
Avail Cap(c_a), veh/h	116	529	449	132	546	463	567	0	859	151	0	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.6	30.1	27.5	36.6	27.1	23.1	28.2	0.0	11.5	36.8	0.0	22.4
Incr Delay (d2), s/veh	10.3	6.1	0.8	4.1	2.3	0.0	14.7	0.0	0.3	3.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.7	1.9	1.2	5.1	0.2	8.7	0.0	1.1	0.9	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	36.2	28.3	40.7	29.4	23.1	42.9	0.0	11.9	40.1	0.0	23.4
LnGrp LOS	D	D	C	D	C	C	D	A	B	D	A	C
Approach Vol, veh/h		422			368			532			153	
Approach Delay, s/veh		34.0			31.0			36.1			28.5	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	19.8	24.3	25.6	5.0	23.0	7.8	42.1
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.7	* 22	24.4	19.0	5.0	* 22	6.5	36.9
Max Q Clear Time (g_c+I1), s	4.5	13.6	19.3	5.4	2.2	13.0	4.0	4.8
Green Ext Time (p_c), s	0.0	1.4	0.3	0.3	0.0	1.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	3	71	19	9	29	283	506	17	12	210	2
Future Vol, veh/h	2	3	71	19	9	29	283	506	17	12	210	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	90	24	11	37	358	641	22	15	266	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1690	1677	268	1713	1667	652	269	0	0	663	0	0
Stage 1	298	298	-	1368	1368	-	-	-	-	-	-	-
Stage 2	1392	1379	-	345	299	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	75	96	776	72	97	471	1306	-	-	935	-	-
Stage 1	715	671	-	183	217	-	-	-	-	-	-	-
Stage 2	177	214	-	675	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	50	69	776	48	69	471	1306	-	-	935	-	-
Mov Cap-2 Maneuver	83	121	-	96	122	-	-	-	-	-	-	-
Stage 1	519	660	-	133	158	-	-	-	-	-	-	-
Stage 2	110	155	-	584	659	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	40.6	3.1	0.5
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1306	-	-	541	171	935	-	-
HCM Lane V/C Ratio	0.274	-	-	0.178	0.422	0.016	-	-
HCM Control Delay (s)	8.8	-	-	13.1	40.6	8.9	-	-
HCM Lane LOS	A	-	-	B	E	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	0.6	1.9	0.1	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	16	17	772	172	93
Future Vol, veh/h	58	16	17	772	172	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	75	21	22	1003	223	121

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1331	284	344	0	-	0
Stage 1	284	-	-	-	-	-
Stage 2	1047	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	172	760	1226	-	-	-
Stage 1	769	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	169	760	1226	-	-	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	341	-	-	-	-	-

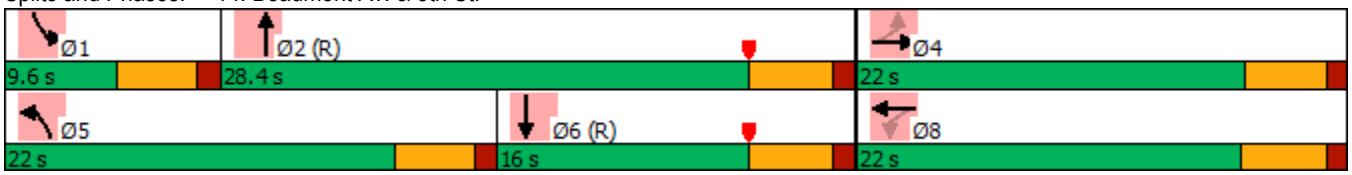
Approach	EB	NB	SB
HCM Control Delay, s	35.4	0.2	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1226	-	169	760	-	-
HCM Lane V/C Ratio	0.018	-	0.446	0.027	-	-
HCM Control Delay (s)	8	-	42.4	9.9	-	-
HCM Lane LOS	A	-	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	2.1	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	15	18	3	56	279	3	368
Future Volume (vph)	6	15	18	3	56	279	3	368
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1		10.0	6.7	46.3	5.0	40.9
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.18		0.14	0.30	0.11	0.02	0.16
Control Delay		14.0		18.1	30.6	3.9	25.7	7.5
Queue Delay		0.0		0.0	0.1	0.2	0.0	0.1
Total Delay		14.0		18.1	30.8	4.1	25.7	7.6
LOS		B		B	C	A	C	A
Approach Delay		14.0		18.1		8.4		7.7
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 34.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	15	29	18	3	10	56	279	13	3	368	2
Future Volume (veh/h)	6	15	29	18	3	10	56	279	13	3	368	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	16	32	20	3	11	61	303	14	3	400	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	79	127	189	42	65	96	2215	102	7	2141	11
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.11	1.00	1.00	0.00	0.58	0.58
Sat Flow, veh/h	97	610	984	730	322	503	1810	3514	162	1810	3683	18
Grp Volume(v), veh/h	55	0	0	34	0	0	61	155	162	3	196	206
Grp Sat Flow(s),veh/h/ln	1690	0	0	1556	0	0	1810	1805	1871	1810	1805	1897
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.1	3.1	3.1
Cycle Q Clear(g_c), s	1.7	0.0	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.1	3.1	3.1
Prop In Lane	0.13		0.58	0.59		0.32	1.00		0.09	1.00		0.01
Lane Grp Cap(c), veh/h	285	0	0	296	0	0	96	1138	1179	7	1049	1103
V/C Ratio(X)	0.19	0.00	0.00	0.11	0.00	0.00	0.63	0.14	0.14	0.41	0.19	0.19
Avail Cap(c_a), veh/h	552	0	0	530	0	0	525	1138	1179	151	1049	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	23.2	0.0	0.0	26.2	0.0	0.0	29.8	5.9	5.9
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	2.6	0.2	0.2	12.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.4	0.0	0.0	0.8	0.1	0.1	0.1	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	0.0	23.4	0.0	0.0	28.8	0.2	0.2	42.7	6.3	6.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		55			34			378			405	
Approach Delay, s/veh		23.8			23.4			4.9			6.6	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.6		12.5	7.8	39.7		12.5				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		3.7	3.9	5.1		3.0				
Green Ext Time (p_c), s	0.0	1.8		0.2	0.0	1.2		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

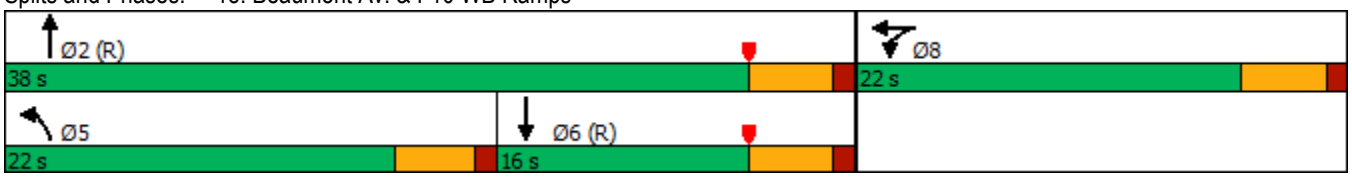
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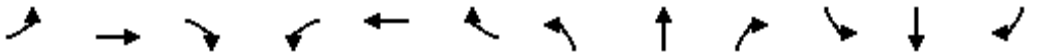
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	340
Future Volume (vph)	464	9	345	216	340
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	22.0	22.0	22.0	38.0	16.0
Total Split (%)	36.7%	36.7%	36.7%	63.3%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	15.4	15.4	15.4	35.0	15.0
Actuated g/C Ratio	0.26	0.26	0.26	0.58	0.25
v/c Ratio	0.77	0.68	0.81	0.11	0.50
Control Delay	33.4	23.1	42.1	5.4	16.1
Queue Delay	0.0	0.8	0.0	0.0	2.0
Total Delay	33.4	23.9	42.1	5.4	18.0
LOS	C	C	D	A	B
Approach Delay		28.8		27.9	18.0
Approach LOS		C		C	B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 25.7	Intersection LOS: C
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	340	75
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	340	75
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	370	82
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				472	299	167	525	2091	0	0	693	152
Arrive On Green				0.26	0.26	0.26	0.39	0.97	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3039	645
Grp Volume(v), veh/h				328	0	399	375	235	0	0	225	227
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1784
Q Serve(g_s), s				9.8	0.0	12.8	11.7	0.1	0.0	0.0	7.1	7.2
Cycle Q Clear(g_c), s				9.8	0.0	12.8	11.7	0.1	0.0	0.0	7.1	7.2
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				472	0	465	525	2091	0	0	425	420
V/C Ratio(X)				0.70	0.00	0.86	0.71	0.11	0.00	0.00	0.53	0.54
Avail Cap(c_a), veh/h				519	0	512	525	2091	0	0	489	484
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.84	0.84	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.0	0.0	21.1	15.5	0.5	0.0	0.0	24.5	24.5
Incr Delay (d2), s/veh				3.6	0.0	12.7	3.3	0.1	0.0	0.0	4.6	4.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	386.1	18.5	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.0	0.0	6.1	61.1	5.5	0.0	0.0	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.6	0.0	33.8	404.9	19.2	0.0	0.0	29.1	29.4
LnGrp LOS				C	A	C	F	B	A	A	C	C
Approach Vol, veh/h					727			610			452	
Approach Delay, s/veh					29.2			256.3			29.2	
Approach LOS					C			F			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	39.6		18.5	21.1		20.4						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 33		17.4	* 11		17.2						
Max Q Clear Time (g_c+I1), s	2.1		13.7	9.2		14.8						
Green Ext Time (p_c), s	1.6		0.3	0.5		0.9						

Intersection Summary		
HCM 6th Ctrl Delay	106.7	
HCM 6th LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

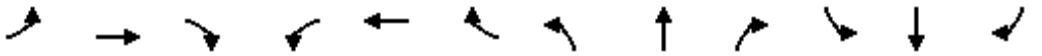
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	10	495	493	99	706
Future Volume (vph)	10	495	493	99	706
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	11.7	11.7	28.7	7.3	38.7
Actuated g/C Ratio	0.20	0.20	0.48	0.12	0.64
v/c Ratio	0.63	0.63	0.52	0.47	0.32
Control Delay	13.6	13.3	8.2	19.0	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	13.3	8.2	19.0	10.2
LOS	B	B	A	B	B
Approach Delay	13.5		8.2		11.3
Approach LOS	B		A		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	10	495	0	0	0	0	493	421	99	706	0
Future Volume (veh/h)	68	10	495	0	0	0	0	493	421	99	706	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	599				0	514	439	103	735	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	423	717				0	1520	259	132	2229	0
Arrive On Green	0.00	0.00	0.22				0.00	0.47	0.47	0.15	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1940	1576	1810	3705	0
Grp Volume(v), veh/h	0	0	599				0	503	450	103	735	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1616	1810	1805	0
Q Serve(g_s), s	0.0	0.0	10.7				0.0	12.3	12.3	3.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	10.7				0.0	12.3	12.3	3.3	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	0	423	717				0	845	843	132	2229	0
V/C Ratio(X)	0.00	0.00	0.84				0.00	0.60	0.53	0.78	0.33	0.00
Avail Cap(c_a), veh/h	0	481	816				0	845	756	253	2229	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	0.0	0.0	22.3				0.0	16.0	15.4	25.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.8				0.0	3.1	2.4	2.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	190.7	166.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.1				0.0	55.0	48.4	1.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	29.1				0.0	209.7	184.5	28.0	0.3	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		599						953			838	
Approach Delay, s/veh		29.1						197.8			3.7	
Approach LOS		C						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.0	32.9		18.2		41.8
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35
Max Q Clear Time (g_c+I1), s	5.3	14.3		12.7		2.0
Green Ext Time (p_c), s	0.0	3.8		0.7		5.8

Intersection Summary		
HCM 6th Ctrl Delay		87.5
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	115	12	37	185	75	63
Future Vol, veh/h	115	12	37	185	75	63
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	13	41	203	82	69
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.4	8	8.8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	63	58	58	12	37	93	93
LT Vol	75	0	0	0	0	37	0	0
Through Vol	0	0	58	58	0	0	93	93
RT Vol	0	63	0	0	12	0	0	0
Lane Flow Rate	82	69	63	63	13	41	102	102
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.135	0.09	0.094	0.094	0.011	0.065	0.148	0.1
Departure Headway (Hd)	5.889	4.692	5.376	5.376	2.962	5.737	5.235	3.525
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	607	760	664	664	1195	624	685	1012
Service Time	3.64	2.444	3.127	3.127	0.712	3.473	2.97	1.26
HCM Lane V/C Ratio	0.135	0.091	0.095	0.095	0.011	0.066	0.149	0.101
HCM Control Delay	9.6	7.9	8.7	8.7	5.7	8.9	8.9	6.7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.3	0.3	0	0.2	0.5	0.3

Intersection	
Intersection Delay, s/veh	6.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	91	0	2	0	9	2	0
Future Vol, veh/h	0	0	0	2	0	91	0	2	0	9	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	118	0	3	0	12	3	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	6.8	7.1	7.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	82%
Vol Thru, %	100%	0%	18%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	2	93	11
LT Vol	0	2	9
Through Vol	2	0	2
RT Vol	0	91	0
Lane Flow Rate	3	121	14
Geometry Grp	1	1	1
Degree of Util (X)	0.003	0.112	0.017
Departure Headway (Hd)	4.122	3.346	4.277
Convergence, Y/N	Yes	Yes	Yes
Cap	870	1075	840
Service Time	2.136	1.356	2.288
HCM Lane V/C Ratio	0.003	0.113	0.017
HCM Control Delay	7.1	6.8	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.4	0.1

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	0	12	0	2	2	3	0
Future Vol, veh/h	0	12	0	2	2	3	0
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	0	18	0	3	3	4	0
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	7.3	6.9	7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	0%	0%	0%	0%	100%	100%
Vol Thru, %	100%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	0	2	2	2	2
LT Vol	0	0	0	0	2	2
Through Vol	12	0	2	0	0	0
RT Vol	0	0	0	2	0	0
Lane Flow Rate	18	0	3	3	2	2
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.022	0	0.004	0.003	0.003	0.002
Departure Headway (Hd)	4.518	4.516	4.516	3.816	5.047	3.347
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	796	0	796	942	711	1071
Service Time	2.221	2.222	2.222	1.521	2.762	1.061
HCM Lane V/C Ratio	0.023	0	0.004	0.003	0.003	0.002
HCM Control Delay	7.3	7.2	7.2	6.5	7.8	6.1
HCM Lane LOS	A	N	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0	0	0

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	226	296	294	177	10
Future Vol, veh/h	8	226	296	294	177	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	233	305	303	182	10
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	13	8.2	13
HCM LOS	B	A	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	95%
Vol Thru, %	0%	100%	100%	100%	17%	0%
Vol Right, %	0%	0%	0%	0%	83%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	226	118	118	353	187
LT Vol	8	0	0	0	0	177
Through Vol	0	226	118	118	59	0
RT Vol	0	0	0	0	294	10
Lane Flow Rate	8	233	122	122	364	193
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.015	0.402	0.185	0.185	0.318	0.357
Departure Headway (Hd)	6.725	6.218	5.455	5.455	3.148	6.667
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	534	580	651	651	1118	542
Service Time	4.443	3.936	3.244	3.244	0.935	4.379
HCM Lane V/C Ratio	0.015	0.402	0.187	0.187	0.326	0.356
HCM Control Delay	9.5	13.1	9.5	9.5	7.4	13
HCM Lane LOS	A	B	A	A	A	B
HCM 95th-tile Q	0	1.9	0.7	0.7	1.4	1.6

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	8	3	14	0	80	0	2	0	0	0
Future Vol, veh/h	0	2	8	3	14	0	80	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	11	4	18	0	105	0	3	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	214	1	220	213	-	1	0	0	3	0	0
Stage 1	-	1	-	212	212	-	-	-	-	-	-	-
Stage 2	-	213	-	8	1	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	687	1090	740	688	0	1635	-	-	1632	-	-
Stage 1	0	899	-	795	731	0	-	-	-	-	-	-
Stage 2	0	730	-	1019	899	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	643	1090	695	644	-	1635	-	-	1632	-	-
Mov Cap-2 Maneuver	-	643	-	695	644	-	-	-	-	-	-	-
Stage 1	-	899	-	744	684	-	-	-	-	-	-	-
Stage 2	-	683	-	1006	899	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	10.7	7.2	0
HCM LOS	A	B		

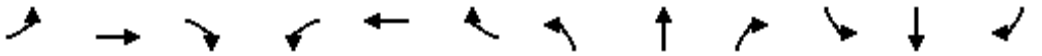
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	957	652	1632	-	-
HCM Lane V/C Ratio	0.064	-	-	0.014	0.034	-	-	-
HCM Control Delay (s)	7.4	0	-	8.8	10.7	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0	0.1	0	-	-

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	196	129	481	1
Future Volume (vph)	196	129	481	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	27.5	9.8	41.9	36.5
Actuated g/C Ratio	0.31	0.11	0.47	0.41
v/c Ratio	0.91	0.87	0.72	0.98
Control Delay	48.9	74.0	21.5	56.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	48.9	74.0	21.5	56.8
LOS	D	E	C	E
Approach Delay	48.9		32.6	56.8
Approach LOS	D		C	E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 45.3	Intersection LOS: D
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	196	207	129	481	0	0	0	0	436	1	109
Future Volume (veh/h)	0	196	207	129	481	0	0	0	0	436	1	109
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	258	214	170	633	0				574	1	77
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	309	256	201	919	0				608	1	82
Arrive On Green	0.00	0.32	0.32	0.04	0.16	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	960	796	1810	1900	0				1570	3	211
Grp Volume(v), veh/h	0	0	472	170	633	0				652	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1757	1810	1900	0				1784	0	0
Q Serve(g_s), s	0.0	0.0	22.4	8.4	28.3	0.0				31.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	22.4	8.4	28.3	0.0				31.8	0.0	0.0
Prop In Lane	0.00		0.45	1.00		0.00				0.88		0.12
Lane Grp Cap(c), veh/h	0	0	565	201	919	0				691	0	0
V/C Ratio(X)	0.00	0.00	0.84	0.85	0.69	0.00				0.94	0.00	0.00
Avail Cap(c_a), veh/h	0	0	565	201	919	0				723	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.73	0.73	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	28.3	42.6	31.4	0.0				26.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	13.7	19.9	3.1	0.0				20.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.8	4.9	14.9	0.0				16.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	42.0	62.5	34.5	0.0				47.0	0.0	0.0
LnGrp LOS	A	A	D	E	C	A				D	A	A
Approach Vol, veh/h		472			803						652	
Approach Delay, s/veh		42.0			40.4						47.0	
Approach LOS		D			D						D	

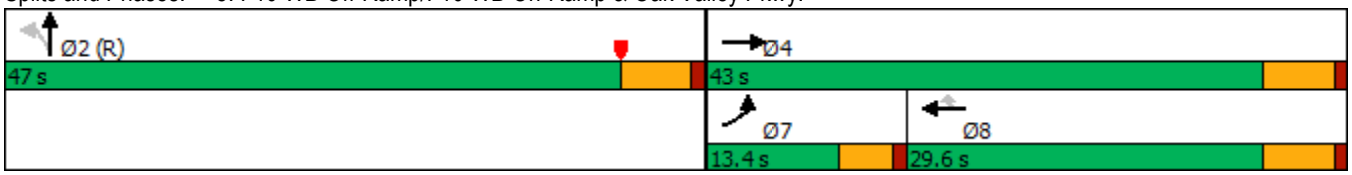
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	34.7		40.7		49.3
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9
Max Q Clear Time (g_c+I1), s	10.4	24.4		33.8		30.3
Green Ext Time (p_c), s	0.0	0.8		1.1		3.0

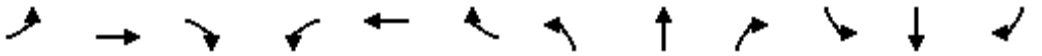
Intersection Summary		
HCM 6th Ctrl Delay		43.1
HCM 6th LOS		D

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	68	564	286	238	4
Future Volume (vph)	68	564	286	238	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	13.4	43.0	29.6	29.6	47.0
Total Split (%)	14.9%	47.8%	32.9%	32.9%	52.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	7.4	32.1	22.1	22.1	46.3
Actuated g/C Ratio	0.08	0.36	0.25	0.25	0.51
v/c Ratio	0.47	0.86	0.63	0.42	0.65
Control Delay	50.2	26.6	37.3	6.1	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	26.6	37.3	6.1	19.7
LOS	D	C	D	A	B
Approach Delay		29.2	23.1		19.7
Approach LOS		C	C		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	564	0	0	286	238	324	4	254	0	0	0
Future Volume (veh/h)	68	564	0	0	286	238	324	4	254	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	70	581	0	0	295	175	334	4	210			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	91	660	0	0	467	396	552	7	347			
Arrive On Green	0.02	0.11	0.00	0.00	0.25	0.25	0.52	0.52	0.52			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1053	13	662			
Grp Volume(v), veh/h	70	581	0	0	295	175	548	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1728	0	0			
Q Serve(g_s), s	3.5	27.1	0.0	0.0	12.5	8.3	19.9	0.0	0.0			
Cycle Q Clear(g_c), s	3.5	27.1	0.0	0.0	12.5	8.3	19.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.61		0.38			
Lane Grp Cap(c), veh/h	91	660	0	0	467	396	905	0	0			
V/C Ratio(X)	0.77	0.88	0.00	0.00	0.63	0.44	0.61	0.00	0.00			
Avail Cap(c_a), veh/h	177	785	0	0	502	426	905	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.29	0.29	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.7	38.0	0.0	0.0	30.3	28.7	14.9	0.0	0.0			
Incr Delay (d2), s/veh	1.5	3.3	0.0	0.0	2.3	0.8	3.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.6	14.1	0.0	0.0	5.6	3.1	7.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	41.3	0.0	0.0	32.6	29.5	17.9	0.0	0.0			
LnGrp LOS	D	D	A	A	C	C	B	A	A			
Approach Vol, veh/h		651			470			548				
Approach Delay, s/veh		41.7			31.4			17.9				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		52.9		37.1			9.1	27.9				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.2		37.2			8.8	23.8				
Max Q Clear Time (g_c+I1), s		21.9		29.1			5.5	14.5				
Green Ext Time (p_c), s		3.3		2.1			0.0	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			31.0									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	770	121	104	624	53	0	0	112	0	12	63
Future Vol, veh/h	0	770	121	104	624	53	0	0	112	0	12	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	828	130	112	671	57	0	0	120	0	13	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	958	0	0	-	-	479	-	1882	700
Stage 1	-	-	-	-	-	-	-	-	-	-	924	-
Stage 2	-	-	-	-	-	-	-	-	-	-	958	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	4	3.3
Pot Cap-1 Maneuver	0	-	-	726	-	-	0	0	538	0	72	443
Stage 1	0	-	-	-	-	-	0	0	-	0	351	-
Stage 2	0	-	-	-	-	-	0	0	-	0	338	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	726	-	-	-	-	538	-	61	443
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	61	-
Stage 1	-	-	-	-	-	-	-	-	-	-	297	-
Stage 2	-	-	-	-	-	-	-	-	-	-	338	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.4	13.6	14.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	538	-	-	726	-	-	443
HCM Lane V/C Ratio	0.224	-	-	0.154	-	-	0.153
HCM Control Delay (s)	13.6	-	-	10.9	-	-	14.6
HCM Lane LOS	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.9	-	-	0.5	-	-	0.5

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	58	74	9	27	29	38	36	11	13	57	17
Future Vol, veh/h	100	58	74	9	27	29	38	36	11	13	57	17
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	143	83	106	13	39	41	54	51	16	19	81	24
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

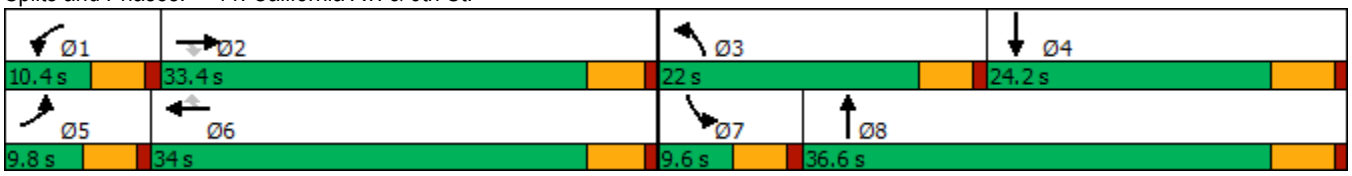
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	9.5	9.2	10.1	9.4
HCM LOS	A	A	B	A

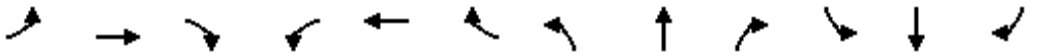
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	48%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	52%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	11	100	58	74	9	56	13	57	17
LT Vol	38	0	100	0	0	9	0	13	0	0
Through Vol	36	0	0	58	0	0	27	0	57	0
RT Vol	0	11	0	0	74	0	29	0	0	17
Lane Flow Rate	106	16	143	83	106	13	80	19	81	24
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.184	0.023	0.24	0.128	0.142	0.023	0.125	0.034	0.136	0.036
Departure Headway (Hd)	6.264	5.302	6.045	5.543	4.84	6.504	5.637	6.519	6.016	5.312
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	574	676	597	650	745	551	637	550	597	675
Service Time	3.99	3.027	3.745	3.243	2.54	4.23	3.363	4.244	3.741	3.037
HCM Lane V/C Ratio	0.185	0.024	0.24	0.128	0.142	0.024	0.126	0.035	0.136	0.036
HCM Control Delay	10.4	8.2	10.6	9.1	8.3	9.4	9.2	9.5	9.7	8.2
HCM Lane LOS	B	A	B	A	A	A	A	A	A	A
HCM 95th-tile Q	0.7	0.1	0.9	0.4	0.5	0.1	0.4	0.1	0.5	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	432	164	60	256	10	249	71	13	36
Future Volume (vph)	19	432	164	60	256	10	249	71	13	36
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	22.0	36.6	9.6	24.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	24.4%	40.7%	10.7%	26.9%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.3	23.8	23.8	5.8	28.0	28.0	14.9	37.5	5.2	19.6
Actuated g/C Ratio	0.07	0.29	0.29	0.07	0.35	0.35	0.18	0.46	0.06	0.24
v/c Ratio	0.17	0.82	0.28	0.49	0.41	0.02	0.79	0.17	0.12	0.11
Control Delay	43.7	40.6	4.0	54.3	23.4	0.0	51.5	11.1	42.8	23.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	40.6	4.0	54.3	23.4	0.0	51.5	11.1	42.8	23.8
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		30.9			28.4			37.0		27.9
Approach LOS		C			C			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 81.1	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 31.9	Intersection LOS: C
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	432	164	60	256	10	249	71	68	13	36	11
Future Volume (veh/h)	19	432	164	60	256	10	249	71	68	13	36	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	455	169	63	269	6	262	75	41	14	38	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	536	455	87	585	495	304	468	256	30	407	64
Arrive On Green	0.02	0.28	0.28	0.05	0.31	0.31	0.17	0.41	0.41	0.02	0.25	0.25
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1155	631	1810	1602	253
Grp Volume(v), veh/h	20	455	169	63	269	6	262	0	116	14	0	44
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1786	1810	0	1854
Q Serve(g_s), s	0.8	17.5	6.5	2.7	8.8	0.2	10.9	0.0	3.2	0.6	0.0	1.4
Cycle Q Clear(g_c), s	0.8	17.5	6.5	2.7	8.8	0.2	10.9	0.0	3.2	0.6	0.0	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		0.14
Lane Grp Cap(c), veh/h	41	536	455	87	585	495	304	0	724	30	0	471
V/C Ratio(X)	0.49	0.85	0.37	0.73	0.46	0.01	0.86	0.00	0.16	0.46	0.00	0.09
Avail Cap(c_a), veh/h	121	701	594	135	716	607	406	0	724	117	0	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.4	26.2	22.3	36.4	21.6	18.6	31.4	0.0	14.7	37.7	0.0	22.1
Incr Delay (d2), s/veh	3.3	7.6	0.5	4.3	0.6	0.0	10.9	0.0	0.5	4.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	8.7	2.3	1.3	3.9	0.1	5.3	0.0	1.2	0.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	33.8	22.8	40.7	22.2	18.7	42.2	0.0	15.1	41.7	0.0	22.5
LnGrp LOS	D	C	C	D	C	B	D	A	B	D	A	C
Approach Vol, veh/h		644			338			378			58	
Approach Delay, s/veh		31.1			25.6			33.9			27.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	26.7	17.6	24.9	6.3	28.6	5.9	36.6
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	17.4	19.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	4.7	19.5	12.9	3.4	2.8	10.8	2.6	5.2
Green Ext Time (p_c), s	0.0	2.4	0.2	0.1	0.0	1.4	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↱		↰	↱	
Traffic Vol, veh/h	4	3	82	36	3	20	169	361	13	6	200	6
Future Vol, veh/h	4	3	82	36	3	20	169	361	13	6	200	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	86	38	3	21	178	380	14	6	211	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	981	976	214	1014	972	387	217	0	0	394	0	0
Stage 1	226	226	-	743	743	-	-	-	-	-	-	-
Stage 2	755	750	-	271	229	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	231	253	831	219	254	665	1365	-	-	1176	-	-
Stage 1	781	721	-	410	425	-	-	-	-	-	-	-
Stage 2	404	422	-	739	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	199	219	831	175	220	665	1365	-	-	1176	-	-
Mov Cap-2 Maneuver	276	301	-	264	294	-	-	-	-	-	-	-
Stage 1	679	717	-	357	370	-	-	-	-	-	-	-
Stage 2	337	367	-	656	714	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	18.2	2.5	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1365	-	-	723	334	1176	-	-
HCM Lane V/C Ratio	0.13	-	-	0.13	0.186	0.005	-	-
HCM Control Delay (s)	8	-	-	10.7	18.2	8.1	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	0.4	0.7	0	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	84	32	6	476	922	78
Future Vol, veh/h	84	32	6	476	922	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	91	35	7	517	1002	85

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1576	1045	1087	0	-	0
Stage 1	1045	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	122	280	649	-	-	-
Stage 1	342	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	121	280	649	-	-	-
Mov Cap-2 Maneuver	121	-	-	-	-	-
Stage 1	338	-	-	-	-	-
Stage 2	594	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	73.6	0.1	0
HCM LOS	F		

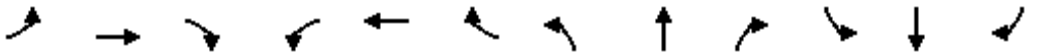
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	649	-	121	280	-	-
HCM Lane V/C Ratio	0.01	-	0.755	0.124	-	-
HCM Control Delay (s)	10.6	-	94.2	19.7	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0	-	4.3	0.4	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	15	69	4	22	356	9	410
Future Volume (vph)	18	15	69	4	22	356	9	410
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.7		10.6	5.5	41.7	5.2	41.5
Actuated g/C Ratio		0.18		0.18	0.09	0.70	0.09	0.69
v/c Ratio		0.23		0.33	0.14	0.16	0.06	0.17
Control Delay		13.9		22.1	33.2	4.1	25.9	5.7
Queue Delay		0.2		0.3	1.0	0.3	0.0	0.1
Total Delay		14.1		22.4	34.1	4.4	25.9	5.8
LOS		B		C	C	A	C	A
Approach Delay		14.1		22.4		6.0		6.2
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.33	
Intersection Signal Delay: 8.1	Intersection LOS: A
Intersection Capacity Utilization 37.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	15	38	69	4	15	22	356	29	9	410	9
Future Volume (veh/h)	18	15	38	69	4	15	22	356	29	9	410	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	15	39	71	4	15	23	367	30	9	423	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	112	84	138	281	23	39	48	2015	164	21	2100	45
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.05	1.00	1.00	0.01	0.58	0.58
Sat Flow, veh/h	232	542	887	1117	151	254	1810	3381	275	1810	3614	77
Grp Volume(v), veh/h	73	0	0	90	0	0	23	195	202	9	211	221
Grp Sat Flow(s),veh/h/ln	1661	0	0	1521	0	0	1810	1805	1851	1810	1805	1886
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	0.0	0.7	0.0	0.0	0.3	3.3	3.3
Cycle Q Clear(g_c), s	2.2	0.0	0.0	2.7	0.0	0.0	0.7	0.0	0.0	0.3	3.3	3.3
Prop In Lane	0.26		0.53	0.79		0.17	1.00		0.15	1.00		0.04
Lane Grp Cap(c), veh/h	334	0	0	344	0	0	48	1076	1103	21	1049	1096
V/C Ratio(X)	0.22	0.00	0.00	0.26	0.00	0.00	0.48	0.18	0.18	0.43	0.20	0.20
Avail Cap(c_a), veh/h	469	0	0	460	0	0	223	1076	1103	223	1049	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	0.0	22.5	0.0	0.0	28.0	0.0	0.0	29.5	6.0	6.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.0	0.0	2.7	0.4	0.4	5.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.1	0.0	0.0	0.3	0.1	0.1	0.2	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	0.0	22.9	0.0	0.0	30.7	0.4	0.4	34.5	6.4	6.4
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		73			90			420			441	
Approach Delay, s/veh		22.7			22.9			2.0			7.0	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	40.6		14.1	6.2	39.7		14.1				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		4.2	2.7	5.3		4.7				
Green Ext Time (p_c), s	0.0	2.3		0.2	0.0	2.4		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		7.5
HCM 6th LOS		A

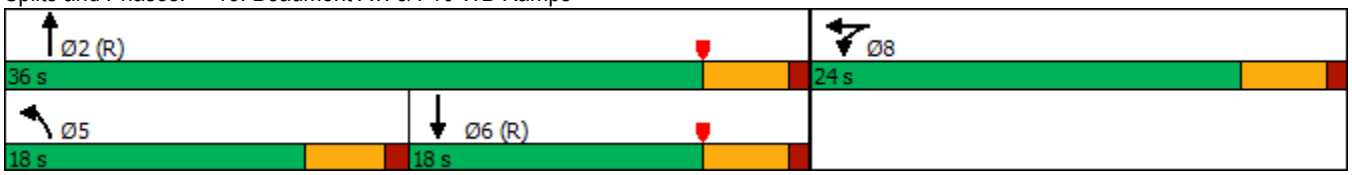
Notes

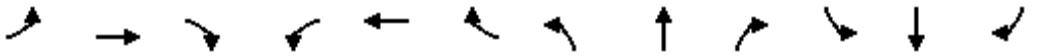
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	422
Future Volume (vph)	685	0	272	309	422
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	24.0	24.0	18.0	36.0	18.0
Total Split (%)	40.0%	40.0%	30.0%	60.0%	30.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	17.7	17.7	12.1	32.7	16.0
Actuated g/C Ratio	0.30	0.30	0.20	0.54	0.27
v/c Ratio	0.81	0.69	0.77	0.16	0.55
Control Delay	33.8	19.8	41.5	7.2	19.4
Queue Delay	0.0	0.7	0.0	0.0	7.5
Total Delay	33.8	20.4	41.5	7.2	26.8
LOS	C	C	D	A	C
Approach Delay		27.2		23.3	26.8
Approach LOS		C		C	C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 25.9	Intersection LOS: C
Intersection Capacity Utilization 92.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	422	94
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	422	94
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	435	97
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1126	591	0	322	1909	0	0	805	178
Arrive On Green				0.27	0.00	0.00	0.36	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3033	650
Grp Volume(v), veh/h				800	0	0	280	319	0	0	266	266
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1783
Q Serve(g_s), s				12.5	0.0	0.0	8.7	0.0	0.0	0.0	8.3	8.4
Cycle Q Clear(g_c), s				12.5	0.0	0.0	8.7	0.0	0.0	0.0	8.3	8.4
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1126	591	0	322	1909	0	0	495	489
V/C Ratio(X)				0.71	0.00	0.00	0.87	0.17	0.00	0.00	0.54	0.54
Avail Cap(c_a), veh/h				1158	608	0	404	2074	0	0	577	570
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.79	0.79	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.5	0.0	0.0	18.7	0.0	0.0	0.0	23.7	23.7
Incr Delay (d2), s/veh				2.0	0.0	0.0	10.8	0.1	0.0	0.0	4.1	4.3
Initial Q Delay(d3),s/veh				110.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				23.8	0.0	0.0	3.7	0.0	0.0	0.0	4.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				132.7	0.0	0.0	29.4	0.1	0.0	0.0	27.8	28.0
LnGrp LOS				F	A	A	C	A	A	A	C	C
Approach Vol, veh/h					800			599			532	
Approach Delay, s/veh					132.7			13.8			27.9	
Approach LOS					F			B			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.3			15.3	24.0		20.7				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 31			13.4	* 13		19.2				
Max Q Clear Time (g_c+I1), s		2.0			10.7	10.4		14.5				
Green Ext Time (p_c), s		2.2			0.1	0.9		1.4				

Intersection Summary		
HCM 6th Ctrl Delay	66.9	
HCM 6th LOS	E	

Notes

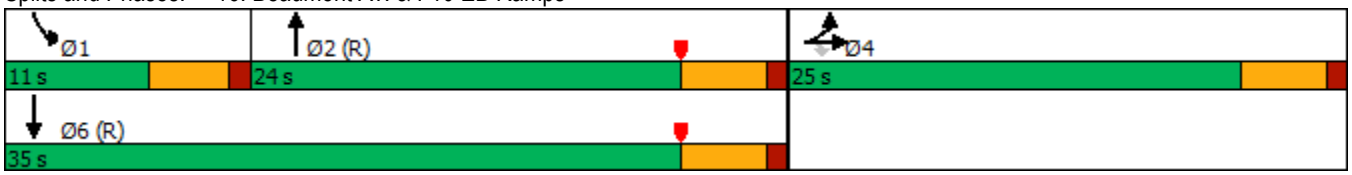
User approved volume balancing among the lanes for turning movement.

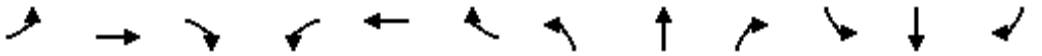
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	10	746	483	105	1002
Future Volume (vph)	10	746	483	105	1002
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.3	18.3	23.3	6.2	32.1
Actuated g/C Ratio	0.30	0.30	0.39	0.10	0.54
v/c Ratio	0.84	0.79	0.58	0.58	0.53
Control Delay	32.5	25.4	11.7	29.9	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	25.4	11.7	29.9	15.4
LOS	C	C	B	C	B
Approach Delay	29.0		11.7		16.7
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 92.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Future Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	883				0	498	373	108	1033	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	640	1084				0	690	516	137	1817	0
Arrive On Green	0.00	0.00	0.31				0.00	0.38	0.38	0.15	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	883				0	457	414	108	1033	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	15.6				0.0	12.7	12.7	3.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	15.6				0.0	12.7	12.7	3.4	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	640	1084				0	633	573	137	1817	0
V/C Ratio(X)	0.00	0.00	0.81				0.00	0.72	0.72	0.79	0.57	0.00
Avail Cap(c_a), veh/h	0	640	1084				0	679	615	193	1908	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.70	0.70	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.9				0.0	16.9	16.9	25.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	4.9				0.0	7.0	7.7	6.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	165.5				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	31.8				0.0	6.1	5.6	1.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	190.3				0.0	23.9	24.6	31.0	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h		883						871			1141	
Approach Delay, s/veh		190.3						24.3			3.8	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.2	27.4		23.5		36.5
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30
Max Q Clear Time (g_c+I1), s	5.4	14.7		17.6		2.0
Green Ext Time (p_c), s	0.0	2.2		1.1		8.7

Intersection Summary	
HCM 6th Ctrl Delay	66.8
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 3.3:

EXISTING (2020) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

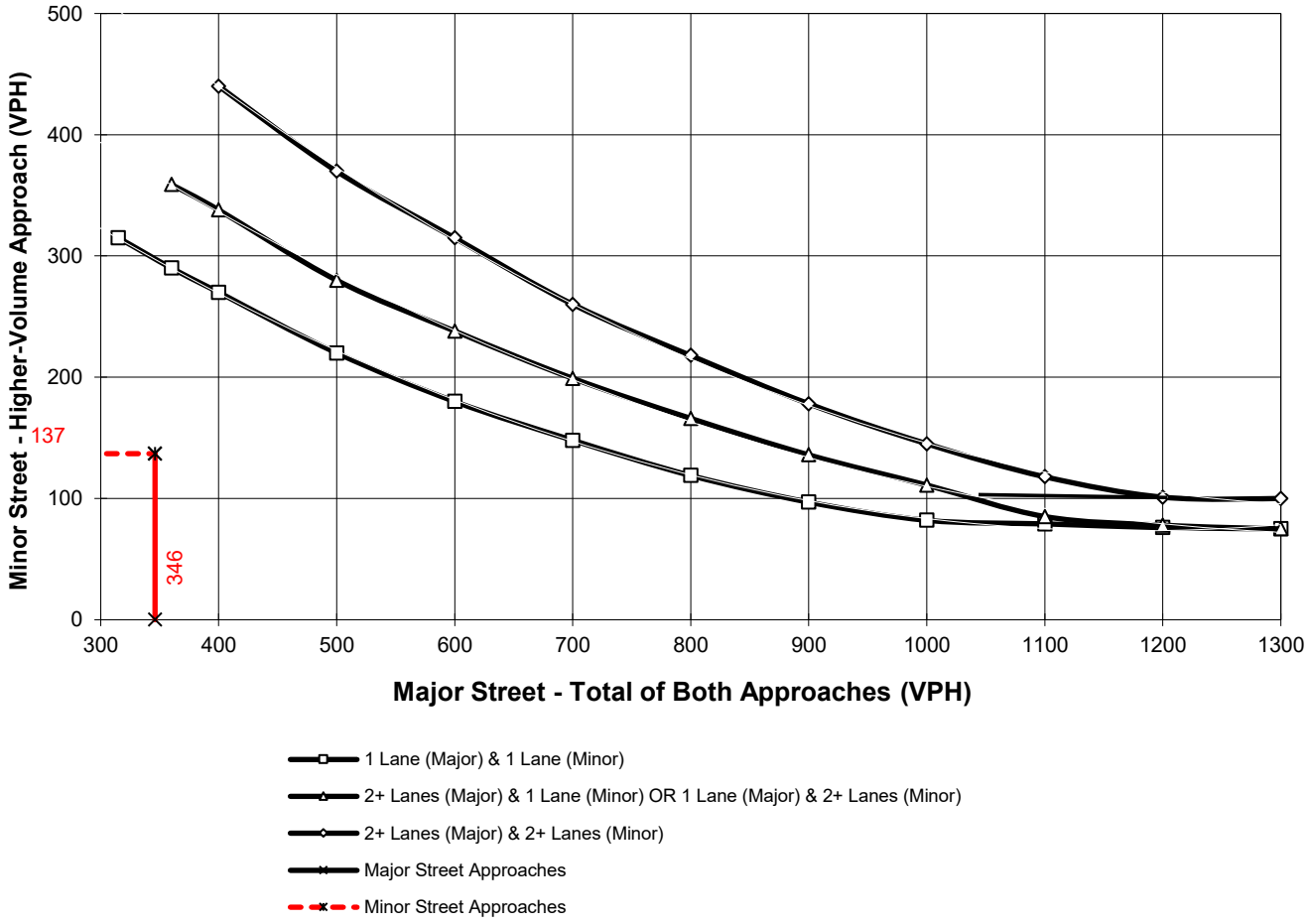
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.** Total of Both Approaches (VPH) = **346**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **137**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

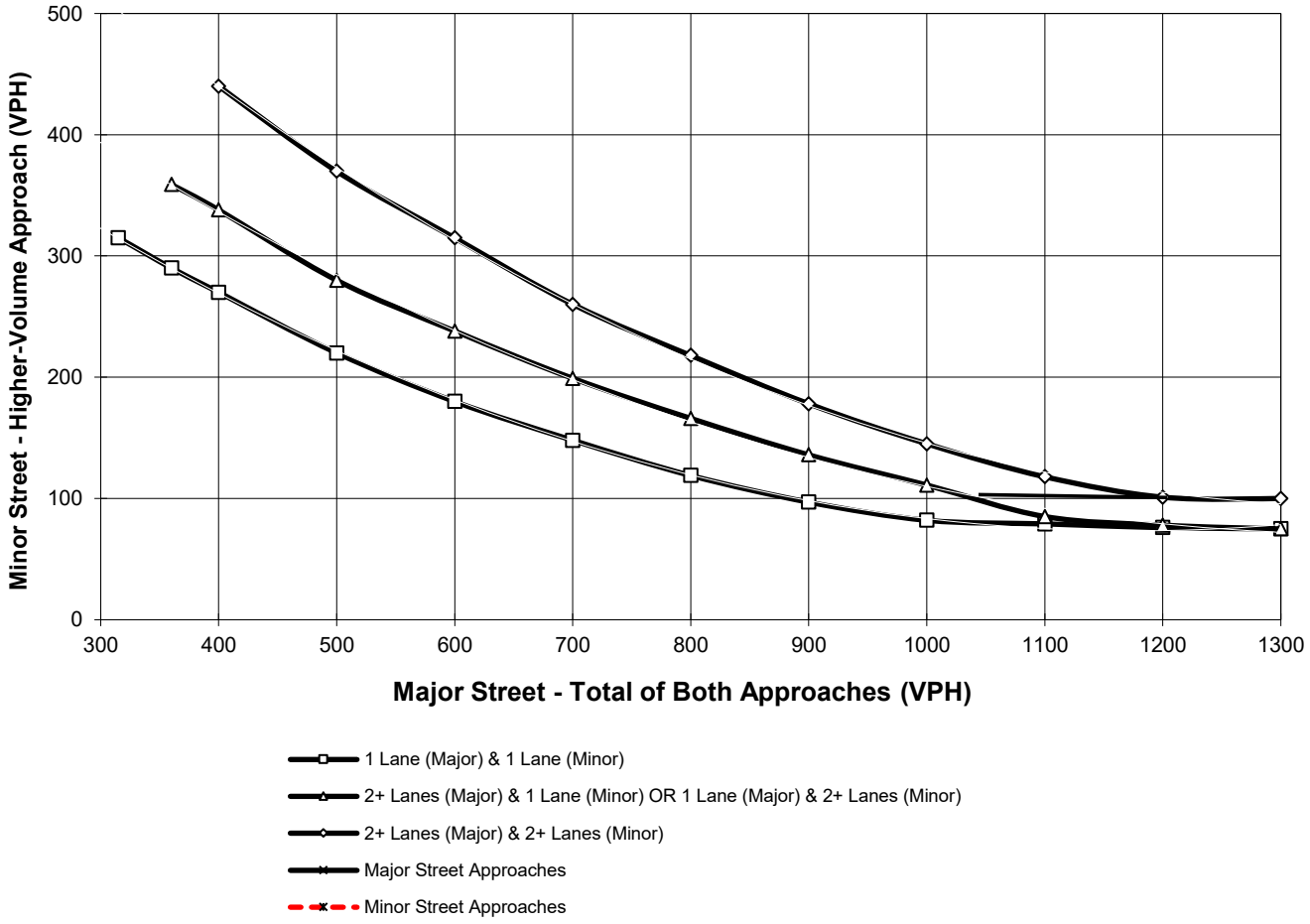
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday AM Peak Hour**

Major Street Name = **Potrero Bl.** Total of Both Approaches (VPH) = **54**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Western Knolls Av.** High Volume Approach (VPH) = **47**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

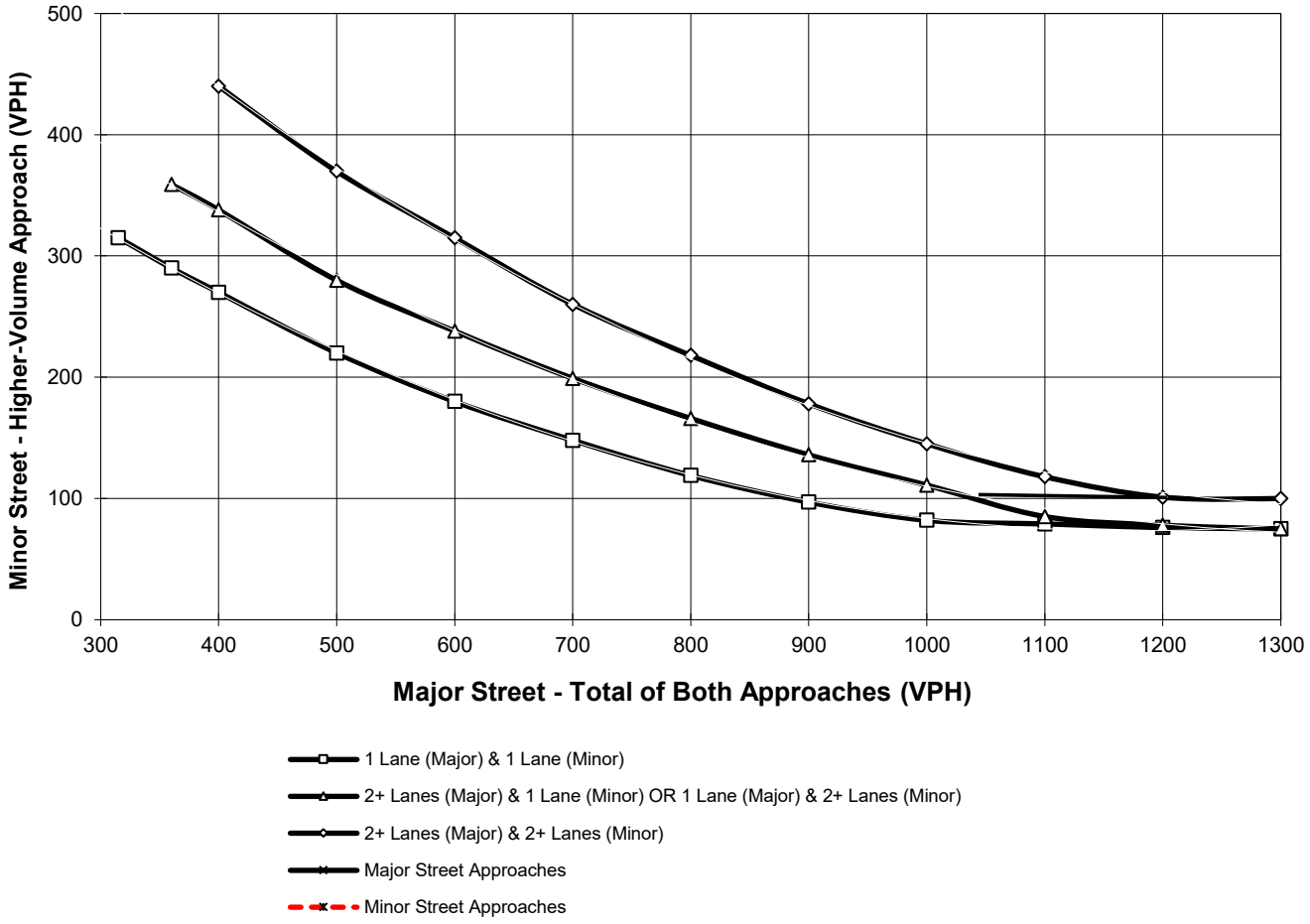
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday AM Peak Hour**

Major Street Name = **4th St.** Total of Both Approaches (VPH) = **18**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **6**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

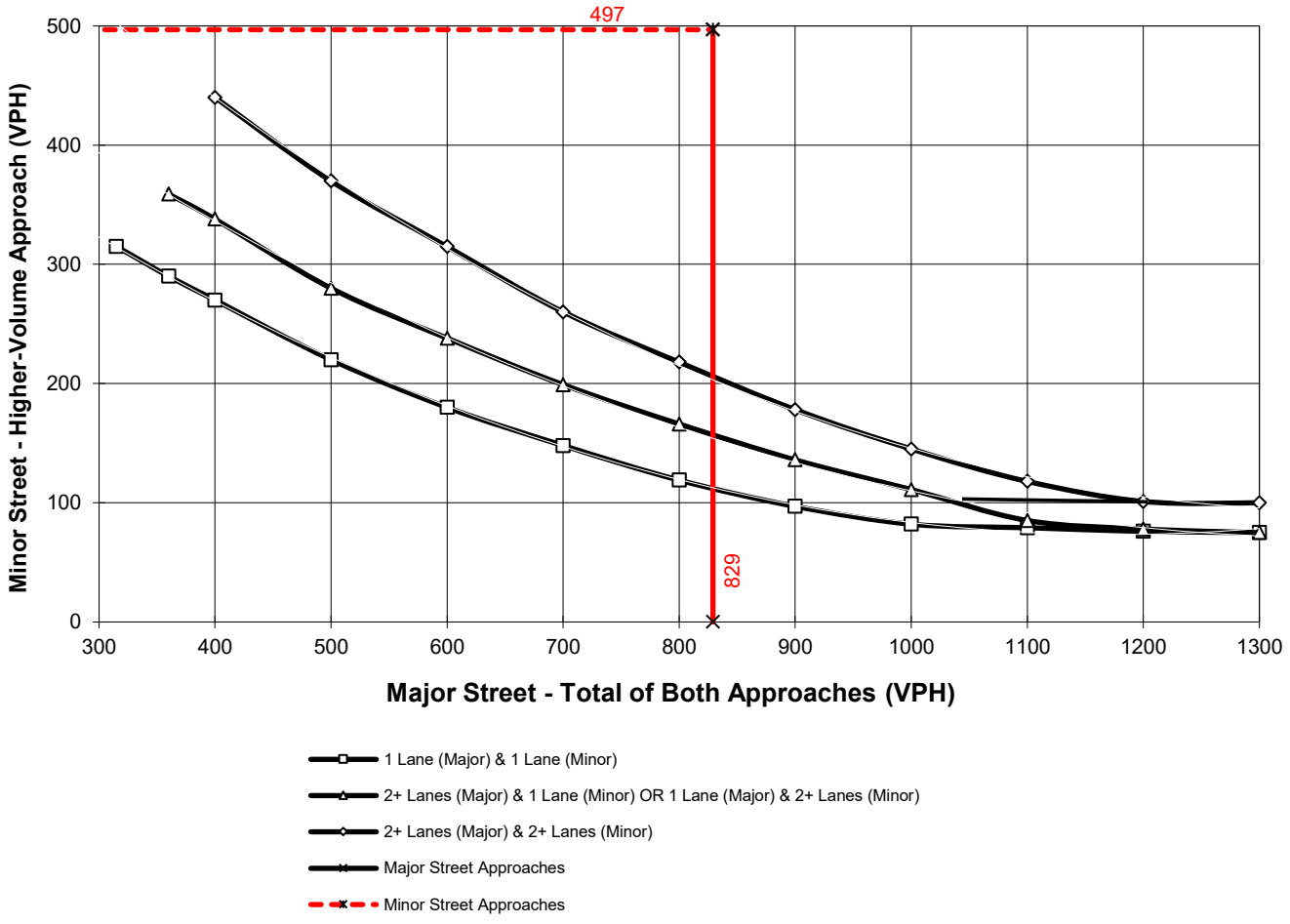
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday AM Peak Hour**

Major Street Name = **Oak Valley Pkwy.** Total of Both Approaches (VPH) = **829**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Desert Lawn Dr.** High Volume Approach (VPH) = **497**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

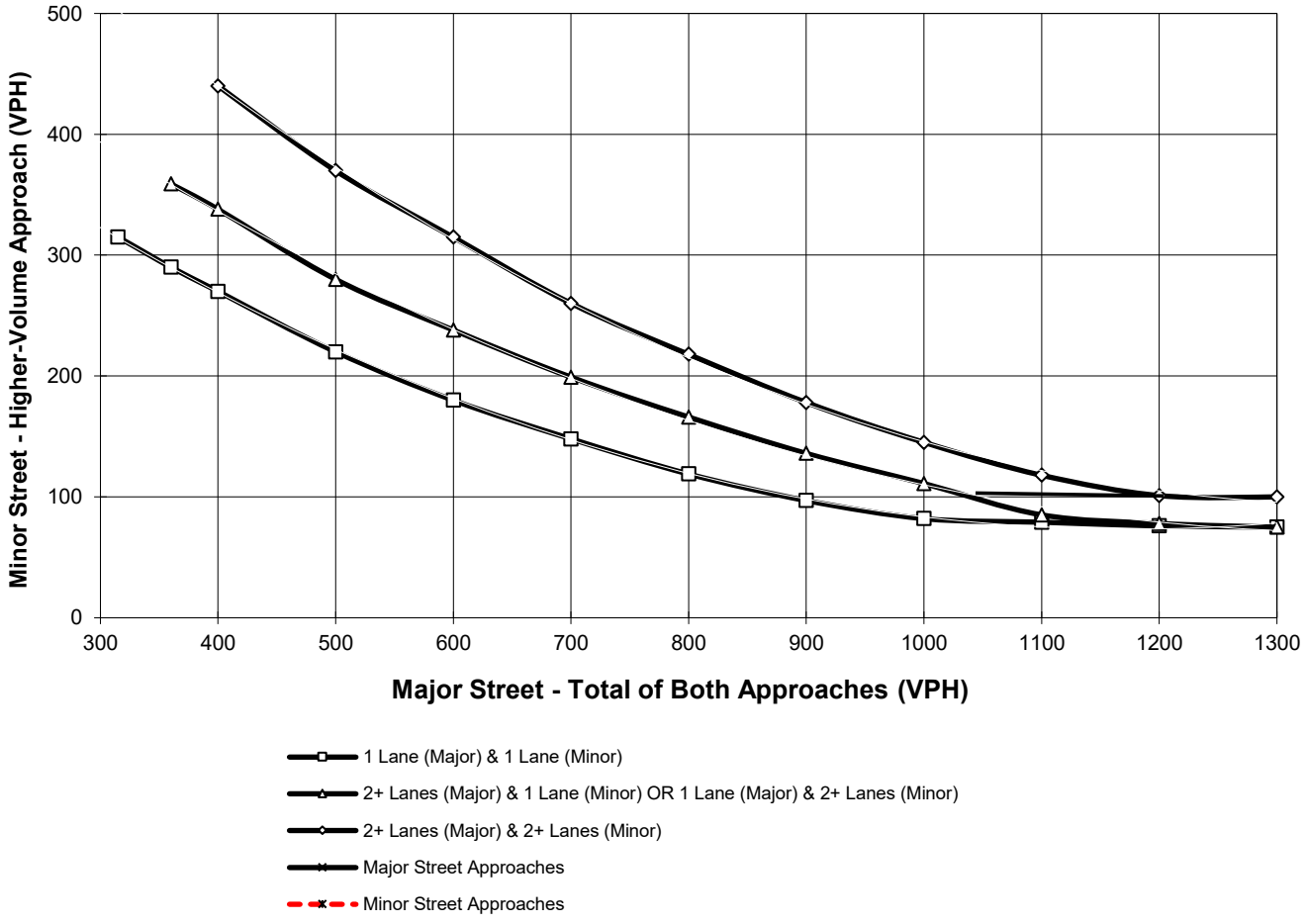
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**
Total of Both Approaches (VPH) = **275**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Veile Av.**
High Volume Approach (VPH) = **77**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

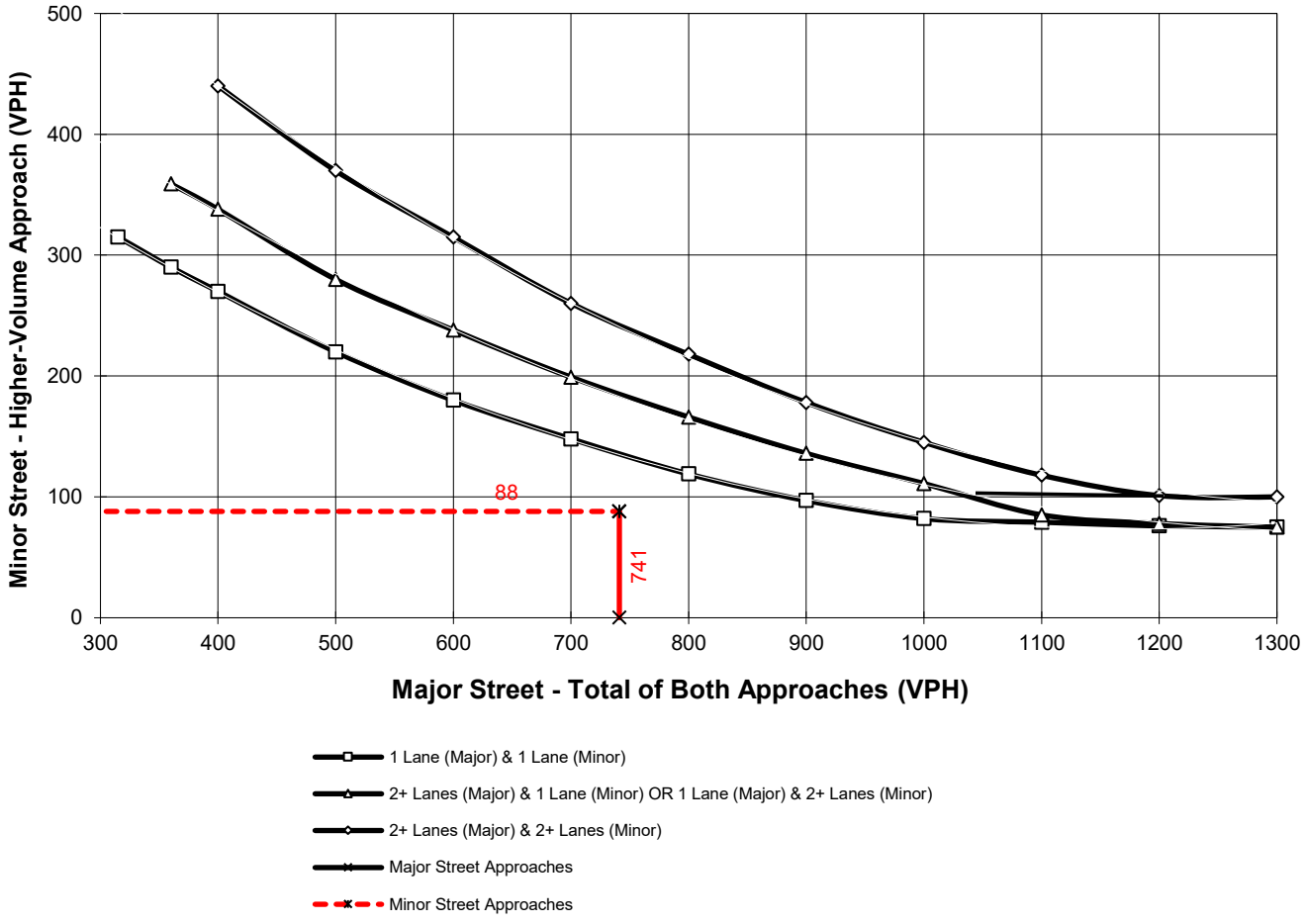
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

Major Street Name = **California Av.**
Total of Both Approaches (VPH) = **741**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **5th St.**
High Volume Approach (VPH) = **88**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

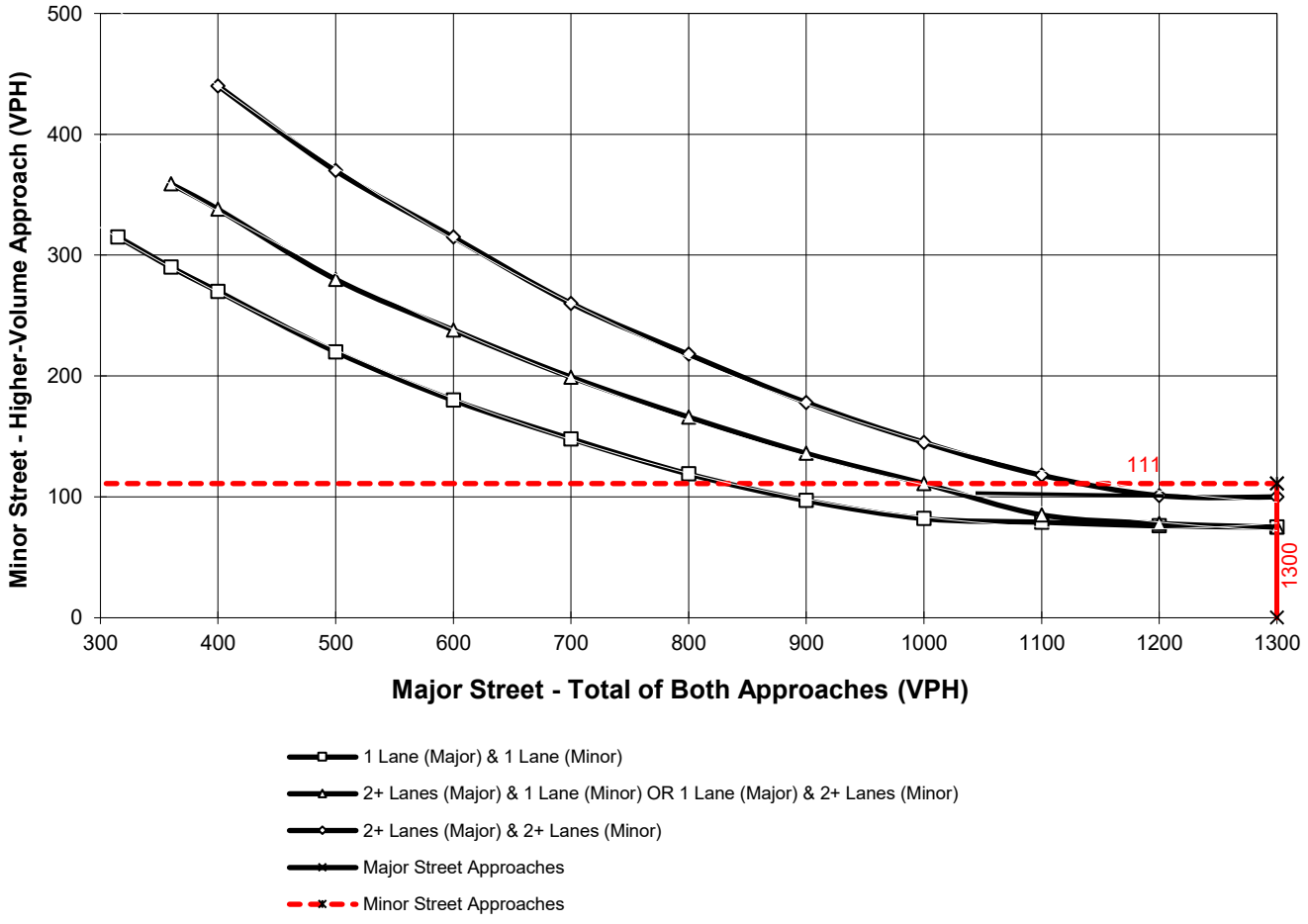
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

Major Street Name = **California Av.**
Total of Both Approaches (VPH) = **1468**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **4th St.**
High Volume Approach (VPH) = **111**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



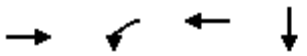
*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 3.4:

EXISTING (2020) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	819	264	552	311
v/c Ratio	0.92	0.91	0.42	0.95
Control Delay	36.5	64.9	3.8	74.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	36.5	64.9	3.8	74.9
Queue Length 50th (ft)	378	112	29	171
Queue Length 95th (ft)	#628	m#228	m64	#327
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	892	296	1313	329
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.92	0.89	0.42	0.95

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	86	468	421	402	678
v/c Ratio	0.63	0.67	0.85	0.56	0.75
Control Delay	51.3	16.6	48.0	6.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	16.6	48.0	6.1	23.5
Queue Length 50th (ft)	50	164	221	0	286
Queue Length 95th (ft)	m51	m178	#365	67	#468
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	144	781	532	741	909
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.60	0.60	0.79	0.54	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	338	319	375	235	452
v/c Ratio	0.77	0.68	0.81	0.11	0.50
Control Delay	33.4	23.1	42.1	5.4	16.1
Queue Delay	0.0	0.8	0.0	0.0	2.0
Total Delay	33.4	23.9	42.1	5.4	18.0
Queue Length 50th (ft)	113	80	126	14	73
Queue Length 95th (ft)	#221	158	#243	28	118
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	491	519	523	2105	907
Starvation Cap Reductn	0	0	0	0	302
Spillback Cap Reductn	0	53	0	58	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.68	0.72	0.11	0.75

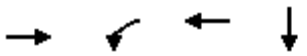
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	303	294	953	103	735
v/c Ratio	0.63	0.63	0.52	0.47	0.32
Control Delay	13.6	13.3	8.2	19.0	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	13.3	8.2	19.0	10.2
Queue Length 50th (ft)	30	27	62	24	107
Queue Length 95th (ft)	92	87	131	m54	195
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	560	546	1820	256	2328
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.54	0.52	0.40	0.32

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	530	170	633	718
v/c Ratio	0.91	0.87	0.72	0.98
Control Delay	48.9	74.0	21.5	56.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	48.9	74.0	21.5	56.8
Queue Length 50th (ft)	260	103	255	387
Queue Length 95th (ft)	#310	#163	286	#463
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	582	200	884	731
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.91	0.85	0.72	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	70	581	295	245	600
v/c Ratio	0.47	0.86	0.63	0.42	0.65
Control Delay	50.2	26.6	37.3	6.1	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	26.6	37.3	6.1	19.7
Queue Length 50th (ft)	40	214	153	0	222
Queue Length 95th (ft)	m41	m200	230	55	376
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	176	785	503	608	922
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.40	0.74	0.59	0.40	0.65

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	398	280	319	532
v/c Ratio	0.81	0.69	0.77	0.16	0.55
Control Delay	33.8	19.8	41.5	7.2	19.4
Queue Delay	0.0	0.7	0.0	0.0	7.5
Total Delay	33.8	20.4	41.5	7.2	26.8
Queue Length 50th (ft)	136	87	108	22	89
Queue Length 95th (ft)	#266	176	m#188	m46	137
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	548	614	403	1968	969
Starvation Cap Reductn	0	0	0	0	387
Spillback Cap Reductn	0	50	0	41	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.75	0.71	0.69	0.17	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	448	431	871	108	1033
v/c Ratio	0.84	0.79	0.58	0.58	0.53
Control Delay	32.5	25.4	11.7	29.9	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	25.4	11.7	29.9	15.4
Queue Length 50th (ft)	126	101	82	42	183
Queue Length 95th (ft)	#272	#236	140	m61	248
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	580	593	1514	194	1934
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.73	0.58	0.56	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 3.5:

EXISTING (2020) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2032	7161	0.28	68.7	9.9	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2032	303	7200	2100	0.28	0.14	64.4	60.9	10.5	13.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1732	7161	0.24	68.7	8.4	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2443	711	7200	2100	0.34	0.34	64.3	62.5	12.7	13.6	B

Segment 5: Basic

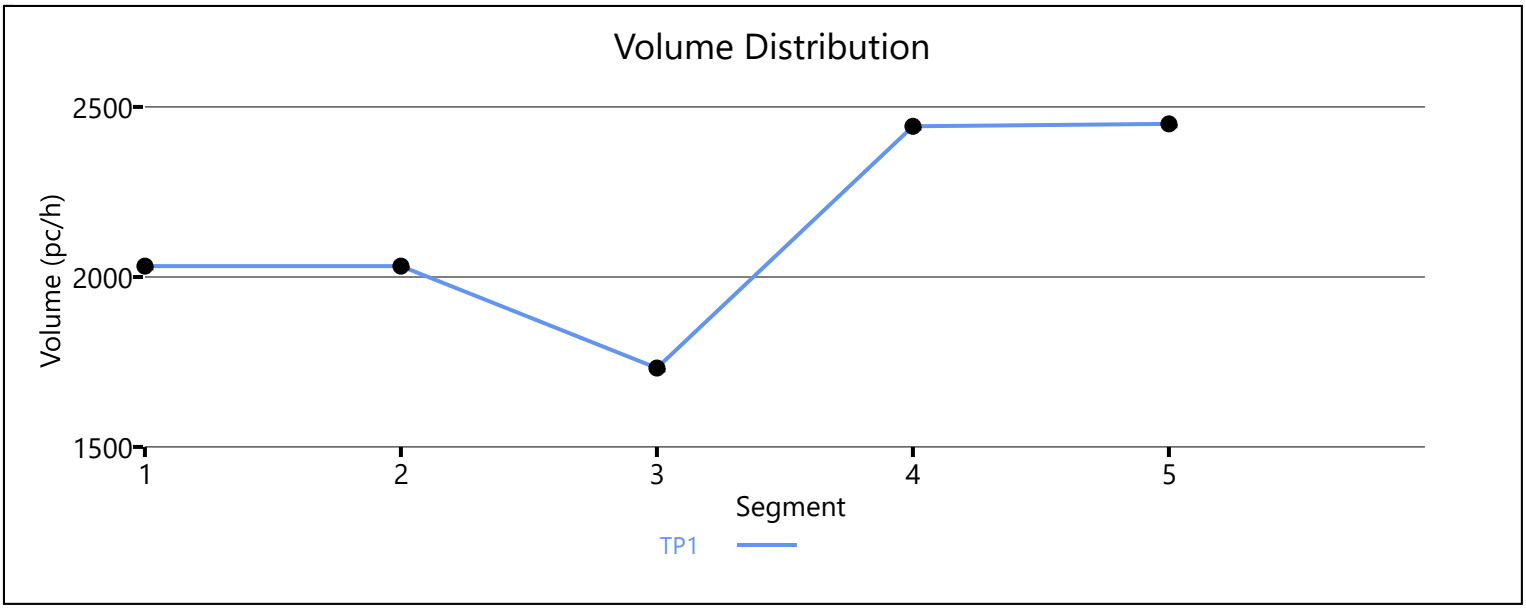
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2450	7161	0.34	68.7	11.9	B

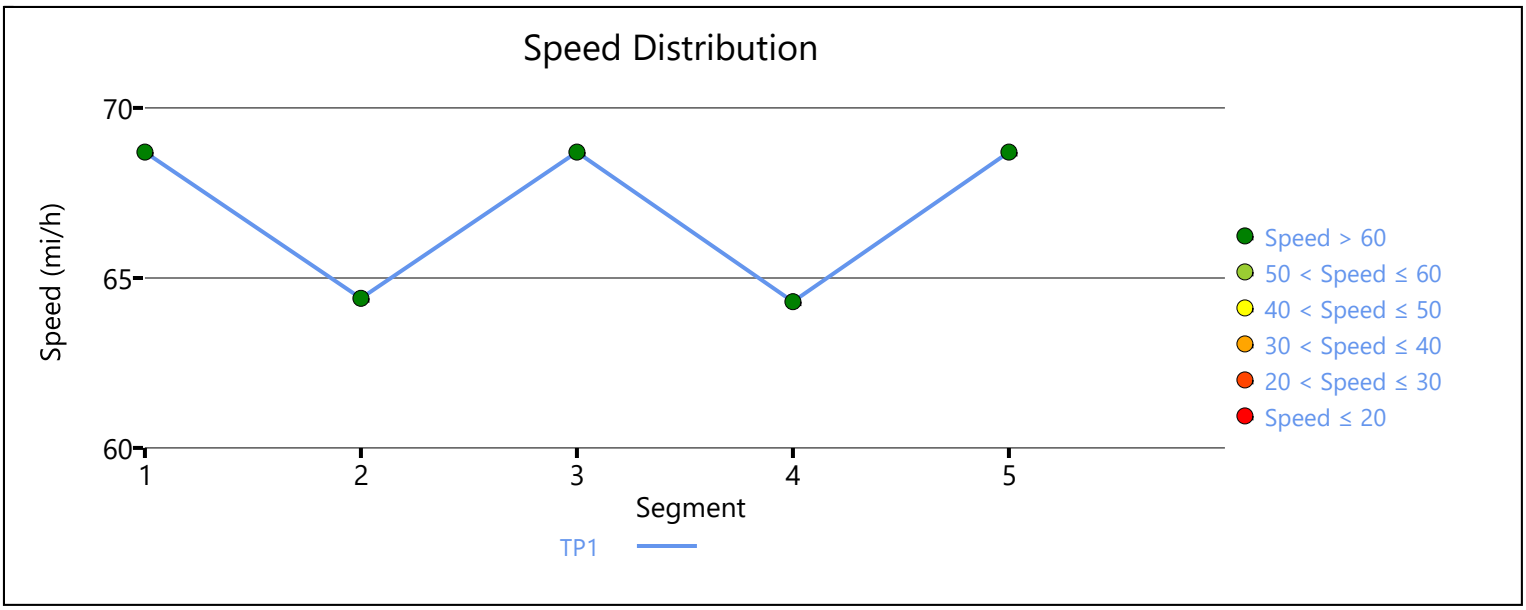
Facility Time Period Results

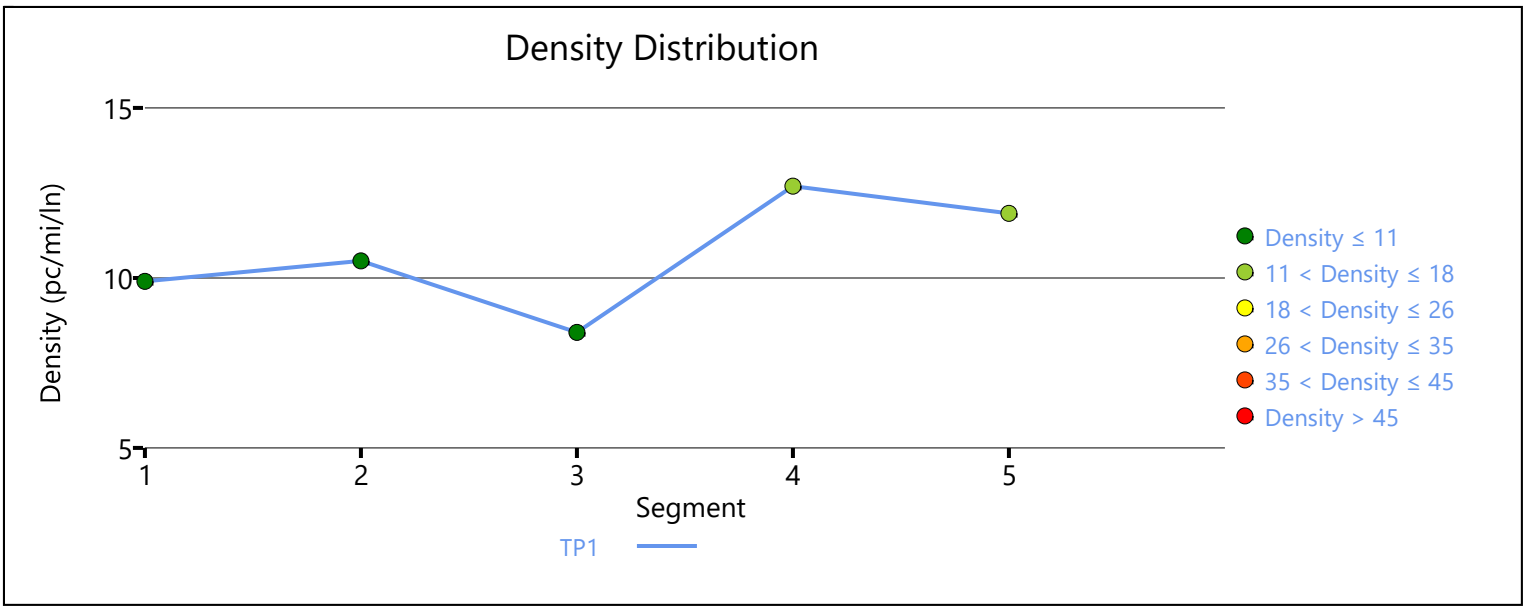
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	10.5	10.1	2.1	A

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.1
Average Travel Time, min	2.1	Density, pc/mi/ln	10.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2523	7161	0.35	68.7	12.2	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2523	728	7200	2100	0.35	0.35	63.2	59.8	13.3	16.7	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	1808	7161	0.25	68.7	8.8	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2330	522	7200	2100	0.32	0.25	64.7	62.9	12.0	11.9	B

Segment 5: Basic

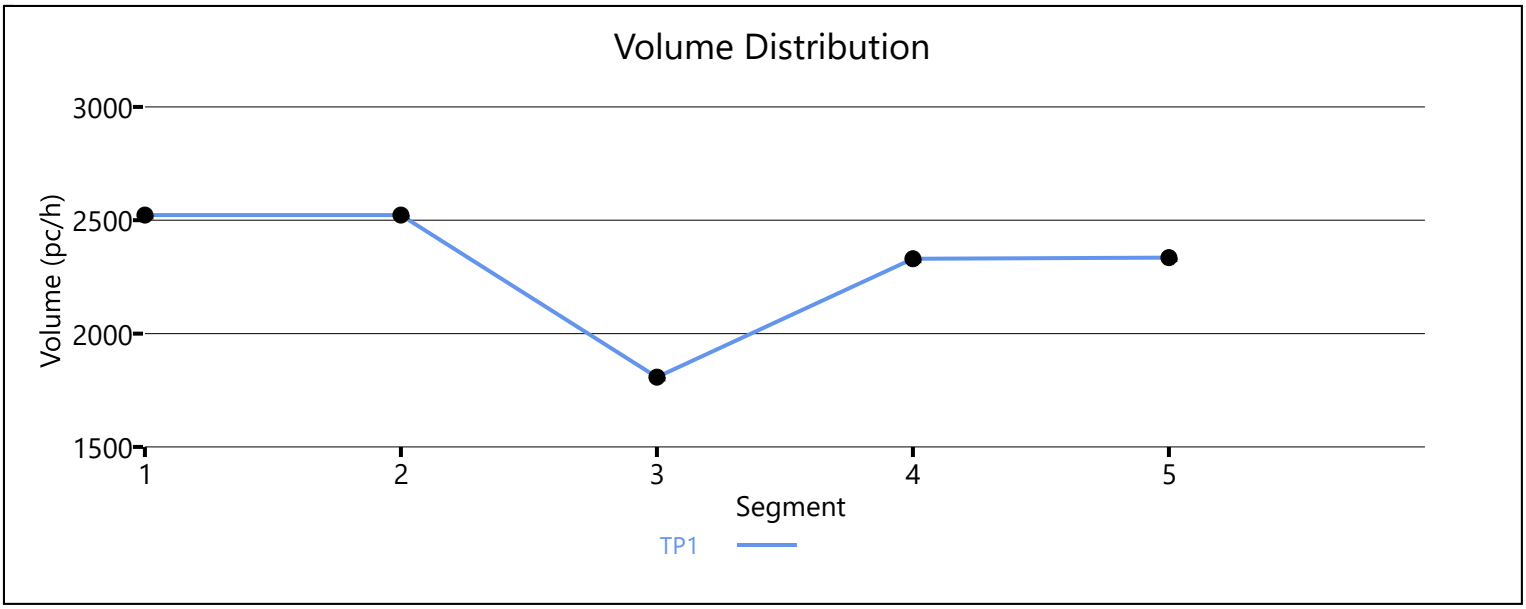
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2335	7161	0.33	68.7	11.3	B

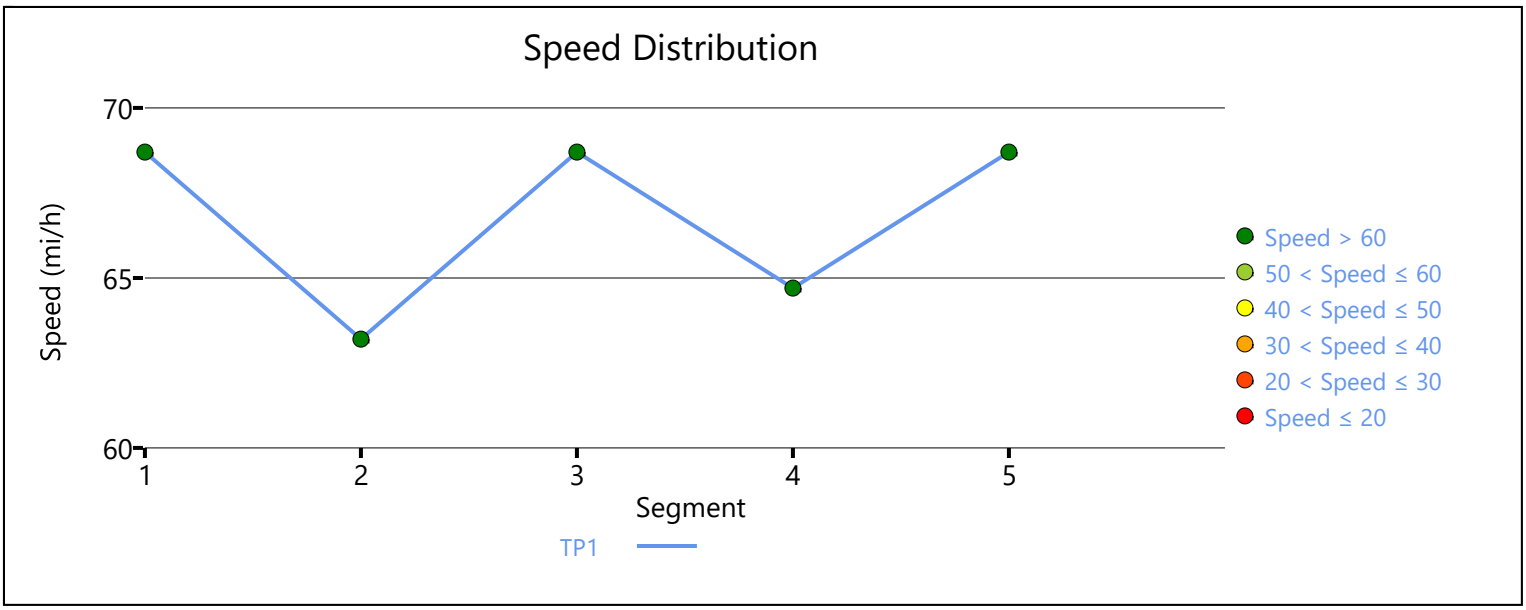
Facility Time Period Results

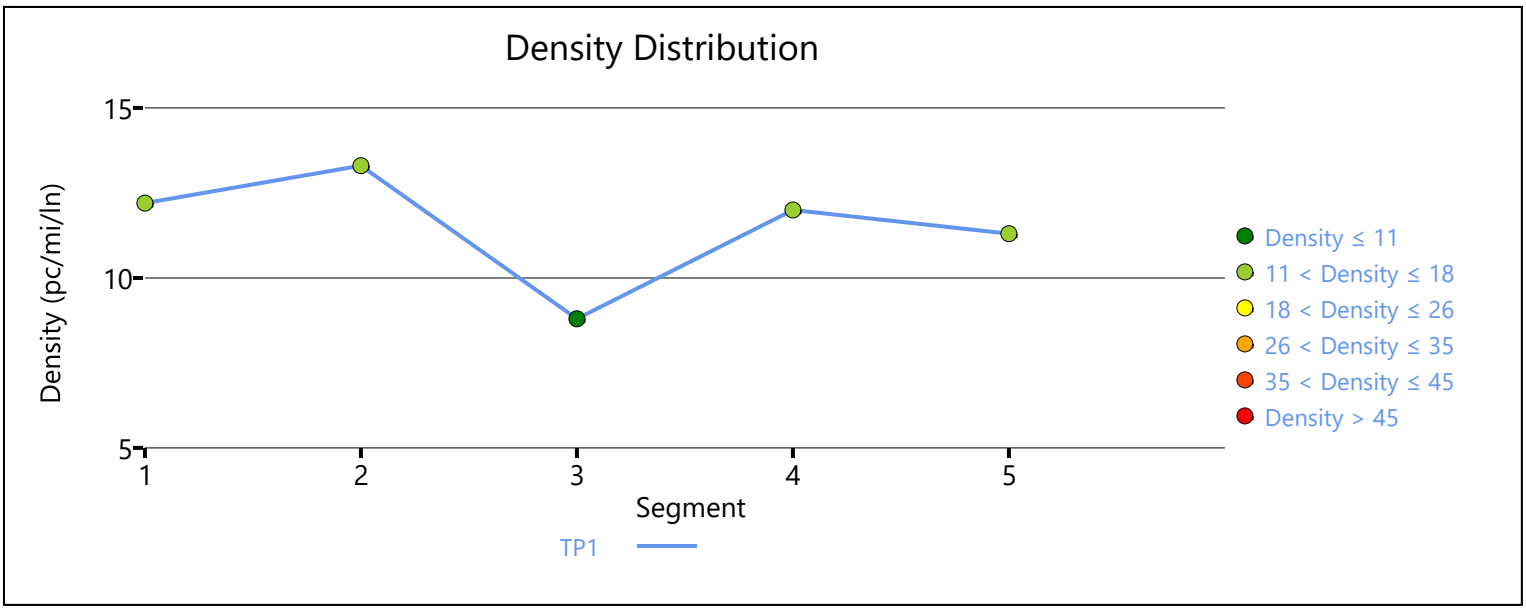
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.6	10.6	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.6
Average Travel Time, min	2.2	Density, pc/mi/ln	11.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4998	9548	0.52	68.7	18.2	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4998	628	9600	2100	0.52	0.30	67.0	60.1	18.6	20.9	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4347	9548	0.46	68.7	15.8	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.935	4907	560	9600	2100	0.51	0.27	64.8	62.3	18.9	17.3	B

Segment 5: Basic

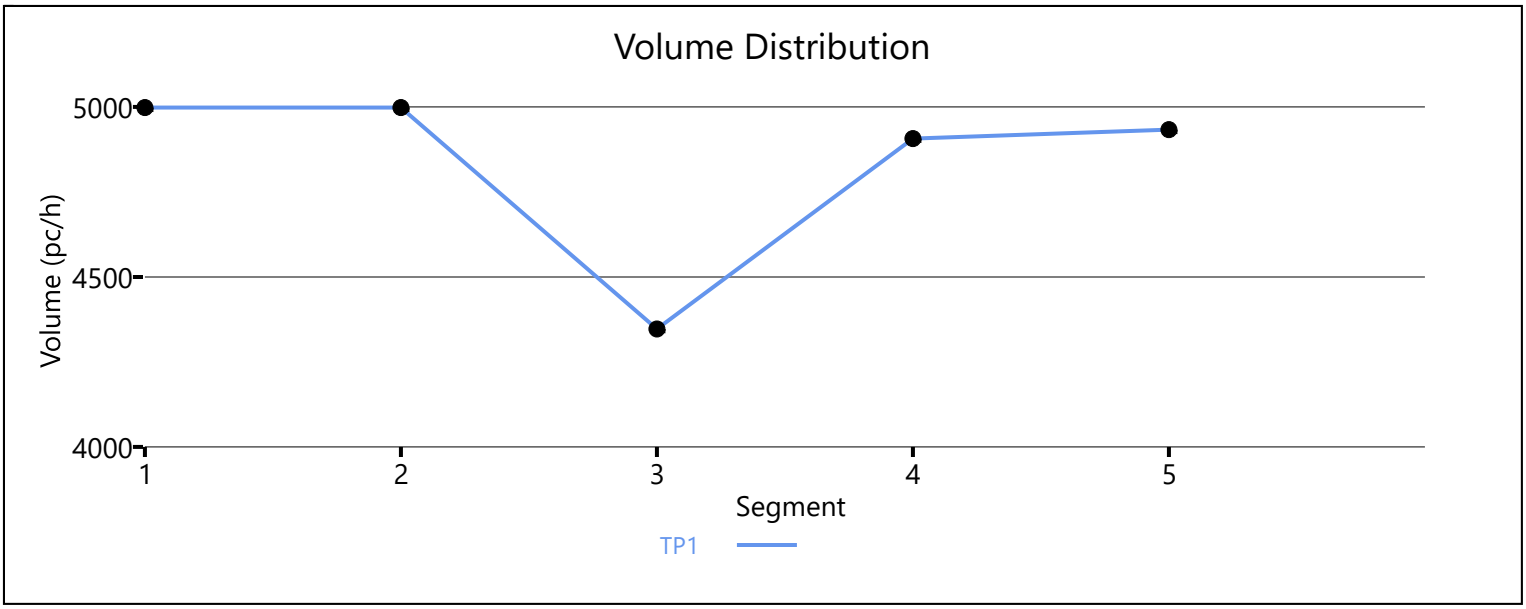
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4933	9548	0.52	68.7	17.9	B

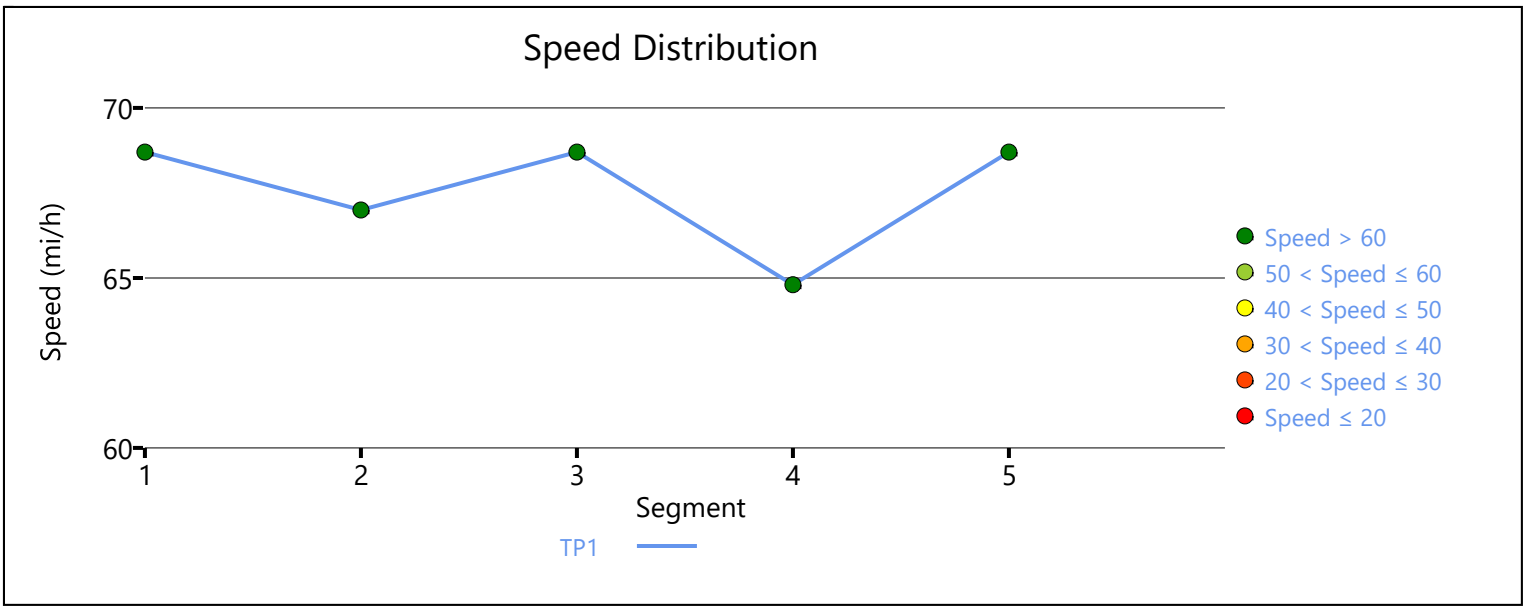
Facility Time Period Results

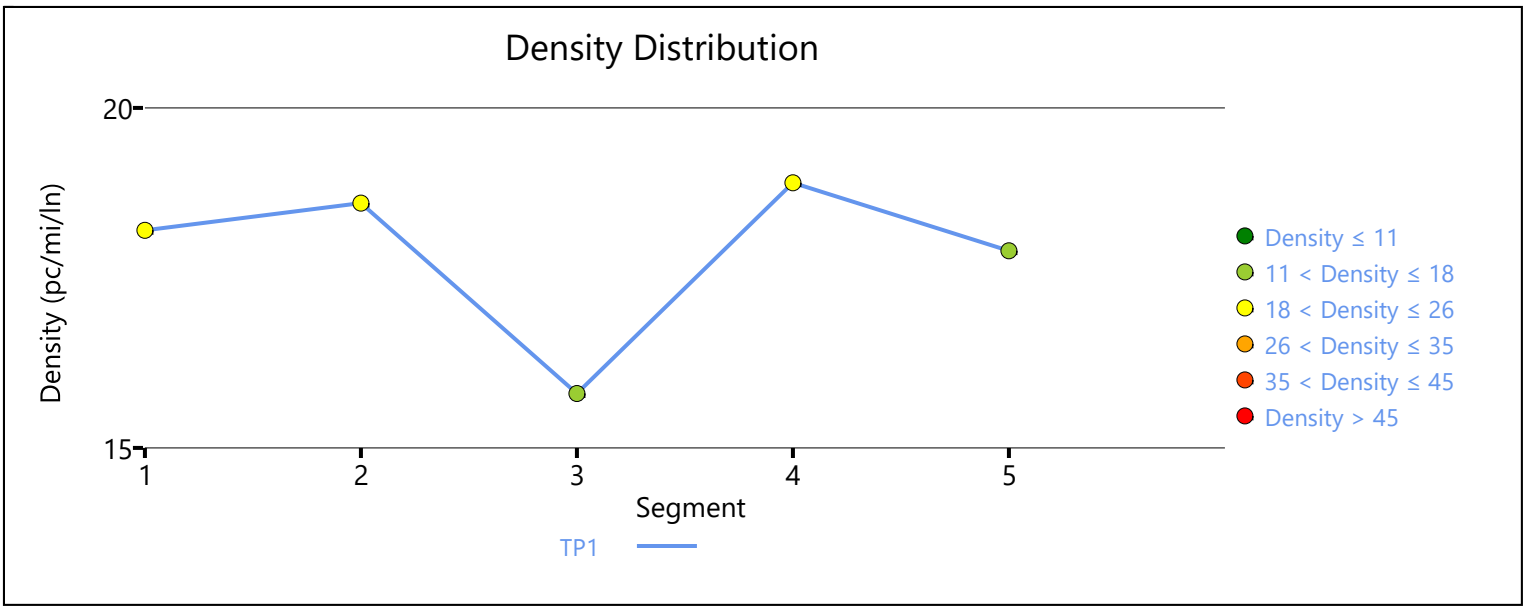
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	18.0	16.1	1.7	C

Facility Overall Results

Space Mean Speed, mi/h	67.8	Density, veh/mi/ln	16.1
Average Travel Time, min	1.7	Density, pc/mi/ln	18.0







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3852	9548	0.40	68.7	14.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	3705	626	9600	2100	0.39	0.30	66.9	60.1	13.8	16.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3205	9548	0.34	68.7	11.7	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	3663	458	9600	2100	0.38	0.22	64.9	61.5	14.1	16.2	B

Segment 5: Basic

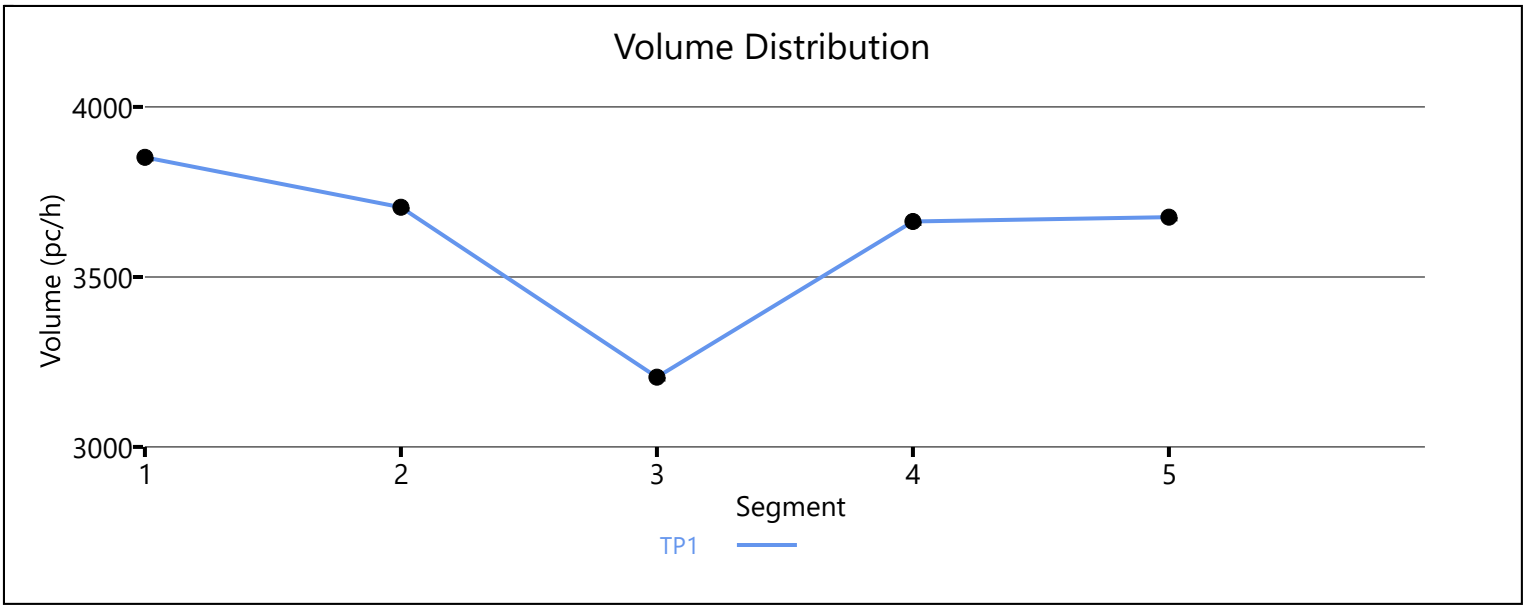
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3676	9548	0.39	68.7	13.4	B

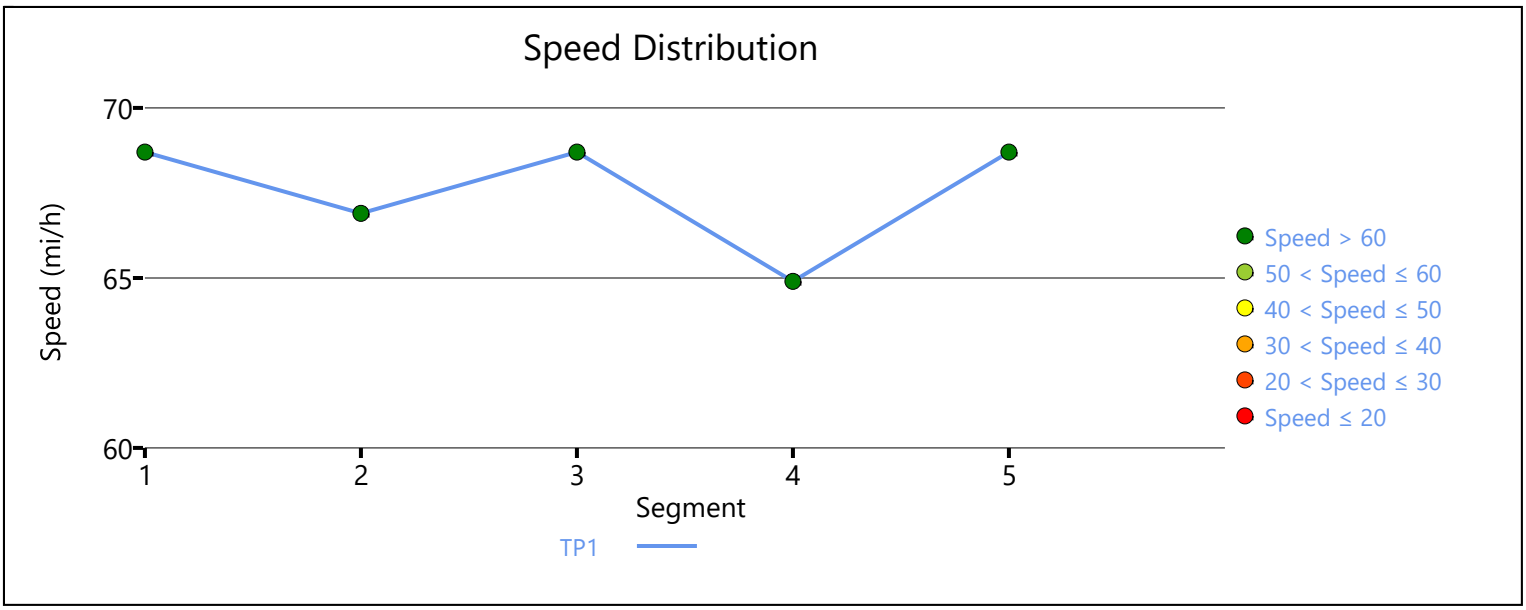
Facility Time Period Results

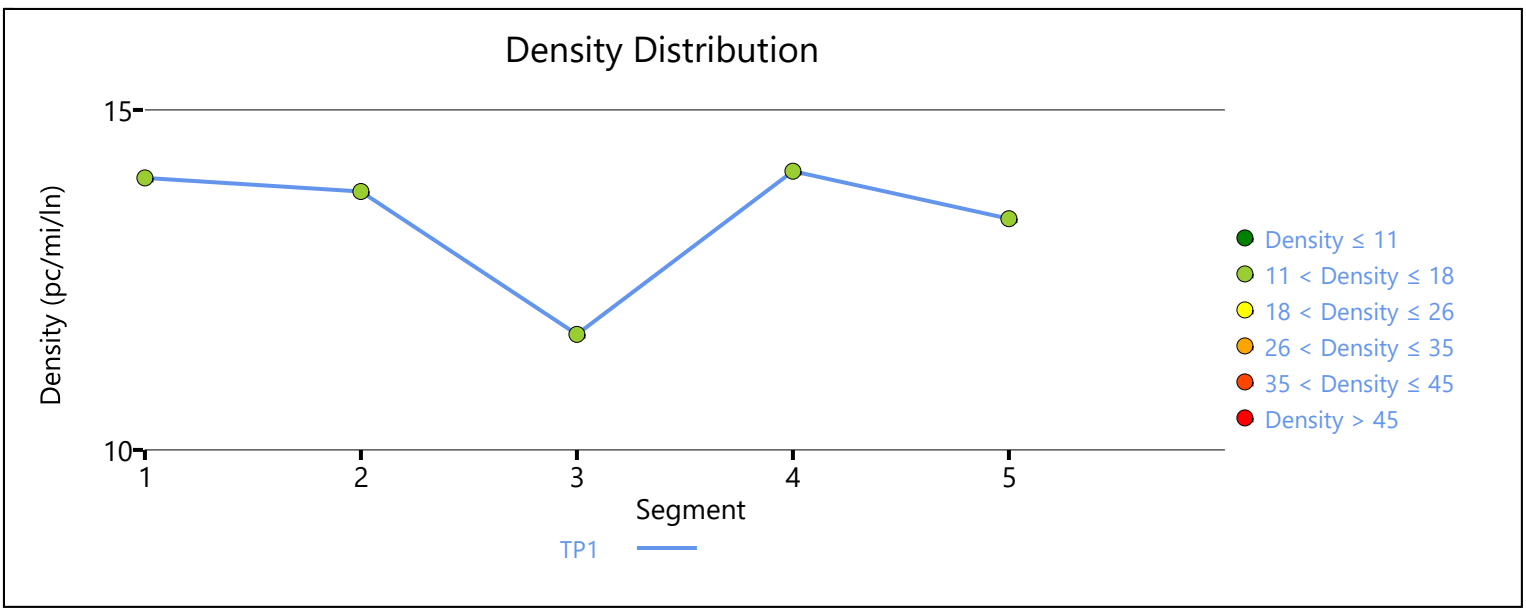
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	13.5	13.2	1.8	B

Facility Overall Results

Space Mean Speed, mi/h	67.9	Density, veh/mi/ln	13.2
Average Travel Time, min	1.8	Density, pc/mi/ln	13.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1290	4786	0.27	69.3	9.3	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.943	1290	808	4800	2100	0.27	0.38	59.6	59.6	10.8	11.3	B

Segment 3: Basic

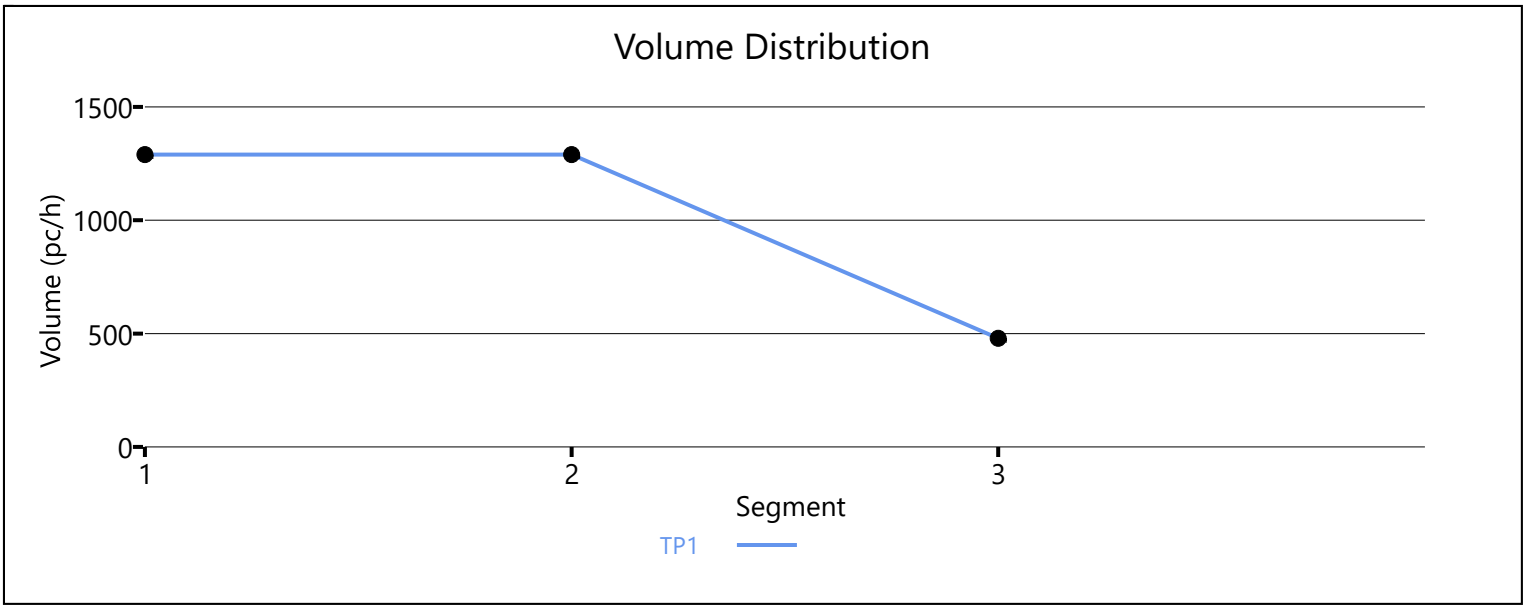
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	479	4786	0.10	69.3	3.5	A

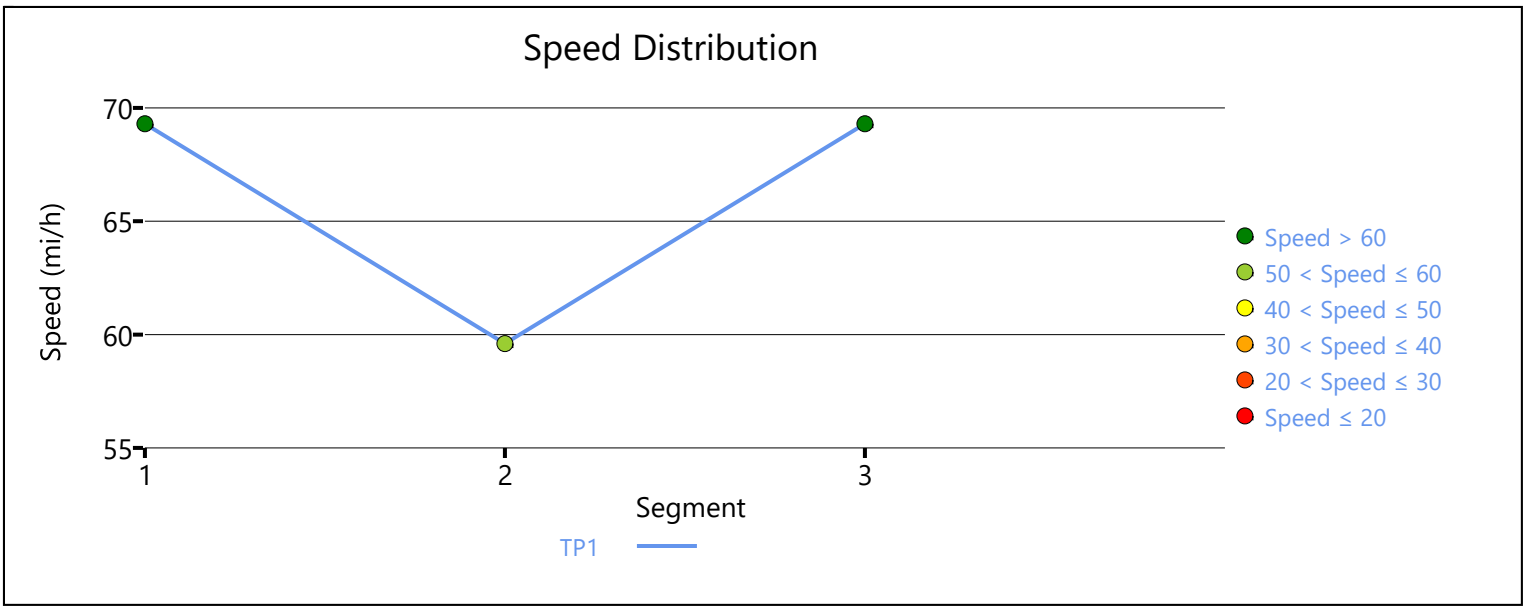
Facility Time Period Results

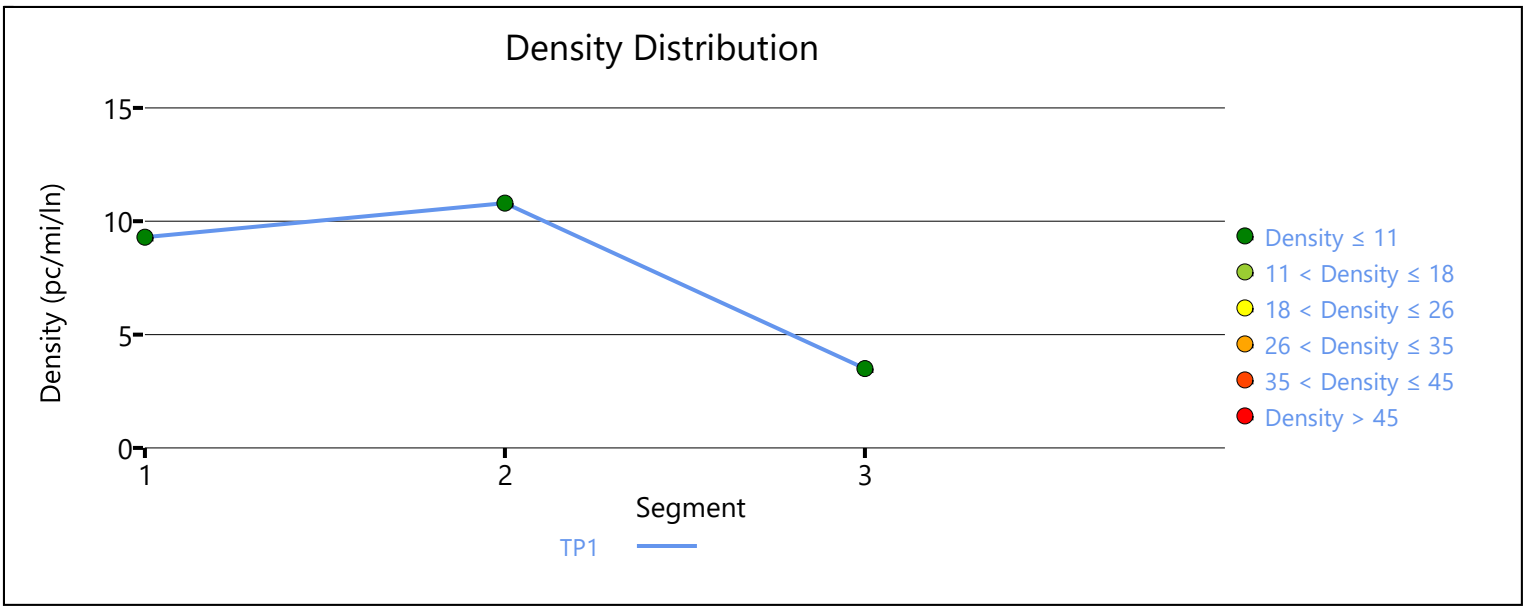
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	8.8	8.5	1.3	A

Facility Overall Results

Space Mean Speed, mi/h	67.0	Density, veh/mi/ln	8.5
Average Travel Time, min	1.3	Density, pc/mi/ln	8.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1241	4774	0.26	68.7	9.0	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.971	1241	40	4800	2100	0.26	0.02	61.5	61.5	10.1	7.7	A

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1202	4774	0.25	68.7	8.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	1.000	1245	43	4800	2100	0.26	0.02	64.0	64.0	9.7	6.9	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1246	4774	0.26	68.7	9.1	A

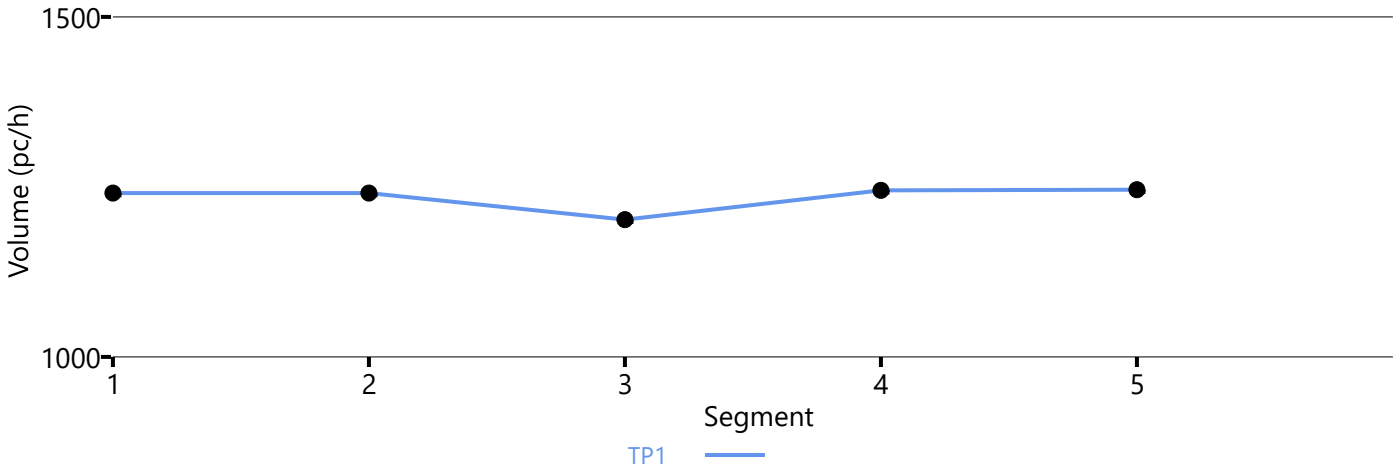
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	9.3	9.3	2.0	A

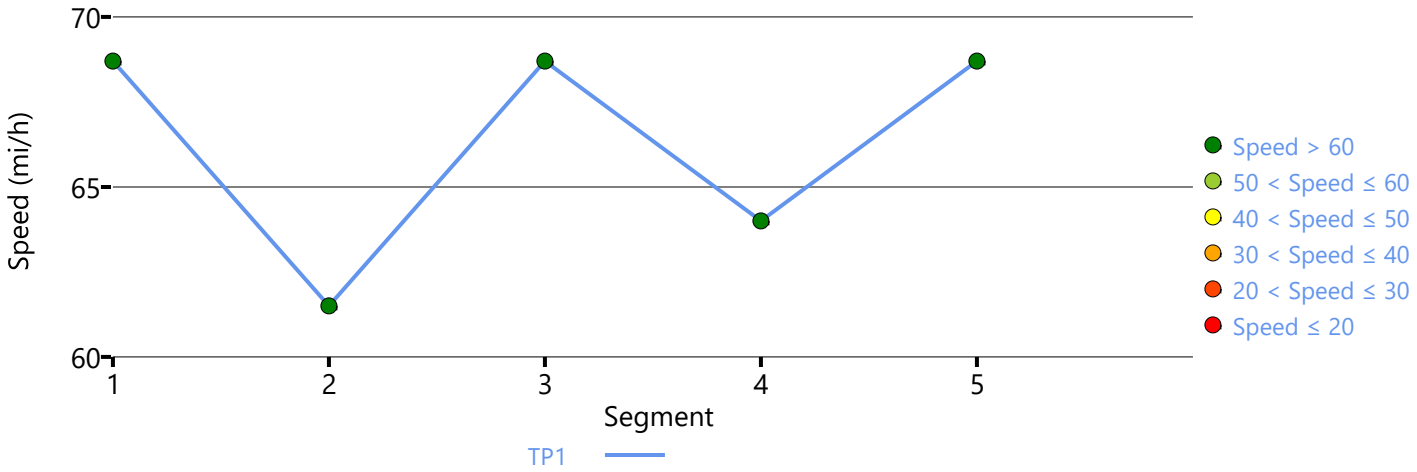
Facility Overall Results

Space Mean Speed, mi/h	67.1	Density, veh/mi/ln	9.3
Average Travel Time, min	2.0	Density, pc/mi/ln	9.3

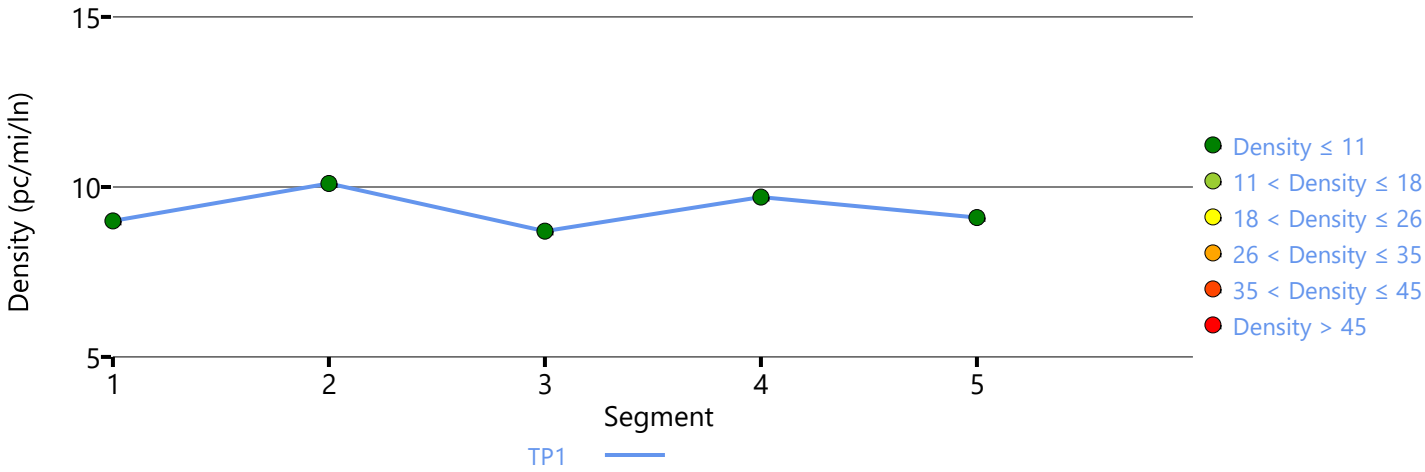
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2774	7161	0.39	68.7	13.5	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	2774	594	7200	2100	0.39	0.28	63.9	60.2	14.5	17.8	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2189	7161	0.31	68.7	10.6	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2556	367	7200	2100	0.36	0.17	64.6	62.6	13.2	13.2	B

Segment 5: Basic

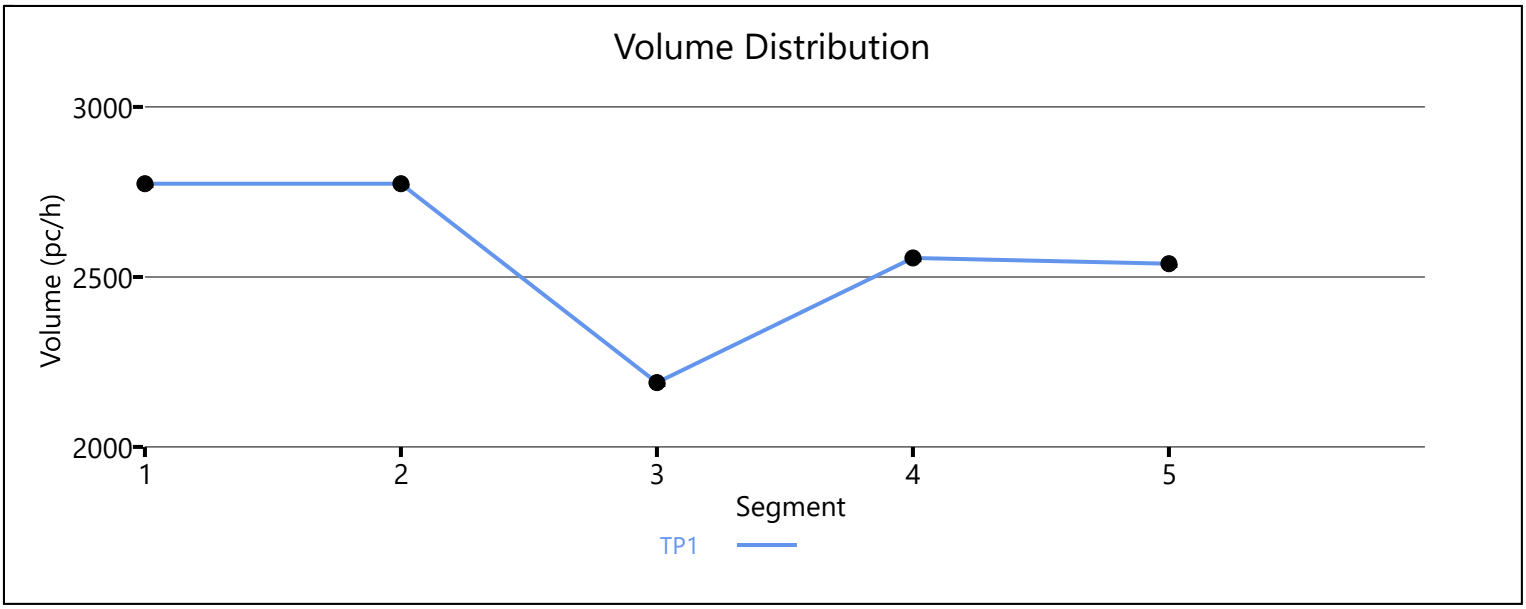
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2539	7161	0.35	68.7	12.3	B

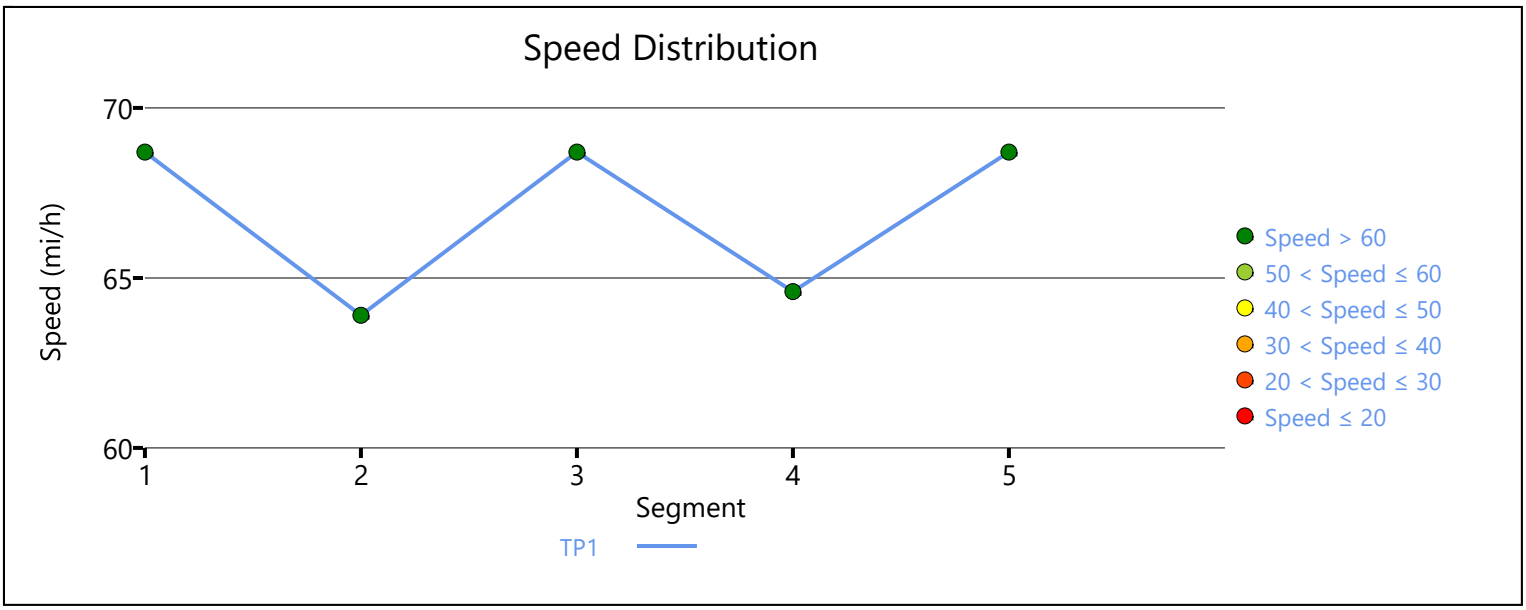
Facility Time Period Results

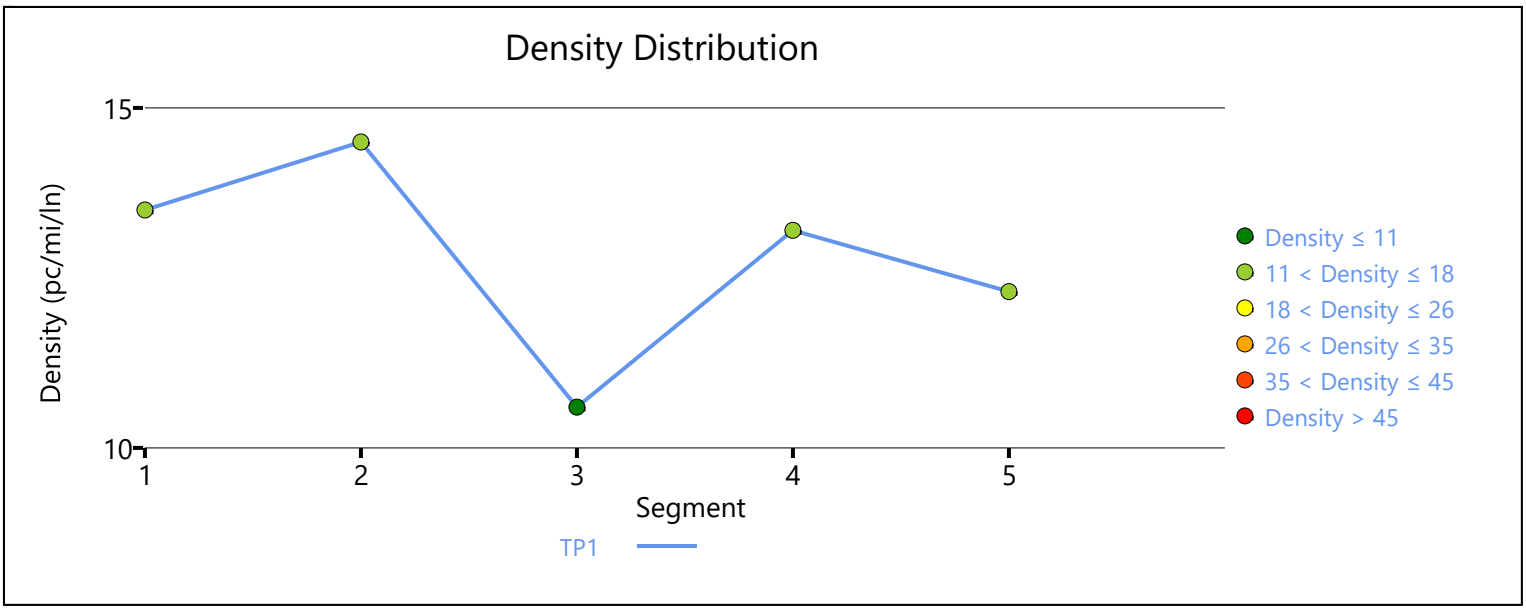
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	13.0	12.5	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	12.5
Average Travel Time, min	2.1	Density, pc/mi/ln	13.0







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3005	7161	0.42	68.7	14.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3005	634	7200	2100	0.42	0.30	63.9	60.1	15.7	19.0	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2380	7161	0.33	68.7	11.5	B

Segment 4: Merge

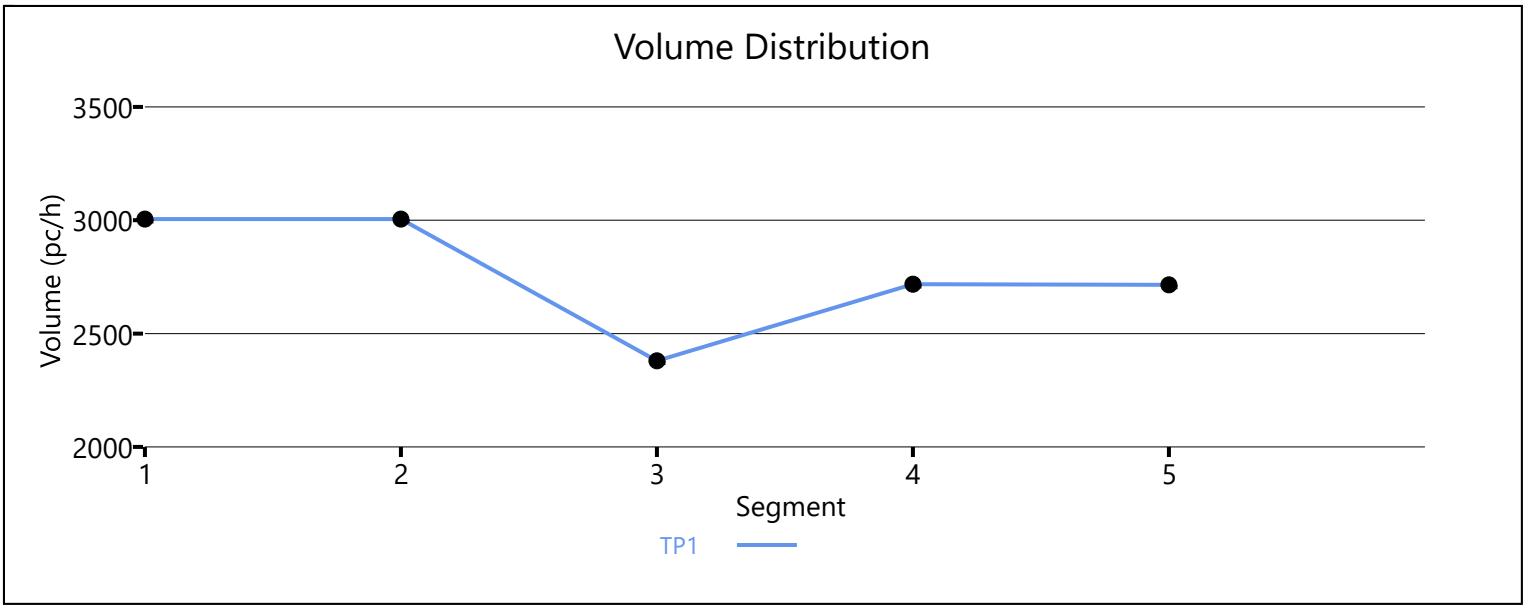
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.980	2718	338	7200	2100	0.38	0.16	64.6	62.7	14.0	13.3	B

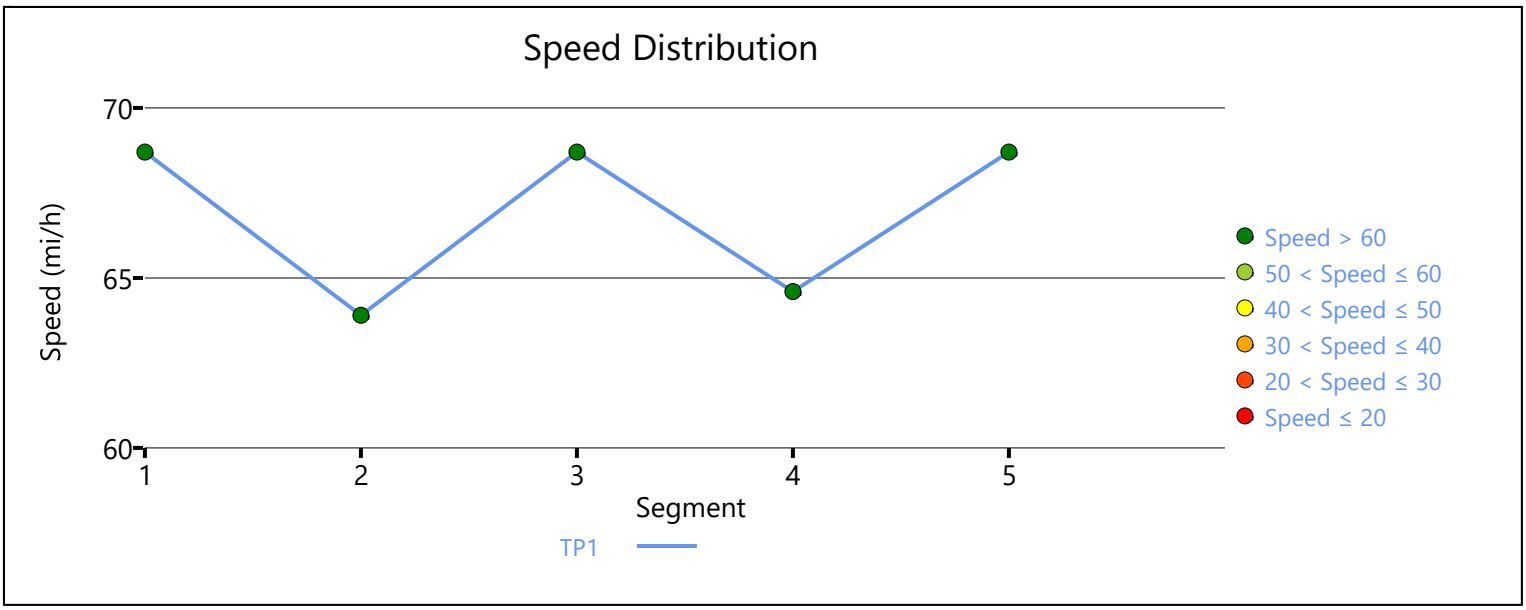
Segment 5: Basic

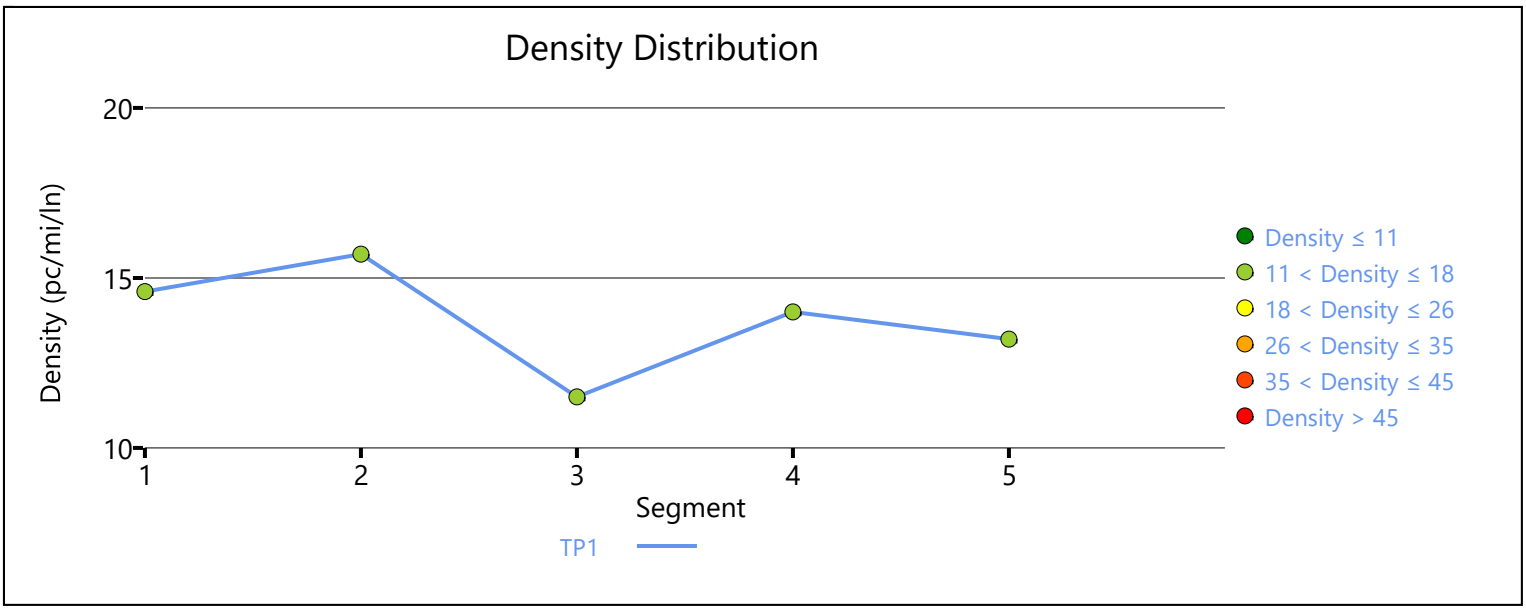
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2715	7161	0.38	68.7	13.2	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.6	13.8	12.8	2.2	B

Facility Overall Results			
Space Mean Speed, mi/h	67.6	Density, veh/mi/ln	12.8
Average Travel Time, min	2.2	Density, pc/mi/ln	13.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	5071	9548	0.53	68.7	18.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.943	5071	836	9600	2100	0.53	0.40	66.3	59.6	19.1	22.2	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4249	9548	0.45	68.7	15.5	B

Segment 4: Merge

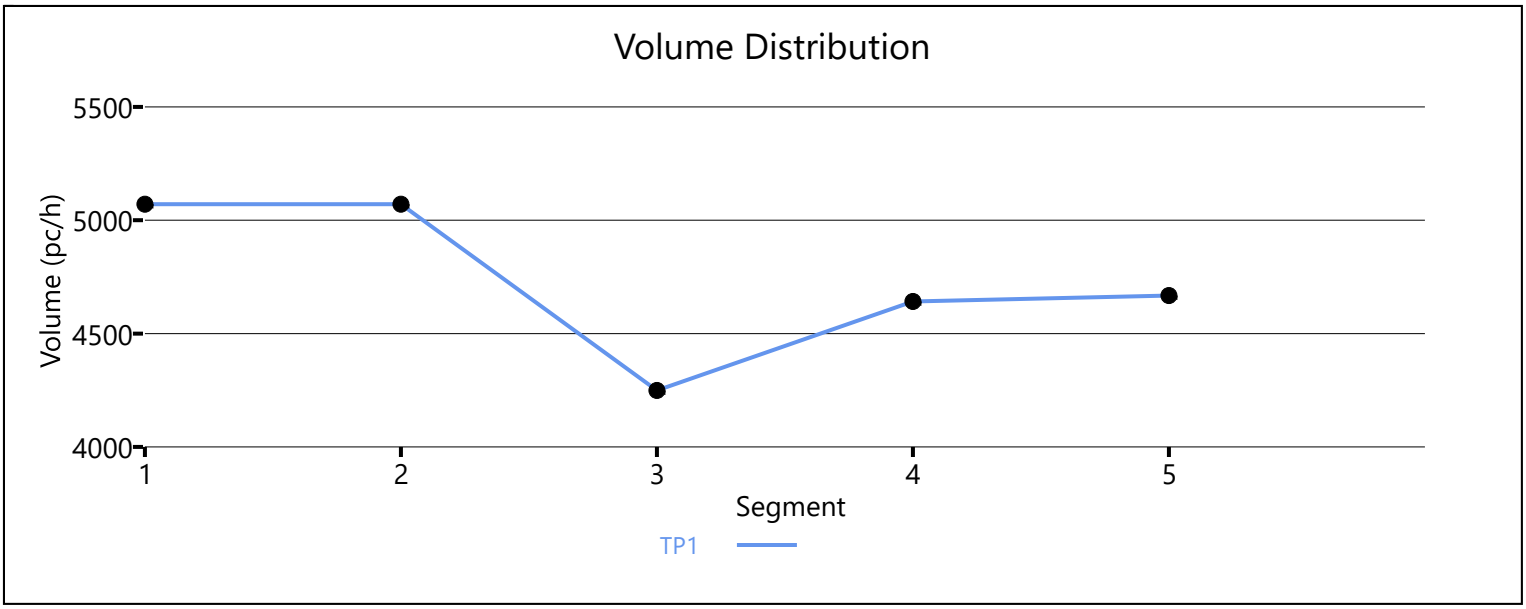
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.909	0.971	4642	393	9600	2100	0.48	0.19	65.0	62.5	17.9	15.7	B

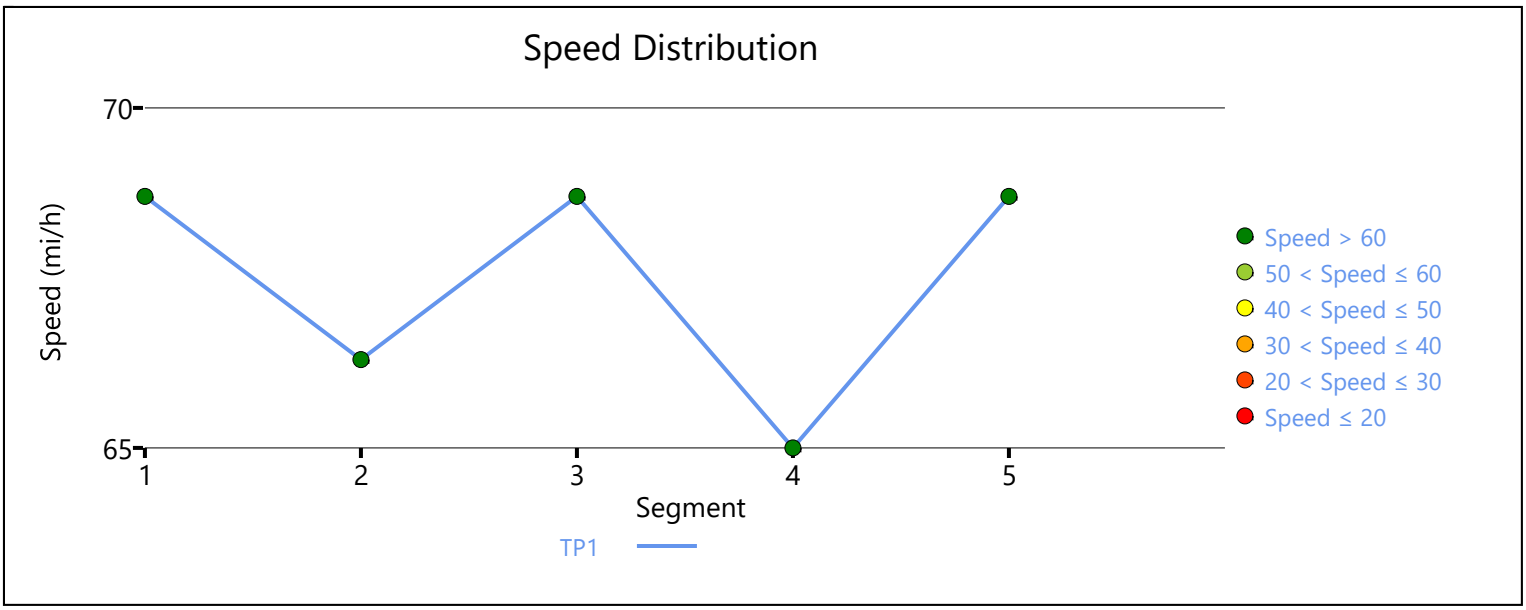
Segment 5: Basic

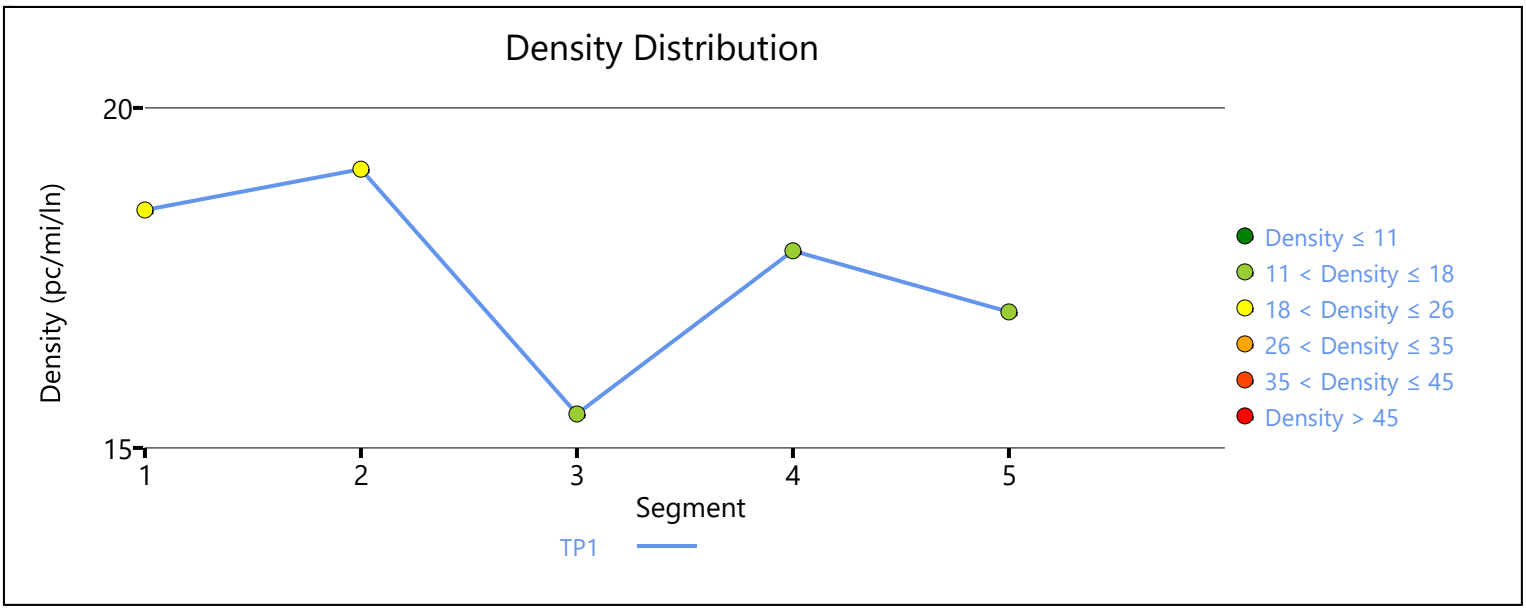
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4668	9548	0.49	68.7	17.0	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.8	17.8	16.2	1.7	B

Facility Overall Results			
Space Mean Speed, mi/h	67.8	Density, veh/mi/ln	16.2
Average Travel Time, min	1.7	Density, pc/mi/ln	17.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4676	9548	0.49	68.7	17.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4676	923	9600	2100	0.49	0.44	66.1	59.3	17.7	21.3	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3734	9548	0.39	68.7	13.6	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.943	4248	514	9600	2100	0.44	0.24	64.6	61.3	16.4	18.3	B

Segment 5: Basic

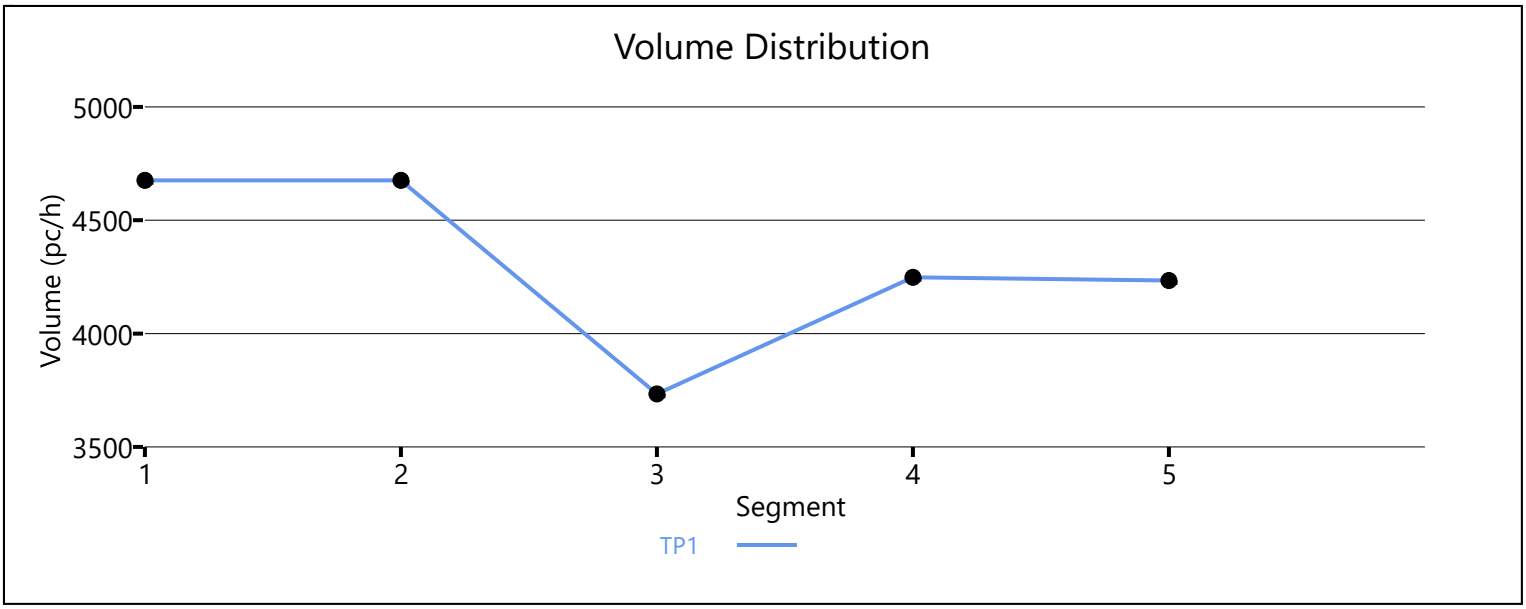
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4234	9548	0.44	68.7	15.4	B

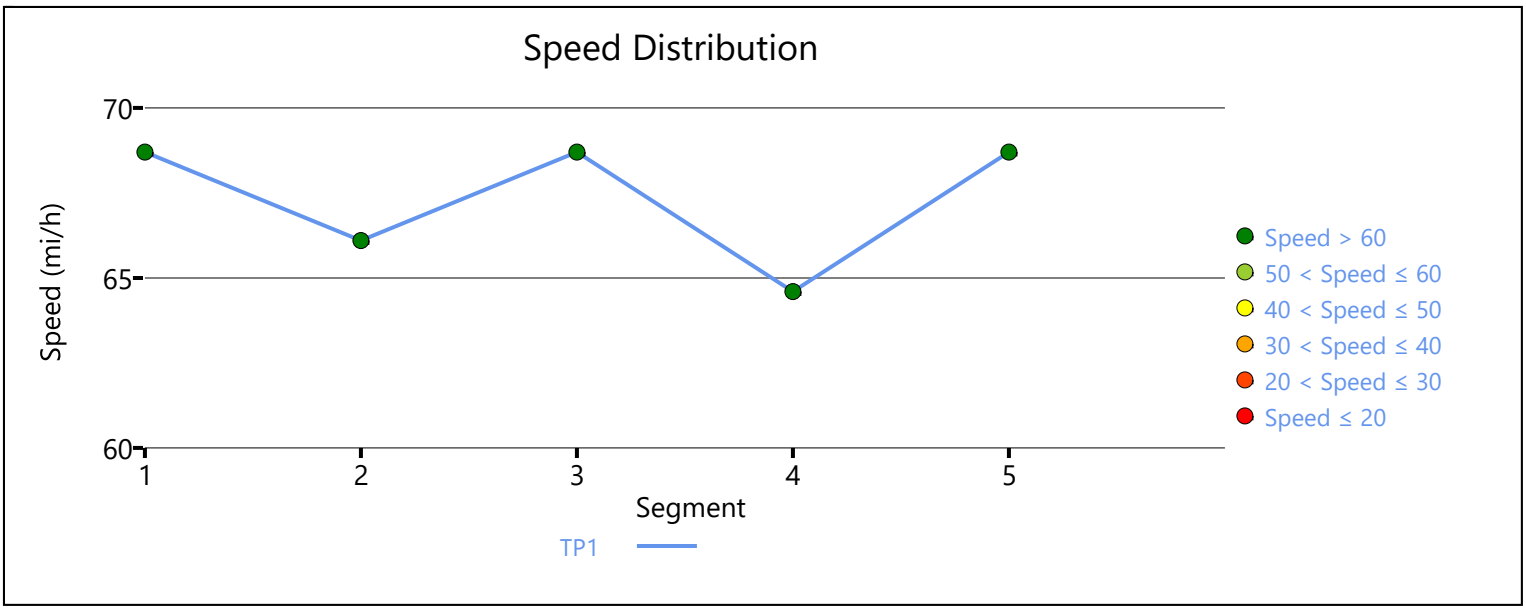
Facility Time Period Results

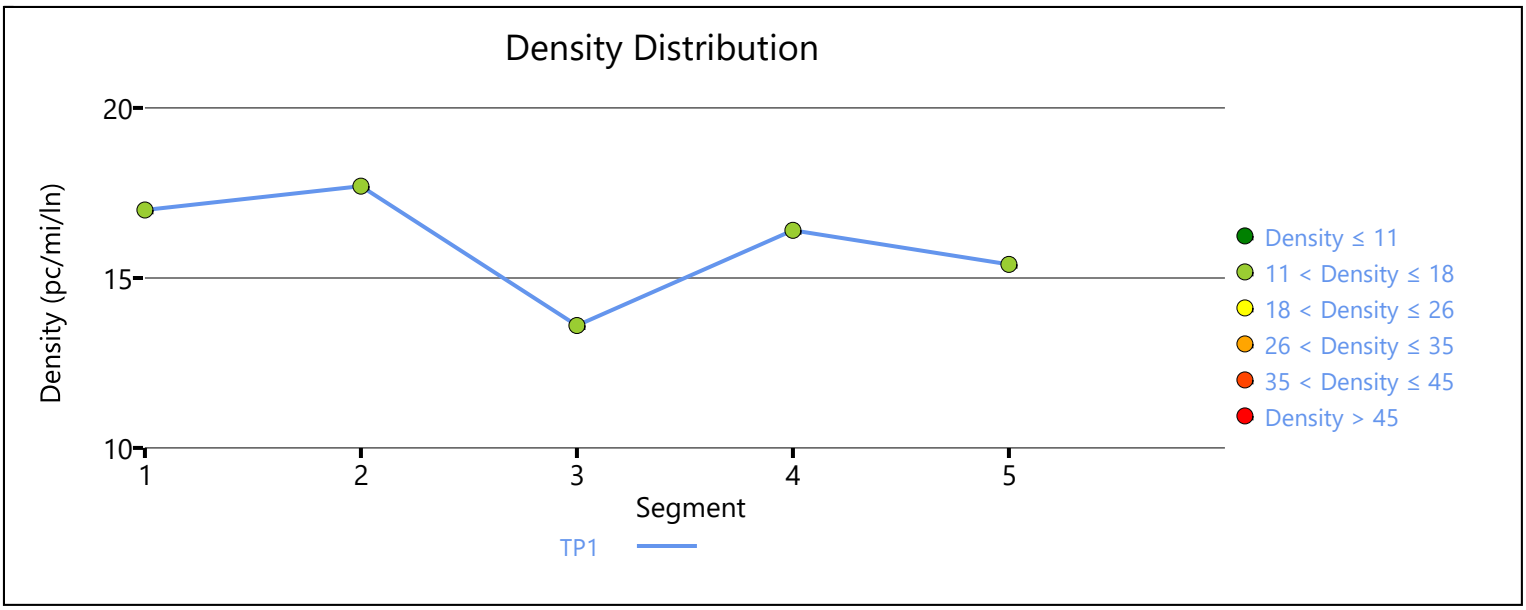
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.7	16.1	15.7	1.8	B

Facility Overall Results

Space Mean Speed, mi/h	67.7	Density, veh/mi/ln	15.7
Average Travel Time, min	1.8	Density, pc/mi/ln	16.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	1510	4786	0.32	69.3	10.9	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	1510	1209	4800	2100	0.31	0.58	58.6	58.6	12.9	13.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	295	4786	0.06	69.3	2.1	A

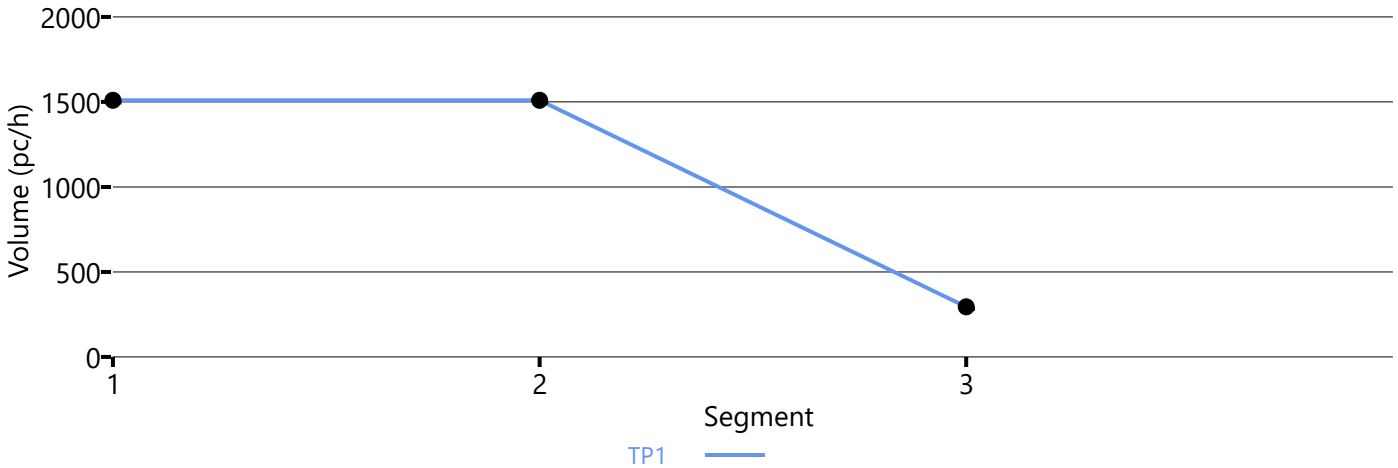
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.7	10.2	10.0	1.3	A

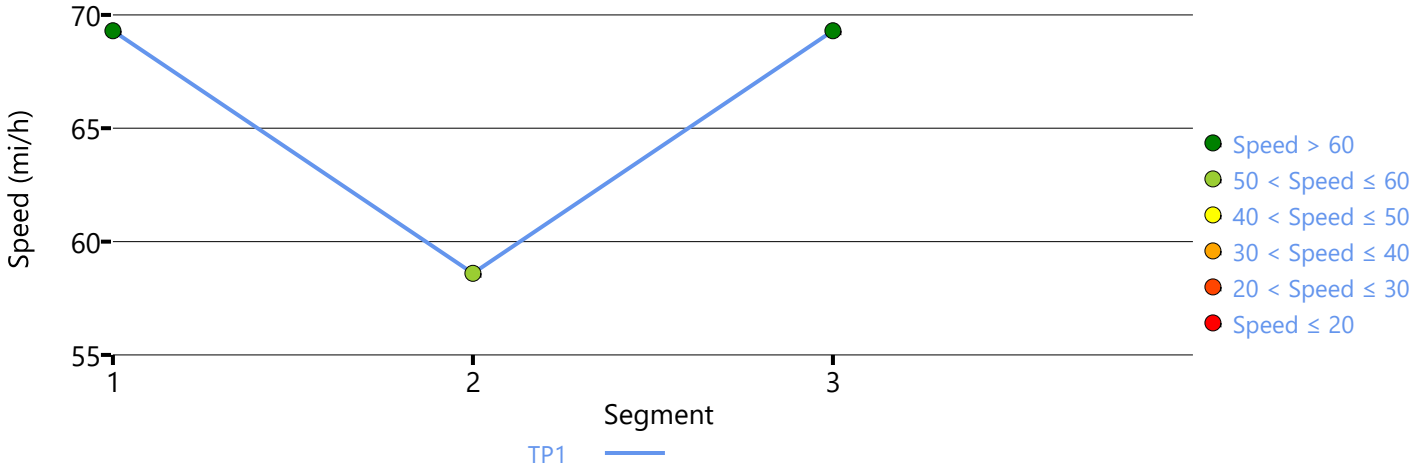
Facility Overall Results

Space Mean Speed, mi/h	66.7	Density, veh/mi/ln	10.0
Average Travel Time, min	1.3	Density, pc/mi/ln	10.2

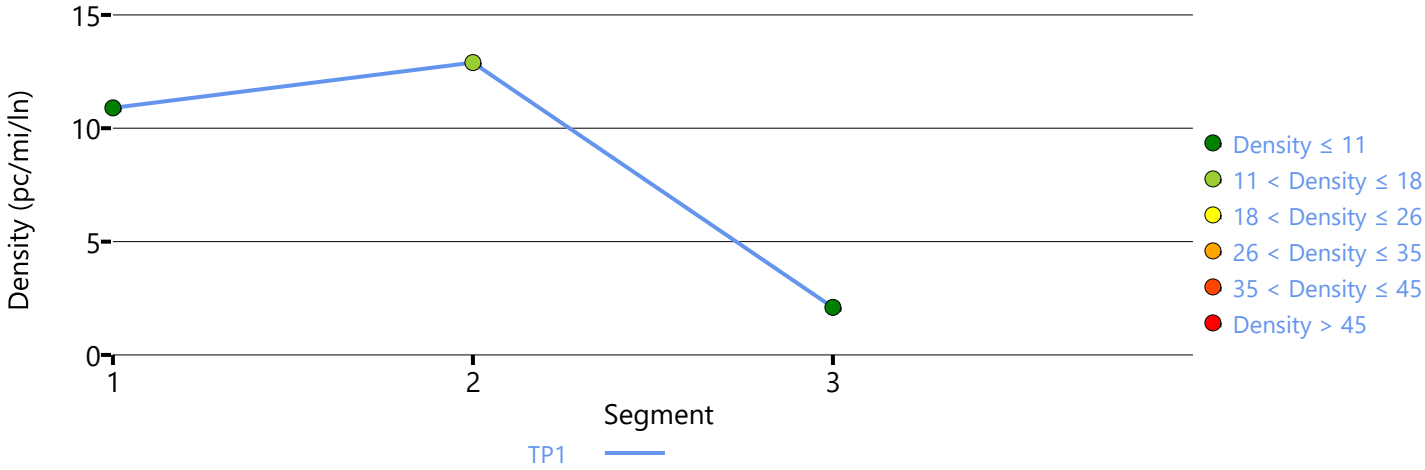
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1479	4774	0.31	68.7	10.8	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.990	1479	89	4800	2100	0.31	0.04	61.4	61.4	12.0	9.8	A

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1391	4774	0.29	68.7	10.1	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	1.000	1403	12	4800	2100	0.29	0.01	63.9	63.9	11.0	8.2	A

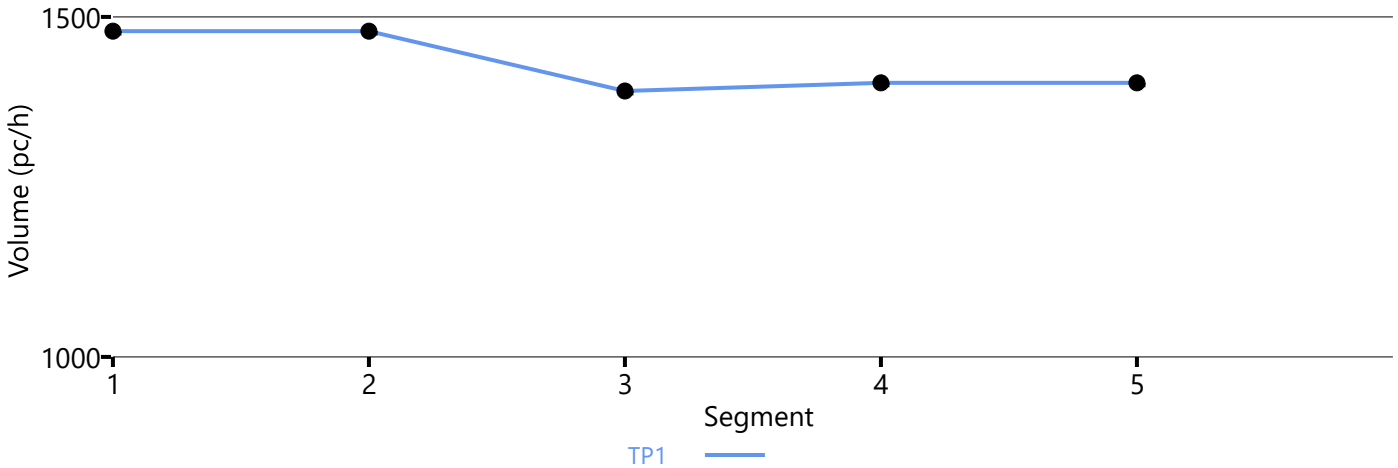
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1403	4774	0.29	68.7	10.2	A

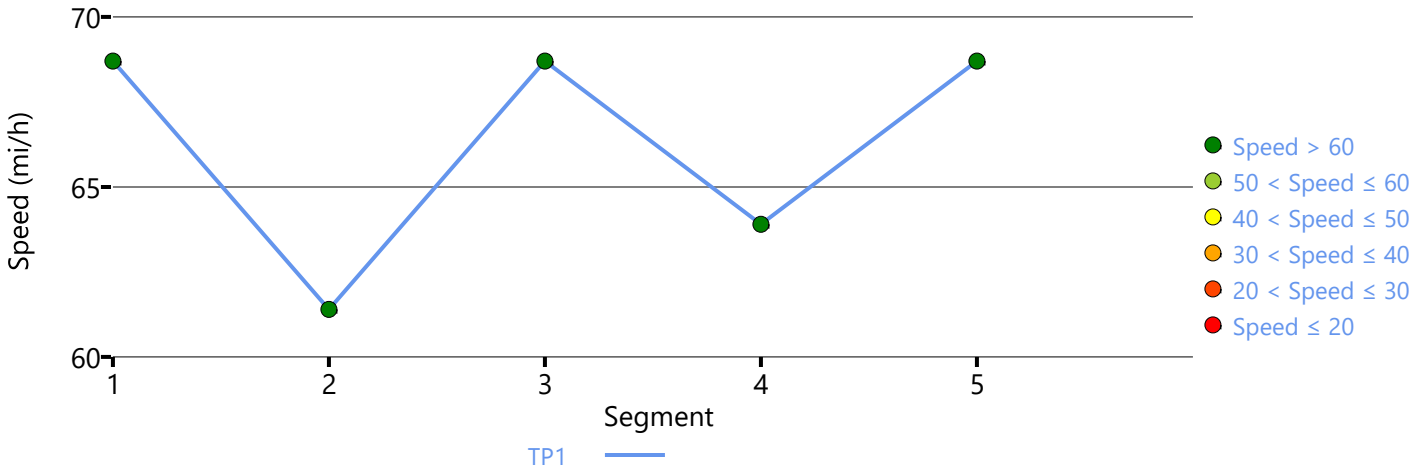
Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.0	10.7	10.7	2.0	A

Facility Overall Results			
Space Mean Speed, mi/h	67.0	Density, veh/mi/ln	10.7
Average Travel Time, min	2.0	Density, pc/mi/ln	10.7

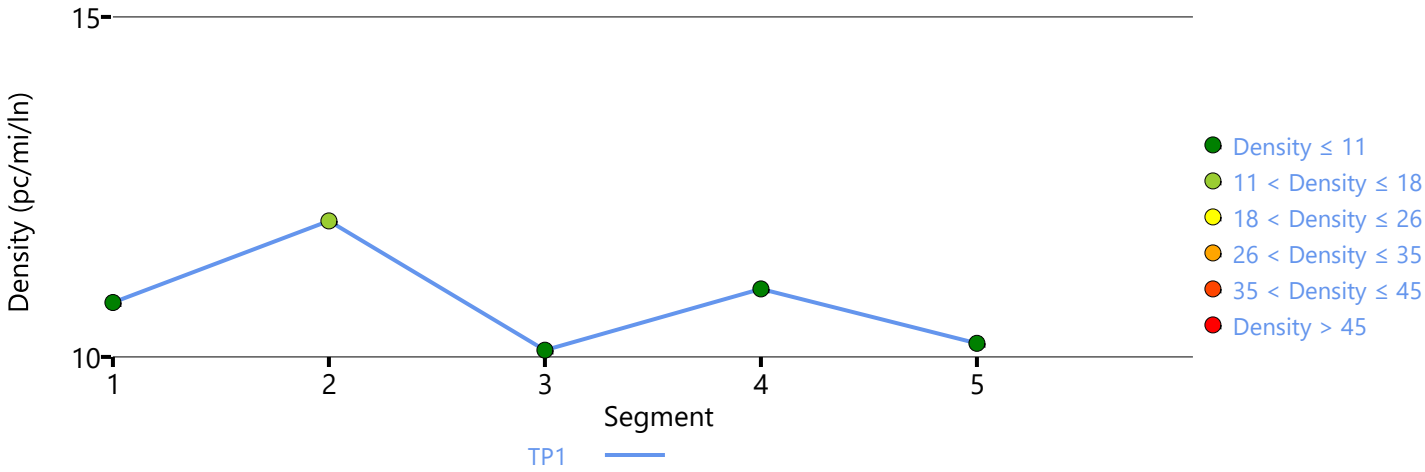
Volume Distribution



Speed Distribution



Density Distribution



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APPENDIX 3.6:

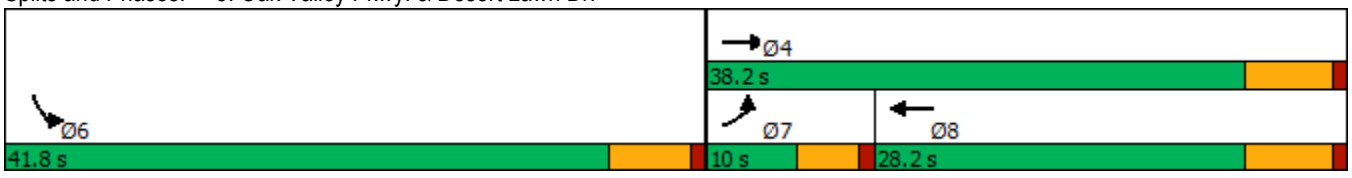
EXISTING (2020) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

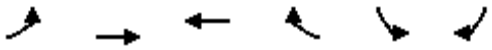
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Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	49	271	228	458
Future Volume (vph)	49	271	228	458
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.8	18.2	13.1	21.7
Actuated g/C Ratio	0.11	0.34	0.25	0.41
v/c Ratio	0.29	0.48	0.43	0.78
Control Delay	32.9	17.4	9.5	22.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	32.9	17.4	9.5	22.6
LOS	C	B	A	C
Approach Delay		19.7	9.5	22.6
Approach LOS		B	A	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 53.1	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 57.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	271	228	307	458	42
Future Volume (veh/h)	49	271	228	307	458	42
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	311	262	353	526	48
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	94	792	975	454	601	55
Arrive On Green	0.05	0.42	0.28	0.28	0.37	0.37
Sat Flow, veh/h	1810	1900	3629	1610	1639	150
Grp Volume(v), veh/h	56	311	262	353	575	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1791	0
Q Serve(g_s), s	1.7	6.3	3.3	11.2	16.6	0.0
Cycle Q Clear(g_c), s	1.7	6.3	3.3	11.2	16.6	0.0
Prop In Lane	1.00			1.00	0.91	0.08
Lane Grp Cap(c), veh/h	94	792	975	454	657	0
V/C Ratio(X)	0.59	0.39	0.27	0.78	0.88	0.00
Avail Cap(c_a), veh/h	176	1096	1371	638	1162	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.7	11.3	15.5	18.3	16.4	0.0
Incr Delay (d2), s/veh	2.2	0.3	0.1	4.0	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.0	1.1	3.9	6.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.9	11.6	15.6	22.3	20.3	0.0
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		367	615		575	
Approach Delay, s/veh		14.1	19.5		20.3	
Approach LOS		B	B		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	29.3	26.2	7.5	21.8
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.0	36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s	8.3	18.6	3.7	13.2
Green Ext Time (p_c), s	1.5	1.7	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

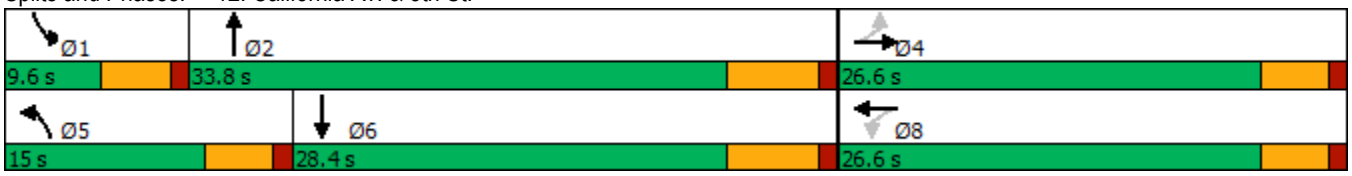
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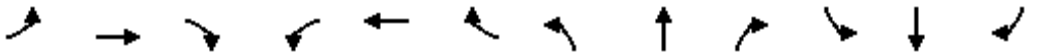
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	19	9	283	506	210	
Future Volume (vph)	2	3	19	9	283	506	210	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.2		12.2	10.7	40.0	23.1	
Actuated g/C Ratio		0.21		0.21	0.19	0.70	0.40	
v/c Ratio		0.23		0.20	1.07	0.50	56.80	
Control Delay		7.2		12.7	100.0	8.7	24475.6	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.2		12.7	100.0	8.7	24475.6	
LOS		A		B	F	A	F	
Approach Delay		7.2		12.7		40.7	24475.6	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 57.5	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 56.80	
Intersection Signal Delay: 4745.1	Intersection LOS: F
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	71	19	9	29	283	506	17	12	210	2
Future Volume (veh/h)	2	3	71	19	9	29	283	506	17	12	210	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	90	24	11	37	358	641	22	15	266	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	20	299	172	93	165	420	1031	35	0	427	5
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.23	0.56	0.56	0.00	0.23	0.23
Sat Flow, veh/h	17	101	1506	317	467	829	1810	1826	63	0	1875	21
Grp Volume(v), veh/h	97	0	0	72	0	0	358	0	663	0	0	269
Grp Sat Flow(s),veh/h/ln	1623	0	0	1612	0	0	1810	0	1889	0	0	1896
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	10.3	0.0	0.0	5.6
Cycle Q Clear(g_c), s	2.2	0.0	0.0	1.5	0.0	0.0	8.3	0.0	10.3	0.0	0.0	5.6
Prop In Lane	0.03		0.93	0.33		0.51	1.00		0.03	0.00		0.01
Lane Grp Cap(c), veh/h	407	0	0	430	0	0	420	0	1066	0	0	432
V/C Ratio(X)	0.24	0.00	0.00	0.17	0.00	0.00	0.85	0.00	0.62	0.00	0.00	0.62
Avail Cap(c_a), veh/h	894	0	0	893	0	0	428	0	1204	0	0	976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	14.7	0.0	0.0	16.1	0.0	6.4	0.0	0.0	15.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	14.2	0.0	0.8	0.0	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.6	0.0	0.0	4.2	0.0	2.0	0.0	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	0.0	0.0	14.9	0.0	0.0	30.4	0.0	7.2	0.0	0.0	16.7
LnGrp LOS	B	A	A	B	A	A	C	A	A	A	A	B
Approach Vol, veh/h		97			72			1021			269	
Approach Delay, s/veh		15.3			14.9			15.3			16.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	30.6		13.3	14.8	15.8		13.3				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	12.3		4.2	10.3	7.6		3.5				
Green Ext Time (p_c), s	0.0	3.7		0.4	0.0	1.1		0.3				

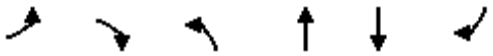
Intersection Summary			
HCM 6th Ctrl Delay		15.6	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	58	16	17	772	172
Future Volume (vph)	58	16	17	772	172
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8
Total Split (s)	27.8	27.8	10.1	52.2	42.1
Total Split (%)	34.8%	34.8%	12.6%	65.3%	52.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	12.7	12.7	5.6	47.2	45.5
Actuated g/C Ratio	0.20	0.20	0.09	0.73	0.70
v/c Ratio	0.21	0.06	0.14	0.73	0.27
Control Delay	26.3	10.8	34.5	13.8	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	10.8	34.5	13.8	7.2
LOS	C	B	C	B	A
Approach Delay	22.9			14.2	7.2
Approach LOS	C			B	A

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 64.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	58	16	17	772	172	93
Future Volume (veh/h)	58	16	17	772	172	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	75	21	22	1003	223	121
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	266	237	48	1181	583	316
Arrive On Green	0.15	0.15	0.03	0.62	0.50	0.50
Sat Flow, veh/h	1810	1610	1810	1900	1158	629
Grp Volume(v), veh/h	75	21	22	1003	0	344
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1787
Q Serve(g_s), s	1.8	0.6	0.6	21.2	0.0	5.9
Cycle Q Clear(g_c), s	1.8	0.6	0.6	21.2	0.0	5.9
Prop In Lane	1.00	1.00	1.00			0.35
Lane Grp Cap(c), veh/h	266	237	48	1181	0	900
V/C Ratio(X)	0.28	0.09	0.46	0.85	0.00	0.38
Avail Cap(c_a), veh/h	794	707	199	1758	0	1294
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	18.5	24.1	7.6	0.0	7.7
Incr Delay (d2), s/veh	0.6	0.2	2.6	2.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.3	4.5	0.0	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.6	18.6	26.6	10.3	0.0	7.9
LnGrp LOS	B	B	C	B	A	A
Approach Vol, veh/h	96			1025	344	
Approach Delay, s/veh	19.4			10.7	7.9	
Approach LOS	B			B	A	

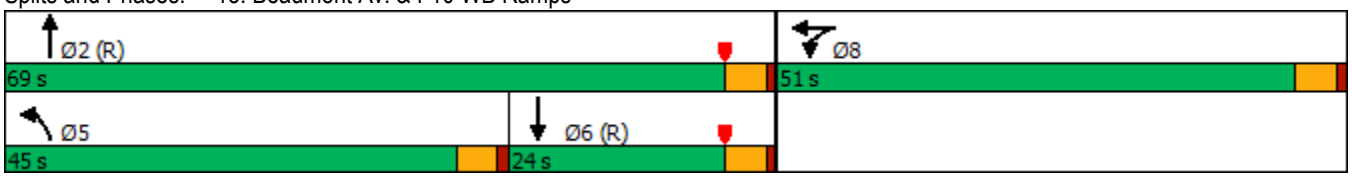
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		37.0		13.2	5.9	31.0
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		46.4		22.0	5.5	36.3
Max Q Clear Time (g_c+I1), s		23.2		3.8	2.6	7.9
Green Ext Time (p_c), s		7.9		0.2	0.0	2.0

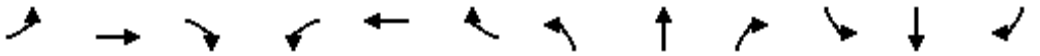
Intersection Summary		
HCM 6th Ctrl Delay		10.6
HCM 6th LOS		B

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	340
Future Volume (vph)	464	9	345	216	340
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	51.0	51.0	45.0	69.0	24.0
Total Split (%)	42.5%	42.5%	37.5%	57.5%	20.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.3	30.3	29.6	80.1	45.9
Actuated g/C Ratio	0.25	0.25	0.25	0.67	0.38
v/c Ratio	0.78	0.72	0.84	0.10	0.33
Control Delay	53.9	44.2	54.9	5.6	24.6
Queue Delay	0.0	0.3	0.4	0.0	2.2
Total Delay	53.9	44.4	55.3	5.6	26.8
LOS	D	D	E	A	C
Approach Delay		49.3		36.2	26.8
Approach LOS		D		D	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 38.7	Intersection LOS: D
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	340	75
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	340	75
Initial Q (Qb), veh				0	0	0	23	45	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	370	82
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				464	294	164	482	2395	0	0	1109	243
Arrive On Green				0.26	0.26	0.26	0.37	1.00	0.00	0.00	0.81	0.81
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3039	645
Grp Volume(v), veh/h				328	0	399	375	235	0	0	225	227
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1784
Q Serve(g_s), s				19.8	0.0	25.7	24.0	0.0	0.0	0.0	3.8	3.9
Cycle Q Clear(g_c), s				19.8	0.0	25.7	24.0	0.0	0.0	0.0	3.8	3.9
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				464	0	458	482	2395	0	0	680	672
V/C Ratio(X)				0.71	0.00	0.87	0.78	0.10	0.00	0.00	0.33	0.34
Avail Cap(c_a), veh/h				697	0	687	609	2395	0	0	730	721
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				40.5	0.0	42.7	32.8	0.0	0.0	0.0	10.2	10.2
Incr Delay (d2), s/veh				2.0	0.0	8.0	3.3	0.1	0.0	0.0	1.3	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	73.9	2.8	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	11.9	21.3	1.0	0.0	0.0	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.5	0.0	50.7	110.0	2.9	0.0	0.0	11.5	11.6
LnGrp LOS				D	A	D	F	A	A	A	B	B
Approach Vol, veh/h					727			610			452	
Approach Delay, s/veh					47.0			68.8			11.6	
Approach LOS					D			E			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.4			31.1	53.3		35.6				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 64			40.4	* 19		46.2				
Max Q Clear Time (g_c+I1), s		2.0			26.0	5.9		27.7				
Green Ext Time (p_c), s		1.7			0.5	2.2		3.1				

Intersection Summary		
HCM 6th Ctrl Delay	45.5	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	10	495	493	99	706
Future Volume (vph)	10	495	493	99	706
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	41.0	41.0	56.0	23.0	79.0
Total Split (%)	34.2%	34.2%	46.7%	19.2%	65.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.1	21.1	73.5	11.2	89.3
Actuated g/C Ratio	0.18	0.18	0.61	0.09	0.74
v/c Ratio	0.81	0.64	0.44	0.61	0.27
Control Delay	44.2	16.7	11.3	46.9	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.4
Total Delay	44.2	16.7	11.3	46.9	9.3
LOS	D	B	B	D	A
Approach Delay	30.7		11.3		13.9
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	10	495	0	0	0	0	493	421	99	706	0
Future Volume (veh/h)	68	10	495	0	0	0	0	493	421	99	706	0
Initial Q (Qb), veh	0	0	0				0	75	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	599				0	514	439	103	735	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	405	687				0	1322	777	127	2551	0
Arrive On Green	0.00	0.00	0.21				0.00	0.60	0.60	0.14	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1940	1576	1810	3705	0
Grp Volume(v), veh/h	0	0	599				0	503	450	103	735	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1616	1810	1805	0
Q Serve(g_s), s	0.0	0.0	21.6				0.0	18.6	18.6	6.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	21.6				0.0	18.6	18.6	6.6	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	0	405	687				0	1080	997	127	2551	0
V/C Ratio(X)	0.00	0.00	0.87				0.00	0.47	0.45	0.81	0.29	0.00
Avail Cap(c_a), veh/h	0	573	971				0	1080	967	277	2551	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	0.0	0.0	45.6				0.0	16.2	15.9	50.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.4				0.0	1.4	1.5	3.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	16.3	18.6	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	9.0				0.0	18.1	17.3	3.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.0				0.0	33.9	36.0	54.7	0.2	0.0
LnGrp LOS	A	A	D				A	C	D	D	A	A
Approach Vol, veh/h		599						953			838	
Approach Delay, s/veh		52.0						34.9			6.9	
Approach LOS		D						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.0	76.6		30.4		89.6
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	18.4	* 51		* 36		* 74
Max Q Clear Time (g_c+I1), s	8.6	20.6		23.6		2.0
Green Ext Time (p_c), s	0.1	7.6		2.0		6.2

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Notes

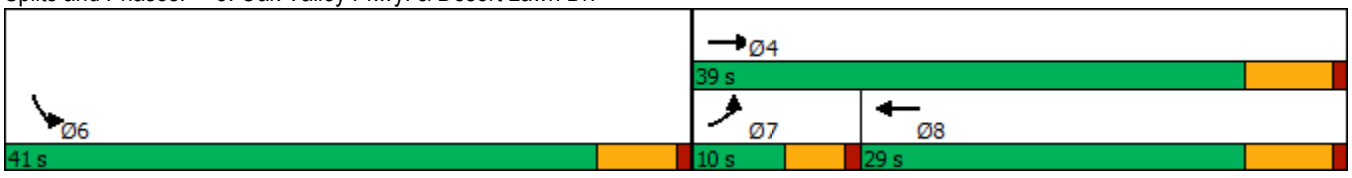
User approved volume balancing among the lanes for turning movement.

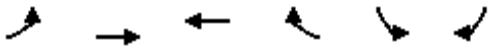
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	8	226	296	177
Future Volume (vph)	8	226	296	177
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.7	13.7	12.6	13.6
Actuated g/C Ratio	0.14	0.33	0.31	0.33
v/c Ratio	0.03	0.37	0.36	0.32
Control Delay	23.2	12.6	7.0	12.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.2	12.6	7.0	12.1
LOS	C	B	A	B
Approach Delay		12.9	7.0	12.1
Approach LOS		B	A	B

Intersection Summary		
Cycle Length: 80		
Actuated Cycle Length: 40.9		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.37		
Intersection Signal Delay: 9.3	Intersection LOS: A	
Intersection Capacity Utilization 32.7%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	226	296	294	177	10
Future Volume (veh/h)	8	226	296	294	177	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	233	305	303	182	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	19	812	1027	478	442	24
Arrive On Green	0.01	0.43	0.30	0.30	0.26	0.26
Sat Flow, veh/h	1810	1900	3629	1610	1696	93
Grp Volume(v), veh/h	8	233	305	303	193	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1798	0
Q Serve(g_s), s	0.2	3.1	2.6	6.3	3.4	0.0
Cycle Q Clear(g_c), s	0.2	3.1	2.6	6.3	3.4	0.0
Prop In Lane	1.00			1.00	0.94	0.05
Lane Grp Cap(c), veh/h	19	812	1027	478	468	0
V/C Ratio(X)	0.42	0.29	0.30	0.63	0.41	0.00
Avail Cap(c_a), veh/h	254	1622	2053	956	1648	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	7.2	10.4	11.7	11.8	0.0
Incr Delay (d2), s/veh	5.2	0.2	0.2	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.7	0.7	1.7	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.1	7.4	10.6	13.1	12.4	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		241	608		193	
Approach Delay, s/veh		7.9	11.8		12.4	
Approach LOS		A	B		B	

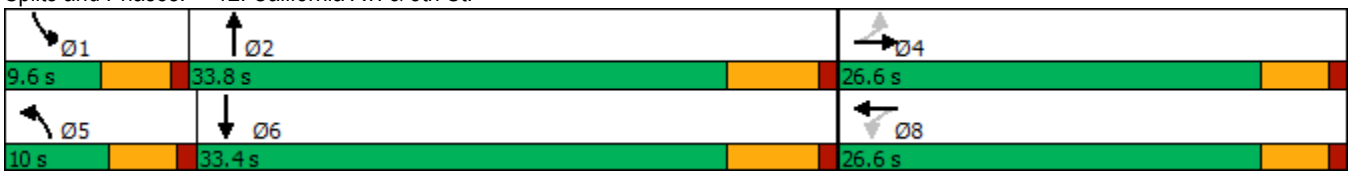
Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	22.6	15.8	5.0	17.6
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.8	35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s	5.1	5.4	2.2	8.3
Green Ext Time (p_c), s	1.1	0.5	0.0	3.1

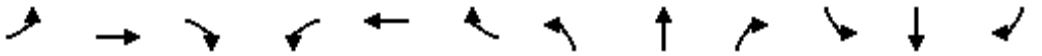
Intersection Summary	
HCM 6th Ctrl Delay	11.0
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	4	3	36	3	169	361	200	
Future Volume (vph)	4	3	36	3	169	361	200	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.1		12.1	5.4	42.1	30.9	
Actuated g/C Ratio		0.20		0.20	0.09	0.70	0.51	
v/c Ratio		0.23		0.19	1.10	0.30	5.87	
Control Delay		7.4		15.6	132.9	6.5	2227.4	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.4		15.6	132.9	6.5	2227.4	
LOS		A		B	F	A	F	
Approach Delay		7.4		15.6		45.8	2227.4	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 60.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 5.87	
Intersection Signal Delay: 552.2	Intersection LOS: F
Intersection Capacity Utilization 54.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	82	36	3	20	169	361	13	6	200	6
Future Volume (veh/h)	4	3	82	36	3	20	169	361	13	6	200	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	65	38	3	16	178	380	9	6	211	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	110	25	291	330	48	84	227	962	23	0	503	10
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.52	0.52	0.00	0.27	0.27
Sat Flow, veh/h	34	124	1466	846	241	424	1810	1848	44	0	1858	35
Grp Volume(v), veh/h	72	0	0	57	0	0	178	0	389	0	0	215
Grp Sat Flow(s),veh/h/ln	1624	0	0	1510	0	0	1810	0	1892	0	0	1894
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	4.6	0.0	0.0	3.5
Cycle Q Clear(g_c), s	1.4	0.0	0.0	1.0	0.0	0.0	3.5	0.0	4.6	0.0	0.0	3.5
Prop In Lane	0.06		0.90	0.67		0.28	1.00		0.02	0.00		0.02
Lane Grp Cap(c), veh/h	425	0	0	462	0	0	227	0	984	0	0	512
V/C Ratio(X)	0.17	0.00	0.00	0.12	0.00	0.00	0.78	0.00	0.40	0.00	0.00	0.42
Avail Cap(c_a), veh/h	1063	0	0	1033	0	0	264	0	1433	0	0	1413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.4	0.0	0.0	12.3	0.0	0.0	15.7	0.0	5.4	0.0	0.0	11.1
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	10.4	0.0	0.3	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.3	0.0	0.0	1.7	0.0	0.7	0.0	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	0.0	0.0	12.4	0.0	0.0	26.1	0.0	5.6	0.0	0.0	11.7
LnGrp LOS	B	A	A	B	A	A	C	A	A	A	A	B
Approach Vol, veh/h		72			57			567			215	
Approach Delay, s/veh		12.6			12.4			12.0			11.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.0		11.9	9.2	15.8		11.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	6.6		3.4	5.5	5.5		3.0				
Green Ext Time (p_c), s	0.0	2.1		0.3	0.0	1.0		0.2				

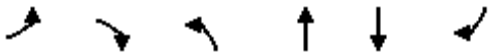
Intersection Summary			
HCM 6th Ctrl Delay		12.0	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	84	32	6	476	922
Future Volume (vph)	84	32	6	476	922
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8
Total Split (s)	28.0	28.0	9.6	72.0	62.4
Total Split (%)	28.0%	28.0%	9.6%	72.0%	62.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	12.3	12.3	5.1	65.3	63.7
Actuated g/C Ratio	0.15	0.15	0.06	0.78	0.76
v/c Ratio	0.35	0.13	0.06	0.35	0.76
Control Delay	37.0	12.0	42.0	5.5	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.8
Total Delay	37.0	12.0	42.0	5.5	16.2
LOS	D	B	D	A	B
Approach Delay	30.0			6.0	16.2
Approach LOS	C			A	B

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 84.1	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	84	32	6	476	922	78
Future Volume (veh/h)	84	32	6	476	922	78
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	91	35	7	517	1002	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	230	205	16	1354	1105	94
Arrive On Green	0.13	0.13	0.01	0.71	0.64	0.64
Sat Flow, veh/h	1810	1610	1810	1900	1727	147
Grp Volume(v), veh/h	91	35	7	517	0	1087
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1874
Q Serve(g_s), s	3.3	1.4	0.3	7.8	0.0	36.0
Cycle Q Clear(g_c), s	3.3	1.4	0.3	7.8	0.0	36.0
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	230	205	16	1354	0	1199
V/C Ratio(X)	0.40	0.17	0.43	0.38	0.00	0.91
Avail Cap(c_a), veh/h	555	494	125	1738	0	1466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	28.2	35.7	4.1	0.0	11.2
Incr Delay (d2), s/veh	1.1	0.4	6.4	0.2	0.0	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.3	0.1	1.6	0.0	12.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.1	28.6	42.1	4.3	0.0	18.6
LnGrp LOS	C	C	D	A	A	B
Approach Vol, veh/h	126			524	1087	
Approach Delay, s/veh	29.7			4.8	18.6	
Approach LOS	C			A	B	

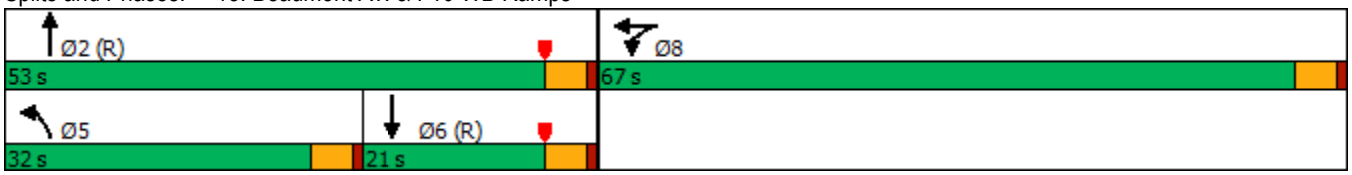
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		57.4		15.0	5.3	52.1
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		66.2		22.2	5.0	56.6
Max Q Clear Time (g_c+I1), s		9.8		5.3	2.3	38.0
Green Ext Time (p_c), s		3.3		0.3	0.0	8.3

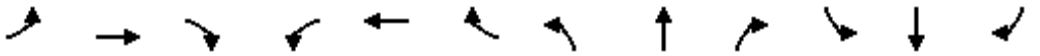
Intersection Summary		
HCM 6th Ctrl Delay		15.2
HCM 6th LOS		B

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	422
Future Volume (vph)	685	0	272	309	422
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	67.0	67.0	32.0	53.0	21.0
Total Split (%)	55.8%	55.8%	26.7%	44.2%	17.5%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	37.4	37.4	22.8	73.0	45.6
Actuated g/C Ratio	0.31	0.31	0.19	0.61	0.38
v/c Ratio	0.77	0.71	0.82	0.15	0.40
Control Delay	46.3	37.1	86.4	7.7	28.9
Queue Delay	0.4	0.3	0.6	0.0	3.0
Total Delay	46.6	37.4	87.0	7.7	31.9
LOS	D	D	F	A	C
Approach Delay		42.1		44.8	31.9
Approach LOS		D		D	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 40.1	Intersection LOS: D
Intersection Capacity Utilization 92.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	422	94
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	422	94
Initial Q (Qb), veh				40	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	435	97
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1062	557	0	304	2262	0	0	1235	273
Arrive On Green				0.25	0.00	0.00	0.34	1.00	0.00	0.00	0.92	0.92
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3033	650
Grp Volume(v), veh/h				800	0	0	280	319	0	0	266	266
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1783
Q Serve(g_s), s				25.4	0.0	0.0	17.9	0.0	0.0	0.0	2.0	2.1
Cycle Q Clear(g_c), s				25.4	0.0	0.0	17.9	0.0	0.0	0.0	2.0	2.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1062	557	0	304	2262	0	0	759	750
V/C Ratio(X)				0.75	0.00	0.00	0.92	0.14	0.00	0.00	0.35	0.35
Avail Cap(c_a), veh/h				1876	985	0	413	2404	0	0	830	820
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.84	0.84	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				40.8	0.0	0.0	39.1	1.1	0.0	0.0	7.3	7.4
Incr Delay (d2), s/veh				1.1	0.0	0.0	16.4	0.1	0.0	0.0	1.3	1.3
Initial Q Delay(d3),s/veh				41.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				19.2	0.0	0.0	8.0	0.2	0.0	0.0	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				83.3	0.0	0.0	55.5	1.2	0.0	0.0	8.6	8.7
LnGrp LOS				F	A	A	E	A	A	A	A	A
Approach Vol, veh/h					800			599			532	
Approach Delay, s/veh					83.3			26.6			8.6	
Approach LOS					F			C			A	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	84.7		24.7	60.0		35.3						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 48		27.4	* 16		62.2						
Max Q Clear Time (g_c+I1), s	2.0		19.9	4.1		27.4						
Green Ext Time (p_c), s	2.3		0.3	2.6		3.1						

Intersection Summary		
HCM 6th Ctrl Delay	45.1	
HCM 6th LOS	D	

Notes

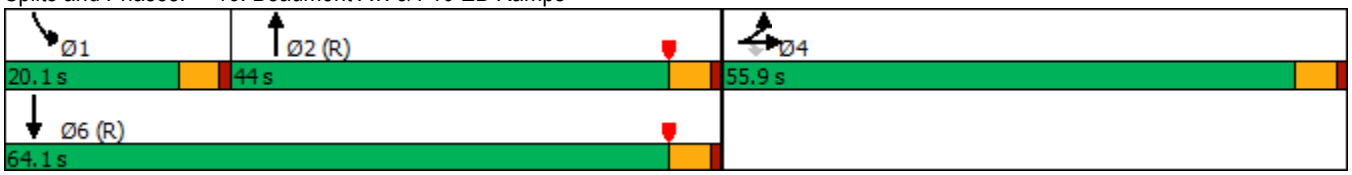
User approved volume balancing among the lanes for turning movement.

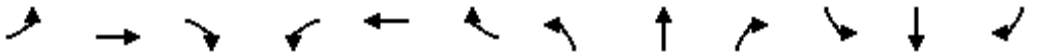
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	10	746	483	105	1002
Future Volume (vph)	10	746	483	105	1002
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	55.9	55.9	44.0	20.1	64.1
Total Split (%)	46.6%	46.6%	36.7%	16.8%	53.4%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	37.8	37.8	56.5	11.5	72.6
Actuated g/C Ratio	0.32	0.32	0.47	0.10	0.60
v/c Ratio	0.82	0.81	0.52	0.62	0.47
Control Delay	44.1	43.6	21.0	59.2	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.7
Total Delay	44.1	43.6	21.0	59.2	23.1
LOS	D	D	C	E	C
Approach Delay	43.9		21.0		26.5
Approach LOS	D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 92.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Future Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Initial Q (Qb), veh	0	0	73				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	883				0	498	373	108	1033	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	719	1219				0	847	633	132	1955	0
Arrive On Green	0.00	0.00	0.31				0.00	0.50	0.50	0.15	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	883				0	457	414	108	1033	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	31.4				0.0	20.3	20.3	6.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	31.4				0.0	20.3	20.3	6.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	719	1219				0	776	703	132	1955	0
V/C Ratio(X)	0.00	0.00	0.72				0.00	0.59	0.59	0.82	0.53	0.00
Avail Cap(c_a), veh/h	0	809	1371				0	904	819	234	2209	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	0.0	0.0	36.5				0.0	26.3	26.4	50.5	0.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.7				0.0	3.3	3.6	3.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	93.7				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	32.1				0.0	10.6	9.6	3.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	131.9				0.0	29.6	30.0	54.3	1.0	0.0
LnGrp LOS	A	A	F				A	C	C	D	A	A
Approach Vol, veh/h		883						871			1141	
Approach Delay, s/veh		131.9						29.8			6.1	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.4	64.9		41.8		78.2
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	15.5	* 39		* 51		* 59
Max Q Clear Time (g_c+I1), s	8.9	22.3		33.4		2.0
Green Ext Time (p_c), s	0.1	5.5		3.6		10.0

Intersection Summary	
HCM 6th Ctrl Delay	51.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 4.1:

POST PROCESSING WORKSHEETS

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Project:	County of Riverside	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	44025

LOCATION: Potrero Bl. & Oak Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	412	411	41100%	1	1,181	1,180	118000%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	957	956	95600%	1	2,971	2,970	297000%
	NB Total	2	1,369	1,367	68350%	2	4,152	4,150	207500%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	203	201	10050%	2	219	217	10850%
	Right	1	823	822	82200%	1	816	815	81500%
	EB Total	3	1,026	1,023	34100%	3	1,035	1,032	34400%
WEST BOUND	Left	1	2,147	2,146	214600%	1	3,544	3,543	354300%
	Through	2	228	226	11300%	2	379	377	18850%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	2,375	2,372	79067%	3	3,923	3,920	130667%
TOTAL ENTERING VOLUME		8	4,770	4762	59525%	8	9,110	9102	113775%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
South Leg	Inbound	1,369	4,152			
South Leg	Outbound	2,970	4,360			
South Leg	**TOTAL**	**4,339**	**8,512**	**20%**	**40%**	**21,511**
East Leg	Inbound	2,375	3,923			
East Leg	Outbound	1,160	3,190			
East Leg	**TOTAL**	**3,535**	**7,113**	**20%**	**41%**	**17,470**
West Leg	Inbound	1,026	1,035			
West Leg	Outbound	640	1,560			
West Leg	**TOTAL**	**1,666**	**2,595**	**23%**	**35%**	**7,386**
OVERALL TOTAL		***9,540***	***18,220***	**21%**	***39%***	***46,367***

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Project:	County of Riverside	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	44025

LOCATION: Potrero Bl. & 4th Street
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	277	276	27600%	1	205	204	20400%
	Through	2	154	152	7600%	2	499	497	24850%
	Right	1	110	109	10900%	1	128	127	12700%
	NB Total	4	541	537	13425%	4	832	828	20700%
SOUTH BOUND	Left	1	90	89	8900%	1	331	330	33000%
	Through	2	304	302	15100%	2	1,052	1,050	52500%
	Right	1	228	227	22700%	1	530	529	52900%
	SB Total	4	622	618	15450%	4	1,913	1,909	47725%
EAST BOUND	Left	1	62	61	6100%	1	838	837	83700%
	Through	2	400	398	19900%	2	1,932	1,930	96500%
	Right	1	150	149	14900%	1	682	681	68100%
	EB Total	4	612	608	15200%	4	3,452	3,448	86200%
WEST BOUND	Left	1	176	175	17500%	1	296	295	29500%
	Through	2	1,185	1,183	59150%	2	1,345	1,343	67150%
	Right	1	73	72	7200%	1	364	363	36300%
	WB Total	4	1,434	1,430	35750%	4	2,005	2,001	50025%
TOTAL ENTERING VOLUME		16	3,209	3193	19956%	16	8,202	8186	51163%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	622	1,913			
North Leg	Outbound	289	1,701			
North Leg	**TOTAL**	**911**	**3,614**	**16%**	**62%**	**5,861**
South Leg	Inbound	541	832			
South Leg	Outbound	630	2,030			
South Leg	**TOTAL**	**1,171**	**2,862**	**20%**	**49%**	**5,899**
East Leg	Inbound	1,434	2,005			
East Leg	Outbound	600	2,391			
East Leg	**TOTAL**	**2,034**	**4,396**	**24%**	**51%**	**8,655**
West Leg	Inbound	612	3,452			
West Leg	Outbound	1,690	2,080			
West Leg	**TOTAL**	**2,302**	**5,532**	**22%**	**52%**	**10,559**
OVERALL TOTAL		***6,418***	***16,404***	**21%**	***53%***	***30,974***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[04_Potrero & 4th - Semi.xls]Output (3)

Project:	County of Riverside	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	44025

LOCATION: Desert Lawn Dr. & Oak Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	170	169	16900%	1	217	216	21600%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	312	311	31100%	1	832	831	83100%
	SB Total	2	482	480	24000%	2	1,049	1,047	52350%
EAST BOUND	Left	1	188	187	18700%	1	1,034	1,033	103300%
	Through	2	980	978	48900%	2	2,106	2,104	105200%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	1,168	1,165	38833%	3	3,140	3,137	104567%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	2,038	2,036	101800%	2	2,953	2,951	147550%
	Right	1	212	211	21100%	1	378	377	37700%
	WB Total	3	2,250	2,247	74900%	3	3,331	3,328	110933%
TOTAL ENTERING VOLUME		8	3,900	3892	48650%	8	7,520	7512	93900%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	482	1,049			
North Leg	Outbound	400	1,412			
North Leg	**TOTAL**	**882**	**2,461**	**17%**	**48%**	**5,092**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	2,250	3,331			
East Leg	Outbound	1,150	2,323			
East Leg	**TOTAL**	**3,400**	**5,654**	**21%**	**34%**	**16,416**
West Leg	Inbound	1,168	3,140			
West Leg	Outbound	2,350	3,785			
West Leg	**TOTAL**	**3,518**	**6,925**	**20%**	**40%**	**17,470**
OVERALL TOTAL		***7,800***	***15,040***	**20%**	***39%***	***38,978***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[05_Desert Lawn & Oak Valley - Semi.xls]Output (3)

Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: I-10 EB Ramps & Oak Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	281	280	28000%	1	1,139	1,138	113800%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	580	579	57900%	1	1,375	1,374	137400%
	SB Total	2	861	859	42950%	2	2,514	2,512	125600%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	829	827	41350%	2	1,801	1,799	89950%
	Right	1	447	446	44600%	1	250	249	24900%
	EB Total	3	1,276	1,273	42433%	3	2,051	2,048	68267%
WEST BOUND	Left	1	313	312	31200%	1	190	189	18900%
	Through	2	1,200	1,198	59900%	2	1,645	1,643	82150%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,513	1,510	50333%	3	1,835	1,832	61067%
TOTAL ENTERING VOLUME		8	3,650	3642	45525%	8	6,400	6392	79900%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	861	2,514			
North Leg	Outbound	0	0			
North Leg	**TOTAL**	**861**	**2,514**	**12%**	**34%**	**7,368**
South Leg	Inbound	0	0			
South Leg	Outbound	760	440			
South Leg	**TOTAL**	**760**	**440**	**22%**	**13%**	**3,428**
East Leg	Inbound	1,513	1,835			
East Leg	Outbound	1,110	2,940			
East Leg	**TOTAL**	**2,623**	**4,775**	**13%**	**24%**	**19,876**
West Leg	Inbound	1,276	2,051			
West Leg	Outbound	1,780	3,020			
West Leg	**TOTAL**	**3,056**	**5,071**	**15%**	**24%**	**20,846**
OVERALL TOTAL		***7,300***	***12,800***	**14%**	***25%***	***51,518***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[07_I-10 EB Ramps & Oak Valley.xls]Output (3)

Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: I-10 WB Ramps & Oak Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	95	94	9400%	1	350	349	34900%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	251	250	25000%	1	610	609	60900%
	NB Total	2	346	344	17200%	2	960	958	47900%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	1	143	142	14200%	1	313	312	31200%
	Through	2	779	777	38850%	2	2,626	2,624	131200%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	922	919	30633%	3	2,939	2,936	97867%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,415	1,413	70650%	2	1,483	1,481	74050%
	Right	1	687	686	68600%	1	308	307	30700%
	WB Total	3	2,102	2,099	69967%	3	1,791	1,788	59600%
TOTAL ENTERING VOLUME		8	3,370	3362	42025%	8	5,690	5682	71025%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	0	0			
North Leg	Outbound	830	621			
North Leg	**TOTAL**	**830**	**621**	**22%**	**16%**	**3,821**
South Leg	Inbound	346	960			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**346**	**960**	**9%**	**25%**	**3,857**
East Leg	Inbound	2,102	1,791			
East Leg	Outbound	1,030	3,236			
East Leg	**TOTAL**	**3,132**	**5,027**	**15%**	**24%**	**21,142**
West Leg	Inbound	922	2,939			
West Leg	Outbound	1,510	1,833			
West Leg	**TOTAL**	**2,432**	**4,772**	**13%**	**25%**	**19,019**
OVERALL TOTAL		***6,740***	***11,380***	**14%**	***24%***	***47,839***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[08_I-10 WB Ramps & Oak Valley - Semi.xls]Output (3)

Project: County of Riverside
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 44025

LOCATION: Veile Av. & 4th St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	17	16	1600%
	Through	2	0	-2	-100%	2	21	19	950%
	Right	1	0	-1	-100%	1	2	1	100%
	NB Total	4	0	-4	-100%	4	40	36	900%
SOUTH BOUND	Left	1	91	90	9000%	1	141	140	14000%
	Through	2	0	-2	-100%	2	9	7	350%
	Right	1	944	943	94300%	1	1,008	1,007	100700%
	SB Total	4	1,035	1,031	25775%	4	1,158	1,154	28850%
EAST BOUND	Left	1	287	286	28600%	1	1,304	1,303	130300%
	Through	2	389	387	19350%	2	1,287	1,285	64250%
	Right	1	0	-1	-100%	1	9	8	800%
	EB Total	4	676	672	16800%	4	2,600	2,596	64900%
WEST BOUND	Left	1	0	-1	-100%	1	1	0	0%
	Through	2	606	604	30200%	2	1,166	1,164	58200%
	Right	1	43	42	4200%	1	165	164	16400%
	WB Total	4	649	645	16125%	4	1,332	1,328	33200%
TOTAL ENTERING VOLUME		16	2,360	2344	14650%	16	5,130	5114	31963%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,035	1,158			
North Leg	Outbound	330	1,490			
North Leg	**TOTAL**	**1,365**	**2,648**	**25%**	**48%**	**5,511**
South Leg	Inbound	0	40			
South Leg	Outbound	0	19			
South Leg	**TOTAL**	**0**	**59**	**0%**	**102%**	**58**
East Leg	Inbound	649	1,332			
East Leg	Outbound	480	1,430			
East Leg	**TOTAL**	**1,129**	**2,762**	**20%**	**50%**	**5,535**
West Leg	Inbound	676	2,600			
West Leg	Outbound	1,550	2,191			
West Leg	**TOTAL**	**2,226**	**4,791**	**22%**	**48%**	**9,964**
OVERALL TOTAL		***4,720***	***10,260***	**22%**	***49%***	***21,068***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[10_Veile & 4th - Semi.xls]Output (3)

Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: California Av. & 6th St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	382	446	64	17%	249	412	163	65%
	Through	79	69	-10	-12%	71	74	3	4%
	Right	49	144	95	194%	68	425	358	530%
	NB Total	510	659	150	29%	388	911	524	135%
SOUTH BOUND	Left	43	32	-11	-26%	13	22	9	69%
	Through	96	97	1	1%	36	25	-11	-31%
	Right	4	1	-3	-75%	11	5	-6	-52%
	SB Total	143	130	-13	-9%	60	52	-8	-13%
EAST BOUND	Left	4	2	-2	-43%	19	4	-15	-78%
	Through	272	425	154	57%	432	623	191	44%
	Right	113	236	124	110%	164	99	-65	-39%
	EB Total	388	663	276	71%	614	726	112	18%
WEST BOUND	Left	55	417	362	658%	60	176	117	196%
	Through	272	609	338	124%	256	473	217	85%
	Right	19	32	13	68%	10	12	2	20%
	WB Total	346	1,058	713	206%	326	661	336	103%
TOTAL ENTERING VOLUME		1,386	2,510	1124.5	81%	1,387	2,350	964	69%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	130	52			
North Leg	Outbound	103	90			
North Leg	**TOTAL**	**233**	**142**	**15%**	**9%**	**1,578**
South Leg	Inbound	659	911			
South Leg	Outbound	750	300			
South Leg	**TOTAL**	**1,409**	**1,211**	**11%**	**9%**	**13,414**
East Leg	Inbound	1,058	661			
East Leg	Outbound	601	1,070			
East Leg	**TOTAL**	**1,659**	**1,731**	**14%**	**14%**	**12,218**
West Leg	Inbound	663	726			
West Leg	Outbound	1,056	890			
West Leg	**TOTAL**	**1,719**	**1,616**	**8%**	**8%**	**20,238**
OVERALL TOTAL		***5,020***	***4,700***	**11%**	***10%***	***47,448***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[11_California & 6th.xls]Output (3)

Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: California Av. & 4th St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	17	185	169	1021%	6	209	203	3383%
	Through	772	964	192	25%	476	913	438	92%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	789	1,149	361	46%	482	1,122	641	133%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	172	366	195	113%	922	757	-165	-18%
	Right	93	302	210	226%	78	360	282	362%
	SB Total	264	668	404	153%	1,000	1,117	117	12%
EAST BOUND	Left	58	122	65	112%	84	434	351	420%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	16	192	177	1139%	32	536	504	1575%
	EB Total	73	314	241	330%	116	970	855	740%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		1,126	2,131	1005.5	89%	1,597	3,209	1612	101%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	668	1,117			
North Leg	Outbound	1,086	1,347			
North Leg	**TOTAL**	**1,754**	**2,464**	**13%**	**18%**	**13,415**
South Leg	Inbound	1,149	1,122			
South Leg	Outbound	558	1,293			
South Leg	**TOTAL**	**1,707**	**2,415**	**12%**	**16%**	**14,735**
East Leg	Inbound	0	0			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
West Leg	Inbound	314	970			
West Leg	Outbound	487	569			
West Leg	**TOTAL**	**801**	**1,539**	**17%**	**33%**	**4,664**
OVERALL TOTAL		***4,262***	***6,418***	**13%**	***20%***	***32,814***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[13_California & 4th.xls]Output (3)

Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: Beaumont Av. & 5th St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	56	31	-25	-45%	22	0	-22	-100%
	Through	279	871	593	213%	356	1,650	1,295	364%
	Right	13	1	-12	-92%	29	0	-29	-100%
	NB Total	348	903	556	160%	407	1,650	1,244	306%
SOUTH BOUND	Left	3	74	71	2367%	9	161	152	1689%
	Through	368	879	512	139%	410	772	363	89%
	Right	2	262	260	13000%	9	92	83	922%
	SB Total	373	1,215	843	226%	428	1,025	598	140%
EAST BOUND	Left	6	91	86	1555%	18	230	212	1178%
	Through	15	8	-7	-47%	15	1	-14	-93%
	Right	29	2	-27	-93%	38	0	-38	-100%
	EB Total	50	101	52	104%	71	231	161	228%
WEST BOUND	Left	18	0	-18	-100%	69	0	-69	-100%
	Through	3	5	2	67%	4	0	-4	-100%
	Right	10	86	76	760%	15	184	169	1127%
	WB Total	31	91	60	194%	88	184	96	109%
TOTAL ENTERING VOLUME		801	2,310	1509.5	189%	993	3,090	2098	211%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,215	1,025			
North Leg	Outbound	1,048	2,064			
North Leg	**TOTAL**	**2,263**	**3,089**	**14%**	**19%**	**16,064**
South Leg	Inbound	903	1,650			
South Leg	Outbound	881	772			
South Leg	**TOTAL**	**1,784**	**2,422**	**8%**	**11%**	**22,759**
East Leg	Inbound	91	184			
East Leg	Outbound	83	162			
East Leg	**TOTAL**	**174**	**346**	**1%**	**1%**	**24,279**
West Leg	Inbound	101	231			
West Leg	Outbound	298	92			
West Leg	**TOTAL**	**399**	**323**	**3%**	**3%**	**12,780**
OVERALL TOTAL		***4,620***	***6,180***	**6%**	***8%***	***75,882***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[14_Beaumont & 5th.xls]Output (3)

Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: Beaumont Av. & I-10 WB Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	345	352	8	2%	272	276	5	2%
	Through	216	508	292	135%	309	884	576	187%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	561	860	300	53%	580	1,160	580	100%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	340	725	385	113%	422	685	263	62%
	Right	75	93	19	25%	94	94	0	0%
	SB Total	415	818	404	97%	516	779	263	51%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	464	475	11	2%	685	745	60	9%
	Through	9	5	-4	-41%	0	0	0	#DIV/0!
	Right	132	182	51	38%	98	186	88	90%
	WB Total	604	662	58	10%	783	931	148	19%
TOTAL ENTERING VOLUME		1,579	2,340	761	48%	1,879	2,870	991	53%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	818	779			
North Leg	Outbound	690	1,070			
North Leg	**TOTAL**	**1,508**	**1,849**	**7%**	**8%**	**22,759**
South Leg	Inbound	860	1,160			
South Leg	Outbound	1,200	1,430			
South Leg	**TOTAL**	**2,060**	**2,590**	**5%**	**6%**	**41,495**
East Leg	Inbound	662	931			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**662**	**931**	**6%**	**8%**	**11,844**
West Leg	Inbound	0	0			
West Leg	Outbound	450	370			
West Leg	**TOTAL**	**450**	**370**	**4%**	**3%**	**10,582**
OVERALL TOTAL		***4,680***	***5,740***	**5%**	***7%***	***86,680***

U:\UcJobs_12100-12500_12300\12396\Post Processing\[15_Beaumont & I-10 WB Ramps.xls]Output (3)

Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: Beaumont Av. & I-10 EB Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	493	727	235	48%	483	871	388	80%
	Right	421	484	63	15%	362	425	63	17%
	NB Total	914	1,211	298	33%	845	1,296	451	53%
SOUTH BOUND	Left	99	90	-9	-9%	105	117	12	11%
	Through	706	1,177	472	67%	1,002	1,347	345	34%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	804	1,267	463	58%	1,107	1,464	357	32%
EAST BOUND	Left	68	53	-15	-22%	97	119	22	23%
	Through	10	6	-4	-40%	10	8	-2	-20%
	Right	495	553	58	12%	746	723	-23	-3%
	EB Total	573	612	39	7%	853	850	-3	0%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		2,291	3,090	799.5	35%	2,805	3,610	806	29%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,267	1,464			
North Leg	Outbound	780	990			
North Leg	**TOTAL**	**2,047**	**2,454**	**5%**	**6%**	**41,495**
South Leg	Inbound	1,211	1,296			
South Leg	Outbound	1,730	2,070			
South Leg	**TOTAL**	**2,941**	**3,366**	**4%**	**5%**	**67,361**
East Leg	Inbound	0	0			
East Leg	Outbound	580	550			
East Leg	**TOTAL**	**580**	**550**	**3%**	**3%**	**19,230**
West Leg	Inbound	612	850			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**612**	**850**	**6%**	**9%**	**9,863**
OVERALL TOTAL		***6,180***	***7,220***	**4%**	***5%***	***137,949***

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Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: Potrero Bl. & SR-60 WB Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	97	96	9600%	1	220	219	21900%
	Through	2	826	824	41200%	2	2,813	2,811	140550%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	3	923	920	30667%	3	3,033	3,030	101000%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	576	574	28700%	2	1,440	1,438	71900%
	Right	1	1,583	1,582	158200%	1	1,460	1,459	145900%
	SB Total	3	2,159	2,156	71867%	3	2,900	2,897	96567%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	1	4	3	300%	1	20	19	1900%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	84	83	8300%	1	257	256	25600%
	WB Total	2	88	86	4300%	2	277	275	13750%
TOTAL ENTERING VOLUME		8	3,170	3162	39525%	8	6,210	6202	77525%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	2,159	2,900			
North Leg	Outbound	910	3,070			
North Leg	**TOTAL**	**3,069**	**5,970**	**14%**	**28%**	**21,501**
South Leg	Inbound	923	3,033			
South Leg	Outbound	580	1,460			
South Leg	**TOTAL**	**1,503**	**4,493**	**11%**	**34%**	**13,131**
East Leg	Inbound	88	277			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**88**	**277**	**14%**	**44%**	**634**
West Leg	Inbound	0	0			
West Leg	Outbound	1,680	1,680			
West Leg	**TOTAL**	**1,680**	**1,680**	**21%**	**21%**	**8,043**
OVERALL TOTAL		***6,340***	***12,420***	**15%**	***29%***	***43,309***

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Project:	Jack Rabbit Trail TIA	Job #:	12396
Scenario:	Horizon Year (2040)	Analyst:	CP
		Date:	7/13/20

LOCATION: Potrero Bl. & SR-60 EB Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	256	254	12700%	2	1,300	1,298	64900%
	Right	1	7	6	600%	1	11	10	1000%
	NB Total	3	263	260	8667%	3	1,311	1,308	43600%
SOUTH BOUND	Left	1	123	122	12200%	1	99	98	9800%
	Through	2	418	416	20800%	2	1,260	1,258	62900%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	3	541	538	17933%	3	1,359	1,356	45200%
EAST BOUND	Left	1	594	593	59300%	1	1,546	1,545	154500%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	52	51	5100%	1	173	172	17200%
	EB Total	2	646	644	32200%	2	1,719	1,717	85850%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		8	1,450	1442	18025%	8	4,389	4381	54763%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	541	1,359			
North Leg	Outbound	850	2,846			
North Leg	**TOTAL**	**1,391**	**4,205**	**11%**	**32%**	**13,131**
South Leg	Inbound	263	1,311			
South Leg	Outbound	470	1,433			
South Leg	**TOTAL**	**733**	**2,744**	**12%**	**43%**	**6,355**
East Leg	Inbound	0	0			
East Leg	Outbound	130	110			
East Leg	**TOTAL**	**130**	**110**	**19%**	**16%**	**701**
West Leg	Inbound	646	1,719			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**646**	**1,719**	**10%**	**27%**	**6,465**
OVERALL TOTAL		***2,900***	***8,778***	**11%**	***33%***	***26,652***

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APPENDIX 5.1:

E+P (PHASE 1) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

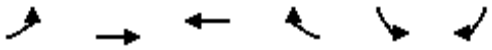
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Lane Group	EBT	WBT	Ø6
Lane Configurations			
Traffic Volume (vph)	48	161	
Future Volume (vph)	48	161	
Turn Type	NA	NA	
Protected Phases	4	8	6
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8
Total Split (s)	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	33%
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.8	5.8	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	None
Act Effct Green (s)	11.6	11.6	
Actuated g/C Ratio	0.79	0.79	
v/c Ratio	0.03	0.12	
Control Delay	0.2	0.4	
Queue Delay	0.0	0.0	
Total Delay	0.2	0.4	
LOS	A	A	
Approach Delay	0.2	0.4	
Approach LOS	A	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 14.7	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.12	
Intersection Signal Delay: 0.4	Intersection LOS: A
Intersection Capacity Utilization 13.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	48	161	0	0	0
Future Volume (veh/h)	0	48	161	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	52	175	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	672	871	871	738	17	15
Arrive On Green	0.00	0.46	0.46	0.00	0.00	0.00
Sat Flow, veh/h	1229	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	52	175	0	0	0
Grp Sat Flow(s),veh/h/ln	1229	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	0.2	0.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.2	0.6	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	672	871	871	738	17	15
V/C Ratio(X)	0.00	0.06	0.20	0.00	0.00	0.00
Avail Cap(c_a), veh/h	6327	9615	9615	8148	4089	3638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.6	1.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	1.6	1.8	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		52	175		0	
Approach Delay, s/veh		1.6	1.8		0.0	
Approach LOS		A	A			

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			10.7		0.0	10.7
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			2.2		0.0	2.6
Green Ext Time (p_c), s			0.2		0.0	0.9

Intersection Summary		
HCM 6th Ctrl Delay	1.8	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	183	21	84	200	28	94
Future Vol, veh/h	183	21	84	200	28	94
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	24	98	233	33	109
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9	8.6	9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	94	92	92	21	84	100	100
LT Vol	28	0	0	0	0	84	0	0
Through Vol	0	0	92	92	0	0	100	100
RT Vol	0	94	0	0	21	0	0	0
Lane Flow Rate	33	109	106	106	24	98	116	116
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.057	0.156	0.163	0.163	0.021	0.16	0.174	0.119
Departure Headway (Hd)	6.332	5.135	5.52	5.52	3.106	5.895	5.392	3.683
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	562	692	646	646	1134	606	662	963
Service Time	4.113	2.916	3.29	3.29	0.875	3.657	3.154	1.444
HCM Lane V/C Ratio	0.059	0.158	0.164	0.164	0.021	0.162	0.175	0.12
HCM Control Delay	9.5	8.9	9.4	9.4	5.9	9.8	9.3	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.6	0.6	0.6	0.1	0.6	0.6	0.4

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	62	0	51	0	10	24	43	33	0
Future Vol, veh/h	0	0	0	62	0	51	0	10	24	43	33	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	95	0	78	0	15	37	66	51	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.1	7.2	8.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	55%	57%
Vol Thru, %	29%	0%	43%
Vol Right, %	71%	45%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	34	113	76
LT Vol	0	62	43
Through Vol	10	0	33
RT Vol	24	51	0
Lane Flow Rate	52	174	117
Geometry Grp	1	1	1
Degree of Util (X)	0.058	0.195	0.142
Departure Headway (Hd)	3.989	4.028	4.361
Convergence, Y/N	Yes	Yes	Yes
Cap	903	876	810
Service Time	1.989	2.123	2.451
HCM Lane V/C Ratio	0.058	0.199	0.144
HCM Control Delay	7.2	8.1	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.7	0.5

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	27	29	1	87	14	11	81
Future Vol, veh/h	27	29	1	87	14	11	81
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	40	43	1	130	21	16	121
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.9	8.5	8.1
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	48%	0%	0%	0%	100%	4%
Vol Thru, %	52%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	96%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	1	87	14	7	85
LT Vol	27	0	0	0	7	4
Through Vol	29	1	87	0	0	0
RT Vol	0	0	0	14	0	81
Lane Flow Rate	84	1	130	21	11	126
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.125	0.002	0.177	0.024	0.017	0.158
Departure Headway (Hd)	5.4	4.902	4.902	4.199	5.648	4.498
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	664	731	734	853	636	800
Service Time	3.126	2.622	2.622	1.92	3.364	2.214
HCM Lane V/C Ratio	0.127	0.001	0.177	0.025	0.017	0.158
HCM Control Delay	8.9	7.6	8.7	7	8.5	8.1
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.4	0	0.6	0.1	0.1	0.6

Intersection	
Intersection Delay, s/veh	61.4
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	278	250	307	458	47
Future Vol, veh/h	51	278	250	307	458	47
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	59	320	287	353	526	54
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	26.4	14.5	136
HCM LOS	D	B	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	91%
Vol Thru, %	0%	100%	100%	100%	14%	0%
Vol Right, %	0%	0%	0%	0%	86%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	51	278	100	100	357	505
LT Vol	51	0	0	0	0	458
Through Vol	0	278	100	100	50	0
RT Vol	0	0	0	0	307	47
Lane Flow Rate	59	320	115	115	410	580
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.136	0.697	0.232	0.232	0.567	1.207
Departure Headway (Hd)	9.118	8.592	7.971	7.971	5.577	7.487
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	396	425	453	453	652	488
Service Time	6.818	6.292	5.671	5.671	3.277	5.241
HCM Lane V/C Ratio	0.149	0.753	0.254	0.254	0.629	1.189
HCM Control Delay	13.2	28.8	13.1	13.1	15.3	136
HCM Lane LOS	B	D	B	B	C	F
HCM 95th-tile Q	0.5	5.2	0.9	0.9	3.6	22.1

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	59	0	16	0	89	0	1	0	0	0
Future Vol, veh/h	0	5	59	0	16	0	89	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	91	0	25	0	137	0	2	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	278	2	327	277	-	2	0	0	2	0	0
Stage 1	-	2	-	275	275	-	-	-	-	-	-	-
Stage 2	-	276	-	52	2	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	633	1088	630	634	0	1634	-	-	1634	-	-
Stage 1	0	898	-	736	686	0	-	-	-	-	-	-
Stage 2	0	685	-	966	898	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	580	1088	535	581	-	1634	-	-	1634	-	-
Mov Cap-2 Maneuver	-	580	-	535	581	-	-	-	-	-	-	-
Stage 1	-	898	-	674	628	-	-	-	-	-	-	-
Stage 2	-	627	-	878	898	-	-	-	-	-	-	-

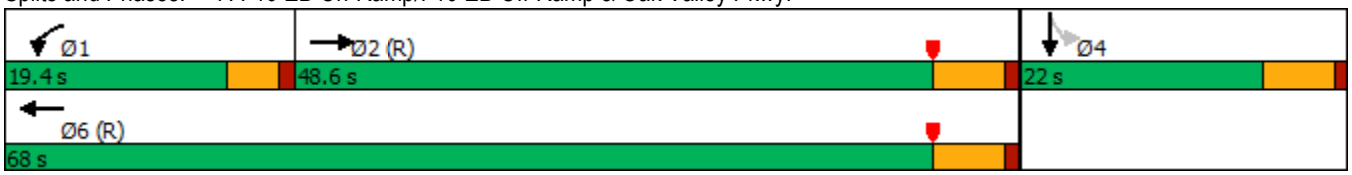
Approach	EB	WB	NB	SB
HCM Control Delay, s	8.9	11.5	7.3	0
HCM LOS	A	B		

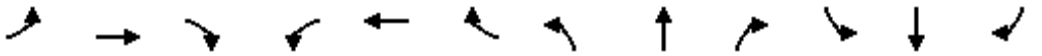
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1634	-	-	1018	581	1634	-	-
HCM Lane V/C Ratio	0.084	-	-	0.097	0.042	-	-	-
HCM Control Delay (s)	7.4	0	-	8.9	11.5	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.3	0.1	0	-	-

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	322	235	491	3
Future Volume (vph)	322	235	491	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	43.1	14.5	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	0.93	0.91	0.42	1.02
Control Delay	37.9	64.9	3.8	90.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.9	64.9	3.8	90.7
LOS	D	E	A	F
Approach Delay	37.9		23.6	90.7
Approach LOS	D		C	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 40.9	Intersection LOS: D
Intersection Capacity Utilization 85.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	322	414	235	491	0	0	0	0	229	3	67
Future Volume (veh/h)	0	322	414	235	491	0	0	0	0	229	3	67
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	362	378	264	552	0				257	3	56
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	407	425	292	1313	0				259	3	57
Arrive On Green	0.00	0.48	0.48	0.32	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	851	889	1810	1900	0				1441	17	314
Grp Volume(v), veh/h	0	0	740	264	552	0				316	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1740	1810	1900	0				1771	0	0
Q Serve(g_s), s	0.0	0.0	34.7	12.5	0.0	0.0				16.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	34.7	12.5	0.0	0.0				16.0	0.0	0.0
Prop In Lane	0.00		0.51	1.00		0.00				0.81		0.18
Lane Grp Cap(c), veh/h	0	0	832	292	1313	0				319	0	0
V/C Ratio(X)	0.00	0.00	0.89	0.90	0.42	0.00				0.99	0.00	0.00
Avail Cap(c_a), veh/h	0	0	832	298	1313	0				319	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.42	0.42	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.3	29.8	0.0	0.0				36.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	13.6	14.4	0.4	0.0				47.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	15.4	5.4	0.2	0.0				10.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	34.9	44.1	0.4	0.0				84.7	0.0	0.0
LnGrp LOS	A	A	C	D	A	A				F	A	A
Approach Vol, veh/h		740			816						316	
Approach Delay, s/veh		34.9			14.6						84.7	
Approach LOS		C			B						F	

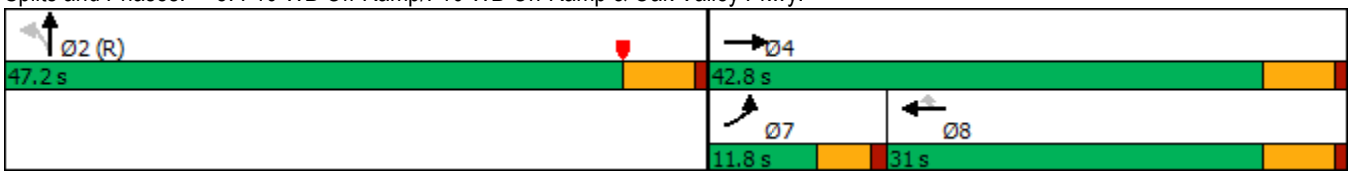
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.1	48.9		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	14.5	36.7		18.0		2.0						
Green Ext Time (p_c), s	0.0	2.5		0.0		3.6						

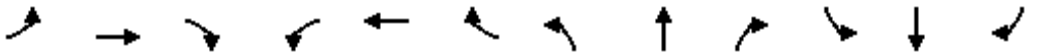
Intersection Summary												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	91	459	413	394	4
Future Volume (vph)	91	459	413	394	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	11.8	42.8	31.0	31.0	47.2
Total Split (%)	13.1%	47.6%	34.4%	34.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	6.9	33.1	23.6	23.6	45.3
Actuated g/C Ratio	0.08	0.37	0.26	0.26	0.50
v/c Ratio	0.68	0.67	0.85	0.56	0.75
Control Delay	51.0	16.9	48.0	6.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	16.9	48.0	6.1	23.5
LOS	D	B	D	A	C
Approach Delay		22.5	27.5		23.5
Approach LOS		C	C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 85.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	459	0	0	413	394	313	4	348	0	0	0
Future Volume (veh/h)	91	459	0	0	413	394	313	4	348	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	93	468	0	0	421	286	319	4	233			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	120	698	0	0	475	403	497	6	363			
Arrive On Green	0.02	0.12	0.00	0.00	0.25	0.25	0.50	0.50	0.50			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	987	12	721			
Grp Volume(v), veh/h	93	468	0	0	421	286	556	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1721	0	0			
Q Serve(g_s), s	4.6	21.2	0.0	0.0	19.2	14.6	21.3	0.0	0.0			
Cycle Q Clear(g_c), s	4.6	21.2	0.0	0.0	19.2	14.6	21.3	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.42			
Lane Grp Cap(c), veh/h	120	698	0	0	475	403	866	0	0			
V/C Ratio(X)	0.78	0.67	0.00	0.00	0.89	0.71	0.64	0.00	0.00			
Avail Cap(c_a), veh/h	145	781	0	0	532	451	866	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.26	0.26	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.4	34.3	0.0	0.0	32.5	30.8	16.4	0.0	0.0			
Incr Delay (d2), s/veh	4.4	0.5	0.0	0.0	15.2	4.5	3.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	10.7	0.0	0.0	10.2	5.8	8.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	34.8	0.0	0.0	47.7	35.3	20.0	0.0	0.0			
LnGrp LOS	D	C	A	A	D	D	C	A	A			
Approach Vol, veh/h		561			707			556				
Approach Delay, s/veh		37.0			42.7			20.0				
Approach LOS		D			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		51.1		38.9			10.6	28.3				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			7.2	25.2				
Max Q Clear Time (g_c+I1), s		23.3		23.2			6.6	21.2				
Green Ext Time (p_c), s		3.3		2.2			0.0	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	107	505	202	149	845	25	0	0	59	0	0	151
Future Vol, veh/h	107	505	202	149	845	25	0	0	59	0	0	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	118	555	222	164	929	27	0	0	65	0	0	166

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	956	0	0	777	0	0	-	-	389	-	-	943
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	727	-	-	848	-	-	0	0	615	0	0	321
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	727	-	-	848	-	-	-	-	615	-	-	321
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	1.5	11.5	27.6
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	615	727	-	-	848	-	-	321
HCM Lane V/C Ratio	0.105	0.162	-	-	0.193	-	-	0.517
HCM Control Delay (s)	11.5	10.9	-	-	10.3	-	-	27.6
HCM Lane LOS	B	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.4	0.6	-	-	0.7	-	-	2.8

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	49	22	3	69	19	68	27	6	21	29	129
Future Vol, veh/h	31	49	22	3	69	19	68	27	6	21	29	129
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	41	65	29	4	92	25	91	36	8	28	39	172
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

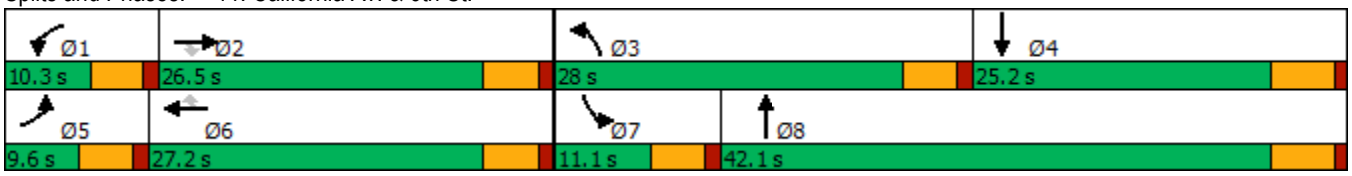
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	9.1	9.8	10.4	9.1
HCM LOS	A	A	B	A

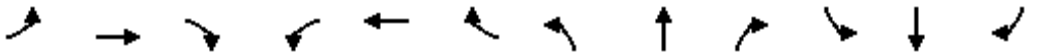
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	72%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	28%	0%	0%	100%	0%	0%	78%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	22%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	6	31	49	22	3	88	21	29	129
LT Vol	68	0	31	0	0	3	0	21	0	0
Through Vol	27	0	0	49	0	0	69	0	29	0
RT Vol	0	6	0	0	22	0	19	0	0	129
Lane Flow Rate	127	8	41	65	29	4	117	28	39	172
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.217	0.011	0.073	0.107	0.042	0.007	0.188	0.048	0.061	0.238
Departure Headway (Hd)	6.163	5.099	6.395	5.892	5.189	6.421	5.766	6.176	5.674	4.971
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	584	703	561	609	691	558	623	583	635	728
Service Time	3.887	2.824	4.122	3.619	2.915	4.148	3.493	3.876	3.374	2.671
HCM Lane V/C Ratio	0.217	0.011	0.073	0.107	0.042	0.007	0.188	0.048	0.061	0.236
HCM Control Delay	10.6	7.9	9.6	9.3	8.1	9.2	9.8	9.2	8.7	9.2
HCM Lane LOS	B	A	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.8	0	0.2	0.4	0.1	0	0.7	0.2	0.2	0.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	272	113	55	272	19	382	81	43	101
Future Volume (vph)	4	272	113	55	272	19	382	81	43	101
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	26.5	26.5	10.3	27.2	27.2	28.0	42.1	11.1	25.2
Total Split (%)	10.7%	29.4%	29.4%	11.4%	30.2%	30.2%	31.1%	46.8%	12.3%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.1	17.3	17.3	5.6	23.3	23.3	21.3	40.4	6.0	20.5
Actuated g/C Ratio	0.06	0.21	0.21	0.07	0.28	0.28	0.26	0.49	0.07	0.25
v/c Ratio	0.04	0.74	0.25	0.48	0.55	0.04	0.88	0.16	0.35	0.24
Control Delay	40.8	42.8	2.0	54.1	29.7	0.1	52.6	11.8	47.0	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	42.8	2.0	54.1	29.7	0.1	52.6	11.8	47.0	29.2
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		30.9			31.9			42.2		34.4
Approach LOS		C			C			D		C

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 81.8		
Natural Cycle: 90		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.88		
Intersection Signal Delay: 35.7	Intersection LOS: D	
Intersection Capacity Utilization 64.0%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	113	55	272	19	382	81	49	43	101	4
Future Volume (veh/h)	4	272	113	55	272	19	382	81	49	43	101	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	296	122	60	296	12	415	88	31	47	110	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	365	309	84	444	376	456	636	224	74	489	9
Arrive On Green	0.01	0.19	0.19	0.05	0.23	0.23	0.25	0.47	0.47	0.04	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1342	473	1810	1860	34
Grp Volume(v), veh/h	4	296	122	60	296	12	415	0	119	47	0	112
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1815	1810	0	1894
Q Serve(g_s), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	2.9	2.0	0.0	3.6
Cycle Q Clear(g_c), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	2.9	2.0	0.0	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.02
Lane Grp Cap(c), veh/h	10	365	309	84	444	376	456	0	860	74	0	498
V/C Ratio(X)	0.42	0.81	0.39	0.71	0.67	0.03	0.91	0.00	0.14	0.63	0.00	0.23
Avail Cap(c_a), veh/h	116	529	449	132	546	463	544	0	860	151	0	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.6	30.1	27.5	36.6	27.1	23.1	28.3	0.0	11.5	36.8	0.0	22.5
Incr Delay (d2), s/veh	10.3	6.1	0.8	4.1	2.3	0.0	16.2	0.0	0.3	3.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.7	1.9	1.2	5.1	0.2	8.8	0.0	1.1	0.9	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	36.2	28.3	40.7	29.4	23.1	44.5	0.0	11.9	40.1	0.0	23.5
LnGrp LOS	D	D	C	D	C	C	D	A	B	D	A	C
Approach Vol, veh/h		422			368			534			159	
Approach Delay, s/veh		34.0			31.0			37.2			28.4	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	19.8	24.2	25.7	5.0	23.0	7.8	42.1
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.7	* 22	23.4	20.0	5.0	* 22	6.5	36.9
Max Q Clear Time (g_c+I1), s	4.5	13.6	19.3	5.6	2.2	13.0	4.0	4.9
Green Ext Time (p_c), s	0.0	1.4	0.3	0.4	0.0	1.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	3	71	24	9	29	283	508	34	12	215	2
Future Vol, veh/h	2	3	71	24	9	29	283	508	34	12	215	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	90	30	11	37	358	643	43	15	272	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1709	1706	274	1732	1686	665	275	0	0	686	0	0
Stage 1	304	304	-	1381	1381	-	-	-	-	-	-	-
Stage 2	1405	1402	-	351	305	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	73	92	770	70	95	464	1300	-	-	917	-	-
Stage 1	710	667	-	180	213	-	-	-	-	-	-	-
Stage 2	174	209	-	670	666	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	49	66	770	47	68	464	1300	-	-	917	-	-
Mov Cap-2 Maneuver	81	118	-	95	119	-	-	-	-	-	-	-
Stage 1	515	656	-	131	154	-	-	-	-	-	-	-
Stage 2	108	152	-	579	655	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	47.9	3	0.5
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1300	-	-	534	159	917	-	-
HCM Lane V/C Ratio	0.276	-	-	0.18	0.494	0.017	-	-
HCM Control Delay (s)	8.8	-	-	13.2	47.9	9	-	-
HCM Lane LOS	A	-	-	B	E	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	0.7	2.4	0.1	-	-

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	77	18	22	772	172	104
Future Vol, veh/h	77	18	22	772	172	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	100	23	29	1003	223	135

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1352	291	358	0	-	0
Stage 1	291	-	-	-	-	-
Stage 2	1061	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	167	753	1212	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	336	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	163	753	1212	-	-	-
Mov Cap-2 Maneuver	163	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	336	-	-	-	-	-

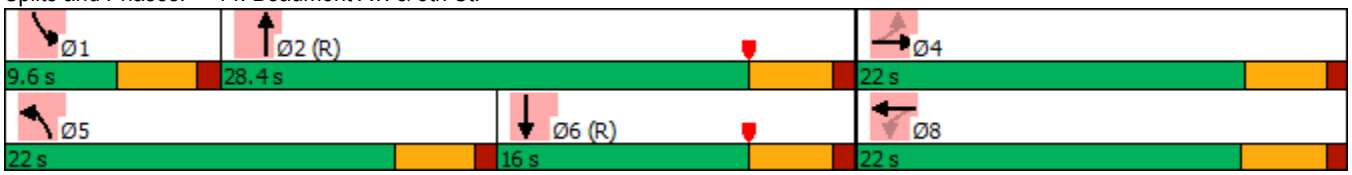
Approach	EB	NB	SB
HCM Control Delay, s	48.1	0.2	0
HCM LOS	E		

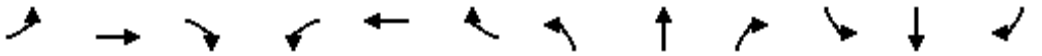
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1212	-	163	753	-	-
HCM Lane V/C Ratio	0.024	-	0.613	0.031	-	-
HCM Control Delay (s)	8	-	57	9.9	-	-
HCM Lane LOS	A	-	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	3.3	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	8	15	18	3	56	279	3	368
Future Volume (vph)	8	15	18	3	56	279	3	368
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1		10.0	6.7	46.3	5.0	40.9
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.23		0.13	0.30	0.11	0.02	0.17
Control Delay		12.9		17.8	30.6	4.1	25.7	7.5
Queue Delay		0.0		0.0	0.1	0.2	0.0	0.1
Total Delay		12.9		17.8	30.8	4.3	25.7	7.5
LOS		B		B	C	A	C	A
Approach Delay		12.9		17.8		8.5		7.7
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 34.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	15	45	18	3	10	56	279	13	3	368	7
Future Volume (veh/h)	8	15	45	18	3	10	56	279	13	3	368	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	16	49	20	3	11	61	303	14	3	400	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	65	154	200	43	71	96	2179	100	7	2067	41
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	93	471	1106	749	311	507	1810	3514	162	1810	3620	72
Grp Volume(v), veh/h	74	0	0	34	0	0	61	155	162	3	199	209
Grp Sat Flow(s),veh/h/ln	1670	0	0	1567	0	0	1810	1805	1871	1810	1805	1887
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.1	3.2	3.2
Cycle Q Clear(g_c), s	2.4	0.0	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.1	3.2	3.2
Prop In Lane	0.12		0.66	0.59		0.32	1.00		0.09	1.00		0.04
Lane Grp Cap(c), veh/h	300	0	0	313	0	0	96	1119	1160	7	1031	1078
V/C Ratio(X)	0.25	0.00	0.00	0.11	0.00	0.00	0.63	0.14	0.14	0.41	0.19	0.19
Avail Cap(c_a), veh/h	547	0	0	530	0	0	525	1119	1160	151	1031	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.7	0.0	0.0	26.2	0.0	0.0	29.8	6.2	6.2
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.6	0.3	0.3	12.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.4	0.0	0.0	0.8	0.1	0.1	0.1	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	0.0	22.8	0.0	0.0	28.8	0.3	0.3	42.7	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		74			34			378			411	
Approach Delay, s/veh		23.7			22.8			4.9			6.9	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.0		13.1	7.8	39.1		13.1				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.4	3.9	5.2		3.0				
Green Ext Time (p_c), s	0.0	1.8		0.2	0.0	1.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		8.0
HCM 6th LOS		A

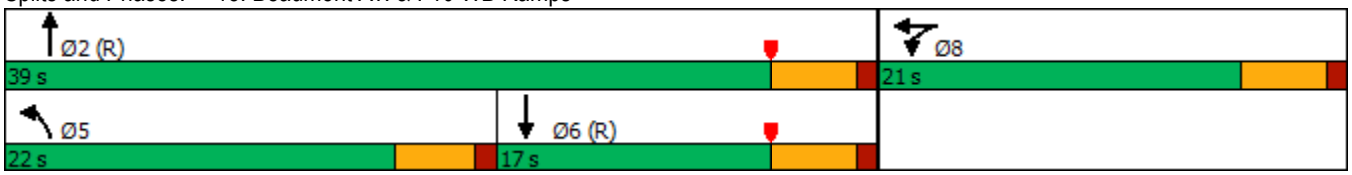
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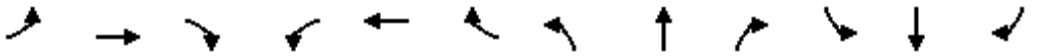
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	352
Future Volume (vph)	464	9	345	216	352
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	21.0	21.0	22.0	39.0	17.0
Total Split (%)	35.0%	35.0%	36.7%	65.0%	28.3%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.9	14.9	15.4	35.5	15.5
Actuated g/C Ratio	0.25	0.25	0.26	0.59	0.26
v/c Ratio	0.79	0.70	0.81	0.11	0.50
Control Delay	36.3	24.7	41.7	5.6	16.0
Queue Delay	0.0	1.1	0.0	0.0	2.3
Total Delay	36.3	25.8	41.7	5.6	18.2
LOS	D	C	D	A	B
Approach Delay		31.2		27.8	18.2
Approach LOS		C		C	B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 26.5	Intersection LOS: C
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	352	79
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	352	79
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	383	86
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				463	293	164	525	2108	0	0	705	157
Arrive On Green				0.26	0.26	0.26	0.39	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3030	652
Grp Volume(v), veh/h				328	0	399	375	235	0	0	234	235
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1783
Q Serve(g_s), s				9.9	0.0	12.9	11.7	0.1	0.0	0.0	7.4	7.5
Cycle Q Clear(g_c), s				9.9	0.0	12.9	11.7	0.1	0.0	0.0	7.4	7.5
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				463	0	457	525	2108	0	0	434	428
V/C Ratio(X)				0.71	0.00	0.87	0.71	0.11	0.00	0.00	0.54	0.55
Avail Cap(c_a), veh/h				489	0	482	525	2108	0	0	498	492
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.3	0.0	21.4	15.5	0.4	0.0	0.0	24.4	24.5
Incr Delay (d2), s/veh				4.4	0.0	15.5	3.1	0.1	0.0	0.0	4.7	4.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	386.1	18.2	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.1	0.0	6.5	61.0	5.4	0.0	0.0	3.9	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.7	0.0	36.9	404.7	18.7	0.0	0.0	29.1	29.4
LnGrp LOS				C	A	D	F	B	A	A	C	C
Approach Vol, veh/h					727			610			469	
Approach Delay, s/veh					31.4			256.0			29.3	
Approach LOS					C			F			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	39.8		18.5	21.3		20.2						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 34		17.4	* 12		16.2						
Max Q Clear Time (g_c+I1), s	2.1		13.7	9.5		14.9						
Green Ext Time (p_c), s	1.6		0.3	0.7		0.5						

Intersection Summary		
HCM 6th Ctrl Delay	106.7	
HCM 6th LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

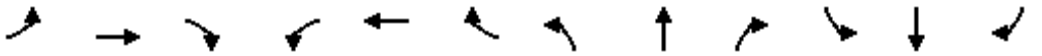
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	547	544	111	779
Future Volume (vph)	11	547	544	111	779
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.6	12.6	27.7	7.4	37.8
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	22.0	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	22.0	11.4
LOS	B	B	A	C	B
Approach Delay	18.7		9.9		12.7
Approach LOS	B		A		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Future Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	661				0	567	484	116	811	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	452	766				0	1424	187	148	2174	0
Arrive On Green	0.00	0.00	0.24				0.00	0.44	0.44	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1942	1575	1810	3705	0
Grp Volume(v), veh/h	0	0	661				0	554	497	116	811	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	452	766				0	801	810	148	2174	0
V/C Ratio(X)	0.00	0.00	0.86				0.00	0.69	0.61	0.79	0.37	0.00
Avail Cap(c_a), veh/h	0	481	816				0	801	718	253	2174	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.74	0.74	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.9				0.0	16.7	16.7	24.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.1				0.0	4.9	3.5	2.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	254.3	215.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.8				0.0	66.9	58.4	1.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.0				0.0	275.8	235.2	27.2	0.4	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		661						1051			927	
Approach Delay, s/veh		31.0						256.6			3.7	
Approach LOS		C						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.5	31.4		19.1		40.9
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35
Max Q Clear Time (g_c+I1), s	5.7	16.8		13.8		2.0
Green Ext Time (p_c), s	0.0	3.1		0.5		6.6

Intersection Summary		
HCM 6th Ctrl Delay		111.3
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

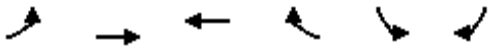
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBT	Ø6
Lane Configurations			
Traffic Volume (vph)	195	76	
Future Volume (vph)	195	76	
Turn Type	NA	NA	
Protected Phases	4	8	6
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8
Total Split (s)	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	33%
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.8	5.8	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	None
Act Effct Green (s)	11.5	11.5	
Actuated g/C Ratio	0.86	0.86	
v/c Ratio	0.13	0.05	
Control Delay	0.3	0.1	
Queue Delay	0.0	0.0	
Total Delay	0.3	0.1	
LOS	A	A	
Approach Delay	0.3	0.1	
Approach LOS	A	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 13.3	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.13	
Intersection Signal Delay: 0.2	Intersection LOS: A
Intersection Capacity Utilization 15.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	195	76	0	0	0
Future Volume (veh/h)	0	195	76	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	212	83	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	596	988	988	837	15	13
Arrive On Green	0.00	0.52	0.52	0.00	0.00	0.00
Sat Flow, veh/h	1336	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	212	83	0	0	0
Grp Sat Flow(s),veh/h/ln	1336	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	0.7	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.7	0.3	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	596	988	988	837	15	13
V/C Ratio(X)	0.00	0.21	0.08	0.00	0.00	0.00
Avail Cap(c_a), veh/h	5892	8521	8521	7221	3623	3224
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.6	1.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	1.7	1.5	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		212	83		0	
Approach Delay, s/veh		1.7	1.5		0.0	
Approach LOS		A	A			

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			12.1		0.0	12.1
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			2.7		0.0	2.3
Green Ext Time (p_c), s			1.2		0.0	0.4

Intersection Summary		
HCM 6th Ctrl Delay	1.6	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	115	12	51	185	75	99
Future Vol, veh/h	115	12	51	185	75	99
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	13	56	203	82	109
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.6	8.2	8.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	99	58	58	12	51	93	93
LT Vol	75	0	0	0	0	51	0	0
Through Vol	0	0	58	58	0	0	93	93
RT Vol	0	99	0	0	12	0	0	0
Lane Flow Rate	82	109	63	63	13	56	102	102
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.136	0.143	0.097	0.097	0.011	0.091	0.151	0.102
Departure Headway (Hd)	5.944	4.747	5.521	5.521	3.104	5.844	5.341	3.63
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	601	751	646	646	1139	612	670	981
Service Time	3.701	2.505	3.278	3.278	0.86	3.591	3.088	1.376
HCM Lane V/C Ratio	0.136	0.145	0.098	0.098	0.011	0.092	0.152	0.104
HCM Control Delay	9.6	8.3	8.9	8.9	5.9	9.2	9	6.8
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0.5	0.3	0.3	0	0.3	0.5	0.3

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	26	0	91	0	38	76	9	16	0
Future Vol, veh/h	0	0	0	26	0	91	0	38	76	9	16	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	34	0	118	0	49	99	12	21	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.6	7.6	7.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	22%	36%
Vol Thru, %	33%	0%	64%
Vol Right, %	67%	78%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	114	117	25
LT Vol	0	26	9
Through Vol	38	0	16
RT Vol	76	91	0
Lane Flow Rate	148	152	32
Geometry Grp	1	1	1
Degree of Util (X)	0.156	0.16	0.039
Departure Headway (Hd)	3.791	3.789	4.356
Convergence, Y/N	Yes	Yes	Yes
Cap	937	936	814
Service Time	1.849	1.853	2.428
HCM Lane V/C Ratio	0.158	0.162	0.039
HCM Control Delay	7.6	7.6	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.6	0.1

Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	112	95	0	40	2	3	38
Future Vol, veh/h	112	95	0	40	2	3	38
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	167	142	0	60	3	4	57
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	11.6	8	8
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	54%	0%	0%	0%	100%	3%
Vol Thru, %	46%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	97%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	207	0	40	2	2	39
LT Vol	112	0	0	0	2	1
Through Vol	95	0	40	0	0	0
RT Vol	0	0	0	2	0	38
Lane Flow Rate	309	0	60	3	3	58
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.436	0	0.081	0.003	0.005	0.079
Departure Headway (Hd)	5.081	4.907	4.907	4.203	6.07	4.893
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	714	0	732	853	591	733
Service Time	2.781	2.626	2.626	1.922	3.792	2.616
HCM Lane V/C Ratio	0.433	0	0.082	0.004	0.005	0.079
HCM Control Delay	11.6	7.6	8.1	6.9	8.8	8
HCM Lane LOS	B	N	A	A	A	A
HCM 95th-tile Q	2.2	0	0.3	0	0	0.3

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	255	307	294	177	13
Future Vol, veh/h	15	255	307	294	177	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	263	316	303	182	13
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	14	8.5	13.4
HCM LOS	B	A	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	93%
Vol Thru, %	0%	100%	100%	100%	17%	0%
Vol Right, %	0%	0%	0%	0%	83%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	255	123	123	355	190
LT Vol	15	0	0	0	0	177
Through Vol	0	255	123	123	61	0
RT Vol	0	0	0	0	294	13
Lane Flow Rate	15	263	127	127	366	196
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.029	0.458	0.198	0.198	0.338	0.369
Departure Headway (Hd)	6.783	6.275	5.628	5.628	3.32	6.775
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	528	573	642	642	1088	531
Service Time	4.526	4.019	3.328	3.328	1.02	4.515
HCM Lane V/C Ratio	0.028	0.459	0.198	0.198	0.336	0.369
HCM Control Delay	9.7	14.2	9.7	9.7	7.7	13.4
HCM Lane LOS	A	B	A	A	A	B
HCM 95th-tile Q	0.1	2.4	0.7	0.7	1.5	1.7

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	84	3	14	0	104	0	2	0	0	0
Future Vol, veh/h	0	2	84	3	14	0	104	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	111	4	18	0	137	0	3	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	278	1	334	277	-	1	0	0	3	0	0
Stage 1	-	1	-	276	276	-	-	-	-	-	-	-
Stage 2	-	277	-	58	1	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	633	1090	623	634	0	1635	-	-	1632	-	-
Stage 1	0	899	-	735	685	0	-	-	-	-	-	-
Stage 2	0	685	-	959	899	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	580	1090	522	581	-	1635	-	-	1632	-	-
Mov Cap-2 Maneuver	-	580	-	522	581	-	-	-	-	-	-	-
Stage 1	-	899	-	673	627	-	-	-	-	-	-	-
Stage 2	-	627	-	859	899	-	-	-	-	-	-	-

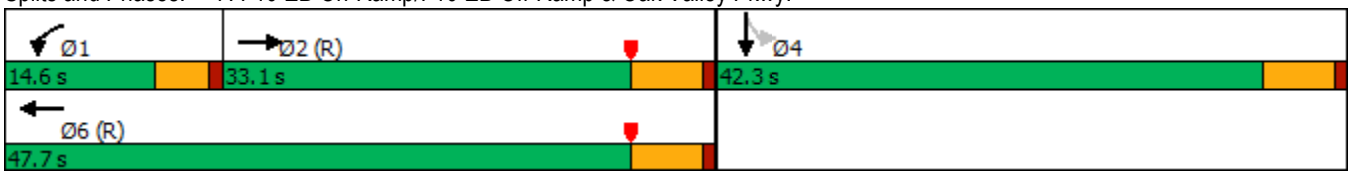
Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	11.6	7.3	0
HCM LOS	A	B		

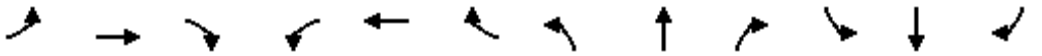
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	1068	570	1632	-	-
HCM Lane V/C Ratio	0.084	-	-	0.106	0.039	-	-	-
HCM Control Delay (s)	7.4	0	-	8.8	11.6	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0.1	0	-	-

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	225	129	481	1
Future Volume (vph)	225	129	481	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	27.5	9.8	41.9	36.5
Actuated g/C Ratio	0.31	0.11	0.47	0.41
v/c Ratio	0.98	0.87	0.72	1.00
Control Delay	63.3	73.8	21.4	62.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	63.3	73.8	21.4	62.2
LOS	E	E	C	E
Approach Delay	63.3		32.5	62.2
Approach LOS	E		C	E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.00	
Intersection Signal Delay: 51.1	Intersection LOS: D
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	225	207	129	481	0	0	0	0	436	1	120
Future Volume (veh/h)	0	225	207	129	481	0	0	0	0	436	1	120
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	296	214	170	633	0				574	1	92
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	323	233	201	906	0				604	1	97
Arrive On Green	0.00	0.31	0.31	0.04	0.16	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	1025	741	1810	1900	0				1531	3	245
Grp Volume(v), veh/h	0	0	510	170	633	0				667	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1767	1810	1900	0				1779	0	0
Q Serve(g_s), s	0.0	0.0	25.0	8.4	28.4	0.0				32.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	25.0	8.4	28.4	0.0				32.7	0.0	0.0
Prop In Lane	0.00		0.42	1.00		0.00				0.86		0.14
Lane Grp Cap(c), veh/h	0	0	556	201	906	0				701	0	0
V/C Ratio(X)	0.00	0.00	0.92	0.85	0.70	0.00				0.95	0.00	0.00
Avail Cap(c_a), veh/h	0	0	556	201	906	0				722	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.71	0.71	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	29.7	42.6	31.8	0.0				26.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	22.4	19.5	3.2	0.0				22.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	13.2	4.9	15.0	0.0				16.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.1	62.0	35.0	0.0				48.4	0.0	0.0
LnGrp LOS	A	A	D	E	C	A				D	A	A
Approach Vol, veh/h		510			803						667	
Approach Delay, s/veh		52.1			40.7						48.4	
Approach LOS		D			D						D	

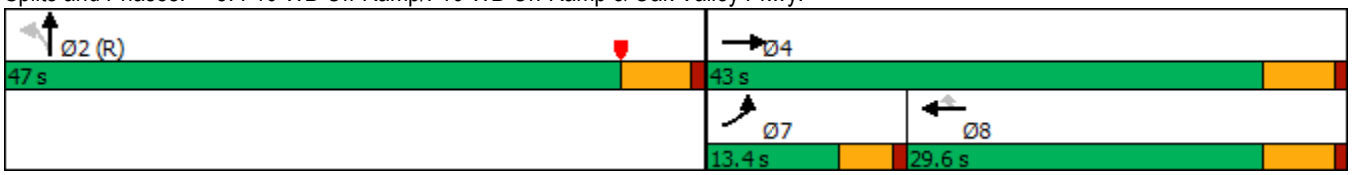
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	34.1		41.3		48.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	10.4	27.0		34.7		30.4						
Green Ext Time (p_c), s	0.0	0.1		0.8		3.0						

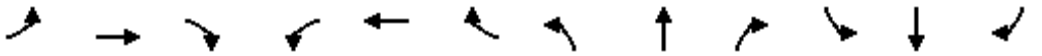
Intersection Summary												
HCM 6th Ctrl Delay			46.2									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	97	564	286	238	4
Future Volume (vph)	97	564	286	238	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	13.4	43.0	29.6	29.6	47.0
Total Split (%)	14.9%	47.8%	32.9%	32.9%	52.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	7.9	32.0	21.5	21.5	46.4
Actuated g/C Ratio	0.09	0.36	0.24	0.24	0.52
v/c Ratio	0.63	0.86	0.65	0.43	0.65
Control Delay	50.5	26.0	38.4	6.2	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	26.0	38.4	6.2	19.6
LOS	D	C	D	A	B
Approach Delay		29.6	23.8		19.6
Approach LOS		C	C		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	564	0	0	286	238	324	4	254	0	0	0
Future Volume (veh/h)	97	564	0	0	286	238	324	4	254	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	100	581	0	0	295	175	334	4	210			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	129	660	0	0	428	362	552	7	347			
Arrive On Green	0.02	0.11	0.00	0.00	0.23	0.23	0.52	0.52	0.52			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1053	13	662			
Grp Volume(v), veh/h	100	581	0	0	295	175	548	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1728	0	0			
Q Serve(g_s), s	4.9	27.1	0.0	0.0	12.8	8.5	19.9	0.0	0.0			
Cycle Q Clear(g_c), s	4.9	27.1	0.0	0.0	12.8	8.5	19.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.61		0.38			
Lane Grp Cap(c), veh/h	129	660	0	0	428	362	905	0	0			
V/C Ratio(X)	0.78	0.88	0.00	0.00	0.69	0.48	0.61	0.00	0.00			
Avail Cap(c_a), veh/h	177	785	0	0	502	426	905	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.13	0.13	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	38.0	0.0	0.0	32.0	30.3	14.9	0.0	0.0			
Incr Delay (d2), s/veh	1.3	1.5	0.0	0.0	3.2	1.0	3.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	13.8	0.0	0.0	5.9	3.2	7.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	39.5	0.0	0.0	35.2	31.3	17.9	0.0	0.0			
LnGrp LOS	D	D	A	A	D	C	B	A	A			
Approach Vol, veh/h		681			470			548				
Approach Delay, s/veh		40.2			33.8			17.9				
Approach LOS		D			C			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		52.9		37.1			11.0	26.1				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.2		37.2			8.8	23.8				
Max Q Clear Time (g_c+I1), s		21.9		29.1			6.9	14.8				
Green Ext Time (p_c), s		3.3		2.1			0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			31.3									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	236	770	151	104	624	53	0	0	112	0	0	63
Future Vol, veh/h	236	770	151	104	624	53	0	0	112	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	254	828	162	112	671	57	0	0	120	0	0	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	728	0	0	990	0	0	-	-	495	-	-	700
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	885	-	-	706	-	-	0	0	525	0	0	443
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	885	-	-	706	-	-	-	-	525	-	-	443
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	1.5	13.9	14.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	525	885	-	-	706	-	-	443
HCM Lane V/C Ratio	0.229	0.287	-	-	0.158	-	-	0.153
HCM Control Delay (s)	13.9	10.7	-	-	11.1	-	-	14.6
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.9	1.2	-	-	0.6	-	-	0.5

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	141	74	9	35	29	38	36	11	13	57	47
Future Vol, veh/h	100	141	74	9	35	29	38	36	11	13	57	47
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	143	201	106	13	50	41	54	51	16	19	81	67
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

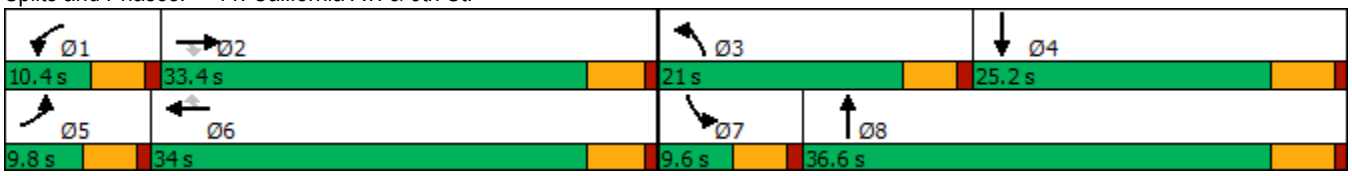
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	10.5	10	10.8	9.7
HCM LOS	B	A	B	A

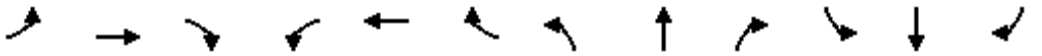
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	55%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	45%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	11	100	141	74	9	64	13	57	47
LT Vol	38	0	100	0	0	9	0	13	0	0
Through Vol	36	0	0	141	0	0	35	0	57	0
RT Vol	0	11	0	0	74	0	29	0	0	47
Lane Flow Rate	106	16	143	201	106	13	91	19	81	67
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.198	0.025	0.247	0.321	0.148	0.025	0.155	0.036	0.145	0.106
Departure Headway (Hd)	6.737	5.772	6.236	5.733	5.03	6.918	6.095	6.906	6.402	5.697
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	533	619	576	626	713	517	588	519	560	628
Service Time	4.48	3.514	3.969	3.467	2.763	4.662	3.839	4.647	4.143	3.437
HCM Lane V/C Ratio	0.199	0.026	0.248	0.321	0.149	0.025	0.155	0.037	0.145	0.107
HCM Control Delay	11.1	8.7	11	11.2	8.6	9.8	10	9.9	10.2	9.1
HCM Lane LOS	B	A	B	B	A	A	A	A	B	A
HCM 95th-tile Q	0.7	0.1	1	1.4	0.5	0.1	0.5	0.1	0.5	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	432	164	60	256	10	249	78	13	39
Future Volume (vph)	19	432	164	60	256	10	249	78	13	39
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	21.0	36.6	9.6	25.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	23.3%	40.7%	10.7%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.3	23.9	23.9	5.7	28.2	28.2	14.6	38.1	5.1	20.6
Actuated g/C Ratio	0.06	0.29	0.29	0.07	0.34	0.34	0.18	0.47	0.06	0.25
v/c Ratio	0.17	0.82	0.28	0.50	0.41	0.02	0.82	0.18	0.12	0.11
Control Delay	43.8	40.9	4.0	54.9	23.6	0.0	55.4	11.8	42.9	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	40.9	4.0	54.9	23.6	0.0	55.4	11.8	42.9	23.5
LOS	D	D	A	D	C	A	E	B	D	C
Approach Delay		31.2			28.6			39.2		27.5
Approach LOS		C			C			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 81.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 32.7	Intersection LOS: C
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	432	164	60	256	10	249	78	68	13	39	11
Future Volume (veh/h)	19	432	164	60	256	10	249	78	68	13	39	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	455	169	63	269	6	262	82	41	14	41	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	536	454	86	583	494	303	487	243	30	416	61
Arrive On Green	0.02	0.28	0.28	0.05	0.31	0.31	0.17	0.41	0.41	0.02	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1195	597	1810	1620	237
Grp Volume(v), veh/h	20	455	169	63	269	6	262	0	123	14	0	47
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1792	1810	0	1857
Q Serve(g_s), s	0.9	17.6	6.6	2.7	8.9	0.2	11.0	0.0	3.4	0.6	0.0	1.5
Cycle Q Clear(g_c), s	0.9	17.6	6.6	2.7	8.9	0.2	11.0	0.0	3.4	0.6	0.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.13
Lane Grp Cap(c), veh/h	41	536	454	86	583	494	303	0	730	30	0	476
V/C Ratio(X)	0.49	0.85	0.37	0.73	0.46	0.01	0.86	0.00	0.17	0.46	0.00	0.10
Avail Cap(c_a), veh/h	121	697	591	135	712	603	381	0	730	116	0	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.7	26.4	22.5	36.6	21.8	18.8	31.6	0.0	14.7	38.0	0.0	22.1
Incr Delay (d2), s/veh	3.4	7.8	0.5	4.3	0.6	0.0	13.2	0.0	0.5	4.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	8.7	2.3	1.3	3.9	0.1	5.6	0.0	1.3	0.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	34.2	23.0	41.0	22.4	18.8	44.8	0.0	15.2	42.0	0.0	22.5
LnGrp LOS	D	C	C	D	C	B	D	A	B	D	A	C
Approach Vol, veh/h		644			338			385			61	
Approach Delay, s/veh		31.5			25.8			35.3			27.0	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	26.8	17.7	25.2	6.4	28.7	5.9	37.0
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	16.4	20.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	4.7	19.6	13.0	3.5	2.9	10.9	2.6	5.4
Green Ext Time (p_c), s	0.0	2.3	0.1	0.1	0.0	1.4	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	3	82	39	3	20	169	368	82	6	203	6
Future Vol, veh/h	4	3	82	39	3	20	169	368	82	6	203	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	86	41	3	21	178	387	86	6	214	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1027	1058	217	1060	1018	430	220	0	0	473	0	0
Stage 1	229	229	-	786	786	-	-	-	-	-	-	-
Stage 2	798	829	-	274	232	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	215	227	828	204	239	629	1361	-	-	1099	-	-
Stage 1	778	718	-	388	406	-	-	-	-	-	-	-
Stage 2	382	388	-	736	716	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	185	196	828	162	207	629	1361	-	-	1099	-	-
Mov Cap-2 Maneuver	261	277	-	250	281	-	-	-	-	-	-	-
Stage 1	676	714	-	337	353	-	-	-	-	-	-	-
Stage 2	318	337	-	653	712	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	19.6	2.2	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1361	-	-	711	312	1099	-	-
HCM Lane V/C Ratio	0.131	-	-	0.132	0.209	0.006	-	-
HCM Control Delay (s)	8	-	-	10.8	19.6	8.3	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.5	0.8	0	-	-

Intersection	
Int Delay, s/veh	30.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	160	39	9	476	922	84
Future Vol, veh/h	160	39	9	476	922	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	174	42	10	517	1002	91

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1585	1048	1093	0	-	0
Stage 1	1048	-	-	-	-	-
Stage 2	537	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 120	279	646	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 118	279	646	-	-	-
Mov Cap-2 Maneuver	~ 118	-	-	-	-	-
Stage 1	336	-	-	-	-	-
Stage 2	590	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	261.2	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	646	-	118	279	-	-
HCM Lane V/C Ratio	0.015	-	1.474	0.152	-	-
HCM Control Delay (s)	10.7	-	$ 319.9	20.2	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0	-	12.3	0.5	-	-

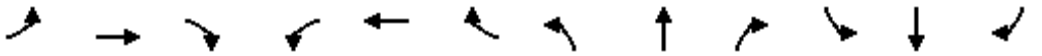
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	25	15	69	4	22	356	9	410
Future Volume (vph)	25	15	69	4	22	356	9	410
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.7		10.6	5.5	41.7	5.2	41.5
Actuated g/C Ratio		0.18		0.18	0.09	0.70	0.09	0.69
v/c Ratio		0.39		0.39	0.14	0.16	0.06	0.17
Control Delay		11.6		24.0	33.1	4.1	25.9	5.7
Queue Delay		1.2		1.4	1.0	0.3	0.0	0.2
Total Delay		12.9		25.4	34.1	4.4	25.9	5.8
LOS		B		C	C	A	C	A
Approach Delay		12.9		25.4		6.0		6.2
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.39	
Intersection Signal Delay: 8.6	Intersection LOS: A
Intersection Capacity Utilization 37.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	15	100	69	4	15	22	356	29	9	410	12
Future Volume (veh/h)	25	15	100	69	4	15	22	356	29	9	410	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	15	103	71	4	15	23	367	30	9	423	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	47	190	292	24	42	48	1989	162	21	2056	58
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.05	1.00	1.00	0.01	0.57	0.57
Sat Flow, veh/h	174	291	1166	1128	147	255	1810	3381	275	1810	3585	102
Grp Volume(v), veh/h	144	0	0	90	0	0	23	195	202	9	213	222
Grp Sat Flow(s),veh/h/ln	1631	0	0	1531	0	0	1810	1805	1851	1810	1805	1882
Q Serve(g_s), s	0.9	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3	3.4	3.4
Cycle Q Clear(g_c), s	4.7	0.0	0.0	2.8	0.0	0.0	0.7	0.0	0.0	0.3	3.4	3.4
Prop In Lane	0.18		0.72	0.79		0.17	1.00		0.15	1.00		0.05
Lane Grp Cap(c), veh/h	337	0	0	357	0	0	48	1062	1089	21	1035	1079
V/C Ratio(X)	0.43	0.00	0.00	0.25	0.00	0.00	0.48	0.18	0.19	0.43	0.21	0.21
Avail Cap(c_a), veh/h	460	0	0	457	0	0	223	1062	1089	223	1035	1079
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	0.0	22.1	0.0	0.0	28.0	0.0	0.0	29.5	6.2	6.2
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.4	0.0	0.0	2.7	0.4	0.4	5.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	1.1	0.0	0.0	0.3	0.1	0.1	0.2	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	0.0	22.5	0.0	0.0	30.7	0.4	0.4	34.5	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		144			90			420			444	
Approach Delay, s/veh		23.8			22.5			2.0			7.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	40.1		14.6	6.2	39.2		14.6				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		6.7	2.7	5.4		4.8				
Green Ext Time (p_c), s	0.0	2.3		0.4	0.0	2.4		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		8.7
HCM 6th LOS		A

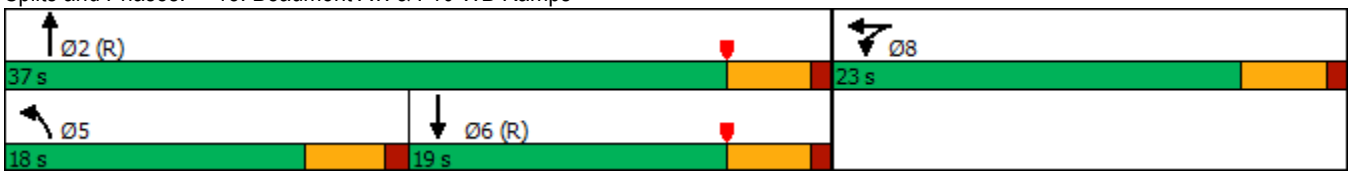
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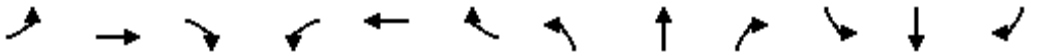
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	471
Future Volume (vph)	685	0	272	309	471
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	18.0	37.0	19.0
Total Split (%)	38.3%	38.3%	30.0%	61.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	17.1	17.1	12.1	33.3	16.6
Actuated g/C Ratio	0.28	0.28	0.20	0.56	0.28
v/c Ratio	0.83	0.71	0.77	0.16	0.60
Control Delay	37.1	21.1	40.2	6.9	20.4
Queue Delay	0.0	0.8	0.0	0.0	19.4
Total Delay	37.1	21.9	40.2	6.9	39.8
LOS	D	C	D	A	D
Approach Delay		29.6		22.4	39.8
Approach LOS		C		C	D

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	471	107
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	471	107
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	486	110
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1098	576	0	322	1937	0	0	825	186
Arrive On Green				0.26	0.00	0.00	0.36	1.00	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3023	659
Grp Volume(v), veh/h				800	0	0	280	319	0	0	299	297
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1781
Q Serve(g_s), s				12.6	0.0	0.0	8.7	0.0	0.0	0.0	8.7	8.8
Cycle Q Clear(g_c), s				12.6	0.0	0.0	8.7	0.0	0.0	0.0	8.7	8.8
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				1098	576	0	322	1937	0	0	509	502
V/C Ratio(X)				0.73	0.00	0.00	0.87	0.16	0.00	0.00	0.59	0.59
Avail Cap(c_a), veh/h				1098	576	0	404	2085	0	0	583	575
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.67	0.67
Upstream Filter(I)				1.00	0.00	0.00	0.73	0.73	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.9	0.0	0.0	18.7	0.0	0.0	0.0	21.1	21.2
Incr Delay (d2), s/veh				2.5	0.0	0.0	10.0	0.1	0.0	0.0	4.8	5.0
Initial Q Delay(d3),s/veh				123.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.6	0.0	0.0	3.6	0.0	0.0	0.0	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				147.3	0.0	0.0	28.7	0.1	0.0	0.0	26.0	26.2
LnGrp LOS				F	A	A	C	A	A	A	C	C
Approach Vol, veh/h					800			599			596	
Approach Delay, s/veh					147.3			13.5			26.1	
Approach LOS					F			B			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.5			15.3	24.2		20.5				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 32			13.4	* 14		18.2				
Max Q Clear Time (g_c+I1), s		2.0			10.7	10.8		14.6				
Green Ext Time (p_c), s		2.2			0.1	1.2		1.2				

Intersection Summary		
HCM 6th Ctrl Delay	70.9	
HCM 6th LOS	E	

Notes

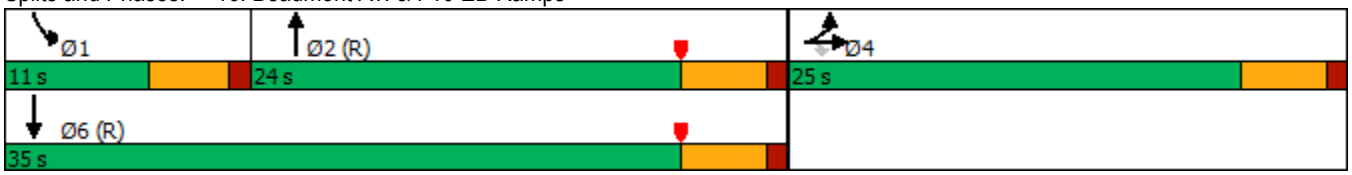
User approved volume balancing among the lanes for turning movement.

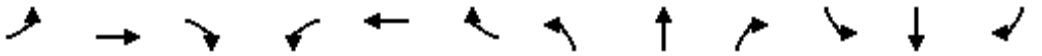
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	10	746	483	154	1002
Future Volume (vph)	10	746	483	154	1002
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.3	18.3	20.6	6.9	32.1
Actuated g/C Ratio	0.30	0.30	0.34	0.12	0.54
v/c Ratio	0.84	0.79	0.63	0.77	0.53
Control Delay	32.5	25.4	12.7	43.2	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	25.4	12.7	43.2	15.7
LOS	C	C	B	D	B
Approach Delay	29.0		12.7		19.3
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	10	746	0	0	0	0	483	362	154	1002	0
Future Volume (veh/h)	97	10	746	0	0	0	0	483	362	154	1002	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	883				0	498	373	159	1033	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	640	1084				0	630	471	193	1817	0
Arrive On Green	0.00	0.00	0.31				0.00	0.35	0.35	0.21	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	883				0	457	414	159	1033	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	15.6				0.0	13.3	13.3	5.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	15.6				0.0	13.3	13.3	5.0	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	640	1084				0	578	523	193	1817	0
V/C Ratio(X)	0.00	0.00	0.81				0.00	0.79	0.79	0.82	0.57	0.00
Avail Cap(c_a), veh/h	0	640	1084				0	623	564	193	1908	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.9				0.0	18.6	18.6	23.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	4.9				0.0	10.6	11.6	16.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	165.5				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	31.8				0.0	6.8	6.4	2.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	190.3				0.0	29.2	30.2	39.2	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	D	A	A
Approach Vol, veh/h		883						871			1192	
Approach Delay, s/veh		190.3						29.7			6.0	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.0	25.5		23.5		36.5
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30
Max Q Clear Time (g_c+I1), s	7.0	15.3		17.6		2.0
Green Ext Time (p_c), s	0.0	2.0		1.1		8.7

Intersection Summary		
HCM 6th Ctrl Delay		68.2
HCM 6th LOS		E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.2:

E+P (PHASE 2) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

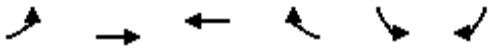
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Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	190	825	92	21
Future Volume (vph)	190	825	92	21
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	32.0	32.0	32.0	13.0
Actuated g/C Ratio	0.94	0.94	0.94	0.38
v/c Ratio	0.12	0.50	0.07	0.03
Control Delay	1.5	3.4	0.8	17.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.5	3.4	0.8	17.8
LOS	A	A	A	B
Approach Delay	1.5	3.1		17.8
Approach LOS	A	A		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 34.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 3.1	Intersection LOS: A
Intersection Capacity Utilization 61.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	190	825	92	21	0
Future Volume (veh/h)	0	190	825	92	21	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	207	897	100	23	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	201	1175	1175	996	103	92
Arrive On Green	0.00	0.62	0.62	0.62	0.06	0.00
Sat Flow, veh/h	574	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	207	897	100	23	0
Grp Sat Flow(s),veh/h/ln	574	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	1.7	12.2	0.9	0.4	0.0
Cycle Q Clear(g_c), s	0.0	1.7	12.2	0.9	0.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	201	1175	1175	996	103	92
V/C Ratio(X)	0.00	0.18	0.76	0.10	0.22	0.00
Avail Cap(c_a), veh/h	716	2879	2879	2440	1224	1089
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	2.9	4.9	2.8	16.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.1	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.8	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	3.0	6.0	2.8	17.2	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		207	997		23	
Approach Delay, s/veh		3.0	5.7		17.2	
Approach LOS		A	A		B	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		27.9		7.8	27.9
Change Period (Y+Rc), s		5.8		5.8	5.8
Max Green Setting (Gmax), s		54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s		3.7		2.4	14.2
Green Ext Time (p_c), s		1.1		0.0	7.9

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	183	21	207	200	28	121
Future Vol, veh/h	183	21	207	200	28	121
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	24	241	233	33	141
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.7	10.8	10
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	121	92	92	21	207	100	100
LT Vol	28	0	0	0	0	207	0	0
Through Vol	0	0	92	92	0	0	100	100
RT Vol	0	121	0	0	21	0	0	0
Lane Flow Rate	33	141	106	106	24	241	116	116
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.062	0.221	0.179	0.179	0.025	0.41	0.182	0.126
Departure Headway (Hd)	6.841	5.643	6.052	6.052	3.63	6.132	5.628	3.914
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	524	636	594	594	984	587	638	915
Service Time	4.575	3.377	3.782	3.782	1.359	3.857	3.352	1.639
HCM Lane V/C Ratio	0.063	0.222	0.178	0.178	0.024	0.411	0.182	0.127
HCM Control Delay	10	10	10.1	10.1	6.5	13.1	9.6	7.2
HCM Lane LOS	A	A	B	B	A	B	A	A
HCM 95th-tile Q	0.2	0.8	0.6	0.6	0.1	2	0.7	0.4

Intersection	
Intersection Delay, s/veh	23.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	318	0	51	0	37	90	43	156	0
Future Vol, veh/h	0	0	0	318	0	51	0	37	90	43	156	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	489	0	78	0	57	138	66	240	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	32.1	11.3	15
HCM LOS	D	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	86%	22%
Vol Thru, %	29%	0%	78%
Vol Right, %	71%	14%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	127	369	199
LT Vol	0	318	43
Through Vol	37	0	156
RT Vol	90	51	0
Lane Flow Rate	195	568	306
Geometry Grp	1	1	1
Degree of Util (X)	0.308	0.855	0.505
Departure Headway (Hd)	5.684	5.425	5.936
Convergence, Y/N	Yes	Yes	Yes
Cap	629	664	606
Service Time	3.756	3.472	3.999
HCM Lane V/C Ratio	0.31	0.855	0.505
HCM Control Delay	11.3	32.1	15
HCM Lane LOS	B	D	B
HCM 95th-tile Q	1.3	9.7	2.8

Intersection	
Intersection Delay, s/veh	173.6
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	120	100	0	465	14	11	459
Future Vol, veh/h	120	100	0	465	14	11	459
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	179	149	0	694	21	16	685
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	38.9	215.4	194.1
HCM LOS	E	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	55%	0%	0%	0%	100%	1%
Vol Thru, %	45%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	220	0	465	14	7	463
LT Vol	120	0	0	0	7	4
Through Vol	100	0	465	0	0	0
RT Vol	0	0	0	14	0	459
Lane Flow Rate	328	0	694	21	11	691
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.765	0	1.412	0.038	0.025	1.357
Departure Headway (Hd)	10.038	8.343	8.343	7.617	9.103	7.872
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	364	0	444	473	396	470
Service Time	7.738	6.043	6.043	5.317	6.803	5.572
HCM Lane V/C Ratio	0.901	0	1.563	0.044	0.028	1.47
HCM Control Delay	38.9	11	221.6	10.6	12	197
HCM Lane LOS	E	N	F	B	B	F
HCM 95th-tile Q	6.2	0	29.9	0.1	0.1	28.6

Intersection	
Intersection Delay, s/veh	75.4
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	56	299	348	307	458	72
Future Vol, veh/h	56	299	348	307	458	72
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	64	344	400	353	526	83
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	32.9	16.4	176.7
HCM LOS	D	C	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	86%
Vol Thru, %	0%	100%	100%	100%	18%	0%
Vol Right, %	0%	0%	0%	0%	82%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	299	139	139	377	530
LT Vol	56	0	0	0	0	458
Through Vol	0	299	139	139	70	0
RT Vol	0	0	0	0	307	72
Lane Flow Rate	64	344	160	160	433	609
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.153	0.771	0.327	0.327	0.611	1.308
Departure Headway (Hd)	9.582	9.053	8.319	8.319	5.948	7.728
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	377	402	435	435	610	469
Service Time	7.282	6.753	6.019	6.019	3.648	5.487
HCM Lane V/C Ratio	0.17	0.856	0.368	0.368	0.71	1.299
HCM Control Delay	14	36.4	15	15	17.5	176.7
HCM Lane LOS	B	E	B	B	C	F
HCM 95th-tile Q	0.5	6.4	1.4	1.4	4.1	26.4

Intersection	
Int Delay, s/veh	9.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	125	0	16	0	345	0	1	0	0	0
Future Vol, veh/h	0	5	125	0	16	0	345	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	192	0	25	0	531	0	2	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	1066	2	1165	1065	-	2	0	0	2	0	0
Stage 1	-	2	-	1063	1063	-	-	-	-	-	-	-
Stage 2	-	1064	-	102	2	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	224	1088	173	224	0	1634	-	-	1634	-	-
Stage 1	0	898	-	272	302	0	-	-	-	-	-	-
Stage 2	0	302	-	909	898	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	151	1088	103	151	-	1634	-	-	1634	-	-
Mov Cap-2 Maneuver	-	151	-	103	151	-	-	-	-	-	-	-
Stage 1	-	898	-	184	204	-	-	-	-	-	-	-
Stage 2	-	204	-	742	898	-	-	-	-	-	-	-

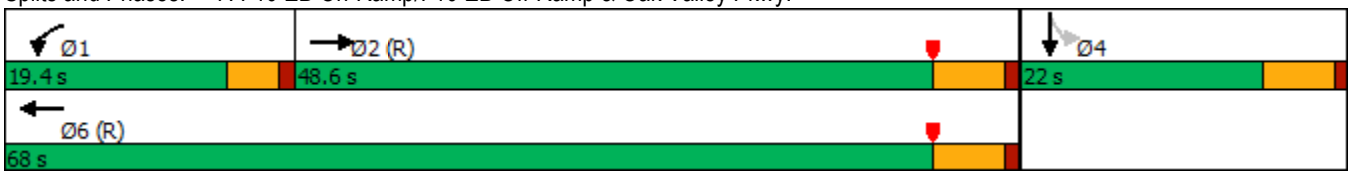
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	33.4	8.2	0
HCM LOS	B	D		

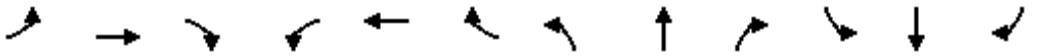
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1634	-	-	878	151	1634	-	-
HCM Lane V/C Ratio	0.325	-	-	0.228	0.163	-	-	-
HCM Control Delay (s)	8.3	0	-	10.3	33.4	0	-	-
HCM Lane LOS	A	A	-	B	D	A	-	-
HCM 95th %tile Q(veh)	1.4	-	-	0.9	0.6	0	-	-

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	343	235	491	3
Future Volume (vph)	343	235	491	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	43.1	14.5	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	0.96	0.91	0.42	1.30
Control Delay	42.8	63.2	3.4	186.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.8	63.2	3.4	186.0
LOS	D	E	A	F
Approach Delay	42.8		22.8	186.0
Approach LOS	D		C	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.30	
Intersection Signal Delay: 65.2	Intersection LOS: E
Intersection Capacity Utilization 92.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	343	414	235	491	0	0	0	0	229	3	165
Future Volume (veh/h)	0	343	414	235	491	0	0	0	0	229	3	165
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	385	378	264	552	0				257	3	166
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	421	413	292	1313	0				188	2	121
Arrive On Green	0.00	0.48	0.48	0.32	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	880	864	1810	1900	0				1042	12	673
Grp Volume(v), veh/h	0	0	763	264	552	0				426	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1744	1810	1900	0				1727	0	0
Q Serve(g_s), s	0.0	0.0	36.5	12.5	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	36.5	12.5	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.50	1.00		0.00				0.60		0.39
Lane Grp Cap(c), veh/h	0	0	835	292	1313	0				311	0	0
V/C Ratio(X)	0.00	0.00	0.91	0.90	0.42	0.00				1.37	0.00	0.00
Avail Cap(c_a), veh/h	0	0	835	298	1313	0				311	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.46	0.46	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.8	29.8	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	16.2	15.4	0.5	0.0				186.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	16.6	5.5	0.2	0.0				22.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	38.0	45.2	0.5	0.0				222.9	0.0	0.0
LnGrp LOS	A	A	D	D	A	A				F	A	A
Approach Vol, veh/h		763			816						426	
Approach Delay, s/veh		38.0			14.9						222.9	
Approach LOS		D			B						F	

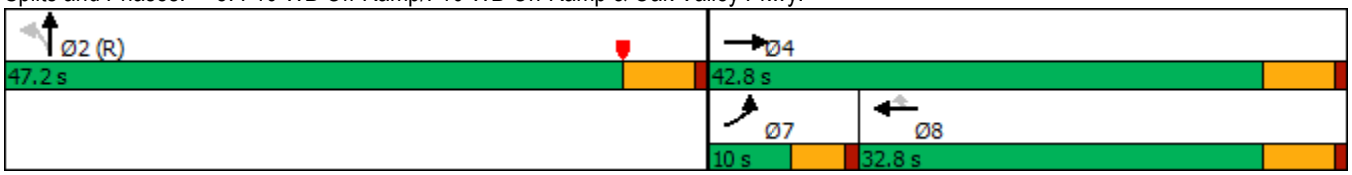
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.1	48.9		22.0		68.0
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2
Max Q Clear Time (g_c+I1), s	14.5	38.5		18.2		2.0
Green Ext Time (p_c), s	0.0	2.0		0.0		3.6

Intersection Summary		
HCM 6th Ctrl Delay		67.9
HCM 6th LOS		E

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	112	459	413	394	4
Future Volume (vph)	112	459	413	394	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	34.2	24.2	24.2	44.2
Actuated g/C Ratio	0.06	0.38	0.27	0.27	0.49
v/c Ratio	1.06	0.65	0.82	0.55	0.76
Control Delay	85.4	15.8	44.9	5.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	15.8	44.9	5.9	24.3
LOS	F	B	D	A	C
Approach Delay		29.4	25.8		24.3
Approach LOS		C	C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 26.3	Intersection LOS: C
Intersection Capacity Utilization 92.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	459	0	0	413	394	313	4	348	0	0	0
Future Volume (veh/h)	112	459	0	0	413	394	313	4	348	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	114	468	0	0	421	286	319	4	233			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	694	0	0	483	409	500	6	365			
Arrive On Green	0.04	0.24	0.00	0.00	0.25	0.25	0.51	0.51	0.51			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	987	12	721			
Grp Volume(v), veh/h	114	468	0	0	421	286	556	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1721	0	0			
Q Serve(g_s), s	5.4	20.1	0.0	0.0	19.1	14.5	21.2	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	20.1	0.0	0.0	19.1	14.5	21.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.42			
Lane Grp Cap(c), veh/h	109	694	0	0	483	409	871	0	0			
V/C Ratio(X)	1.05	0.67	0.00	0.00	0.87	0.70	0.64	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	871	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.20	0.20	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.2	0.0	0.0	32.2	30.4	16.2	0.0	0.0			
Incr Delay (d2), s/veh	52.4	0.4	0.0	0.0	12.4	3.6	3.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.9	9.3	0.0	0.0	9.8	5.7	8.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.6	29.5	0.0	0.0	44.5	34.0	19.8	0.0	0.0			
LnGrp LOS	F	C	A	A	D	C	B	A	A			
Approach Vol, veh/h		582			707			556				
Approach Delay, s/veh		42.5			40.3			19.8				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		51.3		38.7			10.0	28.7				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		23.2		22.1			7.4	21.1				
Green Ext Time (p_c), s		3.3		2.3			0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			34.8									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	505	507	149	845	25	0	0	59	0	0	151
Future Vol, veh/h	0	505	507	149	845	25	0	0	59	0	0	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	555	557	164	929	27	0	0	65	0	0	166

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1112	0	0	-	-	556	-	-	943
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	635	-	-	0	0	480	0	0	321
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	635	-	-	-	-	480	-	-	321
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.8	13.7	27.6
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	-	-	635	-	-	321
HCM Lane V/C Ratio	0.135	-	-	0.258	-	-	0.517
HCM Control Delay (s)	13.7	-	-	12.6	-	-	27.6
HCM Lane LOS	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.5	-	-	1	-	-	2.8

Intersection	
Intersection Delay, s/veh	33.9
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	120	22	3	143	19	68	27	6	21	29	434
Future Vol, veh/h	31	120	22	3	143	19	68	27	6	21	29	434
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	41	160	29	4	191	25	91	36	8	28	39	579
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

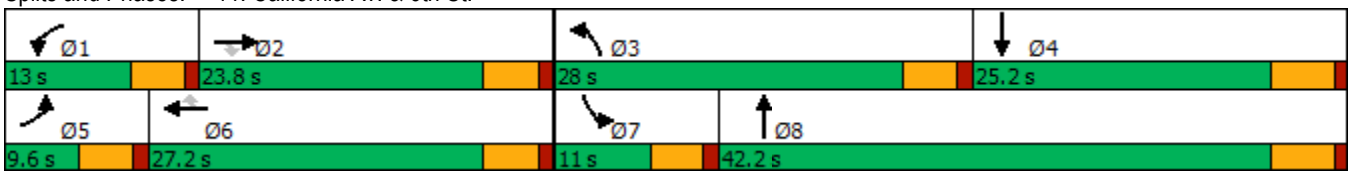
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	13.7	16.9	14.1	51.1
HCM LOS	B	C	B	F

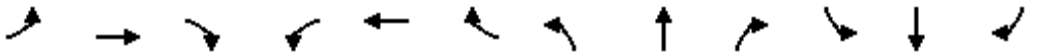
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	72%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	28%	0%	0%	100%	0%	0%	88%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	12%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	6	31	120	22	3	162	21	29	434
LT Vol	68	0	31	0	0	3	0	21	0	0
Through Vol	27	0	0	120	0	0	143	0	29	0
RT Vol	0	6	0	0	22	0	19	0	0	434
Lane Flow Rate	127	8	41	160	29	4	216	28	39	579
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.291	0.016	0.096	0.349	0.058	0.009	0.463	0.057	0.073	0.977
Departure Headway (Hd)	8.274	7.196	8.352	7.842	7.128	8.313	7.72	7.295	6.789	6.081
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	496	428	458	501	430	467	491	527	596
Service Time	6.046	4.967	6.119	5.609	4.894	6.078	5.484	5.043	4.537	3.828
HCM Lane V/C Ratio	0.293	0.016	0.096	0.349	0.058	0.009	0.463	0.057	0.074	0.971
HCM Control Delay	14.4	10.1	12	14.8	10.3	11.2	17	10.5	10.1	55.8
HCM Lane LOS	B	B	B	B	B	B	C	B	B	F
HCM 95th-tile Q	1.2	0	0.3	1.5	0.2	0	2.4	0.2	0.2	13.9

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	272	113	55	272	19	382	86	43	126
Future Volume (vph)	4	272	113	55	272	19	382	86	43	126
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.1	16.7	16.7	7.0	24.0	24.0	21.4	40.5	6.0	20.5
Actuated g/C Ratio	0.06	0.20	0.20	0.08	0.29	0.29	0.26	0.49	0.07	0.25
v/c Ratio	0.04	0.77	0.26	0.39	0.54	0.03	0.89	0.16	0.36	0.30
Control Delay	41.0	47.2	2.2	46.4	29.3	0.1	53.6	12.3	47.7	30.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	47.2	2.2	46.4	29.3	0.1	53.6	12.3	47.7	30.2
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		34.1			30.4			42.8		34.5
Approach LOS		C			C			D		C

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 82.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 36.4		Intersection LOS: D	
Intersection Capacity Utilization 64.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	113	55	272	19	382	86	49	43	126	4
Future Volume (veh/h)	4	272	113	55	272	19	382	86	49	43	126	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	296	122	60	296	12	415	93	31	47	137	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	358	304	85	437	370	456	650	217	74	496	7
Arrive On Green	0.01	0.19	0.19	0.05	0.23	0.23	0.25	0.48	0.48	0.04	0.27	0.27
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1364	455	1810	1868	27
Grp Volume(v), veh/h	4	296	122	60	296	12	415	0	124	47	0	139
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1818	1810	0	1895
Q Serve(g_s), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	3.0	2.0	0.0	4.5
Cycle Q Clear(g_c), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	3.0	2.0	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.01
Lane Grp Cap(c), veh/h	10	358	304	85	437	370	456	0	866	74	0	503
V/C Ratio(X)	0.42	0.83	0.40	0.71	0.68	0.03	0.91	0.00	0.14	0.63	0.00	0.28
Avail Cap(c_a), veh/h	116	465	394	196	548	464	545	0	866	149	0	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.5	30.3	27.7	36.5	27.3	23.2	28.2	0.0	11.4	36.7	0.0	22.6
Incr Delay (d2), s/veh	10.3	9.2	0.9	4.0	2.4	0.0	16.0	0.0	0.3	3.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.0	1.9	1.2	5.1	0.2	8.8	0.0	1.1	0.9	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	39.5	28.5	40.5	29.6	23.2	44.2	0.0	11.8	40.0	0.0	24.0
LnGrp LOS	D	D	C	D	C	C	D	A	B	D	A	C
Approach Vol, veh/h		422			368			539			186	
Approach Delay, s/veh		36.4			31.2			36.8			28.0	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	19.4	24.2	25.8	5.0	22.7	7.8	42.2
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0
Max Q Clear Time (g_c+I1), s	4.5	13.6	19.3	6.5	2.2	13.0	4.0	5.0
Green Ext Time (p_c), s	0.0	1.0	0.3	0.5	0.0	1.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	11.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	3	71	49	9	29	283	513	95	12	240	2
Future Vol, veh/h	2	3	71	49	9	29	283	513	95	12	240	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	90	62	11	37	358	649	120	15	304	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1785	1821	306	1808	1762	709	307	0	0	769	0	0
Stage 1	336	336	-	1425	1425	-	-	-	-	-	-	-
Stage 2	1449	1485	-	383	337	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	64	78	739	~ 62	85	438	1265	-	-	854	-	-
Stage 1	682	645	-	170	203	-	-	-	-	-	-	-
Stage 2	165	190	-	644	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	42	55	739	~ 41	60	438	1265	-	-	854	-	-
Mov Cap-2 Maneuver	74	104	-	86	111	-	-	-	-	-	-	-
Stage 1	489	633	-	122	146	-	-	-	-	-	-	-
Stage 2	100	136	-	552	633	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.9	126.8	2.8	0.4
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1265	-	-	500	121	854	-	-
HCM Lane V/C Ratio	0.283	-	-	0.192	0.91	0.018	-	-
HCM Control Delay (s)	9	-	-	13.9	126.8	9.3	-	-
HCM Lane LOS	A	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	1.2	-	-	0.7	5.8	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	28.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	143	23	47	772	172	153
Future Vol, veh/h	143	23	47	772	172	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	186	30	61	1003	223	199

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1448	323	422	0	-	0
Stage 1	323	-	-	-	-	-
Stage 2	1125	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 146	723	1148	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 138	723	1148	-	-	-
Mov Cap-2 Maneuver	~ 138	-	-	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	313	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	222.5	0.5	0
HCM LOS	F		

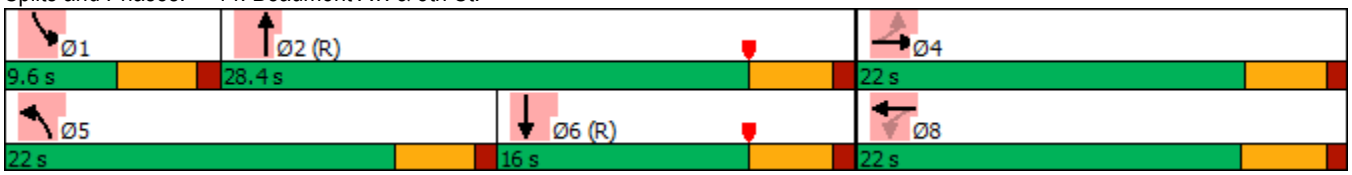
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1148	-	138	723	-	-
HCM Lane V/C Ratio	0.053	-	1.346	0.041	-	-
HCM Control Delay (s)	8.3	-	256.7	10.2	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	11.8	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	13	15	18	3	56	279	3	368
Future Volume (vph)	13	15	18	3	56	279	3	368
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.3		10.1	6.7	42.2	5.0	36.8
Actuated g/C Ratio		0.17		0.17	0.11	0.70	0.08	0.61
v/c Ratio		0.37		0.14	0.30	0.13	0.02	0.20
Control Delay		10.9		17.8	29.2	4.8	25.7	8.1
Queue Delay		0.2		0.1	0.1	0.4	0.0	0.1
Total Delay		11.1		17.9	29.4	5.2	25.7	8.2
LOS		B		B	C	A	C	A
Approach Delay		11.1		17.9		9.1		8.3
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 9.4	Intersection LOS: A
Intersection Capacity Utilization 35.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	15	100	18	3	10	56	279	13	3	368	32
Future Volume (veh/h)	13	15	100	18	3	10	56	279	13	3	368	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	16	109	20	3	11	61	303	14	3	400	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	79	43	202	221	47	82	96	2115	97	7	1857	162
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.11	1.00	1.00	0.00	0.55	0.55
Sat Flow, veh/h	82	272	1287	799	297	524	1810	3514	162	1810	3360	293
Grp Volume(v), veh/h	139	0	0	34	0	0	61	155	162	3	214	221
Grp Sat Flow(s),veh/h/ln	1641	0	0	1620	0	0	1810	1805	1871	1810	1805	1847
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.1	3.6	3.6
Cycle Q Clear(g_c), s	4.6	0.0	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.1	3.6	3.6
Prop In Lane	0.10		0.78	0.59		0.32	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	324	0	0	350	0	0	96	1086	1126	7	998	1021
V/C Ratio(X)	0.43	0.00	0.00	0.10	0.00	0.00	0.63	0.14	0.14	0.41	0.21	0.22
Avail Cap(c_a), veh/h	539	0	0	534	0	0	525	1086	1126	151	998	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	21.7	0.0	0.0	26.2	0.0	0.0	29.8	6.8	6.8
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.1	0.0	0.0	2.6	0.3	0.3	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	0.4	0.0	0.0	0.8	0.1	0.1	0.1	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	0.0	0.0	21.8	0.0	0.0	28.8	0.3	0.3	42.7	7.3	7.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		139			34			378			438	
Approach Delay, s/veh		24.1			21.8			4.9			7.5	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	40.9		14.2	7.8	38.0		14.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		6.6	3.9	5.6		3.0				
Green Ext Time (p_c), s	0.0	1.8		0.5	0.0	1.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		9.3
HCM 6th LOS		A

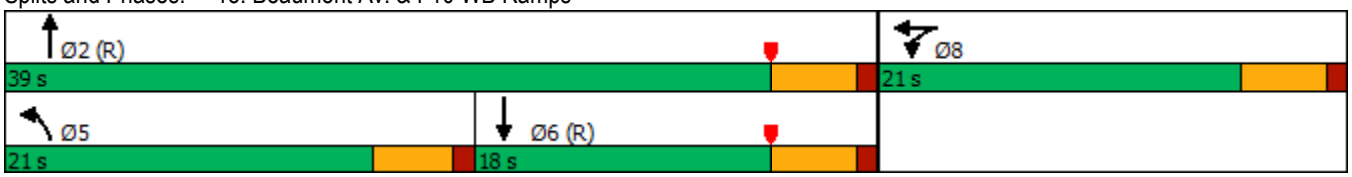
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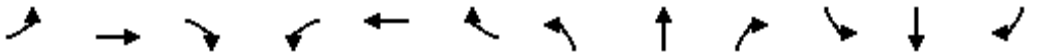
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	393
Future Volume (vph)	464	9	345	216	393
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	21.0	21.0	21.0	39.0	18.0
Total Split (%)	35.0%	35.0%	35.0%	65.0%	30.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.9	14.9	15.0	35.5	15.9
Actuated g/C Ratio	0.25	0.25	0.25	0.59	0.26
v/c Ratio	0.79	0.70	0.83	0.11	0.55
Control Delay	36.3	24.7	44.1	5.6	16.7
Queue Delay	0.0	1.1	0.0	0.0	3.3
Total Delay	36.3	25.8	44.1	5.6	20.1
LOS	D	C	D	A	C
Approach Delay		31.2		29.3	20.1
Approach LOS		C		C	C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	393	93
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	393	93
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	427	101
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				463	293	164	495	2108	0	0	727	171
Arrive On Green				0.26	0.26	0.26	0.39	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	2997	681
Grp Volume(v), veh/h				328	0	399	375	235	0	0	264	264
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1777
Q Serve(g_s), s				9.9	0.0	12.9	11.7	0.1	0.0	0.0	8.4	8.5
Cycle Q Clear(g_c), s				9.9	0.0	12.9	11.7	0.1	0.0	0.0	8.4	8.5
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				463	0	457	495	2108	0	0	452	445
V/C Ratio(X)				0.71	0.00	0.87	0.76	0.11	0.00	0.00	0.58	0.59
Avail Cap(c_a), veh/h				489	0	482	495	2108	0	0	499	491
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.3	0.0	21.4	16.3	0.4	0.0	0.0	24.5	24.6
Incr Delay (d2), s/veh				4.4	0.0	15.5	4.7	0.1	0.0	0.0	5.4	5.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	437.1	18.2	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.1	0.0	6.5	65.0	5.4	0.0	0.0	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.7	0.0	36.9	458.1	18.7	0.0	0.0	29.9	30.2
LnGrp LOS				C	A	D	F	B	A	A	C	C
Approach Vol, veh/h					727			610			528	
Approach Delay, s/veh					31.4			288.8			30.0	
Approach LOS					C			F			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.8			18.5	21.4		20.2				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 34			16.4	* 13		16.2				
Max Q Clear Time (g_c+I1), s		2.1			13.7	10.5		14.9				
Green Ext Time (p_c), s		1.6			0.2	0.9		0.5				

Intersection Summary		
HCM 6th Ctrl Delay	115.2	
HCM 6th LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	547	544	111	779
Future Volume (vph)	11	547	544	111	779
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.6	12.6	27.7	7.4	37.8
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	22.0	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	22.0	10.3
LOS	B	B	A	C	B
Approach Delay	18.7		9.9		11.8
Approach LOS	B		A		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Future Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	661				0	567	484	116	811	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	452	766				0	1424	187	148	2174	0
Arrive On Green	0.00	0.00	0.24				0.00	0.44	0.44	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1942	1575	1810	3705	0
Grp Volume(v), veh/h	0	0	661				0	554	497	116	811	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	452	766				0	801	810	148	2174	0
V/C Ratio(X)	0.00	0.00	0.86				0.00	0.69	0.61	0.79	0.37	0.00
Avail Cap(c_a), veh/h	0	481	816				0	801	718	253	2174	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.72	0.72	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.9				0.0	16.7	16.7	24.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.1				0.0	4.9	3.5	2.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	254.3	215.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.8				0.0	66.9	58.4	1.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.0				0.0	275.8	235.2	27.1	0.4	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		661						1051			927	
Approach Delay, s/veh		31.0						256.6			3.7	
Approach LOS		C						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.5	31.4		19.1		40.9
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35
Max Q Clear Time (g_c+I1), s	5.7	16.8		13.8		2.0
Green Ext Time (p_c), s	0.0	3.1		0.5		6.6

Intersection Summary		
HCM 6th Ctrl Delay		111.3
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

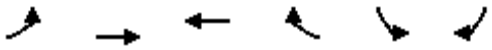
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	884	269	30	98
Future Volume (vph)	884	269	30	98
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	38.1	38.1	38.1	13.4
Actuated g/C Ratio	0.70	0.70	0.70	0.25
v/c Ratio	0.72	0.22	0.03	0.24
Control Delay	11.6	5.1	1.7	26.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.6	5.1	1.7	26.2
LOS	B	A	A	C
Approach Delay	11.6	4.8		26.2
Approach LOS	B	A		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 54.1	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	884	269	30	98	0
Future Volume (veh/h)	0	884	269	30	98	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	961	292	33	107	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	146	1156	1156	979	282	251
Arrive On Green	0.00	0.61	0.61	0.61	0.16	0.00
Sat Flow, veh/h	1072	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	961	292	33	107	0
Grp Sat Flow(s),veh/h/ln	1072	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	19.7	3.5	0.4	2.6	0.0
Cycle Q Clear(g_c), s	0.0	19.7	3.5	0.4	2.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	146	1156	1156	979	282	251
V/C Ratio(X)	0.00	0.83	0.25	0.03	0.38	0.00
Avail Cap(c_a), veh/h	674	2092	2092	1773	890	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.6	4.5	3.9	18.6	0.0
Incr Delay (d2), s/veh	0.0	1.6	0.1	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	0.6	0.1	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.3	4.6	3.9	19.5	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		961	325		107	
Approach Delay, s/veh		9.3	4.5		19.5	
Approach LOS		A	A		B	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		35.7		13.5	35.7
Change Period (Y+Rc), s		5.8		5.8	5.8
Max Green Setting (Gmax), s		54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s		21.7		4.6	5.5
Green Ext Time (p_c), s		8.2		0.2	1.7

Intersection Summary	
HCM 6th Ctrl Delay	8.9
HCM 6th LOS	A

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	115	12	90	185	75	234
Future Vol, veh/h	115	12	90	185	75	234
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	13	99	203	82	257
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.3	9.2	10.3
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	234	58	58	12	90	93	93
LT Vol	75	0	0	0	0	90	0	0
Through Vol	0	0	58	58	0	0	93	93
RT Vol	0	234	0	0	12	0	0	0
Lane Flow Rate	82	257	63	63	13	99	102	102
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.14	0.351	0.108	0.108	0.014	0.175	0.165	0.117
Departure Headway (Hd)	6.225	5.028	6.145	6.145	3.712	6.357	5.851	4.13
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	579	720	586	586	967	568	617	873
Service Time	3.925	2.728	3.857	3.857	1.423	4.057	3.551	1.83
HCM Lane V/C Ratio	0.142	0.357	0.108	0.108	0.013	0.174	0.165	0.117
HCM Control Delay	9.9	10.4	9.6	9.6	6.5	10.4	9.7	7.4
HCM Lane LOS	A	B	A	A	A	B	A	A
HCM 95th-tile Q	0.5	1.6	0.4	0.4	0	0.6	0.6	0.4

Intersection	
Intersection Delay, s/veh	23.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	98	0	91	0	173	389	9	55	0
Future Vol, veh/h	0	0	0	98	0	91	0	173	389	9	55	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	127	0	118	0	225	505	12	71	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	12	28.4	9.3
HCM LOS	B	D	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	52%	14%
Vol Thru, %	31%	0%	86%
Vol Right, %	69%	48%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	562	189	64
LT Vol	0	98	9
Through Vol	173	0	55
RT Vol	389	91	0
Lane Flow Rate	730	245	83
Geometry Grp	1	1	1
Degree of Util (X)	0.867	0.38	0.127
Departure Headway (Hd)	4.278	5.575	5.519
Convergence, Y/N	Yes	Yes	Yes
Cap	839	648	651
Service Time	2.357	3.578	3.54
HCM Lane V/C Ratio	0.87	0.378	0.127
HCM Control Delay	28.4	12	9.3
HCM Lane LOS	D	B	A
HCM 95th-tile Q	10.9	1.8	0.4

Intersection	
Intersection Delay, s/veh	550.4
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	559	435	0	152	2	3	150
Future Vol, veh/h	559	435	0	152	2	3	150
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	834	649	0	227	3	4	224
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	715.3	14.5	18.4
HCM LOS	F	B	C

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	56%	0%	0%	0%	100%	1%
Vol Thru, %	44%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	994	0	152	2	2	151
LT Vol	559	0	0	0	2	1
Through Vol	435	0	152	0	0	0
RT Vol	0	0	0	2	0	150
Lane Flow Rate	1484	0	227	3	3	225
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	2.547	0	0.379	0.004	0.006	0.402
Departure Headway (Hd)	6.181	7.448	7.448	6.721	10.76	9.518
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	593	0	488	536	335	381
Service Time	3.96	5.148	5.148	4.421	8.46	7.218
HCM Lane V/C Ratio	2.503	0	0.465	0.006	0.009	0.591
HCM Control Delay	715.3	10.1	14.6	9.4	13.5	18.5
HCM Lane LOS	F	N	B	A	B	C
HCM 95th-tile Q	115.9	0	1.7	0	0	1.9

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	362	339	294	177	21
Future Vol, veh/h	42	362	339	294	177	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	373	349	303	182	22
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	20.3	9.3	14.8
HCM LOS	C	A	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	89%
Vol Thru, %	0%	100%	100%	100%	19%	0%
Vol Right, %	0%	0%	0%	0%	81%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	362	136	136	362	198
LT Vol	42	0	0	0	0	177
Through Vol	0	362	136	136	68	0
RT Vol	0	0	0	0	294	21
Lane Flow Rate	43	373	140	140	373	204
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.084	0.67	0.229	0.229	0.371	0.407
Departure Headway (Hd)	6.971	6.463	5.887	5.887	3.583	7.174
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	513	560	608	608	996	500
Service Time	4.725	4.216	3.637	3.637	1.332	4.931
HCM Lane V/C Ratio	0.084	0.666	0.23	0.23	0.374	0.408
HCM Control Delay	10.4	21.4	10.4	10.4	8.5	14.8
HCM Lane LOS	B	C	B	B	A	B
HCM 95th-tile Q	0.3	5	0.9	0.9	1.7	2

Intersection	
Int Delay, s/veh	10.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	397	3	14	0	176	0	2	0	0	0
Future Vol, veh/h	0	2	397	3	14	0	176	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	522	4	18	0	232	0	3	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	468	1	730	467	-	1	0	0	3	0	0
Stage 1	-	1	-	466	466	-	-	-	-	-	-	-
Stage 2	-	467	-	264	1	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	496	1090	340	496	0	1635	-	-	1632	-	-
Stage 1	0	899	-	581	566	0	-	-	-	-	-	-
Stage 2	0	565	-	746	899	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	426	1090	157	426	-	1635	-	-	1632	-	-
Mov Cap-2 Maneuver	-	426	-	157	426	-	-	-	-	-	-	-
Stage 1	-	899	-	498	486	-	-	-	-	-	-	-
Stage 2	-	485	-	387	899	-	-	-	-	-	-	-

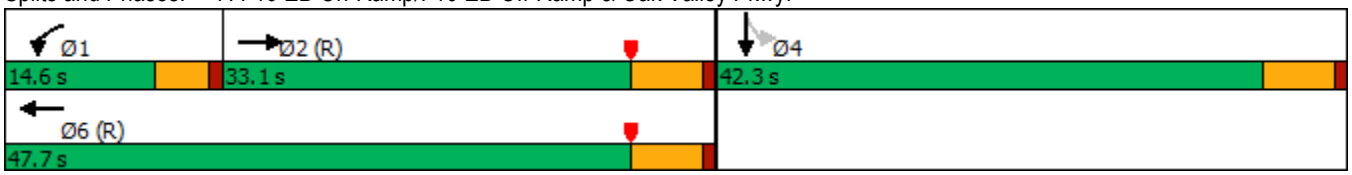
Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	16.8	7.5	0
HCM LOS	B	C		

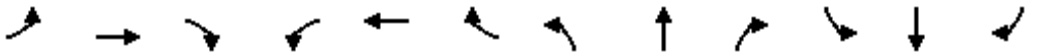
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	1082	327	1632	-	-
HCM Lane V/C Ratio	0.142	-	-	0.485	0.068	-	-	-
HCM Control Delay (s)	7.6	0	-	11.4	16.8	0	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	2.7	0.2	0	-	-

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	332	129	481	1
Future Volume (vph)	332	129	481	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	27.5	9.8	41.9	36.5
Actuated g/C Ratio	0.31	0.11	0.47	0.41
v/c Ratio	1.23	0.87	0.72	1.06
Control Delay	148.6	73.7	20.6	78.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	148.6	73.7	20.6	78.3
LOS	F	E	C	E
Approach Delay	148.6		31.9	78.3
Approach LOS	F		C	E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 83.8	Intersection LOS: F
Intersection Capacity Utilization 84.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	332	207	129	481	0	0	0	0	436	1	152
Future Volume (veh/h)	0	332	207	129	481	0	0	0	0	436	1	152
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	437	200	170	633	0				574	1	134
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	374	171	201	885	0				581	1	136
Arrive On Green	0.00	0.30	0.30	0.04	0.15	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	1234	565	1810	1900	0				1432	2	334
Grp Volume(v), veh/h	0	0	637	170	633	0				709	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1798	1810	1900	0				1768	0	0
Q Serve(g_s), s	0.0	0.0	27.3	8.4	28.5	0.0				35.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	27.3	8.4	28.5	0.0				35.8	0.0	0.0
Prop In Lane	0.00		0.31	1.00		0.00				0.81		0.19
Lane Grp Cap(c), veh/h	0	0	546	201	885	0				717	0	0
V/C Ratio(X)	0.00	0.00	1.17	0.85	0.72	0.00				0.99	0.00	0.00
Avail Cap(c_a), veh/h	0	0	546	201	885	0				717	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.61	0.61	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	31.4	42.6	32.4	0.0				26.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	93.9	17.2	3.1	0.0				30.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	25.1	4.8	14.9	0.0				19.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	125.3	59.7	35.5	0.0				57.2	0.0	0.0
LnGrp LOS	A	A	F	E	D	A				E	A	A
Approach Vol, veh/h		637			803						709	
Approach Delay, s/veh		125.3			40.6						57.2	
Approach LOS		F			D						E	

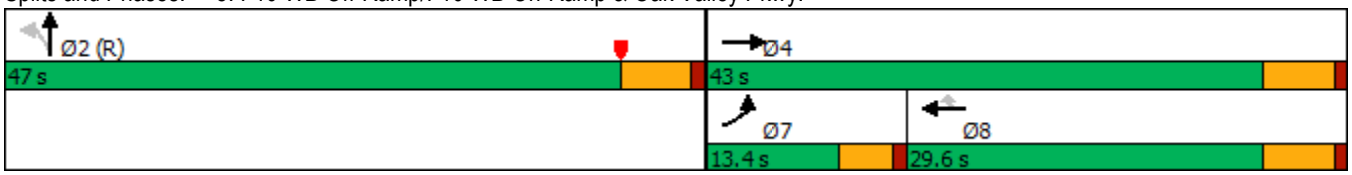
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9
Max Q Clear Time (g_c+I1), s	10.4	29.3		37.8		30.5
Green Ext Time (p_c), s	0.0	0.0		0.0		2.9

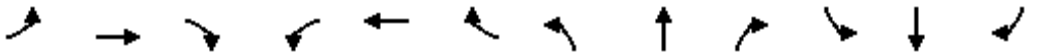
Intersection Summary	
HCM 6th Ctrl Delay	71.2
HCM 6th LOS	E

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	204	564	286	238	4
Future Volume (vph)	204	564	286	238	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	13.4	43.0	29.6	29.6	47.0
Total Split (%)	14.9%	47.8%	32.9%	32.9%	52.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	8.8	32.6	19.2	19.2	45.8
Actuated g/C Ratio	0.10	0.36	0.21	0.21	0.51
v/c Ratio	1.19	0.84	0.73	0.46	0.66
Control Delay	131.2	22.9	43.2	6.7	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	131.2	22.9	43.2	6.7	20.0
LOS	F	C	D	A	B
Approach Delay		51.7	26.6		20.0
Approach LOS		D	C		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 34.8	Intersection LOS: C
Intersection Capacity Utilization 84.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	564	0	0	286	238	324	4	254	0	0	0
Future Volume (veh/h)	204	564	0	0	286	238	324	4	254	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	210	581	0	0	295	175	334	4	210			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	177	660	0	0	377	319	552	7	347			
Arrive On Green	0.03	0.11	0.00	0.00	0.20	0.20	0.52	0.52	0.52			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1053	13	662			
Grp Volume(v), veh/h	210	581	0	0	295	175	548	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1728	0	0			
Q Serve(g_s), s	8.8	27.1	0.0	0.0	13.3	8.8	19.9	0.0	0.0			
Cycle Q Clear(g_c), s	8.8	27.1	0.0	0.0	13.3	8.8	19.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.61		0.38			
Lane Grp Cap(c), veh/h	177	660	0	0	377	319	905	0	0			
V/C Ratio(X)	1.19	0.88	0.00	0.00	0.78	0.55	0.61	0.00	0.00			
Avail Cap(c_a), veh/h	177	785	0	0	502	426	905	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.5	38.0	0.0	0.0	34.2	32.4	14.9	0.0	0.0			
Incr Delay (d2), s/veh	89.6	1.1	0.0	0.0	5.7	1.5	3.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.4	13.7	0.0	0.0	6.4	3.4	7.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	133.1	39.1	0.0	0.0	40.0	33.9	17.9	0.0	0.0			
LnGrp LOS	F	D	A	A	D	C	B	A	A			
Approach Vol, veh/h		791			470			548				
Approach Delay, s/veh		64.0			37.7			17.9				
Approach LOS		E			D			B				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		52.9		37.1			13.4	23.7				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.2		37.2			8.8	23.8				
Max Q Clear Time (g_c+I1), s		21.9		29.1			10.8	15.3				
Green Ext Time (p_c), s		3.3		2.1			0.0	1.4				

Intersection Summary												
HCM 6th Ctrl Delay			43.2									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	770	239	104	624	53	0	0	112	0	0	63
Future Vol, veh/h	0	770	239	104	624	53	0	0	112	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	828	257	112	671	57	0	0	120	0	0	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1085	0	0	-	-	543	-	-	700
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	651	-	-	0	0	489	0	0	443
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	651	-	-	-	-	489	-	-	443
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	14.8	14.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	489	-	-	651	-	-	443
HCM Lane V/C Ratio	0.246	-	-	0.172	-	-	0.153
HCM Control Delay (s)	14.8	-	-	11.7	-	-	14.6
HCM Lane LOS	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1	-	-	0.6	-	-	0.5

Intersection	
Intersection Delay, s/veh	74.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	481	74	9	59	29	38	36	11	13	57	135
Future Vol, veh/h	100	481	74	9	59	29	38	36	11	13	57	135
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	143	687	106	13	84	41	54	51	16	19	81	193
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

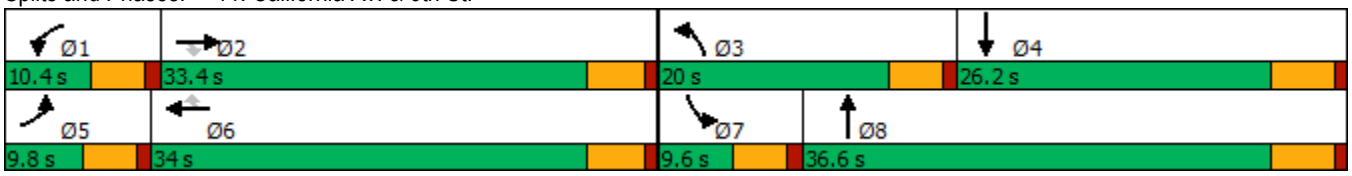
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	110.2	13.5	13.9	13.8
HCM LOS	F	B	B	B

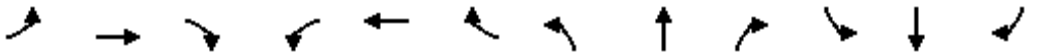
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	67%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	33%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	11	100	481	74	9	88	13	57	135
LT Vol	38	0	100	0	0	9	0	13	0	0
Through Vol	36	0	0	481	0	0	59	0	57	0
RT Vol	0	11	0	0	74	0	29	0	0	135
Lane Flow Rate	106	16	143	687	106	13	126	19	81	193
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.244	0.032	0.279	1.244	0.171	0.03	0.267	0.042	0.174	0.374
Departure Headway (Hd)	8.862	7.884	7.023	6.518	5.812	8.799	8.056	8.672	8.163	7.451
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	457	511	557	615	409	449	415	442	486
Service Time	6.562	5.584	4.777	4.272	3.565	6.499	5.756	6.372	5.863	5.151
HCM Lane V/C Ratio	0.26	0.035	0.28	1.233	0.172	0.032	0.281	0.046	0.183	0.397
HCM Control Delay	14.4	10.8	12.5	146	9.8	11.8	13.7	11.8	12.6	14.5
HCM Lane LOS	B	B	B	F	A	B	B	B	B	B
HCM 95th-tile Q	0.9	0.1	1.1	26.4	0.6	0.1	1.1	0.1	0.6	1.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	432	164	60	256	10	249	105	13	47
Future Volume (vph)	19	432	164	60	256	10	249	105	13	47
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	20.0	36.6	9.6	26.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	22.2%	40.7%	10.7%	29.1%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.2	24.1	24.1	5.7	28.3	28.3	14.4	38.8	5.1	21.5
Actuated g/C Ratio	0.06	0.29	0.29	0.07	0.34	0.34	0.17	0.47	0.06	0.26
v/c Ratio	0.18	0.82	0.29	0.51	0.41	0.02	0.83	0.21	0.13	0.13
Control Delay	44.0	41.5	4.0	55.5	23.8	0.0	58.8	13.6	43.0	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	41.5	4.0	55.5	23.8	0.0	58.8	13.6	43.0	23.5
LOS	D	D	A	E	C	A	E	B	D	C
Approach Delay		31.6			28.9			40.2		27.2
Approach LOS		C			C			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 82.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 33.3	Intersection LOS: C
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	432	164	60	256	10	249	105	68	13	47	11
Future Volume (veh/h)	19	432	164	60	256	10	249	105	68	13	47	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	455	169	63	269	6	262	111	41	14	49	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	533	452	85	580	491	302	548	202	30	438	54
Arrive On Green	0.02	0.28	0.28	0.05	0.31	0.31	0.17	0.41	0.41	0.02	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1323	489	1810	1660	203
Grp Volume(v), veh/h	20	455	169	63	269	6	262	0	152	14	0	55
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1812	1810	0	1863
Q Serve(g_s), s	0.9	18.0	6.7	2.7	9.1	0.2	11.2	0.0	4.3	0.6	0.0	1.8
Cycle Q Clear(g_c), s	0.9	18.0	6.7	2.7	9.1	0.2	11.2	0.0	4.3	0.6	0.0	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		0.11
Lane Grp Cap(c), veh/h	41	533	452	85	580	491	302	0	750	30	0	492
V/C Ratio(X)	0.49	0.85	0.37	0.74	0.46	0.01	0.87	0.00	0.20	0.46	0.00	0.11
Avail Cap(c_a), veh/h	118	683	579	132	698	591	350	0	750	114	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.4	27.1	23.0	37.4	22.4	19.3	32.3	0.0	14.9	38.7	0.0	22.2
Incr Delay (d2), s/veh	3.4	8.3	0.5	4.6	0.6	0.0	16.4	0.0	0.6	4.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	9.0	2.4	1.3	4.0	0.1	5.9	0.0	1.7	0.3	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	35.4	23.5	42.0	22.9	19.3	48.7	0.0	15.5	42.8	0.0	22.7
LnGrp LOS	D	D	C	D	C	B	D	A	B	D	A	C
Approach Vol, veh/h		644			338			414			69	
Approach Delay, s/veh		32.5			26.4			36.5			26.7	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	27.1	17.9	26.2	6.4	29.1	5.9	38.1
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	15.4	21.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	4.7	20.0	13.2	3.8	2.9	11.1	2.6	6.3
Green Ext Time (p_c), s	0.0	2.3	0.1	0.1	0.0	1.4	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	4	3	82	47	3	20	169	395	368	6	211	6
Future Vol, veh/h	4	3	82	47	3	20	169	395	368	6	211	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	86	49	3	21	178	416	387	6	222	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1215	1396	225	1248	1206	610	228	0	0	803	0	0
Stage 1	237	237	-	966	966	-	-	-	-	-	-	-
Stage 2	978	1159	-	282	240	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	160	142	819	152	185	498	1352	-	-	830	-	-
Stage 1	771	713	-	309	336	-	-	-	-	-	-	-
Stage 2	304	272	-	729	711	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	136	122	819	120	159	498	1352	-	-	830	-	-
Mov Cap-2 Maneuver	206	195	-	204	234	-	-	-	-	-	-	-
Stage 1	669	708	-	268	292	-	-	-	-	-	-	-
Stage 2	250	236	-	645	706	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	25.7	1.5	0.3
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1352	-	-	660	247	830	-	-
HCM Lane V/C Ratio	0.132	-	-	0.142	0.298	0.008	-	-
HCM Control Delay (s)	8.1	-	-	11.4	25.7	9.4	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.5	1.2	0	-	-

Intersection	
Int Delay, s/veh	386.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	473	66	17	476	922	99
Future Vol, veh/h	473	66	17	476	922	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	514	72	18	517	1002	108

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1609	1056	1110	0	-	0
Stage 1	1056	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 116	276	637	-	-	-
Stage 1	~ 338	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 113	276	637	-	-	-
Mov Cap-2 Maneuver	~ 113	-	-	-	-	-
Stage 1	~ 329	-	-	-	-	-
Stage 2	580	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, $	1471.9	0.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	637	-	113	276	-	-
HCM Lane V/C Ratio	0.029	-	4.55	0.26	-	-
HCM Control Delay (s)	10.8	-	$ 1674.1	22.6	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	53.7	1	-	-

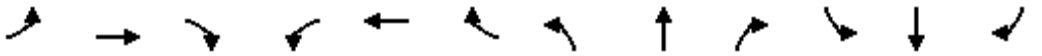
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	15	69	4	22	356	9	410
Future Volume (vph)	52	15	69	4	22	356	9	410
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		12.5		12.3	5.5	36.1	5.2	35.9
Actuated g/C Ratio		0.21		0.20	0.09	0.60	0.09	0.60
v/c Ratio		0.70		0.74	0.14	0.18	0.06	0.21
Control Delay		11.4		55.8	35.9	5.3	25.9	7.0
Queue Delay		63.1		107.1	1.0	0.6	0.0	0.3
Total Delay		74.5		163.0	36.9	5.9	25.9	7.3
LOS		E		F	D	A	C	A
Approach Delay		74.5		163.0		7.6		7.7
Approach LOS		E		F		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 38.5	Intersection LOS: D
Intersection Capacity Utilization 51.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	15	359	69	4	15	22	356	29	9	410	20
Future Volume (veh/h)	52	15	359	69	4	15	22	356	29	9	410	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	15	370	71	4	15	23	367	30	9	423	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	28	331	233	21	29	48	1730	141	21	1739	86
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	1.00	1.00	0.01	0.50	0.50
Sat Flow, veh/h	139	119	1380	524	87	122	1810	3381	275	1810	3500	173
Grp Volume(v), veh/h	439	0	0	90	0	0	23	195	202	9	218	226
Grp Sat Flow(s),veh/h/ln	1638	0	0	732	0	0	1810	1805	1851	1810	1805	1869
Q Serve(g_s), s	8.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3	4.1	4.2
Cycle Q Clear(g_c), s	14.4	0.0	0.0	5.8	0.0	0.0	0.7	0.0	0.0	0.3	4.1	4.2
Prop In Lane	0.12		0.84	0.79		0.17	1.00		0.15	1.00		0.09
Lane Grp Cap(c), veh/h	460	0	0	283	0	0	48	924	947	21	897	928
V/C Ratio(X)	0.95	0.00	0.00	0.32	0.00	0.00	0.48	0.21	0.21	0.43	0.24	0.24
Avail Cap(c_a), veh/h	460	0	0	283	0	0	223	924	947	223	897	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	19.2	0.0	0.0	28.0	0.0	0.0	29.5	8.6	8.6
Incr Delay (d2), s/veh	30.3	0.0	0.0	0.6	0.0	0.0	2.7	0.5	0.5	5.1	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	0.0	0.0	1.1	0.0	0.0	0.3	0.1	0.1	0.2	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	0.0	0.0	19.9	0.0	0.0	30.7	0.5	0.5	34.5	9.3	9.3
LnGrp LOS	D	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		439			90			420			453	
Approach Delay, s/veh		53.8			19.9			2.2			9.8	
Approach LOS		D			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	35.5		19.2	6.2	34.6		19.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		16.4	2.7	6.2		7.8				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	2.4		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		21.9
HCM 6th LOS		C

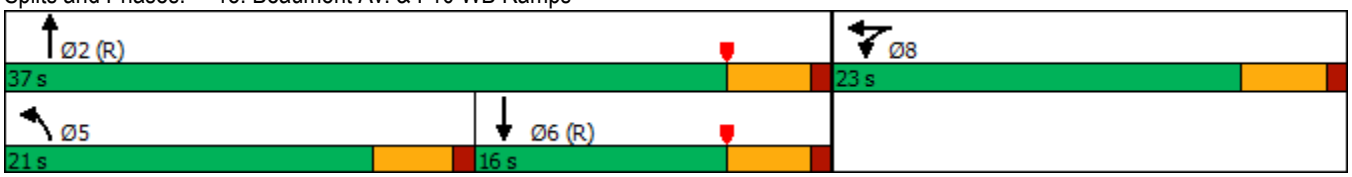
Notes

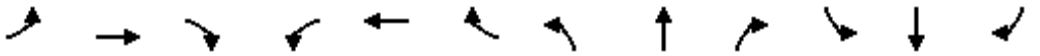
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	668
Future Volume (vph)	685	0	272	309	668
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	17.1	17.1	13.1	33.3	15.6
Actuated g/C Ratio	0.28	0.28	0.22	0.56	0.26
v/c Ratio	0.83	0.71	0.71	0.16	0.91
Control Delay	37.1	21.1	35.3	7.6	39.9
Queue Delay	0.0	0.7	0.0	0.0	47.6
Total Delay	37.1	21.9	35.3	7.6	87.5
LOS	D	C	D	A	F
Approach Delay		29.6		20.6	87.5
Approach LOS		C		C	F

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 49.2	Intersection LOS: D
Intersection Capacity Utilization 107.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	668	169
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	668	169
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	689	174
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1098	576	0	324	1937	0	0	802	202
Arrive On Green				0.26	0.00	0.00	0.36	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	2950	721
Grp Volume(v), veh/h				800	0	0	280	319	0	0	435	428
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1770
Q Serve(g_s), s				12.6	0.0	0.0	8.6	0.0	0.0	0.0	14.1	14.1
Cycle Q Clear(g_c), s				12.6	0.0	0.0	8.6	0.0	0.0	0.0	14.1	14.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.41
Lane Grp Cap(c), veh/h				1098	576	0	324	1937	0	0	507	497
V/C Ratio(X)				0.73	0.00	0.00	0.86	0.16	0.00	0.00	0.86	0.86
Avail Cap(c_a), veh/h				1098	576	0	495	2085	0	0	581	570
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.70	0.70	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.9	0.0	0.0	18.6	0.0	0.0	0.0	26.0	26.1
Incr Delay (d2), s/veh				2.5	0.0	0.0	4.6	0.1	0.0	0.0	16.9	17.3
Initial Q Delay(d3),s/veh				123.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.6	0.0	0.0	3.1	0.0	0.0	0.0	9.1	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				147.3	0.0	0.0	23.2	0.1	0.0	0.0	43.0	43.3
LnGrp LOS				F	A	A	C	A	A	A	D	D
Approach Vol, veh/h					800			599			863	
Approach Delay, s/veh					147.3			10.9			43.1	
Approach LOS					F			B			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	39.5		15.4	24.1		20.5						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 32		16.4	* 11		18.2						
Max Q Clear Time (g_c+I1), s	2.0		10.6	16.1		14.6						
Green Ext Time (p_c), s	2.2		0.2	0.0		1.2						

Intersection Summary		
HCM 6th Ctrl Delay	71.4	
HCM 6th LOS	E	

Notes

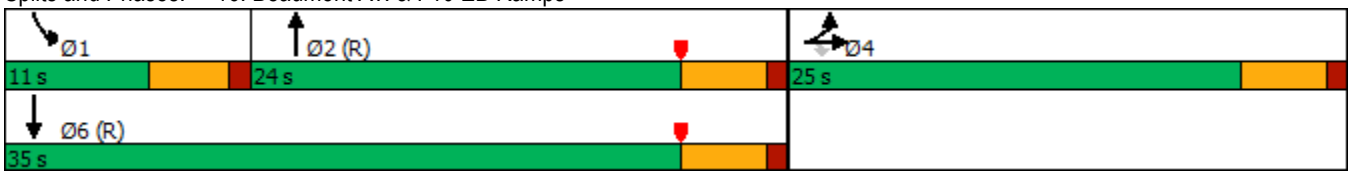
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	823	533	120	1107
Future Volume (vph)	11	823	533	120	1107
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.4	19.4	22.2	6.2	31.0
Actuated g/C Ratio	0.32	0.32	0.37	0.10	0.52
v/c Ratio	0.90	0.83	0.66	0.67	0.61
Control Delay	40.8	28.7	13.5	33.4	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	40.8	28.7	13.5	33.4	19.1
LOS	D	C	B	C	B
Approach Delay	34.9		13.5		20.5
Approach LOS	C		B		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 107.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Future Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	973				0	549	412	124	1141	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	640	1084				0	668	502	157	1817	0
Arrive On Green	0.00	0.00	0.33				0.00	0.35	0.35	0.17	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2060	1475	1810	3705	0
Grp Volume(v), veh/h	0	0	973				0	504	457	124	1141	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	17.4				0.0	15.2	15.2	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	17.4				0.0	15.2	15.2	3.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	640	1084				0	614	556	157	1817	0
V/C Ratio(X)	0.00	0.00	0.90				0.00	0.82	0.82	0.79	0.63	0.00
Avail Cap(c_a), veh/h	0	640	1084				0	626	567	193	1841	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.34	0.34	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.9				0.0	18.1	18.1	24.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	10.0				0.0	11.8	12.8	4.8	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	202.9				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	38.2				0.0	7.7	7.1	1.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	232.8				0.0	29.9	31.0	29.1	0.6	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h		973						961			1265	
Approach Delay, s/veh		232.8						30.4			3.4	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.8	25.6		24.6		35.4
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30
Max Q Clear Time (g_c+I1), s	5.9	17.2		19.4		2.0
Green Ext Time (p_c), s	0.0	1.2		0.4		9.9

Intersection Summary	
HCM 6th Ctrl Delay	81.3
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.3:

E+P (PROJECT BUILDOUT) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

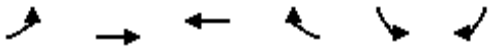
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Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	170	785	234	100
Future Volume (vph)	170	785	234	100
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	33.4	33.4	33.4	13.7
Actuated g/C Ratio	0.68	0.68	0.68	0.28
v/c Ratio	0.14	0.66	0.22	0.22
Control Delay	5.2	10.7	1.2	23.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	10.7	1.2	23.4
LOS	A	B	A	C
Approach Delay	5.2	8.5		23.4
Approach LOS	A	A		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 49.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	170	785	234	100	0
Future Volume (veh/h)	0	170	785	234	100	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	185	853	254	109	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	1087	1087	921	301	268
Arrive On Green	0.00	0.57	0.57	0.57	0.17	0.00
Sat Flow, veh/h	517	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	185	853	254	109	0
Grp Sat Flow(s),veh/h/ln	517	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	2.0	15.5	3.6	2.4	0.0
Cycle Q Clear(g_c), s	0.0	2.0	15.5	3.6	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	162	1087	1087	921	301	268
V/C Ratio(X)	0.00	0.17	0.78	0.28	0.36	0.00
Avail Cap(c_a), veh/h	498	2321	2321	1967	987	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.5	7.4	4.8	16.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.3	0.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	3.0	0.5	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.6	8.7	5.0	17.1	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		185	1107		109	
Approach Delay, s/veh		4.6	7.8		17.1	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			31.2		13.2	31.2
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			4.0		4.4	17.5
Green Ext Time (p_c), s			1.0		0.2	7.9

Intersection Summary		
HCM 6th Ctrl Delay	8.1	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	183	21	232	200	28	136
Future Vol, veh/h	183	21	232	200	28	136
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	24	270	233	33	158
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.9	11.6	10.3
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	136	92	92	21	232	100	100
LT Vol	28	0	0	0	0	232	0	0
Through Vol	0	0	92	92	0	0	100	100
RT Vol	0	136	0	0	21	0	0	0
Lane Flow Rate	33	158	106	106	24	270	116	116
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.063	0.252	0.183	0.183	0.026	0.465	0.184	0.129
Departure Headway (Hd)	6.942	5.743	6.192	6.192	3.767	6.211	5.706	3.991
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	516	625	580	580	947	580	630	898
Service Time	4.679	3.48	3.927	3.927	1.501	3.937	3.433	1.717
HCM Lane V/C Ratio	0.064	0.253	0.183	0.183	0.025	0.466	0.184	0.129
HCM Control Delay	10.1	10.4	10.3	10.3	6.6	14.2	9.7	7.3
HCM Lane LOS	B	B	B	B	A	B	A	A
HCM 95th-tile Q	0.2	1	0.7	0.7	0.1	2.5	0.7	0.4

Intersection	
Intersection Delay, s/veh	36.6
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	343	0	51	0	52	110	43	181	0
Future Vol, veh/h	0	0	0	343	0	51	0	52	110	43	181	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	528	0	78	0	80	169	66	278	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	56	13.7	18.9
HCM LOS	F	B	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	87%	19%
Vol Thru, %	32%	0%	81%
Vol Right, %	68%	13%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	162	394	224
LT Vol	0	343	43
Through Vol	52	0	181
RT Vol	110	51	0
Lane Flow Rate	249	606	345
Geometry Grp	1	1	1
Degree of Util (X)	0.425	0.983	0.609
Departure Headway (Hd)	6.133	5.841	6.364
Convergence, Y/N	Yes	Yes	Yes
Cap	586	624	565
Service Time	4.183	3.841	4.41
HCM Lane V/C Ratio	0.425	0.971	0.611
HCM Control Delay	13.7	56	18.9
HCM Lane LOS	B	F	C
HCM 95th-tile Q	2.1	14.4	4.1

Intersection	
Intersection Delay, s/veh	249.7
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	155	123	0	516	14	11	510
Future Vol, veh/h	155	123	0	516	14	11	510
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	231	184	0	770	21	16	761
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	75.5	304.8	286.6
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	56%	0%	0%	0%	100%	1%
Vol Thru, %	44%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	99%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	278	0	516	14	7	514
LT Vol	155	0	0	0	7	4
Through Vol	123	0	516	0	0	0
RT Vol	0	0	0	14	0	510
Lane Flow Rate	415	0	770	21	11	767
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.968	0	1.619	0.04	0.026	1.573
Departure Headway (Hd)	10.86	9.224	9.224	8.491	9.721	8.479
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	336	0	400	424	370	437
Service Time	8.56	6.924	6.924	6.191	7.421	6.179
HCM Lane V/C Ratio	1.235	0	1.925	0.05	0.03	1.755
HCM Control Delay	75.5	11.9	312.8	11.5	12.7	290.5
HCM Lane LOS	F	N	F	B	B	F
HCM 95th-tile Q	10.3	0	36.7	0.1	0.1	37.2

Intersection	
Intersection Delay, s/veh	79.3
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	59	311	368	307	458	77
Future Vol, veh/h	59	311	368	307	458	77
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	68	357	423	353	526	89
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	36.3	17.1	187.6
HCM LOS	E	C	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	86%
Vol Thru, %	0%	100%	100%	100%	19%	0%
Vol Right, %	0%	0%	0%	0%	81%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	311	147	147	381	535
LT Vol	59	0	0	0	0	458
Through Vol	0	311	147	147	74	0
RT Vol	0	0	0	0	307	77
Lane Flow Rate	68	357	169	169	437	615
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.162	0.806	0.347	0.347	0.624	1.334
Departure Headway (Hd)	9.692	9.163	8.43	8.43	6.062	7.807
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	372	397	430	430	599	467
Service Time	7.392	6.863	6.13	6.13	3.762	5.568
HCM Lane V/C Ratio	0.183	0.899	0.393	0.393	0.73	1.317
HCM Control Delay	14.3	40.5	15.5	15.5	18.3	187.6
HCM Lane LOS	B	E	C	C	C	F
HCM 95th-tile Q	0.6	7.1	1.5	1.5	4.3	27.4

Intersection	
Int Delay, s/veh	9.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	5	145	0	16	0	370	0	1	0	0	0
Future Vol, veh/h	0	5	145	0	16	0	370	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	223	0	25	0	569	0	2	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	1142	2	1257	1141	-	2	0	0	2	0	0
Stage 1	-	2	-	1139	1139	-	-	-	-	-	-	-
Stage 2	-	1140	-	118	2	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.2	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	202	1088	149	223	0	1634	-	-	1634	-	-
Stage 1	0	898	-	247	278	0	-	-	-	-	-	-
Stage 2	0	278	-	891	898	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	132	1088	83	145	-	1634	-	-	1634	-	-
Mov Cap-2 Maneuver	-	132	-	83	145	-	-	-	-	-	-	-
Stage 1	-	898	-	161	181	-	-	-	-	-	-	-
Stage 2	-	181	-	702	898	-	-	-	-	-	-	-

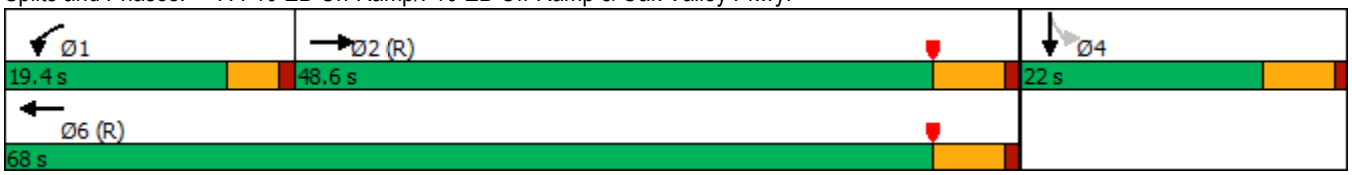
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	34.8	8.4	0
HCM LOS	B	D		

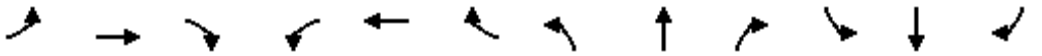
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1634	-	-	876	145	1634	-	-
HCM Lane V/C Ratio	0.348	-	-	0.263	0.17	-	-	-
HCM Control Delay (s)	8.4	0	-	10.6	34.8	0	-	-
HCM Lane LOS	A	A	-	B	D	A	-	-
HCM 95th %tile Q(veh)	1.6	-	-	1.1	0.6	0	-	-

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	355	235	491	3
Future Volume (vph)	355	235	491	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	43.1	14.5	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	0.97	0.91	0.42	1.36
Control Delay	46.1	63.2	3.4	209.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	46.1	63.2	3.4	209.6
LOS	D	E	A	F
Approach Delay	46.1		22.8	209.6
Approach LOS	D		C	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.36	
Intersection Signal Delay: 72.9	Intersection LOS: E
Intersection Capacity Utilization 94.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	355	414	235	491	0	0	0	0	229	3	185
Future Volume (veh/h)	0	355	414	235	491	0	0	0	0	229	3	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	399	378	264	552	0				257	3	189
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	429	407	292	1313	0				177	2	130
Arrive On Green	0.00	0.48	0.48	0.32	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	897	850	1810	1900	0				985	11	724
Grp Volume(v), veh/h	0	0	777	264	552	0				449	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1747	1810	1900	0				1720	0	0
Q Serve(g_s), s	0.0	0.0	37.6	12.5	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	37.6	12.5	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.49	1.00		0.00				0.57		0.42
Lane Grp Cap(c), veh/h	0	0	836	292	1313	0				310	0	0
V/C Ratio(X)	0.00	0.00	0.93	0.90	0.42	0.00				1.45	0.00	0.00
Avail Cap(c_a), veh/h	0	0	836	298	1313	0				310	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.46	0.46	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	22.0	29.8	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	18.1	15.4	0.5	0.0				219.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	17.5	5.5	0.2	0.0				25.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	40.1	45.2	0.5	0.0				256.6	0.0	0.0
LnGrp LOS	A	A	D	D	A	A				F	A	A
Approach Vol, veh/h		777			816						449	
Approach Delay, s/veh		40.1			14.9						256.6	
Approach LOS		D			B						F	

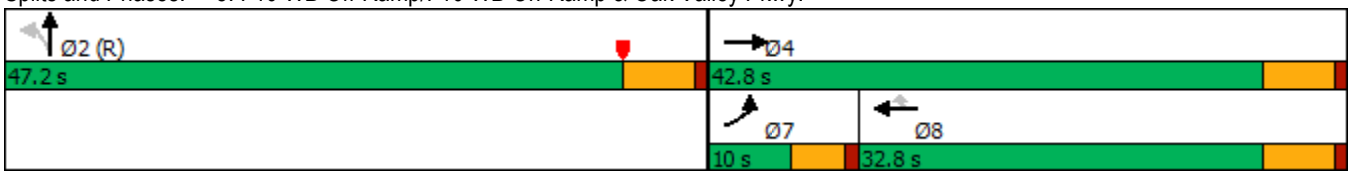
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.1	48.9		22.0		68.0
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2
Max Q Clear Time (g_c+I1), s	14.5	39.6		18.2		2.0
Green Ext Time (p_c), s	0.0	1.6		0.0		3.6

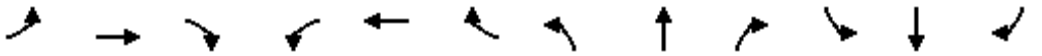
Intersection Summary		
HCM 6th Ctrl Delay		77.7
HCM 6th LOS		E

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	124	459	413	394	4
Future Volume (vph)	124	459	413	394	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	34.2	24.2	24.2	44.2
Actuated g/C Ratio	0.06	0.38	0.27	0.27	0.49
v/c Ratio	1.18	0.65	0.82	0.55	0.76
Control Delay	127.6	16.1	44.9	5.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	127.6	16.1	44.9	5.9	24.3
LOS	F	B	D	A	C
Approach Delay		39.9	25.8		24.3
Approach LOS		D	C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.18	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 94.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	459	0	0	413	394	313	4	348	0	0	0
Future Volume (veh/h)	124	459	0	0	413	394	313	4	348	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	127	468	0	0	421	286	319	4	233			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	694	0	0	483	409	500	6	365			
Arrive On Green	0.04	0.24	0.00	0.00	0.25	0.25	0.51	0.51	0.51			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	987	12	721			
Grp Volume(v), veh/h	127	468	0	0	421	286	556	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1721	0	0			
Q Serve(g_s), s	5.4	20.1	0.0	0.0	19.1	14.5	21.2	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	20.1	0.0	0.0	19.1	14.5	21.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.42			
Lane Grp Cap(c), veh/h	109	694	0	0	483	409	871	0	0			
V/C Ratio(X)	1.17	0.67	0.00	0.00	0.87	0.70	0.64	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	871	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.16	0.16	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.2	0.0	0.0	32.2	30.4	16.2	0.0	0.0			
Incr Delay (d2), s/veh	91.6	0.3	0.0	0.0	12.4	3.6	3.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	9.3	0.0	0.0	9.8	5.7	8.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.8	29.5	0.0	0.0	44.5	34.0	19.8	0.0	0.0			
LnGrp LOS	F	C	A	A	D	C	B	A	A			
Approach Vol, veh/h		595			707			556				
Approach Delay, s/veh		52.0			40.3			19.8				
Approach LOS		D			D			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		51.3		38.7			10.0	28.7				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		23.2		22.1			7.4	21.1				
Green Ext Time (p_c), s		3.3		2.3			0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			37.9									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	505	542	149	845	25	0	0	59	0	0	151
Future Vol, veh/h	0	505	542	149	845	25	0	0	59	0	0	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	555	596	164	929	27	0	0	65	0	0	166

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1151	0	0	-	-	576	-	-	943
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	614	-	-	0	0	466	0	0	321
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	614	-	-	-	-	466	-	-	321
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.9	14	27.6
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	466	-	-	614	-	-	321
HCM Lane V/C Ratio	0.139	-	-	0.267	-	-	0.517
HCM Control Delay (s)	14	-	-	13	-	-	27.6
HCM Lane LOS	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.5	-	-	1.1	-	-	2.8

Intersection	
Intersection Delay, s/veh	51.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	143	22	3	158	19	68	27	6	21	29	469
Future Vol, veh/h	31	143	22	3	158	19	68	27	6	21	29	469
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	41	191	29	4	211	25	91	36	8	28	39	625
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

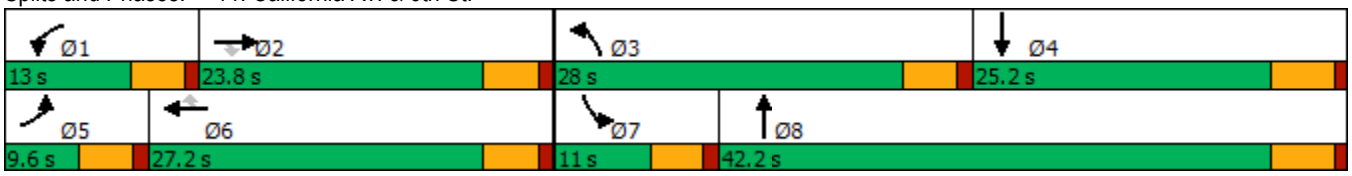
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	15.3	18.8	14.8	84.4
HCM LOS	C	C	B	F

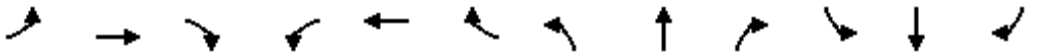
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	72%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	28%	0%	0%	100%	0%	0%	89%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	11%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	6	31	143	22	3	177	21	29	469
LT Vol	68	0	31	0	0	3	0	21	0	0
Through Vol	27	0	0	143	0	0	158	0	29	0
RT Vol	0	6	0	0	22	0	19	0	0	469
Lane Flow Rate	127	8	41	191	29	4	236	28	39	625
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.299	0.017	0.096	0.416	0.058	0.009	0.508	0.059	0.076	1.101
Departure Headway (Hd)	8.754	7.671	8.746	8.235	7.518	8.724	8.136	7.554	7.047	6.337
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	413	469	412	440	479	413	446	477	511	575
Service Time	6.454	5.371	6.446	5.935	5.218	6.424	5.836	5.26	4.754	4.044
HCM Lane V/C Ratio	0.308	0.017	0.1	0.434	0.061	0.01	0.529	0.059	0.076	1.087
HCM Control Delay	15.1	10.5	12.4	16.7	10.7	11.5	18.9	10.7	10.3	92.3
HCM Lane LOS	C	B	B	C	B	B	C	B	B	F
HCM 95th-tile Q	1.2	0.1	0.3	2	0.2	0	2.8	0.2	0.2	19.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	272	113	55	272	19	382	89	43	131
Future Volume (vph)	4	272	113	55	272	19	382	89	43	131
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.1	16.7	16.7	7.0	24.0	24.0	21.4	40.5	6.0	20.5
Actuated g/C Ratio	0.06	0.20	0.20	0.08	0.29	0.29	0.26	0.49	0.07	0.25
v/c Ratio	0.04	0.77	0.26	0.39	0.54	0.03	0.89	0.17	0.36	0.31
Control Delay	41.0	47.2	2.2	46.4	29.3	0.1	53.6	12.5	47.7	30.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	47.2	2.2	46.4	29.3	0.1	53.6	12.5	47.7	30.5
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		34.1			30.4			42.7		34.7
Approach LOS		C			C			D		C

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 82.6		
Natural Cycle: 90		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.89		
Intersection Signal Delay: 36.4	Intersection LOS: D	
Intersection Capacity Utilization 64.0%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	113	55	272	19	382	89	49	43	131	4
Future Volume (veh/h)	4	272	113	55	272	19	382	89	49	43	131	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	296	122	60	296	12	415	97	31	47	142	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	358	304	85	437	370	456	657	210	74	496	7
Arrive On Green	0.01	0.19	0.19	0.05	0.23	0.23	0.25	0.48	0.48	0.04	0.27	0.27
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1380	441	1810	1869	26
Grp Volume(v), veh/h	4	296	122	60	296	12	415	0	128	47	0	144
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1821	1810	0	1895
Q Serve(g_s), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	3.1	2.0	0.0	4.7
Cycle Q Clear(g_c), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	3.1	2.0	0.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.01
Lane Grp Cap(c), veh/h	10	358	304	85	437	370	456	0	867	74	0	503
V/C Ratio(X)	0.42	0.83	0.40	0.71	0.68	0.03	0.91	0.00	0.15	0.63	0.00	0.29
Avail Cap(c_a), veh/h	116	465	394	196	548	464	545	0	867	149	0	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.5	30.3	27.7	36.5	27.3	23.2	28.2	0.0	11.5	36.7	0.0	22.7
Incr Delay (d2), s/veh	10.3	9.2	0.9	4.0	2.4	0.0	16.0	0.0	0.4	3.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.0	1.9	1.2	5.1	0.2	8.8	0.0	1.1	0.9	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	39.5	28.5	40.5	29.6	23.2	44.2	0.0	11.8	40.0	0.0	24.1
LnGrp LOS	D	D	C	D	C	C	D	A	B	D	A	C
Approach Vol, veh/h		422			368			543			191	
Approach Delay, s/veh		36.4			31.2			36.6			28.0	
Approach LOS		D			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	19.4	24.2	25.8	5.0	22.7	7.8	42.2
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0
Max Q Clear Time (g_c+I1), s	4.5	13.6	19.3	6.7	2.2	13.0	4.0	5.1
Green Ext Time (p_c), s	0.0	1.0	0.3	0.5	0.0	1.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	13.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	3	71	54	9	29	283	516	112	12	245	2
Future Vol, veh/h	2	3	71	54	9	29	283	516	112	12	245	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	90	68	11	37	358	653	142	15	310	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1806	1853	312	1829	1783	724	313	0	0	795	0	0
Stage 1	342	342	-	1440	1440	-	-	-	-	-	-	-
Stage 2	1464	1511	-	389	343	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	62	75	733	~ 60	83	429	1259	-	-	835	-	-
Stage 1	677	642	-	167	200	-	-	-	-	-	-	-
Stage 2	161	185	-	639	641	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	40	53	733	~ 39	58	429	1259	-	-	835	-	-
Mov Cap-2 Maneuver	72	101	-	84	108	-	-	-	-	-	-	-
Stage 1	485	630	-	120	143	-	-	-	-	-	-	-
Stage 2	97	132	-	547	629	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.1	155.3	2.8	0.4
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1259	-	-	492	116	835	-	-
HCM Lane V/C Ratio	0.285	-	-	0.196	1.004	0.018	-	-
HCM Control Delay (s)	9	-	-	14.1	155.3	9.4	-	-
HCM Lane LOS	A	-	-	B	F	A	-	-
HCM 95th %tile Q(veh)	1.2	-	-	0.7	6.6	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	43.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	163	26	52	772	172	163
Future Vol, veh/h	163	26	52	772	172	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	212	34	68	1003	223	212

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1468	329	435	0	-	0
Stage 1	329	-	-	-	-	-
Stage 2	1139	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 142	717	1135	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 133	717	1135	-	-	-
Mov Cap-2 Maneuver	~ 133	-	-	-	-	-
Stage 1	690	-	-	-	-	-
Stage 2	308	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 310	0.5	0
HCM LOS	F		

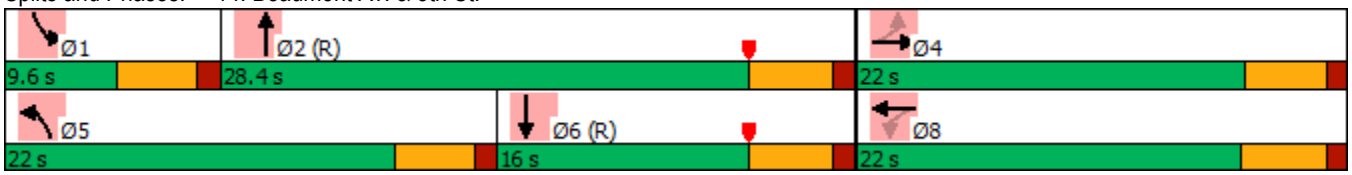
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1135	-	133	717	-	-
HCM Lane V/C Ratio	0.059	-	1.592	0.047	-	-
HCM Control Delay (s)	8.4	-	$ 357.8	10.3	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	15.1	0.1	-	-

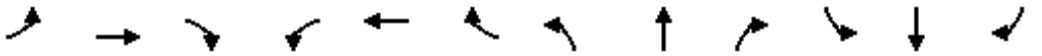
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	15	18	3	56	279	3	368
Future Volume (vph)	16	15	18	3	56	279	3	368
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.4		10.2	6.7	42.1	5.0	36.7
Actuated g/C Ratio		0.17		0.17	0.11	0.70	0.08	0.61
v/c Ratio		0.41		0.14	0.30	0.13	0.02	0.20
Control Delay		10.8		17.8	28.5	4.9	25.7	8.2
Queue Delay		0.3		0.1	0.1	0.4	0.0	0.1
Total Delay		11.1		17.9	28.6	5.3	25.7	8.3
LOS		B		B	C	A	C	A
Approach Delay		11.1		17.9		9.1		8.4
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 9.4	Intersection LOS: A
Intersection Capacity Utilization 35.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	15	114	18	3	10	56	279	13	3	368	37
Future Volume (veh/h)	16	15	114	18	3	10	56	279	13	3	368	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	16	124	20	3	11	61	303	14	3	400	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	40	206	224	47	84	96	2107	97	7	1825	182
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.11	1.00	1.00	0.00	0.55	0.55
Sat Flow, veh/h	93	251	1292	806	296	527	1810	3514	162	1810	3316	330
Grp Volume(v), veh/h	157	0	0	34	0	0	61	155	162	3	217	223
Grp Sat Flow(s),veh/h/ln	1636	0	0	1629	0	0	1810	1805	1871	1810	1805	1841
Q Serve(g_s), s	0.8	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.1	3.7	3.7
Cycle Q Clear(g_c), s	5.3	0.0	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.1	3.7	3.7
Prop In Lane	0.11		0.79	0.59		0.32	1.00		0.09	1.00		0.18
Lane Grp Cap(c), veh/h	328	0	0	356	0	0	96	1082	1122	7	993	1013
V/C Ratio(X)	0.48	0.00	0.00	0.10	0.00	0.00	0.63	0.14	0.14	0.41	0.22	0.22
Avail Cap(c_a), veh/h	538	0	0	534	0	0	525	1082	1122	151	993	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	0.0	21.6	0.0	0.0	26.2	0.0	0.0	29.8	6.9	6.9
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.1	0.0	0.0	2.6	0.3	0.3	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.4	0.0	0.0	0.8	0.1	0.1	0.1	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.5	0.0	0.0	21.7	0.0	0.0	28.8	0.3	0.3	42.7	7.4	7.4
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		157			34			378			443	
Approach Delay, s/veh		24.5			21.7			4.9			7.6	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	40.8		14.4	7.8	37.8		14.4				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		7.3	3.9	5.7		3.0				
Green Ext Time (p_c), s	0.0	1.8		0.6	0.0	1.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		9.7
HCM 6th LOS		A

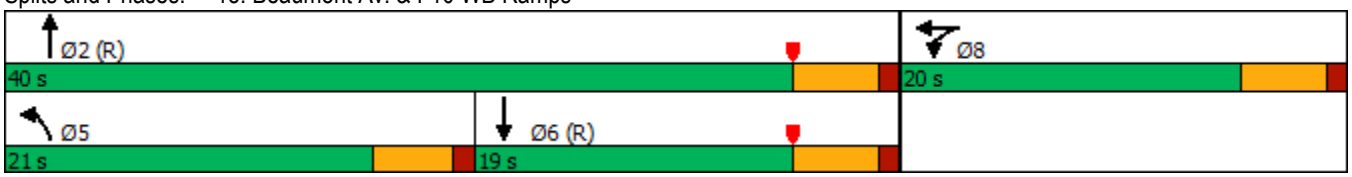
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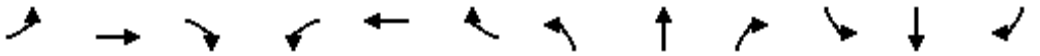
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	408
Future Volume (vph)	464	9	345	216	408
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	20.0	20.0	21.0	40.0	19.0
Total Split (%)	33.3%	33.3%	35.0%	66.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.4	14.4	15.0	36.0	16.4
Actuated g/C Ratio	0.24	0.24	0.25	0.60	0.27
v/c Ratio	0.82	0.72	0.83	0.11	0.55
Control Delay	40.2	27.2	43.1	5.6	16.4
Queue Delay	0.0	2.0	0.0	0.0	3.9
Total Delay	40.2	29.2	43.1	5.6	20.3
LOS	D	C	D	A	C
Approach Delay		34.9		28.6	20.3
Approach LOS		C		C	C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	408	93
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	408	93
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	443	101
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				454	287	160	495	2127	0	0	748	169
Arrive On Green				0.25	0.25	0.25	0.39	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3019	662
Grp Volume(v), veh/h				328	0	399	375	235	0	0	272	272
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1781
Q Serve(g_s), s				10.0	0.0	12.9	11.7	0.1	0.0	0.0	8.6	8.7
Cycle Q Clear(g_c), s				10.0	0.0	12.9	11.7	0.1	0.0	0.0	8.6	8.7
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				454	0	448	495	2127	0	0	462	456
V/C Ratio(X)				0.72	0.00	0.89	0.76	0.11	0.00	0.00	0.59	0.60
Avail Cap(c_a), veh/h				458	0	452	495	2127	0	0	508	502
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.6	0.0	21.7	16.3	0.3	0.0	0.0	24.4	24.5
Incr Delay (d2), s/veh				5.5	0.0	19.3	4.5	0.1	0.0	0.0	5.4	5.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	437.1	17.9	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.3	0.0	7.0	65.0	5.4	0.0	0.0	4.6	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.1	0.0	41.0	457.9	18.2	0.0	0.0	29.8	30.1
LnGrp LOS				C	A	D	F	B	A	A	C	C
Approach Vol, veh/h					727			610			544	
Approach Delay, s/veh					34.3			288.5			29.9	
Approach LOS					C			F			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	40.2		18.5	21.7		19.8						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 35		16.4	* 14		15.2						
Max Q Clear Time (g_c+I1), s	2.1		13.7	10.7		14.9						
Green Ext Time (p_c), s	1.6		0.2	1.1		0.1						

Intersection Summary		
HCM 6th Ctrl Delay	115.5	
HCM 6th LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	569	567	117	810
Future Volume (vph)	11	569	567	117	810
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.8	12.8	27.5	7.4	37.6
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	23.2	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	23.2	10.7
LOS	C	C	B	C	B
Approach Delay	21.6		10.6		12.2
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.9	Intersection LOS: B
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Future Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	687				0	591	504	122	844	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	463	785				0	1385	189	155	2153	0
Arrive On Green	0.00	0.00	0.24				0.00	0.43	0.43	0.17	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1944	1573	1810	3705	0
Grp Volume(v), veh/h	0	0	687				0	577	518	122	844	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	12.3				0.0	16.0	16.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	12.3				0.0	16.0	16.0	3.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	463	785				0	783	791	155	2153	0
V/C Ratio(X)	0.00	0.00	0.88				0.00	0.74	0.66	0.79	0.39	0.00
Avail Cap(c_a), veh/h	0	481	816				0	783	702	253	2153	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.71	0.71	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.8				0.0	17.0	17.0	24.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	10.3				0.0	6.1	4.2	2.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	283.4	243.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	5.1				0.0	72.1	63.5	1.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	32.1				0.0	306.5	264.4	26.7	0.4	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		687						1095			966	
Approach Delay, s/veh		32.1						286.6			3.7	
Approach LOS		C						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.7	30.8		19.4		40.6
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35
Max Q Clear Time (g_c+I1), s	5.9	18.0		14.3		2.0
Green Ext Time (p_c), s	0.0	2.6		0.3		7.0

Intersection Summary		
HCM 6th Ctrl Delay		123.5
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

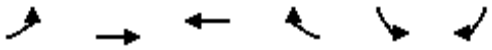
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	881	266	322	297
Future Volume (vph)	881	266	322	297
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	23.8	23.8	23.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	41.7	41.7	41.7	18.2
Actuated g/C Ratio	0.58	0.58	0.58	0.25
v/c Ratio	0.87	0.26	0.32	0.71
Control Delay	23.9	8.5	1.8	36.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.9	8.5	1.8	36.5
LOS	C	A	A	D
Approach Delay	23.9	4.8		36.5
Approach LOS	C	A		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 72.3	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	881	266	322	297	0
Future Volume (veh/h)	0	881	266	322	297	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	958	289	350	323	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	122	1115	1115	945	391	348
Arrive On Green	0.00	0.59	0.59	0.59	0.22	0.00
Sat Flow, veh/h	802	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	958	289	350	323	0
Grp Sat Flow(s),veh/h/ln	802	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	24.7	4.4	6.7	10.0	0.0
Cycle Q Clear(g_c), s	0.0	24.7	4.4	6.7	10.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	122	1115	1115	945	391	348
V/C Ratio(X)	0.00	0.86	0.26	0.37	0.83	0.00
Avail Cap(c_a), veh/h	391	1752	1752	1485	745	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.1	5.9	6.4	22.0	0.0
Incr Delay (d2), s/veh	0.0	2.7	0.1	0.2	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.0	1.1	1.5	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.9	6.0	6.7	26.5	0.0
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h		958	639		323	
Approach Delay, s/veh		12.9	6.4		26.5	
Approach LOS		B	A		C	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		40.3		18.5	40.3
Change Period (Y+Rc), s		5.8		5.8	5.8
Max Green Setting (Gmax), s		54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s		26.7		12.0	8.7
Green Ext Time (p_c), s		7.8		0.7	2.9

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	115	12	153	185	75	273
Future Vol, veh/h	115	12	153	185	75	273
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	13	168	203	82	300
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.8	10.3	11.6
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	273	58	58	12	153	93	93
LT Vol	75	0	0	0	0	153	0	0
Through Vol	0	0	58	58	0	0	93	93
RT Vol	0	273	0	0	12	0	0	0
Lane Flow Rate	82	300	63	63	13	168	102	102
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.147	0.436	0.114	0.114	0.015	0.305	0.17	0.121
Departure Headway (Hd)	6.434	5.237	6.485	6.485	4.044	6.527	6.02	4.296
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	558	687	553	553	882	551	597	834
Service Time	4.165	2.968	4.222	4.222	1.781	4.259	3.751	2.027
HCM Lane V/C Ratio	0.147	0.437	0.114	0.114	0.015	0.305	0.171	0.122
HCM Control Delay	10.3	12	10.1	10.1	6.8	12.1	10	7.6
HCM Lane LOS	B	B	B	B	A	B	A	A
HCM 95th-tile Q	0.5	2.2	0.4	0.4	0	1.3	0.6	0.4

Intersection	
Intersection Delay, s/veh	70
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	161	0	91	0	212	443	9	118	0
Future Vol, veh/h	0	0	0	161	0	91	0	212	443	9	118	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	209	0	118	0	275	575	12	153	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	16.9	101.7	11.5
HCM LOS	C	F	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	64%	7%
Vol Thru, %	32%	0%	93%
Vol Right, %	68%	36%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	655	252	127
LT Vol	0	161	9
Through Vol	212	0	118
RT Vol	443	91	0
Lane Flow Rate	851	327	165
Geometry Grp	1	1	1
Degree of Util (X)	1.149	0.55	0.272
Departure Headway (Hd)	4.864	6.371	6.225
Convergence, Y/N	Yes	Yes	Yes
Cap	757	569	581
Service Time	2.864	4.371	4.225
HCM Lane V/C Ratio	1.124	0.575	0.284
HCM Control Delay	101.7	16.9	11.5
HCM Lane LOS	F	C	B
HCM 95th-tile Q	26	3.3	1.1

Intersection	
Intersection Delay, s/veh	852.8
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	653	497	0	278	2	3	276
Future Vol, veh/h	653	497	0	278	2	3	276
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	975	742	0	415	3	4	412
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	1243.9	45.9	50.6
HCM LOS	F	E	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	57%	0%	0%	0%	100%	0%
Vol Thru, %	43%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1150	0	278	2	2	277
LT Vol	653	0	0	0	2	1
Through Vol	497	0	278	0	0	0
RT Vol	0	0	0	2	0	276
Lane Flow Rate	1716	0	415	3	3	413
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	3.717	0	0.816	0.005	0.007	0.815
Departure Headway (Hd)	7.797	10.398	10.398	9.646	13.129	11.839
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	481	0	353	373	274	310
Service Time	5.566	8.098	8.098	7.346	10.829	9.539
HCM Lane V/C Ratio	3.568	0	1.176	0.008	0.011	1.332
HCM Control Delay	1243.9	13.1	46.1	12.4	15.9	50.9
HCM Lane LOS	F	N	E	B	C	F
HCM 95th-tile Q	159.4	0	7.1	0	0	6.7

Intersection	
Intersection Delay, s/veh	15.9
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	394	389	294	177	33
Future Vol, veh/h	50	394	389	294	177	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	52	406	401	303	182	34
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	25.1	9.9	15.8
HCM LOS	D	A	C

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	84%
Vol Thru, %	0%	100%	100%	100%	21%	0%
Vol Right, %	0%	0%	0%	0%	79%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	394	156	156	372	210
LT Vol	50	0	0	0	0	177
Through Vol	0	394	156	156	78	0
RT Vol	0	0	0	0	294	33
Lane Flow Rate	52	406	160	160	383	216
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.102	0.75	0.269	0.269	0.399	0.441
Departure Headway (Hd)	7.155	6.647	6.039	6.039	3.748	7.328
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	499	540	592	592	951	489
Service Time	4.924	4.415	3.803	3.803	1.509	5.097
HCM Lane V/C Ratio	0.104	0.752	0.27	0.27	0.403	0.442
HCM Control Delay	10.7	26.9	11	11	9	15.8
HCM Lane LOS	B	D	B	B	A	C
HCM 95th-tile Q	0.3	6.5	1.1	1.1	1.9	2.2

Intersection	
Int Delay, s/veh	11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	451	3	14	0	239	0	2	0	0	0
Future Vol, veh/h	0	2	451	3	14	0	239	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	593	4	18	0	314	0	3	0	0	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	-	632	1	929	631	-	1	0	0	3	0	0
Stage 1	-	1	-	630	630	-	-	-	-	-	-	-
Stage 2	-	631	-	299	1	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	400	1090	250	401	0	1635	-	-	1632	-	-
Stage 1	0	899	-	473	478	0	-	-	-	-	-	-
Stage 2	0	477	-	714	899	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	323	1090	97	324	-	1635	-	-	1632	-	-
Mov Cap-2 Maneuver	-	323	-	97	324	-	-	-	-	-	-	-
Stage 1	-	899	-	382	386	-	-	-	-	-	-	-
Stage 2	-	385	-	324	899	-	-	-	-	-	-	-

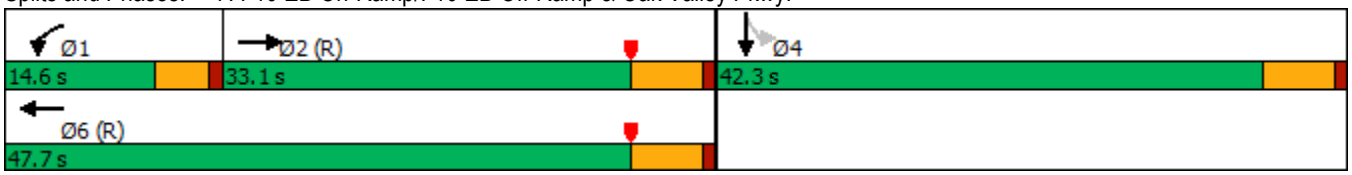
Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	22.4	7.7	0
HCM LOS	B	C		

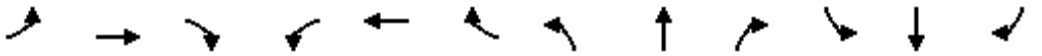
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1635	-	-	1079	229	1632	-	-
HCM Lane V/C Ratio	0.192	-	-	0.552	0.098	-	-	-
HCM Control Delay (s)	7.7	0	-	12.4	22.4	0	-	-
HCM Lane LOS	A	A	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	3.5	0.3	0	-	-

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	364	129	481	1
Future Volume (vph)	364	129	481	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	27.5	9.8	41.9	36.5
Actuated g/C Ratio	0.31	0.11	0.47	0.41
v/c Ratio	1.31	0.87	0.72	1.15
Control Delay	178.8	73.6	20.3	109.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	178.8	73.6	20.3	109.7
LOS	F	E	C	F
Approach Delay	178.8		31.6	109.7
Approach LOS	F		C	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.31	
Intersection Signal Delay: 105.2	Intersection LOS: F
Intersection Capacity Utilization 89.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	364	207	129	481	0	0	0	0	436	1	202
Future Volume (veh/h)	0	364	207	129	481	0	0	0	0	436	1	202
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	479	200	170	633	0				574	1	200
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	386	161	201	885	0				527	1	184
Arrive On Green	0.00	0.30	0.30	0.04	0.15	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	1273	531	1810	1900	0				1299	2	453
Grp Volume(v), veh/h	0	0	679	170	633	0				775	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1804	1810	1900	0				1754	0	0
Q Serve(g_s), s	0.0	0.0	27.3	8.4	28.5	0.0				36.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	27.3	8.4	28.5	0.0				36.5	0.0	0.0
Prop In Lane	0.00		0.29	1.00		0.00				0.74		0.26
Lane Grp Cap(c), veh/h	0	0	547	201	885	0				711	0	0
V/C Ratio(X)	0.00	0.00	1.24	0.85	0.72	0.00				1.09	0.00	0.00
Avail Cap(c_a), veh/h	0	0	547	201	885	0				711	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.59	0.59	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	31.4	42.6	32.4	0.0				26.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	123.2	16.7	3.0	0.0				60.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	29.6	4.8	14.9	0.0				25.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	154.5	59.3	35.4	0.0				87.5	0.0	0.0
LnGrp LOS	A	A	F	E	D	A				F	A	A
Approach Vol, veh/h		679			803						775	
Approach Delay, s/veh		154.5			40.4						87.5	
Approach LOS		F			D						F	

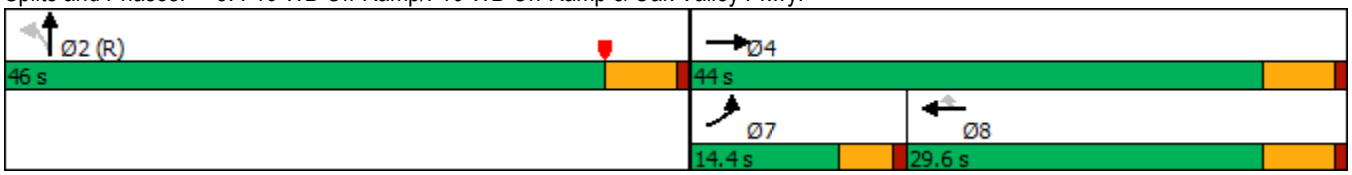
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9
Max Q Clear Time (g_c+I1), s	10.4	29.3		38.5		30.5
Green Ext Time (p_c), s	0.0	0.0		0.0		2.9

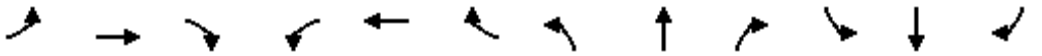
Intersection Summary	
HCM 6th Ctrl Delay	90.9
HCM 6th LOS	F

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	236	564	286	238	4
Future Volume (vph)	236	564	286	238	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	9.8	33.3	18.9	18.9	45.1
Actuated g/C Ratio	0.11	0.37	0.21	0.21	0.50
v/c Ratio	1.24	0.83	0.74	0.46	0.67
Control Delay	148.9	22.2	44.3	6.7	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	148.9	22.2	44.3	6.7	20.7
LOS	F	C	D	A	C
Approach Delay		59.6	27.2		20.7
Approach LOS		E	C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 38.8	Intersection LOS: D
Intersection Capacity Utilization 89.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	564	0	0	286	238	324	4	254	0	0	0
Future Volume (veh/h)	236	564	0	0	286	238	324	4	254	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	243	581	0	0	295	175	334	4	210			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	197	663	0	0	359	304	550	7	346			
Arrive On Green	0.04	0.12	0.00	0.00	0.19	0.19	0.52	0.52	0.52			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1053	13	662			
Grp Volume(v), veh/h	243	581	0	0	295	175	548	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1728	0	0			
Q Serve(g_s), s	9.8	27.1	0.0	0.0	13.4	8.9	20.0	0.0	0.0			
Cycle Q Clear(g_c), s	9.8	27.1	0.0	0.0	13.4	8.9	20.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.61		0.38			
Lane Grp Cap(c), veh/h	197	663	0	0	359	304	902	0	0			
V/C Ratio(X)	1.23	0.88	0.00	0.00	0.82	0.58	0.61	0.00	0.00			
Avail Cap(c_a), veh/h	197	806	0	0	502	426	902	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.4	37.9	0.0	0.0	35.0	33.2	15.0	0.0	0.0			
Incr Delay (d2), s/veh	109.2	1.0	0.0	0.0	7.5	1.7	3.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.5	13.7	0.0	0.0	6.6	3.4	7.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	152.5	38.9	0.0	0.0	42.5	34.9	18.1	0.0	0.0			
LnGrp LOS	F	D	A	A	D	C	B	A	A			
Approach Vol, veh/h		824			470			548				
Approach Delay, s/veh		72.4			39.7			18.1				
Approach LOS		E			D			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		52.8		37.2			14.4	22.8				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			9.8	23.8				
Max Q Clear Time (g_c+I1), s		22.0		29.1			11.8	15.4				
Green Ext Time (p_c), s		3.2		2.3			0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay			47.9									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	770	327	104	624	53	0	0	112	0	0	63
Future Vol, veh/h	0	770	327	104	624	53	0	0	112	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	828	352	112	671	57	0	0	120	0	0	68

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1180	0	0	-	-	590	-	-	700
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	599	-	-	0	0	456	0	0	443
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	599	-	-	-	-	456	-	-	443
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	15.7	14.6
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	456	-	-	599	-	-	443
HCM Lane V/C Ratio	0.264	-	-	0.187	-	-	0.153
HCM Control Delay (s)	15.7	-	-	12.4	-	-	14.6
HCM Lane LOS	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.1	-	-	0.7	-	-	0.5

Intersection	
Intersection Delay, s/veh	133.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	100	543	74	9	97	29	38	36	11	13	57	223
Future Vol, veh/h	100	543	74	9	97	29	38	36	11	13	57	223
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	143	776	106	13	139	41	54	51	16	19	81	319
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

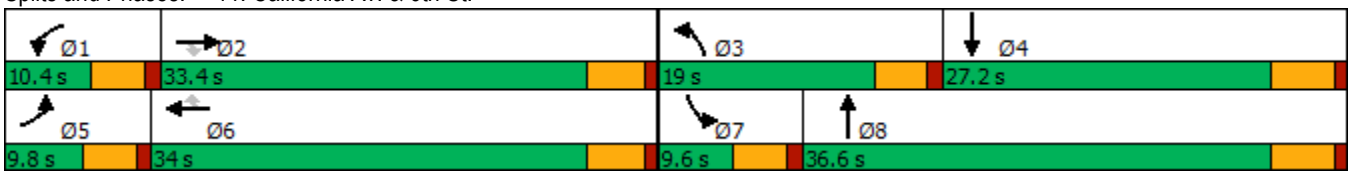
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	214.9	17.7	15.8	21.8
HCM LOS	F	C	C	C

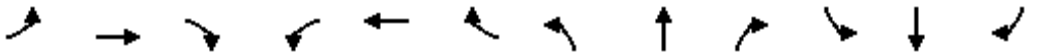
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	77%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	23%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	74	11	100	543	74	9	126	13	57	223
LT Vol	38	0	100	0	0	9	0	13	0	0
Through Vol	36	0	0	543	0	0	97	0	57	0
RT Vol	0	11	0	0	74	0	29	0	0	223
Lane Flow Rate	106	16	143	776	106	13	180	19	81	319
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.263	0.035	0.307	1.557	0.191	0.032	0.412	0.044	0.18	0.643
Departure Headway (Hd)	10.04	9.052	7.732	7.225	6.514	9.767	9.089	9.417	8.905	8.188
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	360	398	461	504	547	369	400	383	406	446
Service Time	7.74	6.752	5.531	5.023	4.312	7.467	6.789	7.117	6.605	5.888
HCM Lane V/C Ratio	0.294	0.04	0.31	1.54	0.194	0.035	0.45	0.05	0.2	0.715
HCM Control Delay	16.3	12.1	14	279.7	10.9	12.8	18	12.5	13.5	24.5
HCM Lane LOS	C	B	B	F	B	B	C	B	B	C
HCM 95th-tile Q	1	0.1	1.3	41.2	0.7	0.1	2	0.1	0.6	4.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	432	164	60	256	10	249	113	13	59
Future Volume (vph)	19	432	164	60	256	10	249	113	13	59
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.2	24.1	24.1	5.7	28.3	28.3	14.0	39.3	5.1	22.4
Actuated g/C Ratio	0.06	0.29	0.29	0.07	0.34	0.34	0.17	0.47	0.06	0.27
v/c Ratio	0.18	0.83	0.29	0.51	0.42	0.02	0.87	0.22	0.13	0.15
Control Delay	44.1	41.9	4.0	55.9	23.9	0.0	64.5	14.0	43.1	24.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	41.9	4.0	55.9	23.9	0.0	64.5	14.0	43.1	24.4
LOS	D	D	A	E	C	A	E	B	D	C
Approach Delay		31.9			29.0			43.2		27.4
Approach LOS		C			C			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 83.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 34.3	Intersection LOS: C
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	432	164	60	256	10	249	113	68	13	59	11
Future Volume (veh/h)	19	432	164	60	256	10	249	113	68	13	59	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	455	169	63	269	6	262	119	41	14	62	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	40	530	449	85	577	489	300	568	196	30	463	45
Arrive On Green	0.02	0.28	0.28	0.05	0.30	0.30	0.17	0.42	0.42	0.02	0.27	0.27
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1351	465	1810	1705	165
Grp Volume(v), veh/h	20	455	169	63	269	6	262	0	160	14	0	68
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1816	1810	0	1870
Q Serve(g_s), s	0.9	18.4	6.9	2.8	9.3	0.2	11.4	0.0	4.5	0.6	0.0	2.2
Cycle Q Clear(g_c), s	0.9	18.4	6.9	2.8	9.3	0.2	11.4	0.0	4.5	0.6	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.09
Lane Grp Cap(c), veh/h	40	530	449	85	577	489	300	0	764	30	0	508
V/C Ratio(X)	0.49	0.86	0.38	0.74	0.47	0.01	0.87	0.00	0.21	0.46	0.00	0.13
Avail Cap(c_a), veh/h	116	670	568	129	684	580	321	0	764	112	0	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.2	27.7	23.5	38.2	22.9	19.7	33.0	0.0	14.9	39.5	0.0	22.3
Incr Delay (d2), s/veh	3.4	8.9	0.5	4.8	0.6	0.0	20.1	0.0	0.6	4.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	9.3	2.4	1.3	4.1	0.1	6.3	0.0	1.8	0.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	36.6	24.1	42.9	23.5	19.7	53.0	0.0	15.5	43.6	0.0	22.9
LnGrp LOS	D	D	C	D	C	B	D	A	B	D	A	C
Approach Vol, veh/h		644			338			422			82	
Approach Delay, s/veh		33.5			27.1			38.8			26.4	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	27.4	18.1	27.2	6.4	29.4	6.0	39.3
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	4.8	20.4	13.4	4.2	2.9	11.3	2.6	6.5
Green Ext Time (p_c), s	0.0	2.2	0.0	0.2	0.0	1.4	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	3	82	59	3	20	169	403	414	6	223	6
Future Vol, veh/h	4	3	82	59	3	20	169	403	414	6	223	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	86	62	3	21	178	424	436	6	235	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1260	1466	238	1293	1251	642	241	0	0	860	0	0
Stage 1	250	250	-	998	998	-	-	-	-	-	-	-
Stage 2	1010	1216	-	295	253	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	149	129	806	141	174	478	1337	-	-	790	-	-
Stage 1	759	704	-	296	324	-	-	-	-	-	-	-
Stage 2	292	256	-	718	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	126	111	806	111	150	478	1337	-	-	790	-	-
Mov Cap-2 Maneuver	196	183	-	195	225	-	-	-	-	-	-	-
Stage 1	658	698	-	257	281	-	-	-	-	-	-	-
Stage 2	239	222	-	633	695	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	29.9	1.4	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1337	-	-	642	229	790	-	-
HCM Lane V/C Ratio	0.133	-	-	0.146	0.377	0.008	-	-
HCM Control Delay (s)	8.1	-	-	11.6	29.9	9.6	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.5	1.7	0	-	-

Intersection	
Int Delay, s/veh	517.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	527	74	29	476	922	125
Future Vol, veh/h	527	74	29	476	922	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	573	80	32	517	1002	136

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1651	1070	1138	0	-	0
Stage 1	1070	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 110	271	621	-	-	-
Stage 1	~ 332	-	-	-	-	-
Stage 2	~ 563	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 104	271	621	-	-	-
Mov Cap-2 Maneuver	~ 104	-	-	-	-	-
Stage 1	~ 315	-	-	-	-	-
Stage 2	~ 563	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, $	1852.8	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	621	-	104	271	-	-
HCM Lane V/C Ratio	0.051	-	5.508	0.297	-	-
HCM Control Delay (s)	11.1	-	$ 2109.6	23.8	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.2	-	62.1	1.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	15	69	4	22	356	9	410
Future Volume (vph)	60	15	69	4	22	356	9	410
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		12.8		12.6	5.5	35.8	5.2	35.6
Actuated g/C Ratio		0.21		0.21	0.09	0.60	0.09	0.59
v/c Ratio		0.74		0.74	0.14	0.19	0.06	0.21
Control Delay		12.2		55.7	36.3	5.4	25.9	7.0
Queue Delay		62.7		112.1	1.0	0.5	0.0	0.3
Total Delay		74.9		167.9	37.3	5.9	25.9	7.4
LOS		E		F	D	A	C	A
Approach Delay		74.9		167.9		7.6		7.7
Approach LOS		E		F		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 53.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	15	398	69	4	15	22	356	29	9	410	32
Future Volume (veh/h)	60	15	398	69	4	15	22	356	29	9	410	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	15	410	71	4	15	23	367	30	9	423	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	26	332	234	21	29	48	1730	141	21	1686	131
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	1.00	1.00	0.01	0.50	0.50
Sat Flow, veh/h	151	109	1384	527	87	123	1810	3381	275	1810	3394	264
Grp Volume(v), veh/h	487	0	0	90	0	0	23	195	202	9	224	232
Grp Sat Flow(s),veh/h/ln	1644	0	0	736	0	0	1810	1805	1851	1810	1805	1853
Q Serve(g_s), s	8.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3	4.3	4.3
Cycle Q Clear(g_c), s	14.4	0.0	0.0	5.8	0.0	0.0	0.7	0.0	0.0	0.3	4.3	4.3
Prop In Lane	0.13		0.84	0.79		0.17	1.00		0.15	1.00		0.14
Lane Grp Cap(c), veh/h	462	0	0	284	0	0	48	924	947	21	897	920
V/C Ratio(X)	1.05	0.00	0.00	0.32	0.00	0.00	0.48	0.21	0.21	0.43	0.25	0.25
Avail Cap(c_a), veh/h	462	0	0	284	0	0	223	924	947	223	897	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	0.0	19.2	0.0	0.0	28.0	0.0	0.0	29.5	8.7	8.7
Incr Delay (d2), s/veh	56.8	0.0	0.0	0.6	0.0	0.0	2.7	0.5	0.5	5.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	0.0	0.0	1.1	0.0	0.0	0.3	0.1	0.1	0.2	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.5	0.0	0.0	19.9	0.0	0.0	30.7	0.5	0.5	34.5	9.3	9.3
LnGrp LOS	F	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		487			90			420			465	
Approach Delay, s/veh		80.5			19.9			2.2			9.8	
Approach LOS		F			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	35.5		19.2	6.2	34.6		19.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		16.4	2.7	6.3		7.8				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	2.5		0.2				

Intersection Summary		
HCM 6th Ctrl Delay		31.8
HCM 6th LOS		C

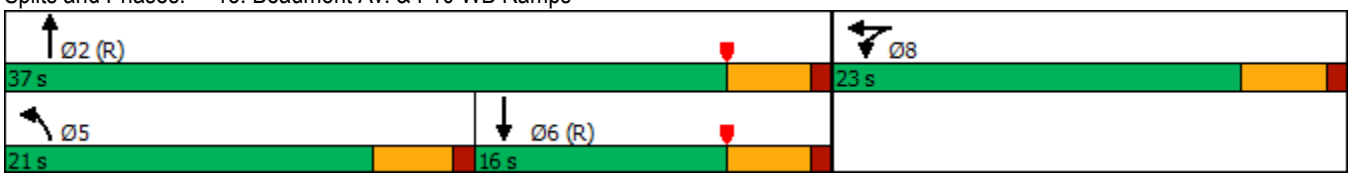
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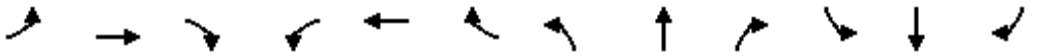
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	707
Future Volume (vph)	685	0	272	309	707
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	17.1	17.1	13.1	33.3	15.6
Actuated g/C Ratio	0.28	0.28	0.22	0.56	0.26
v/c Ratio	0.83	0.71	0.71	0.16	0.96
Control Delay	37.1	21.1	34.8	7.9	46.5
Queue Delay	0.0	0.7	0.0	0.0	44.0
Total Delay	37.1	21.8	34.8	7.9	90.5
LOS	D	C	C	A	F
Approach Delay		29.6		20.5	90.5
Approach LOS		C		C	F

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 51.0	Intersection LOS: D
Intersection Capacity Utilization 111.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	707	169
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	707	169
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	729	174
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1098	576	0	324	1937	0	0	812	194
Arrive On Green				0.26	0.00	0.00	0.36	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	2986	690
Grp Volume(v), veh/h				800	0	0	280	319	0	0	455	448
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1776
Q Serve(g_s), s				12.6	0.0	0.0	8.6	0.0	0.0	0.0	14.7	14.8
Cycle Q Clear(g_c), s				12.6	0.0	0.0	8.6	0.0	0.0	0.0	14.7	14.8
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.39
Lane Grp Cap(c), veh/h				1098	576	0	324	1937	0	0	507	499
V/C Ratio(X)				0.73	0.00	0.00	0.86	0.16	0.00	0.00	0.90	0.90
Avail Cap(c_a), veh/h				1098	576	0	495	2085	0	0	581	571
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.65	0.65	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.9	0.0	0.0	18.6	0.0	0.0	0.0	26.4	26.4
Incr Delay (d2), s/veh				2.5	0.0	0.0	4.3	0.1	0.0	0.0	21.2	21.5
Initial Q Delay(d3),s/veh				123.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.6	0.0	0.0	3.1	0.0	0.0	0.0	10.0	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				147.3	0.0	0.0	22.9	0.1	0.0	0.0	47.5	47.8
LnGrp LOS				F	A	A	C	A	A	A	D	D
Approach Vol, veh/h					800			599			903	
Approach Delay, s/veh					147.3			10.8			47.7	
Approach LOS					F			B			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	39.5		15.4	24.1		20.5						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 32		16.4	* 11		18.2						
Max Q Clear Time (g_c+I1), s	2.0		10.6	16.8		14.6						
Green Ext Time (p_c), s	2.2		0.2	0.0		1.2						

Intersection Summary		
HCM 6th Ctrl Delay	72.7	
HCM 6th LOS	E	

Notes

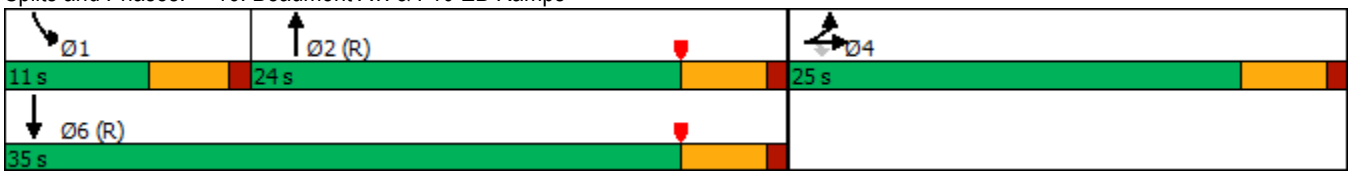
User approved volume balancing among the lanes for turning movement.

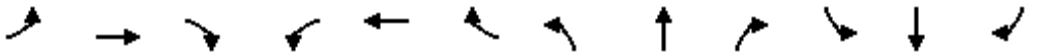
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	856	555	129	1152
Future Volume (vph)	11	856	555	129	1152
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.9	19.9	21.7	6.2	30.5
Actuated g/C Ratio	0.33	0.33	0.36	0.10	0.51
v/c Ratio	0.92	0.84	0.70	0.71	0.65
Control Delay	44.2	30.1	14.6	35.3	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	44.2	30.1	14.6	35.3	19.9
LOS	D	C	B	D	B
Approach Delay	37.3		14.6		21.4
Approach LOS	D		B		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 111.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Future Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	1011				0	572	429	133	1188	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	640	1084				0	657	493	167	1817	0
Arrive On Green	0.00	0.00	0.34				0.00	0.33	0.33	0.18	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2061	1474	1810	3705	0
Grp Volume(v), veh/h	0	0	1011				0	525	476	133	1188	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	18.2				0.0	16.4	16.4	4.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	18.2				0.0	16.4	16.4	4.2	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	640	1084				0	603	547	167	1817	0
V/C Ratio(X)	0.00	0.00	0.93				0.00	0.87	0.87	0.80	0.65	0.00
Avail Cap(c_a), veh/h	0	640	1084				0	603	547	193	1817	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.27	0.27	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.9				0.0	18.8	18.8	23.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	14.0				0.0	15.8	17.1	4.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	218.7				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	41.2				0.0	8.7	8.1	1.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	252.6				0.0	34.5	35.9	28.5	0.5	0.0
LnGrp LOS	A	A	F				A	C	D	C	A	A
Approach Vol, veh/h		1011						1001			1321	
Approach Delay, s/veh		252.6						35.2			3.3	
Approach LOS		F						D			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.1	24.9		25.0		35.0
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30
Max Q Clear Time (g_c+I1), s	6.2	18.4		20.2		2.0
Green Ext Time (p_c), s	0.0	0.5		0.0		10.4

Intersection Summary	
HCM 6th Ctrl Delay	88.5
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.4:

E+P (PHASE 1) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P Phase 1
				CALC CH	DATE 07/16/20
Jurisdiction: City of Beaumont				CHK CH	DATE 07/16/20
Major Street: 4th Street				Critical Approach Speed (Major)	45 mph
Minor Street: Jack Rabbit Trail				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **2** lane

Major Street Future ADT = **3,760** vpd Minor Street Future ADT = **0** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 + **3,760**	*2* + **0**	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	*1*	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 + **3,760**	*2* + **0**	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 56% B: 37%		2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

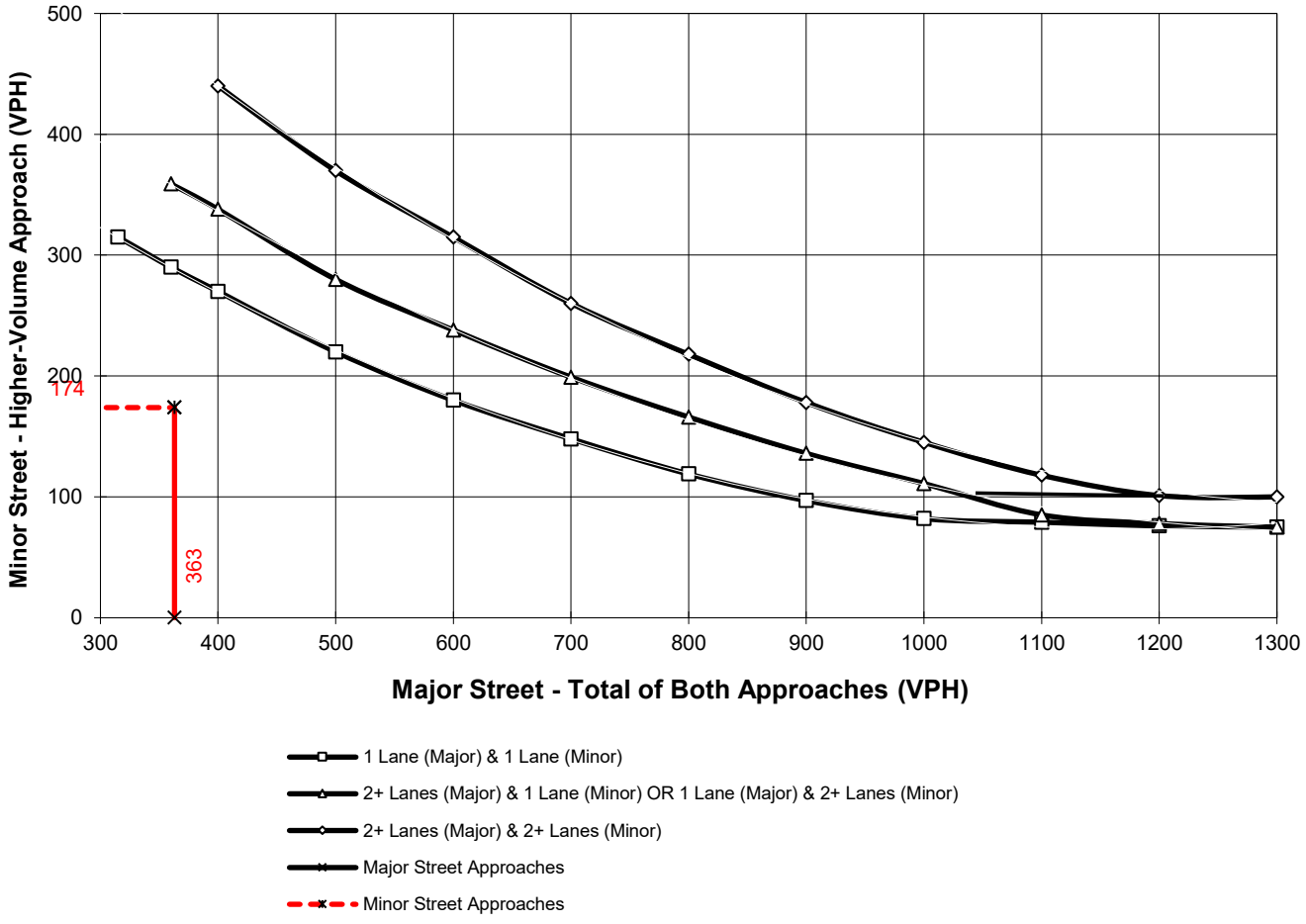
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.** Total of Both Approaches (VPH) = **363**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **174**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

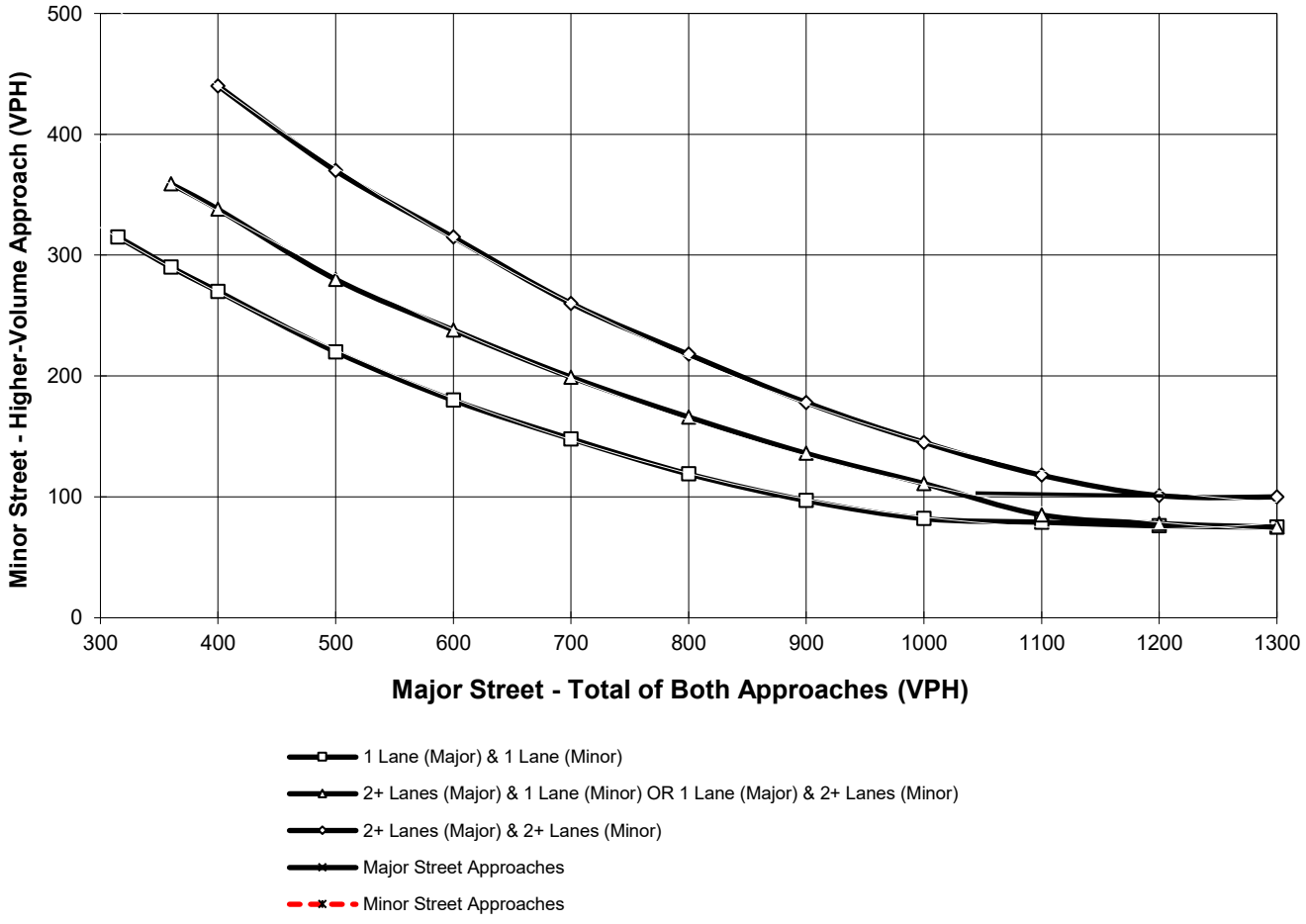
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.** Total of Both Approaches (VPH) = **139**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **117**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

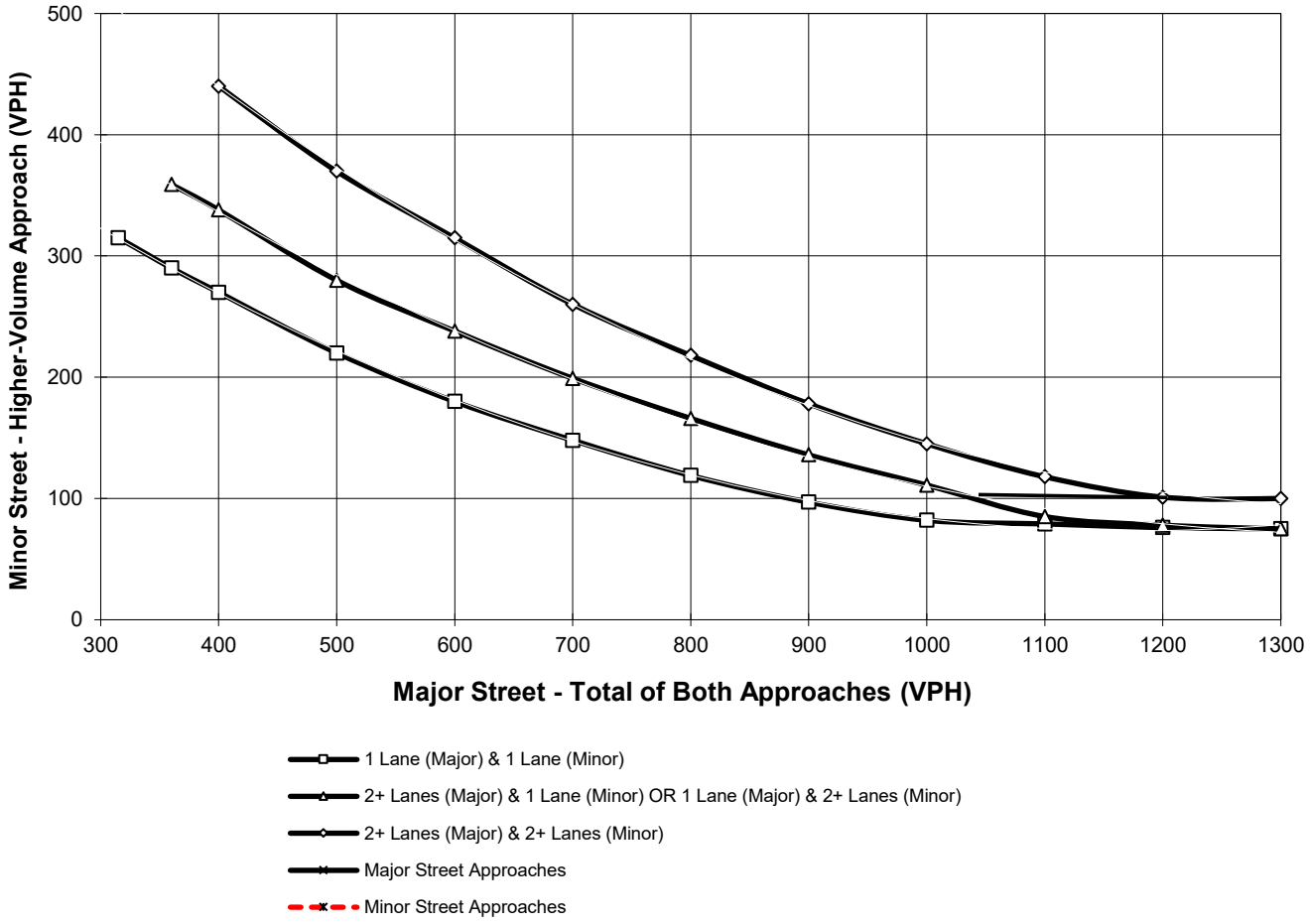
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday AM Peak Hour**

Major Street Name = **4th St.**
Total of Both Approaches (VPH) = **158**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**
High Volume Approach (VPH) = **92**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

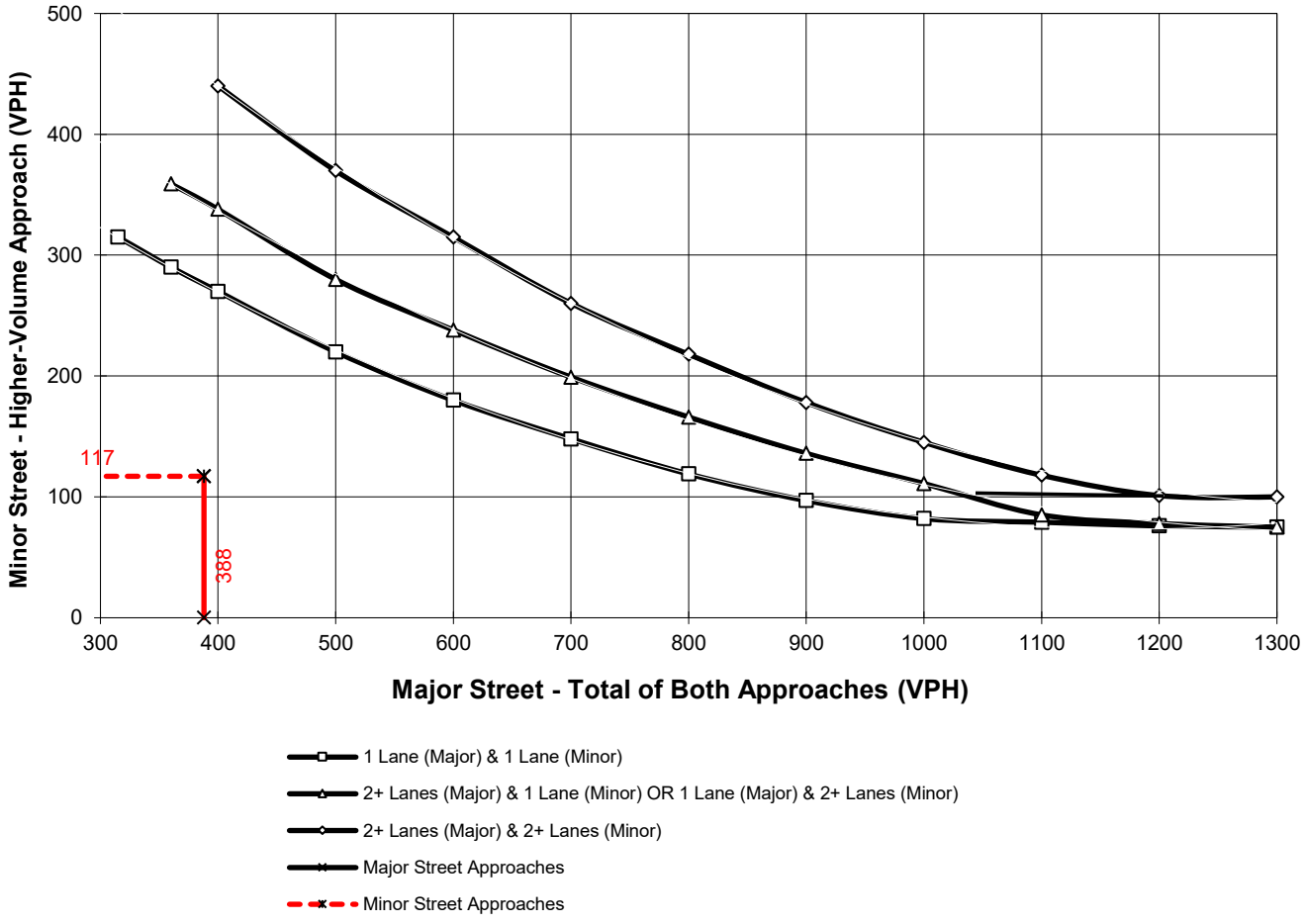
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**
Total of Both Approaches (VPH) = **388**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Veile Av.**
High Volume Approach (VPH) = **117**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

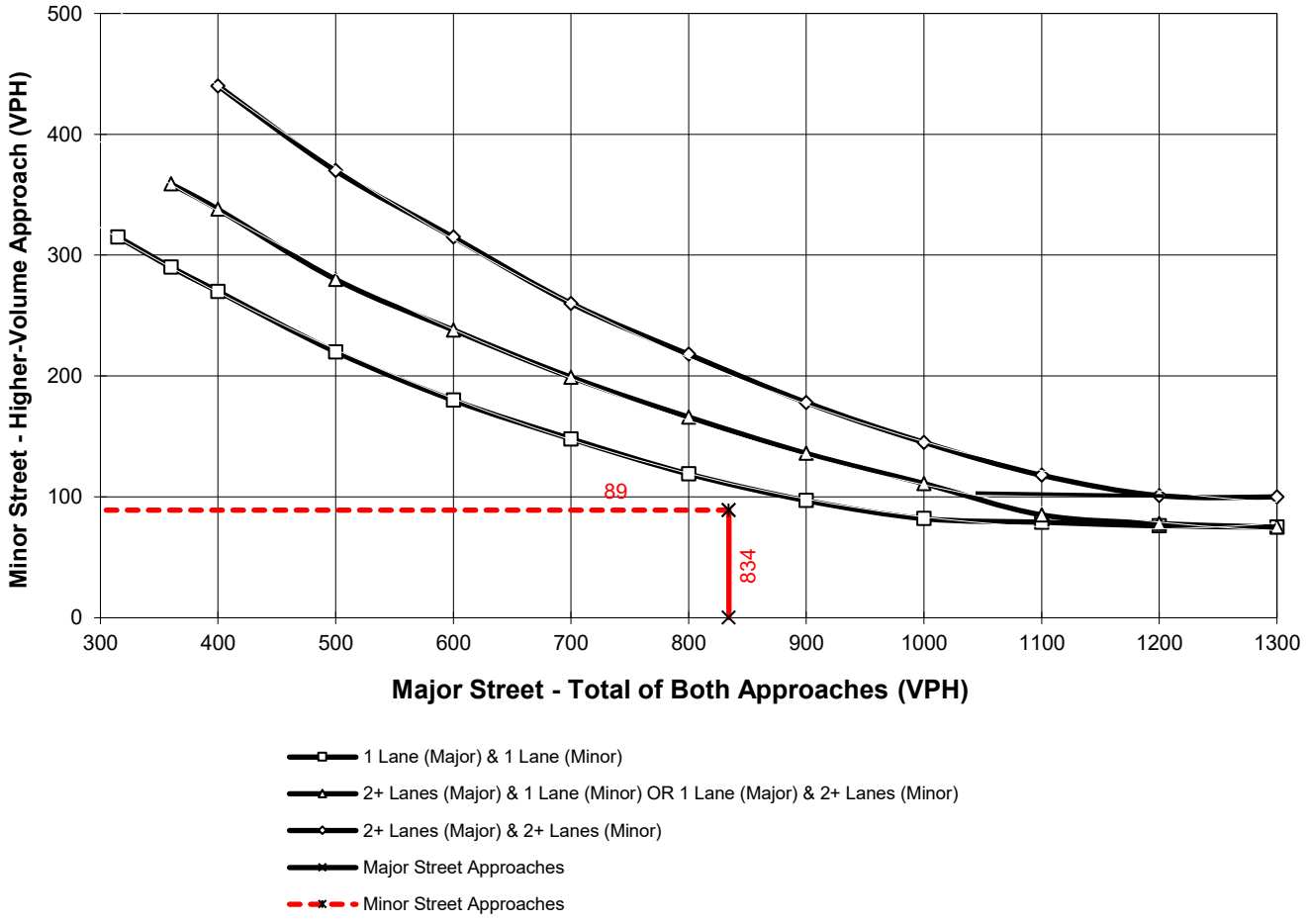
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

Major Street Name = **California Av.** Total of Both Approaches (VPH) = **834**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **5th St.** High Volume Approach (VPH) = **89**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 5.5:

E+P (PHASE 2) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P Phase 2
				CALC CH	DATE 07/16/20
Jurisdiction: City of Beaumont				CHK CH	DATE 07/16/20
Major Street: 4th Street				Critical Approach Speed (Major)	45 mph
Minor Street: Jack Rabbit Trail				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes = **2** lane

Major Street Future ADT = **15,414** vpd Minor Street Future ADT = **0** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX / XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / *1*	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + **15,414** / *2* + **0**	9,600	6,720 *	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: / XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 / *1*	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + **15,414** / *2* + **0**	14,400	10,080 *	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied: XX / Not Satisfied:	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 100% B: 100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

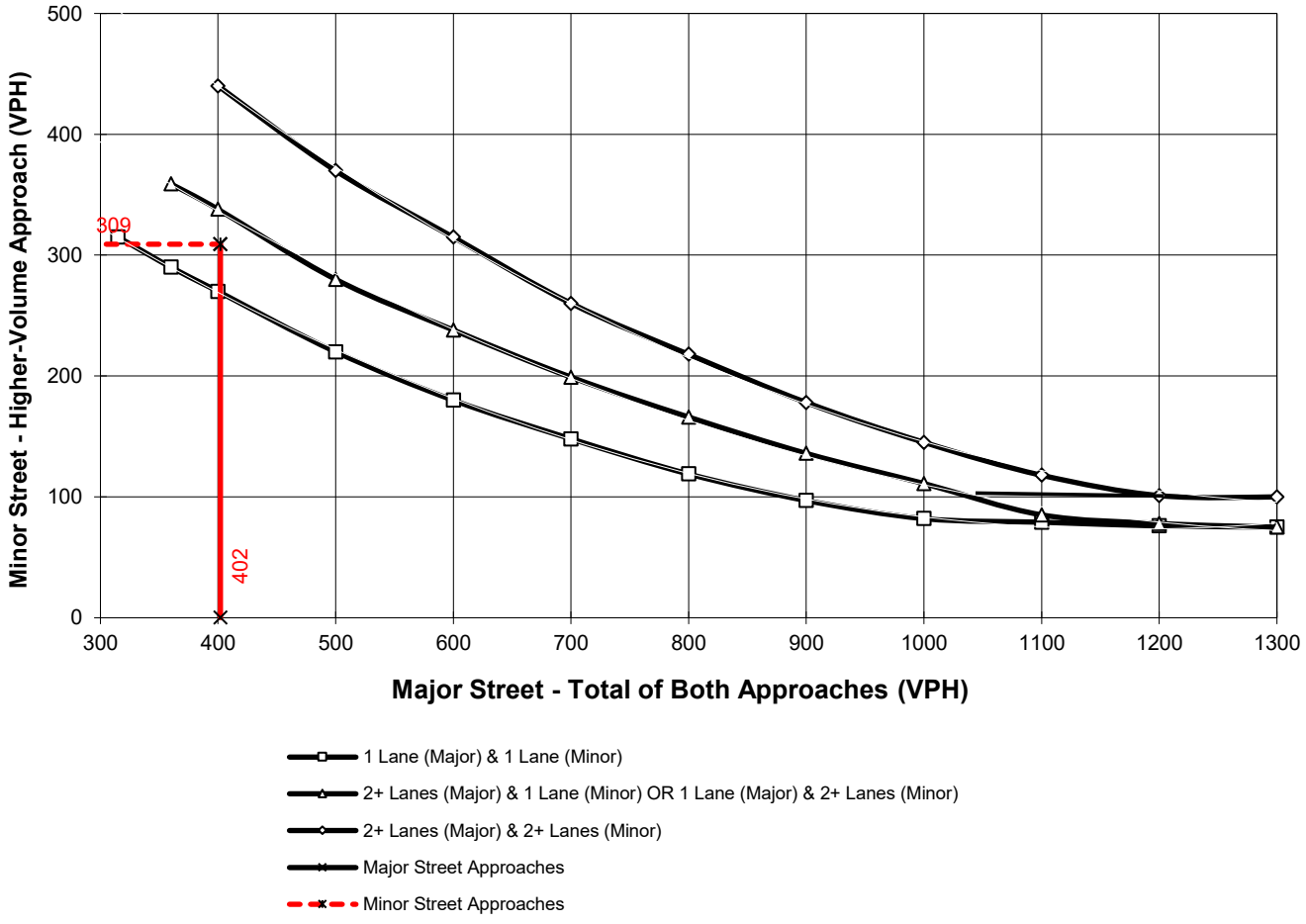
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 2) Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.** Total of Both Approaches (VPH) = **402**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **309**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

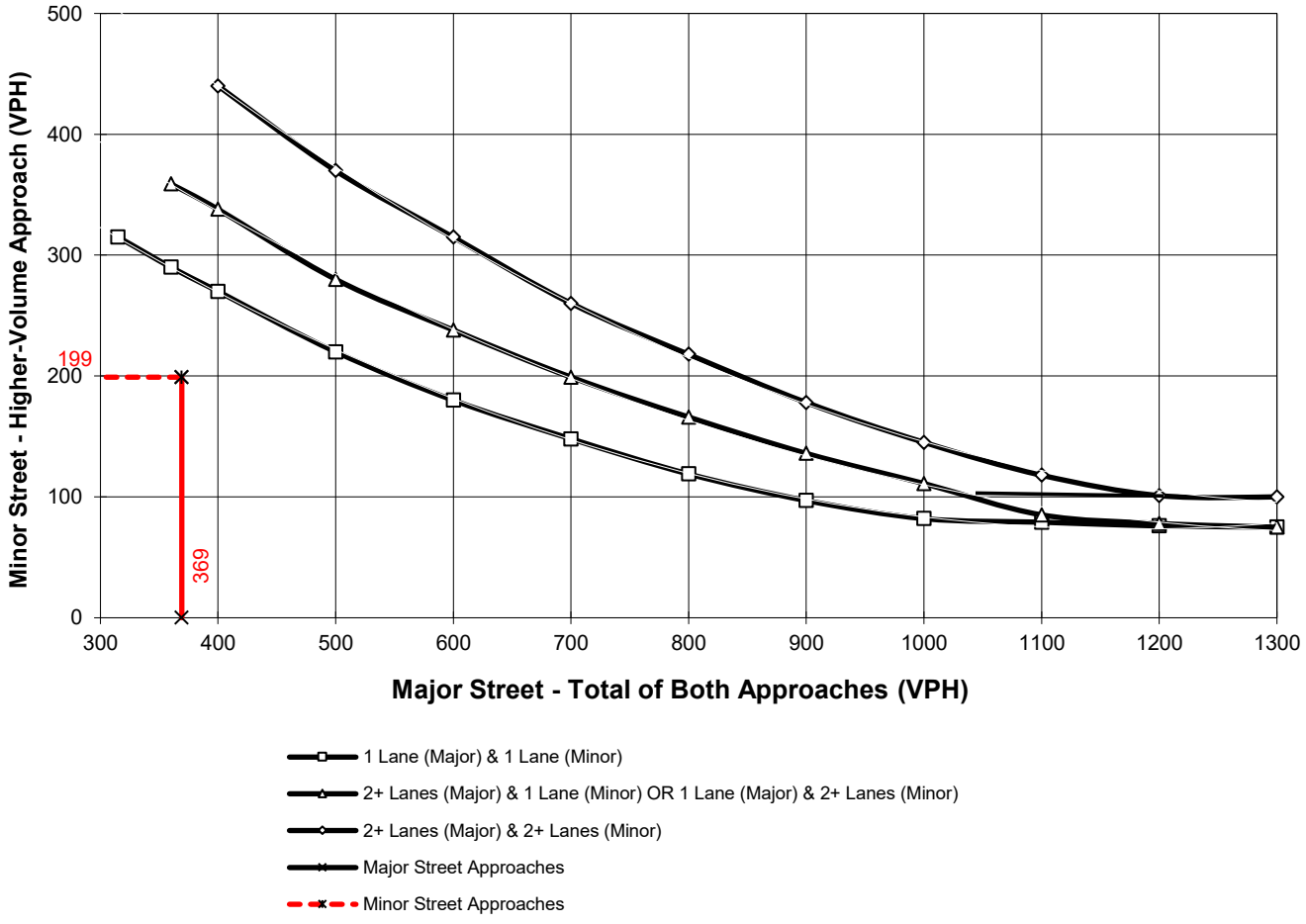
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 2) Conditions - Weekday AM Peak Hour**

Major Street Name = **Potrero Bl.** Total of Both Approaches (VPH) = **369**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Western Knolls Av.** High Volume Approach (VPH) = **199**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

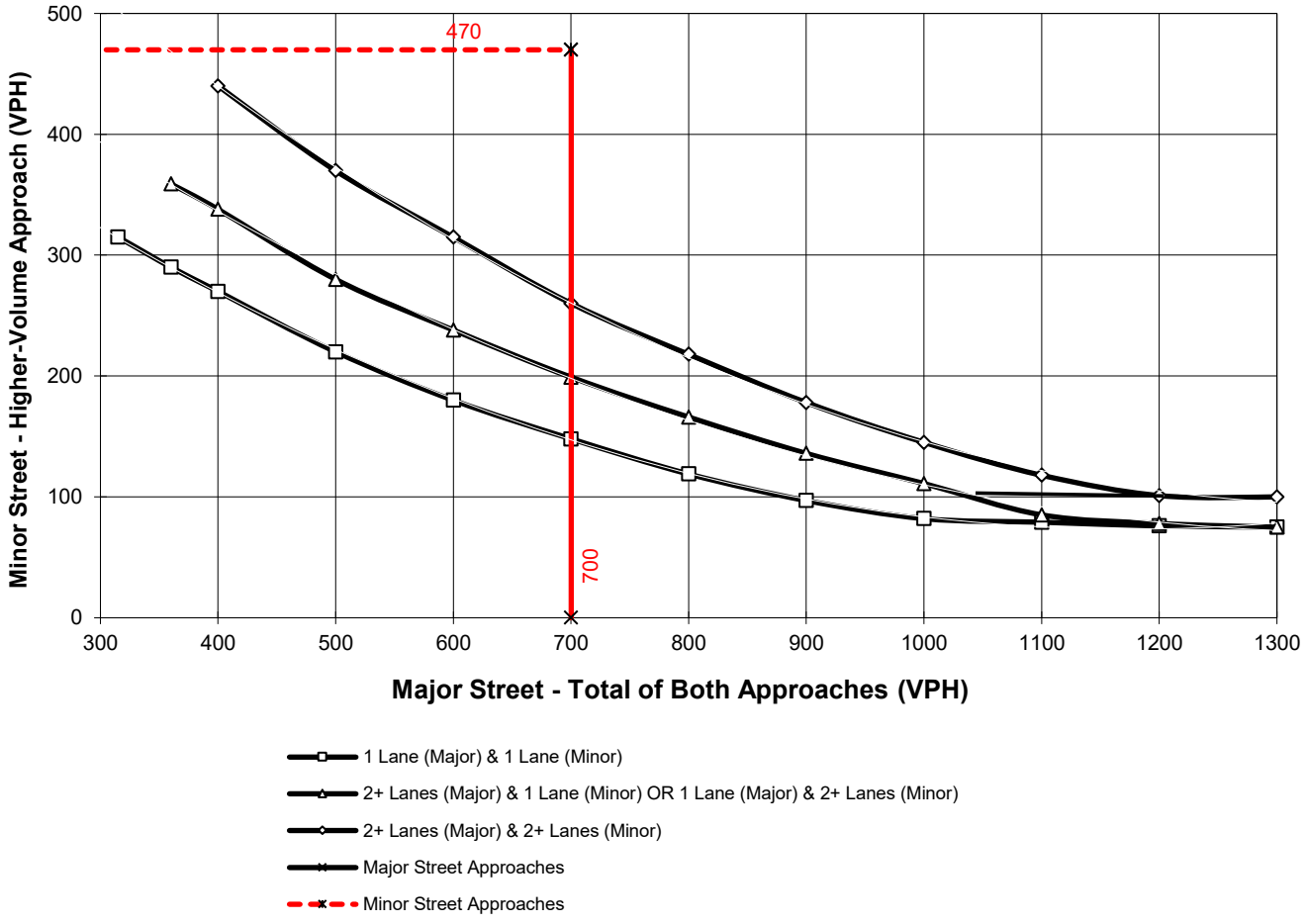
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 2) Conditions - Weekday AM Peak Hour**

Major Street Name = **4th St.** Total of Both Approaches (VPH) = **700**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **470**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

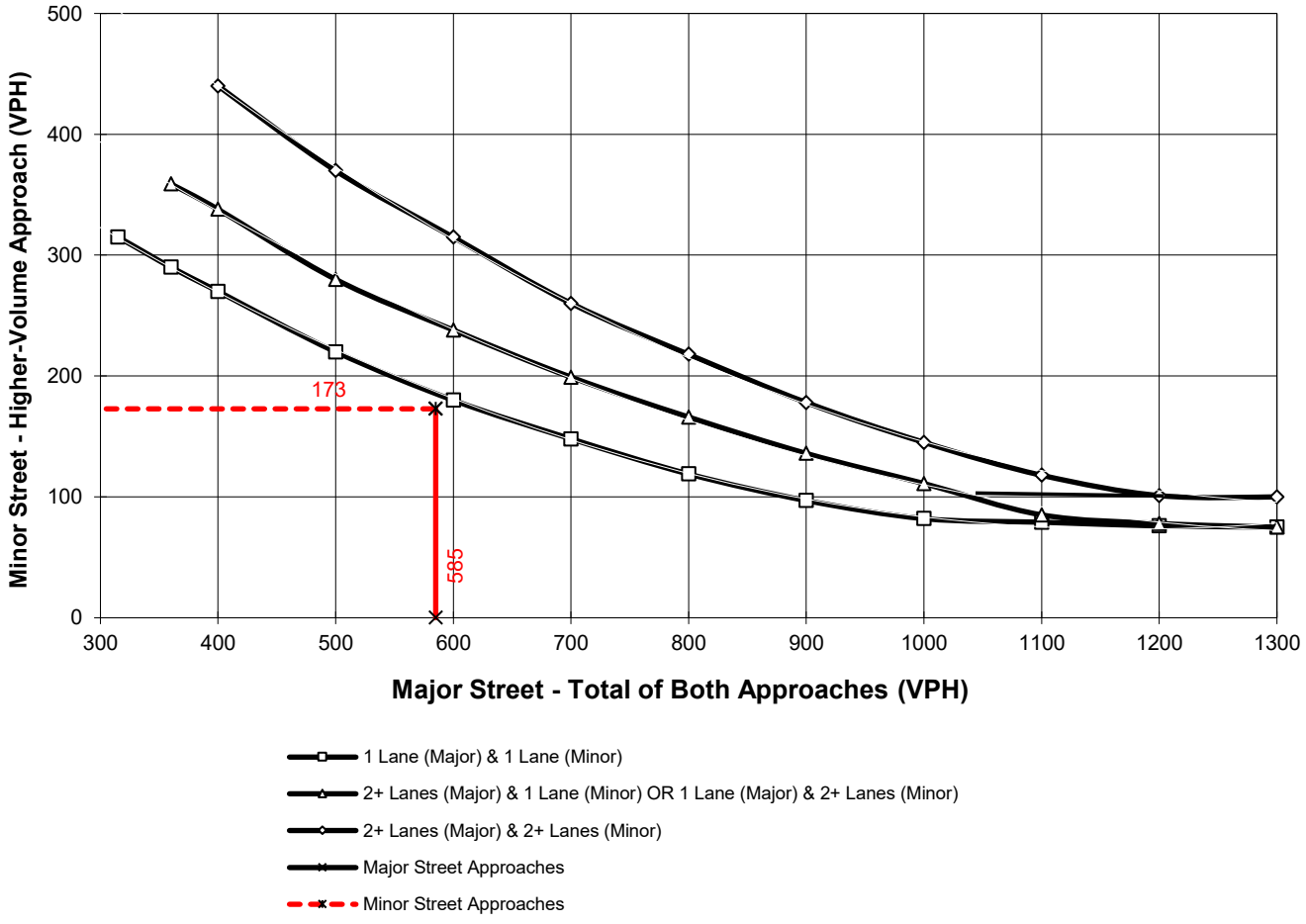
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 2) Conditions - Weekday AM Peak Hour**

Major Street Name = **Veile Av.**
Total of Both Approaches (VPH) = **585**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **4th St.**
High Volume Approach (VPH) = **173**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

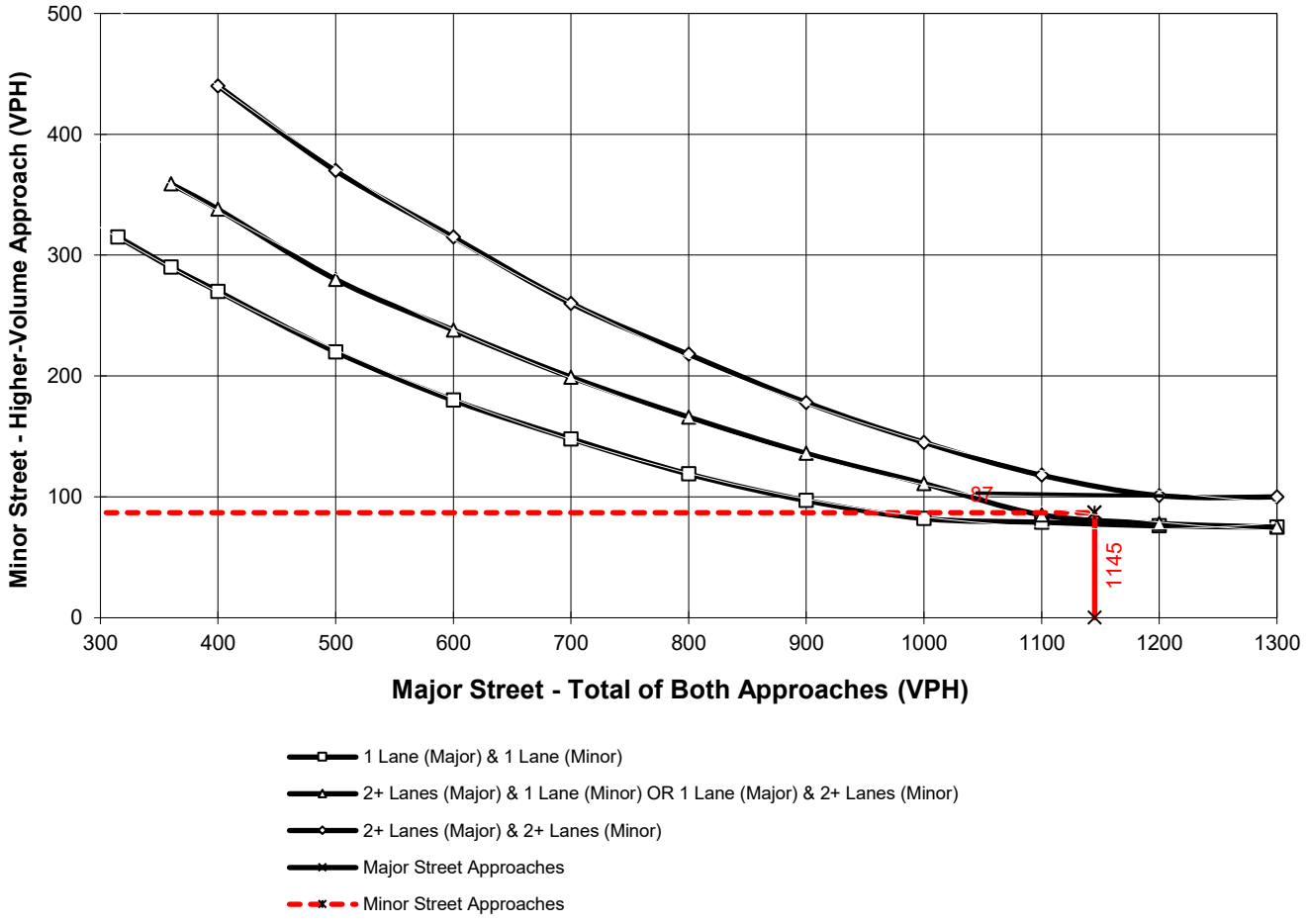
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 2) Conditions - Weekday AM Peak Hour**

Major Street Name = **California Av.**
Total of Both Approaches (VPH) = **1145**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **5th St.**
High Volume Approach (VPH) = **87**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 5.6:

E+P (PROJECT BUILDOUT) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

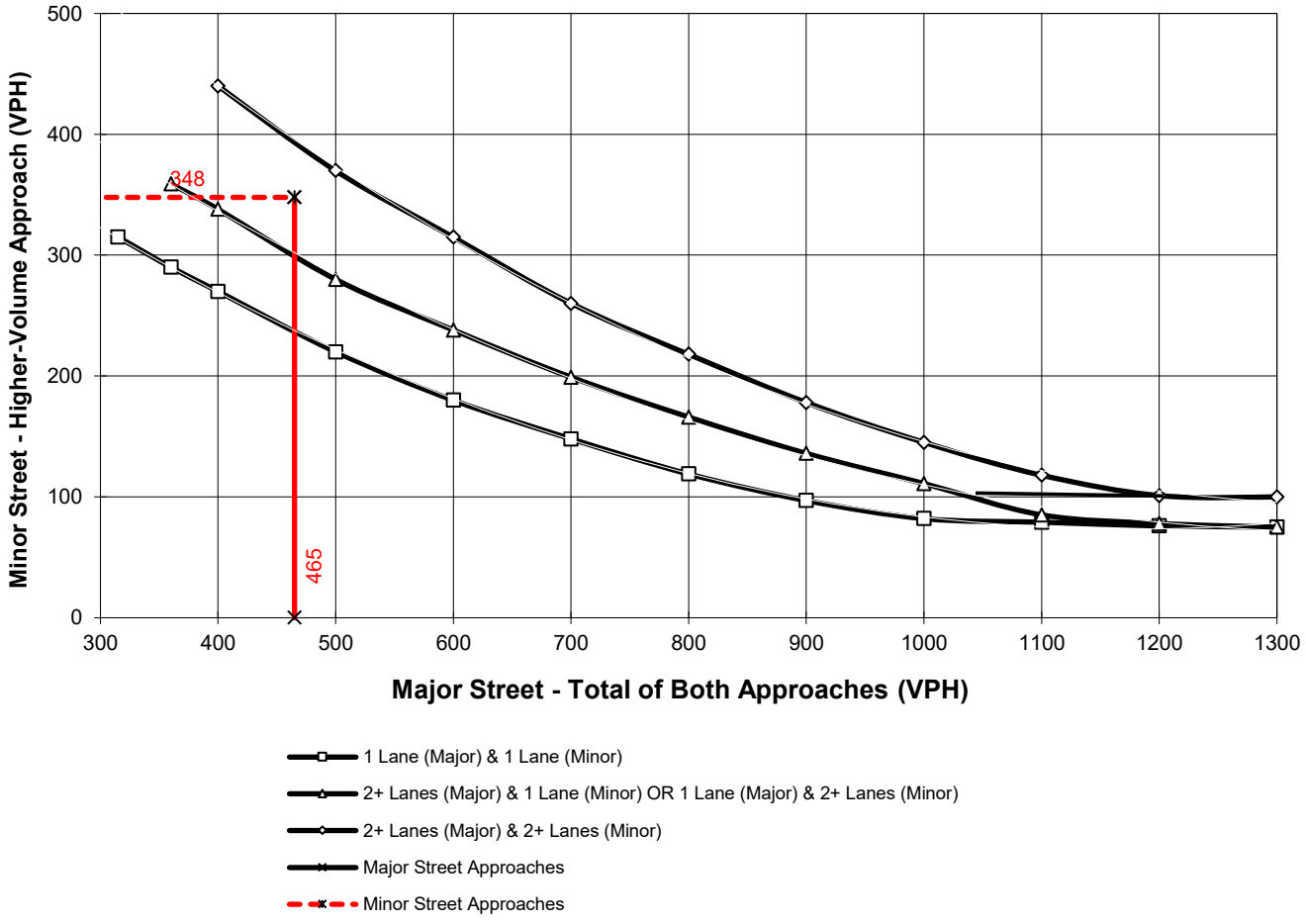
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase BO) Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.** Total of Both Approaches (VPH) = **465**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **348**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

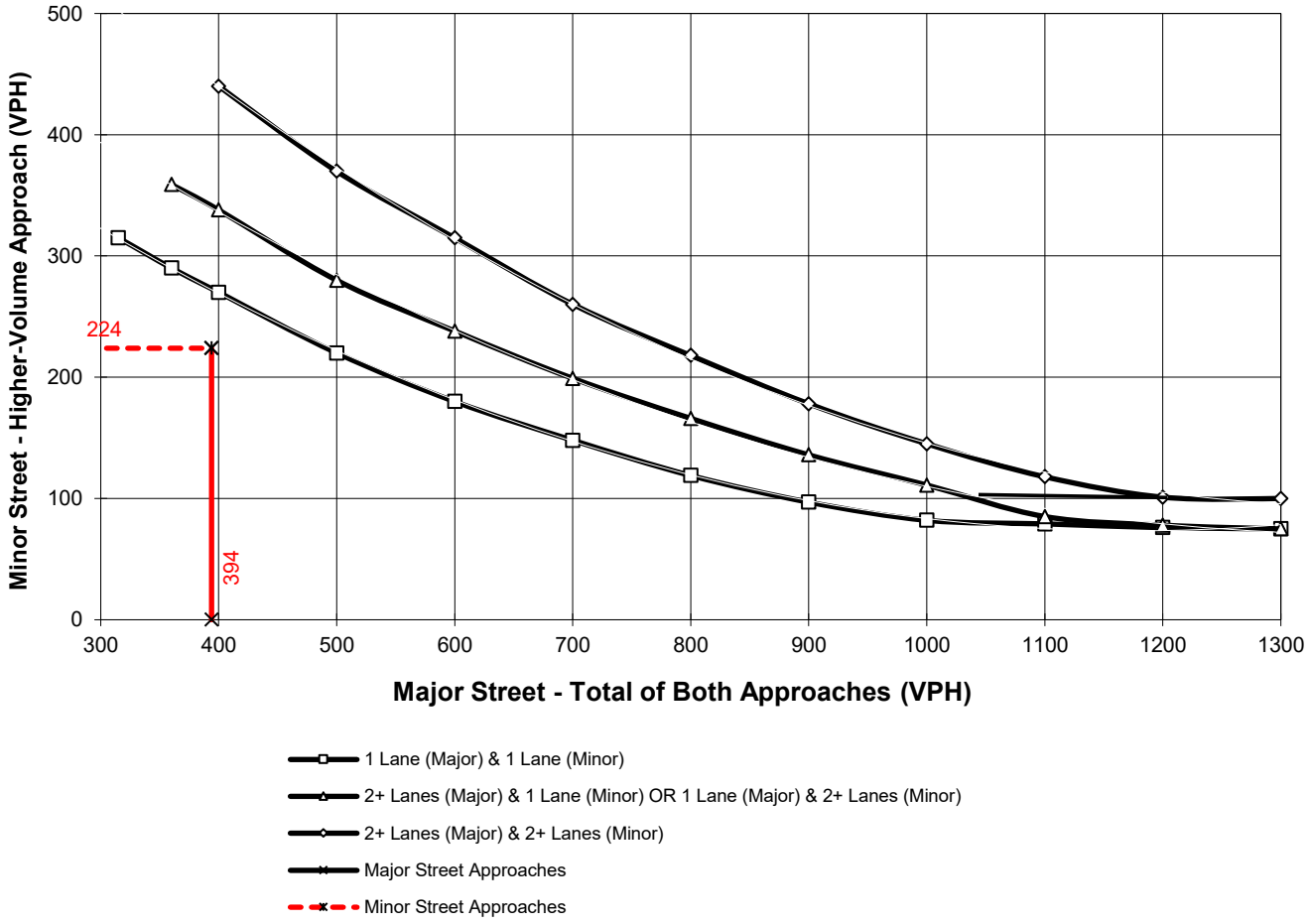
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase BO) Conditions - Weekday AM Peak Hour**

Major Street Name = **Potrero Bl.** Total of Both Approaches (VPH) = **394**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Western Knolls Av.** High Volume Approach (VPH) = **224**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

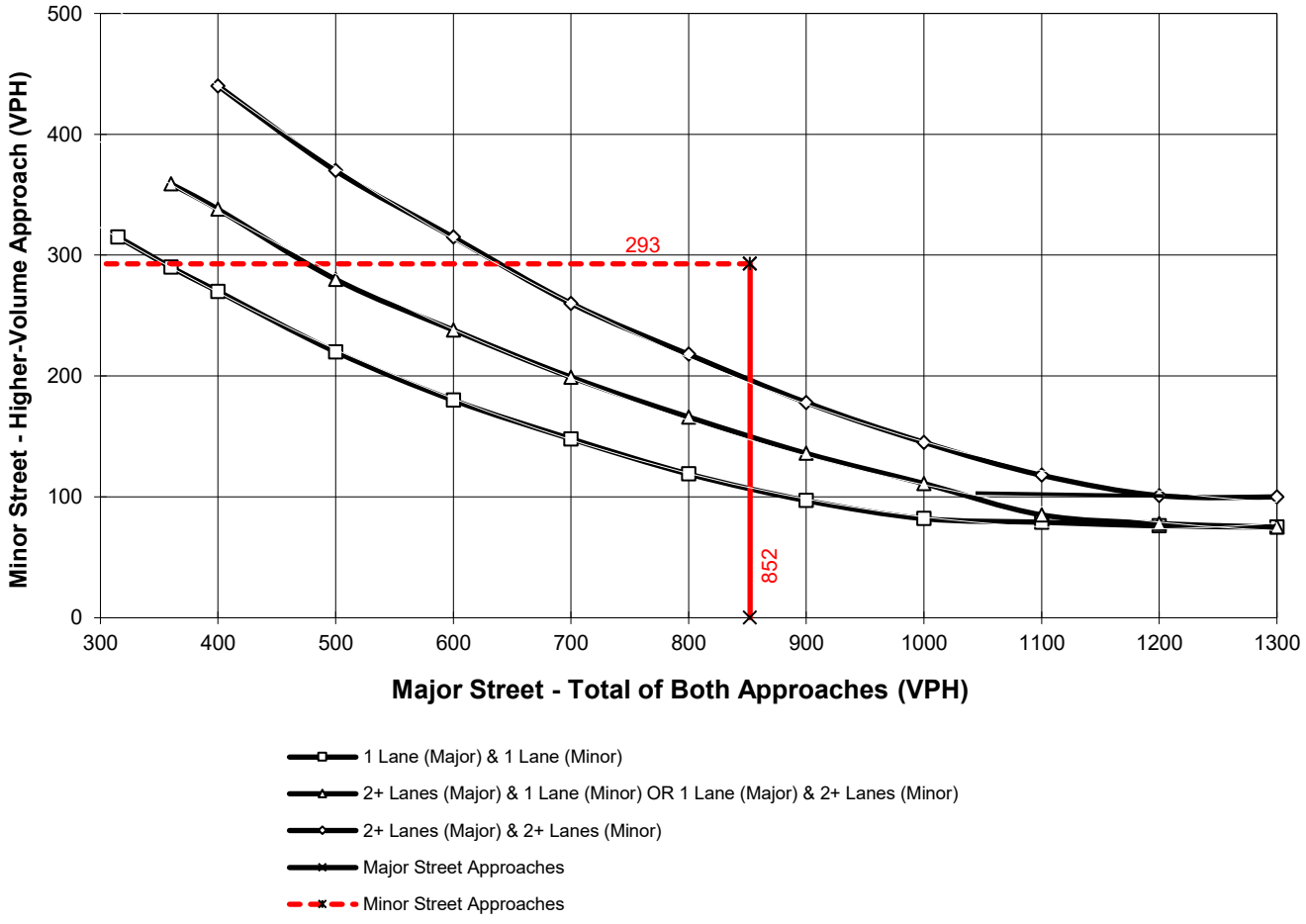
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase BO) Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**
Total of Both Approaches (VPH) = **852**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Veile Av.**
High Volume Approach (VPH) = **293**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

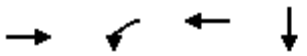
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APPENDIX 5.7:

E+P (PHASE 1) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	827	264	552	335
v/c Ratio	0.93	0.91	0.42	1.02
Control Delay	37.9	64.9	3.8	90.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.9	64.9	3.8	90.7
Queue Length 50th (ft)	387	112	29	~189
Queue Length 95th (ft)	#639	m#228	m64	#357
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	892	296	1313	330
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.93	0.89	0.42	1.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	93	468	421	402	678
v/c Ratio	0.68	0.67	0.85	0.56	0.75
Control Delay	51.0	16.9	48.0	6.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	16.9	48.0	6.1	23.5
Queue Length 50th (ft)	54	168	221	0	286
Queue Length 95th (ft)	m54	m175	#365	67	#468
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	144	781	532	741	909
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.65	0.60	0.79	0.54	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	338	319	375	235	469
v/c Ratio	0.79	0.70	0.81	0.11	0.50
Control Delay	36.3	24.7	41.7	5.6	16.0
Queue Delay	0.0	1.1	0.0	0.0	2.3
Total Delay	36.3	25.8	41.7	5.6	18.2
Queue Length 50th (ft)	115	83	144	14	75
Queue Length 95th (ft)	#232	163	#244	m31	121
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	463	492	523	2134	935
Starvation Cap Reductn	0	0	0	0	325
Spillback Cap Reductn	0	50	0	56	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.72	0.72	0.11	0.77

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

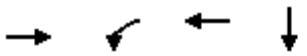


Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	325	1051	116	811
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	22.2	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	22.2	10.5
Queue Length 50th (ft)	52	49	86	33	131
Queue Length 95th (ft)	127	124	159	m63	201
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	534	521	1773	252	2272
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.59	0.46	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	568	170	633	733
v/c Ratio	0.98	0.87	0.72	1.00
Control Delay	63.3	73.8	21.4	62.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	63.3	73.8	21.4	62.2
Queue Length 50th (ft)	295	103	258	~403
Queue Length 95th (ft)	#375	#163	286	#479
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	578	200	884	730
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.98	0.85	0.72	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	100	581	295	245	600
v/c Ratio	0.63	0.86	0.65	0.43	0.65
Control Delay	50.5	26.0	38.4	6.2	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	26.0	38.4	6.2	19.6
Queue Length 50th (ft)	57	226	155	0	220
Queue Length 95th (ft)	m57	m201	230	55	376
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	176	785	503	608	924
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.74	0.59	0.40	0.65

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	398	280	319	596
v/c Ratio	0.83	0.71	0.77	0.16	0.60
Control Delay	37.1	21.1	40.2	6.9	20.4
Queue Delay	0.0	0.8	0.0	0.0	19.4
Total Delay	37.1	21.9	40.2	6.9	39.8
Queue Length 50th (ft)	140	90	108	21	101
Queue Length 95th (ft)	#278	182	m#188	m45	152
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	520	588	403	2001	1000
Starvation Cap Reductn	0	0	0	0	404
Spillback Cap Reductn	0	45	0	54	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.73	0.69	0.16	1.00

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	448	431	871	159	1033
v/c Ratio	0.84	0.79	0.63	0.77	0.53
Control Delay	32.5	25.4	12.7	43.2	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	25.4	12.7	43.2	14.8
Queue Length 50th (ft)	126	101	82	64	175
Queue Length 95th (ft)	#272	#236	140	m#117	241
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	580	593	1380	207	1934
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.73	0.63	0.77	0.53

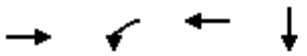
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 5.8:

E+P (PHASE 2) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	850	264	552	445
v/c Ratio	0.96	0.91	0.42	1.30
Control Delay	42.8	63.2	3.4	186.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.8	63.2	3.4	186.0
Queue Length 50th (ft)	412	111	29	~312
Queue Length 95th (ft)	#671	m#240	64	#491
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	890	296	1313	342
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.96	0.89	0.42	1.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	114	468	421	402	678
v/c Ratio	1.06	0.65	0.82	0.55	0.76
Control Delay	85.4	15.8	44.9	5.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	15.8	44.9	5.9	24.3
Queue Length 50th (ft)	~72	177	216	0	282
Queue Length 95th (ft)	m61	m166	#324	65	#468
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	765	888
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.06	0.60	0.74	0.53	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	338	319	375	235	528
v/c Ratio	0.79	0.70	0.83	0.11	0.55
Control Delay	36.3	24.7	44.1	5.6	16.7
Queue Delay	0.0	1.1	0.0	0.0	3.3
Total Delay	36.3	25.8	44.1	5.6	20.1
Queue Length 50th (ft)	115	83	145	14	85
Queue Length 95th (ft)	#232	163	#257	m31	134
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	463	492	493	2134	961
Starvation Cap Reductn	0	0	0	0	327
Spillback Cap Reductn	0	51	0	48	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.72	0.76	0.11	0.83

Intersection Summary

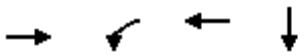
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	325	1051	116	811
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	22.0	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	22.0	10.3
Queue Length 50th (ft)	52	49	86	33	131
Queue Length 95th (ft)	127	124	159	m61	196
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	534	521	1773	252	2272
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.59	0.46	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	709	170	633	775
v/c Ratio	1.23	0.87	0.72	1.06
Control Delay	148.6	73.7	20.6	78.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	148.6	73.7	20.6	78.3
Queue Length 50th (ft)	~494	103	258	~483
Queue Length 95th (ft)	#543	#163	286	#524
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	575	200	884	730
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.23	0.85	0.72	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	210	581	295	245	600
v/c Ratio	1.19	0.84	0.73	0.46	0.66
Control Delay	131.2	22.9	43.2	6.7	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	131.2	22.9	43.2	6.7	20.0
Queue Length 50th (ft)	~149	247	155	0	220
Queue Length 95th (ft)	m#119	m197	230	55	376
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	176	785	502	607	913
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.19	0.74	0.59	0.40	0.66

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	398	280	319	863
v/c Ratio	0.83	0.71	0.71	0.16	0.91
Control Delay	37.1	21.1	35.3	7.6	39.9
Queue Delay	0.0	0.7	0.0	0.0	47.6
Total Delay	37.1	21.9	35.3	7.6	87.5
Queue Length 50th (ft)	140	90	109	22	~165
Queue Length 95th (ft)	#278	182	m164	m48	#316
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	520	588	493	2001	944
Starvation Cap Reductn	0	0	0	0	310
Spillback Cap Reductn	0	43	0	75	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.73	0.57	0.17	1.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	494	475	961	124	1141
v/c Ratio	0.90	0.83	0.66	0.67	0.61
Control Delay	40.8	28.7	13.5	33.4	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	40.8	28.7	13.5	33.4	19.1
Queue Length 50th (ft)	155	121	101	49	205
Queue Length 95th (ft)	#329	#281	164	m56	m266
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	567	593	1462	192	1867
Starvation Cap Reductn	0	0	0	0	123
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.87	0.80	0.66	0.65	0.65

Intersection Summary

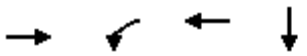
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 5.9:

E+P (PROJECT BUILDOUT) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	864	264	552	468
v/c Ratio	0.97	0.91	0.42	1.36
Control Delay	46.1	63.2	3.4	209.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	46.1	63.2	3.4	209.6
Queue Length 50th (ft)	428	111	29	~337
Queue Length 95th (ft)	#691	m#240	64	#519
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	890	296	1313	344
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.97	0.89	0.42	1.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	127	468	421	402	678
v/c Ratio	1.18	0.65	0.82	0.55	0.76
Control Delay	127.6	16.1	44.9	5.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	127.6	16.1	44.9	5.9	24.3
Queue Length 50th (ft)	~88	181	216	0	282
Queue Length 95th (ft)	m#74	m164	#324	65	#468
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	765	888
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.18	0.60	0.74	0.53	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	338	319	375	235	544
v/c Ratio	0.79	0.70	0.83	0.11	0.57
Control Delay	36.3	24.7	43.5	5.9	17.3
Queue Delay	0.0	1.1	0.0	0.0	3.9
Total Delay	36.3	25.8	43.5	5.9	21.2
Queue Length 50th (ft)	115	83	146	14	90
Queue Length 95th (ft)	#232	163	#257	m32	140
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	463	492	493	2134	960
Starvation Cap Reductn	0	0	0	0	323
Spillback Cap Reductn	0	51	0	54	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.72	0.76	0.11	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

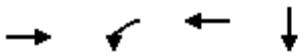
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	347	338	1095	122	844
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	23.2	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	23.2	10.7
Queue Length 50th (ft)	61	57	100	38	138
Queue Length 95th (ft)	#143	#141	173	m64	202
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	525	511	1759	252	2260
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.66	0.62	0.48	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	751	170	633	841
v/c Ratio	1.31	0.87	0.72	1.15
Control Delay	178.8	73.6	20.3	109.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	178.8	73.6	20.3	109.7
Queue Length 50th (ft)	~547	103	255	~560
Queue Length 95th (ft)	#591	#162	287	#594
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	574	200	884	731
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.31	0.85	0.72	1.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	243	581	295	245	600
v/c Ratio	1.24	0.83	0.74	0.46	0.67
Control Delay	148.9	22.2	44.3	6.7	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	148.9	22.2	44.3	6.7	20.7
Queue Length 50th (ft)	~179	254	158	0	222
Queue Length 95th (ft)	m#126	m184	230	55	386
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	196	806	502	607	899
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.24	0.72	0.59	0.40	0.67

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	398	280	319	903
v/c Ratio	0.83	0.71	0.71	0.16	0.96
Control Delay	37.1	21.1	34.8	7.9	46.5
Queue Delay	0.0	0.7	0.0	0.0	44.0
Total Delay	37.1	21.8	34.8	7.9	90.5
Queue Length 50th (ft)	140	90	109	23	~191
Queue Length 95th (ft)	#278	182	m154	m46	#336
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	520	588	493	2001	943
Starvation Cap Reductn	0	0	0	0	300
Spillback Cap Reductn	0	42	0	75	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.73	0.57	0.17	1.40

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	513	494	1001	133	1188
v/c Ratio	0.92	0.84	0.70	0.71	0.65
Control Delay	44.2	30.1	14.6	35.3	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	44.2	30.1	14.6	35.3	19.9
Queue Length 50th (ft)	168	130	110	53	212
Queue Length 95th (ft)	#351	#298	177	m60	m268
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	563	593	1435	192	1836
Starvation Cap Reductn	0	0	0	0	119
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.83	0.70	0.69	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 5.10:

E+P (PHASE 1) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2056	7161	0.29	68.7	10.0	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2056	328	7200	2100	0.29	0.16	64.2	60.8	10.7	13.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1732	7161	0.24	68.7	8.4	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2443	711	7200	2100	0.34	0.34	64.3	62.5	12.7	13.6	B

Segment 5: Basic

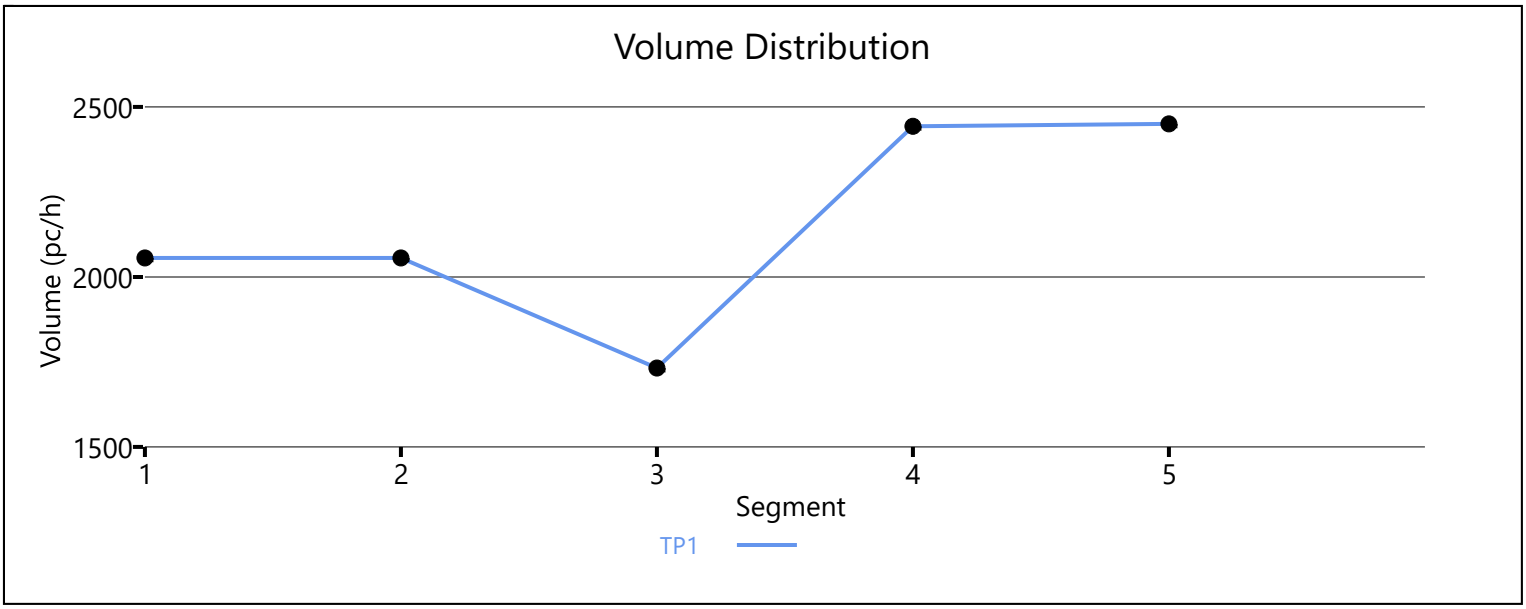
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2450	7161	0.34	68.7	11.9	B

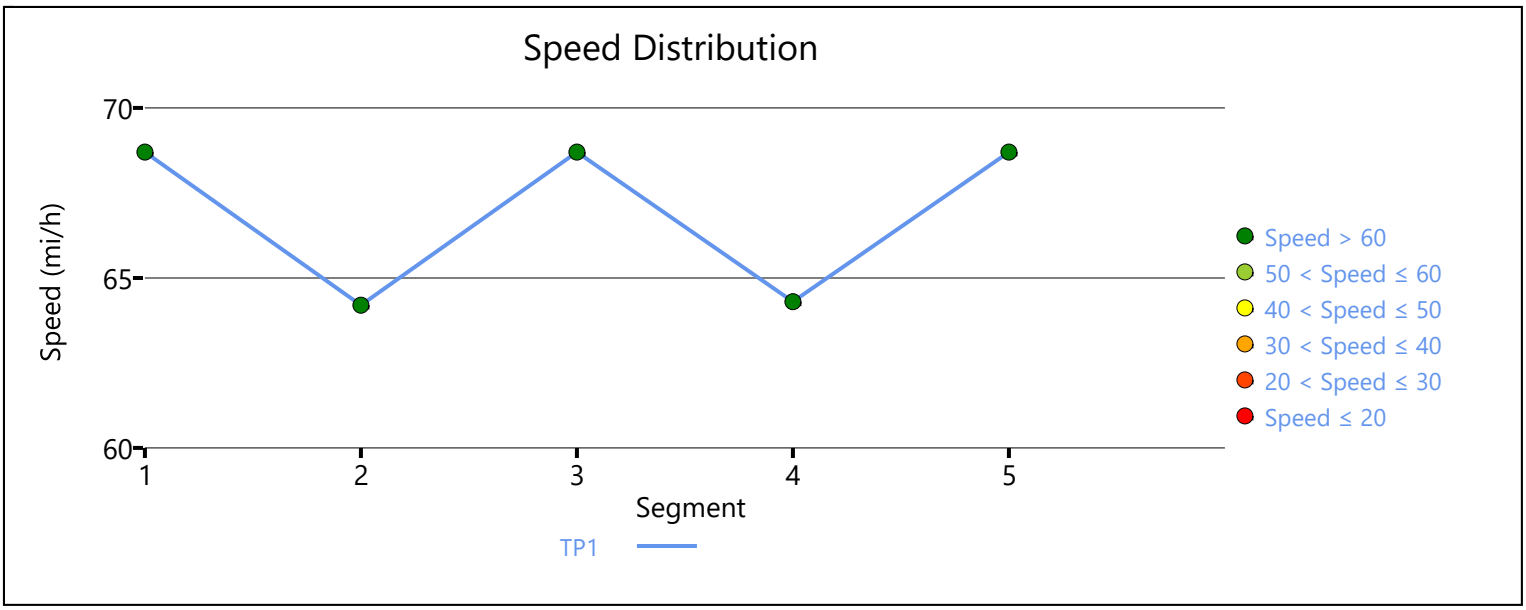
Facility Time Period Results

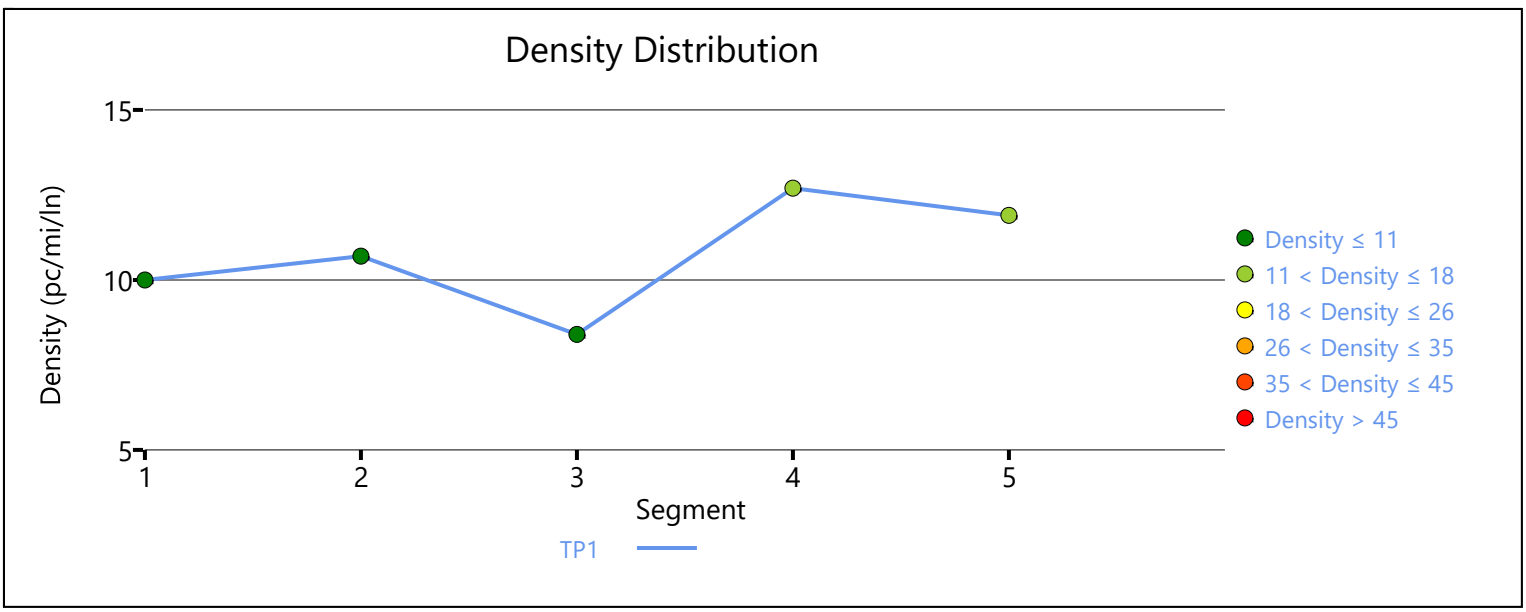
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	10.5	10.1	2.1	A

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.1
Average Travel Time, min	2.1	Density, pc/mi/ln	10.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2523	7161	0.35	68.7	12.2	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2523	728	7200	2100	0.35	0.35	63.2	59.8	13.3	16.7	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	1808	7161	0.25	68.7	8.8	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2338	530	7200	2100	0.32	0.25	64.7	62.9	12.0	12.0	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2343	7161	0.33	68.7	11.4	B

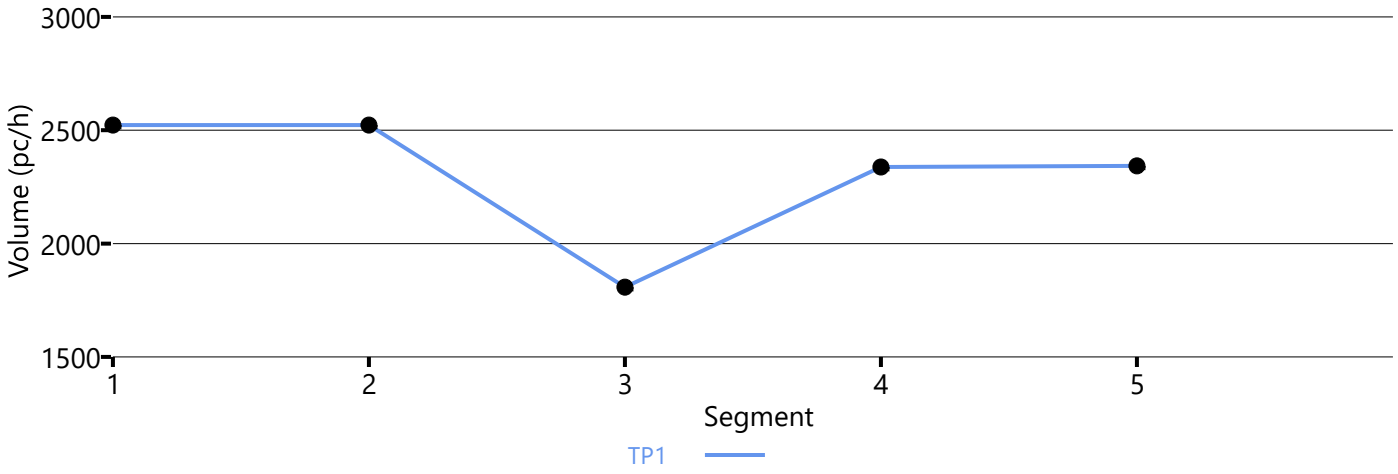
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.6	10.7	2.2	B

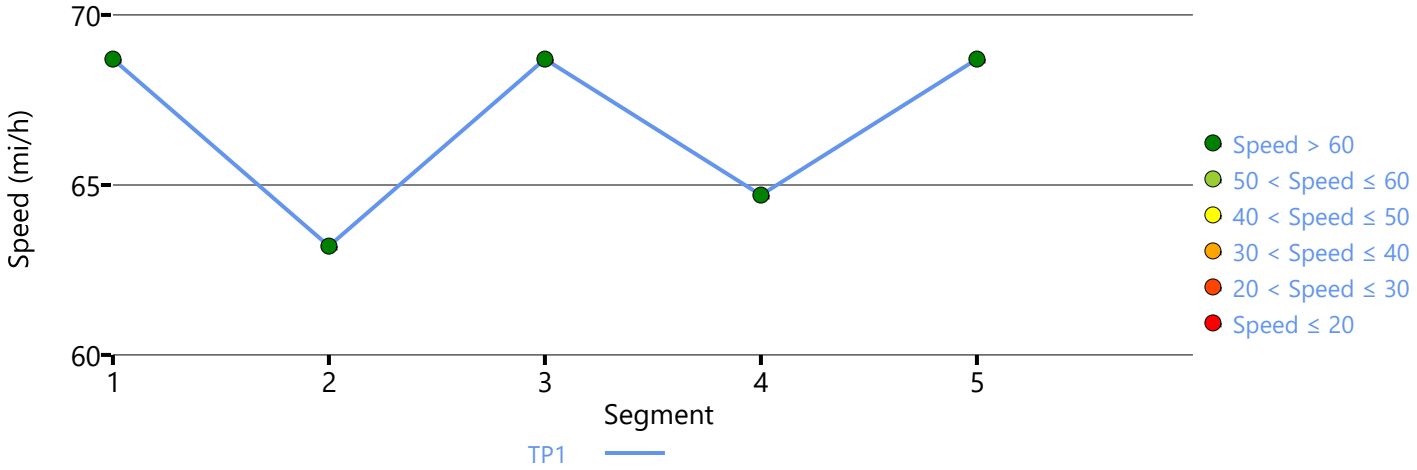
Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.7
Average Travel Time, min	2.2	Density, pc/mi/ln	11.6

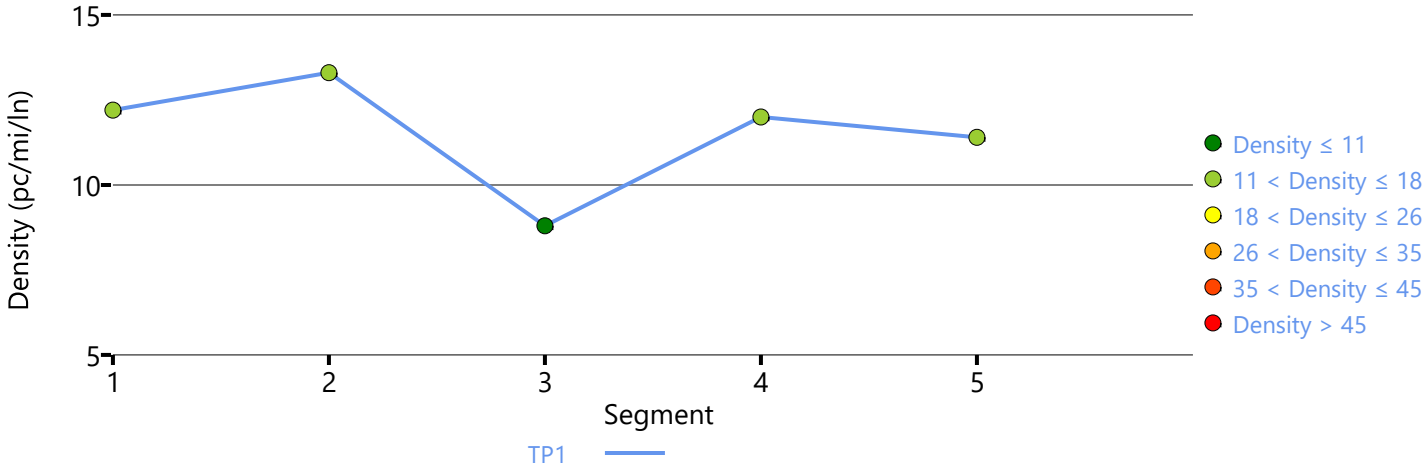
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4998	9548	0.52	68.7	18.2	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4998	628	9600	2100	0.52	0.30	67.0	60.1	18.6	20.9	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4347	9548	0.46	68.7	15.8	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4915	568	9600	2100	0.51	0.27	64.8	62.3	19.0	17.3	B

Segment 5: Basic

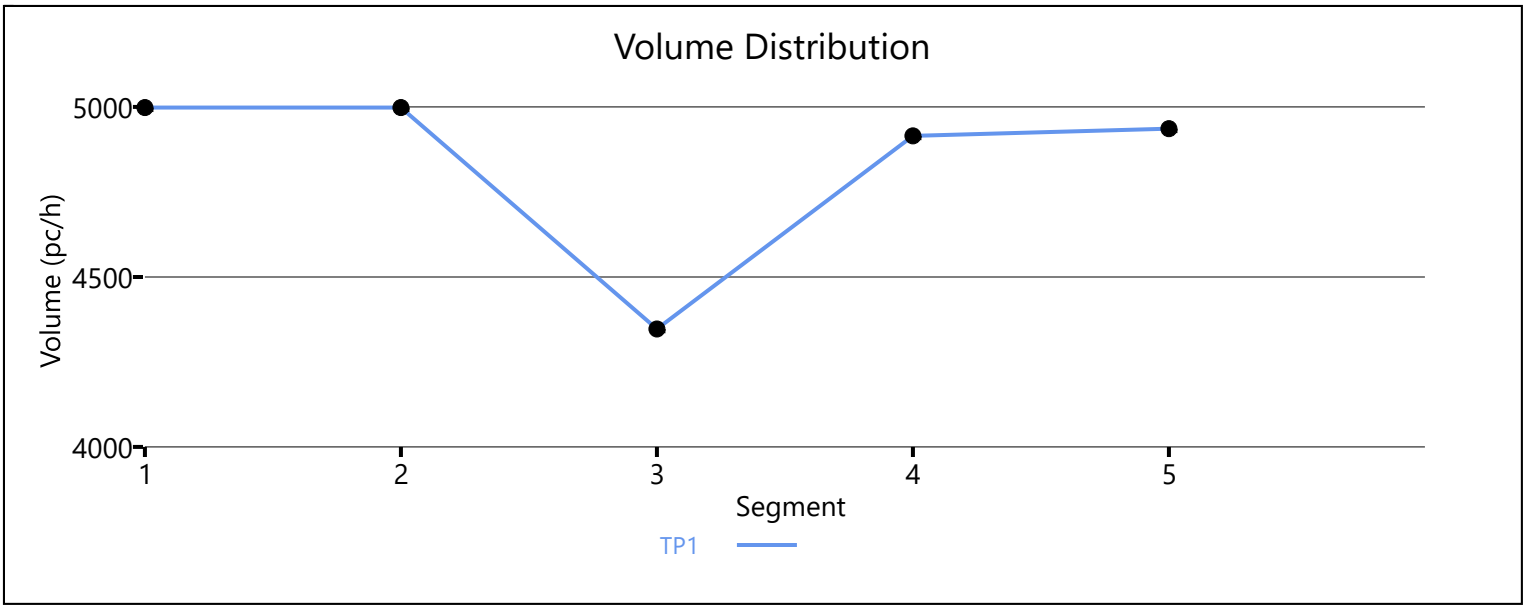
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4936	9548	0.52	68.7	18.0	B

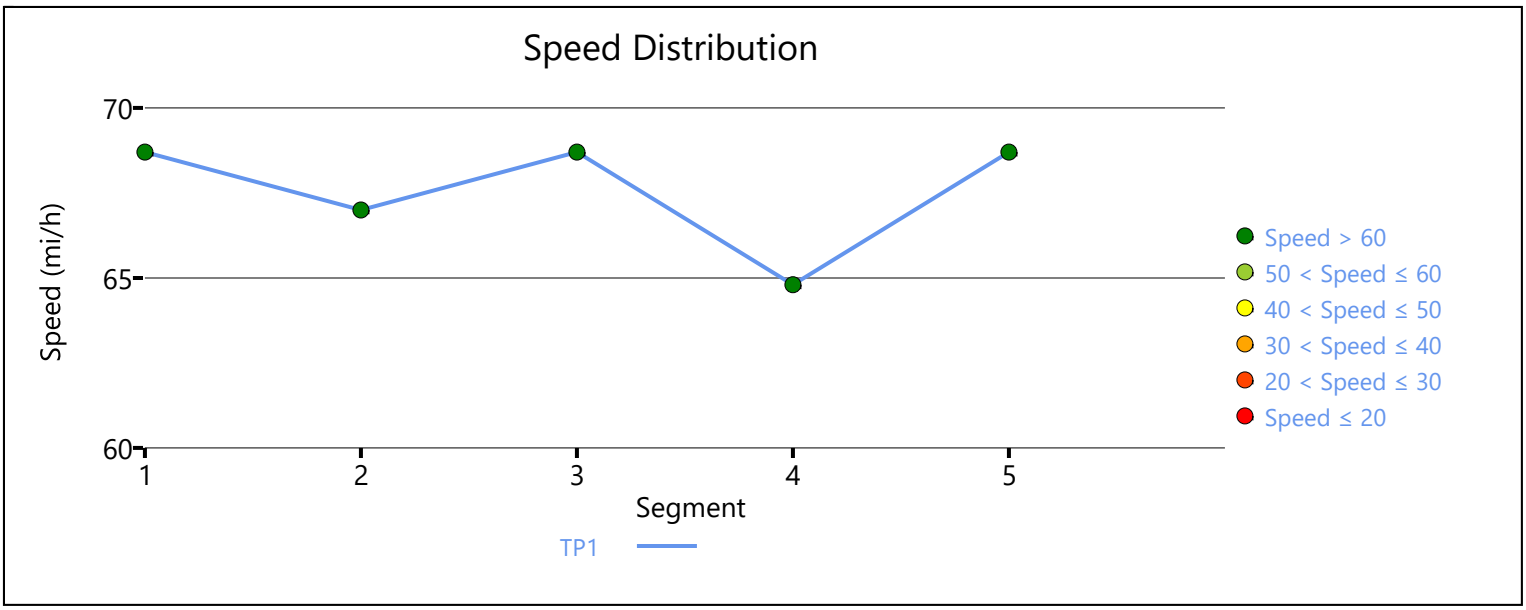
Facility Time Period Results

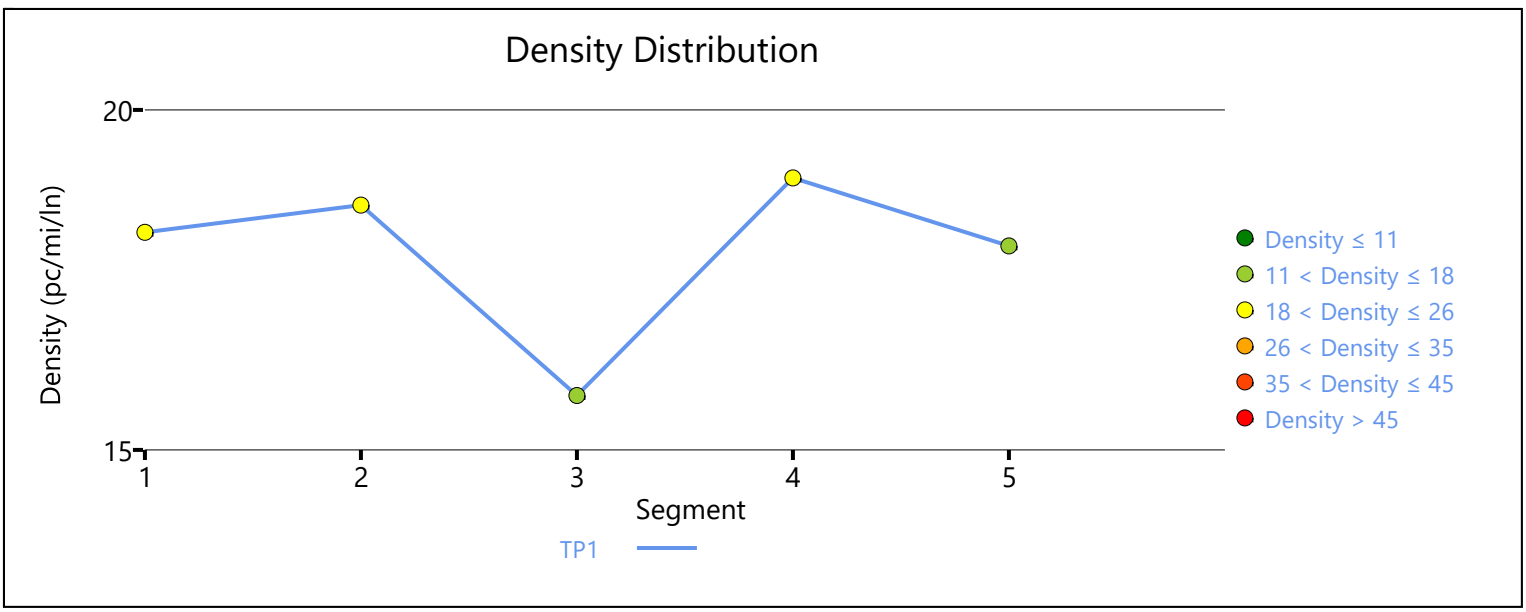
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	18.1	16.2	1.7	C

Facility Overall Results

Space Mean Speed, mi/h	67.8	Density, veh/mi/ln	16.2
Average Travel Time, min	1.7	Density, pc/mi/ln	18.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3852	9548	0.40	68.7	14.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	3705	626	9600	2100	0.39	0.30	66.9	60.1	13.8	16.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3205	9548	0.34	68.7	11.7	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	3675	470	9600	2100	0.38	0.22	64.9	61.5	14.2	16.3	B

Segment 5: Basic

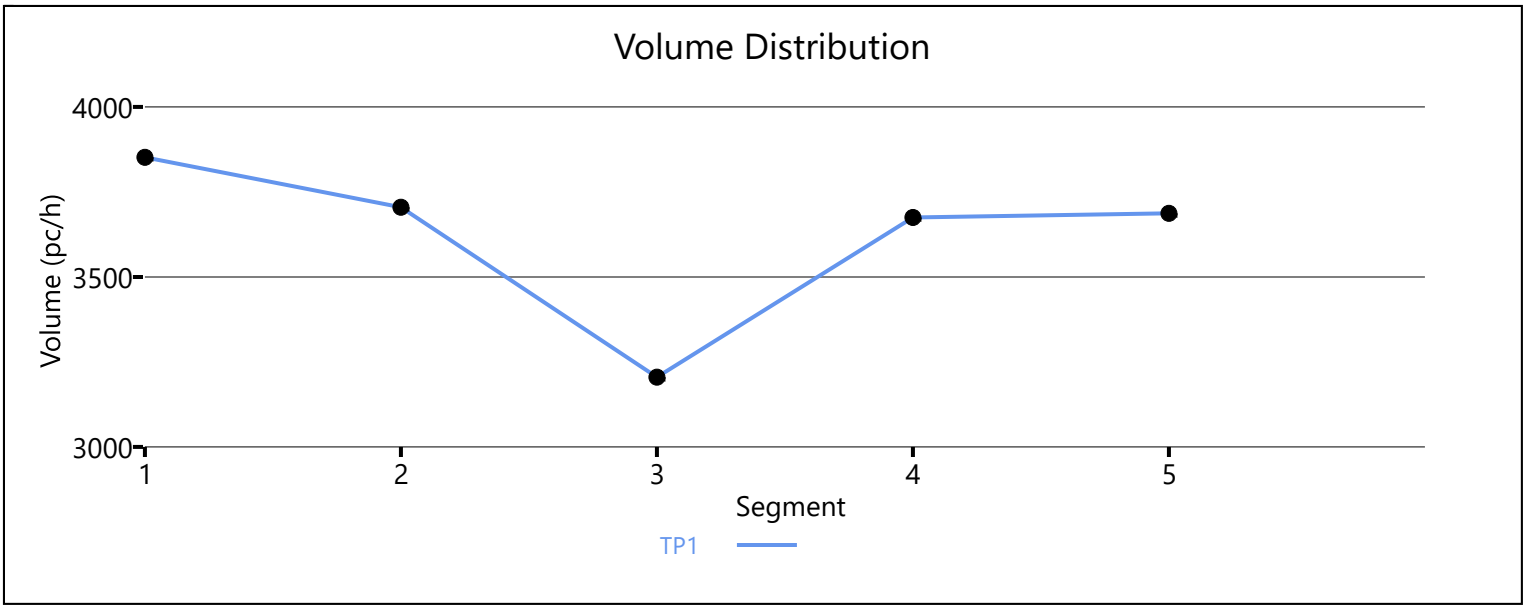
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3687	9548	0.39	68.7	13.4	B

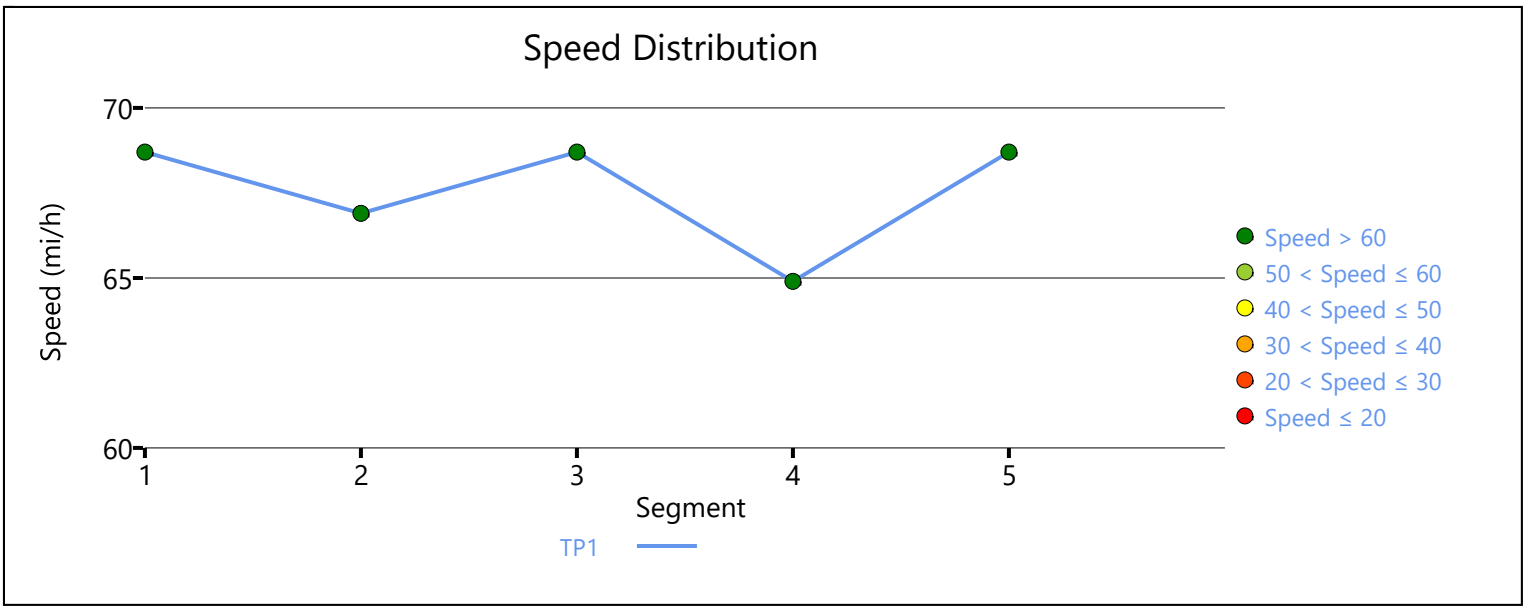
Facility Time Period Results

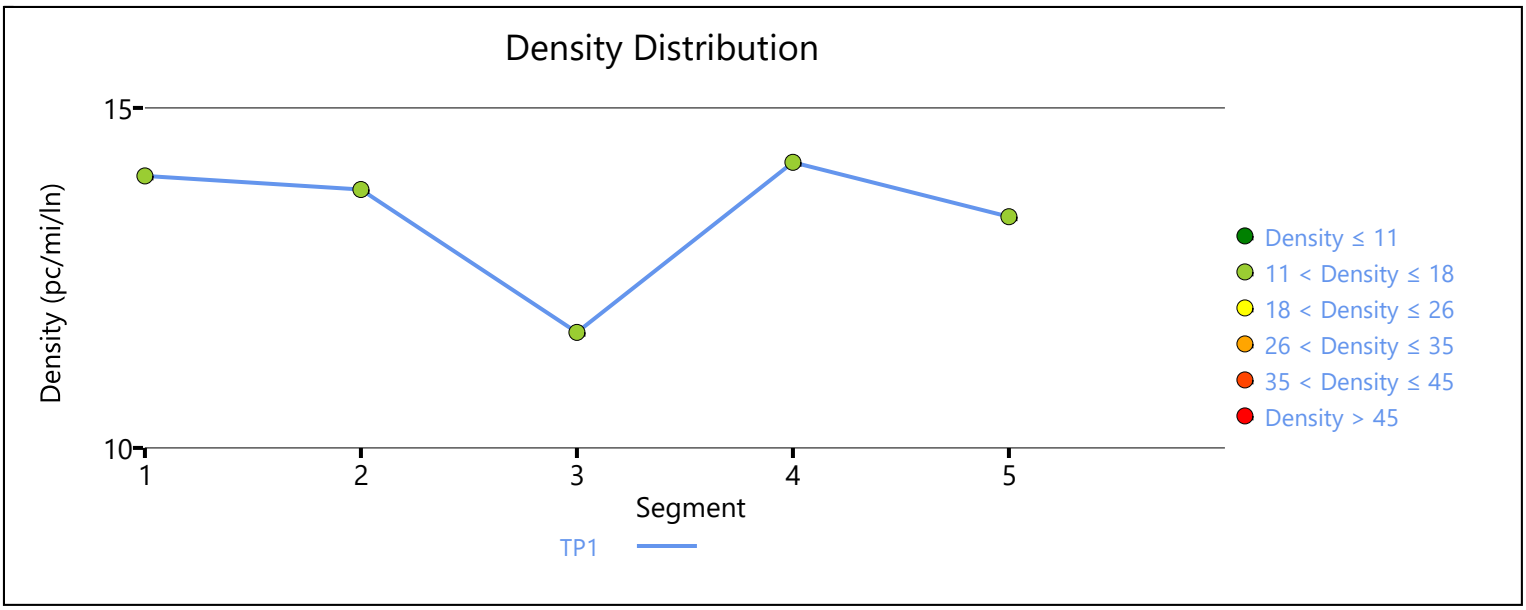
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	13.5	13.2	1.8	B

Facility Overall Results

Space Mean Speed, mi/h	67.9	Density, veh/mi/ln	13.2
Average Travel Time, min	1.8	Density, pc/mi/ln	13.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1359	4786	0.28	69.3	9.8	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.935	1359	871	4800	2100	0.28	0.41	59.5	59.5	11.4	11.9	B

Segment 3: Basic

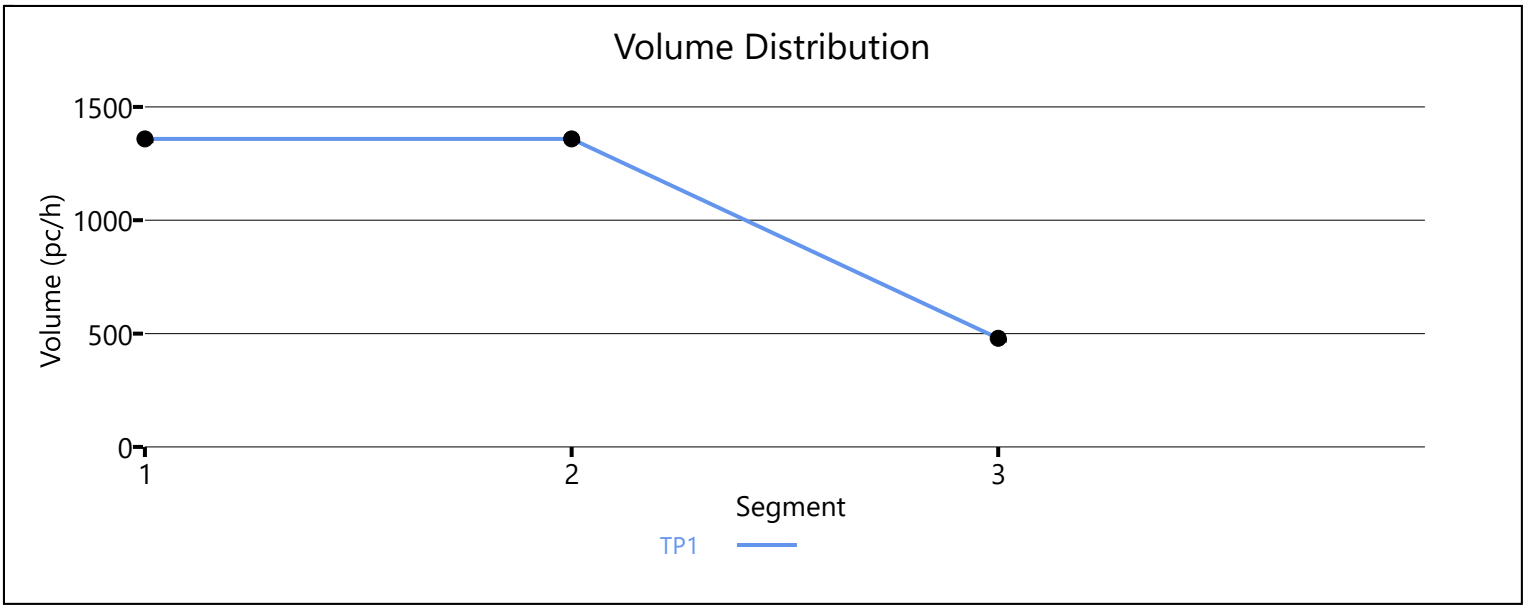
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	479	4786	0.10	69.3	3.5	A

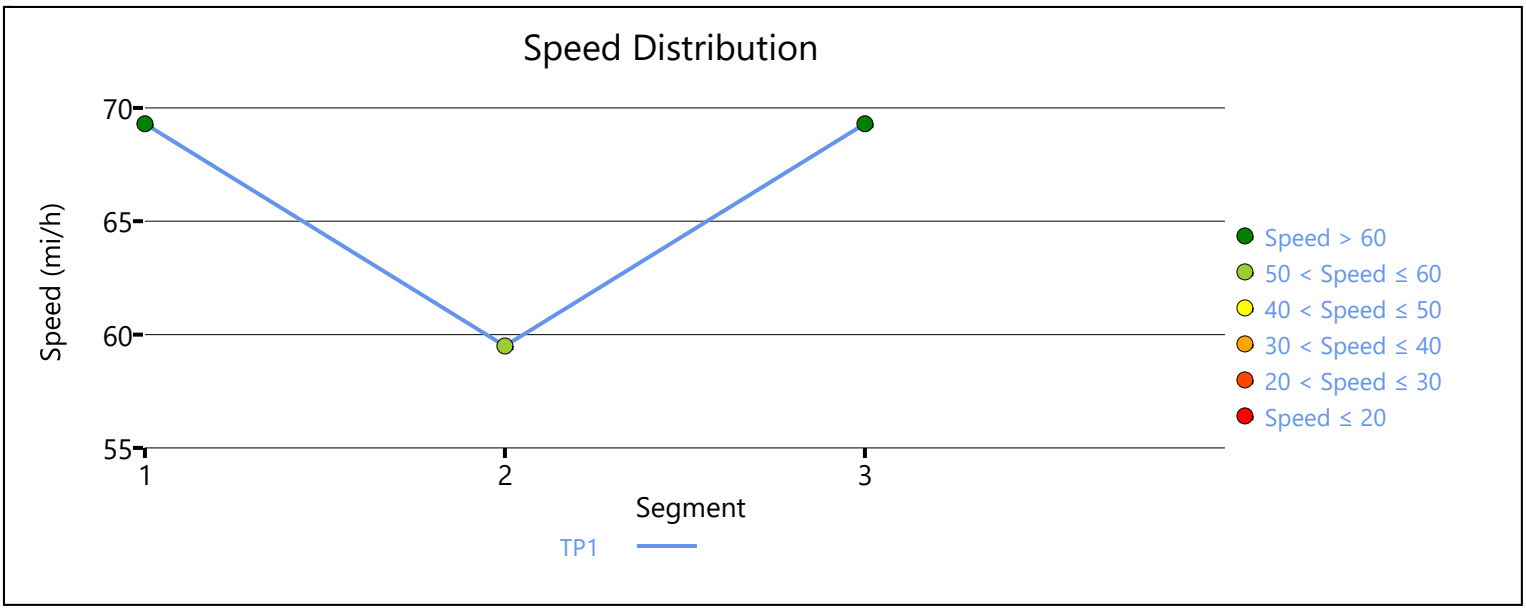
Facility Time Period Results

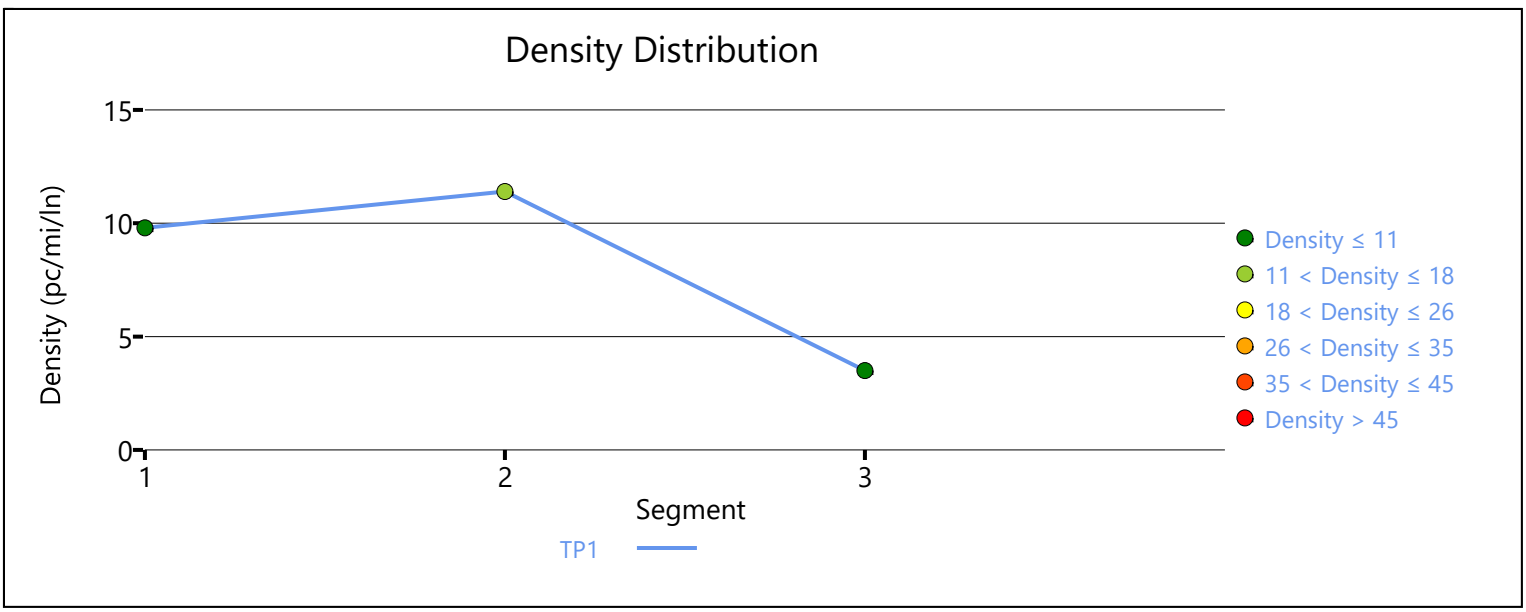
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	9.3	8.9	1.3	A

Facility Overall Results

Space Mean Speed, mi/h	67.0	Density, veh/mi/ln	8.9
Average Travel Time, min	1.3	Density, pc/mi/ln	9.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	1294	4774	0.27	68.7	9.4	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.870	1294	91	4800	2100	0.27	0.04	61.4	61.4	10.5	8.2	A

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1202	4774	0.25	68.7	8.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	1265	63	4800	2100	0.26	0.03	64.0	64.0	9.9	7.1	A

Segment 5: Basic

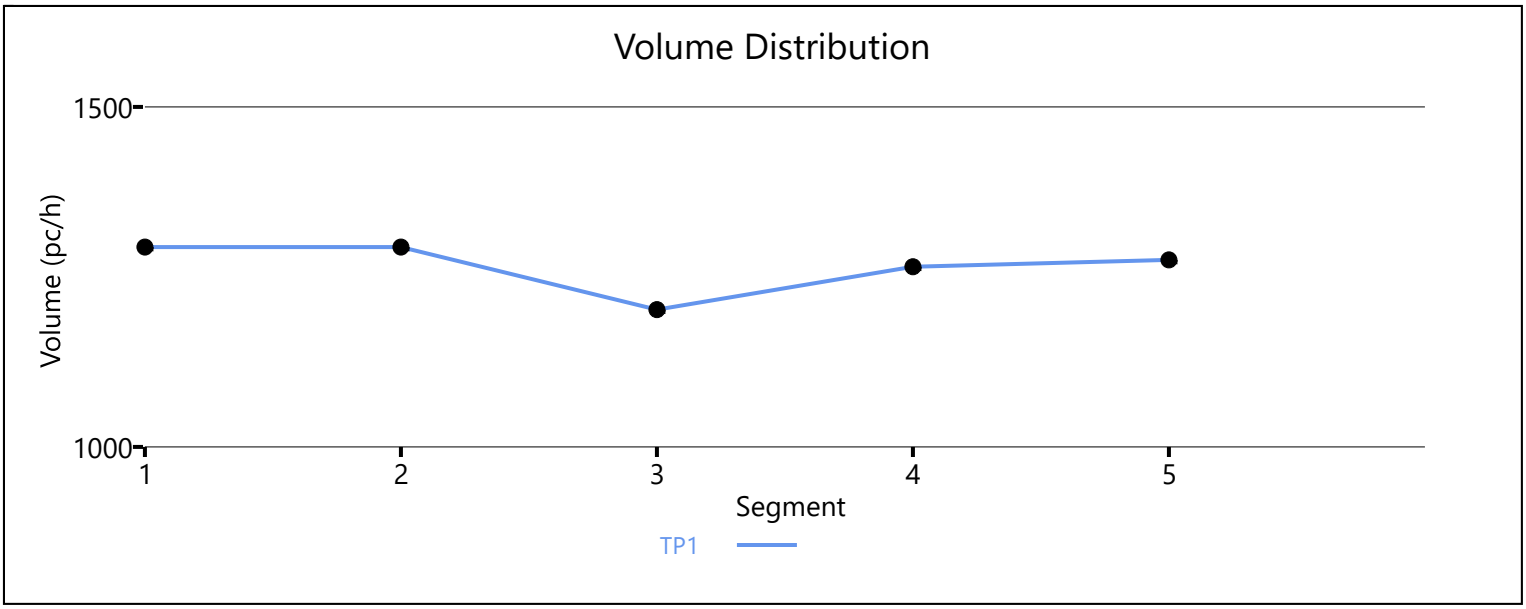
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	1275	4774	0.27	68.7	9.3	A

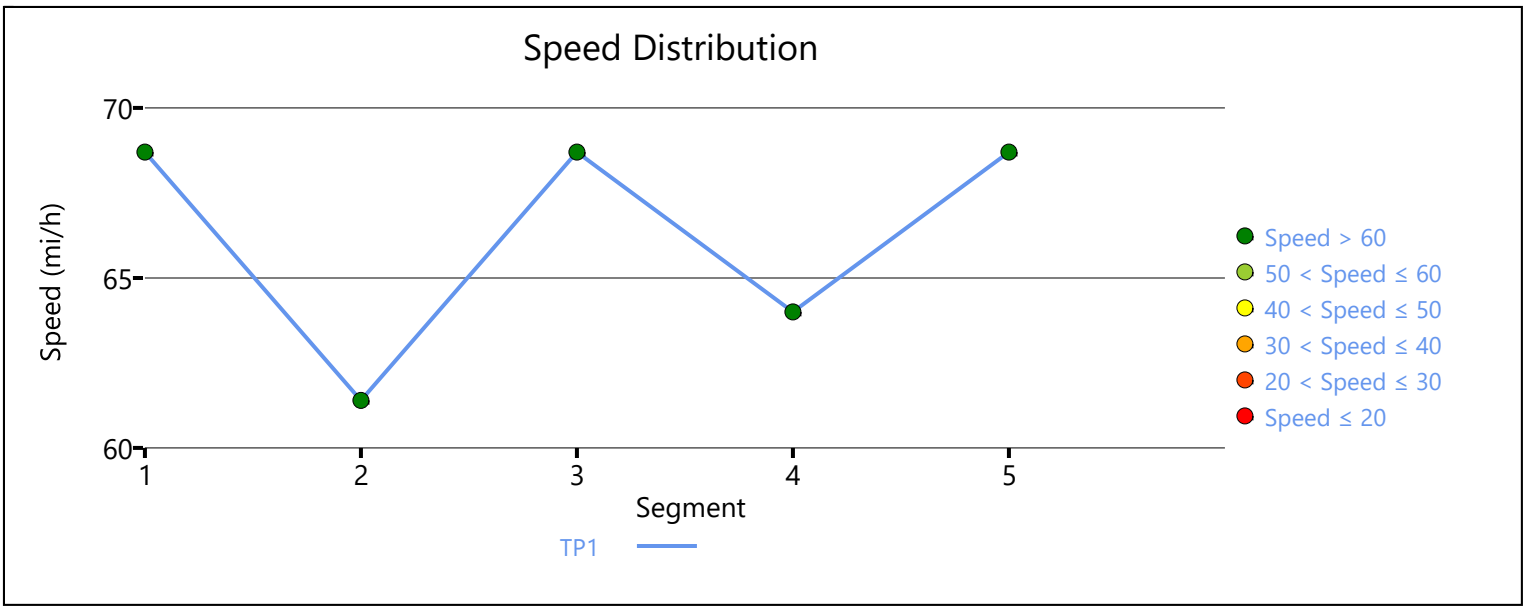
Facility Time Period Results

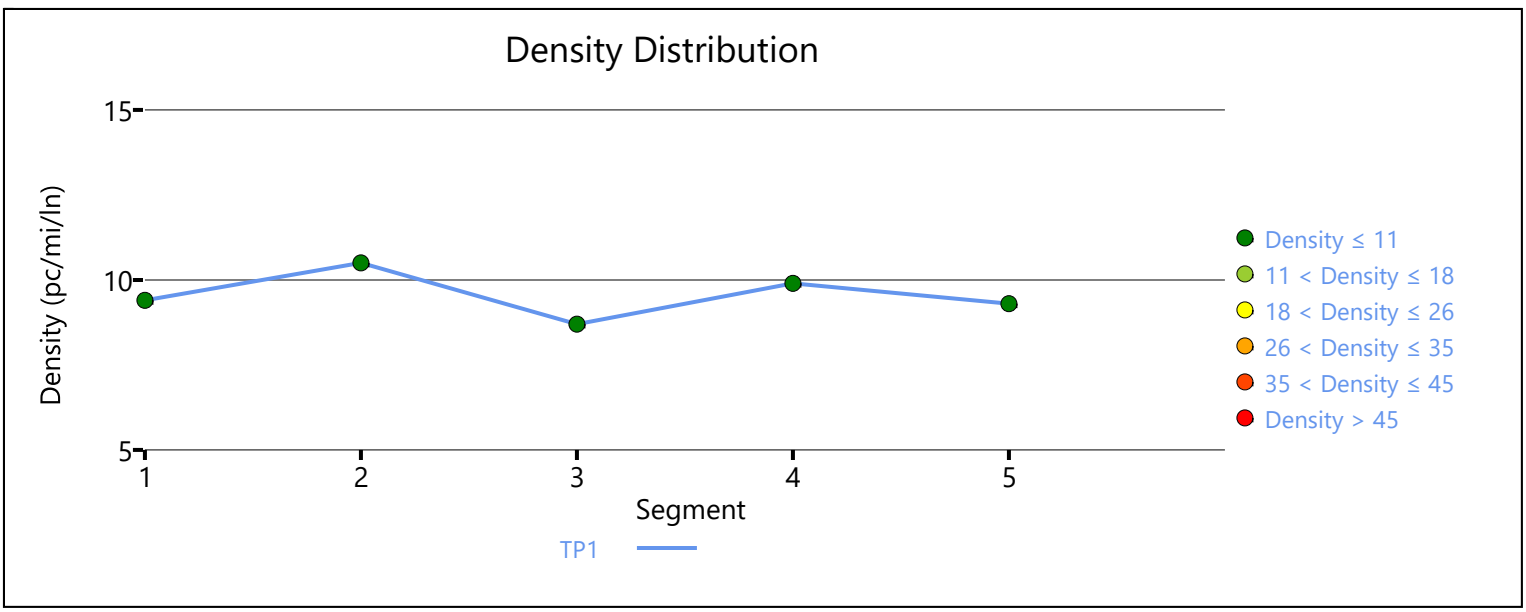
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	9.6	9.5	2.0	A

Facility Overall Results

Space Mean Speed, mi/h	67.1	Density, veh/mi/ln	9.5
Average Travel Time, min	2.0	Density, pc/mi/ln	9.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2786	7161	0.39	68.7	13.5	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	2786	606	7200	2100	0.39	0.29	63.8	60.1	14.6	17.9	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2189	7161	0.31	68.7	10.6	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2556	367	7200	2100	0.36	0.17	64.6	62.6	13.2	13.2	B

Segment 5: Basic

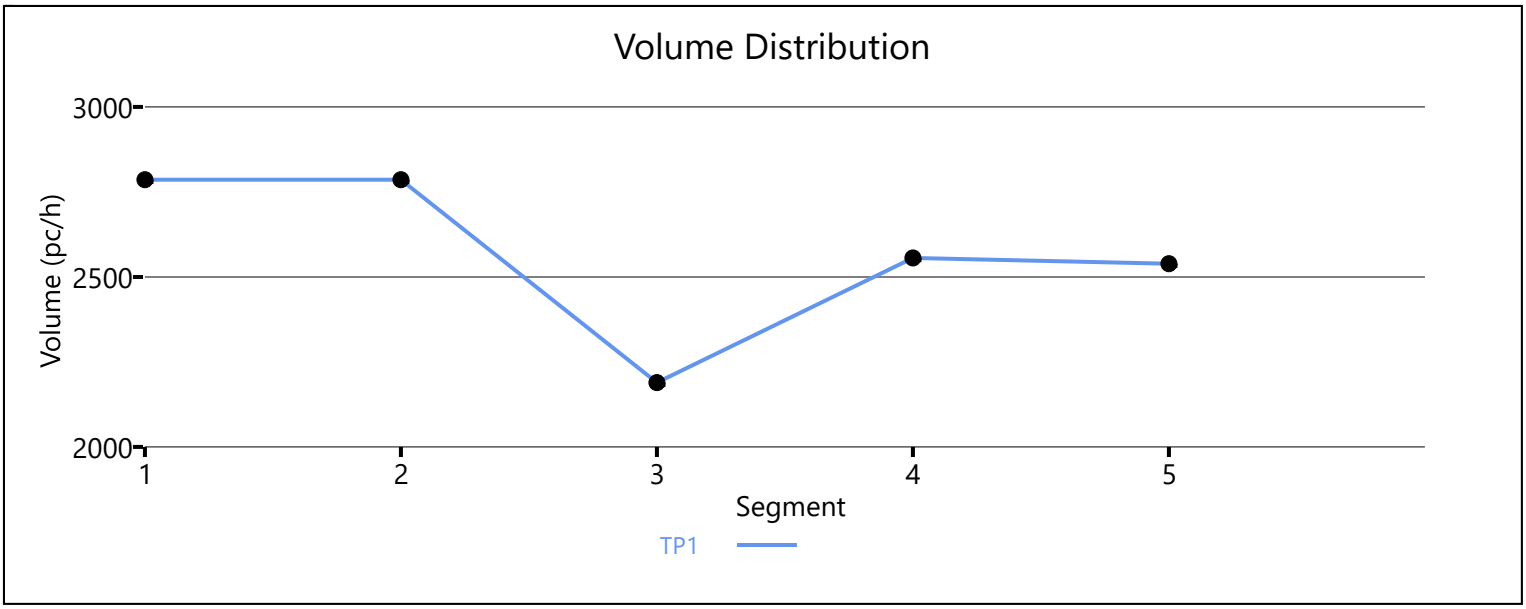
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2539	7161	0.35	68.7	12.3	B

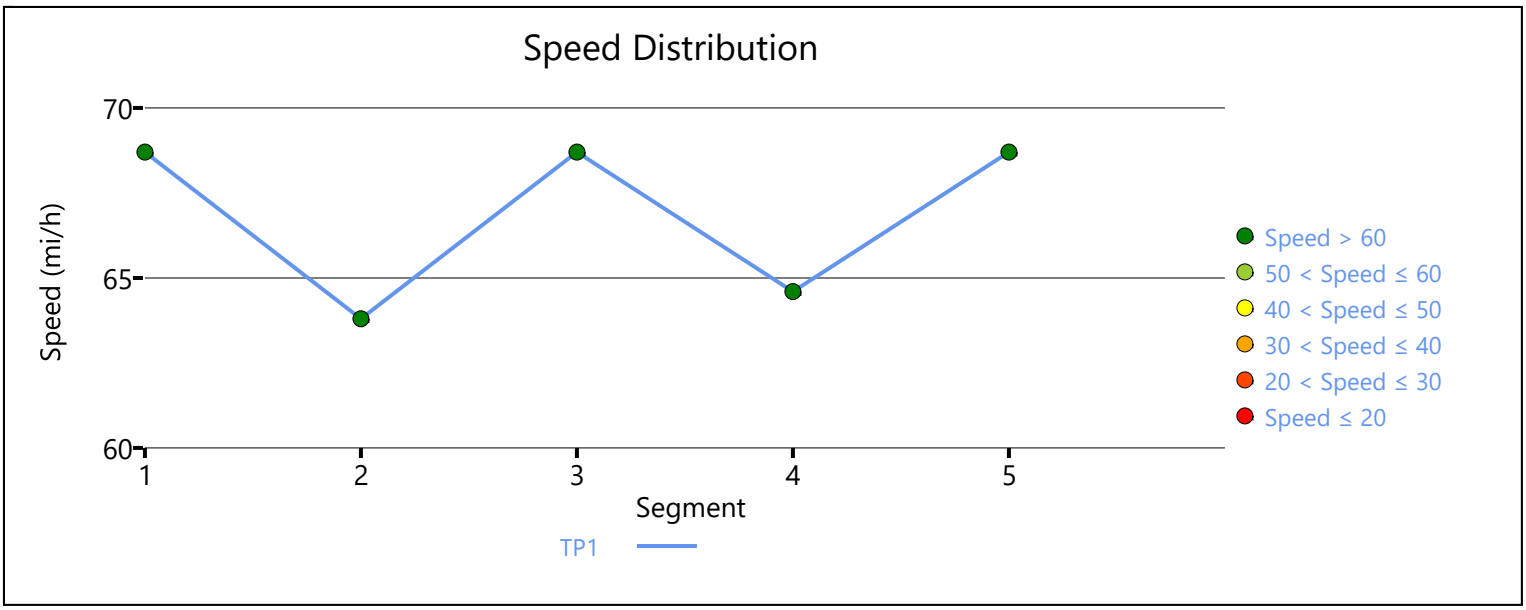
Facility Time Period Results

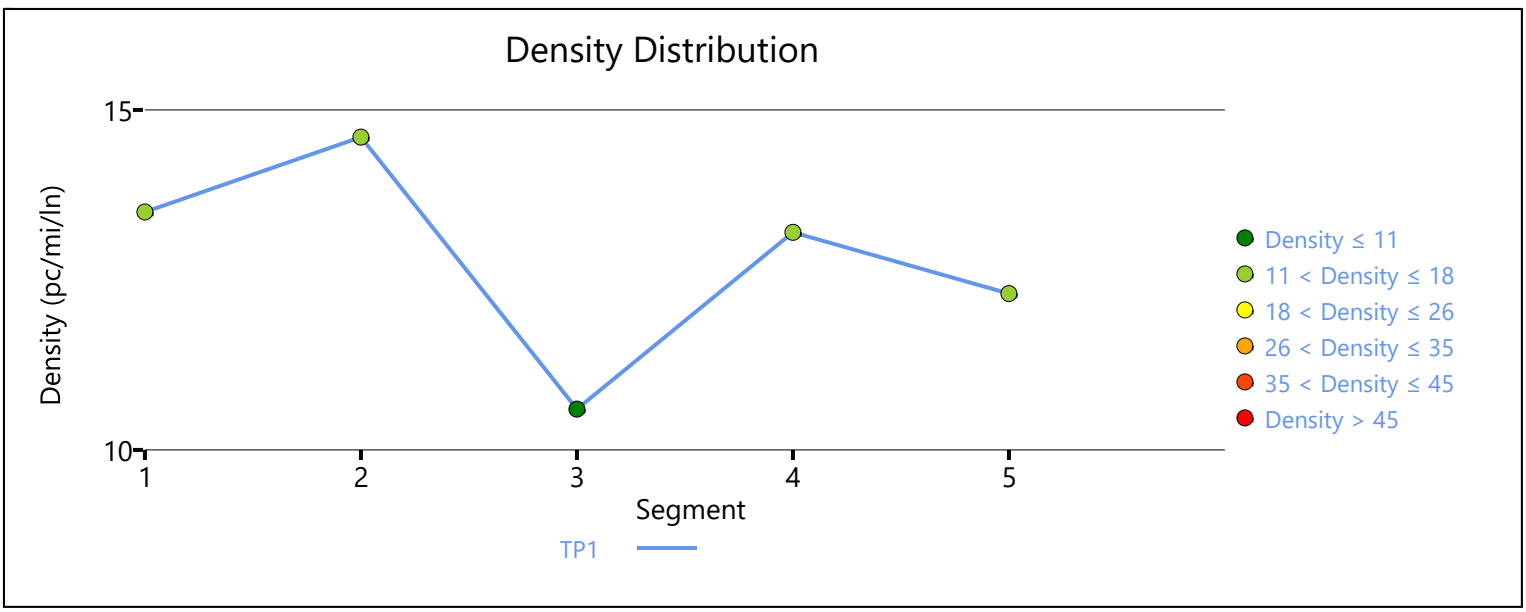
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	13.0	12.6	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	12.6
Average Travel Time, min	2.1	Density, pc/mi/ln	13.0







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3005	7161	0.42	68.7	14.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3005	634	7200	2100	0.42	0.30	63.9	60.1	15.7	19.0	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2380	7161	0.33	68.7	11.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.980	2750	370	7200	2100	0.38	0.18	64.5	62.7	14.2	13.5	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2749	7161	0.38	68.7	13.3	B

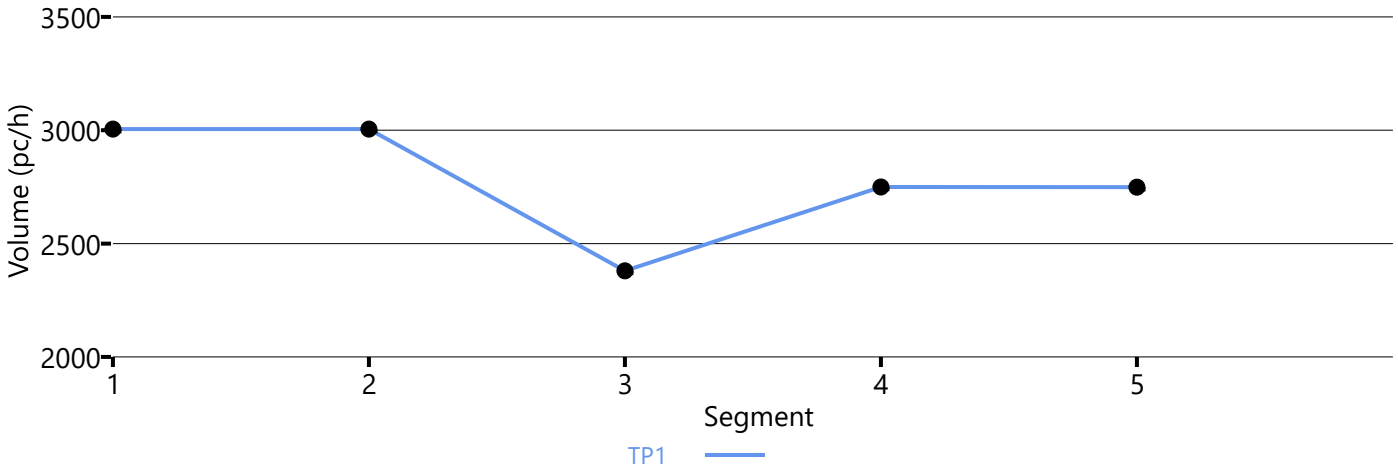
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	13.9	12.9	2.2	B

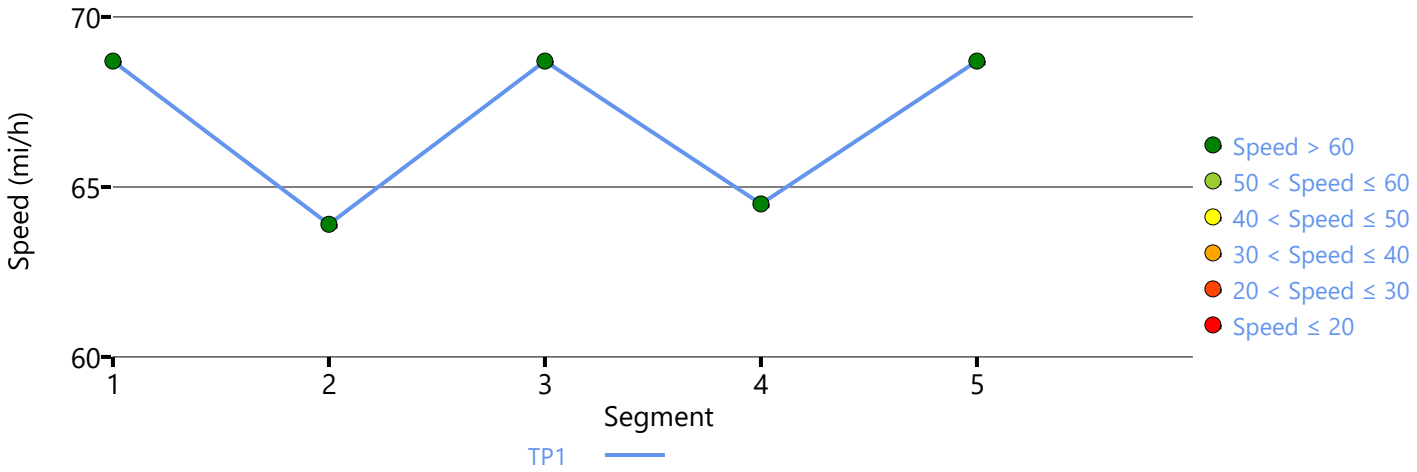
Facility Overall Results

Space Mean Speed, mi/h	67.6	Density, veh/mi/ln	12.9
Average Travel Time, min	2.2	Density, pc/mi/ln	13.9

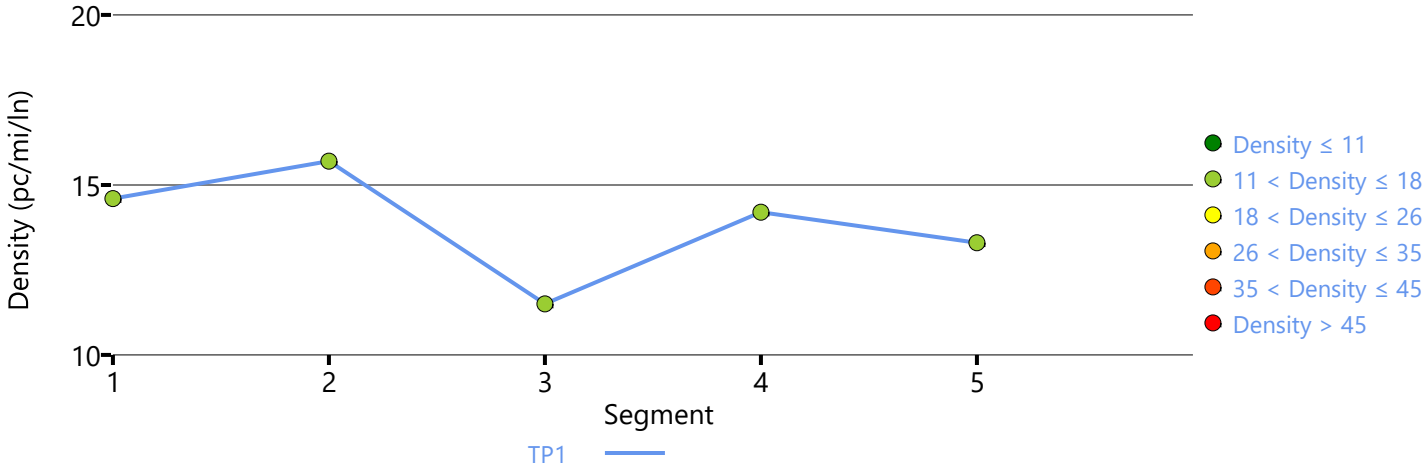
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	5071	9548	0.53	68.7	18.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.943	5071	836	9600	2100	0.53	0.40	66.3	59.6	19.1	22.2	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4249	9548	0.45	68.7	15.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.909	0.943	4659	410	9600	2100	0.49	0.20	65.0	62.5	17.9	15.9	B

Segment 5: Basic

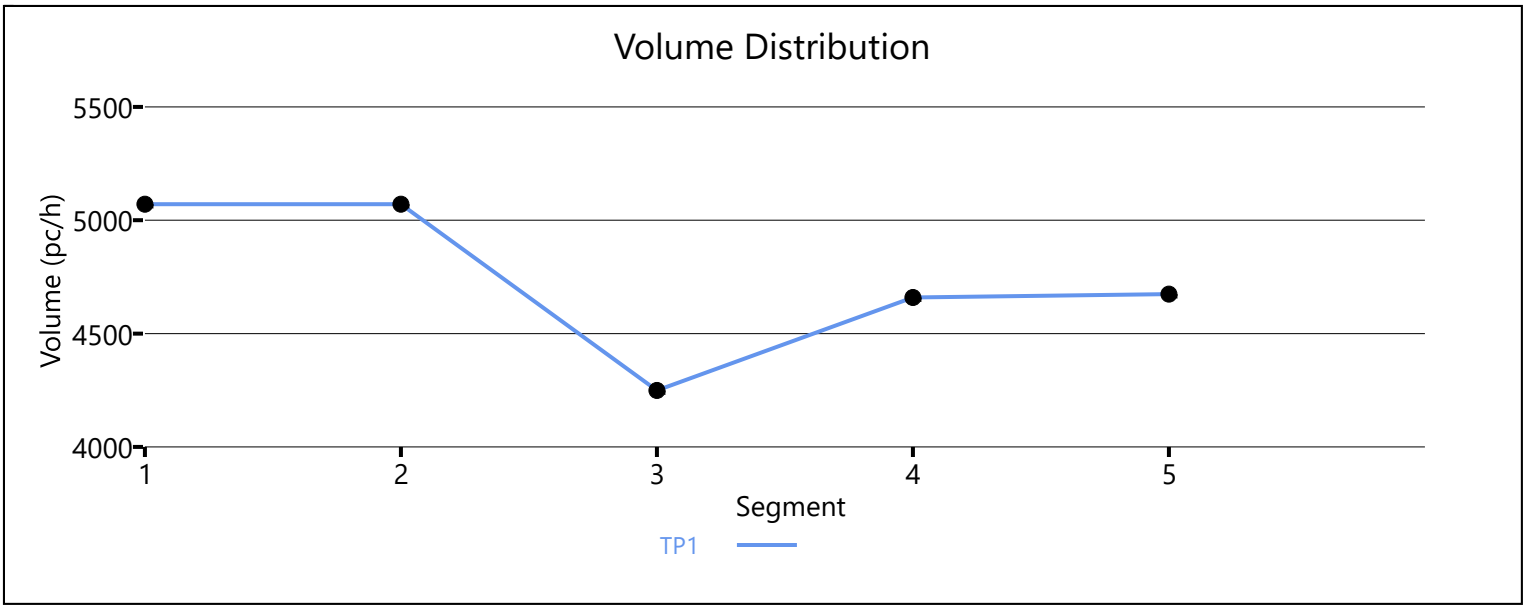
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4674	9548	0.49	68.7	17.0	B

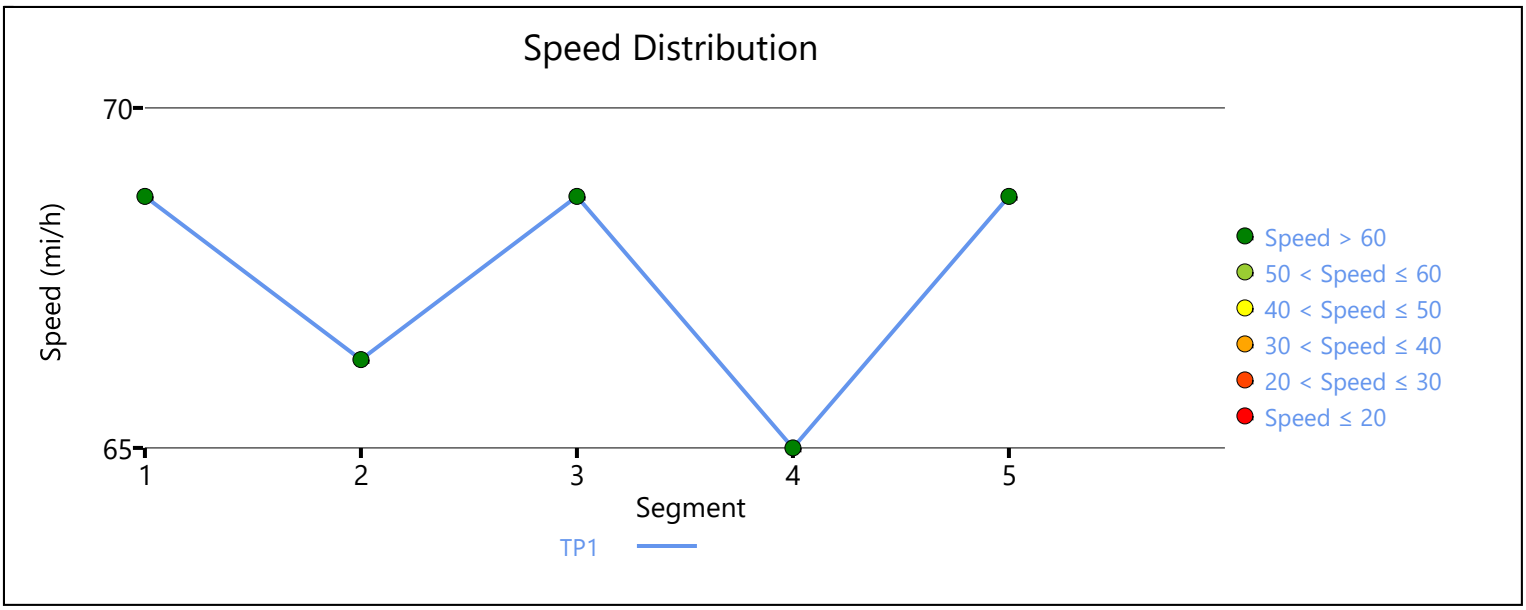
Facility Time Period Results

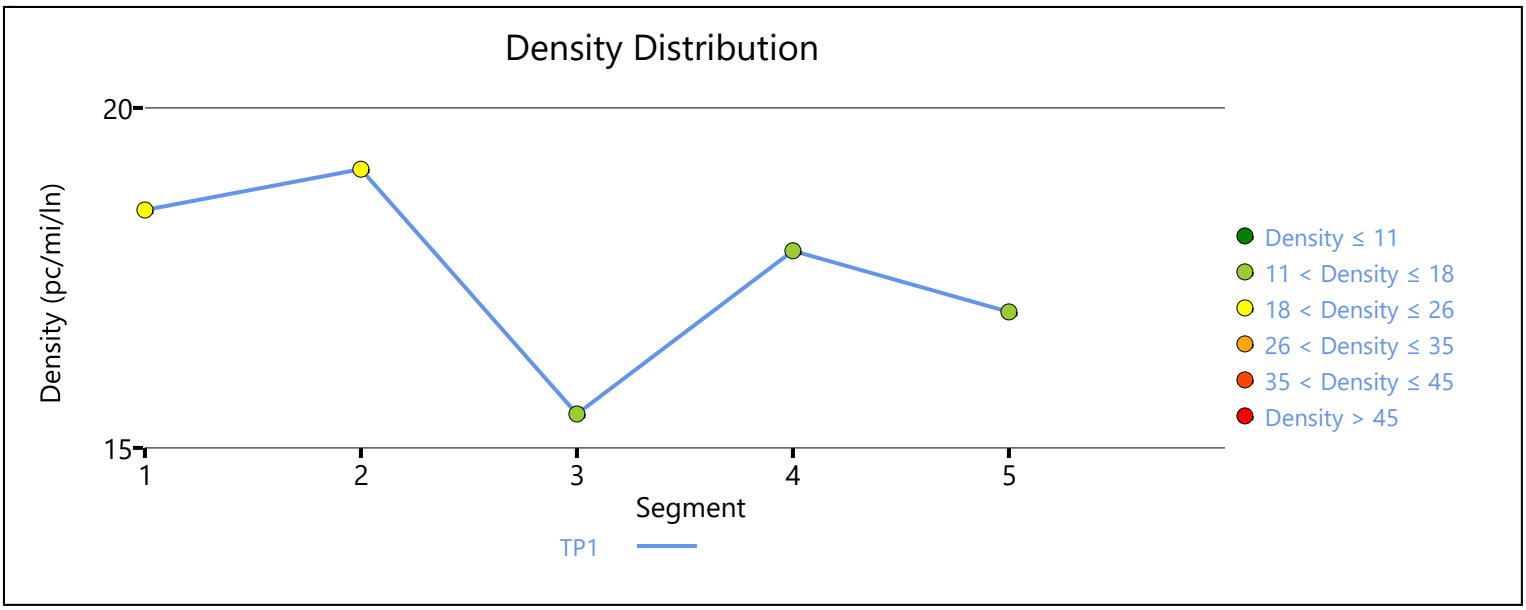
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	17.8	16.2	1.7	B

Facility Overall Results

Space Mean Speed, mi/h	67.8	Density, veh/mi/ln	16.2
Average Travel Time, min	1.7	Density, pc/mi/ln	17.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4676	9548	0.49	68.7	17.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4676	923	9600	2100	0.49	0.44	66.1	59.3	17.7	21.3	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3734	9548	0.39	68.7	13.6	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.935	4300	566	9600	2100	0.45	0.27	64.5	61.2	16.7	18.7	B

Segment 5: Basic

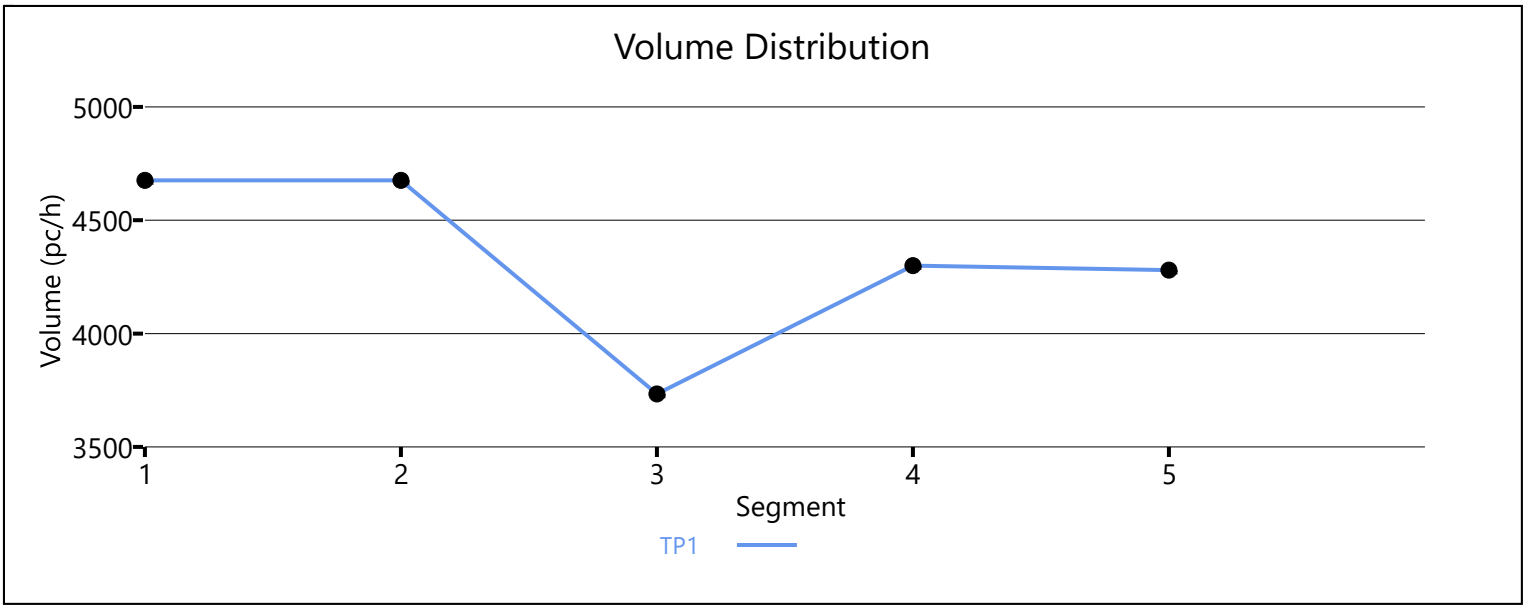
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4280	9548	0.45	68.7	15.6	B

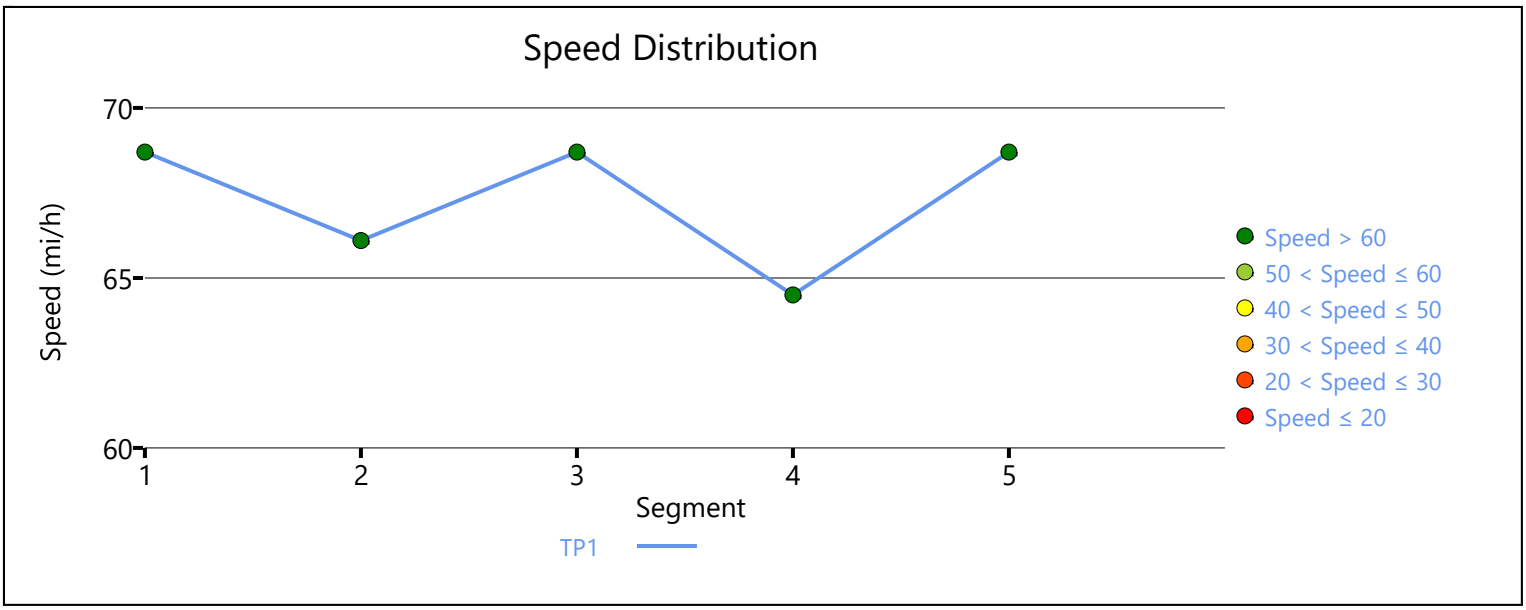
Facility Time Period Results

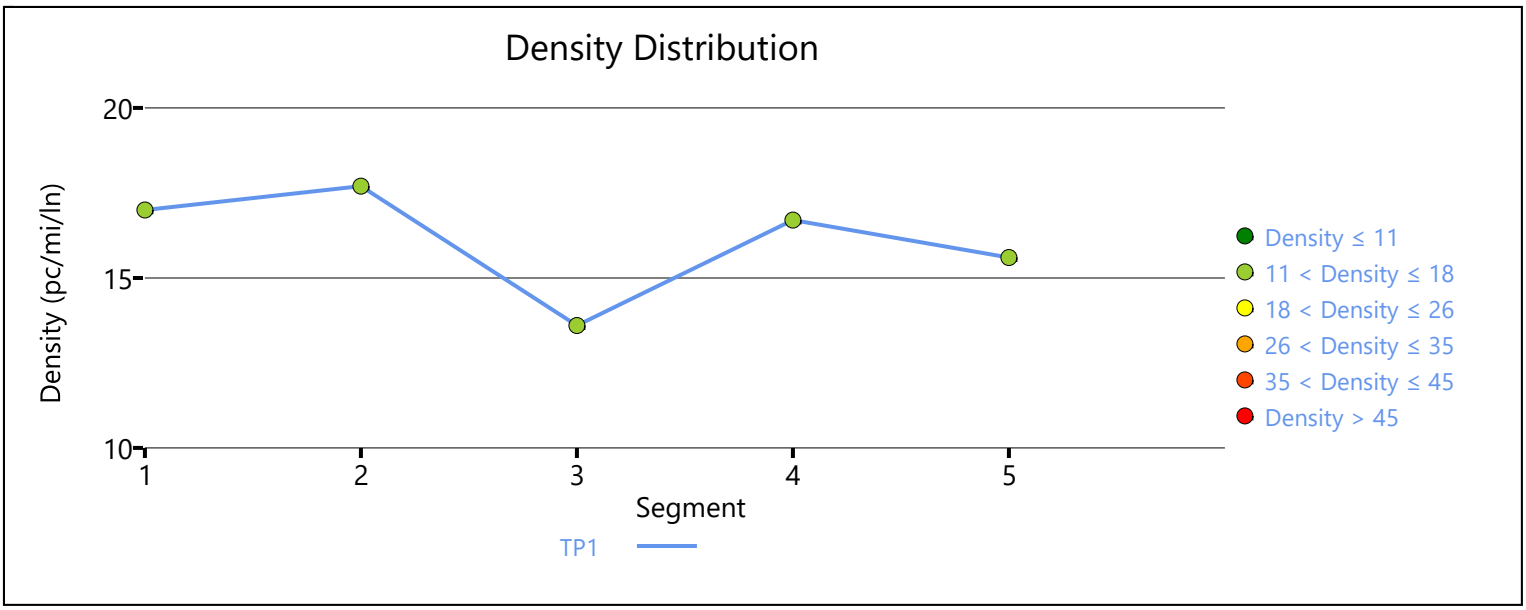
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.7	16.2	15.7	1.8	B

Facility Overall Results

Space Mean Speed, mi/h	67.7	Density, veh/mi/ln	15.7
Average Travel Time, min	1.8	Density, pc/mi/ln	16.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	1536	4786	0.32	69.3	11.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.971	1536	1247	4800	2100	0.32	0.59	58.5	58.5	13.1	13.5	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	295	4786	0.06	69.3	2.1	A

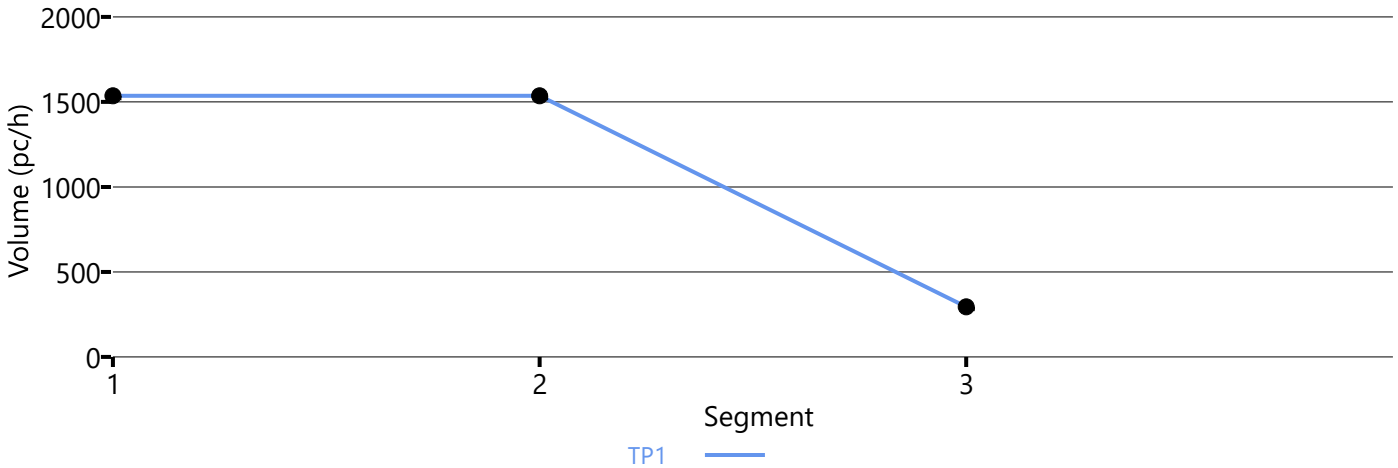
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.7	10.3	10.1	1.3	A

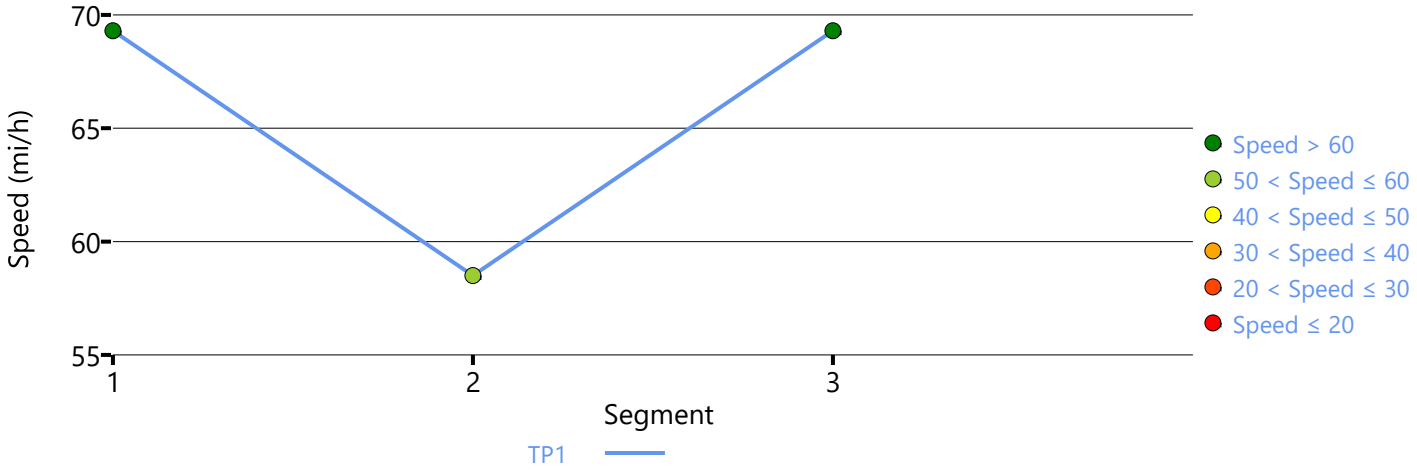
Facility Overall Results

Space Mean Speed, mi/h	66.7	Density, veh/mi/ln	10.1
Average Travel Time, min	1.3	Density, pc/mi/ln	10.3

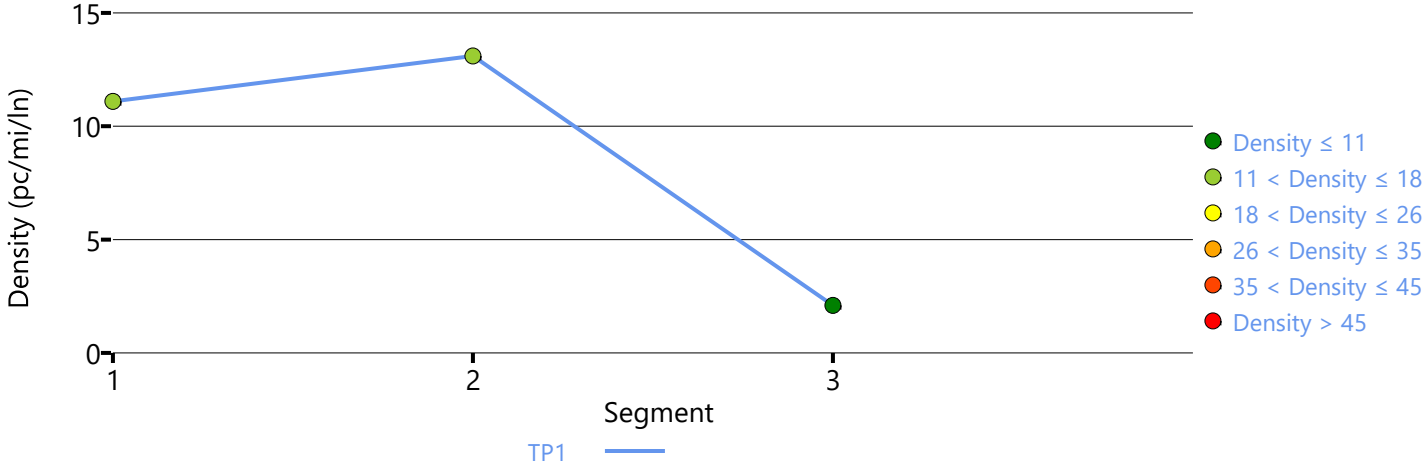
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	1514	4774	0.32	68.7	11.0	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.952	1514	113	4800	2100	0.32	0.05	61.4	61.4	12.3	10.1	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1391	4774	0.29	68.7	10.1	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.870	1481	90	4800	2100	0.31	0.04	63.9	63.9	11.6	8.8	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	1484	4774	0.31	68.7	10.8	A

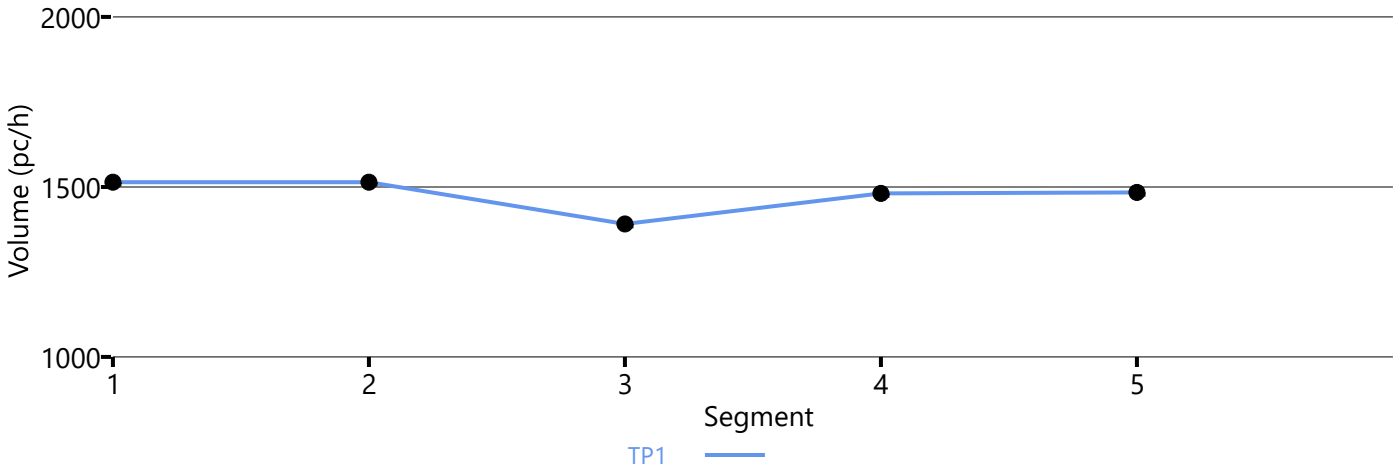
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	11.1	11.1	2.0	B

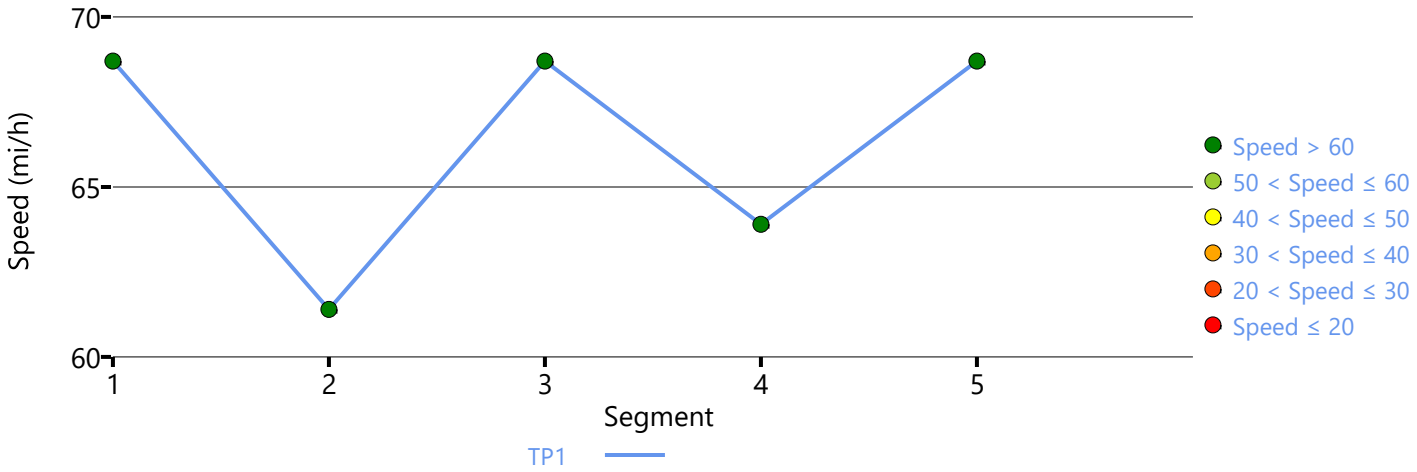
Facility Overall Results

Space Mean Speed, mi/h	67.1	Density, veh/mi/ln	11.1
Average Travel Time, min	2.0	Density, pc/mi/ln	11.1

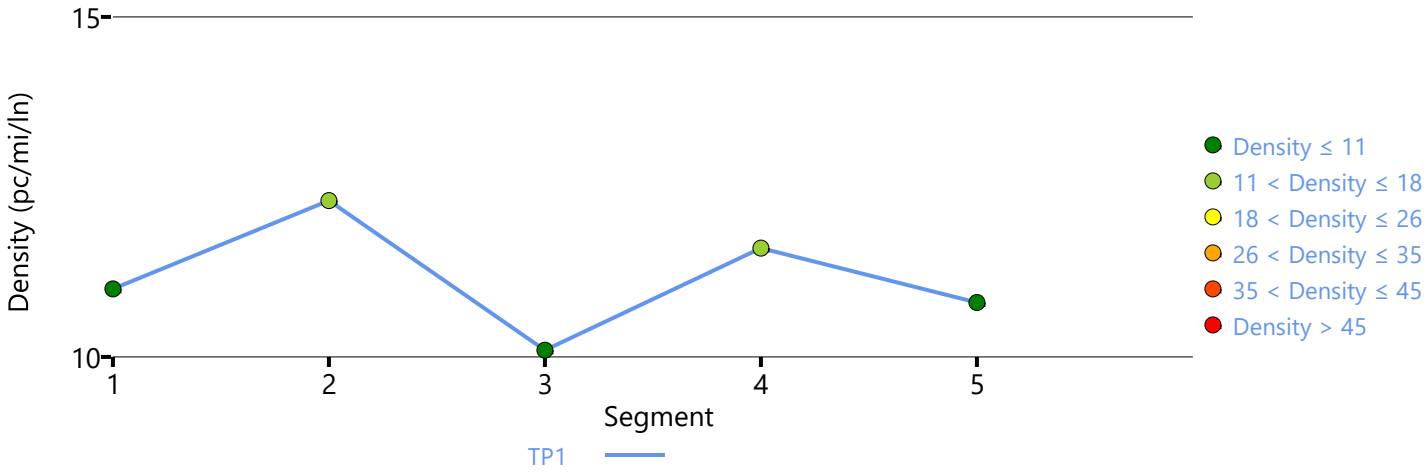
Volume Distribution



Speed Distribution



Density Distribution



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APPENDIX 5.11:

E+P (PHASE 2) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2167	7161	0.30	68.7	10.5	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2167	431	7200	2100	0.30	0.21	64.0	60.6	11.3	14.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1732	7161	0.24	68.7	8.4	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2443	711	7200	2100	0.34	0.34	64.3	62.5	12.7	13.6	B

Segment 5: Basic

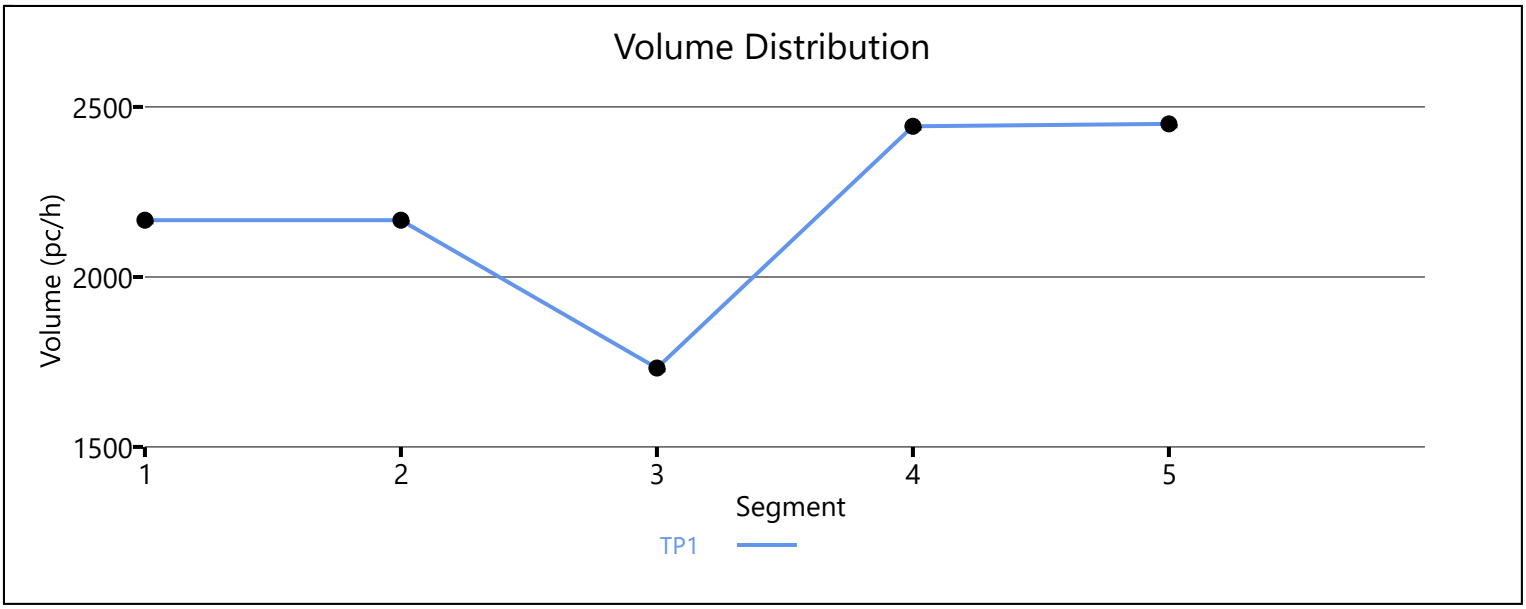
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2450	7161	0.34	68.7	11.9	B

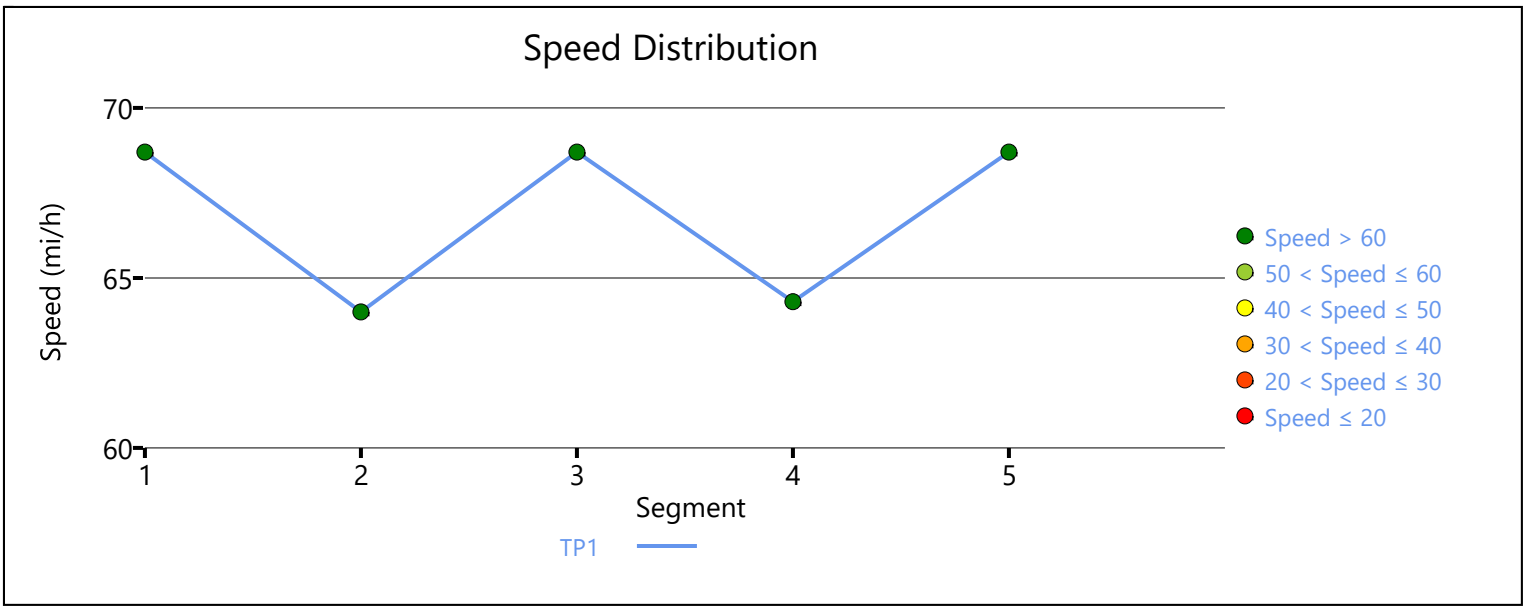
Facility Time Period Results

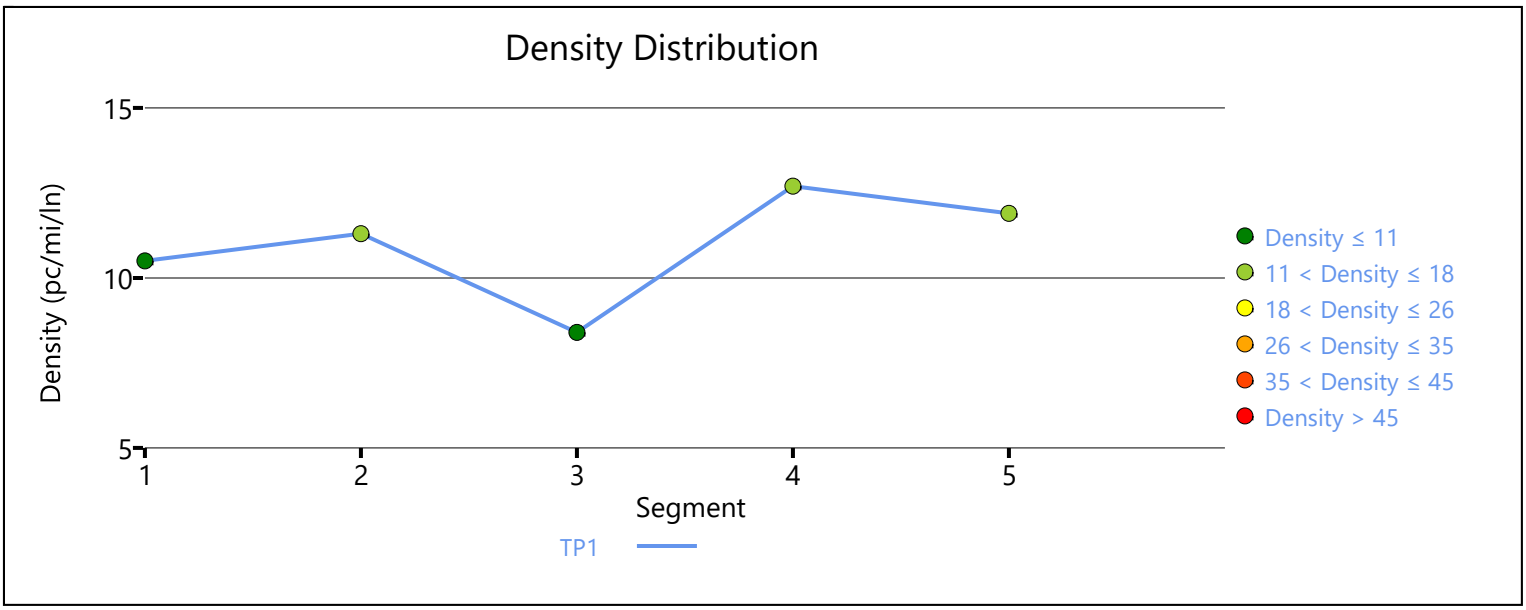
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	10.8	10.4	2.1	A

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.4
Average Travel Time, min	2.1	Density, pc/mi/ln	10.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2523	7161	0.35	68.7	12.2	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2523	728	7200	2100	0.35	0.35	63.2	59.8	13.3	16.7	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	1808	7161	0.25	68.7	8.8	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2361	553	7200	2100	0.33	0.26	64.6	62.8	12.2	12.2	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2368	7161	0.33	68.7	11.5	B

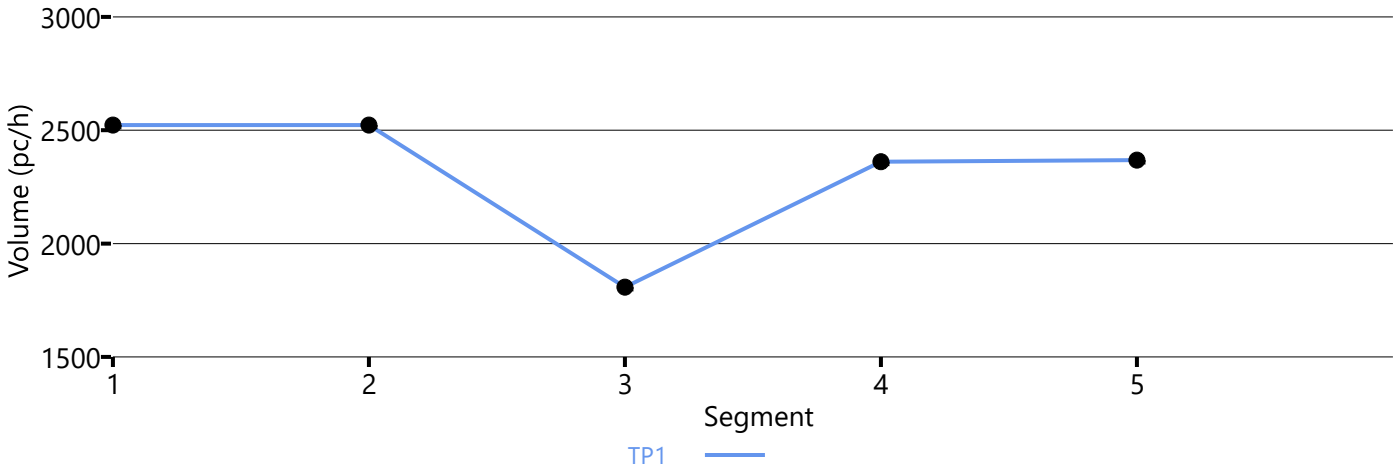
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.7	10.7	2.2	B

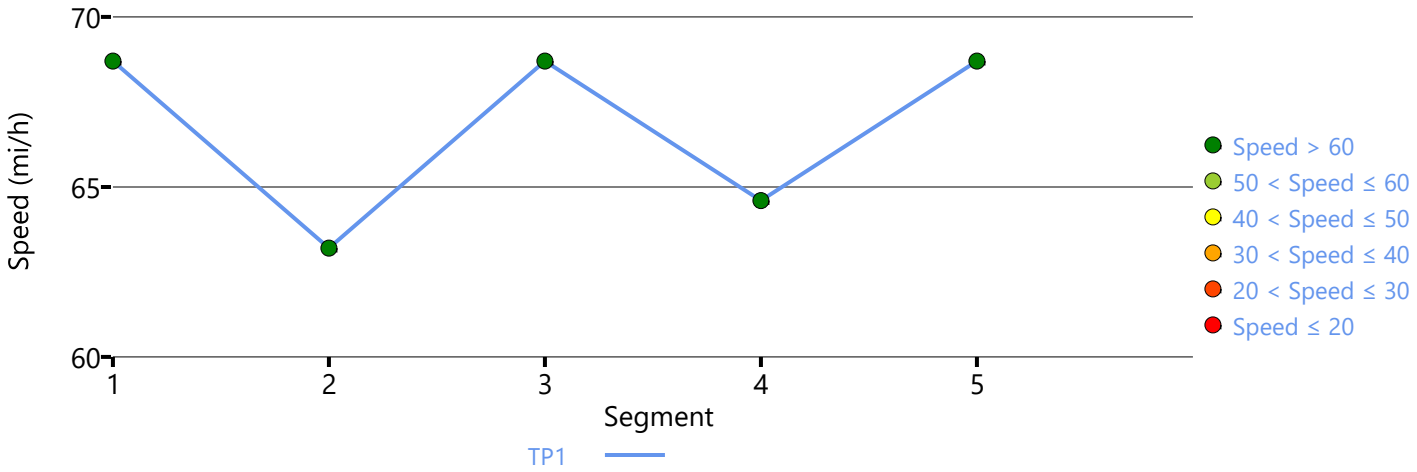
Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.7
Average Travel Time, min	2.2	Density, pc/mi/ln	11.7

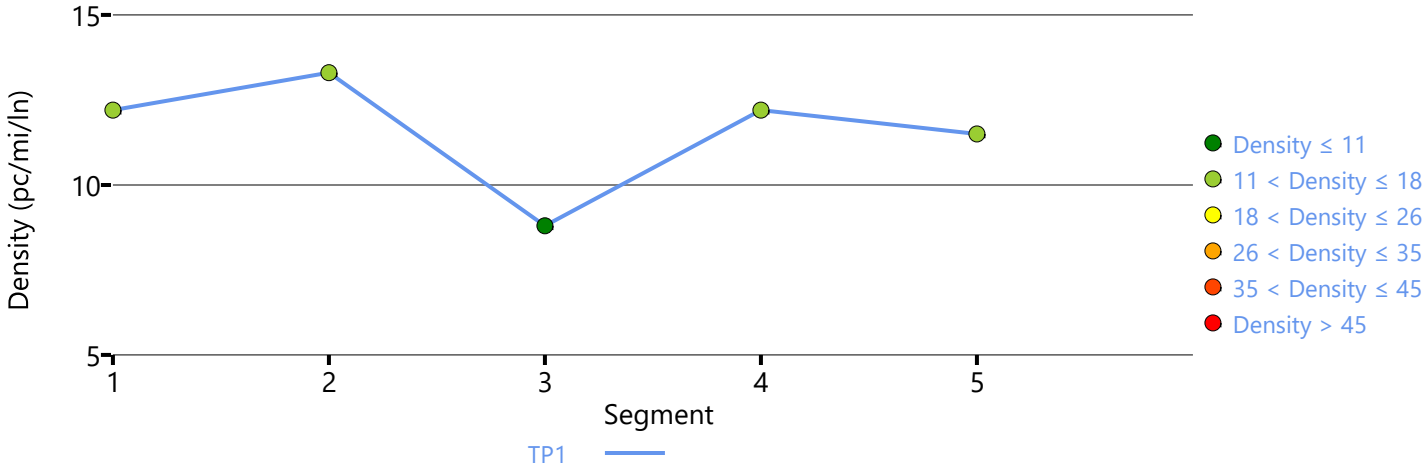
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4998	9548	0.52	68.7	18.2	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4998	628	9600	2100	0.52	0.30	67.0	60.1	18.6	20.9	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4347	9548	0.46	68.7	15.8	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.917	4927	580	9600	2100	0.51	0.28	64.8	62.3	19.0	17.4	B

Segment 5: Basic

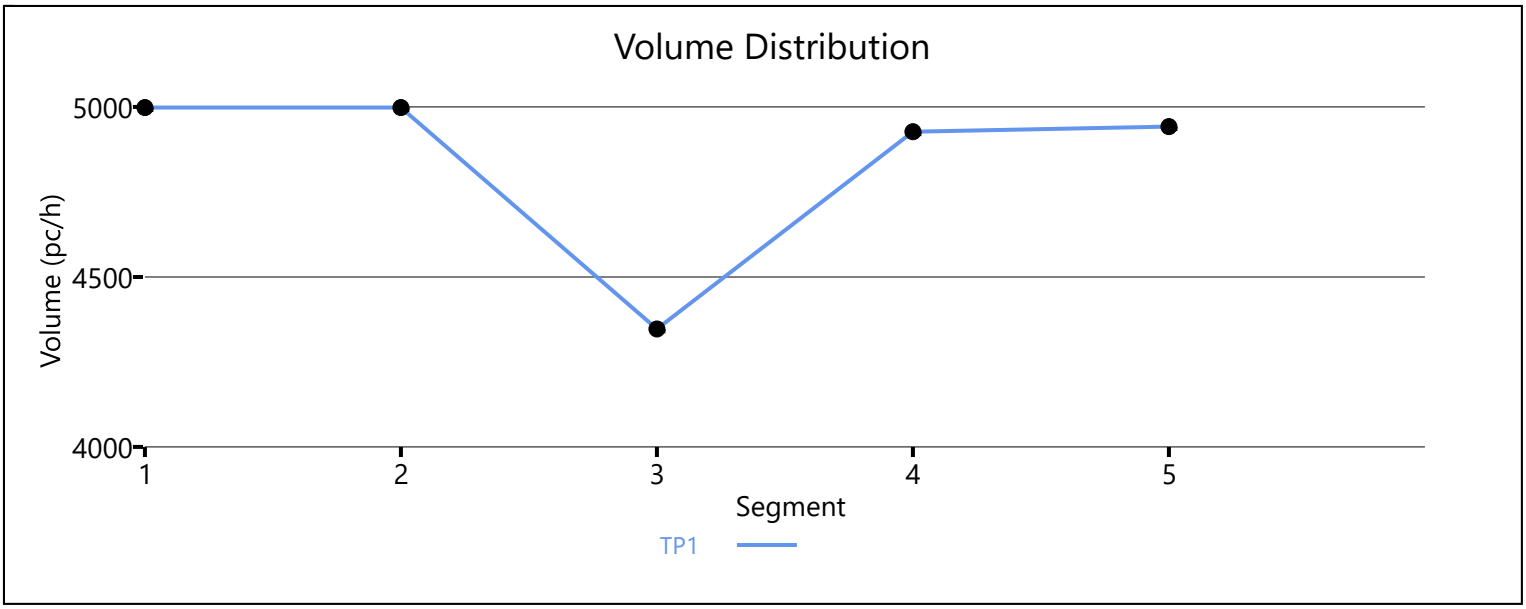
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4942	9548	0.52	68.7	18.0	B

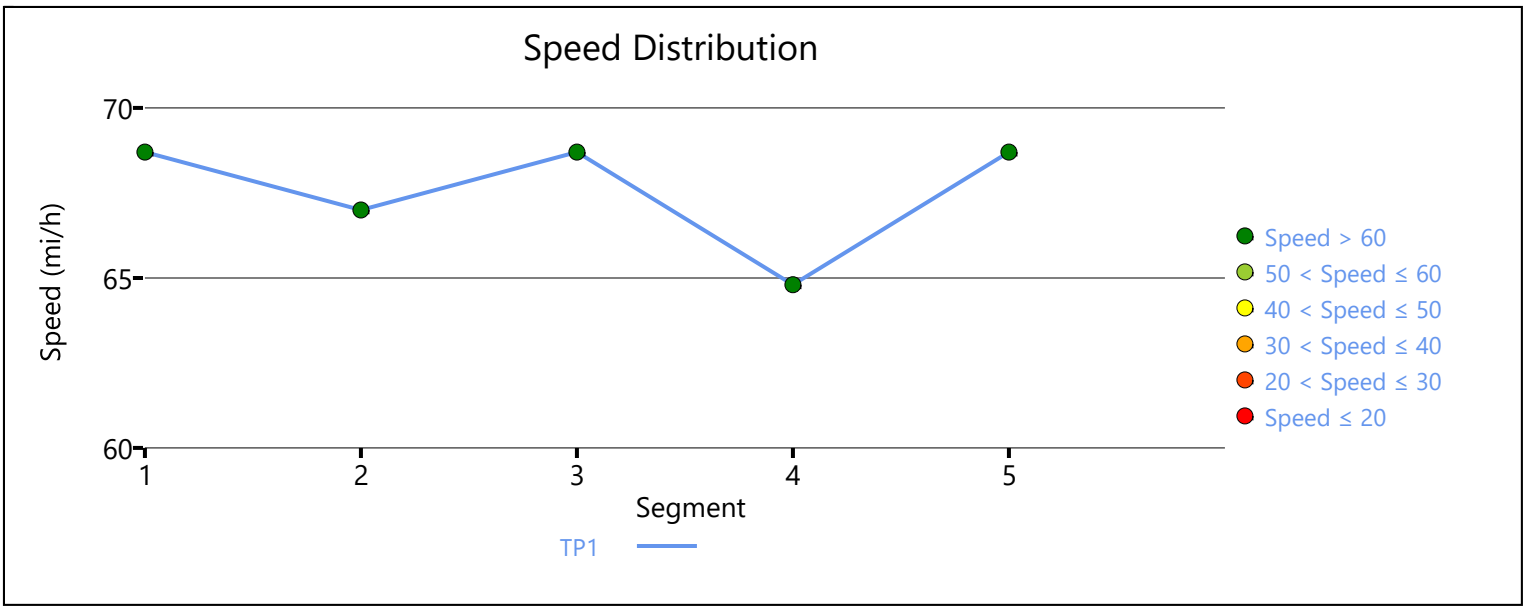
Facility Time Period Results

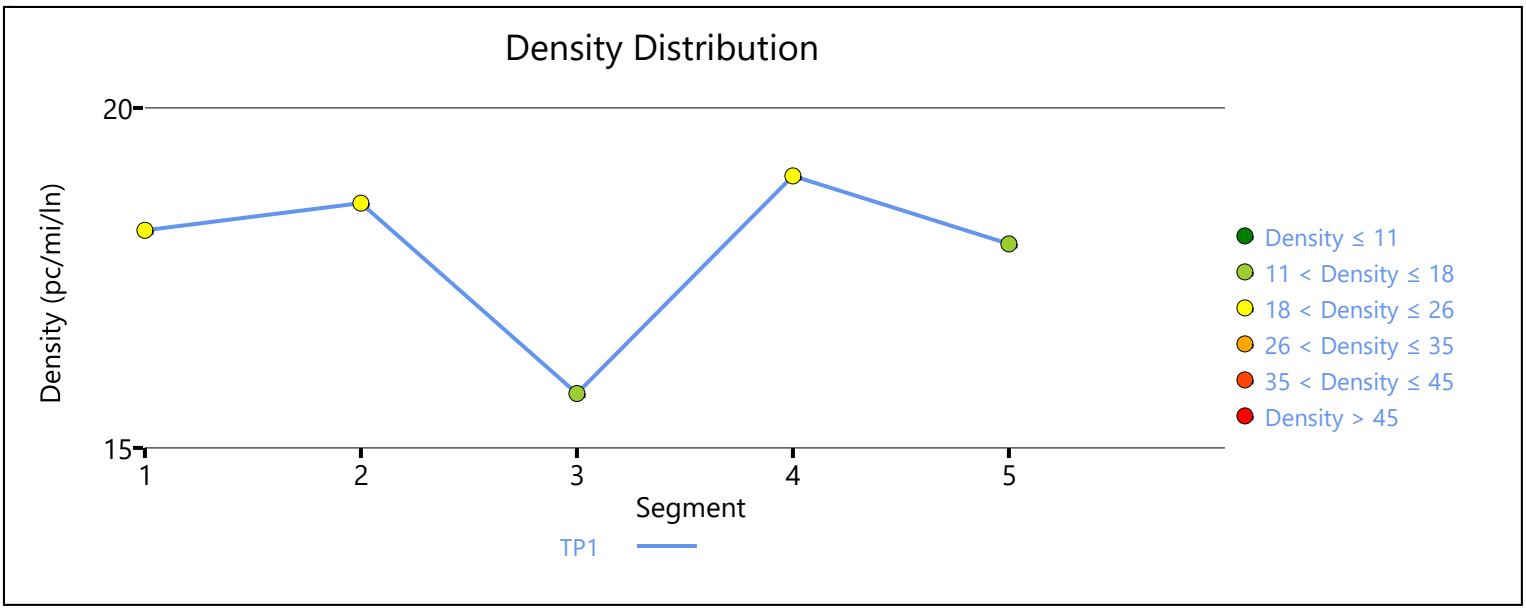
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	18.1	16.2	1.7	C

Facility Overall Results

Space Mean Speed, mi/h	67.8	Density, veh/mi/ln	16.2
Average Travel Time, min	1.7	Density, pc/mi/ln	18.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3852	9548	0.40	68.7	14.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	3705	626	9600	2100	0.39	0.30	66.9	60.1	13.8	16.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3205	9548	0.34	68.7	11.7	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	3717	512	9600	2100	0.39	0.24	64.8	61.4	14.3	16.6	B

Segment 5: Basic

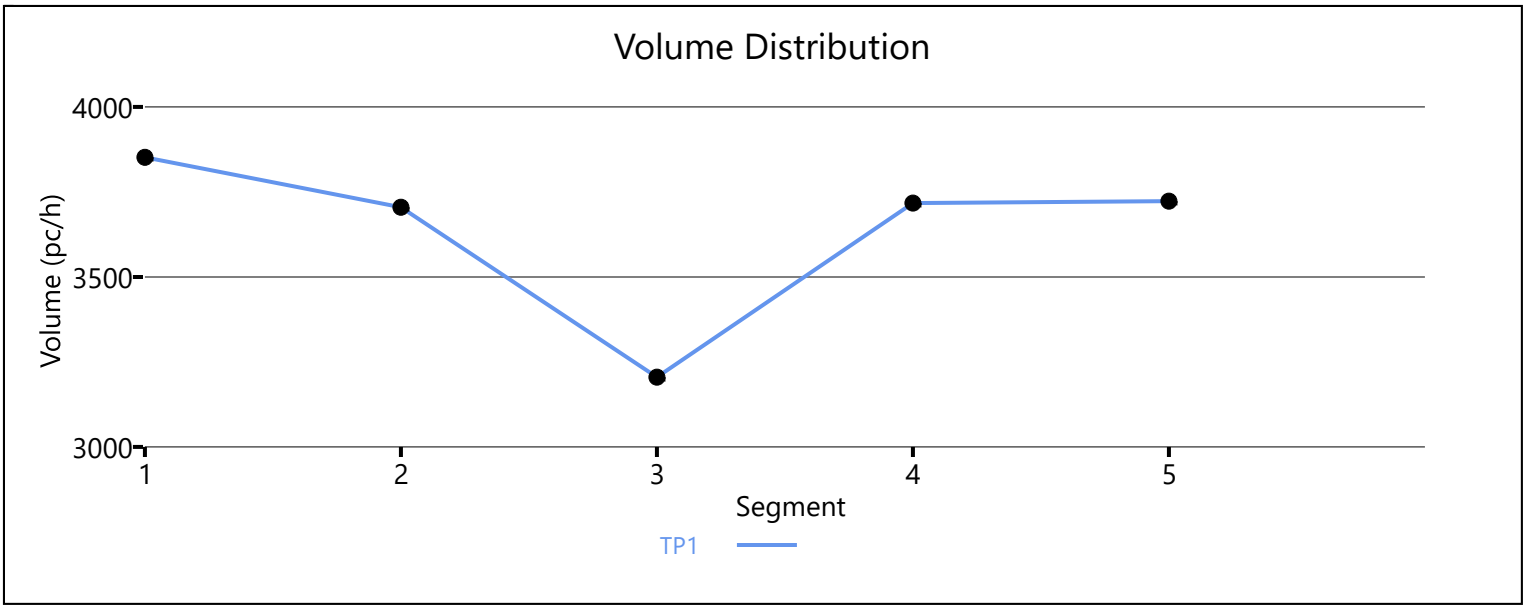
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3723	9548	0.39	68.7	13.6	B

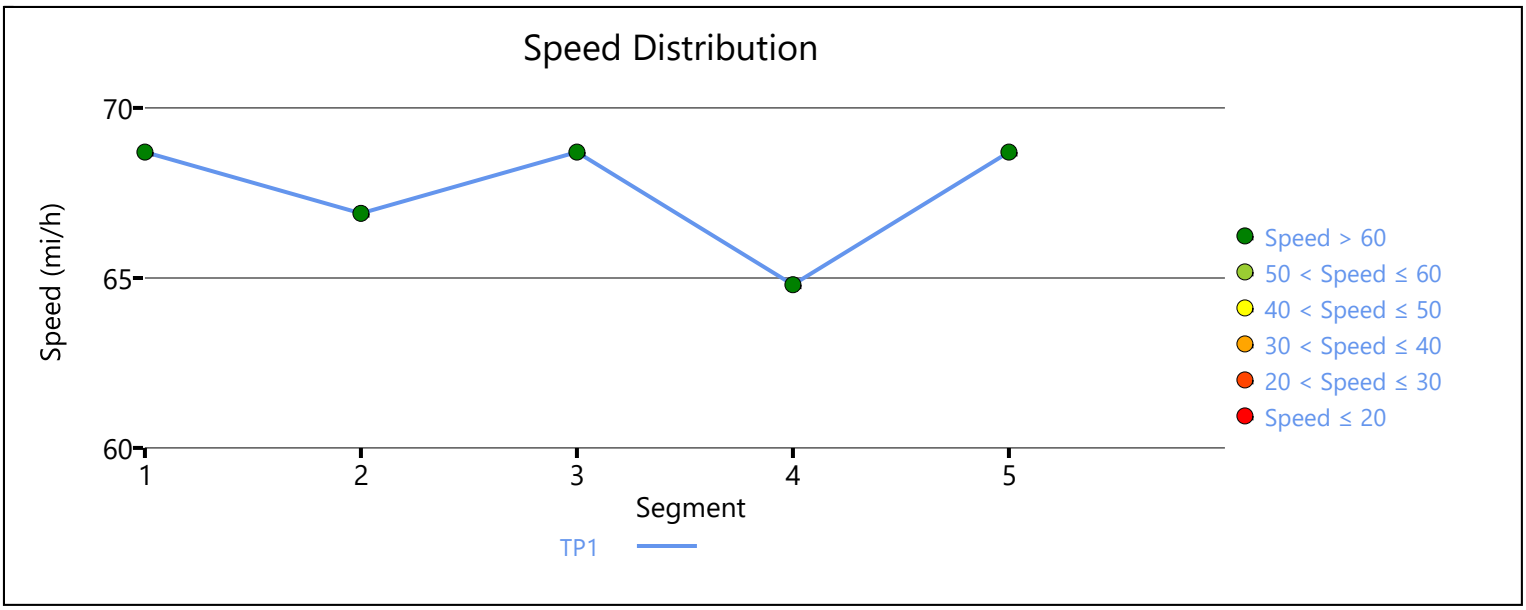
Facility Time Period Results

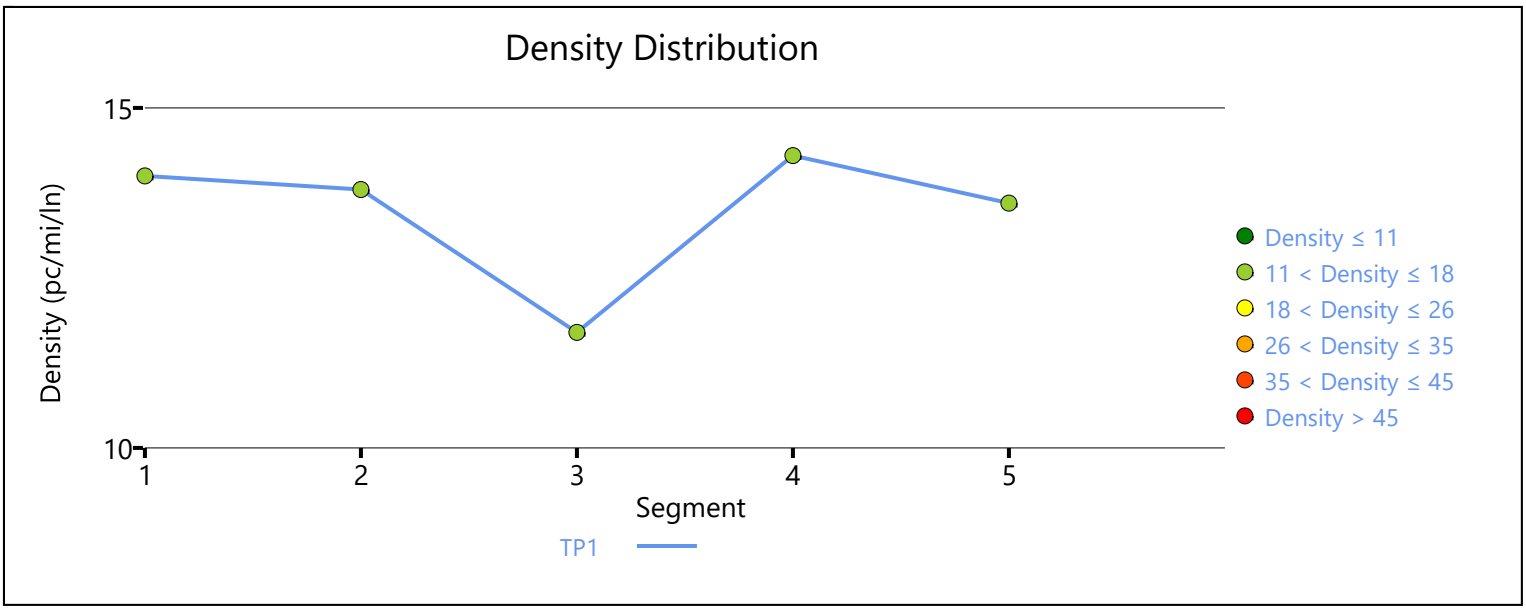
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	13.6	13.3	1.8	B

Facility Overall Results

Space Mean Speed, mi/h	67.9	Density, veh/mi/ln	13.3
Average Travel Time, min	1.8	Density, pc/mi/ln	13.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	1664	4786	0.35	69.3	12.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.901	1664	1179	4800	2100	0.35	0.56	58.7	58.7	14.2	14.6	B

Segment 3: Basic

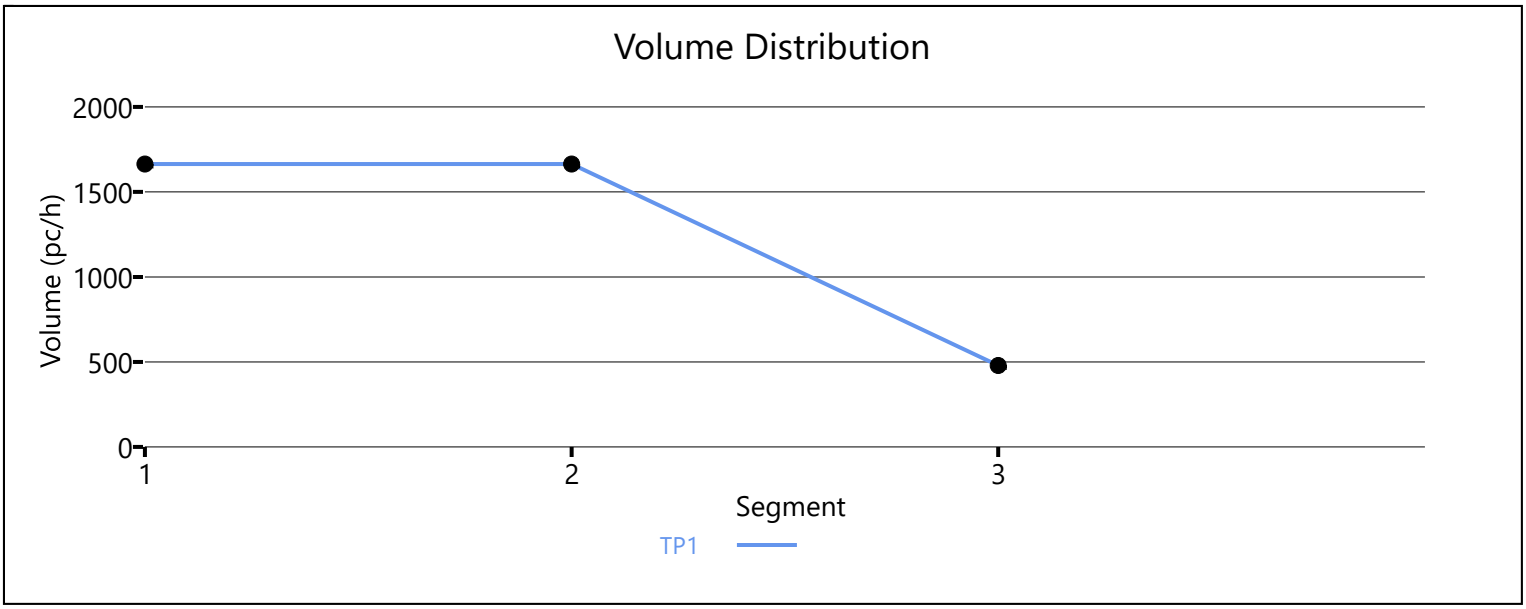
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	479	4786	0.10	69.3	3.5	A

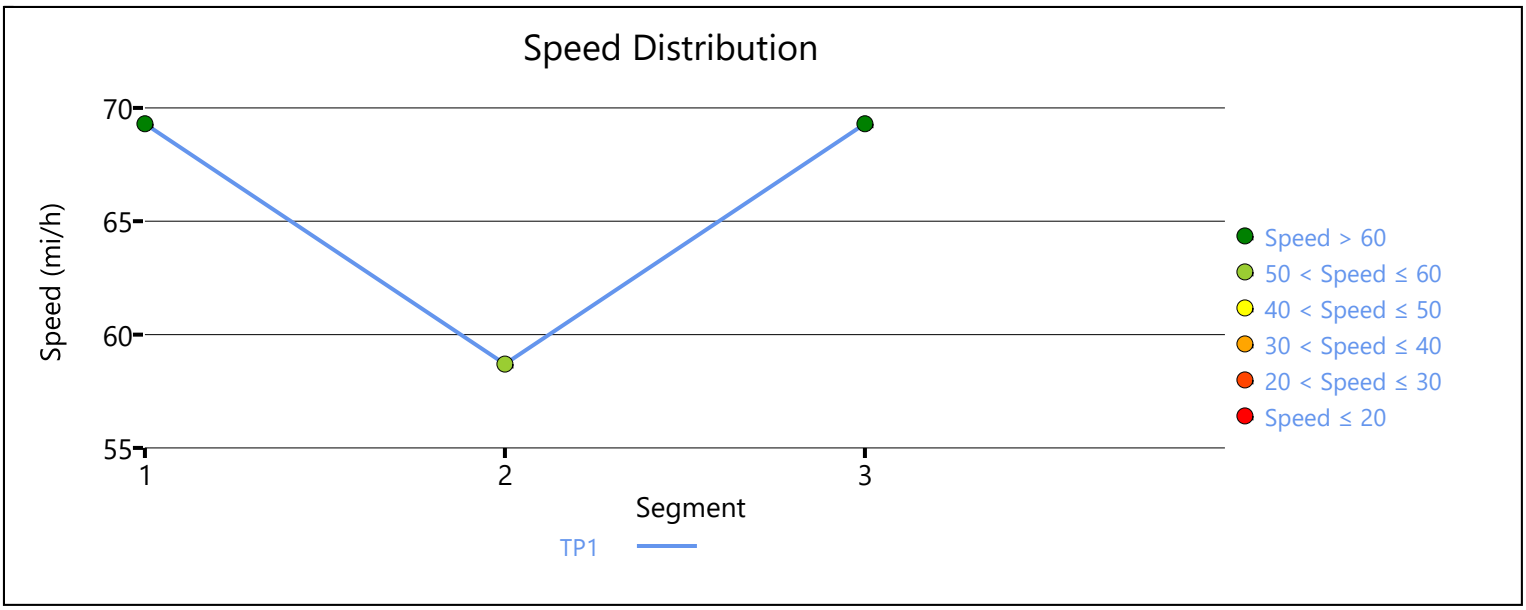
Facility Time Period Results

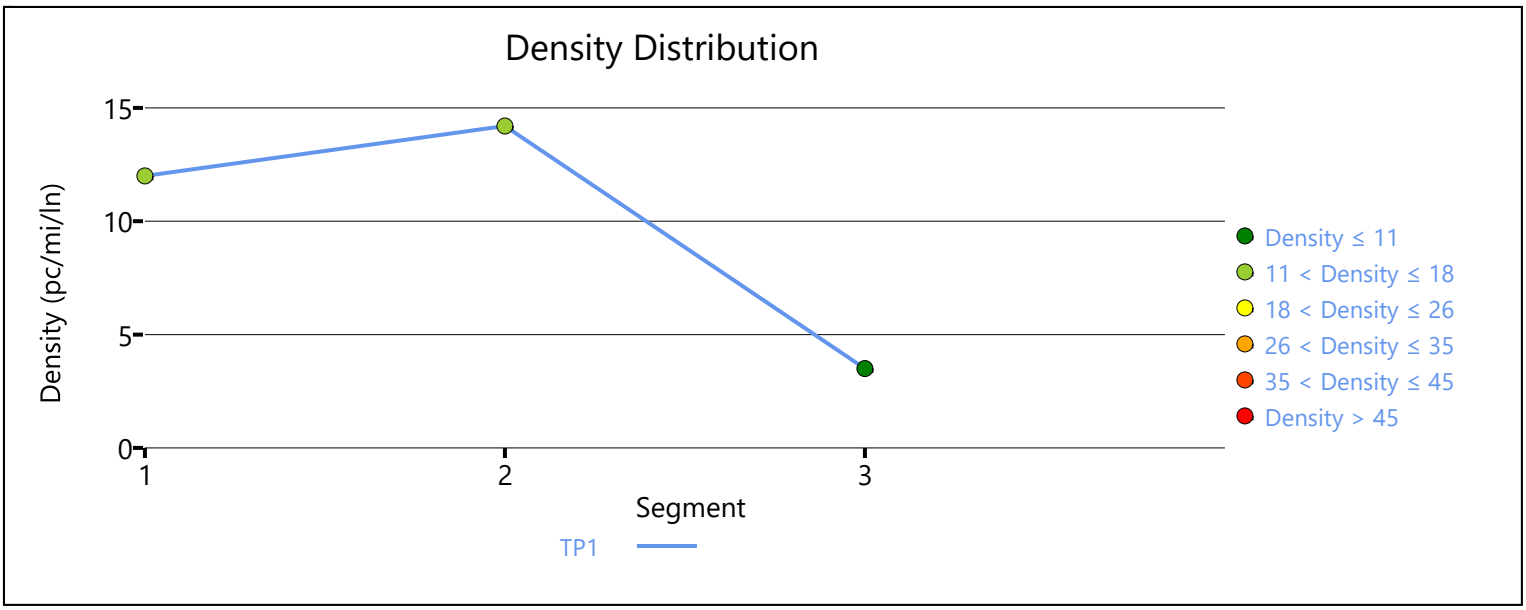
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.8	11.3	10.5	1.3	B

Facility Overall Results

Space Mean Speed, mi/h	66.8	Density, veh/mi/ln	10.5
Average Travel Time, min	1.3	Density, pc/mi/ln	11.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1551	4774	0.32	68.7	11.3	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.787	1551	348	4800	2100	0.32	0.17	60.8	60.8	12.8	10.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1202	4774	0.25	68.7	8.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.877	1330	128	4800	2100	0.28	0.06	64.0	64.0	10.4	7.6	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	1327	4774	0.28	68.7	9.7	A

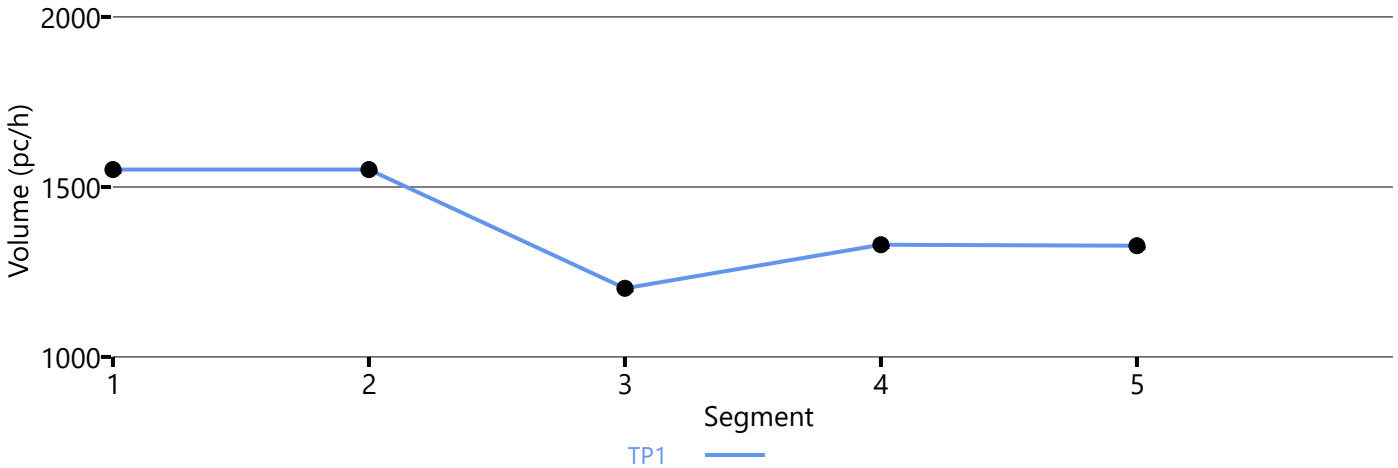
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.9	10.6	10.4	2.0	A

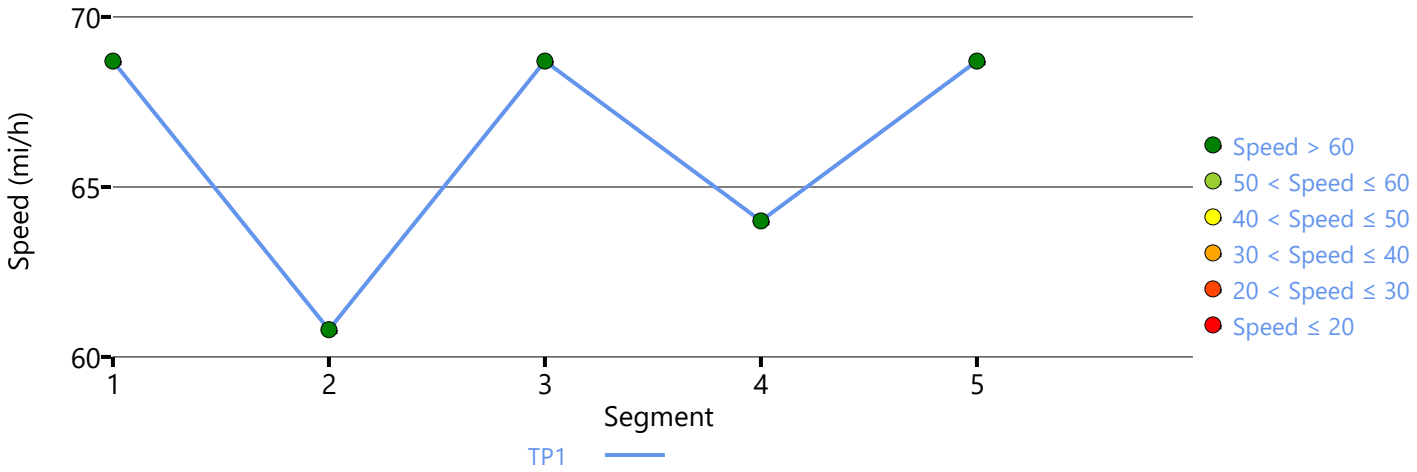
Facility Overall Results

Space Mean Speed, mi/h	66.9	Density, veh/mi/ln	10.4
Average Travel Time, min	2.0	Density, pc/mi/ln	10.6

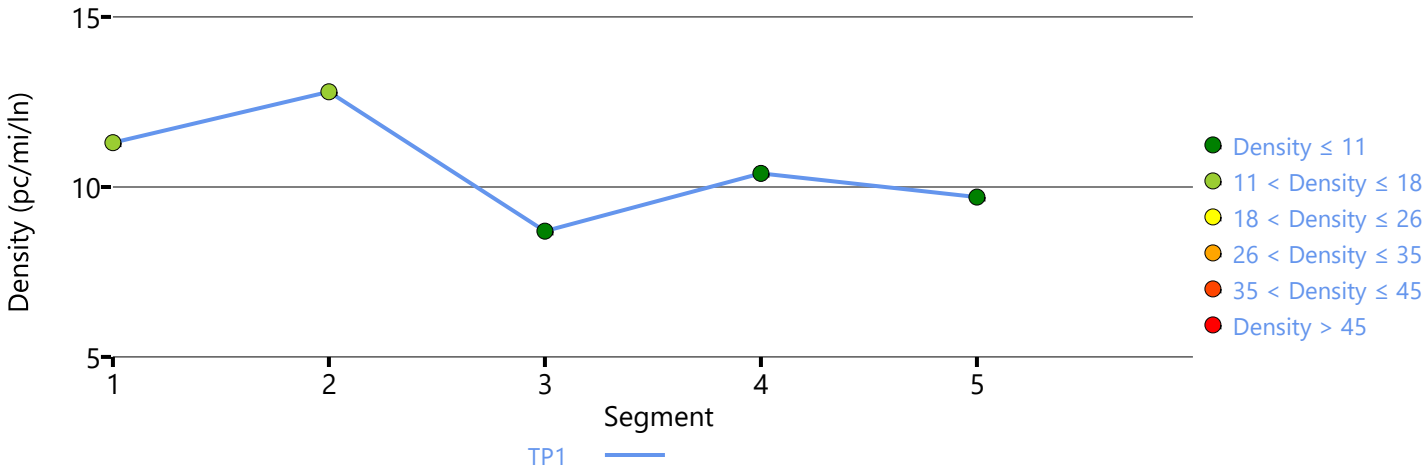
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2822	7161	0.39	68.7	13.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	2822	641	7200	2100	0.39	0.31	63.7	60.0	14.8	18.1	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2189	7161	0.31	68.7	10.6	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2556	367	7200	2100	0.36	0.17	64.6	62.6	13.2	13.2	B

Segment 5: Basic

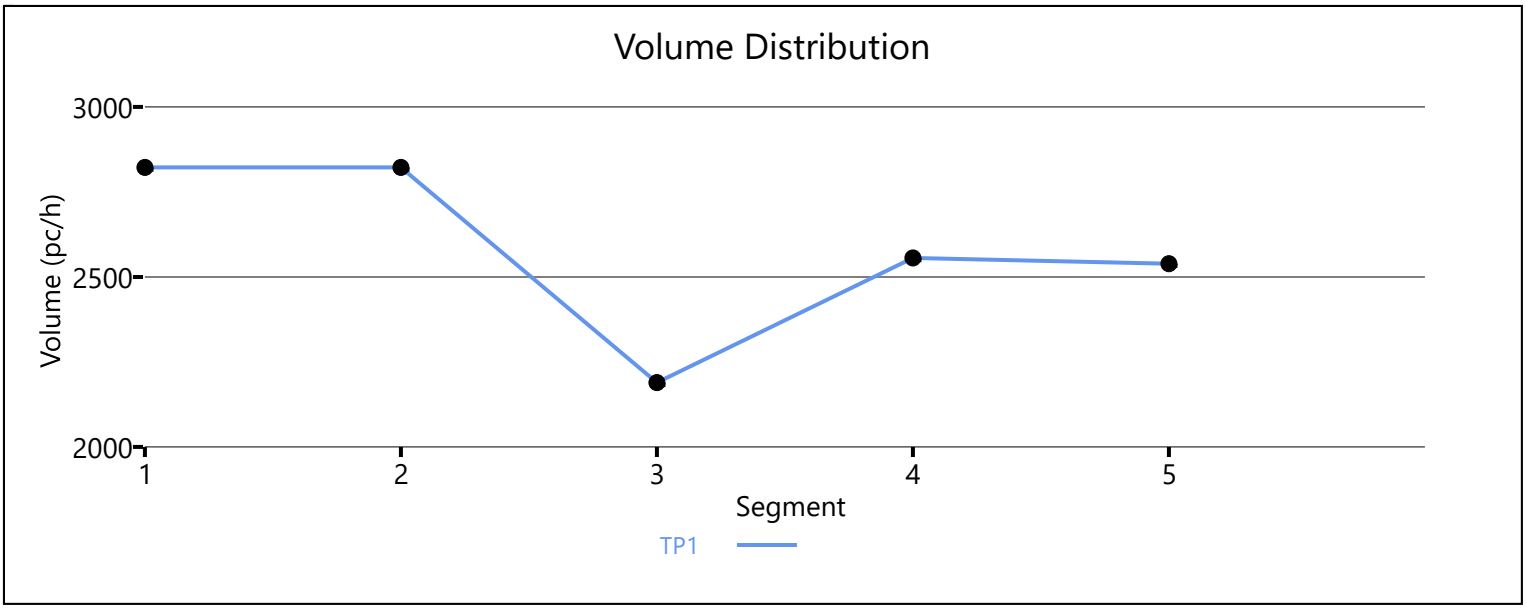
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2539	7161	0.35	68.7	12.3	B

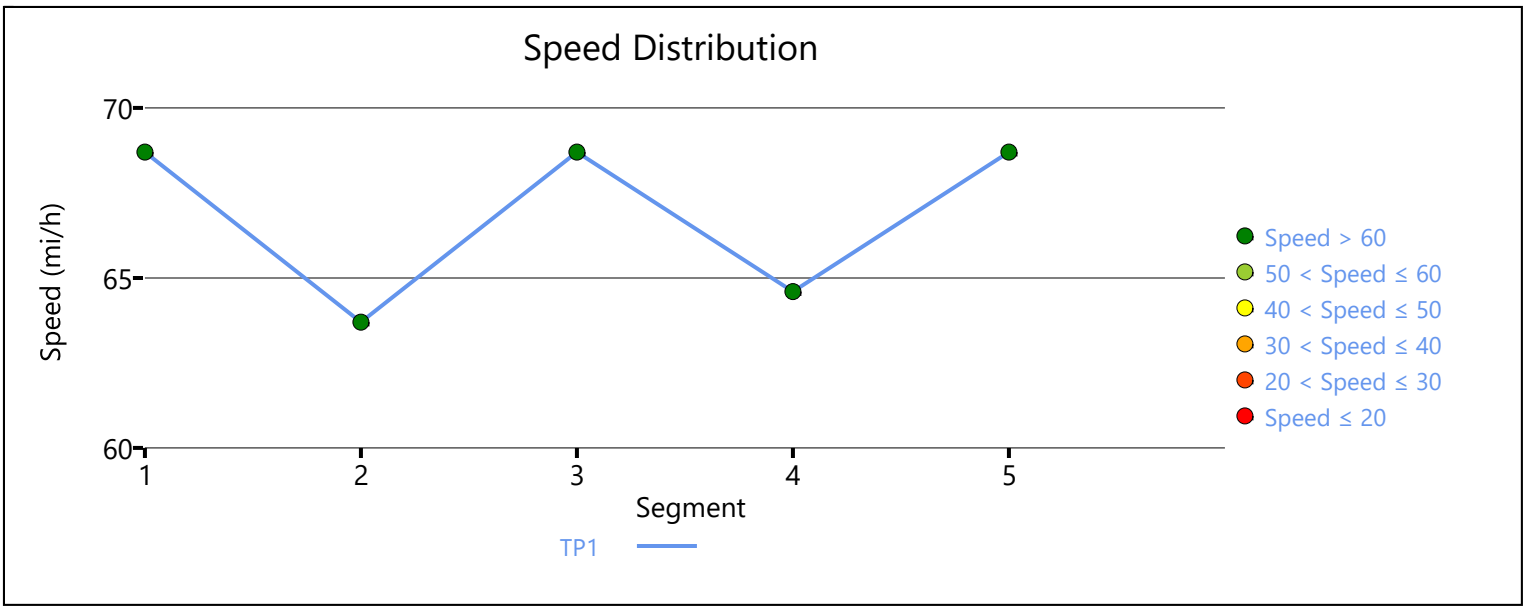
Facility Time Period Results

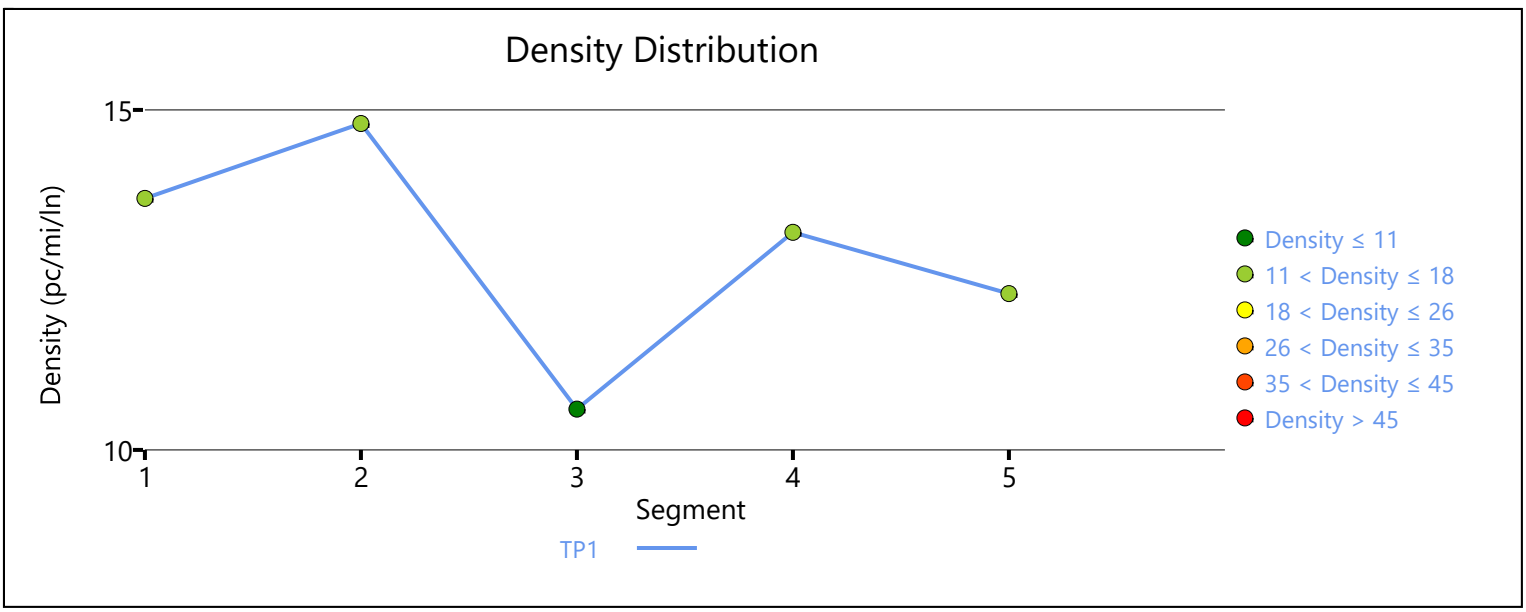
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	13.1	12.7	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	12.7
Average Travel Time, min	2.1	Density, pc/mi/ln	13.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3005	7161	0.42	68.7	14.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3005	634	7200	2100	0.42	0.30	63.9	60.1	15.7	19.0	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2380	7161	0.33	68.7	11.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	2864	484	7200	2100	0.40	0.23	64.5	62.7	14.8	14.4	B

Segment 5: Basic

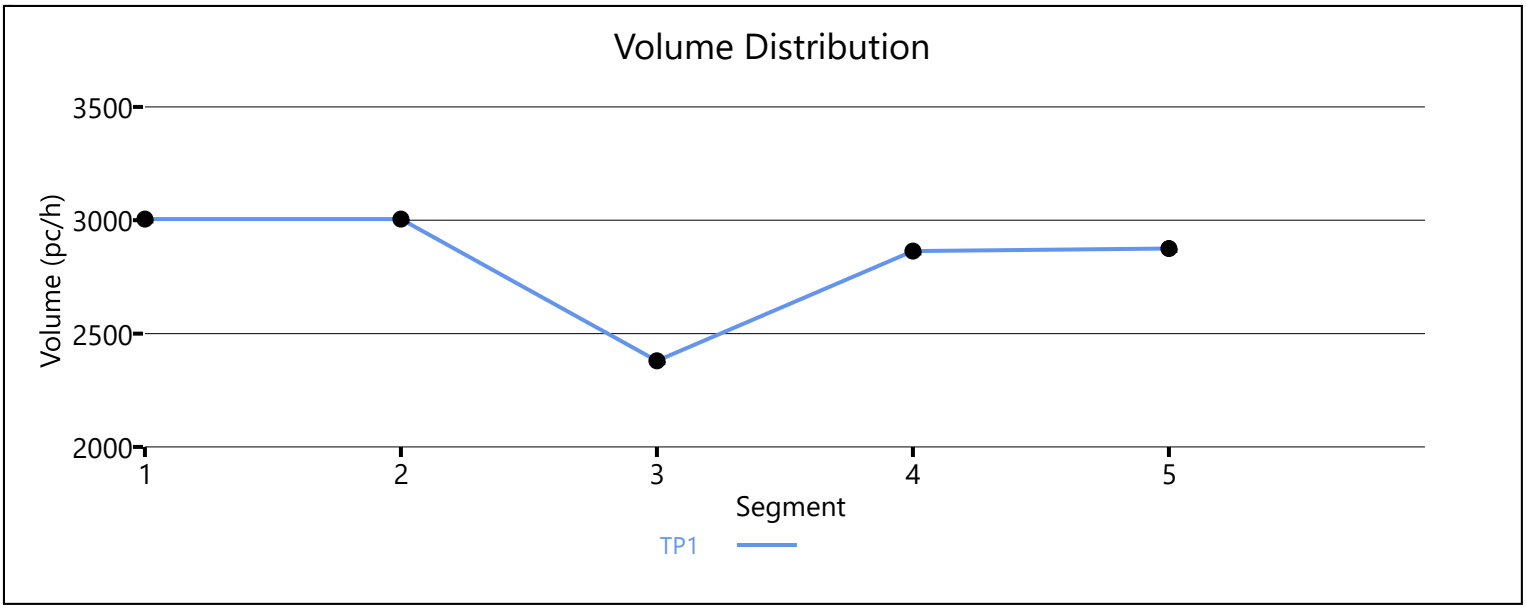
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2875	7161	0.40	68.7	13.9	B

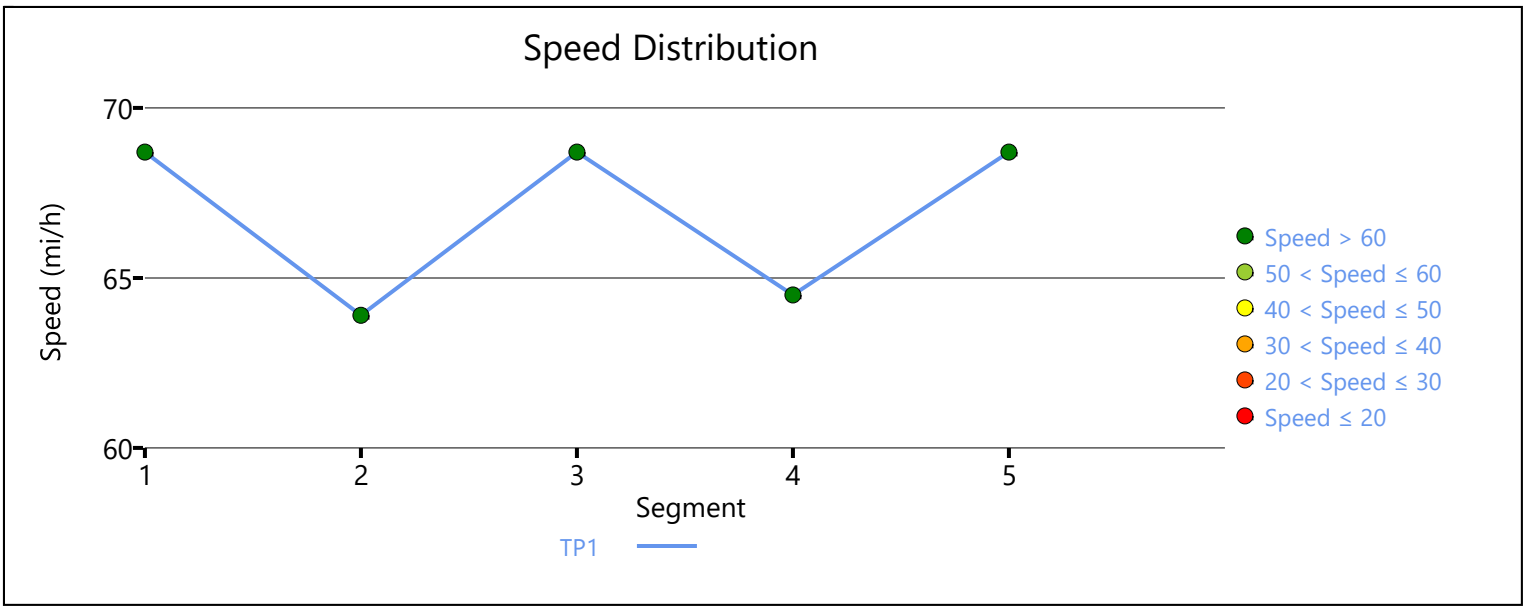
Facility Time Period Results

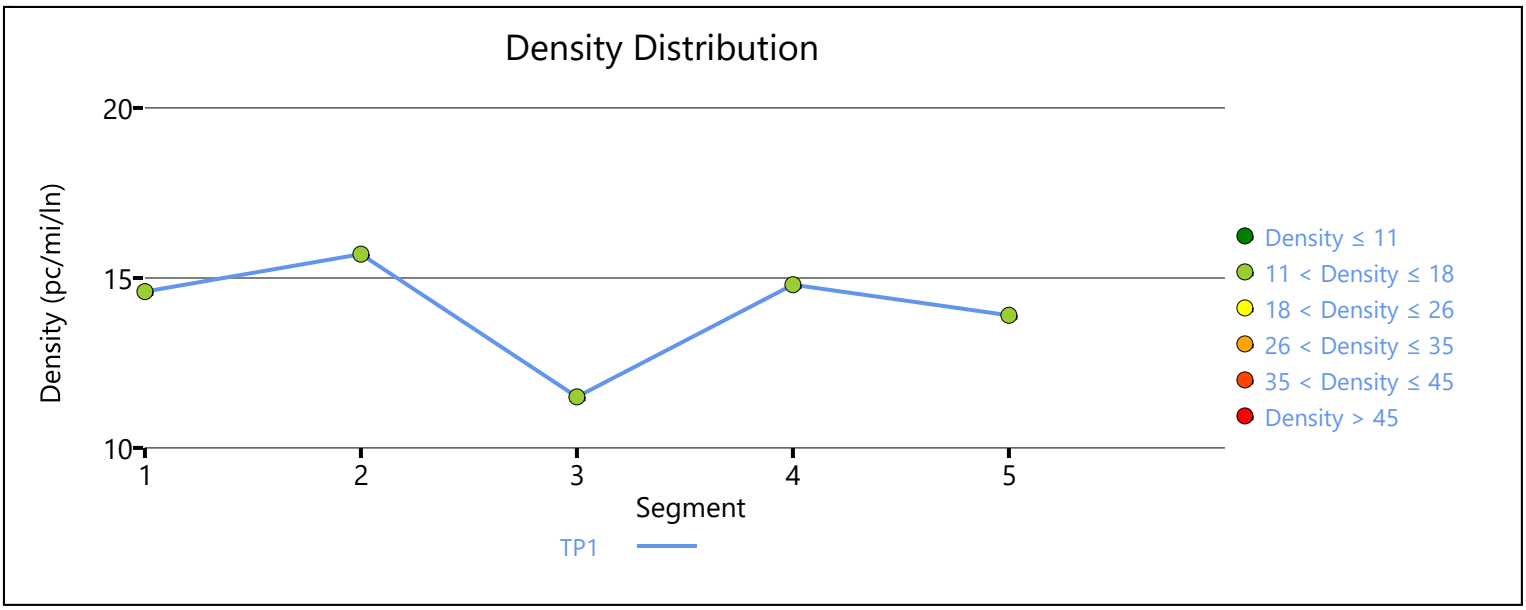
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	14.1	13.1	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.6	Density, veh/mi/ln	13.1
Average Travel Time, min	2.2	Density, pc/mi/ln	14.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	5071	9548	0.53	68.7	18.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.943	5071	836	9600	2100	0.53	0.40	66.3	59.6	19.1	22.2	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4249	9548	0.45	68.7	15.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.909	0.901	4711	462	9600	2100	0.49	0.22	65.0	62.5	18.1	16.2	B

Segment 5: Basic

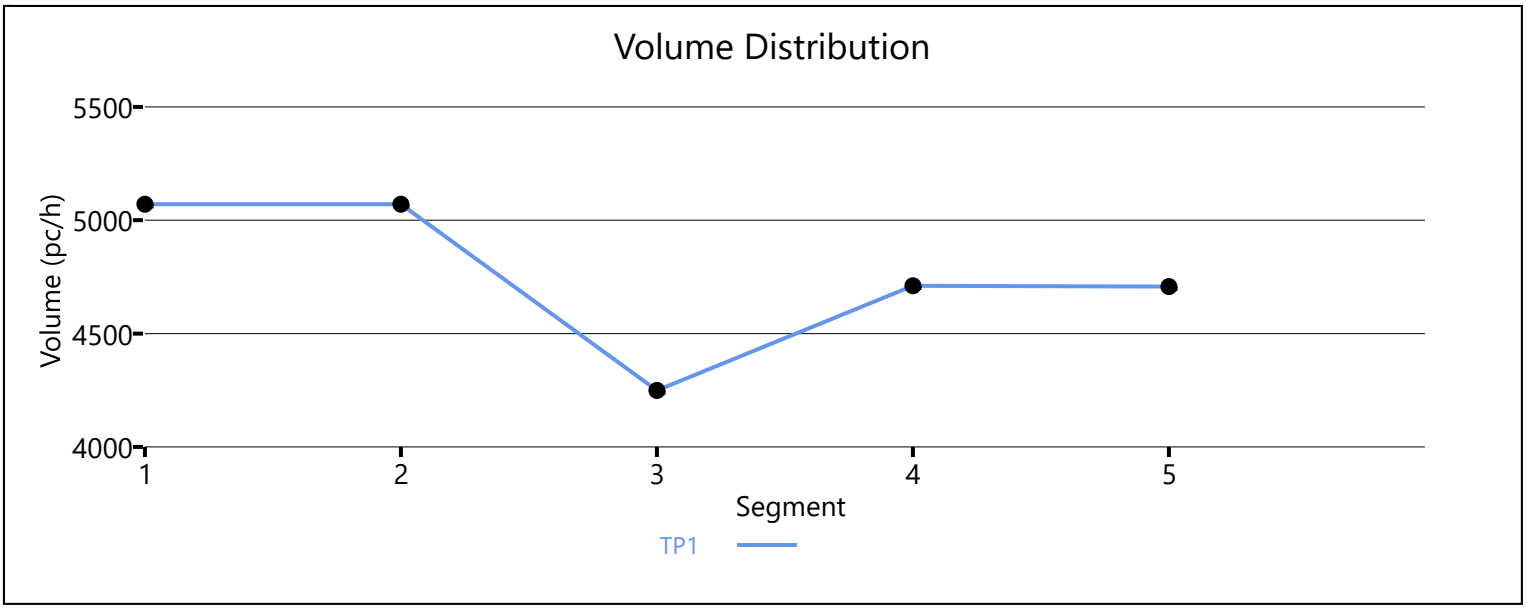
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4707	9548	0.49	68.7	17.1	B

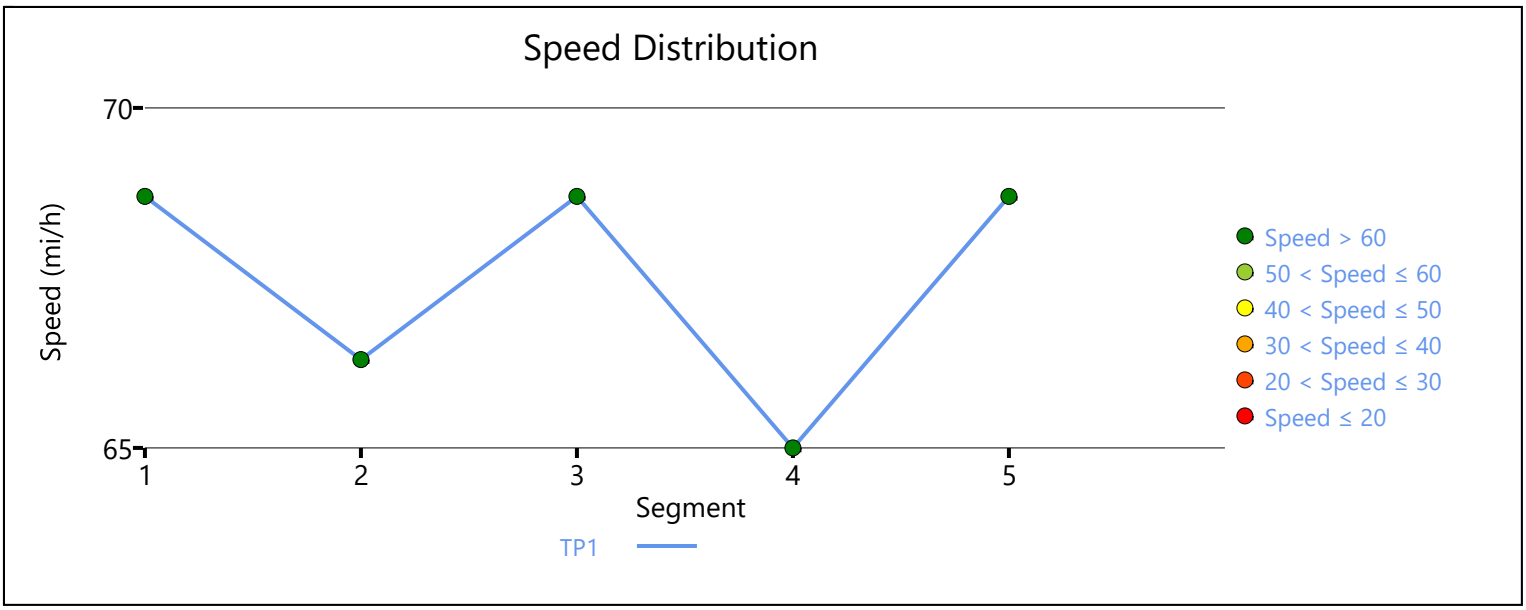
Facility Time Period Results

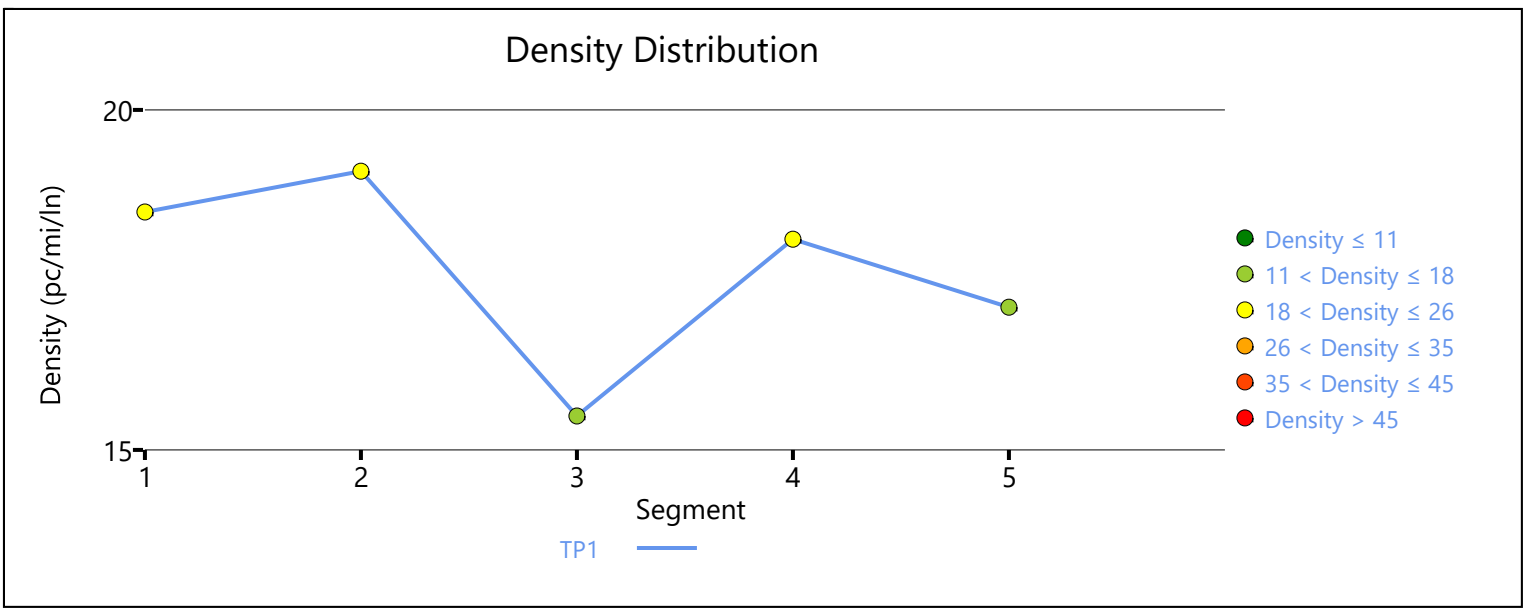
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	17.8	16.3	1.7	B

Facility Overall Results

Space Mean Speed, mi/h	67.8	Density, veh/mi/ln	16.3
Average Travel Time, min	1.7	Density, pc/mi/ln	17.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4676	9548	0.49	68.7	17.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4676	923	9600	2100	0.49	0.44	66.1	59.3	17.7	21.3	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3734	9548	0.39	68.7	13.6	B

Segment 4: Merge

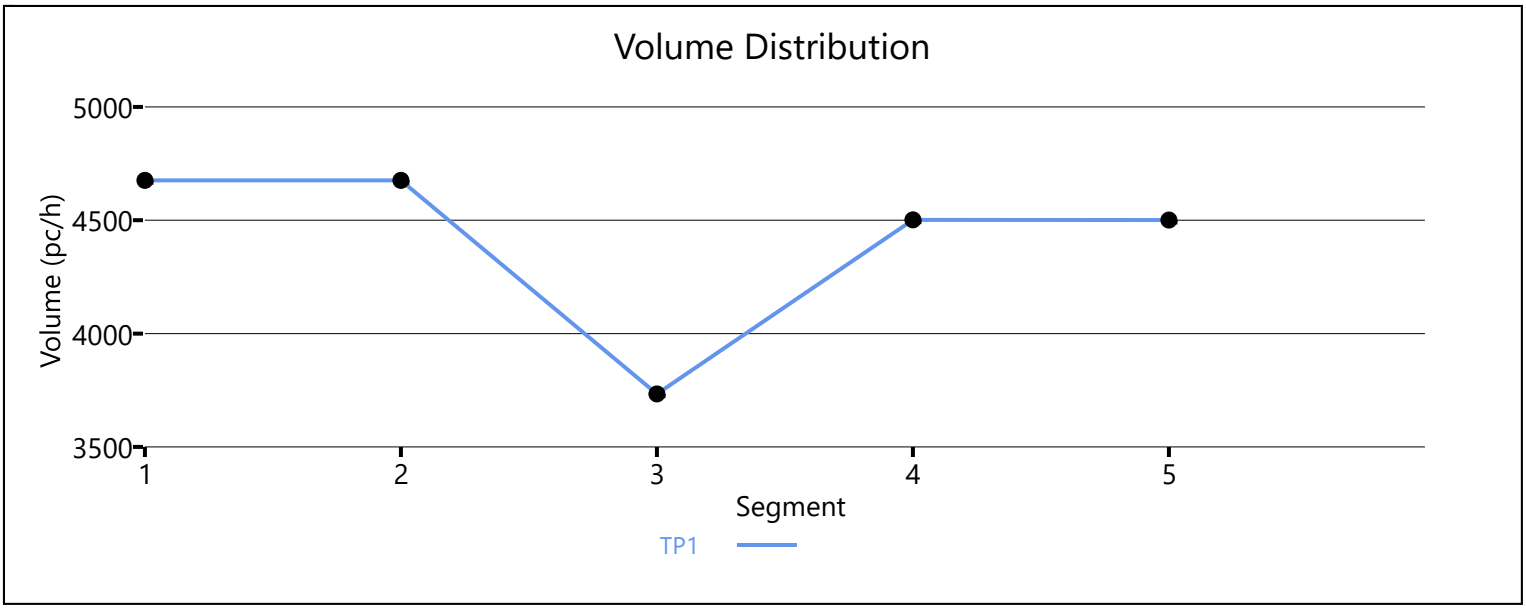
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	4502	768	9600	2100	0.47	0.37	64.2	61.0	17.5	20.2	C

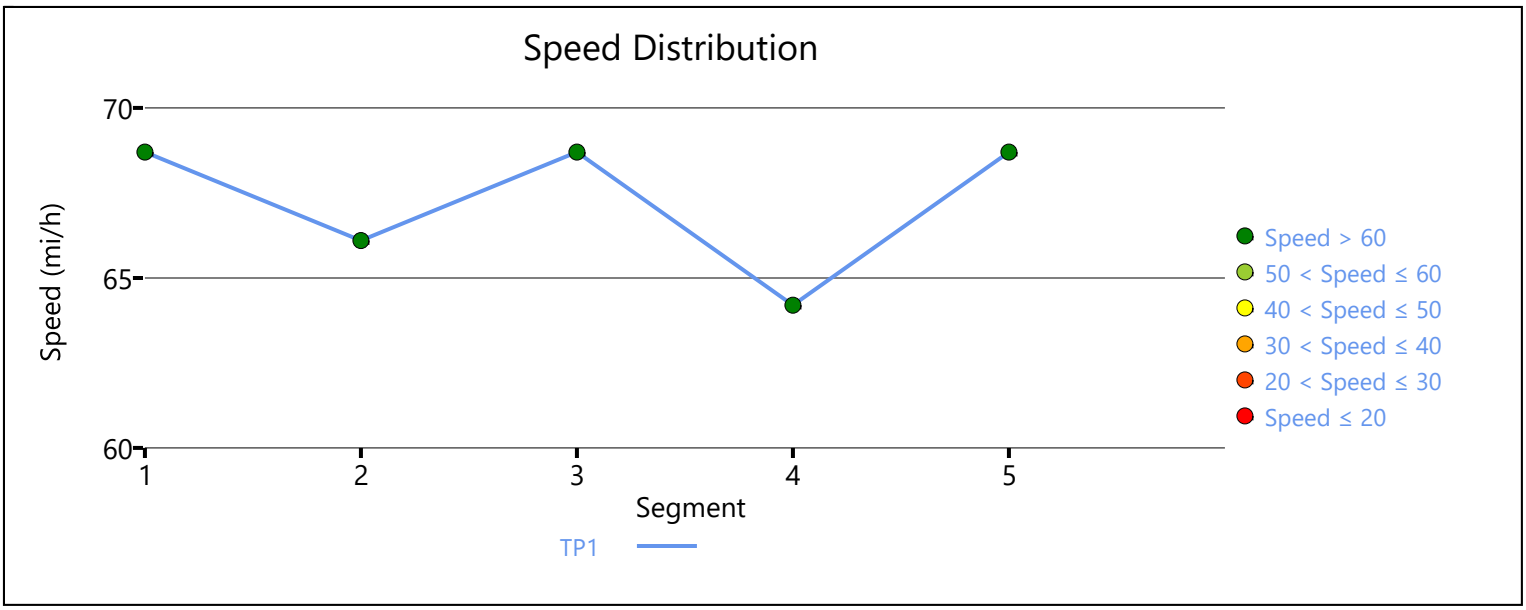
Segment 5: Basic

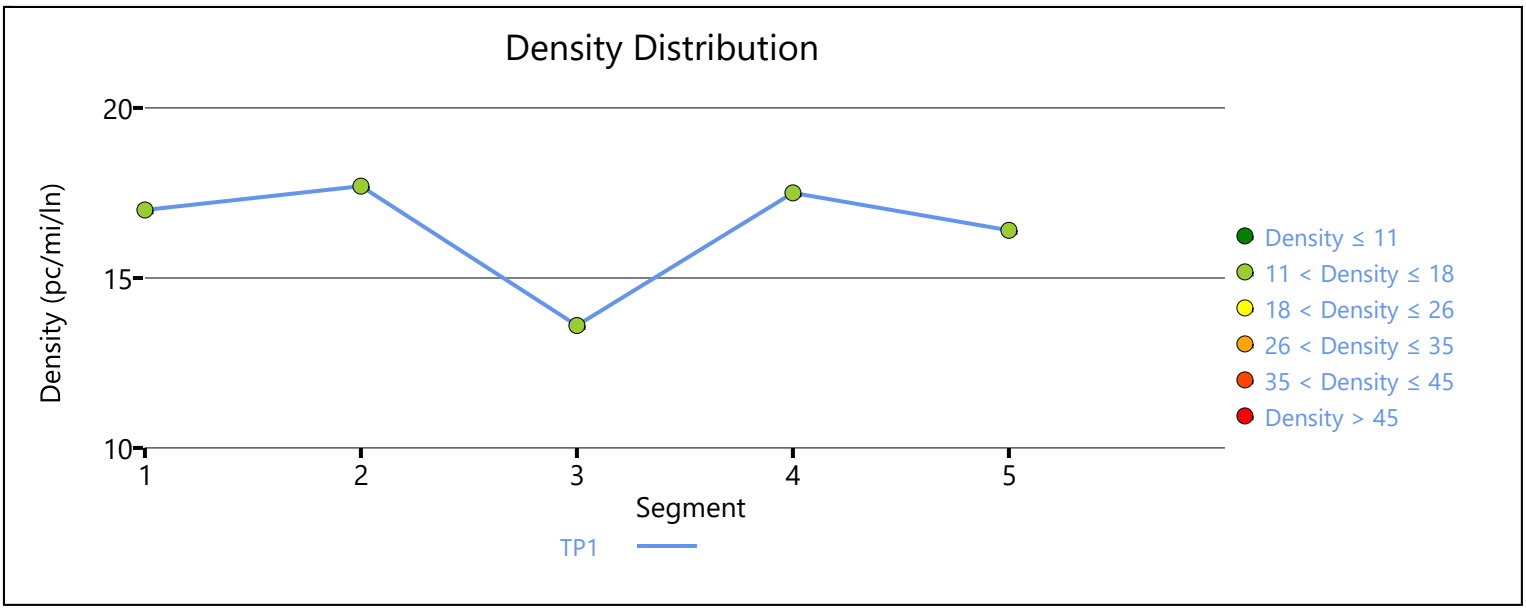
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	4501	9548	0.47	68.7	16.4	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.6	16.6	16.1	1.8	B

Facility Overall Results			
Space Mean Speed, mi/h	67.6	Density, veh/mi/ln	16.1
Average Travel Time, min	1.8	Density, pc/mi/ln	16.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	1628	4786	0.34	69.3	11.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	1628	1337	4800	2100	0.34	0.64	58.3	58.3	14.0	14.2	B

Segment 3: Basic

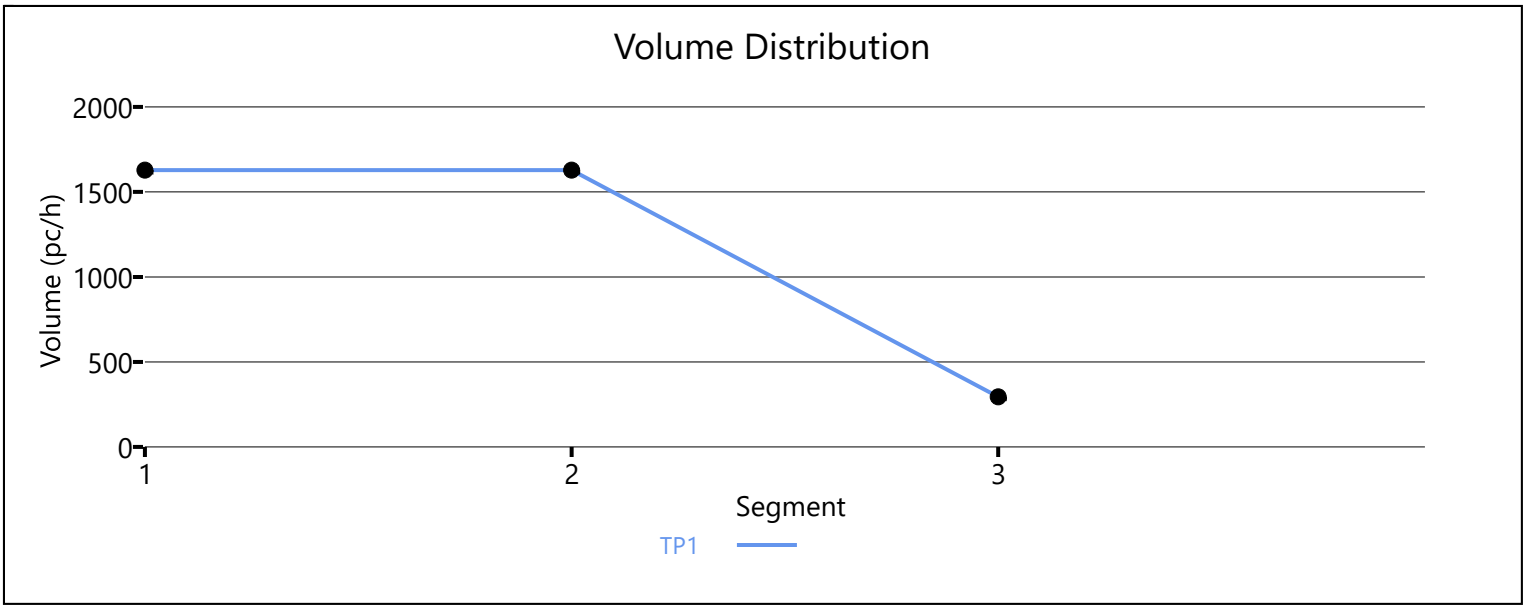
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	295	4786	0.06	69.3	2.1	A

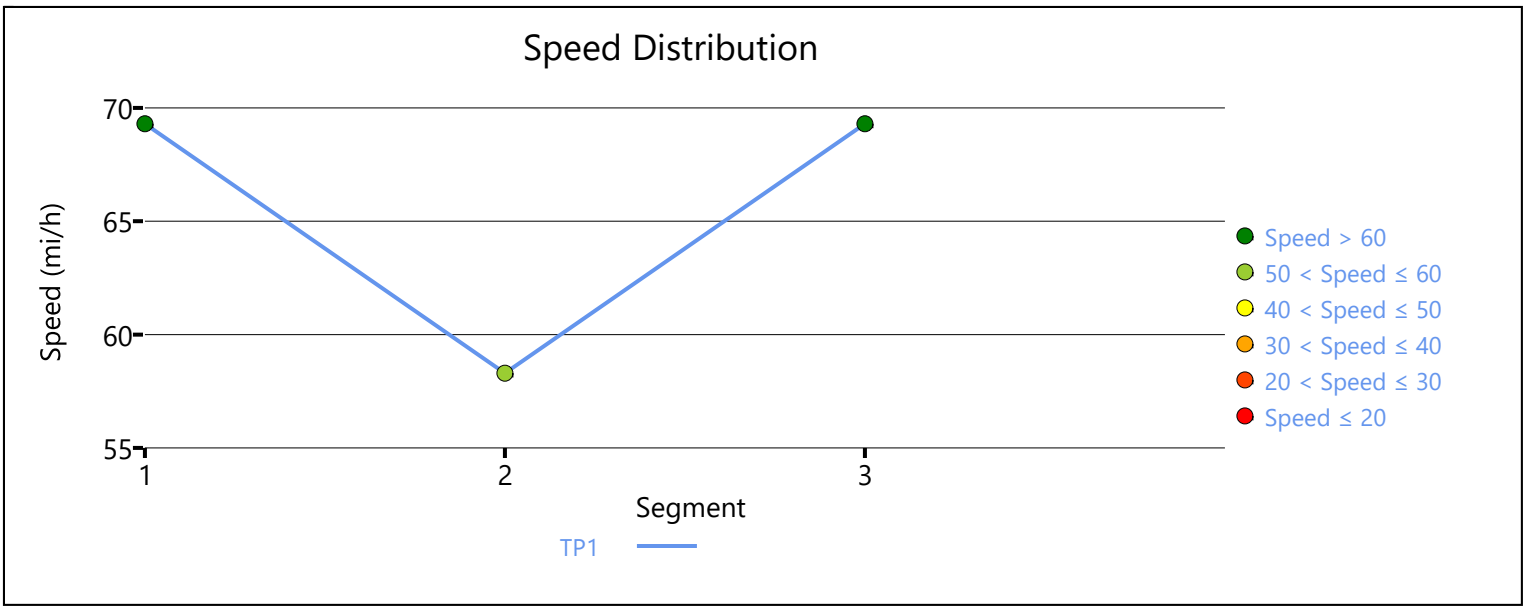
Facility Time Period Results

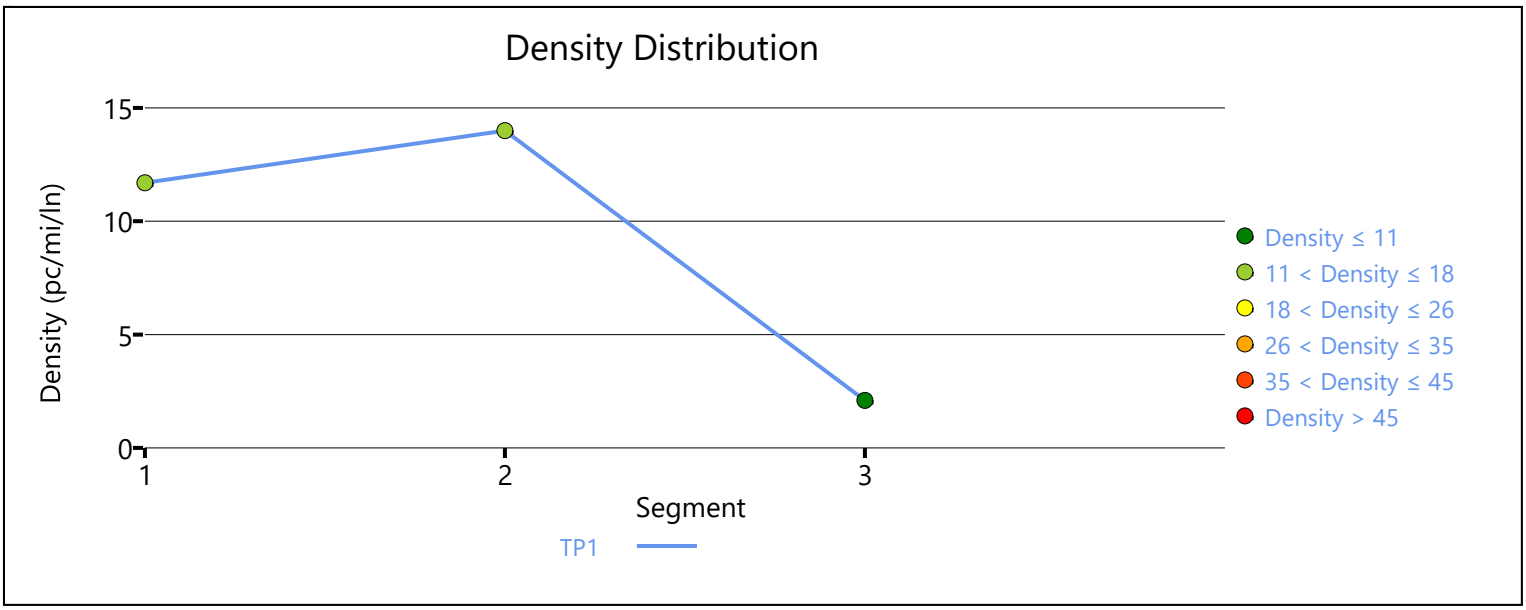
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.6	10.9	10.6	1.3	A

Facility Overall Results

Space Mean Speed, mi/h	66.6	Density, veh/mi/ln	10.6
Average Travel Time, min	1.3	Density, pc/mi/ln	10.9







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	1588	4774	0.33	68.7	11.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.885	1588	187	4800	2100	0.33	0.09	61.2	61.2	13.0	10.7	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1391	4774	0.29	68.7	10.1	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.833	1799	408	4800	2100	0.37	0.19	63.7	63.7	14.1	11.1	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1800	4774	0.38	68.7	13.1	B

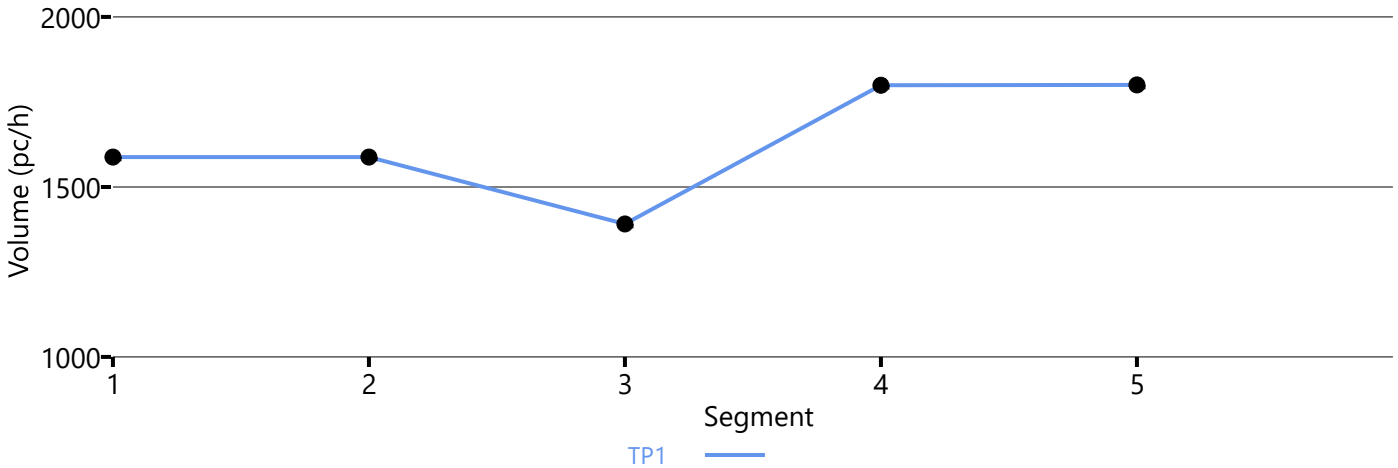
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	12.8	12.4	2.0	B

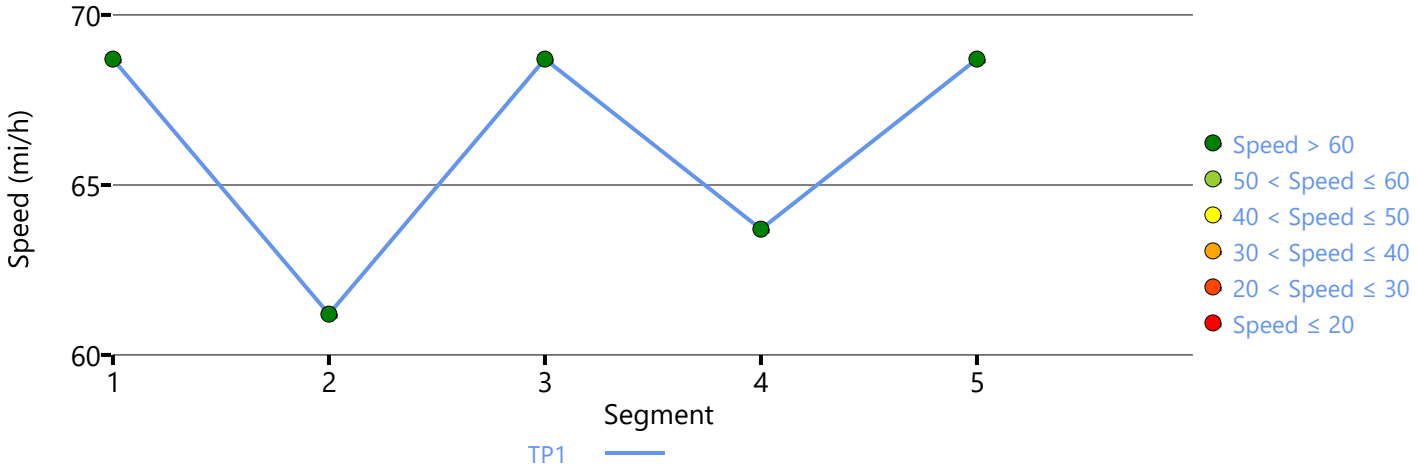
Facility Overall Results

Space Mean Speed, mi/h	67.0	Density, veh/mi/ln	12.4
Average Travel Time, min	2.0	Density, pc/mi/ln	12.8

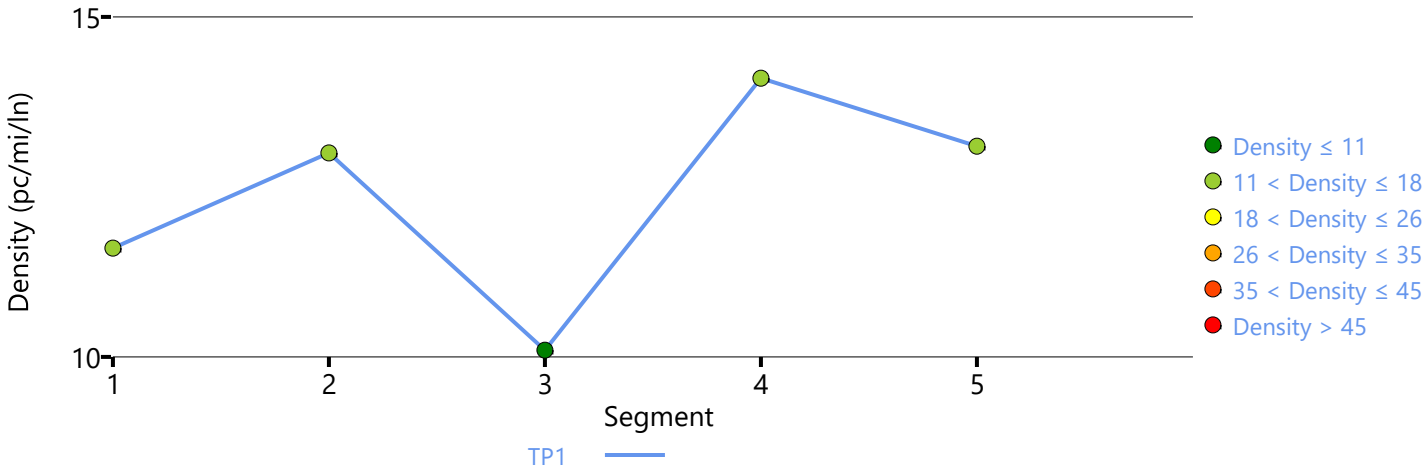
Volume Distribution



Speed Distribution



Density Distribution



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APPENDIX 5.12:

E+P (PROJECT BUILDOUT) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2190	7161	0.31	68.7	10.6	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2190	453	7200	2100	0.30	0.22	63.9	60.5	11.4	14.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1732	7161	0.24	68.7	8.4	A

Segment 4: Merge

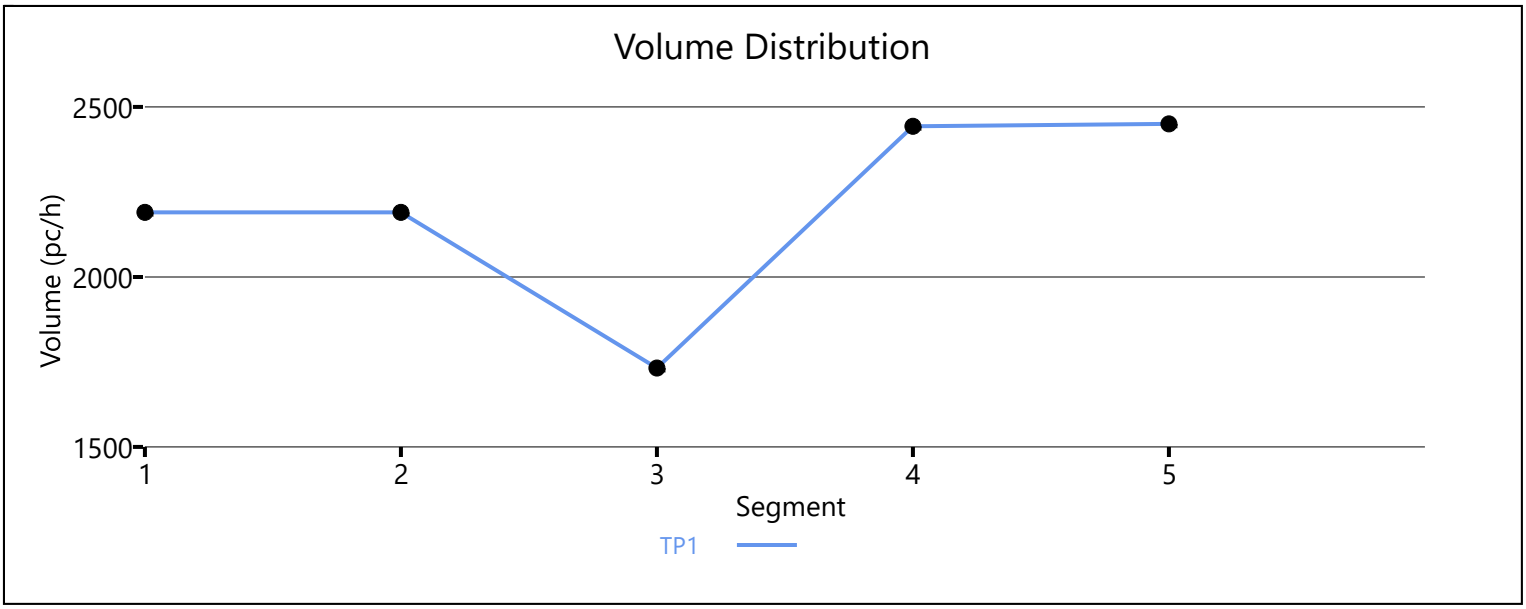
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2443	711	7200	2100	0.34	0.34	64.3	62.5	12.7	13.6	B

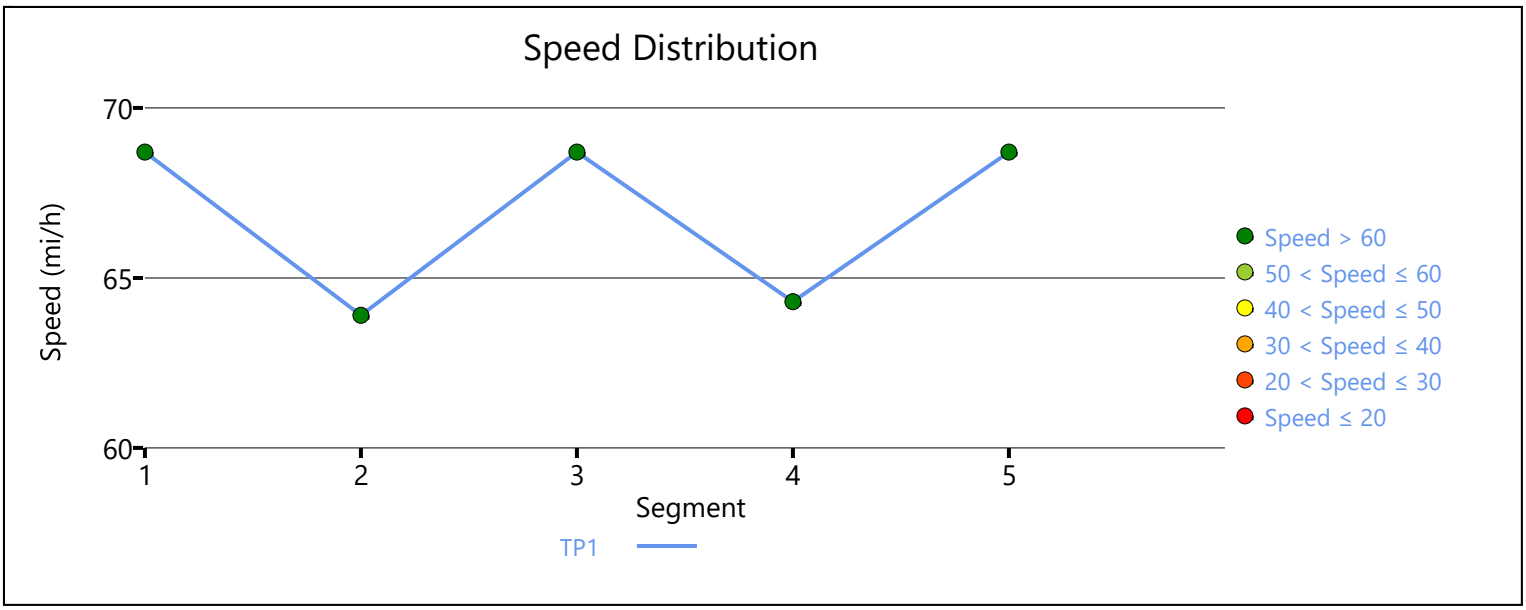
Segment 5: Basic

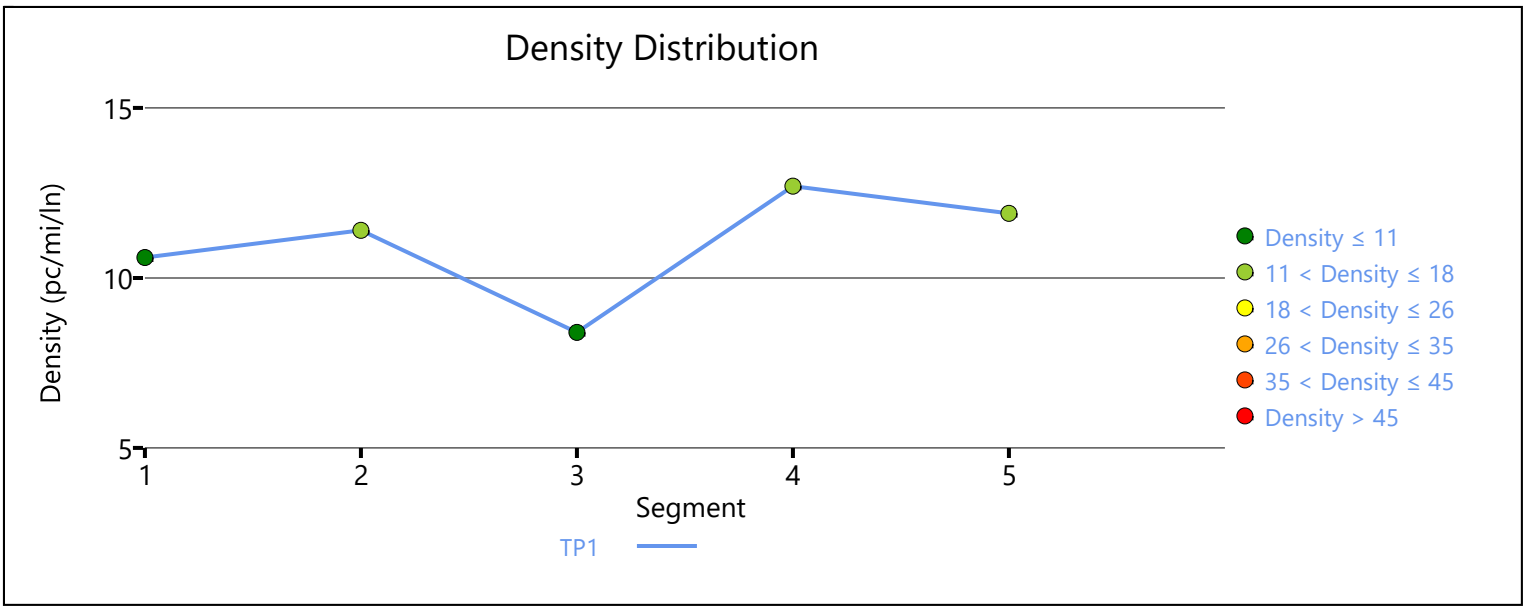
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2450	7161	0.34	68.7	11.9	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.5	10.9	10.5	2.1	A

Facility Overall Results			
Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.5
Average Travel Time, min	2.1	Density, pc/mi/ln	10.9







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2523	7161	0.35	68.7	12.2	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2523	728	7200	2100	0.35	0.35	63.2	59.8	13.3	16.7	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	1808	7161	0.25	68.7	8.8	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2375	567	7200	2100	0.33	0.27	64.6	62.8	12.3	12.3	B

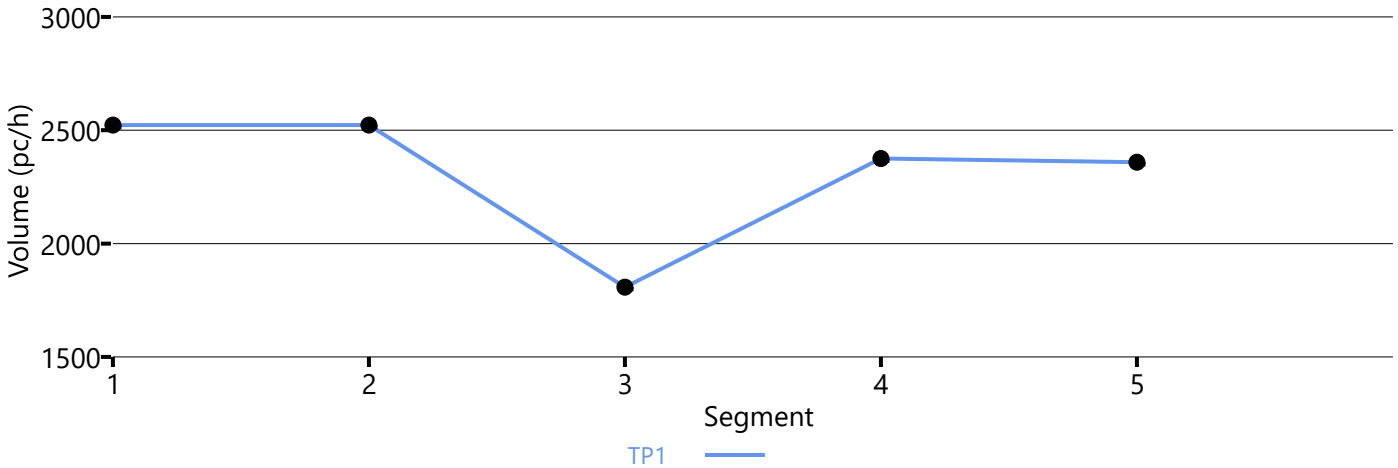
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2359	7161	0.33	68.7	11.4	B

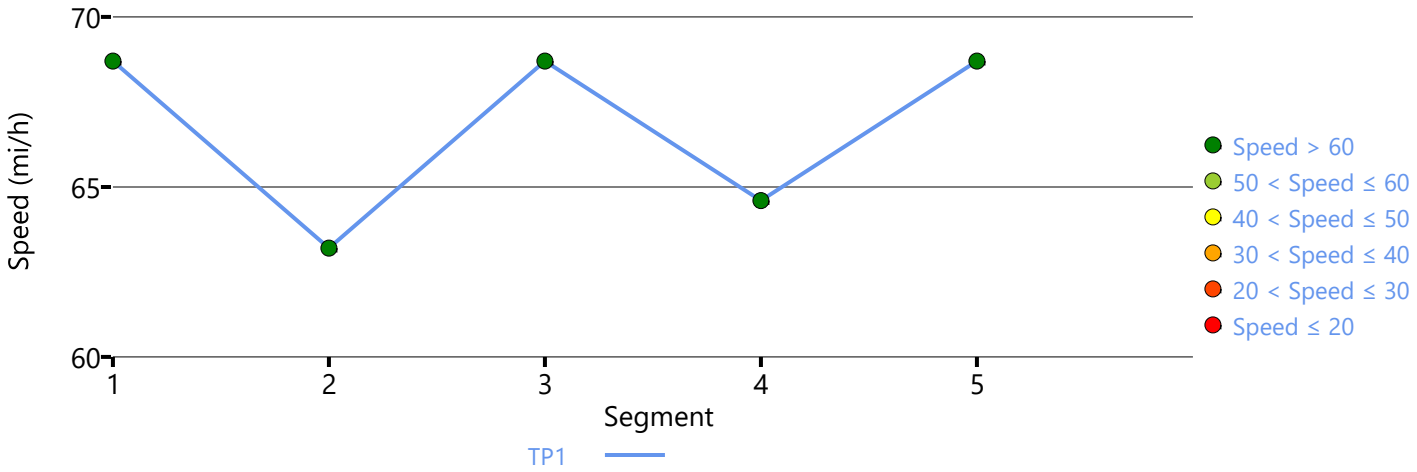
Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.5	11.6	10.7	2.2	B

Facility Overall Results			
Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.7
Average Travel Time, min	2.2	Density, pc/mi/ln	11.6

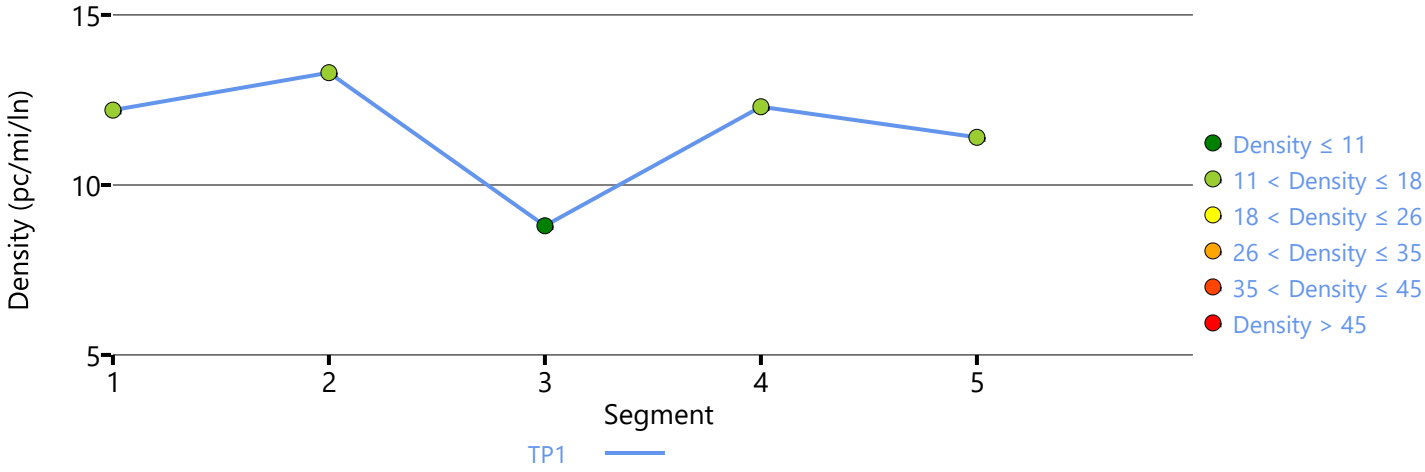
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4998	9548	0.52	68.7	18.2	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4998	628	9600	2100	0.52	0.30	67.0	60.1	18.6	20.9	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4347	9548	0.46	68.7	15.8	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.917	4927	580	9600	2100	0.51	0.28	64.8	62.3	19.0	17.4	B

Segment 5: Basic

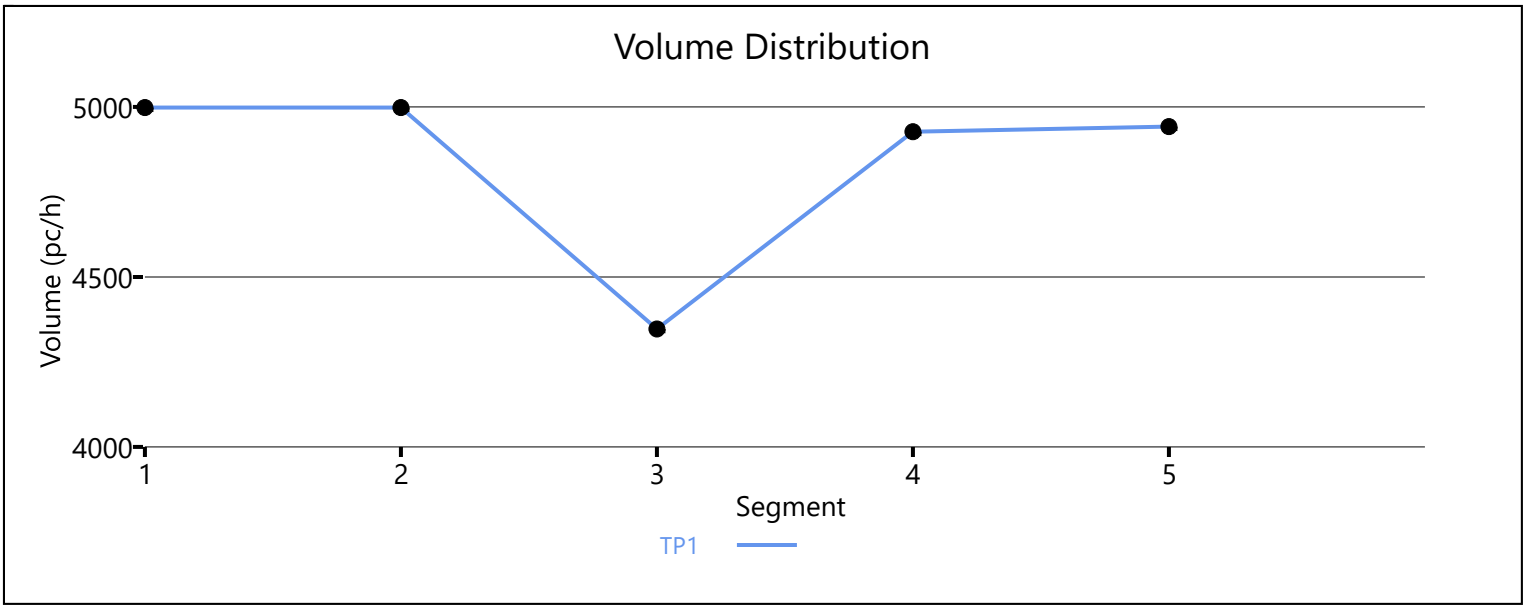
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.893	4942	9548	0.52	68.7	18.0	B

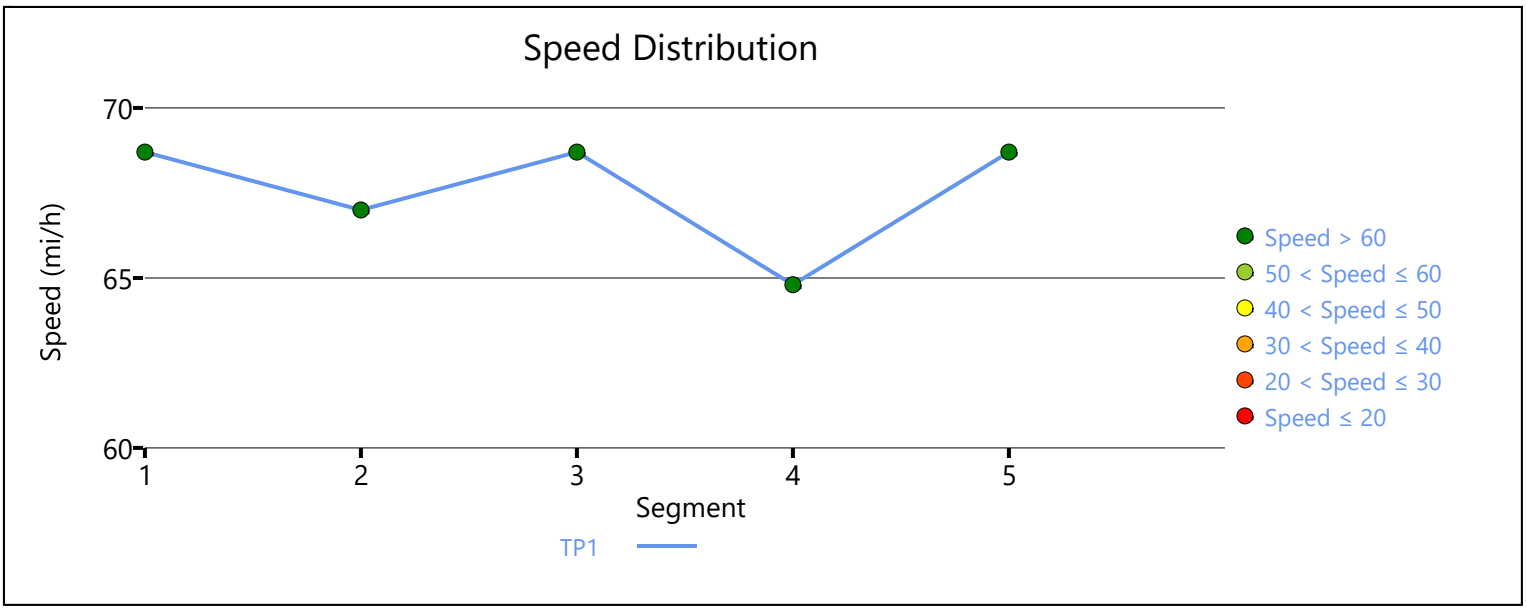
Facility Time Period Results

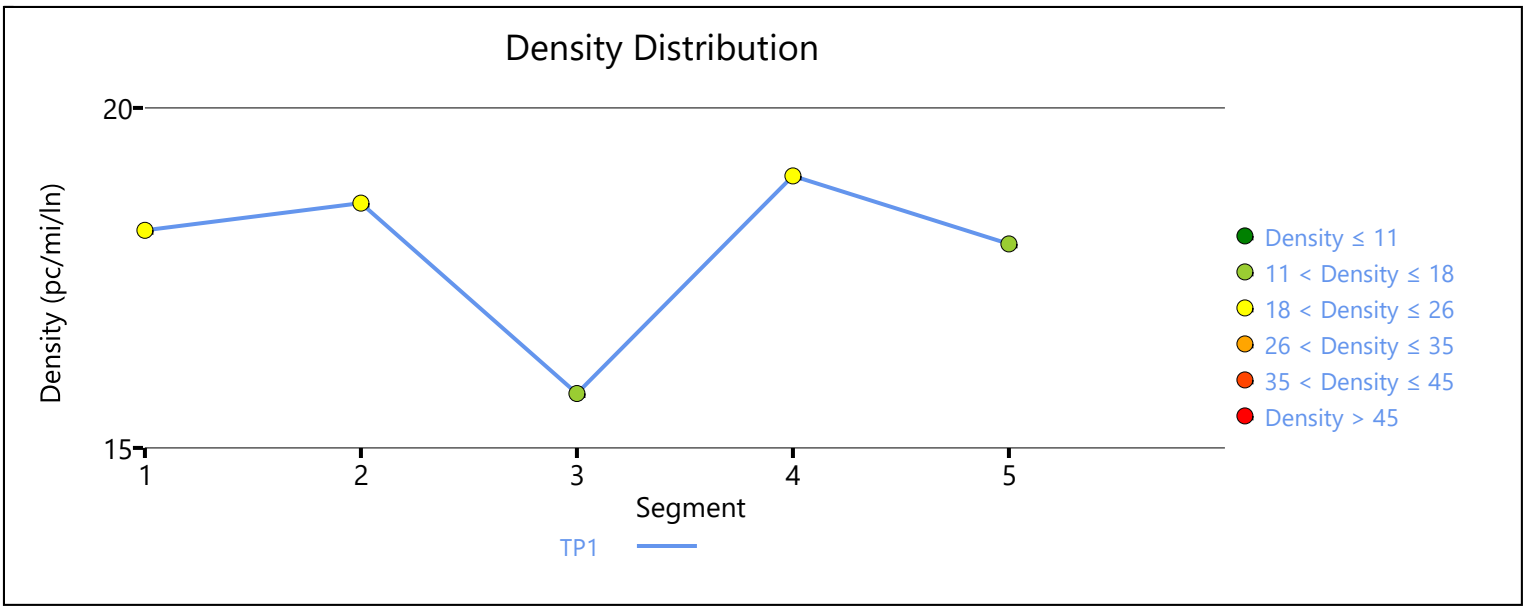
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	18.1	16.2	1.7	C

Facility Overall Results

Space Mean Speed, mi/h	67.8	Density, veh/mi/ln	16.2
Average Travel Time, min	1.7	Density, pc/mi/ln	18.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3852	9548	0.40	68.7	14.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	3705	626	9600	2100	0.39	0.30	66.9	60.1	13.8	16.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3205	9548	0.34	68.7	11.7	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	3729	524	9600	2100	0.39	0.25	64.8	61.4	14.4	16.7	B

Segment 5: Basic

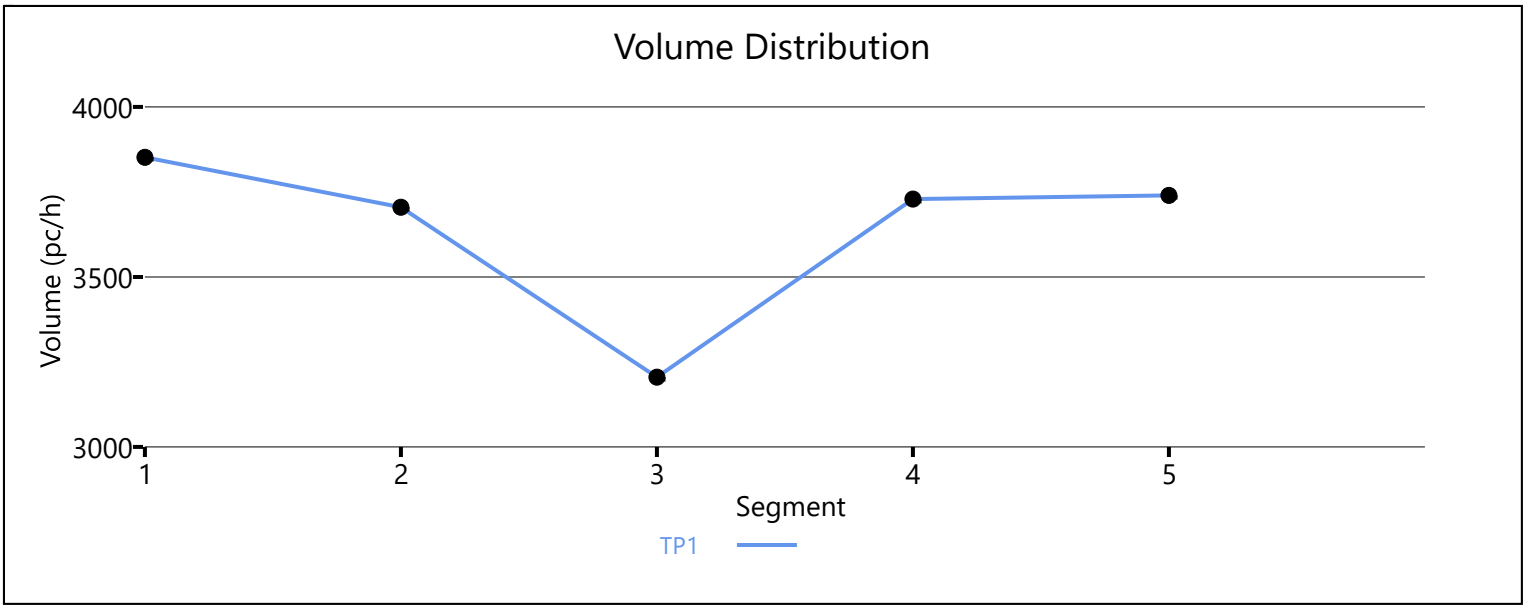
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3740	9548	0.39	68.7	13.6	B

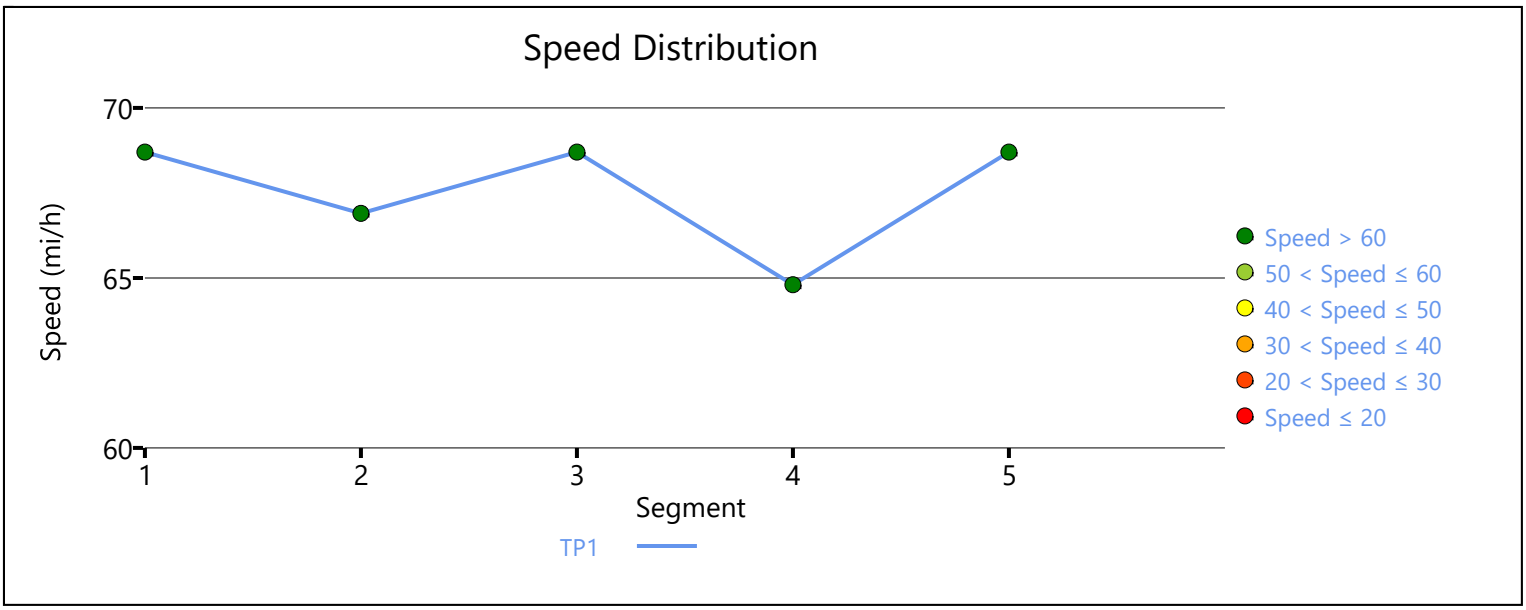
Facility Time Period Results

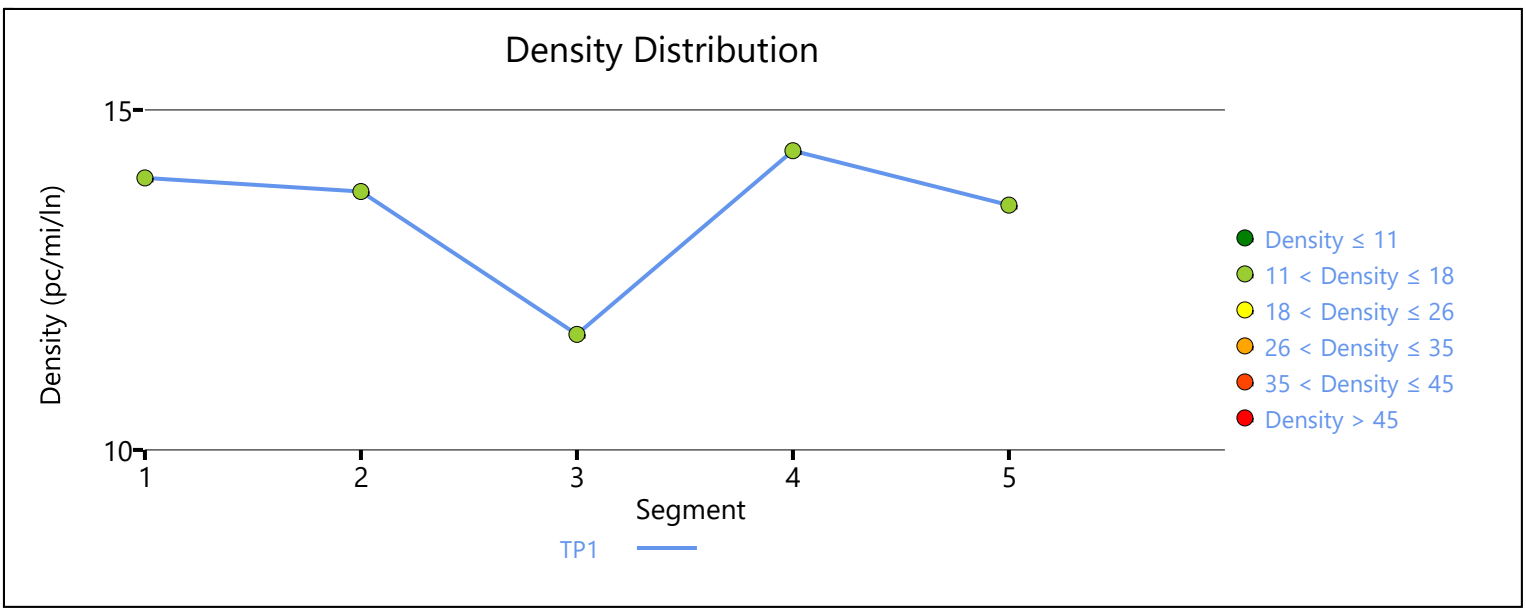
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	13.6	13.3	1.8	B

Facility Overall Results

Space Mean Speed, mi/h	67.9	Density, veh/mi/ln	13.3
Average Travel Time, min	1.8	Density, pc/mi/ln	13.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	1706	4786	0.36	69.3	12.3	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.901	1706	1221	4800	2100	0.36	0.58	58.6	58.6	14.6	14.9	B

Segment 3: Basic

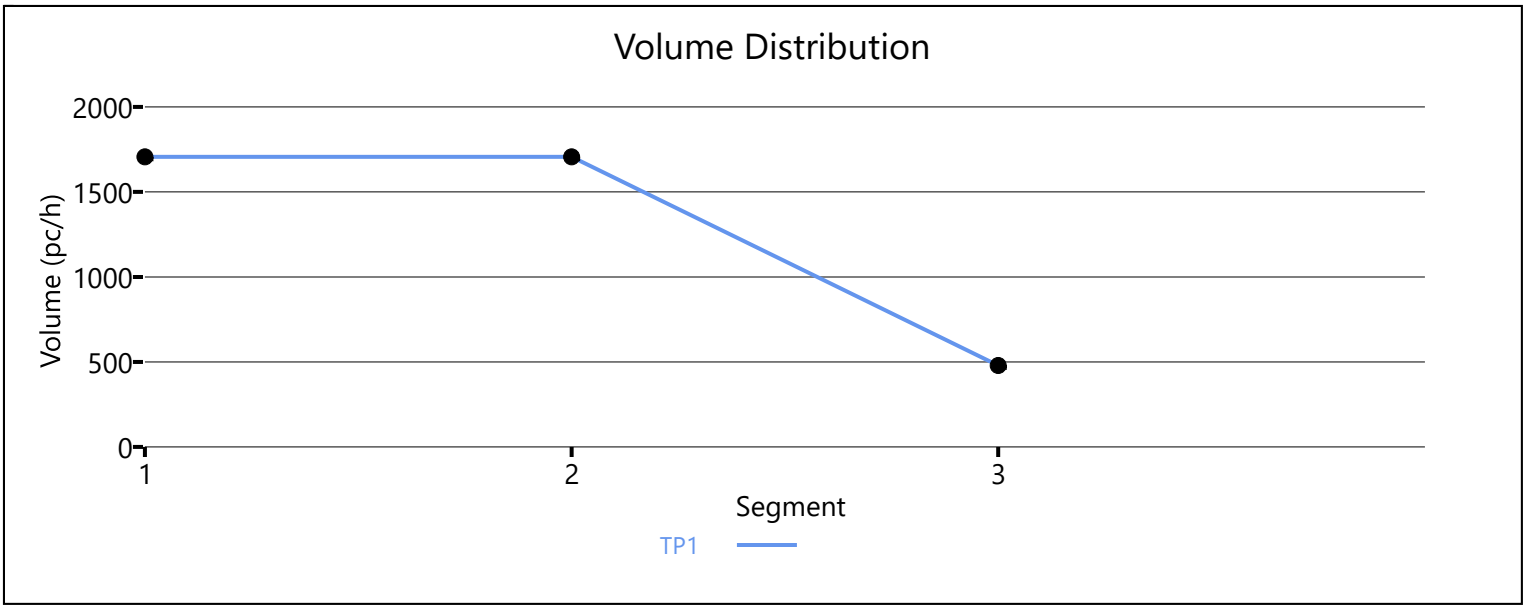
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	479	4786	0.10	69.3	3.5	A

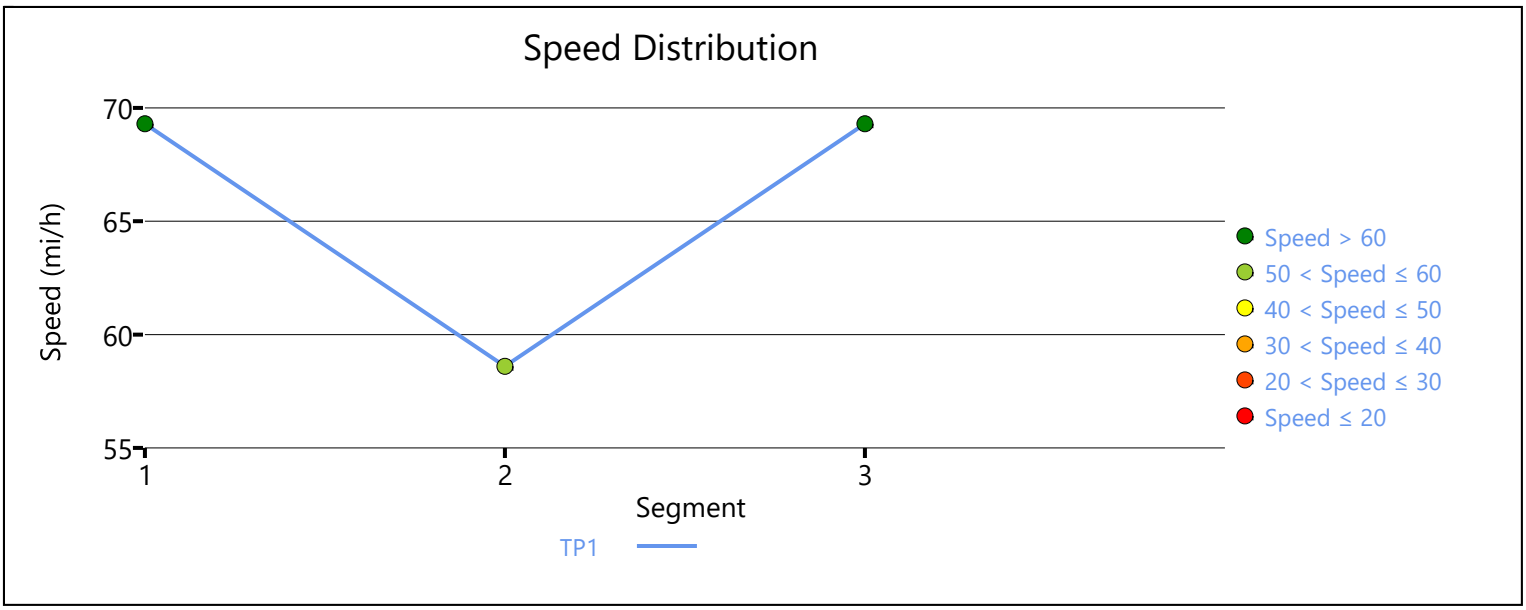
Facility Time Period Results

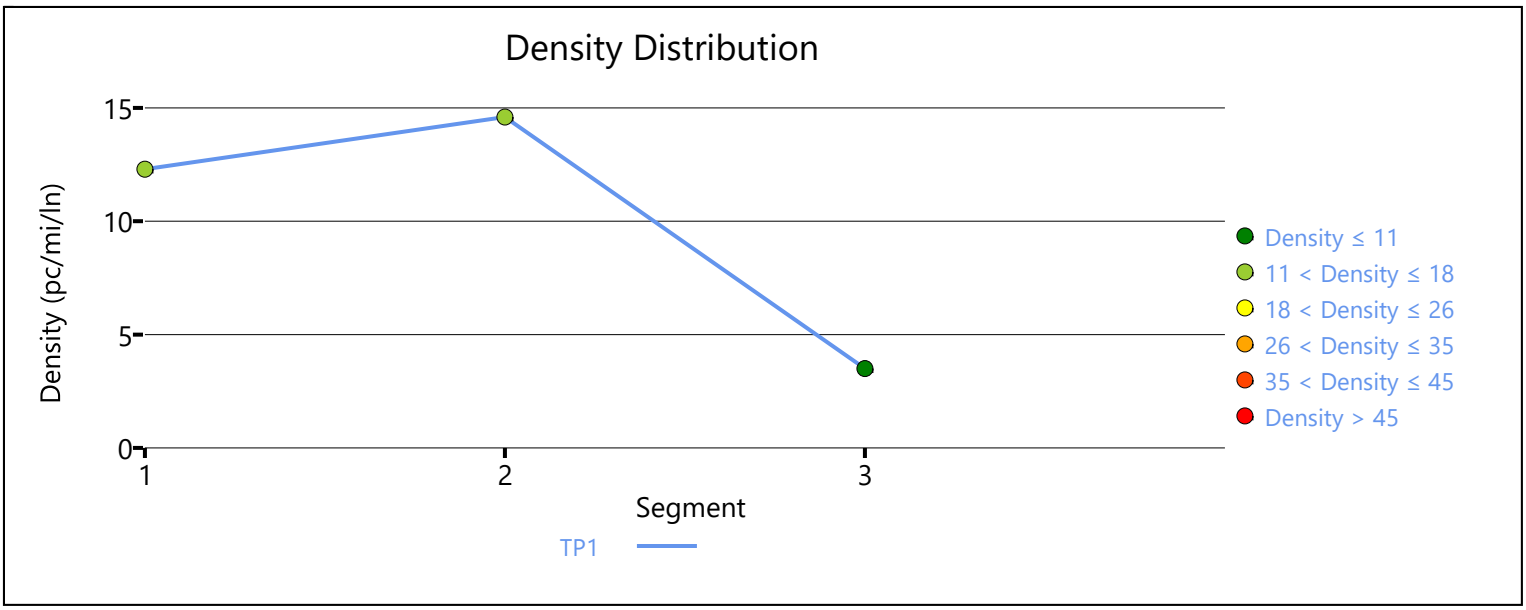
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.7	11.6	10.8	1.3	B

Facility Overall Results

Space Mean Speed, mi/h	66.7	Density, veh/mi/ln	10.8
Average Travel Time, min	1.3	Density, pc/mi/ln	11.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1579	4774	0.33	68.7	11.5	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.806	1579	374	4800	2100	0.33	0.18	60.7	60.7	13.0	10.6	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1202	4774	0.25	68.7	8.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	1352	150	4800	2100	0.28	0.07	63.9	63.9	10.6	7.7	A

Segment 5: Basic

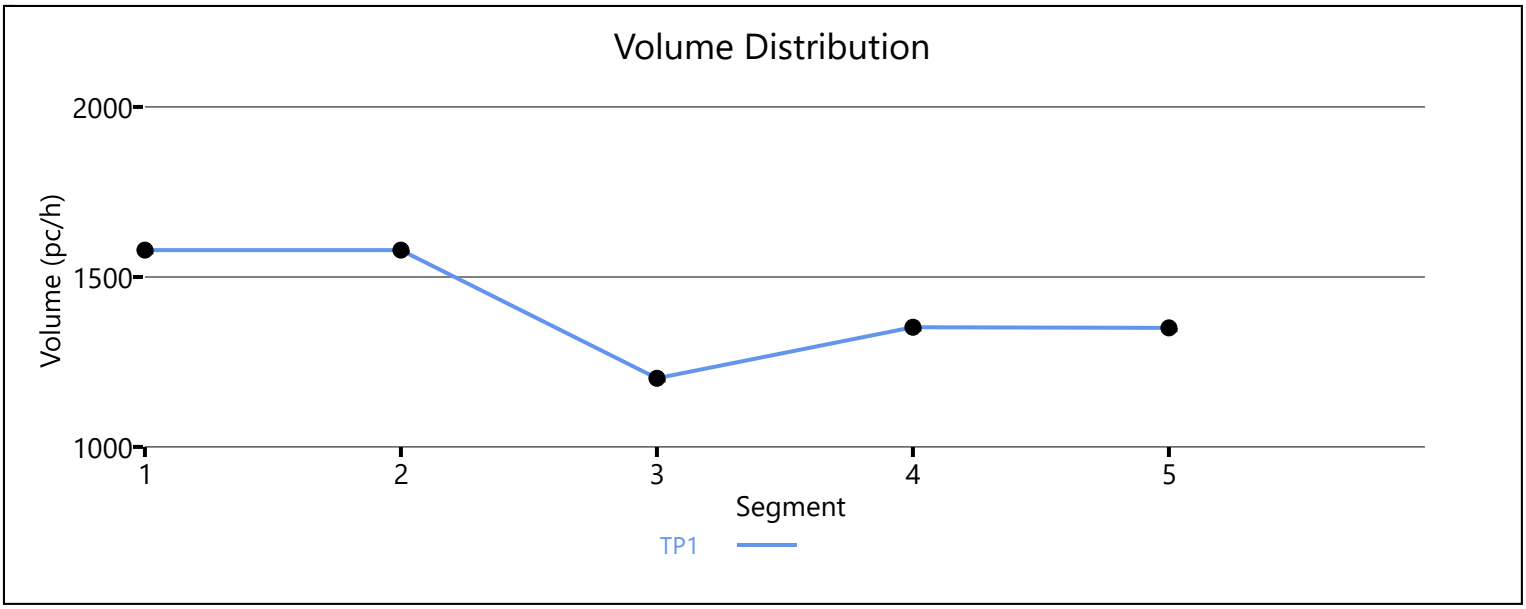
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	1350	4774	0.28	68.7	9.8	A

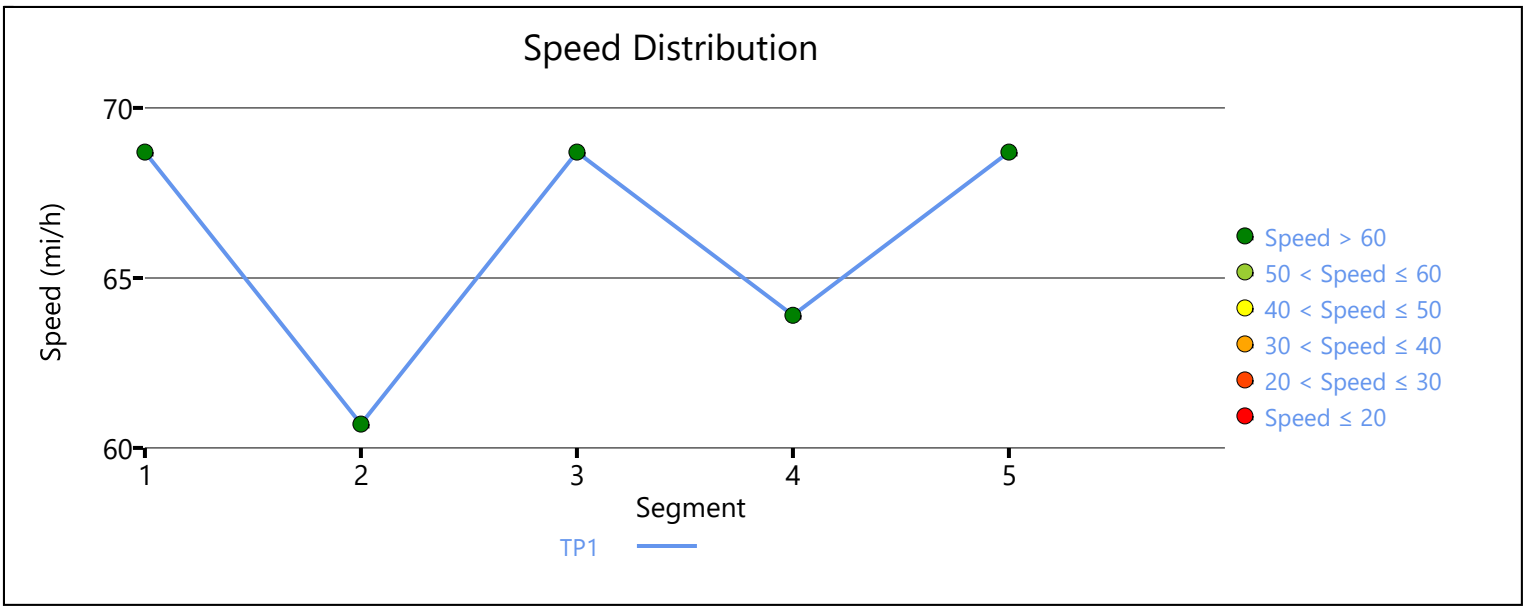
Facility Time Period Results

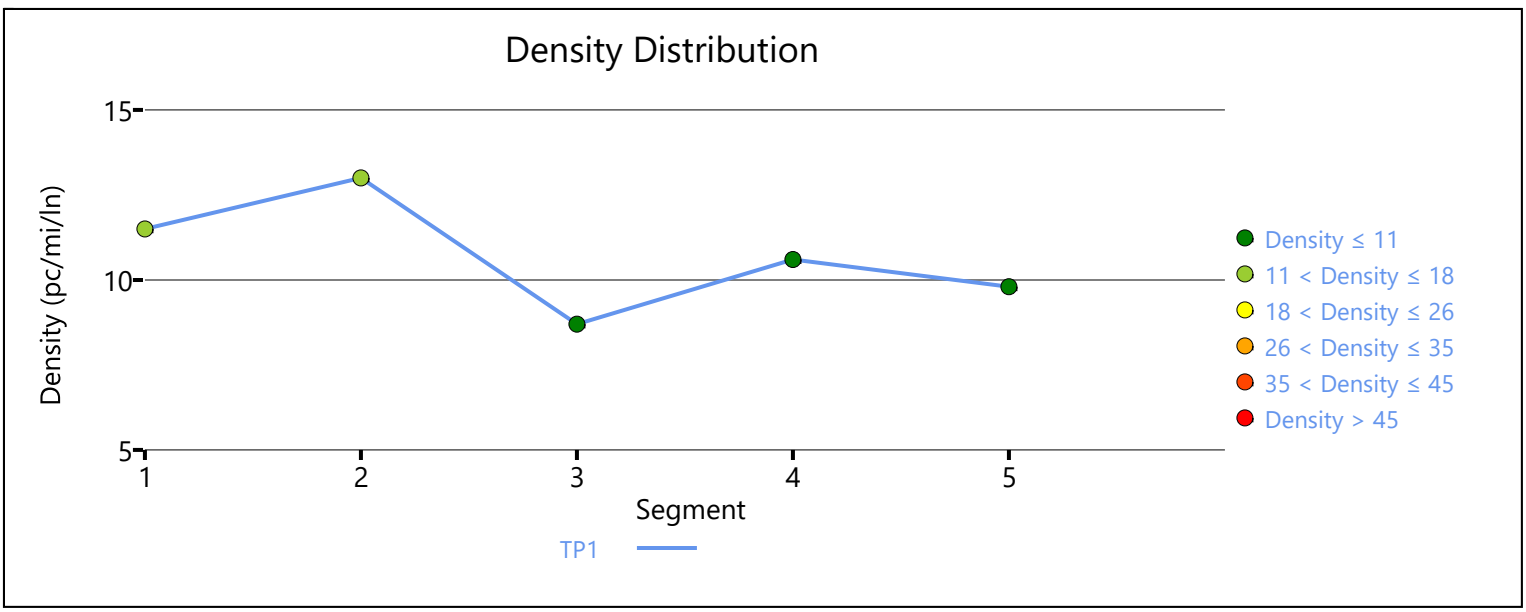
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.9	10.8	10.5	2.0	A

Facility Overall Results

Space Mean Speed, mi/h	66.9	Density, veh/mi/ln	10.5
Average Travel Time, min	2.0	Density, pc/mi/ln	10.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2878	7161	0.40	68.7	14.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	2878	696	7200	2100	0.40	0.33	63.5	59.9	15.1	18.5	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2189	7161	0.31	68.7	10.6	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2556	367	7200	2100	0.36	0.17	64.6	62.6	13.2	13.2	B

Segment 5: Basic

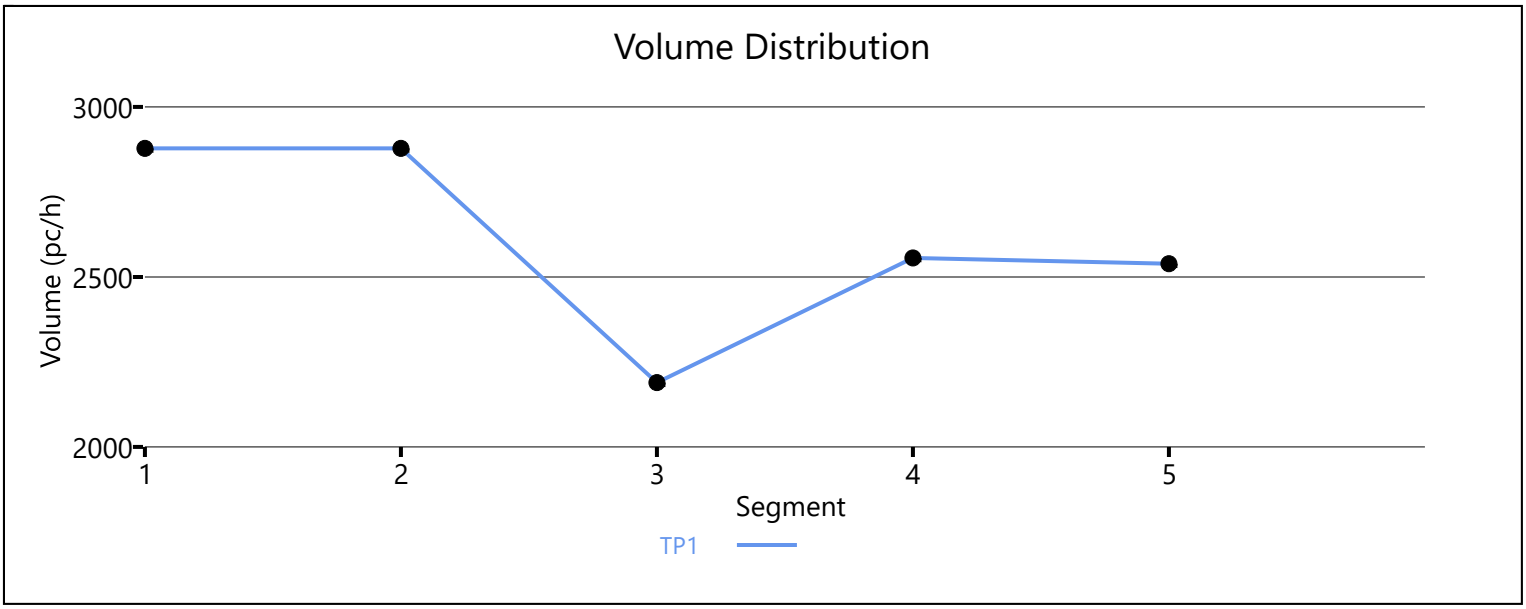
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2539	7161	0.35	68.7	12.3	B

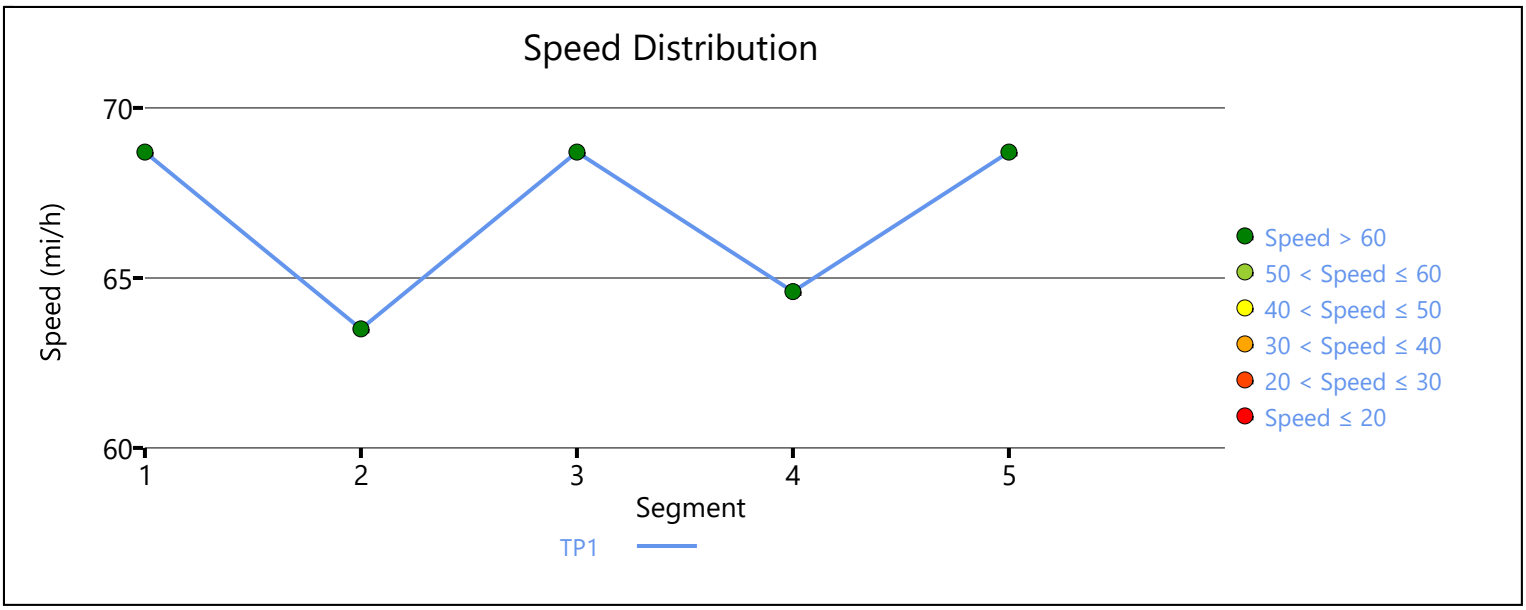
Facility Time Period Results

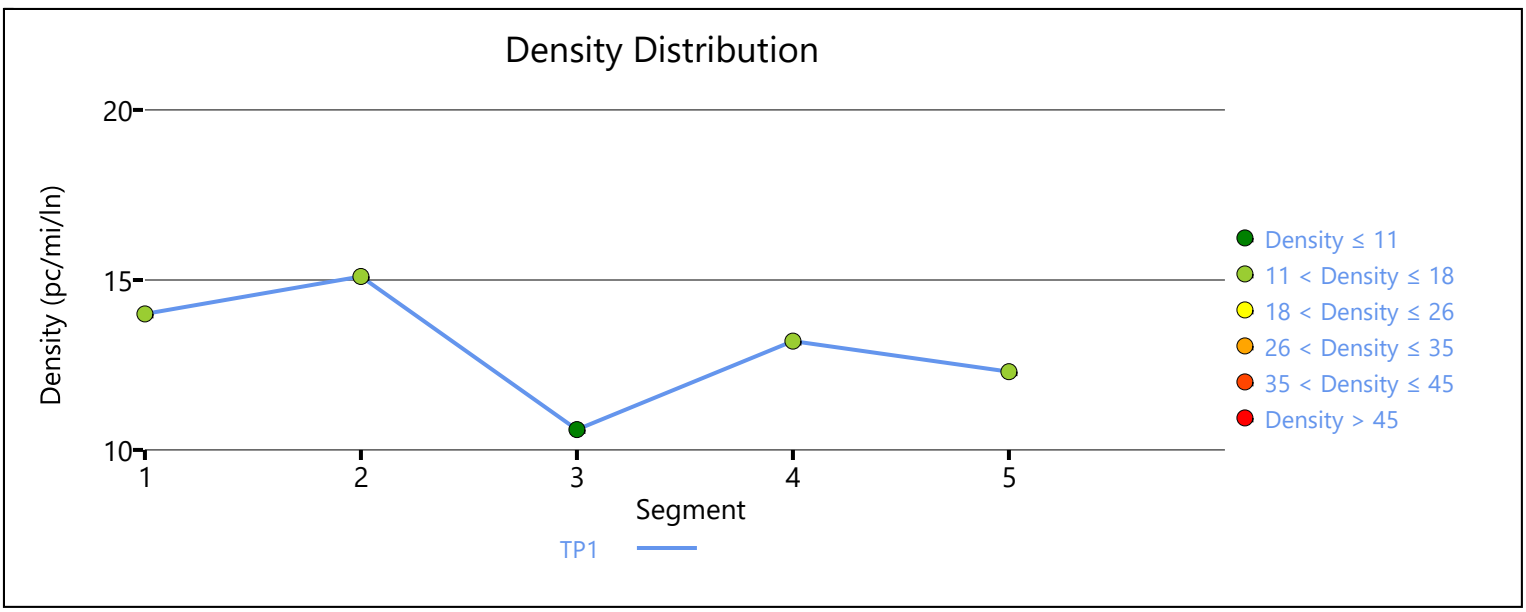
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	13.2	12.8	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	12.8
Average Travel Time, min	2.1	Density, pc/mi/ln	13.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3005	7161	0.42	68.7	14.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3005	634	7200	2100	0.42	0.30	63.9	60.1	15.7	19.0	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2380	7161	0.33	68.7	11.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	2899	519	7200	2100	0.40	0.25	64.4	62.6	15.0	14.6	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	2884	7161	0.40	68.7	14.0	B

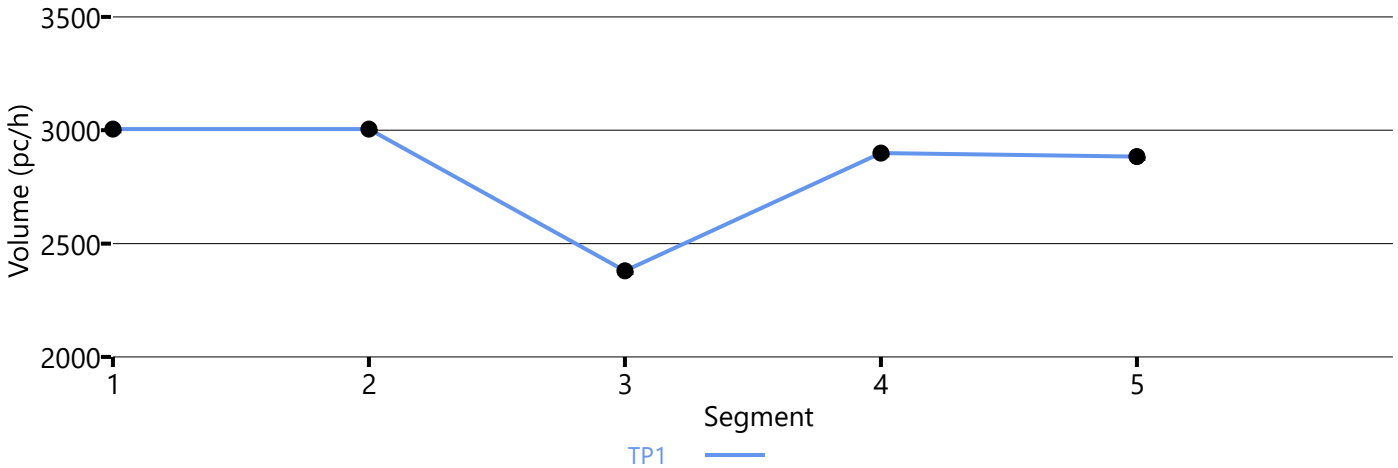
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	14.2	13.2	2.2	B

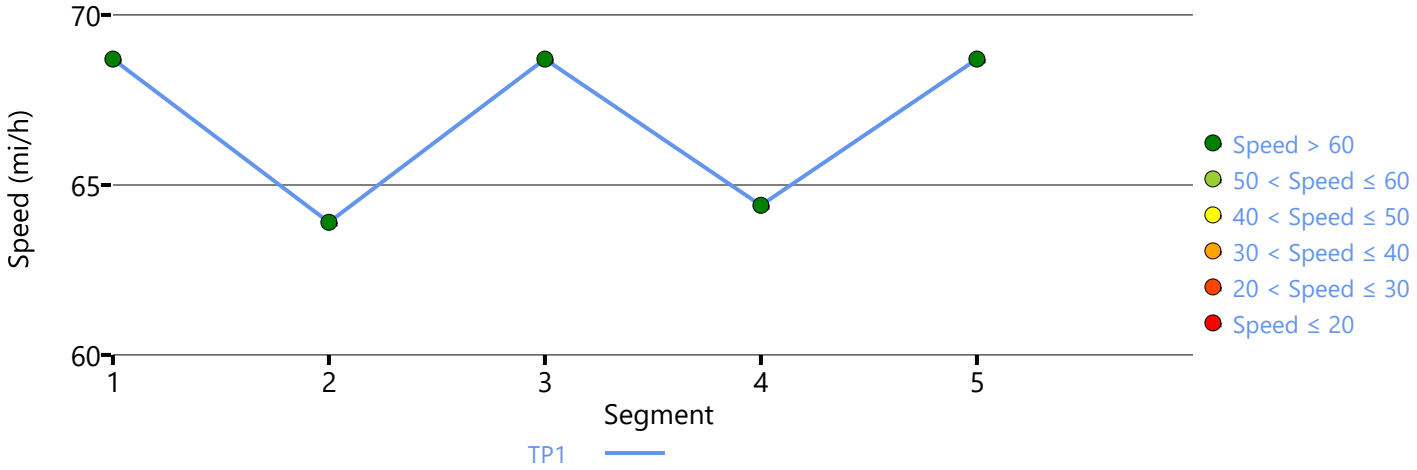
Facility Overall Results

Space Mean Speed, mi/h	67.6	Density, veh/mi/ln	13.2
Average Travel Time, min	2.2	Density, pc/mi/ln	14.2

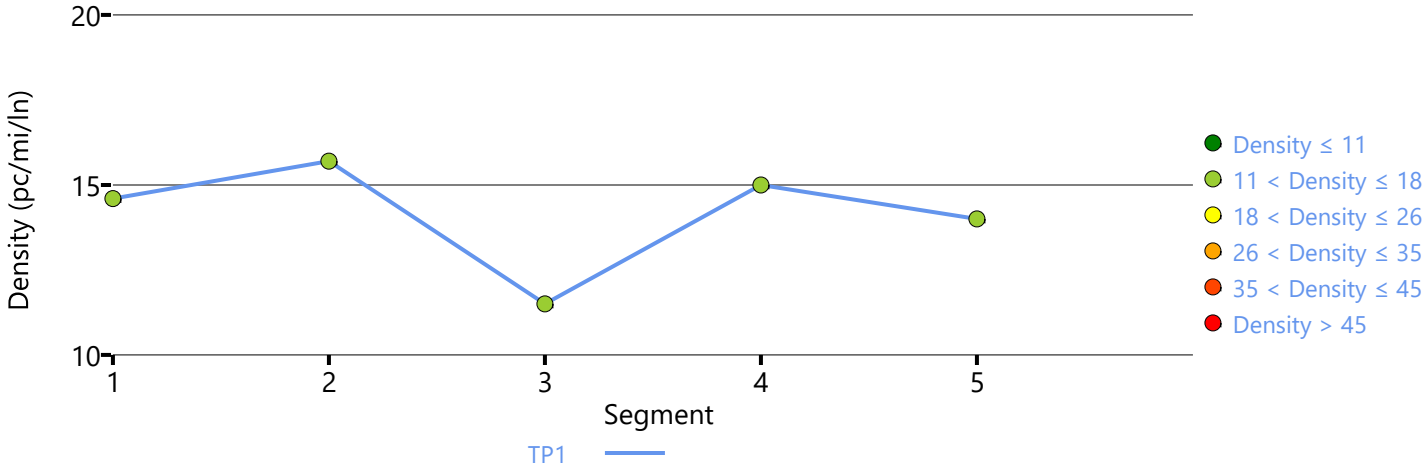
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	5071	9548	0.53	68.7	18.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.943	5071	836	9600	2100	0.53	0.40	66.3	59.6	19.1	22.2	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4249	9548	0.45	68.7	15.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.909	0.901	4711	462	9600	2100	0.49	0.22	65.0	62.5	18.1	16.2	B

Segment 5: Basic

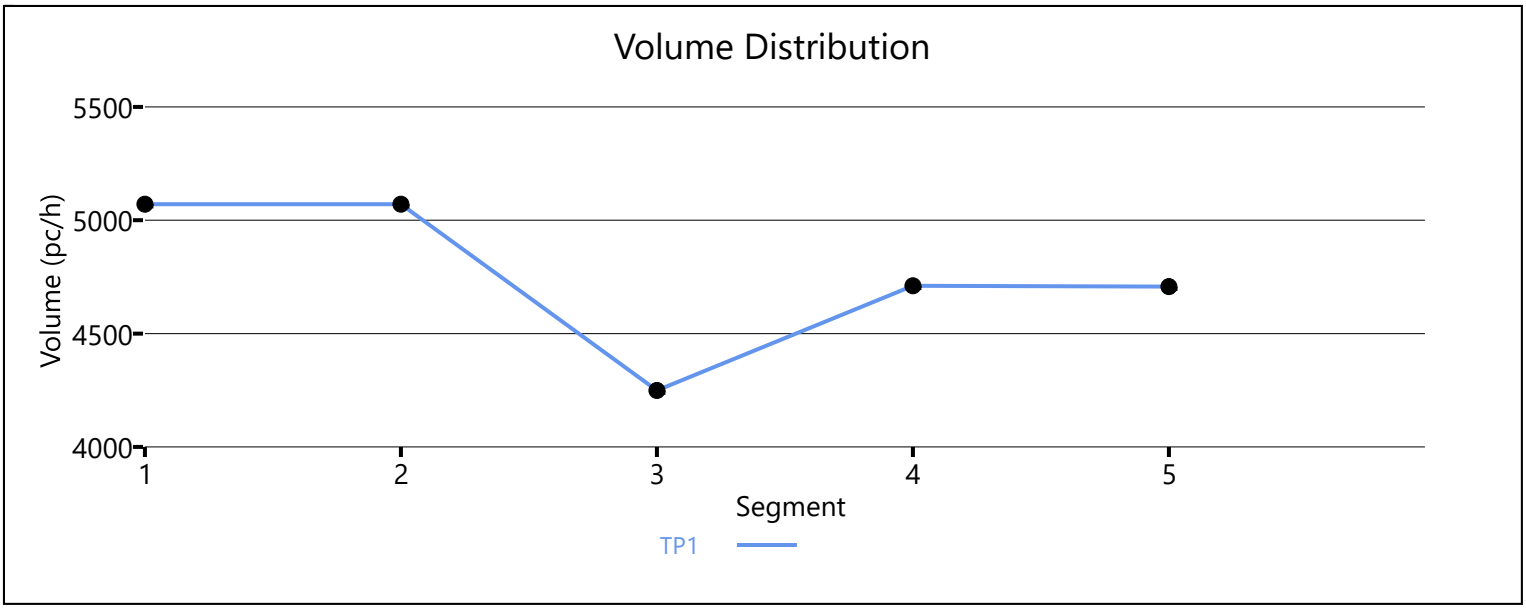
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.909	4707	9548	0.49	68.7	17.1	B

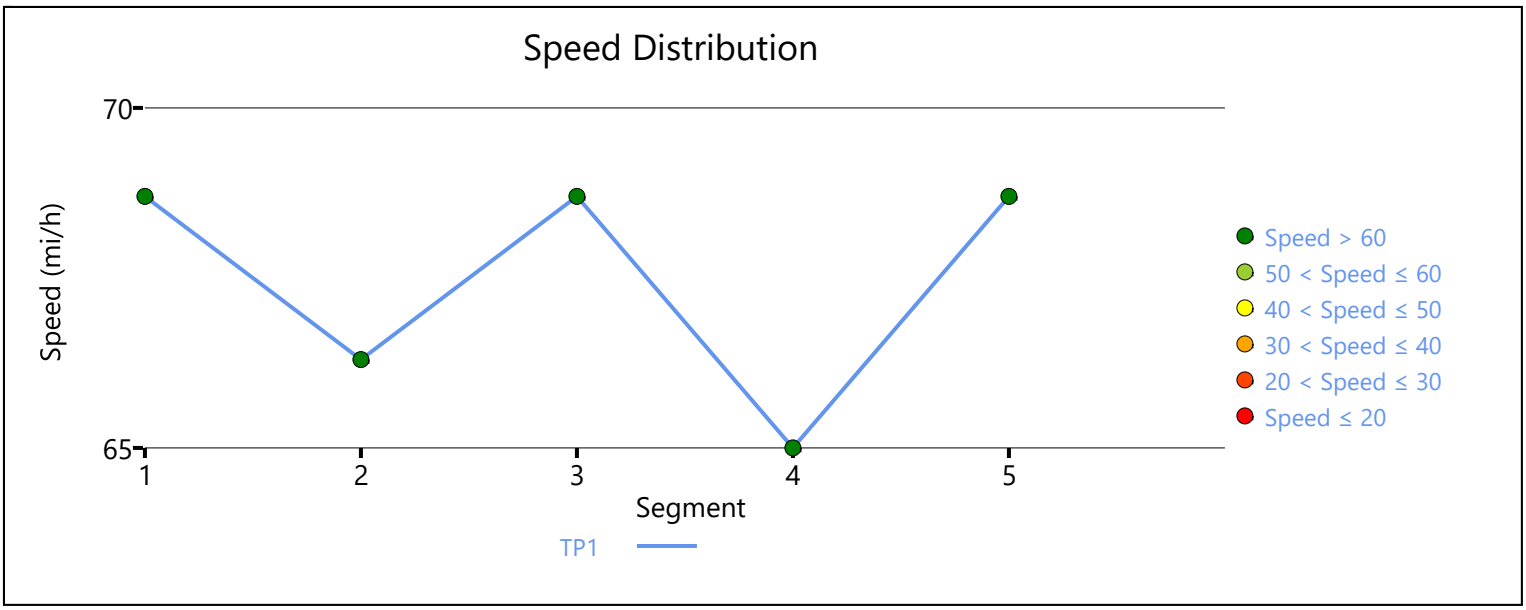
Facility Time Period Results

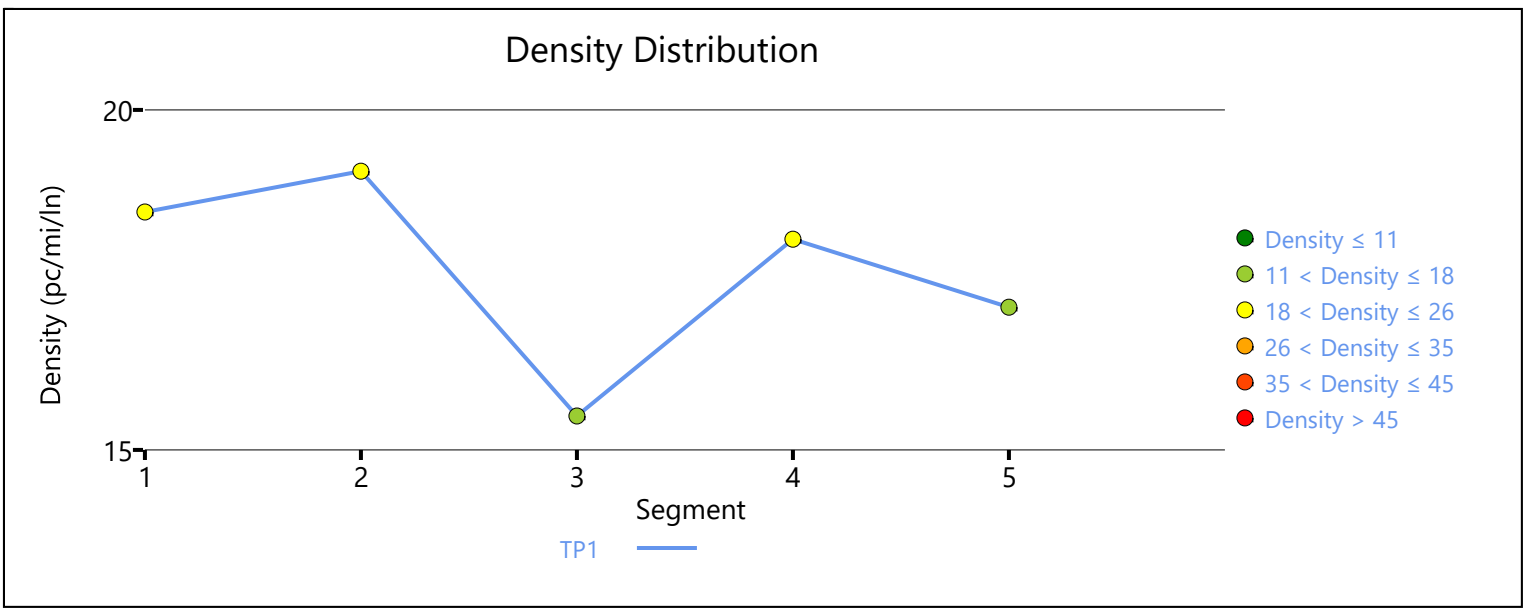
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	17.8	16.3	1.7	B

Facility Overall Results

Space Mean Speed, mi/h	67.8	Density, veh/mi/ln	16.3
Average Travel Time, min	1.7	Density, pc/mi/ln	17.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4676	9548	0.49	68.7	17.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4676	923	9600	2100	0.49	0.44	66.1	59.3	17.7	21.3	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3734	9548	0.39	68.7	13.6	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	4548	814	9600	2100	0.47	0.39	64.2	61.0	17.7	20.5	C

Segment 5: Basic

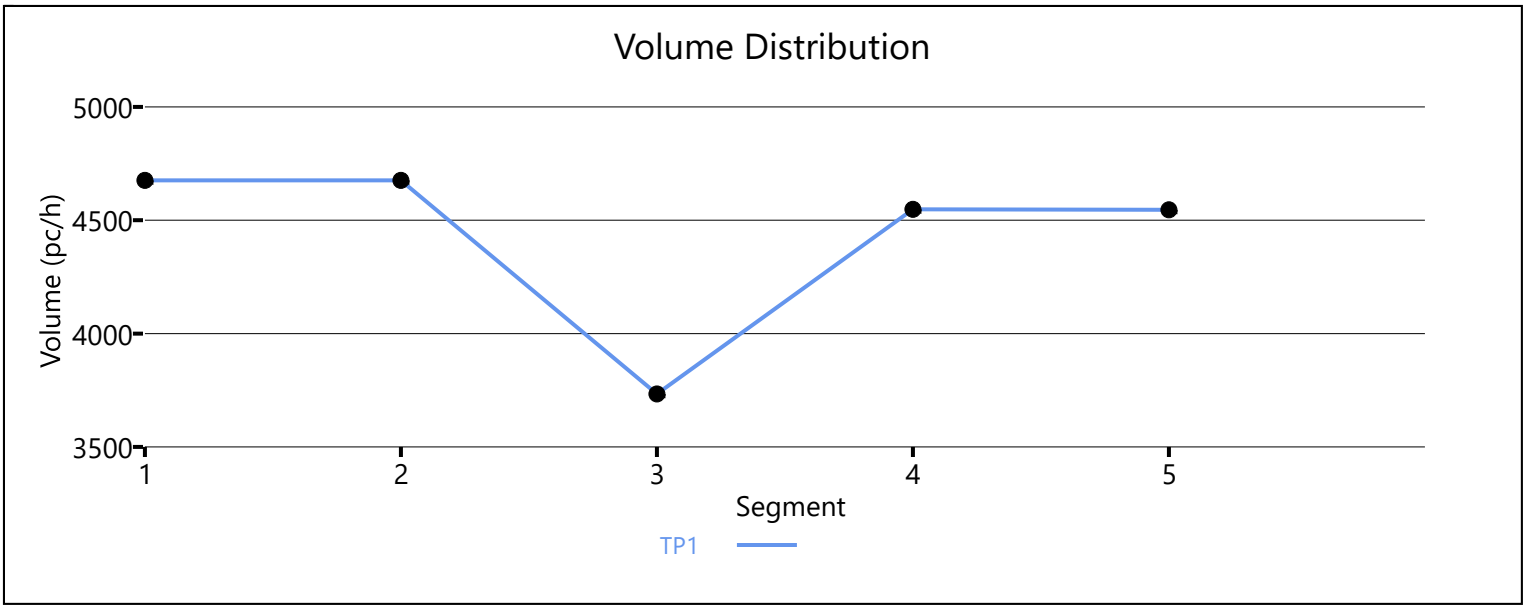
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	4546	9548	0.48	68.7	16.5	B

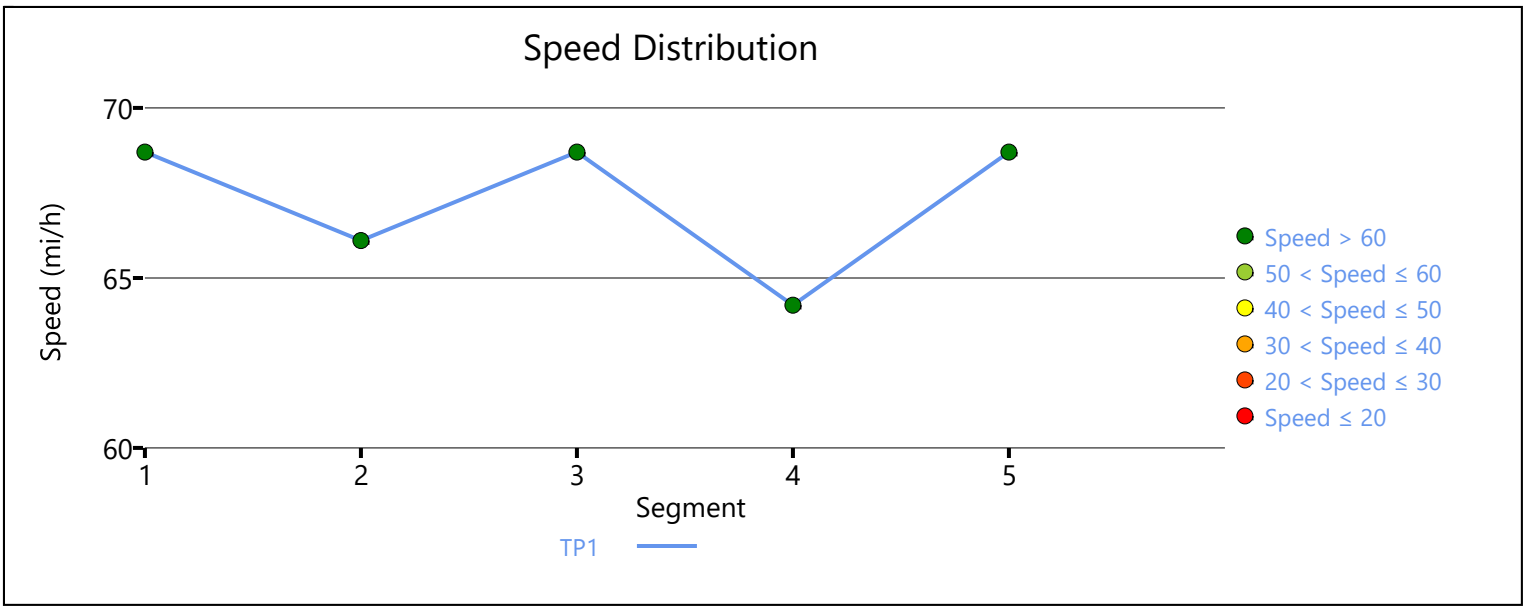
Facility Time Period Results

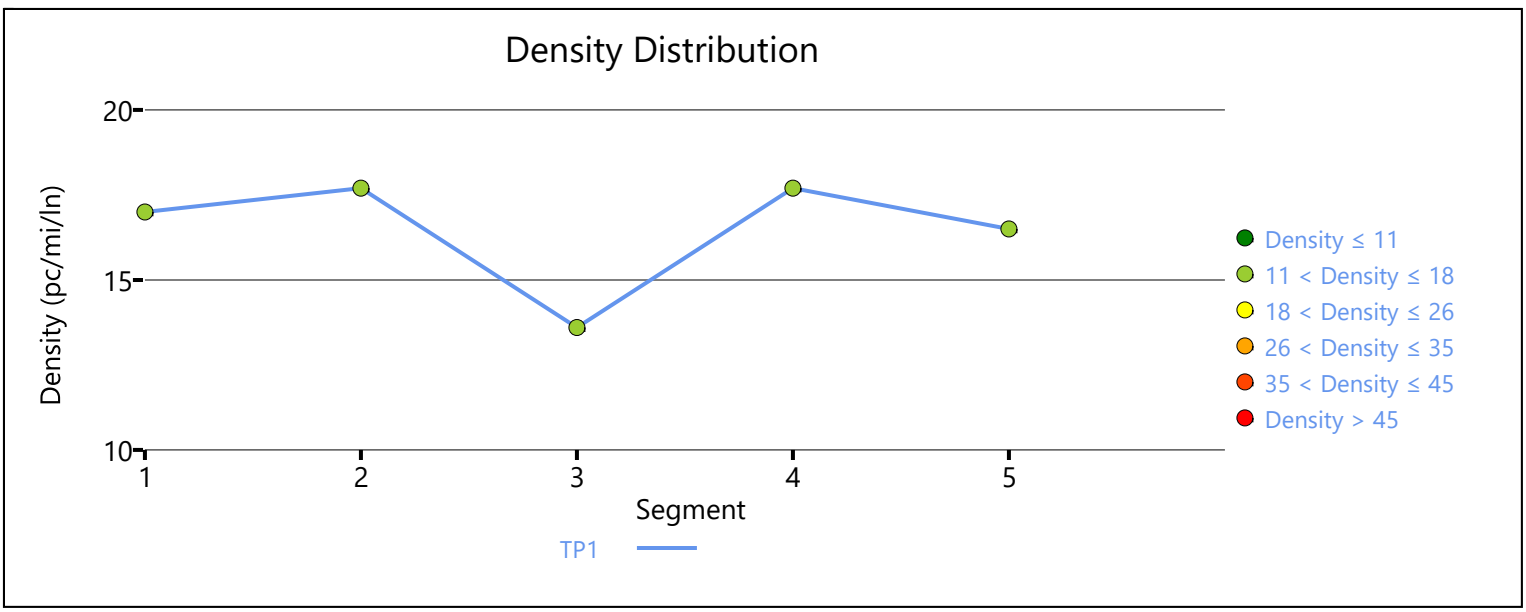
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	16.6	16.1	1.8	B

Facility Overall Results

Space Mean Speed, mi/h	67.6	Density, veh/mi/ln	16.1
Average Travel Time, min	1.8	Density, pc/mi/ln	16.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	1726	4786	0.36	69.3	12.5	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.971	1726	1423	4800	2100	0.36	0.68	58.1	58.1	14.9	15.1	B

Segment 3: Basic

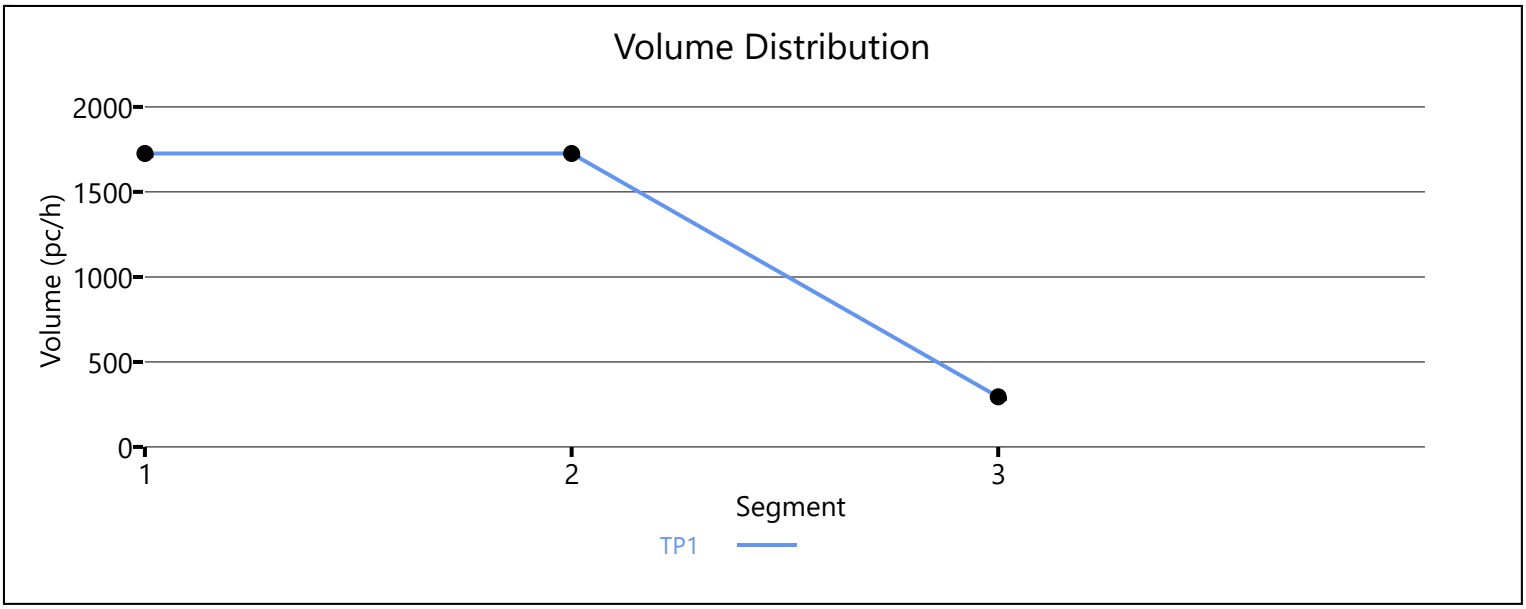
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	295	4786	0.06	69.3	2.1	A

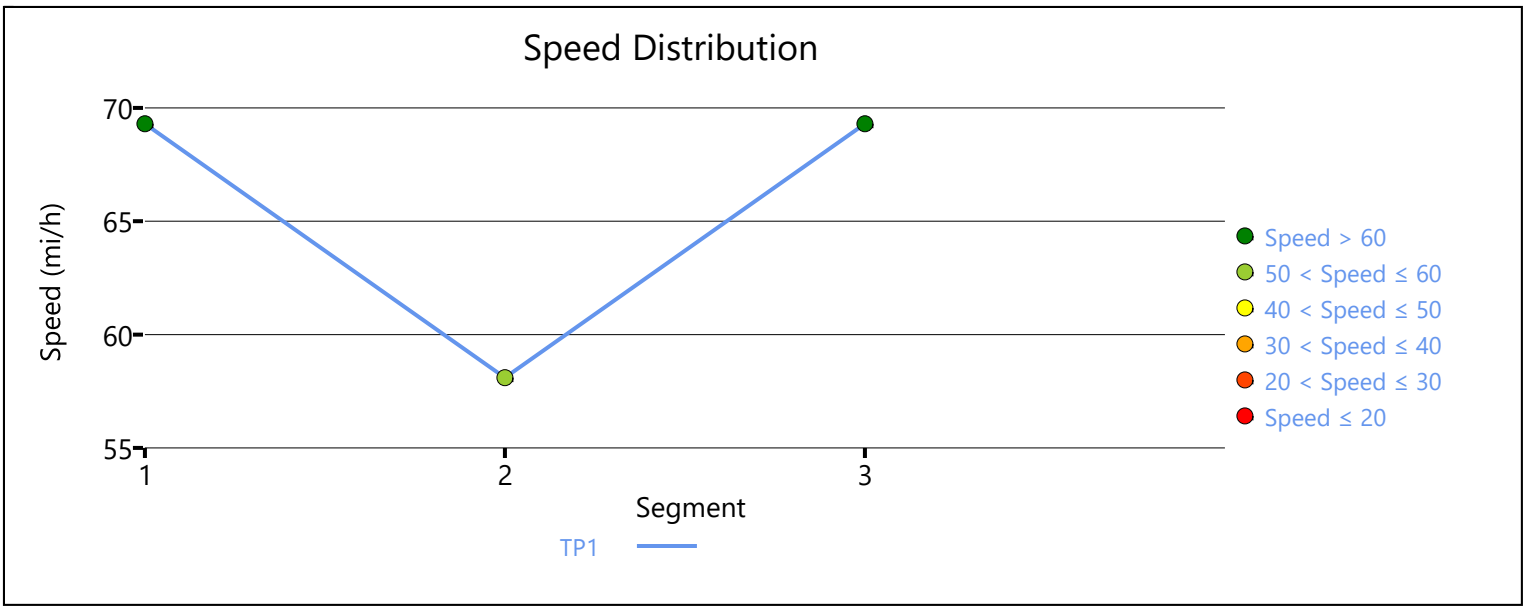
Facility Time Period Results

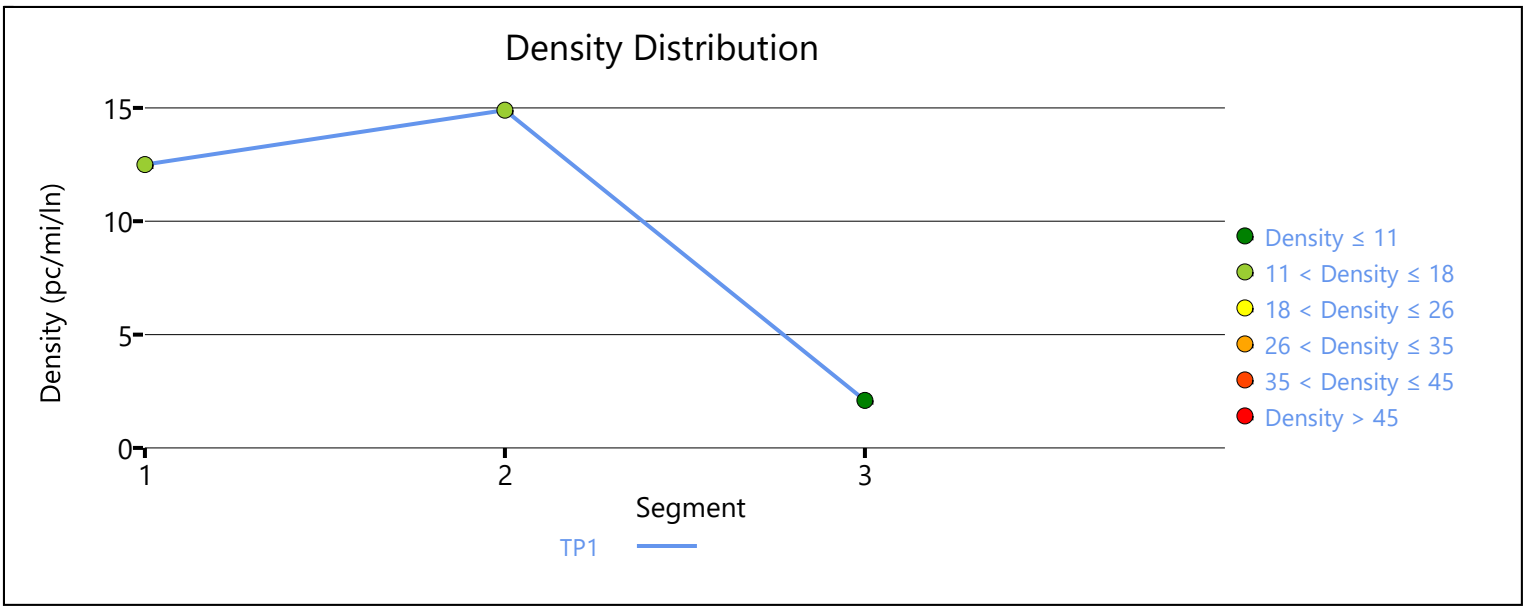
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.5	11.6	11.3	1.3	B

Facility Overall Results

Space Mean Speed, mi/h	66.5	Density, veh/mi/ln	11.3
Average Travel Time, min	1.3	Density, pc/mi/ln	11.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	1641	4774	0.34	68.7	11.9	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.917	1641	255	4800	2100	0.34	0.12	61.0	61.0	13.5	11.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1391	4774	0.29	68.7	10.1	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.855	1859	468	4800	2100	0.39	0.22	63.6	63.6	14.6	11.5	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1862	4774	0.39	68.7	13.6	B

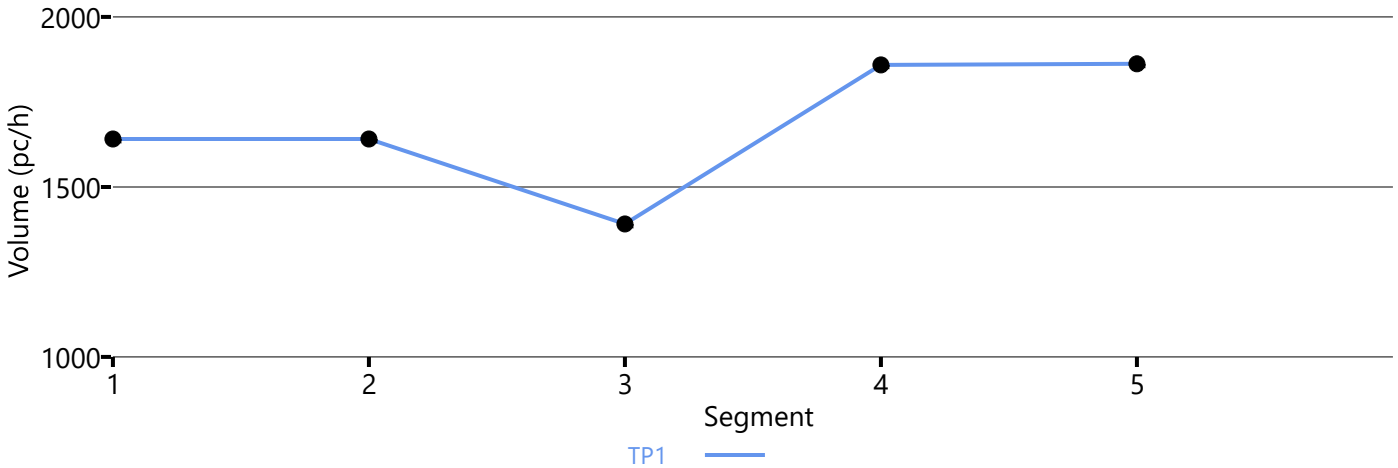
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	13.2	12.9	2.0	B

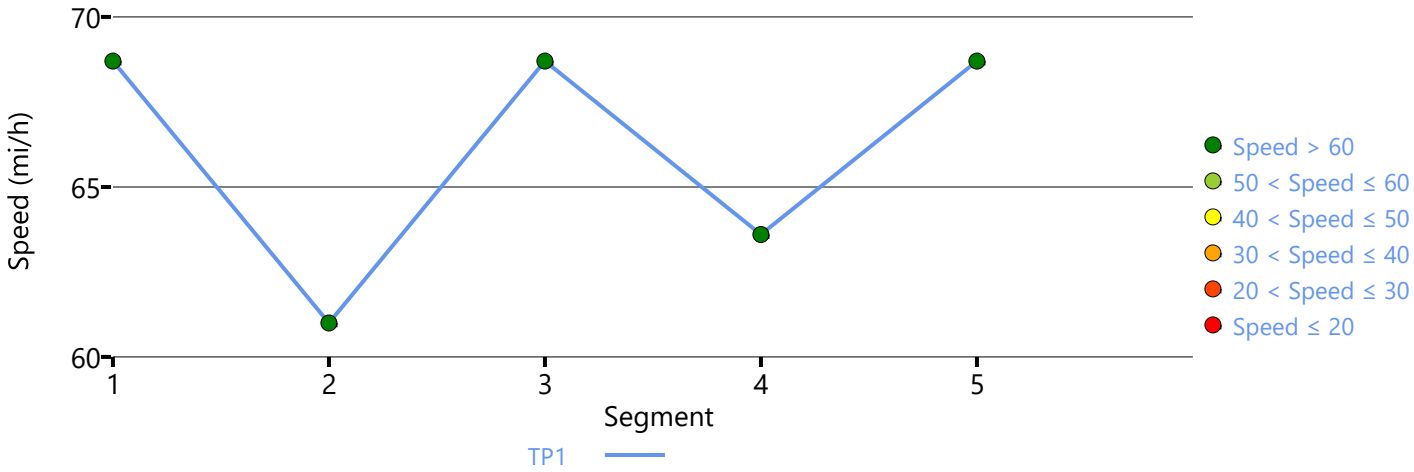
Facility Overall Results

Space Mean Speed, mi/h	67.0	Density, veh/mi/ln	12.9
Average Travel Time, min	2.0	Density, pc/mi/ln	13.2

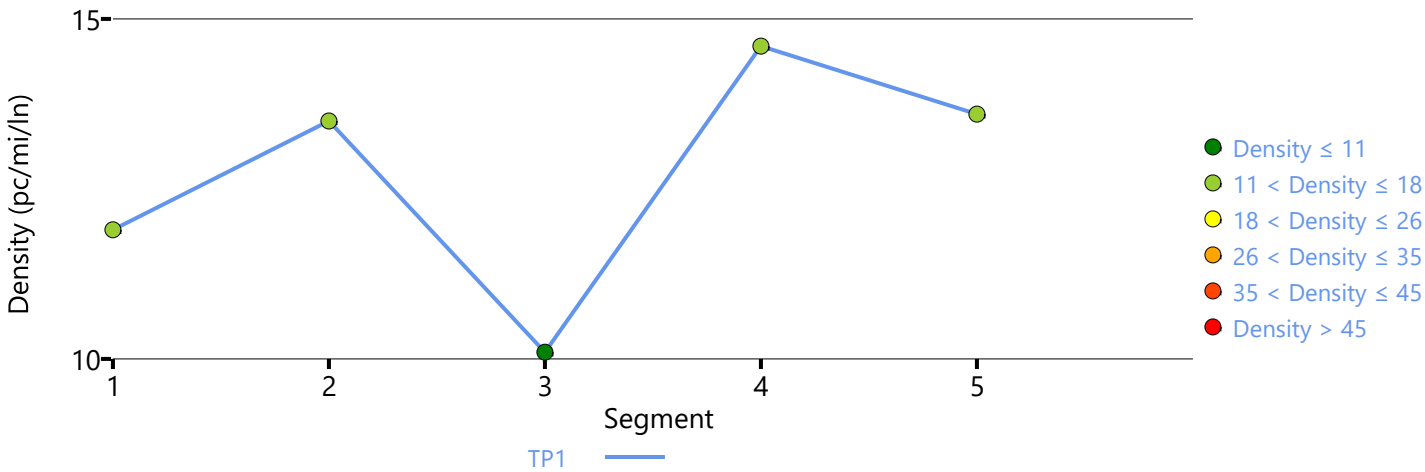
Volume Distribution



Speed Distribution



Density Distribution



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APPENDIX 5.13:

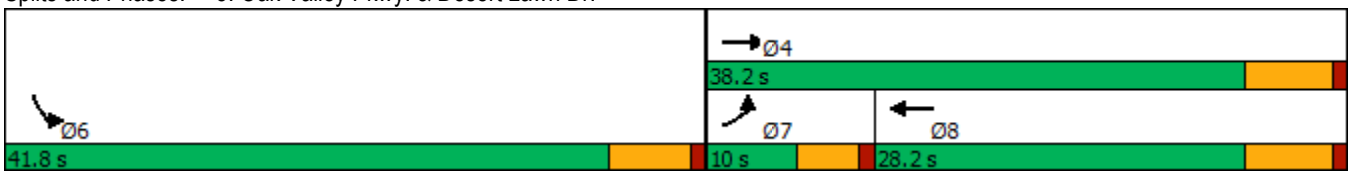
E+P (PHASE 1) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

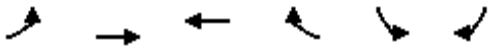
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Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	51	278	250	458
Future Volume (vph)	51	278	250	458
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 53.5
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	278	250	307	458	47
Future Volume (veh/h)	51	278	250	307	458	47
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	59	320	287	353	526	54
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	97	792	975	454	599	61
Arrive On Green	0.05	0.42	0.28	0.28	0.37	0.37
Sat Flow, veh/h	1810	1900	3629	1610	1620	166
Grp Volume(v), veh/h	59	320	287	353	581	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1789	0
Q Serve(g_s), s	1.8	6.6	3.7	11.4	17.1	0.0
Cycle Q Clear(g_c), s	1.8	6.6	3.7	11.4	17.1	0.0
Prop In Lane	1.00			1.00	0.91	0.09
Lane Grp Cap(c), veh/h	97	792	975	454	662	0
V/C Ratio(X)	0.61	0.40	0.29	0.78	0.88	0.00
Avail Cap(c_a), veh/h	174	1080	1351	629	1144	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.1	11.5	15.8	18.6	16.6	0.0
Incr Delay (d2), s/veh	2.3	0.3	0.2	4.2	4.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.1	1.2	4.0	6.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.4	11.8	16.0	22.8	20.7	0.0
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		379	640		581	
Approach Delay, s/veh		14.4	19.7		20.7	
Approach LOS		B	B		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	29.7	26.6	7.6	22.1
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.0	36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s	8.6	19.1	3.8	13.4
Green Ext Time (p_c), s	1.6	1.8	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Notes

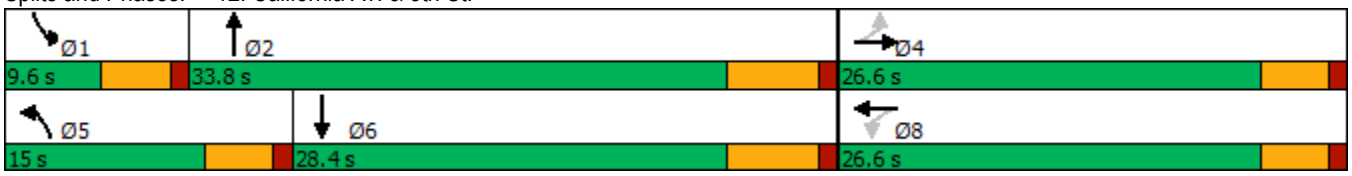
User approved volume balancing among the lanes for turning movement.

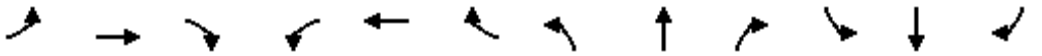
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	24	9	283	508	215	
Future Volume (vph)	2	3	24	9	283	508	215	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 57.5
Natural Cycle: 70
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	71	24	9	29	283	508	34	12	215	2
Future Volume (veh/h)	2	3	71	24	9	29	283	508	34	12	215	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	90	30	11	37	358	643	43	15	272	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	20	302	193	88	151	420	992	66	0	426	5
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.23	0.56	0.56	0.00	0.23	0.23
Sat Flow, veh/h	16	101	1506	396	440	755	1810	1761	118	0	1876	21
Grp Volume(v), veh/h	97	0	0	78	0	0	358	0	686	0	0	275
Grp Sat Flow(s),veh/h/ln	1623	0	0	1591	0	0	1810	0	1879	0	0	1896
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	11.1	0.0	0.0	5.8
Cycle Q Clear(g_c), s	2.2	0.0	0.0	1.6	0.0	0.0	8.3	0.0	11.1	0.0	0.0	5.8
Prop In Lane	0.03		0.93	0.38		0.47	1.00		0.06	0.00		0.01
Lane Grp Cap(c), veh/h	409	0	0	432	0	0	420	0	1059	0	0	431
V/C Ratio(X)	0.24	0.00	0.00	0.18	0.00	0.00	0.85	0.00	0.65	0.00	0.00	0.64
Avail Cap(c_a), veh/h	892	0	0	886	0	0	427	0	1194	0	0	973
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	14.7	0.0	0.0	16.2	0.0	6.6	0.0	0.0	15.4
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	14.3	0.0	1.0	0.0	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.6	0.0	0.0	4.3	0.0	2.2	0.0	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	0.0	0.0	14.9	0.0	0.0	30.5	0.0	7.6	0.0	0.0	17.0
LnGrp LOS	B	A	A	B	A	A	C	A	A	A	A	B
Approach Vol, veh/h		97			78			1044			275	
Approach Delay, s/veh		15.3			14.9			15.5			17.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	30.6		13.4	14.8	15.8		13.4				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	13.1		4.2	10.3	7.8		3.6				
Green Ext Time (p_c), s	0.0	3.8		0.4	0.0	1.2		0.3				

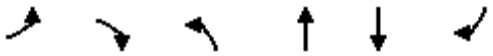
Intersection Summary			
HCM 6th Ctrl Delay		15.7	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	77	18	22	772	172
Future Volume (vph)	77	18	22	772	172
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8
Total Split (s)	27.8	27.8	10.1	52.2	42.1
Total Split (%)	34.8%	34.8%	12.6%	65.3%	52.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 63.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	18	22	772	172	104
Future Volume (veh/h)	77	18	22	772	172	104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	23	29	1003	223	135
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	289	257	60	1172	549	332
Arrive On Green	0.16	0.16	0.03	0.62	0.50	0.50
Sat Flow, veh/h	1810	1610	1810	1900	1108	671
Grp Volume(v), veh/h	100	23	29	1003	0	358
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1779
Q Serve(g_s), s	2.6	0.6	0.8	22.3	0.0	6.6
Cycle Q Clear(g_c), s	2.6	0.6	0.8	22.3	0.0	6.6
Prop In Lane	1.00	1.00	1.00			0.38
Lane Grp Cap(c), veh/h	289	257	60	1172	0	882
V/C Ratio(X)	0.35	0.09	0.49	0.86	0.00	0.41
Avail Cap(c_a), veh/h	766	682	192	1697	0	1243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	18.6	24.7	8.1	0.0	8.3
Incr Delay (d2), s/veh	0.7	0.1	2.3	3.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.6	0.3	5.2	0.0	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	18.8	27.0	11.2	0.0	8.6
LnGrp LOS	C	B	C	B	A	A
Approach Vol, veh/h	123			1032	358	
Approach Delay, s/veh	19.9			11.6	8.6	
Approach LOS	B			B	A	

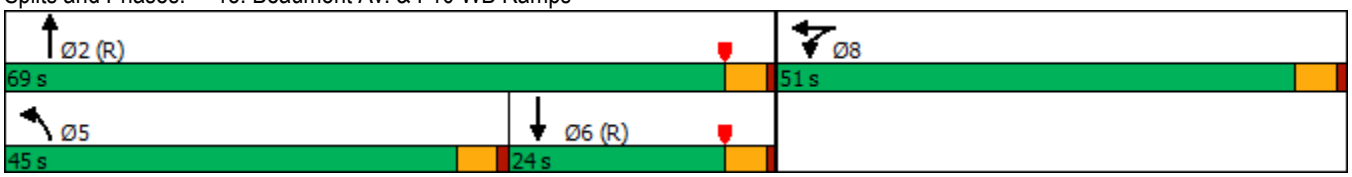
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		37.9		14.1	6.3	31.5
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		46.4		22.0	5.5	36.3
Max Q Clear Time (g_c+I1), s		24.3		4.6	2.8	8.6
Green Ext Time (p_c), s		7.8		0.3	0.0	2.1

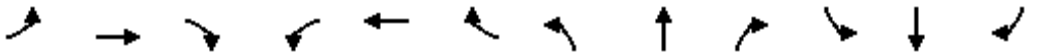
Intersection Summary		
HCM 6th Ctrl Delay		11.6
HCM 6th LOS		B

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	352
Future Volume (vph)	464	9	345	216	352
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	51.0	51.0	45.0	69.0	24.0
Total Split (%)	42.5%	42.5%	37.5%	57.5%	20.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	30.3	30.3	29.6	80.1	45.9
Actuated g/C Ratio	0.25	0.25	0.25	0.67	0.38
v/c Ratio	0.78	0.72	0.84	0.10	0.35
Control Delay	53.9	44.2	56.4	5.7	25.1
Queue Delay	0.0	0.3	0.4	0.0	2.4
Total Delay	53.9	44.4	56.7	5.7	27.5
LOS	D	D	E	A	C
Approach Delay		49.3		37.1	27.5
Approach LOS		D		D	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 39.1	Intersection LOS: D
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	352	79
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	352	79
Initial Q (Qb), veh				0	0	0	25	50	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	383	86
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				464	294	164	489	2395	0	0	1098	244
Arrive On Green				0.26	0.26	0.26	0.37	1.00	0.00	0.00	0.81	0.81
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3030	652
Grp Volume(v), veh/h				328	0	399	375	235	0	0	234	235
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1783
Q Serve(g_s), s				19.8	0.0	25.7	24.0	0.0	0.0	0.0	4.0	4.1
Cycle Q Clear(g_c), s				19.8	0.0	25.7	24.0	0.0	0.0	0.0	4.0	4.1
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				464	0	458	489	2395	0	0	675	667
V/C Ratio(X)				0.71	0.00	0.87	0.77	0.10	0.00	0.00	0.35	0.35
Avail Cap(c_a), veh/h				697	0	687	609	2395	0	0	730	721
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.89	0.89	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				40.5	0.0	42.7	32.5	0.0	0.0	0.0	10.5	10.6
Incr Delay (d2), s/veh				2.0	0.0	8.0	3.1	0.1	0.0	0.0	1.4	1.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	80.6	3.5	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	11.9	22.5	1.2	0.0	0.0	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.5	0.0	50.7	116.1	3.6	0.0	0.0	11.9	12.0
LnGrp LOS				D	A	D	F	A	A	A	B	B
Approach Vol, veh/h					727			610			469	
Approach Delay, s/veh					47.0			72.8			12.0	
Approach LOS					D			E			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.4			31.1	53.3		35.6				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 64			40.4	* 19		46.2				
Max Q Clear Time (g_c+I1), s		2.0			26.0	6.1		27.7				
Green Ext Time (p_c), s		1.7			0.5	2.3		3.1				

Intersection Summary		
HCM 6th Ctrl Delay	46.6	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	10	495	493	111	706
Future Volume (vph)	10	495	493	111	706
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	41.0	41.0	56.0	23.0	79.0
Total Split (%)	34.2%	34.2%	46.7%	19.2%	65.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	10	495	0	0	0	0	493	421	111	706	0
Future Volume (veh/h)	68	10	495	0	0	0	0	493	421	111	706	0
Initial Q (Qb), veh	0	0	0				0	75	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	599				0	514	439	116	735	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	405	687				0	1310	764	141	2551	0
Arrive On Green	0.00	0.00	0.21				0.00	0.59	0.59	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1940	1576	1810	3705	0
Grp Volume(v), veh/h	0	0	599				0	503	450	116	735	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1616	1810	1805	0
Q Serve(g_s), s	0.0	0.0	21.6				0.0	19.0	19.0	7.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	21.6				0.0	19.0	19.0	7.5	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	0	405	687				0	1066	985	141	2551	0
V/C Ratio(X)	0.00	0.00	0.87				0.00	0.47	0.46	0.82	0.29	0.00
Avail Cap(c_a), veh/h	0	573	971				0	1066	955	277	2551	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	0.0	0.0	45.6				0.0	16.8	16.5	49.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.4				0.0	1.5	1.5	3.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	16.9	19.2	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	9.0				0.0	18.4	17.6	3.3	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.0				0.0	35.1	37.2	53.7	0.2	0.0
LnGrp LOS	A	A	D				A	D	D	D	A	A
Approach Vol, veh/h		599						953			851	
Approach Delay, s/veh		52.0						36.1			7.5	
Approach LOS		D						D			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.9	75.7		30.4		89.6
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	18.4	* 51		* 36		* 74
Max Q Clear Time (g_c+I1), s	9.5	21.0		23.6		2.0
Green Ext Time (p_c), s	0.1	7.6		2.0		6.2

Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

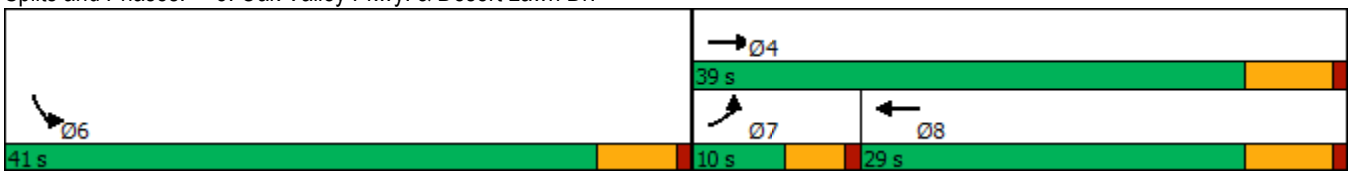
User approved volume balancing among the lanes for turning movement.

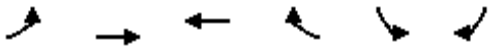
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	15	255	307	177
Future Volume (vph)	15	255	307	177
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 41
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	255	307	294	177	13
Future Volume (veh/h)	15	255	307	294	177	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	263	316	303	182	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	35	825	1026	478	429	31
Arrive On Green	0.02	0.43	0.30	0.30	0.26	0.26
Sat Flow, veh/h	1810	1900	3629	1610	1667	119
Grp Volume(v), veh/h	15	263	316	303	196	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1795	0
Q Serve(g_s), s	0.3	3.5	2.8	6.3	3.5	0.0
Cycle Q Clear(g_c), s	0.3	3.5	2.8	6.3	3.5	0.0
Prop In Lane	1.00			1.00	0.93	0.07
Lane Grp Cap(c), veh/h	35	825	1026	478	462	0
V/C Ratio(X)	0.43	0.32	0.31	0.63	0.42	0.00
Avail Cap(c_a), veh/h	251	1603	2028	944	1625	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	7.2	10.6	11.8	12.0	0.0
Incr Delay (d2), s/veh	3.1	0.2	0.2	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.8	0.7	1.7	1.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.0	7.4	10.8	13.2	12.7	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		278	619		196	
Approach Delay, s/veh		8.2	12.0		12.7	
Approach LOS		A	B		B	

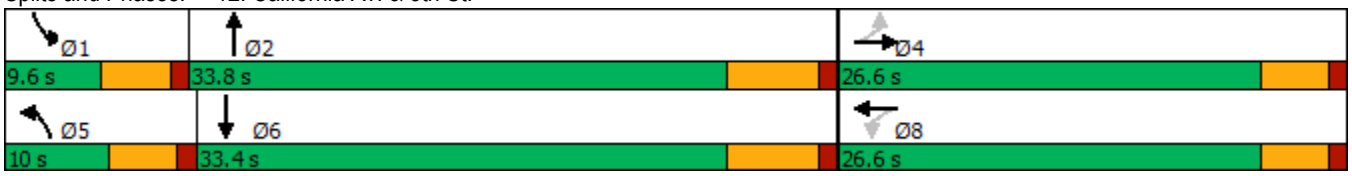
Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	23.1	15.8	5.3	17.7
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.8	35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s	5.5	5.5	2.3	8.3
Green Ext Time (p_c), s	1.3	0.5	0.0	3.2

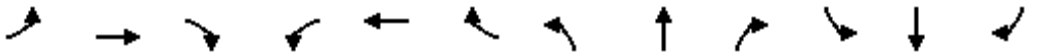
Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	4	3	39	3	169	368	203	
Future Volume (vph)	4	3	39	3	169	368	203	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None

Intersection Summary
Cycle Length: 70
Actuated Cycle Length: 60.5
Natural Cycle: 65
Control Type: Actuated-Uncoordinated

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	82	39	3	20	169	368	82	6	203	6
Future Volume (veh/h)	4	3	82	39	3	20	169	368	82	6	203	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	86	41	3	21	178	387	86	6	214	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	21	321	325	49	105	227	769	171	0	486	14
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.13	0.51	0.51	0.00	0.26	0.26
Sat Flow, veh/h	25	97	1499	794	231	489	1810	1505	335	0	1839	52
Grp Volume(v), veh/h	93	0	0	65	0	0	178	0	473	0	0	220
Grp Sat Flow(s),veh/h/ln	1621	0	0	1514	0	0	1810	0	1840	0	0	1891
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	6.4	0.0	0.0	3.7
Cycle Q Clear(g_c), s	1.8	0.0	0.0	1.1	0.0	0.0	3.6	0.0	6.4	0.0	0.0	3.7
Prop In Lane	0.04		0.92	0.63		0.32	1.00		0.18	0.00		0.03
Lane Grp Cap(c), veh/h	446	0	0	479	0	0	227	0	940	0	0	500
V/C Ratio(X)	0.21	0.00	0.00	0.14	0.00	0.00	0.78	0.00	0.50	0.00	0.00	0.44
Avail Cap(c_a), veh/h	1037	0	0	1004	0	0	258	0	1361	0	0	1379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.4	0.0	0.0	12.1	0.0	0.0	16.1	0.0	6.1	0.0	0.0	11.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	11.1	0.0	0.4	0.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.4	0.0	0.0	1.8	0.0	1.1	0.0	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.6	0.0	0.0	12.3	0.0	0.0	27.1	0.0	6.5	0.0	0.0	12.2
LnGrp LOS	B	A	A	B	A	A	C	A	A	A	A	B
Approach Vol, veh/h		93			65			651			220	
Approach Delay, s/veh		12.6			12.3			12.1			12.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.1		12.7	9.3	15.8		12.7				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	8.4		3.8	5.6	5.7		3.1				
Green Ext Time (p_c), s	0.0	2.6		0.4	0.0	1.0		0.3				

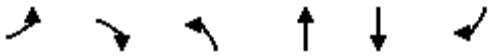
Intersection Summary			
HCM 6th Ctrl Delay		12.2	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	160	39	9	476	922
Future Volume (vph)	160	39	9	476	922
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8
Total Split (s)	28.0	28.0	9.6	72.0	62.4
Total Split (%)	28.0%	28.0%	9.6%	72.0%	62.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 87.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	160	39	9	476	922	84
Future Volume (veh/h)	160	39	9	476	922	84
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	42	10	517	1002	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	239	213	23	1354	1096	100
Arrive On Green	0.13	0.13	0.01	0.71	0.64	0.64
Sat Flow, veh/h	1810	1610	1810	1900	1716	156
Grp Volume(v), veh/h	174	42	10	517	0	1093
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1872
Q Serve(g_s), s	6.9	1.7	0.4	8.0	0.0	37.9
Cycle Q Clear(g_c), s	6.9	1.7	0.4	8.0	0.0	37.9
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	239	213	23	1354	0	1196
V/C Ratio(X)	0.73	0.20	0.44	0.38	0.00	0.91
Avail Cap(c_a), veh/h	537	478	121	1681	0	1416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.2	28.9	36.7	4.2	0.0	11.7
Incr Delay (d2), s/veh	4.2	0.4	4.9	0.2	0.0	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.2	1.8	0.0	13.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.4	29.4	41.6	4.4	0.0	20.2
LnGrp LOS	D	C	D	A	A	C
Approach Vol, veh/h	216			527	1093	
Approach Delay, s/veh	34.2			5.1	20.2	
Approach LOS	C			A	C	

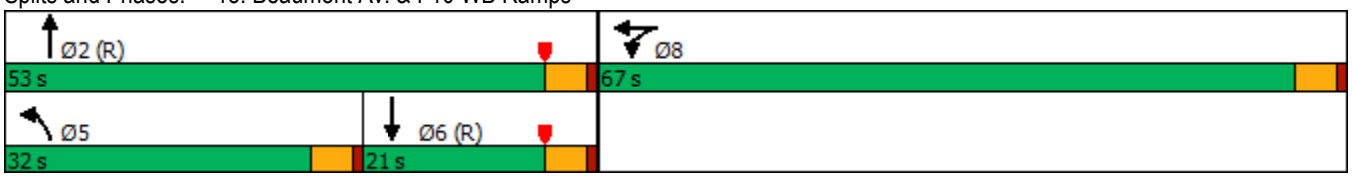
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		59.1		15.7	5.5	53.6
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		66.2		22.2	5.0	56.6
Max Q Clear Time (g_c+I1), s		10.0		8.9	2.4	39.9
Green Ext Time (p_c), s		3.3		0.5	0.0	7.9

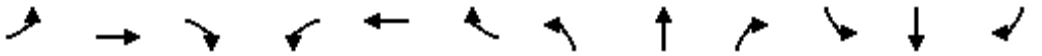
Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	471
Future Volume (vph)	685	0	272	309	471
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	67.0	67.0	32.0	53.0	21.0
Total Split (%)	55.8%	55.8%	26.7%	44.2%	17.5%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	37.4	37.4	22.8	73.0	45.6
Actuated g/C Ratio	0.31	0.31	0.19	0.61	0.38
v/c Ratio	0.77	0.71	0.82	0.15	0.44
Control Delay	46.3	37.1	86.4	7.7	30.4
Queue Delay	0.4	0.3	0.6	0.0	5.0
Total Delay	46.6	37.4	87.0	7.7	35.3
LOS	D	D	F	A	D
Approach Delay		42.1		44.8	35.3
Approach LOS		D		D	D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 40.9	Intersection LOS: D
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	471	107
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	471	107
Initial Q (Qb), veh				45	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	486	110
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1080	567	0	304	2244	0	0	1217	274
Arrive On Green				0.25	0.00	0.00	0.34	1.00	0.00	0.00	0.92	0.92
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3023	659
Grp Volume(v), veh/h				800	0	0	280	319	0	0	299	297
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1781
Q Serve(g_s), s				25.4	0.0	0.0	17.9	0.0	0.0	0.0	2.4	2.4
Cycle Q Clear(g_c), s				25.4	0.0	0.0	17.9	0.0	0.0	0.0	2.4	2.4
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				1080	567	0	304	2244	0	0	750	740
V/C Ratio(X)				0.74	0.00	0.00	0.92	0.14	0.00	0.00	0.40	0.40
Avail Cap(c_a), veh/h				1876	985	0	413	2404	0	0	830	819
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.84	0.84	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				40.5	0.0	0.0	39.1	1.2	0.0	0.0	8.1	8.1
Incr Delay (d2), s/veh				1.0	0.0	0.0	16.4	0.1	0.0	0.0	1.6	1.6
Initial Q Delay(d3),s/veh				48.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				20.6	0.0	0.0	8.0	0.2	0.0	0.0	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				89.8	0.0	0.0	55.5	1.3	0.0	0.0	9.6	9.7
LnGrp LOS				F	A	A	E	A	A	A	A	A
Approach Vol, veh/h					800			599			596	
Approach Delay, s/veh					89.8			26.7			9.7	
Approach LOS					F			C			A	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.7			24.7	60.0		35.3				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 48			27.4	* 16		62.2				
Max Q Clear Time (g_c+I1), s		2.0			19.9	4.4		27.4				
Green Ext Time (p_c), s		2.3			0.3	2.9		3.1				

Intersection Summary		
HCM 6th Ctrl Delay	46.9	
HCM 6th LOS	D	

Notes

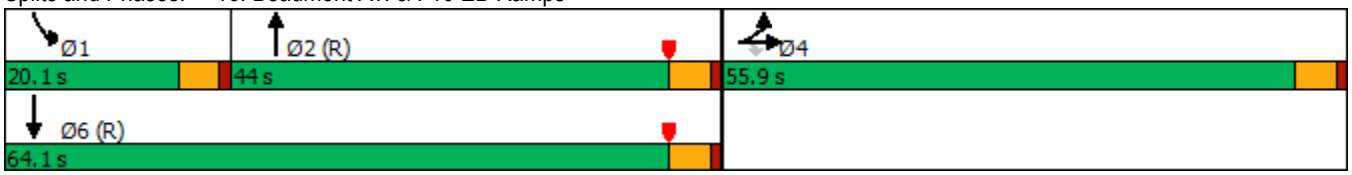
User approved volume balancing among the lanes for turning movement.

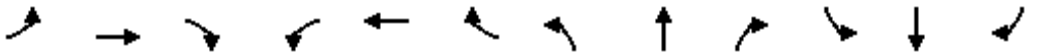
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	10	746	483	105	1002
Future Volume (vph)	10	746	483	105	1002
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	55.9	55.9	44.0	20.1	64.1
Total Split (%)	46.6%	46.6%	36.7%	16.8%	53.4%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	37.8	37.8	56.5	11.5	72.6
Actuated g/C Ratio	0.32	0.32	0.47	0.10	0.60
v/c Ratio	0.82	0.81	0.52	0.62	0.47
Control Delay	44.1	43.6	21.0	60.0	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.6
Total Delay	44.1	43.6	21.0	60.0	22.0
LOS	D	D	C	E	C
Approach Delay	43.9		21.0		25.6
Approach LOS	D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 29.8	Intersection LOS: C
Intersection Capacity Utilization 94.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Future Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	883				0	498	373	108	1033	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	723	1225				0	843	630	132	1948	0
Arrive On Green	0.00	0.00	0.31				0.00	0.50	0.50	0.15	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	883				0	457	414	108	1033	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	31.4				0.0	20.3	20.3	6.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	31.4				0.0	20.3	20.3	6.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	723	1225				0	773	700	132	1948	0
V/C Ratio(X)	0.00	0.00	0.72				0.00	0.59	0.59	0.82	0.53	0.00
Avail Cap(c_a), veh/h	0	809	1371				0	904	819	234	2209	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	0.0	0.0	36.4				0.0	26.5	26.5	50.5	0.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.7				0.0	3.3	3.7	3.7	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	96.7				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	32.7				0.0	10.6	9.7	3.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	134.7				0.0	29.8	30.2	54.2	1.0	0.0
LnGrp LOS	A	A	F				A	C	C	D	A	A
Approach Vol, veh/h		883						871			1141	
Approach Delay, s/veh		134.7						30.0			6.1	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.4	64.9		41.8		78.2
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	15.5	* 39		* 51		* 59
Max Q Clear Time (g_c+I1), s	8.9	22.3		33.4		2.0
Green Ext Time (p_c), s	0.1	5.5		3.6		10.0

Intersection Summary	
HCM 6th Ctrl Delay	52.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.14:

E+P (PHASE 2) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

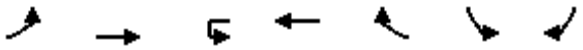
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	120	100	465	14	11	459	
Future Volume (vph)	120	100	465	14	11	459	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	54.0	77.2	32.8	32.8	33.2	54.0	9.6
Total Split (%)	45.0%	64.3%	27.3%	27.3%	27.7%	45.0%	8%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effct Green (s)	19.2	51.2	27.4	27.4	13.0	38.4	
Actuated g/C Ratio	0.25	0.67	0.36	0.36	0.17	0.50	
v/c Ratio	0.19	0.11	0.96	0.03	0.03	0.78	
Control Delay	23.6	5.7	52.2	13.6	26.7	21.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.6	5.7	52.2	13.6	26.7	21.9	
LOS	C	A	D	B	C	C	
Approach Delay		15.4	51.1		22.0		
Approach LOS		B	D		C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 76.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 32.7	Intersection LOS: C
Intersection Capacity Utilization 61.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	120	100	0	465	14	11	459
Future Volume (veh/h)	120	100	0	465	14	11	459
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	179	149		694	-203	16	88
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	321	1153		808	684	691	464
Arrive On Green	0.09	0.58		0.41	0.00	0.19	0.19
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	179	149		694	-203	16	88
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	2.5	1.8		16.9	0.0	0.2	2.1
Cycle Q Clear(g_c), s	2.5	1.8		16.9	0.0	0.2	2.1
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	321	1153		808	684	691	464
V/C Ratio(X)	0.56	0.13		0.86	-0.30	0.02	0.19
Avail Cap(c_a), veh/h	3414	2671		1010	856	1866	1003
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	5.0		14.2	0.0	17.4	14.6
Incr Delay (d2), s/veh	0.6	0.1		6.3	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4		6.9	0.0	0.1	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	23.7	5.0		20.5	0.0	17.5	14.8
LnGrp LOS	C	A		C	A	B	B
Approach Vol, veh/h		328		491		104	
Approach Delay, s/veh		15.2		29.0		15.2	
Approach LOS		B		C		B	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				36.6		16.2	9.2	27.4
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				71.4		27.0	49.4	27.0
Max Q Clear Time (g_c+I1), s				3.8		4.1	4.5	18.9
Green Ext Time (p_c), s				0.8		0.3	0.3	2.7

Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

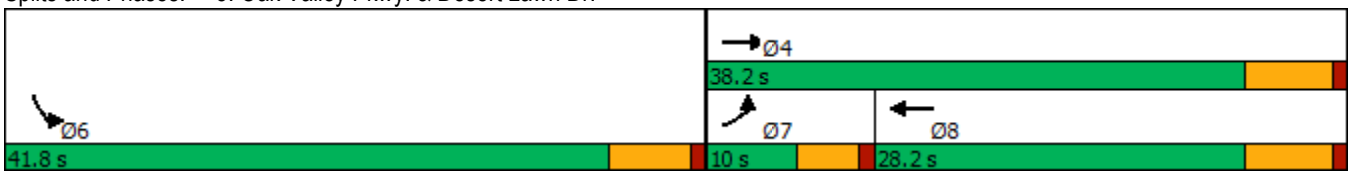
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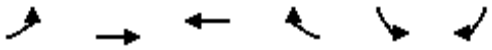
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	56	299	348	458
Future Volume (vph)	56	299	348	458
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.8	20.0	15.0	24.7
Actuated g/C Ratio	0.10	0.35	0.26	0.43
v/c Ratio	0.36	0.52	0.52	0.79
Control Delay	37.8	19.1	14.2	23.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.8	19.1	14.2	23.8
LOS	D	B	B	C
Approach Delay		22.0	14.2	23.8
Approach LOS		C	B	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 57.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 61.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	56	299	348	307	458	72
Future Volume (veh/h)	56	299	348	307	458	72
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	64	344	400	353	526	83
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	99	787	976	455	591	93
Arrive On Green	0.05	0.41	0.28	0.28	0.38	0.38
Sat Flow, veh/h	1810	1900	3629	1610	1535	242
Grp Volume(v), veh/h	64	344	400	353	610	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1780	0
Q Serve(g_s), s	2.1	7.7	5.6	12.0	19.1	0.0
Cycle Q Clear(g_c), s	2.1	7.7	5.6	12.0	19.1	0.0
Prop In Lane	1.00			1.00	0.86	0.14
Lane Grp Cap(c), veh/h	99	787	976	455	685	0
V/C Ratio(X)	0.65	0.44	0.41	0.78	0.89	0.00
Avail Cap(c_a), veh/h	164	1019	1274	593	1073	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.6	12.5	17.4	19.7	17.2	0.0
Incr Delay (d2), s/veh	2.6	0.4	0.3	4.8	6.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.6	1.9	4.4	7.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.3	12.9	17.7	24.5	23.3	0.0
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		408	753		610	
Approach Delay, s/veh		15.6	20.9		23.3	
Approach LOS		B	C		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			30.9		28.8	7.9	23.1
Change Period (Y+Rc), s			6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s			32.0		36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s			9.7		21.1	4.1	14.0
Green Ext Time (p_c), s			1.7		1.8	0.0	2.8

Intersection Summary		
HCM 6th Ctrl Delay		20.5
HCM 6th LOS		C

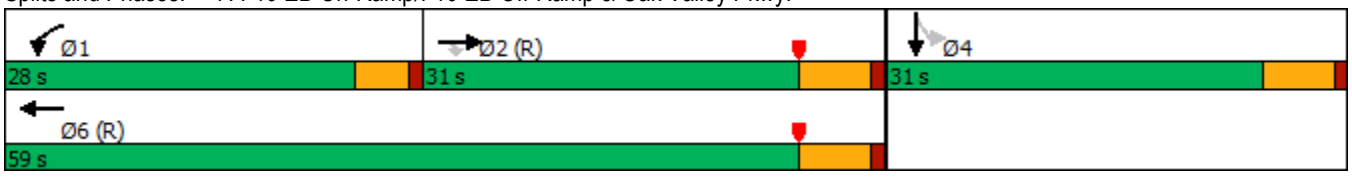
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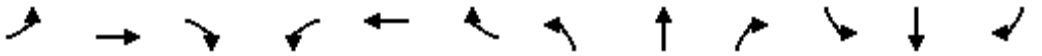
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	343	414	235	491	229	3
Future Volume (vph)	343	414	235	491	229	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	38.2	38.2	17.4	60.2	18.2	18.2
Actuated g/C Ratio	0.42	0.42	0.19	0.67	0.20	0.20
v/c Ratio	0.48	0.49	0.76	0.43	0.71	0.40
Control Delay	24.1	4.5	43.0	4.9	43.6	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.1	4.5	43.0	4.9	43.6	7.1
LOS	C	A	D	A	D	A
Approach Delay	13.4			17.2		28.2
Approach LOS	B			B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	343	414	235	491	0	0	0	0	229	3	165
Future Volume (veh/h)	0	343	414	235	491	0	0	0	0	229	3	165
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	385	378	264	552	0				257	3	166
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	912	773	302	1326	0				314	5	275
Arrive On Green	0.00	0.48	0.48	0.17	0.70	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	29	1586
Grp Volume(v), veh/h	0	385	378	264	552	0				257	0	169
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	11.9	14.4	12.8	11.1	0.0				12.3	0.0	8.7
Cycle Q Clear(g_c), s	0.0	11.9	14.4	12.8	11.1	0.0				12.3	0.0	8.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	912	773	302	1326	0				314	0	280
V/C Ratio(X)	0.00	0.42	0.49	0.87	0.42	0.00				0.82	0.00	0.60
Avail Cap(c_a), veh/h	0	912	773	470	1326	0				507	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.66	0.66	0.77	0.77	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.3	15.9	36.6	5.8	0.0				35.8	0.0	34.4
Incr Delay (d2), s/veh	0.0	0.9	1.5	5.6	0.7	0.0				5.6	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.8	5.0	5.8	3.4	0.0				5.6	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.2	17.4	42.1	6.5	0.0				41.4	0.0	36.5
LnGrp LOS	A	B	B	D	A	A				D	A	D
Approach Vol, veh/h		763			816						426	
Approach Delay, s/veh		16.8			18.1						39.4	
Approach LOS		B			B						D	

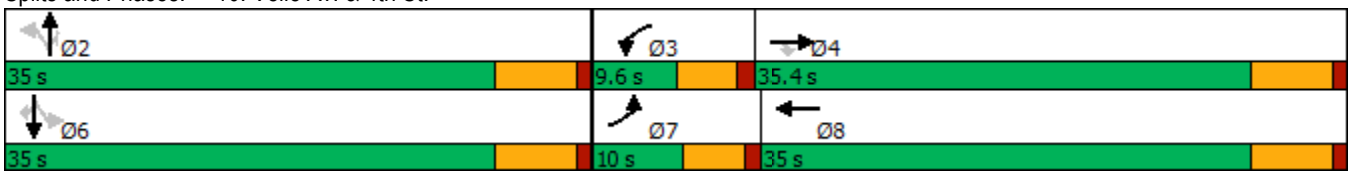
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.6	49.0		21.4		68.6
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2
Max Q Clear Time (g_c+I1), s	14.8	16.4		14.3		13.1
Green Ext Time (p_c), s	0.2	2.4		1.3		3.5

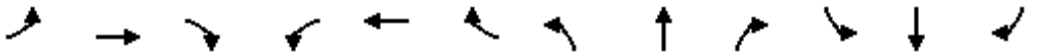
Intersection Summary		
HCM 6th Ctrl Delay		22.1
HCM 6th LOS		C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	31	120	22	3	143	68	27	6	21	29	434
Future Volume (vph)	31	120	22	3	143	68	27	6	21	29	434
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	6.2	15.9	15.9	5.9	13.9		18.3	18.3	18.3	18.3	18.3
Actuated g/C Ratio	0.15	0.39	0.39	0.14	0.34		0.45	0.45	0.45	0.45	0.45
v/c Ratio	0.15	0.22	0.04	0.02	0.34		0.19	0.01	0.05	0.05	0.56
Control Delay	24.8	11.8	0.1	25.7	14.3		14.4	0.0	13.8	13.3	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	11.8	0.1	25.7	14.3		14.4	0.0	13.8	13.3	4.2
LOS	C	B	A	C	B		B	A	B	B	A
Approach Delay		12.6			14.5		13.5			5.2	
Approach LOS		B			B		B			A	

Intersection Summary		
Cycle Length: 80		
Actuated Cycle Length: 40.9		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.56		
Intersection Signal Delay: 9.1	Intersection LOS: A	
Intersection Capacity Utilization 58.4%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	120	22	3	143	19	68	27	6	21	29	434
Future Volume (veh/h)	31	120	22	3	143	19	68	27	6	21	29	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	160	29	4	191	25	91	36	8	28	39	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	573	486	10	429	56	426	144	426	471	502	
Arrive On Green	0.05	0.30	0.30	0.01	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1646	215	993	543	1610	1384	1900	1610
Grp Volume(v), veh/h	41	160	29	4	0	216	127	0	8	28	39	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1861	1536	0	1610	1384	1900	1610
Q Serve(g_s), s	0.8	2.4	0.5	0.1	0.0	3.7	1.5	0.0	0.1	0.6	0.6	0.0
Cycle Q Clear(g_c), s	0.8	2.4	0.5	0.1	0.0	3.7	2.3	0.0	0.1	3.0	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.12	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	573	486	10	0	486	570	0	426	471	502	
V/C Ratio(X)	0.49	0.28	0.06	0.41	0.00	0.44	0.22	0.00	0.02	0.06	0.08	
Avail Cap(c_a), veh/h	258	1487	1260	239	0	1437	1334	0	1243	1174	1467	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.6	10.1	9.4	18.7	0.0	11.7	11.0	0.0	10.3	12.3	10.4	0.0
Incr Delay (d2), s/veh	1.6	0.3	0.1	9.7	0.0	0.6	0.2	0.0	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.7	0.1	0.1	0.0	1.1	0.6	0.0	0.0	0.1	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.2	10.3	9.4	28.4	0.0	12.3	11.2	0.0	10.3	12.3	10.5	0.0
LnGrp LOS	B	B	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		230			220			135			67	A
Approach Delay, s/veh		11.8			12.6			11.2			11.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	4.8	17.2		15.8	6.3	15.7				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		29.2	5.0	29.6		29.2	5.4	29.2				
Max Q Clear Time (g_c+I1), s		4.3	2.1	4.4		5.0	2.8	5.7				
Green Ext Time (p_c), s		0.6	0.0	0.8		0.2	0.0	1.1				

Intersection Summary		
HCM 6th Ctrl Delay		11.9
HCM 6th LOS		B

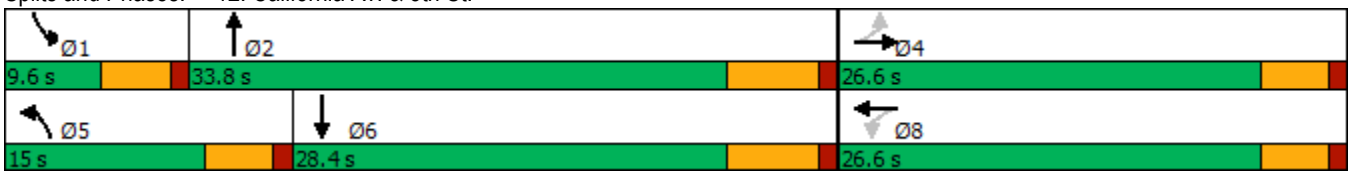
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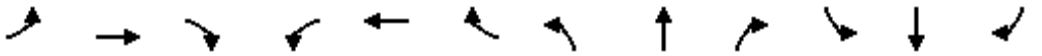
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	49	9	283	513	240	
Future Volume (vph)	2	3	49	9	283	513	240	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.2		12.2	10.7	40.0	23.1	
Actuated g/C Ratio		0.21		0.21	0.19	0.70	0.40	
v/c Ratio		0.23		0.31	1.07	0.59	80.50	
Control Delay		7.2		16.8	100.0	10.2	32892.2	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.2		16.8	100.0	10.2	32892.2	
LOS		A		B	F	B	F	
Approach Delay		7.2		16.8		38.8	32892.2	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 57.5	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 80.50	
Intersection Signal Delay: 6423.6	Intersection LOS: F
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	71	49	9	29	283	513	95	12	240	2
Future Volume (veh/h)	2	3	71	49	9	29	283	513	95	12	240	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	90	62	11	37	358	649	120	15	304	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	21	312	272	66	107	419	872	161	0	422	4
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.23	0.56	0.56	0.00	0.22	0.22
Sat Flow, veh/h	16	101	1506	702	320	518	1810	1560	288	0	1878	19
Grp Volume(v), veh/h	97	0	0	110	0	0	358	0	769	0	0	307
Grp Sat Flow(s),veh/h/ln	1623	0	0	1540	0	0	1810	0	1848	0	0	1897
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	8.4	0.0	14.0	0.0	0.0	6.7
Cycle Q Clear(g_c), s	2.2	0.0	0.0	2.3	0.0	0.0	8.4	0.0	14.0	0.0	0.0	6.7
Prop In Lane	0.03		0.93	0.56		0.34	1.00		0.16	0.00		0.01
Lane Grp Cap(c), veh/h	420	0	0	445	0	0	419	0	1034	0	0	426
V/C Ratio(X)	0.23	0.00	0.00	0.25	0.00	0.00	0.85	0.00	0.74	0.00	0.00	0.72
Avail Cap(c_a), veh/h	882	0	0	862	0	0	422	0	1162	0	0	962
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	14.9	0.0	0.0	14.9	0.0	0.0	16.4	0.0	7.4	0.0	0.0	16.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.0	14.8	0.0	2.3	0.0	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.9	0.0	0.0	4.4	0.0	3.2	0.0	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	0.0	15.2	0.0	0.0	31.2	0.0	9.7	0.0	0.0	18.3
LnGrp LOS	B	A	A	B	A	A	C	A	A	A	A	B
Approach Vol, veh/h		97			110			1127			307	
Approach Delay, s/veh		15.2			15.2			16.5			18.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	30.7		13.8	14.9	15.8		13.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	16.0		4.2	10.4	8.7		4.3				
Green Ext Time (p_c), s	0.0	4.0		0.4	0.0	1.3		0.5				

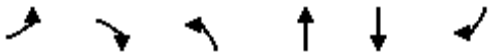
Intersection Summary			
HCM 6th Ctrl Delay		16.7	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	143	23	47	772	172	153
Future Volume (vph)	143	23	47	772	172	153
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	13.9	13.9	7.2	44.1	37.0	37.0
Actuated g/C Ratio	0.20	0.20	0.10	0.63	0.53	0.53
v/c Ratio	0.52	0.09	0.33	0.84	0.22	0.21
Control Delay	32.1	11.0	37.7	18.8	12.0	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	11.0	37.7	18.8	12.0	2.7
LOS	C	B	D	B	B	A
Approach Delay	29.2			19.9	7.6	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 70	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	143	23	47	772	172	153
Future Volume (veh/h)	143	23	47	772	172	153
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	186	30	61	1003	223	199
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	313	279	99	1176	915	776
Arrive On Green	0.17	0.17	0.05	0.62	0.48	0.48
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	186	30	61	1003	223	199
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	5.3	0.9	1.8	23.8	3.8	4.1
Cycle Q Clear(g_c), s	5.3	0.9	1.8	23.8	3.8	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	313	279	99	1176	915	776
V/C Ratio(X)	0.59	0.11	0.62	0.85	0.24	0.26
Avail Cap(c_a), veh/h	714	635	432	1922	1312	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	19.4	25.8	8.6	8.5	8.5
Incr Delay (d2), s/veh	1.8	0.2	2.3	2.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.9	0.8	5.7	1.2	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.1	19.6	28.1	10.7	8.6	8.7
LnGrp LOS	C	B	C	B	A	A
Approach Vol, veh/h	216			1064	422	
Approach Delay, s/veh	22.6			11.7	8.7	
Approach LOS	C			B	A	

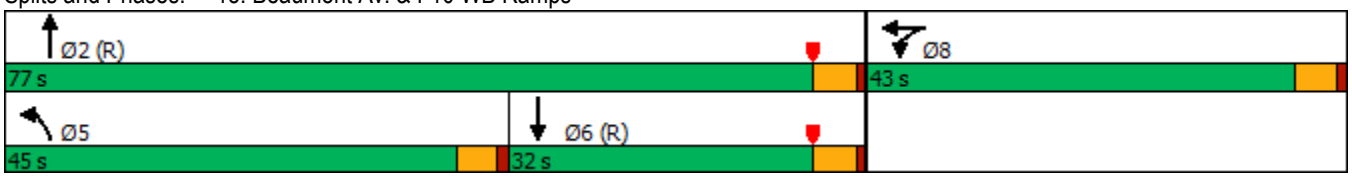
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		40.3		15.4	7.7	32.7
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		56.4		22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s		25.8		7.3	3.8	6.1
Green Ext Time (p_c), s		8.8		0.5	0.0	1.8

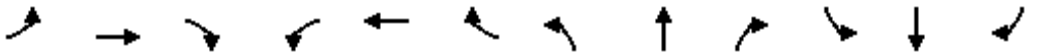
Intersection Summary		
HCM 6th Ctrl Delay		12.3
HCM 6th LOS		B

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	393
Future Volume (vph)	464	9	345	216	393
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	43.0	43.0	45.0	77.0	32.0
Total Split (%)	35.8%	35.8%	37.5%	64.2%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	29.7	29.7	29.6	80.7	46.5
Actuated g/C Ratio	0.25	0.25	0.25	0.67	0.39
v/c Ratio	0.80	0.74	0.84	0.10	0.39
Control Delay	55.9	46.4	64.5	5.2	25.6
Queue Delay	0.0	0.7	0.4	0.0	3.6
Total Delay	55.9	47.2	65.0	5.2	29.2
LOS	E	D	E	A	C
Approach Delay		51.6		41.9	29.2
Approach LOS		D		D	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 41.7	Intersection LOS: D
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	393	93
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	393	93
Initial Q (Qb), veh				0	0	0	25	50	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	427	101
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				457	289	162	489	2410	0	0	1098	257
Arrive On Green				0.25	0.25	0.25	0.37	1.00	0.00	0.00	0.82	0.82
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	2997	681
Grp Volume(v), veh/h				328	0	399	375	235	0	0	264	264
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1777
Q Serve(g_s), s				19.9	0.0	25.8	24.0	0.0	0.0	0.0	4.6	4.6
Cycle Q Clear(g_c), s				19.9	0.0	25.8	24.0	0.0	0.0	0.0	4.6	4.6
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				457	0	451	489	2410	0	0	683	672
V/C Ratio(X)				0.72	0.00	0.89	0.77	0.10	0.00	0.00	0.39	0.39
Avail Cap(c_a), veh/h				576	0	568	609	2410	0	0	737	726
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.85	0.85	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				41.0	0.0	43.2	32.5	0.0	0.0	0.0	10.3	10.3
Incr Delay (d2), s/veh				3.2	0.0	13.1	2.9	0.1	0.0	0.0	1.6	1.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	80.6	3.4	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.0	0.0	12.6	22.5	1.2	0.0	0.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.1	0.0	56.3	116.0	3.5	0.0	0.0	11.9	12.0
LnGrp LOS				D	A	E	F	A	A	A	B	B
Approach Vol, veh/h					727			610			528	
Approach Delay, s/veh					50.8			72.7			11.9	
Approach LOS					D			E			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.9			31.1	53.8		35.1				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 72			40.4	* 27		38.2				
Max Q Clear Time (g_c+I1), s		2.0			26.0	6.6		27.8				
Green Ext Time (p_c), s		1.7			0.5	3.2		2.5				

Intersection Summary		
HCM 6th Ctrl Delay	47.0	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

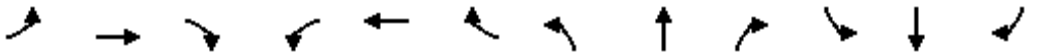
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	547	544	111	779
Future Volume (vph)	11	547	544	111	779
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	41.0	41.0	56.0	23.0	79.0
Total Split (%)	34.2%	34.2%	46.7%	19.2%	65.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	23.9	23.9	69.8	12.1	86.5
Actuated g/C Ratio	0.20	0.20	0.58	0.10	0.72
v/c Ratio	0.81	0.70	0.51	0.64	0.31
Control Delay	44.2	24.6	14.1	50.4	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.4
Total Delay	44.3	24.6	14.1	50.4	11.1
LOS	D	C	B	D	B
Approach Delay	34.6		14.1		16.0
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 63.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Future Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Initial Q (Qb), veh	0	0	0				0	75	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	661				0	567	484	116	811	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	441	748				0	1300	719	141	2483	0
Arrive On Green	0.00	0.00	0.23				0.00	0.57	0.57	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1942	1575	1810	3705	0
Grp Volume(v), veh/h	0	0	661				0	554	497	116	811	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	23.8				0.0	22.8	22.8	7.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	23.8				0.0	22.8	22.8	7.5	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	441	748				0	1032	957	141	2483	0
V/C Ratio(X)	0.00	0.00	0.88				0.00	0.54	0.52	0.82	0.33	0.00
Avail Cap(c_a), veh/h	0	573	971				0	1032	924	277	2483	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.82	0.82	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.5				0.0	19.0	18.6	49.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	7.9				0.0	2.0	2.0	3.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	20.6	23.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.0				0.0	21.4	20.2	3.3	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.4				0.0	41.5	43.6	53.6	0.3	0.0
LnGrp LOS	A	A	D				A	D	D	D	A	A
Approach Vol, veh/h		661						1051			927	
Approach Delay, s/veh		52.4						42.5			7.0	
Approach LOS		D						D			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.9	73.4		32.7		87.3
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	18.4	* 51		* 36		* 74
Max Q Clear Time (g_c+I1), s	9.5	24.8		25.8		2.0
Green Ext Time (p_c), s	0.1	8.3		2.1		7.1

Intersection Summary	
HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

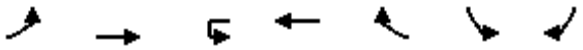
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	559	435	152	2	3	150	
Future Volume (vph)	559	435	152	2	3	150	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	64.0	87.2	32.8	32.8	33.2	64.0	9.6
Total Split (%)	49.2%	67.1%	25.2%	25.2%	25.5%	49.2%	7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effct Green (s)	20.2	39.6	14.5	14.5	12.8	39.7	
Actuated g/C Ratio	0.31	0.61	0.22	0.22	0.20	0.61	
v/c Ratio	0.72	0.53	0.51	0.01	0.01	0.20	
Control Delay	25.1	9.5	28.5	17.5	25.3	1.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	25.1	9.5	28.5	17.5	25.3	1.4	
LOS	C	A	C	B	C	A	
Approach Delay		18.2	28.3		1.9		
Approach LOS		B	C		A		

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 65.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	559	435	0	152	2	3	150
Future Volume (veh/h)	559	435	0	152	2	3	150
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	834	649		227	-258	4	-373
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1033	1124		387	328	715	802
Arrive On Green	0.28	0.57		0.20	0.00	0.20	0.00
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	834	649		227	-258	4	-373
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	10.8	10.8		5.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.8	10.8		5.3	0.0	0.0	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1033	1124		387	328	715	802
V/C Ratio(X)	0.81	0.58		0.59	-0.79	0.01	-0.47
Avail Cap(c_a), veh/h	4249	3152		1045	886	1931	1360
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.0	7.1		18.6	0.0	16.5	0.0
Incr Delay (d2), s/veh	0.6	0.5		1.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.6		2.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.6	7.5		20.1	0.0	16.5	0.0
LnGrp LOS	B	A		C	A	B	A
Approach Vol, veh/h		1483		-31		-369	
Approach Delay, s/veh		13.2		0.0		0.0	
Approach LOS		B		A		A	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				34.8		16.2	19.0	15.8
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				81.4		27.0	59.4	27.0
Max Q Clear Time (g_c+I1), s				12.8		2.0	12.8	7.3
Green Ext Time (p_c), s				4.5		0.0	1.6	1.0

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

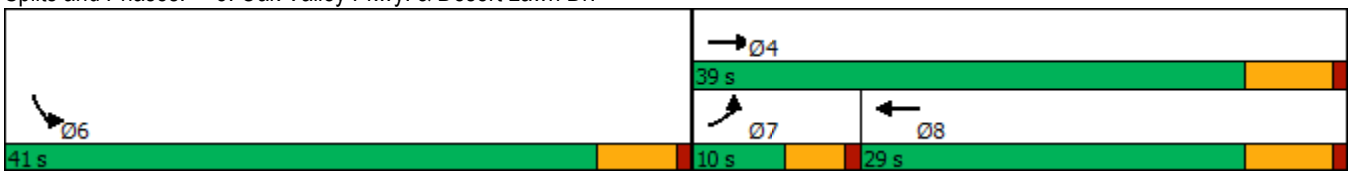
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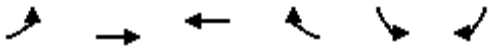
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	42	362	339	177
Future Volume (vph)	42	362	339	177
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.8	16.3	13.1	14.0
Actuated g/C Ratio	0.13	0.37	0.30	0.32
v/c Ratio	0.18	0.53	0.40	0.35
Control Delay	25.5	14.2	8.9	13.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.5	14.2	8.9	13.7
LOS	C	B	A	B
Approach Delay		15.3	8.9	13.7
Approach LOS		B	A	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 43.6	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 42.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	362	339	294	177	21
Future Volume (veh/h)	42	362	339	294	177	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	373	349	303	182	22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	86	867	1022	476	392	47
Arrive On Green	0.05	0.46	0.30	0.30	0.25	0.25
Sat Flow, veh/h	1810	1900	3629	1610	1586	192
Grp Volume(v), veh/h	43	373	349	303	205	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1786	0
Q Serve(g_s), s	0.9	5.4	3.2	6.6	4.0	0.0
Cycle Q Clear(g_c), s	0.9	5.4	3.2	6.6	4.0	0.0
Prop In Lane	1.00			1.00	0.89	0.11
Lane Grp Cap(c), veh/h	86	867	1022	476	441	0
V/C Ratio(X)	0.50	0.43	0.34	0.64	0.46	0.00
Avail Cap(c_a), veh/h	241	1540	1948	907	1553	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	7.4	11.2	12.4	13.0	0.0
Incr Delay (d2), s/veh	1.7	0.3	0.2	1.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	0.9	1.8	1.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.5	7.8	11.4	13.8	13.7	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		416	652		205	
Approach Delay, s/veh		9.1	12.5		13.7	
Approach LOS		A	B		B	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		24.7		15.8	6.5	18.2
Change Period (Y+Rc), s		6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s		32.8		35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s		7.4		6.0	2.9	8.6
Green Ext Time (p_c), s		1.9		0.6	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

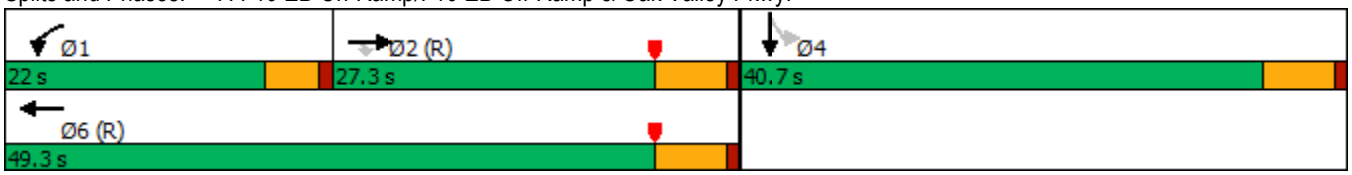
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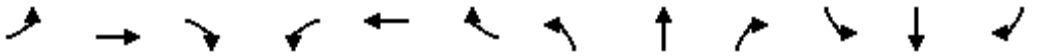
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	332	207	129	481	436	1
Future Volume (vph)	332	207	129	481	436	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	27.3	27.3	22.0	49.3	40.7	40.7
Total Split (%)	30.3%	30.3%	24.4%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	28.8	28.8	12.7	46.1	32.3	32.3
Actuated g/C Ratio	0.32	0.32	0.14	0.51	0.36	0.36
v/c Ratio	0.72	0.39	0.67	0.65	0.89	0.28
Control Delay	37.8	5.5	48.1	13.8	44.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	5.5	48.1	13.8	44.0	4.2
LOS	D	A	D	B	D	A
Approach Delay	25.4			21.1		33.7
Approach LOS	C			C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 26.7	Intersection LOS: C
Intersection Capacity Utilization 62.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	332	207	129	481	0	0	0	0	436	1	152
Future Volume (veh/h)	0	332	207	129	481	0	0	0	0	436	1	152
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	437	193	170	633	0				574	1	134
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	688	583	208	1003	0				621	4	549
Arrive On Green	0.00	0.36	0.36	0.04	0.17	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	12	1600
Grp Volume(v), veh/h	0	437	193	170	633	0				574	0	135
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1612
Q Serve(g_s), s	0.0	17.2	7.8	8.4	27.8	0.0				27.5	0.0	5.4
Cycle Q Clear(g_c), s	0.0	17.2	7.8	8.4	27.8	0.0				27.5	0.0	5.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	688	583	208	1003	0				621	0	553
V/C Ratio(X)	0.00	0.64	0.33	0.82	0.63	0.00				0.92	0.00	0.24
Avail Cap(c_a), veh/h	0	688	583	350	1003	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	0.81	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.8	20.8	42.3	29.0	0.0				28.4	0.0	21.2
Incr Delay (d2), s/veh	0.0	3.9	1.3	2.4	2.4	0.0				17.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.8	2.9	4.0	14.5	0.0				13.8	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.7	22.2	44.8	31.5	0.0				45.4	0.0	21.4
LnGrp LOS	A	C	C	D	C	A				D	A	C
Approach Vol, veh/h		630			803						709	
Approach Delay, s/veh		26.0			34.3						40.9	
Approach LOS		C			C						D	

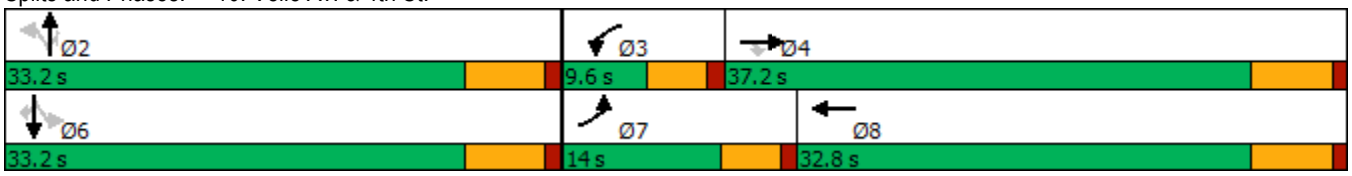
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.0	38.4		36.7		53.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	17.4	21.5		34.9		43.5						
Max Q Clear Time (g_c+I1), s	10.4	19.2		29.5		29.8						
Green Ext Time (p_c), s	0.1	0.8		1.4		3.2						

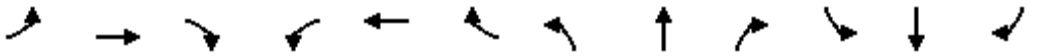
Intersection Summary												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	481	74	9	59	38	36	11	13	57	135
Future Volume (vph)	100	481	74	9	59	38	36	11	13	57	135
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	8.4	25.3	25.3	5.3	16.0		12.8	12.8	12.8	12.8	12.8
Actuated g/C Ratio	0.16	0.49	0.49	0.10	0.31		0.25	0.25	0.25	0.25	0.25
v/c Ratio	0.49	0.74	0.13	0.07	0.22		0.28	0.03	0.06	0.17	0.35
Control Delay	30.8	19.3	3.4	28.8	13.3		19.4	0.1	17.2	17.8	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	19.3	3.4	28.8	13.3		19.4	0.1	17.2	17.8	5.4
LOS	C	B	A	C	B		B	A	B	B	A
Approach Delay		19.2			14.8		16.9			9.6	
Approach LOS		B			B		B			A	

Intersection Summary		
Cycle Length: 80		
Actuated Cycle Length: 51.7		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.74		
Intersection Signal Delay: 16.7	Intersection LOS: B	
Intersection Capacity Utilization 56.5%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	481	74	9	59	29	38	36	11	13	57	135
Future Volume (veh/h)	100	481	74	9	59	29	38	36	11	13	57	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	143	687	106	13	84	41	54	51	16	19	81	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	185	837	709	30	428	209	249	201	334	365	394	
Arrive On Green	0.10	0.44	0.44	0.02	0.35	0.35	0.21	0.21	0.21	0.21	0.21	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1206	588	656	969	1610	1355	1900	1610
Grp Volume(v), veh/h	143	687	106	13	0	125	105	0	16	19	81	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1794	1625	0	1610	1355	1900	1610
Q Serve(g_s), s	3.7	15.3	1.9	0.3	0.0	2.3	0.5	0.0	0.4	0.6	1.7	0.0
Cycle Q Clear(g_c), s	3.7	15.3	1.9	0.3	0.0	2.3	2.3	0.0	0.4	2.9	1.7	0.0
Prop In Lane	1.00		1.00	1.00		0.33	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	837	709	30	0	637	450	0	334	365	394	
V/C Ratio(X)	0.77	0.82	0.15	0.43	0.00	0.20	0.23	0.00	0.05	0.05	0.21	
Avail Cap(c_a), veh/h	353	1236	1048	188	0	1004	1013	0	914	853	1079	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.1	11.8	8.1	23.5	0.0	10.8	16.1	0.0	15.3	17.3	15.8	0.0
Incr Delay (d2), s/veh	2.6	2.9	0.1	3.6	0.0	0.1	0.3	0.0	0.1	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.9	0.5	0.2	0.0	0.7	0.8	0.0	0.1	0.2	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	14.7	8.2	27.1	0.0	10.9	16.3	0.0	15.4	17.4	16.1	0.0
LnGrp LOS	C	B	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		936			138			121			100	A
Approach Delay, s/veh		15.4			12.5			16.2			16.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	5.4	27.1		15.8	9.5	22.9				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		27.4	5.0	31.4		27.4	9.4	27.0				
Max Q Clear Time (g_c+I1), s		4.3	2.3	17.3		4.9	5.7	4.3				
Green Ext Time (p_c), s		0.5	0.0	4.0		0.4	0.1	0.5				

Intersection Summary												
HCM 6th Ctrl Delay			15.2									
HCM 6th LOS			B									

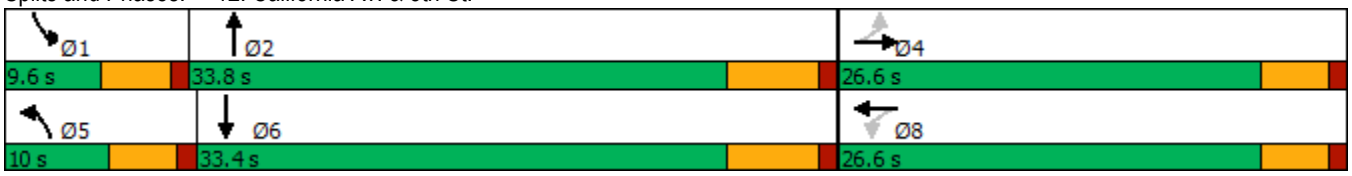
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	4	3	47	3	169	395	211	
Future Volume (vph)	4	3	47	3	169	395	211	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.1		12.1	5.4	42.1	30.9	
Actuated g/C Ratio		0.20		0.20	0.09	0.70	0.51	
v/c Ratio		0.23		0.23	1.10	0.64	7.80	
Control Delay		7.4		16.8	132.9	10.9	3134.2	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.4		16.8	132.9	10.9	3134.2	
LOS		A		B	F	B	F	
Approach Delay		7.4		16.8		33.0	3134.2	
Approach LOS		A		B		C	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 60.5	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 7.80	
Intersection Signal Delay: 555.9	Intersection LOS: F
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	82	47	3	20	169	395	368	6	211	6
Future Volume (veh/h)	4	3	82	47	3	20	169	395	368	6	211	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	86	49	3	21	178	416	387	6	222	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	20	312	329	42	90	227	487	453	0	551	15
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.13	0.54	0.54	0.00	0.30	0.30
Sat Flow, veh/h	24	98	1500	875	201	435	1810	906	843	0	1841	50
Grp Volume(v), veh/h	93	0	0	73	0	0	178	0	803	0	0	228
Grp Sat Flow(s),veh/h/ln	1622	0	0	1511	0	0	1810	0	1748	0	0	1891
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	16.0	0.0	0.0	3.9
Cycle Q Clear(g_c), s	2.0	0.0	0.0	1.4	0.0	0.0	3.9	0.0	16.0	0.0	0.0	3.9
Prop In Lane	0.04		0.92	0.67		0.29	1.00		0.48	0.00		0.03
Lane Grp Cap(c), veh/h	429	0	0	461	0	0	227	0	940	0	0	566
V/C Ratio(X)	0.22	0.00	0.00	0.16	0.00	0.00	0.79	0.00	0.85	0.00	0.00	0.40
Avail Cap(c_a), veh/h	962	0	0	931	0	0	239	0	1200	0	0	1279
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.6	0.0	0.0	13.3	0.0	0.0	17.3	0.0	8.1	0.0	0.0	11.4
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	13.5	0.0	5.0	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.5	0.0	0.0	2.1	0.0	3.8	0.0	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	0.0	0.0	13.5	0.0	0.0	30.8	0.0	13.1	0.0	0.0	11.8
LnGrp LOS	B	A	A	B	A	A	C	A	B	A	A	B
Approach Vol, veh/h		93			73			981			228	
Approach Delay, s/veh		13.8			13.5			16.3			11.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	27.7		13.1	9.7	18.0		13.1				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	18.0		4.0	5.9	5.9		3.4				
Green Ext Time (p_c), s	0.0	3.9		0.4	0.0	1.1		0.3				

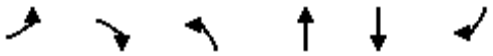
Intersection Summary			
HCM 6th Ctrl Delay		15.3	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	473	66	17	476	922	99
Future Volume (vph)	473	66	17	476	922	99
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	43.0	43.0	9.6	77.0	67.4	67.4
Total Split (%)	35.8%	35.8%	8.0%	64.2%	56.2%	56.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	34.7	34.7	5.0	65.5	61.9	61.9
Actuated g/C Ratio	0.31	0.31	0.04	0.59	0.55	0.55
v/c Ratio	0.92	0.13	0.22	0.46	0.95	0.12
Control Delay	60.7	8.7	61.3	15.2	44.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	38.6	0.0
Total Delay	60.7	8.7	61.3	15.2	83.0	7.3
LOS	E	A	E	B	F	A
Approach Delay	54.3			16.7	75.6	
Approach LOS	D			B	E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 111.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 55.9	Intersection LOS: E
Intersection Capacity Utilization 84.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	473	66	17	476	922	99
Future Volume (veh/h)	473	66	17	476	922	99
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	514	72	18	517	1002	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	545	485	34	1135	1022	866
Arrive On Green	0.30	0.30	0.02	0.60	0.54	0.54
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	514	72	18	517	1002	108
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	31.6	3.7	1.1	17.2	58.9	3.8
Cycle Q Clear(g_c), s	31.6	3.7	1.1	17.2	58.9	3.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	545	485	34	1135	1022	866
V/C Ratio(X)	0.94	0.15	0.52	0.46	0.98	0.12
Avail Cap(c_a), veh/h	590	525	79	1185	1025	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	29.2	55.5	12.7	25.8	13.1
Incr Delay (d2), s/veh	23.0	0.1	4.5	0.3	23.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	0.0	0.5	6.6	30.2	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.9	29.3	60.0	13.0	49.2	13.1
LnGrp LOS	E	C	E	B	D	B
Approach Vol, veh/h	586			535	1110	
Approach Delay, s/veh	57.9			14.6	45.7	
Approach LOS	E			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		74.0		40.2	6.8	67.2
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		71.2		37.2	5.0	61.6
Max Q Clear Time (g_c+I1), s		19.2		33.6	3.1	60.9
Green Ext Time (p_c), s		3.3		0.7	0.0	0.5

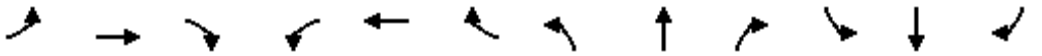
Intersection Summary		
HCM 6th Ctrl Delay		41.4
HCM 6th LOS		D

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	668
Future Volume (vph)	685	0	272	309	668
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	49.0	49.0	35.0	71.0	36.0
Total Split (%)	40.8%	40.8%	29.2%	59.2%	30.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	35.1	35.1	22.9	75.3	47.7
Actuated g/C Ratio	0.29	0.29	0.19	0.63	0.40
v/c Ratio	0.81	0.75	0.81	0.14	0.61
Control Delay	52.2	41.0	78.7	8.2	32.2
Queue Delay	0.8	0.6	0.4	0.0	51.1
Total Delay	53.0	41.7	79.0	8.2	83.3
LOS	D	D	E	A	F
Approach Delay		47.4		41.3	83.3
Approach LOS		D		D	F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 59.4	Intersection LOS: E
Intersection Capacity Utilization 107.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	668	169
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	668	169
Initial Q (Qb), veh				50	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	689	174
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1070	562	0	304	2254	0	0	1193	301
Arrive On Green				0.25	0.00	0.00	0.34	1.00	0.00	0.00	0.92	0.92
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	2950	721
Grp Volume(v), veh/h				800	0	0	280	319	0	0	435	428
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1770
Q Serve(g_s), s				25.5	0.0	0.0	17.9	0.0	0.0	0.0	4.3	4.3
Cycle Q Clear(g_c), s				25.5	0.0	0.0	17.9	0.0	0.0	0.0	4.3	4.3
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.41
Lane Grp Cap(c), veh/h				1070	562	0	304	2254	0	0	754	740
V/C Ratio(X)				0.75	0.00	0.00	0.92	0.14	0.00	0.00	0.58	0.58
Avail Cap(c_a), veh/h				1333	700	0	458	2411	0	0	833	817
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.73	0.73	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				41.1	0.0	0.0	39.1	0.0	0.0	0.0	7.2	7.2
Incr Delay (d2), s/veh				1.8	0.0	0.0	10.9	0.1	0.0	0.0	3.2	3.2
Initial Q Delay(d3),s/veh				62.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				23.3	0.0	0.0	7.6	0.0	0.0	0.0	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				105.3	0.0	0.0	50.0	0.1	0.0	0.0	10.4	10.5
LnGrp LOS				F	A	A	D	A	A	A	B	B
Approach Vol, veh/h					800			599			863	
Approach Delay, s/veh					105.3			23.4			10.4	
Approach LOS					F			C			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	85.0		24.8	60.2		35.0						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 66		30.4	* 31		44.2						
Max Q Clear Time (g_c+I1), s	2.0		19.9	6.3		27.5						
Green Ext Time (p_c), s	2.3		0.3	6.1		2.8						

Intersection Summary		
HCM 6th Ctrl Delay	47.4	
HCM 6th LOS	D	

Notes

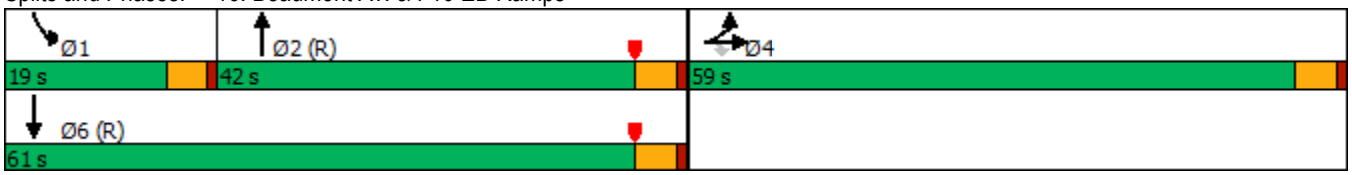
User approved volume balancing among the lanes for turning movement.

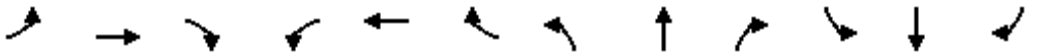
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	823	533	120	1107
Future Volume (vph)	11	823	533	120	1107
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	59.0	59.0	42.0	19.0	61.0
Total Split (%)	49.2%	49.2%	35.0%	15.8%	50.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	43.2	43.2	50.6	11.9	67.2
Actuated g/C Ratio	0.36	0.36	0.42	0.10	0.56
v/c Ratio	0.83	0.77	0.63	0.69	0.56
Control Delay	43.6	37.4	26.7	70.9	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.7
Total Delay	43.6	37.4	26.7	70.9	23.6
LOS	D	D	C	E	C
Approach Delay	40.5		26.7		28.3
Approach LOS	D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 31.5	Intersection LOS: C
Intersection Capacity Utilization 107.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Future Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	973				0	549	412	124	1141	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	776	1316				0	768	576	149	1846	0
Arrive On Green	0.00	0.00	0.34				0.00	0.46	0.46	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2060	1475	1810	3705	0
Grp Volume(v), veh/h	0	0	973				0	504	457	124	1141	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	34.4				0.0	25.0	25.0	8.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	34.4				0.0	25.0	25.0	8.0	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	776	1316				0	706	639	149	1846	0
V/C Ratio(X)	0.00	0.00	0.74				0.00	0.71	0.71	0.83	0.62	0.00
Avail Cap(c_a), veh/h	0	858	1455				0	834	755	217	2103	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.68	0.68	0.00
Uniform Delay (d), s/veh	0.0	0.0	34.7				0.0	31.1	31.1	49.3	1.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.8				0.0	6.1	6.7	7.9	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	89.8				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	33.8				0.0	13.4	12.2	3.7	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	126.4				0.0	37.2	37.8	57.2	2.5	0.0
LnGrp LOS	A	A	F				A	D	D	E	A	A
Approach Vol, veh/h		973						961			1265	
Approach Delay, s/veh		126.4						37.5			7.8	
Approach LOS		F						D			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.5	60.3		45.3		74.7
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	14.4	* 37		* 54		* 56
Max Q Clear Time (g_c+I1), s	10.0	27.0		36.4		2.0
Green Ext Time (p_c), s	0.1	4.6		4.1		11.6

Intersection Summary	
HCM 6th Ctrl Delay	52.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.15:

E+P (PROJECT BUILDOUT) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Intersection	
Int Delay, s/veh	17.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	343	0	51	0	52	110	43	181	0
Future Vol, veh/h	0	0	0	343	0	51	0	52	110	43	181	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	528	0	78	0	80	169	66	278	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	436	575	125	-	0	0	249	0	0
Stage 1	165	165	-	-	-	-	-	-	-
Stage 2	271	410	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	628	431	909	0	-	-	1328	-	0
Stage 1	985	766	-	0	-	-	-	-	0
Stage 2	866	599	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	597	0	909	-	-	-	1328	-	-
Mov Cap-2 Maneuver	675	0	-	-	-	-	-	-	-
Stage 1	985	0	-	-	-	-	-	-	-
Stage 2	823	0	-	-	-	-	-	-	-

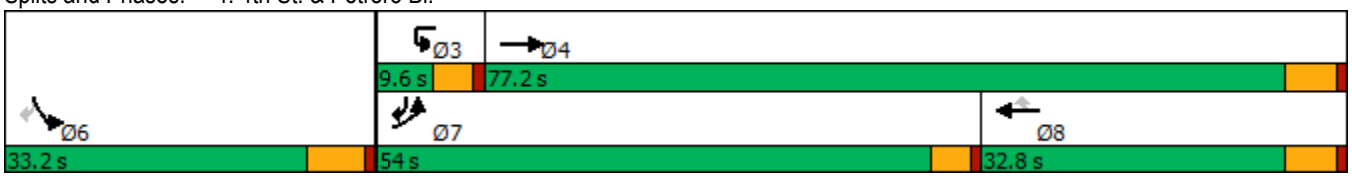
Approach	WB	NB	SB
HCM Control Delay, s	34.3	0	1.5
HCM LOS	D		

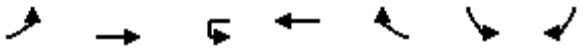
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	698	1328	-
HCM Lane V/C Ratio	-	-	0.868	0.05	-
HCM Control Delay (s)	-	-	34.3	7.9	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	10.4	0.2	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	155	123	516	14	11	510	
Future Volume (vph)	155	123	516	14	11	510	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	54.0	77.2	32.8	32.8	33.2	54.0	9.6
Total Split (%)	45.0%	64.3%	27.3%	27.3%	27.7%	45.0%	8%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effct Green (s)	25.7	58.0	27.6	27.6	13.0	45.0	
Actuated g/C Ratio	0.31	0.70	0.33	0.33	0.16	0.54	
v/c Ratio	0.20	0.13	1.15	0.04	0.03	0.81	
Control Delay	21.7	5.2	112.8	16.7	31.0	22.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	21.7	5.2	112.8	16.7	31.0	22.6	
LOS	C	A	F	B	C	C	
Approach Delay		14.4	110.2		22.8		
Approach LOS		B	F		C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 83.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 55.9	Intersection LOS: E
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	155	123	0	516	14	11	510
Future Volume (veh/h)	155	123	0	516	14	11	510
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	231	184		770	-203	16	164
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	366	1211		853	723	642	462
Arrive On Green	0.10	0.61		0.43	0.00	0.18	0.18
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	231	184		770	-203	16	164
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	3.5	2.3		20.6	0.0	0.2	4.5
Cycle Q Clear(g_c), s	3.5	2.3		20.6	0.0	0.2	4.5
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	366	1211		853	723	642	462
V/C Ratio(X)	0.63	0.15		0.90	-0.28	0.02	0.35
Avail Cap(c_a), veh/h	3173	2482		939	795	1734	963
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	4.7		15.0	0.0	19.4	16.5
Incr Delay (d2), s/veh	0.7	0.1		11.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.5		9.4	0.0	0.1	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	25.2	4.8		26.2	0.0	19.4	17.0
LnGrp LOS	C	A		C	A	B	B
Approach Vol, veh/h		415		567		180	
Approach Delay, s/veh		16.2		35.6		17.2	
Approach LOS		B		D		B	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				40.6		16.2	10.3	30.3
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				71.4		27.0	49.4	27.0
Max Q Clear Time (g_c+I1), s				4.3		6.5	5.5	22.6
Green Ext Time (p_c), s				1.0		0.5	0.4	1.9

Intersection Summary	
HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

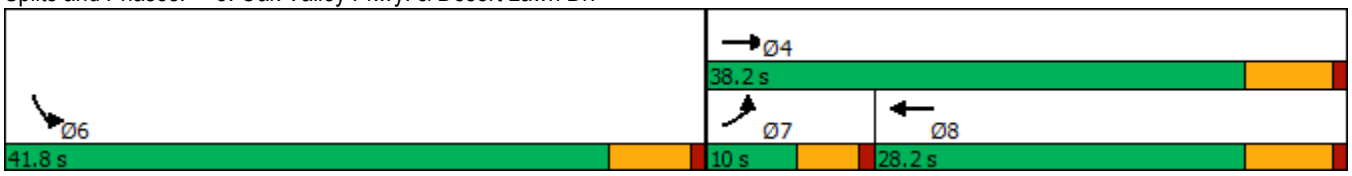
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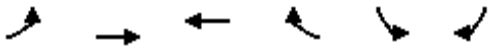
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	59	311	368	458
Future Volume (vph)	59	311	368	458
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.8	20.3	15.3	25.2
Actuated g/C Ratio	0.10	0.35	0.26	0.43
v/c Ratio	0.38	0.54	0.53	0.79
Control Delay	39.3	19.6	15.0	24.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	39.3	19.6	15.0	24.1
LOS	D	B	B	C
Approach Delay		22.8	15.0	24.1
Approach LOS		C	B	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 58.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	311	368	307	458	77
Future Volume (veh/h)	59	311	368	307	458	77
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	68	357	423	353	526	89
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	102	787	975	454	589	100
Arrive On Green	0.06	0.41	0.28	0.28	0.39	0.39
Sat Flow, veh/h	1810	1900	3629	1610	1518	257
Grp Volume(v), veh/h	68	357	423	353	616	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1778	0
Q Serve(g_s), s	2.2	8.2	6.1	12.2	19.7	0.0
Cycle Q Clear(g_c), s	2.2	8.2	6.1	12.2	19.7	0.0
Prop In Lane	1.00			1.00	0.85	0.14
Lane Grp Cap(c), veh/h	102	787	975	454	689	0
V/C Ratio(X)	0.67	0.45	0.43	0.78	0.89	0.00
Avail Cap(c_a), veh/h	161	1004	1256	585	1057	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	12.8	17.8	20.0	17.4	0.0
Incr Delay (d2), s/veh	2.8	0.4	0.3	5.0	6.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.7	2.1	4.5	7.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.8	13.2	18.1	25.0	24.0	0.0
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		425	776		616	
Approach Delay, s/veh		16.0	21.2		24.0	
Approach LOS		B	C		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	31.3	29.3	8.0	23.3
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.0	36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s	10.2	21.7	4.2	14.2
Green Ext Time (p_c), s	1.8	1.8	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

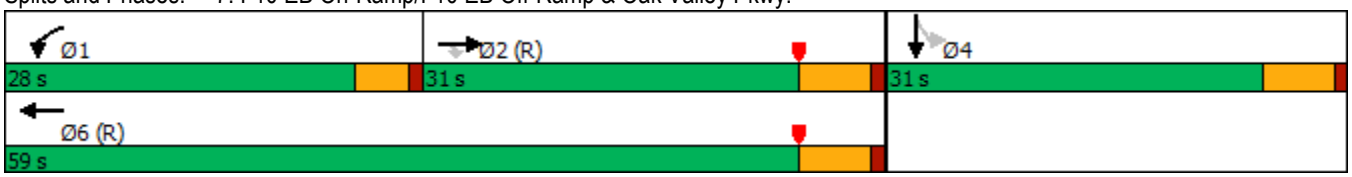
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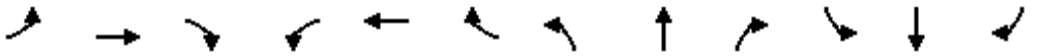
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	355	414	235	491	229	3
Future Volume (vph)	355	414	235	491	229	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	38.0	38.0	17.4	60.1	18.3	18.3
Actuated g/C Ratio	0.42	0.42	0.19	0.67	0.20	0.20
v/c Ratio	0.50	0.49	0.76	0.44	0.70	0.43
Control Delay	24.8	4.5	45.2	4.6	43.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	4.5	45.2	4.6	43.1	7.0
LOS	C	A	D	A	D	A
Approach Delay	13.8			17.7		26.8
Approach LOS	B			B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 18.2	Intersection LOS: B
Intersection Capacity Utilization 66.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	355	414	235	491	0	0	0	0	229	3	185
Future Volume (veh/h)	0	355	414	235	491	0	0	0	0	229	3	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	399	378	264	552	0				257	3	189
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	910	771	302	1324	0				315	4	277
Arrive On Green	0.00	0.48	0.48	0.17	0.70	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	25	1589
Grp Volume(v), veh/h	0	399	378	264	552	0				257	0	192
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1614
Q Serve(g_s), s	0.0	12.5	14.4	12.8	11.2	0.0				12.3	0.0	10.0
Cycle Q Clear(g_c), s	0.0	12.5	14.4	12.8	11.2	0.0				12.3	0.0	10.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	910	771	302	1324	0				315	0	281
V/C Ratio(X)	0.00	0.44	0.49	0.87	0.42	0.00				0.81	0.00	0.68
Avail Cap(c_a), veh/h	0	910	771	470	1324	0				507	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.65	0.65	0.76	0.76	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.5	16.0	36.6	5.8	0.0				35.8	0.0	34.8
Incr Delay (d2), s/veh	0.0	1.0	1.5	5.5	0.7	0.0				5.4	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.0	5.0	5.8	3.4	0.0				5.6	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.5	17.4	42.1	6.6	0.0				41.1	0.0	37.7
LnGrp LOS	A	B	B	D	A	A				D	A	D
Approach Vol, veh/h		777			816						449	
Approach Delay, s/veh		16.9			18.1						39.7	
Approach LOS		B			B						D	

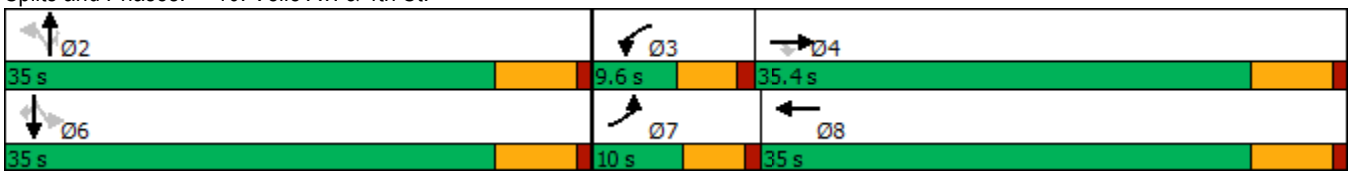
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.6	48.9		21.5		68.5
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2
Max Q Clear Time (g_c+I1), s	14.8	16.4		14.3		13.2
Green Ext Time (p_c), s	0.2	2.4		1.4		3.5

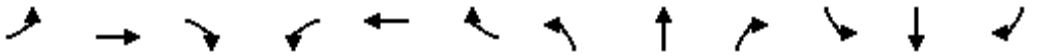
Intersection Summary			
HCM 6th Ctrl Delay		22.4	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	31	143	22	3	158	68	27	6	21	29	469
Future Volume (vph)	31	143	22	3	158	68	27	6	21	29	469
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	6.4	16.5	16.5	6.2	14.7		18.3	18.3	18.3	18.3	18.3
Actuated g/C Ratio	0.16	0.41	0.41	0.15	0.36		0.45	0.45	0.45	0.45	0.45
v/c Ratio	0.14	0.25	0.04	0.01	0.35		0.19	0.01	0.05	0.05	0.59
Control Delay	25.1	12.0	0.1	26.3	14.5		14.4	0.0	13.8	13.4	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	12.0	0.1	26.3	14.5		14.4	0.0	13.8	13.4	4.8
LOS	C	B	A	C	B		B	A	B	B	A
Approach Delay		12.7			14.7		13.6			5.6	
Approach LOS		B			B		B			A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 40.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay: 9.5	Intersection LOS: A
Intersection Capacity Utilization 61.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	143	22	3	158	19	68	27	6	21	29	469
Future Volume (veh/h)	31	143	22	3	158	19	68	27	6	21	29	469
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	191	29	4	211	25	91	36	8	28	39	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	575	488	10	437	52	425	143	425	470	502	
Arrive On Green	0.05	0.30	0.30	0.01	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1667	198	993	543	1610	1384	1900	1610
Grp Volume(v), veh/h	41	191	29	4	0	236	127	0	8	28	39	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1864	1536	0	1610	1384	1900	1610
Q Serve(g_s), s	0.8	3.0	0.5	0.1	0.0	4.1	1.6	0.0	0.1	0.6	0.6	0.0
Cycle Q Clear(g_c), s	0.8	3.0	0.5	0.1	0.0	4.1	2.3	0.0	0.1	3.0	0.6	0.0
Prop In Lane	1.00		1.00	1.00		0.11	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	575	488	10	0	488	569	0	425	470	502	
V/C Ratio(X)	0.49	0.33	0.06	0.41	0.00	0.48	0.22	0.00	0.02	0.06	0.08	
Avail Cap(c_a), veh/h	258	1485	1258	239	0	1437	1331	0	1241	1171	1465	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.6	10.2	9.4	18.8	0.0	11.8	11.1	0.0	10.3	12.3	10.5	0.0
Incr Delay (d2), s/veh	1.6	0.3	0.1	9.7	0.0	0.7	0.2	0.0	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.9	0.1	0.1	0.0	1.2	0.6	0.0	0.0	0.1	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	10.6	9.4	28.5	0.0	12.6	11.3	0.0	10.3	12.4	10.5	0.0
LnGrp LOS	B	B	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		261			240			135			67	A
Approach Delay, s/veh		11.8			12.8			11.2			11.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	4.8	17.3		15.8	6.4	15.7				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		29.2	5.0	29.6		29.2	5.4	29.2				
Max Q Clear Time (g_c+I1), s		4.3	2.1	5.0		5.0	2.8	6.1				
Green Ext Time (p_c), s		0.6	0.0	1.0		0.2	0.0	1.2				

Intersection Summary		
HCM 6th Ctrl Delay		12.0
HCM 6th LOS		B

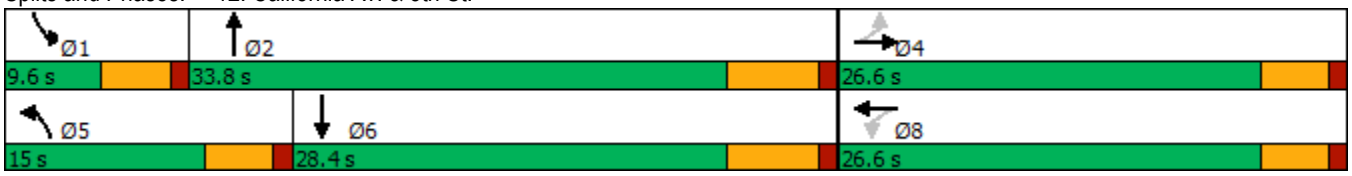
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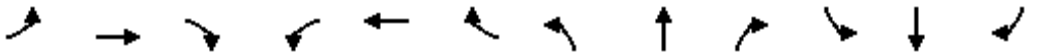
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	54	9	283	516	245	
Future Volume (vph)	2	3	54	9	283	516	245	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.2		12.2	10.6	40.0	23.1	
Actuated g/C Ratio		0.21		0.21	0.18	0.70	0.40	
v/c Ratio		0.23		0.33	1.07	0.62	82.00	
Control Delay		7.2		17.7	100.3	10.9	36900.7	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.2		17.7	100.3	10.9	36900.7	
LOS		A		B	F	B	F	
Approach Delay		7.2		17.7		38.6	36900.7	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 57.5	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 82.00	
Intersection Signal Delay: 7172.8	Intersection LOS: F
Intersection Capacity Utilization 73.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	71	54	9	29	283	516	112	12	245	2
Future Volume (veh/h)	2	3	71	54	9	29	283	516	112	12	245	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	90	68	11	37	358	653	142	15	310	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	86	21	312	281	63	102	419	848	184	0	426	4
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.23	0.56	0.56	0.00	0.23	0.23
Sat Flow, veh/h	16	101	1506	743	303	490	1810	1512	329	0	1879	18
Grp Volume(v), veh/h	97	0	0	116	0	0	358	0	795	0	0	313
Grp Sat Flow(s),veh/h/ln	1623	0	0	1536	0	0	1810	0	1841	0	0	1897
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	8.5	0.0	15.0	0.0	0.0	6.9
Cycle Q Clear(g_c), s	2.3	0.0	0.0	2.5	0.0	0.0	8.5	0.0	15.0	0.0	0.0	6.9
Prop In Lane	0.03		0.93	0.59		0.32	1.00		0.18	0.00		0.01
Lane Grp Cap(c), veh/h	419	0	0	446	0	0	419	0	1033	0	0	430
V/C Ratio(X)	0.23	0.00	0.00	0.26	0.00	0.00	0.85	0.00	0.77	0.00	0.00	0.73
Avail Cap(c_a), veh/h	876	0	0	855	0	0	420	0	1149	0	0	956
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	15.1	0.0	0.0	16.5	0.0	7.6	0.0	0.0	16.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.0	15.0	0.0	2.9	0.0	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.9	0.0	0.0	4.4	0.0	3.5	0.0	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.3	0.0	0.0	15.4	0.0	0.0	31.5	0.0	10.5	0.0	0.0	18.4
LnGrp LOS	B	A	A	B	A	A	C	A	B	A	A	B
Approach Vol, veh/h		97			116			1153			313	
Approach Delay, s/veh		15.3			15.4			17.1			18.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	31.0		13.9	15.0	16.0		13.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	17.0		4.3	10.5	8.9		4.5				
Green Ext Time (p_c), s	0.0	4.0		0.4	0.0	1.3		0.6				

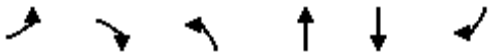
Intersection Summary												
HCM 6th Ctrl Delay			17.1									
HCM 6th LOS			B									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	163	26	52	772	172	163
Future Volume (vph)	163	26	52	772	172	163
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	14.6	14.6	7.5	43.9	36.7	36.7
Actuated g/C Ratio	0.21	0.21	0.11	0.62	0.52	0.52
v/c Ratio	0.57	0.09	0.36	0.85	0.23	0.23
Control Delay	33.5	10.5	38.7	19.8	12.5	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	10.5	38.7	19.8	12.5	2.8
LOS	C	B	D	B	B	A
Approach Delay	30.3			21.0	7.8	
Approach LOS	C			C	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 70.6	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	163	26	52	772	172	163
Future Volume (veh/h)	163	26	52	772	172	163
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	212	34	68	1003	223	212
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	316	281	105	1175	908	770
Arrive On Green	0.17	0.17	0.06	0.62	0.48	0.48
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	212	34	68	1003	223	212
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	6.1	1.0	2.1	23.9	3.9	4.4
Cycle Q Clear(g_c), s	6.1	1.0	2.1	23.9	3.9	4.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	316	281	105	1175	908	770
V/C Ratio(X)	0.67	0.12	0.64	0.85	0.25	0.28
Avail Cap(c_a), veh/h	710	632	430	1912	1305	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	19.5	25.8	8.6	8.6	8.8
Incr Delay (d2), s/veh	2.5	0.2	2.5	2.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.9	5.8	1.2	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.1	19.7	28.3	10.8	8.8	9.0
LnGrp LOS	C	B	C	B	A	A
Approach Vol, veh/h	246			1071	435	
Approach Delay, s/veh	23.5			11.9	8.9	
Approach LOS	C			B	A	

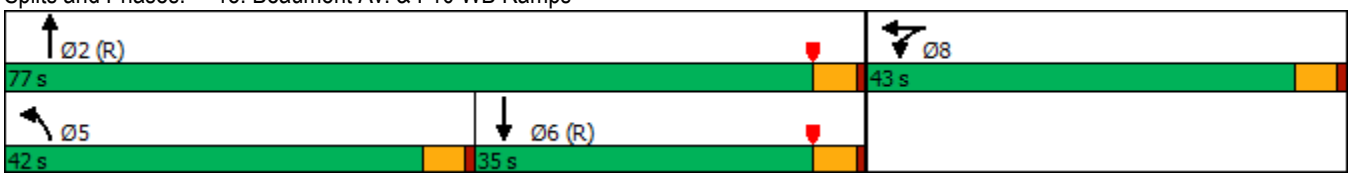
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		40.4		15.6	7.9	32.6
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		56.4		22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s		25.9		8.1	4.1	6.4
Green Ext Time (p_c), s		8.7		0.6	0.0	1.9

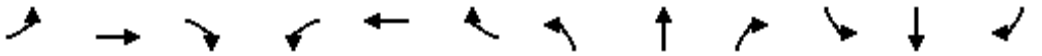
Intersection Summary		
HCM 6th Ctrl Delay		12.8
HCM 6th LOS		B

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	408
Future Volume (vph)	464	9	345	216	408
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	43.0	43.0	42.0	77.0	35.0
Total Split (%)	35.8%	35.8%	35.0%	64.2%	29.2%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	29.7	29.7	29.3	80.7	46.8
Actuated g/C Ratio	0.25	0.25	0.24	0.67	0.39
v/c Ratio	0.80	0.74	0.85	0.10	0.39
Control Delay	55.9	46.4	70.0	5.1	25.6
Queue Delay	0.0	0.8	0.8	0.0	4.1
Total Delay	55.9	47.2	70.8	5.1	29.7
LOS	E	D	E	A	C
Approach Delay		51.7		45.5	29.7
Approach LOS		D		D	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 43.0	Intersection LOS: D
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	408	93
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	408	93
Initial Q (Qb), veh				0	0	0	25	50	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	443	101
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				457	289	162	486	2410	0	0	1112	252
Arrive On Green				0.25	0.25	0.25	0.37	1.00	0.00	0.00	0.82	0.82
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3019	662
Grp Volume(v), veh/h				328	0	399	375	235	0	0	272	272
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1781
Q Serve(g_s), s				19.9	0.0	25.8	24.0	0.0	0.0	0.0	4.7	4.8
Cycle Q Clear(g_c), s				19.9	0.0	25.8	24.0	0.0	0.0	0.0	4.7	4.8
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				457	0	451	486	2410	0	0	686	677
V/C Ratio(X)				0.72	0.00	0.89	0.77	0.10	0.00	0.00	0.40	0.40
Avail Cap(c_a), veh/h				576	0	568	564	2410	0	0	737	728
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				41.0	0.0	43.2	32.7	0.0	0.0	0.0	10.0	10.0
Incr Delay (d2), s/veh				3.2	0.0	13.1	3.8	0.1	0.0	0.0	1.7	1.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	83.0	3.4	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.0	0.0	12.6	23.1	1.2	0.0	0.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.1	0.0	56.3	119.5	3.5	0.0	0.0	11.6	11.7
LnGrp LOS				D	A	E	F	A	A	A	B	B
Approach Vol, veh/h					727			610			544	
Approach Delay, s/veh					50.8			74.8			11.7	
Approach LOS					D			E			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.9			31.1	53.8		35.1				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 72			37.4	* 30		38.2				
Max Q Clear Time (g_c+I1), s		2.0			26.0	6.8		27.8				
Green Ext Time (p_c), s		1.7			0.5	3.4		2.5				

Intersection Summary		
HCM 6th Ctrl Delay	47.3	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	569	567	117	810
Future Volume (vph)	11	569	567	117	810
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	41.0	41.0	56.0	23.0	79.0
Total Split (%)	34.2%	34.2%	46.7%	19.2%	65.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	25.0	25.0	68.4	12.5	85.4
Actuated g/C Ratio	0.21	0.21	0.57	0.10	0.71
v/c Ratio	0.82	0.73	0.54	0.65	0.33
Control Delay	44.3	28.4	15.5	52.4	11.4
Queue Delay	0.3	0.0	0.0	0.0	0.4
Total Delay	44.6	28.4	15.5	52.4	11.9
LOS	D	C	B	D	B
Approach Delay	36.6		15.5		17.0
Approach LOS	D		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Future Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Initial Q (Qb), veh	0	0	0				0	75	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	687				0	591	504	122	844	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	456	773				0	1296	691	147	2455	0
Arrive On Green	0.00	0.00	0.24				0.00	0.56	0.56	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1944	1573	1810	3705	0
Grp Volume(v), veh/h	0	0	687				0	577	518	122	844	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	24.7				0.0	24.8	24.9	7.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	24.7				0.0	24.8	24.9	7.8	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	456	773				0	1011	940	147	2455	0
V/C Ratio(X)	0.00	0.00	0.89				0.00	0.57	0.55	0.83	0.34	0.00
Avail Cap(c_a), veh/h	0	573	971				0	1011	906	277	2455	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.82	0.82	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.1				0.0	20.3	19.8	49.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	8.6				0.0	2.3	2.3	3.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	23.0	25.5	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.4				0.0	23.0	21.7	3.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.6				0.0	45.6	47.7	53.2	0.3	0.0
LnGrp LOS	A	A	D				A	D	D	D	A	A
Approach Vol, veh/h		687						1095			966	
Approach Delay, s/veh		52.6						46.6			7.0	
Approach LOS		D						D			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.4	72.0		33.6		86.4
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	18.4	* 51		* 36		* 74
Max Q Clear Time (g_c+I1), s	9.8	26.9		26.7		2.0
Green Ext Time (p_c), s	0.1	8.5		2.1		7.5

Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	161	0	91	0	212	443	9	118	0
Future Vol, veh/h	0	0	0	161	0	91	0	212	443	9	118	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	209	0	118	0	275	575	12	153	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	664	740	425	-	0	0	850	0	0
Stage 1	563	563	-	-	-	-	-	-	-
Stage 2	101	177	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	398	347	583	0	-	-	797	-	0
Stage 1	539	512	-	0	-	-	-	-	0
Stage 2	918	756	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	392	0	583	-	-	-	797	-	-
Mov Cap-2 Maneuver	462	0	-	-	-	-	-	-	-
Stage 1	539	0	-	-	-	-	-	-	-
Stage 2	904	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	24.9	0	0.7
HCM LOS	C		

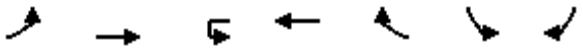
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	499	797	-
HCM Lane V/C Ratio	-	-	0.656	0.015	-
HCM Control Delay (s)	-	-	24.9	9.6	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	4.7	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	653	497	278	2	3	276	
Future Volume (vph)	653	497	278	2	3	276	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	64.0	87.2	32.8	32.8	33.2	64.0	9.6
Total Split (%)	49.2%	67.1%	25.2%	25.2%	25.5%	49.2%	7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effct Green (s)	26.7	57.4	25.9	25.9	12.8	45.9	
Actuated g/C Ratio	0.32	0.70	0.31	0.31	0.16	0.56	
v/c Ratio	0.81	0.53	0.65	0.01	0.01	0.42	
Control Delay	31.8	8.3	32.8	19.0	31.7	9.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	31.8	8.3	32.8	19.0	31.7	9.4	
LOS	C	A	C	B	C	A	
Approach Delay		21.6	32.7		9.6		
Approach LOS		C	C		A		

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 82.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 21.5	Intersection LOS: C
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	653	497	0	278	2	3	276
Future Volume (veh/h)	653	497	0	278	2	3	276
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	975	742		415	-258	4	-185
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1145	1277		511	433	587	794
Arrive On Green	0.31	0.65		0.26	0.00	0.16	0.00
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	975	742		415	-258	4	-185
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	15.5	13.2		12.3	0.0	0.1	0.0
Cycle Q Clear(g_c), s	15.5	13.2		12.3	0.0	0.1	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1145	1277		511	433	587	794
V/C Ratio(X)	0.85	0.58		0.81	-0.60	0.01	-0.23
Avail Cap(c_a), veh/h	3489	2588		858	727	1586	1252
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.0	6.2		21.6	0.0	21.9	0.0
Incr Delay (d2), s/veh	0.7	0.4		3.2	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	3.2		5.3	0.0	0.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.7	6.7		24.8	0.0	21.9	0.0
LnGrp LOS	C	A		C	A	C	A
Approach Vol, veh/h		1717		157		-181	
Approach Delay, s/veh		14.6		65.6		0.0	
Approach LOS		B		E		A	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				46.0		16.2	24.1	21.9
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				81.4		27.0	59.4	27.0
Max Q Clear Time (g_c+I1), s				15.2		2.1	17.5	14.3
Green Ext Time (p_c), s				5.6		0.0	1.9	1.8

Intersection Summary	
HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

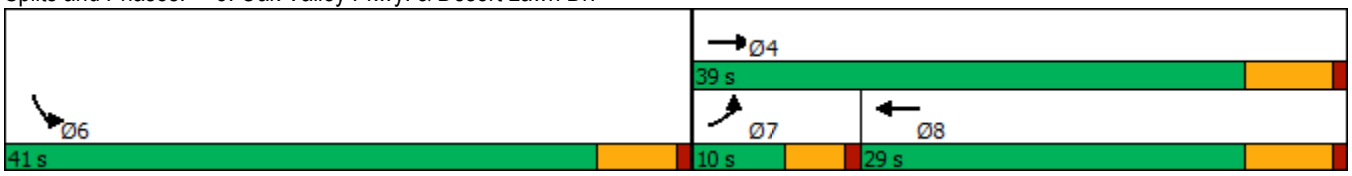
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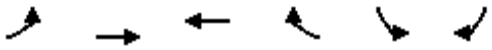
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	50	394	389	177
Future Volume (vph)	50	394	389	177
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.8	16.9	13.9	14.2
Actuated g/C Ratio	0.13	0.38	0.31	0.32
v/c Ratio	0.22	0.56	0.42	0.37
Control Delay	26.5	14.7	10.0	14.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.5	14.7	10.0	14.0
LOS	C	B	B	B
Approach Delay		16.1	10.0	14.0
Approach LOS		B	B	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 44.5	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 12.7	Intersection LOS: B
Intersection Capacity Utilization 43.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	394	389	294	177	33
Future Volume (veh/h)	50	394	389	294	177	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	406	401	303	182	34
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	99	884	1035	482	362	68
Arrive On Green	0.05	0.47	0.30	0.30	0.24	0.24
Sat Flow, veh/h	1810	1900	3629	1610	1489	278
Grp Volume(v), veh/h	52	406	401	303	217	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1775	0
Q Serve(g_s), s	1.2	6.0	3.8	6.7	4.3	0.0
Cycle Q Clear(g_c), s	1.2	6.0	3.8	6.7	4.3	0.0
Prop In Lane	1.00			1.00	0.84	0.16
Lane Grp Cap(c), veh/h	99	884	1035	482	431	0
V/C Ratio(X)	0.53	0.46	0.39	0.63	0.50	0.00
Avail Cap(c_a), veh/h	237	1514	1916	892	1518	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	7.5	11.4	12.4	13.4	0.0
Incr Delay (d2), s/veh	1.6	0.4	0.2	1.4	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.3	1.0	1.8	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.6	7.9	11.7	13.8	14.3	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		458	704		217	
Approach Delay, s/veh		9.3	12.6		14.3	
Approach LOS		A	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	25.4	15.8	6.8	18.5
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.8	35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s	8.0	6.3	3.2	8.7
Green Ext Time (p_c), s	2.2	0.6	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	11.8
HCM 6th LOS	B

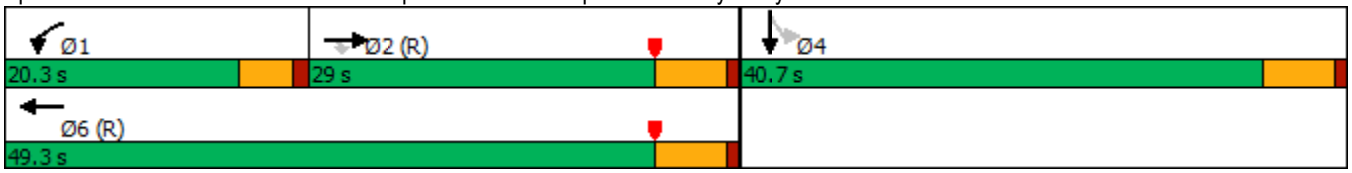
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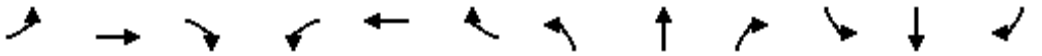
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	364	207	129	481	436	1
Future Volume (vph)	364	207	129	481	436	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.0	29.0	20.3	49.3	40.7	40.7
Total Split (%)	32.2%	32.2%	22.6%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	29.2	29.2	12.3	46.1	32.3	32.3
Actuated g/C Ratio	0.32	0.32	0.14	0.51	0.36	0.36
v/c Ratio	0.78	0.38	0.69	0.65	0.89	0.38
Control Delay	40.7	5.3	49.3	13.4	44.0	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	5.3	49.3	13.4	44.0	7.4
LOS	D	A	D	B	D	A
Approach Delay	27.9			21.0		32.4
Approach LOS	C			C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 27.2	Intersection LOS: C
Intersection Capacity Utilization 64.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	364	207	129	481	0	0	0	0	436	1	202
Future Volume (veh/h)	0	364	207	129	481	0	0	0	0	436	1	202
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	479	214	170	633	0				574	1	200
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	685	580	208	1000	0				624	3	553
Arrive On Green	0.00	0.36	0.36	0.04	0.17	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	8	1603
Grp Volume(v), veh/h	0	479	214	170	633	0				574	0	201
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1611
Q Serve(g_s), s	0.0	19.4	8.8	8.4	27.8	0.0				27.4	0.0	8.4
Cycle Q Clear(g_c), s	0.0	19.4	8.8	8.4	27.8	0.0				27.4	0.0	8.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	685	580	208	1000	0				624	0	555
V/C Ratio(X)	0.00	0.70	0.37	0.82	0.63	0.00				0.92	0.00	0.36
Avail Cap(c_a), veh/h	0	685	580	316	1000	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.86	0.86	0.81	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.6	21.2	42.4	29.1	0.0				28.3	0.0	22.1
Incr Delay (d2), s/veh	0.0	5.1	1.5	4.5	2.5	0.0				16.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.9	3.3	4.1	14.6	0.0				13.6	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.7	22.8	46.9	31.6	0.0				44.7	0.0	22.5
LnGrp LOS	A	C	C	D	C	A				D	A	C
Approach Vol, veh/h		693			803						775	
Approach Delay, s/veh		27.5			34.8						38.9	
Approach LOS		C			C						D	

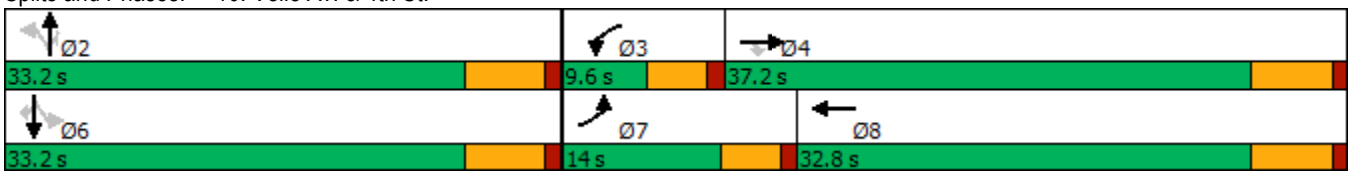
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.9	38.2		36.8		53.2						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	15.7	23.2		34.9		43.5						
Max Q Clear Time (g_c+I1), s	10.4	21.4		29.4		29.8						
Green Ext Time (p_c), s	0.1	0.7		1.6		3.2						

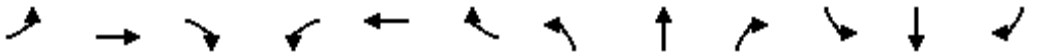
Intersection Summary												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	543	74	9	97	38	36	11	13	57	223
Future Volume (vph)	100	543	74	9	97	38	36	11	13	57	223
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	14.2	32.2	32.2	5.1	18.2		12.8	12.8	12.8	12.8	12.8
Actuated g/C Ratio	0.24	0.55	0.55	0.09	0.31		0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.33	0.74	0.11	0.08	0.31		0.32	0.04	0.07	0.20	0.53
Control Delay	28.2	18.9	3.3	30.1	15.2		21.8	0.2	18.5	19.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	18.9	3.3	30.1	15.2		21.8	0.2	18.5	19.6	6.2
LOS	C	B	A	C	B		C	A	B	B	A
Approach Delay		18.6			16.2		19.0			9.3	
Approach LOS		B			B		B			A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 58.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 59.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	543	74	9	97	29	38	36	11	13	57	223
Future Volume (veh/h)	100	543	74	9	97	29	38	36	11	13	57	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	143	776	106	13	139	41	54	51	16	19	81	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	906	768	30	552	163	232	187	311	333	368	
Arrive On Green	0.10	0.48	0.48	0.02	0.39	0.39	0.19	0.19	0.19	0.19	0.19	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1409	416	654	967	1610	1355	1900	1610
Grp Volume(v), veh/h	143	776	106	13	0	180	105	0	16	19	81	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1825	1622	0	1610	1355	1900	1610
Q Serve(g_s), s	4.0	18.7	1.9	0.4	0.0	3.4	0.7	0.0	0.4	0.6	1.9	0.0
Cycle Q Clear(g_c), s	4.0	18.7	1.9	0.4	0.0	3.4	2.6	0.0	0.4	3.2	1.9	0.0
Prop In Lane	1.00		1.00	1.00		0.23	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	906	768	30	0	714	419	0	311	333	368	
V/C Ratio(X)	0.78	0.86	0.14	0.44	0.00	0.25	0.25	0.00	0.05	0.06	0.22	
Avail Cap(c_a), veh/h	329	1154	978	175	0	953	945	0	853	790	1007	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	12.0	7.6	25.2	0.0	10.6	17.8	0.0	17.0	19.2	17.6	0.0
Incr Delay (d2), s/veh	2.7	5.3	0.1	3.7	0.0	0.2	0.3	0.0	0.1	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.5	0.5	0.2	0.0	1.1	0.9	0.0	0.1	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	17.3	7.7	28.9	0.0	10.8	18.1	0.0	17.1	19.3	17.9	0.0
LnGrp LOS	C	B	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		1025			193			121			100	A
Approach Delay, s/veh		17.4			12.0			18.0			18.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	5.5	30.4		15.8	9.9	26.0				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		27.4	5.0	31.4		27.4	9.4	27.0				
Max Q Clear Time (g_c+I1), s		4.6	2.4	20.7		5.2	6.0	5.4				
Green Ext Time (p_c), s		0.5	0.0	4.0		0.4	0.1	0.8				

Intersection Summary												
HCM 6th Ctrl Delay			16.8									
HCM 6th LOS			B									

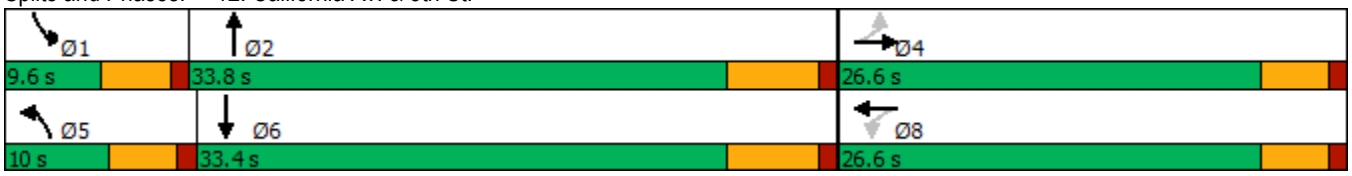
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	4	3	59	3	169	403	223	
Future Volume (vph)	4	3	59	3	169	403	223	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.1		12.1	5.4	42.1	30.9	
Actuated g/C Ratio		0.20		0.20	0.09	0.70	0.51	
v/c Ratio		0.23		0.27	1.10	0.69	8.23	
Control Delay		7.4		18.1	132.9	12.3	3328.5	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.4		18.1	132.9	12.3	3328.5	
LOS		A		B	F	B	F	
Approach Delay		7.4		18.1		33.0	3328.5	
Approach LOS		A		B		C	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 60.5	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 8.23	
Intersection Signal Delay: 586.5	Intersection LOS: F
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	82	59	3	20	169	403	414	6	223	6
Future Volume (veh/h)	4	3	82	59	3	20	169	403	414	6	223	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	86	62	3	21	178	424	436	6	235	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	20	306	340	34	75	225	478	491	0	602	15
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.56	0.56	0.00	0.33	0.33
Sat Flow, veh/h	24	98	1500	970	167	367	1810	858	883	0	1844	47
Grp Volume(v), veh/h	93	0	0	86	0	0	178	0	860	0	0	241
Grp Sat Flow(s),veh/h/ln	1622	0	0	1504	0	0	1810	0	1741	0	0	1892
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	18.8	0.0	0.0	4.3
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.7	0.0	0.0	4.1	0.0	18.8	0.0	0.0	4.3
Prop In Lane	0.04		0.92	0.72		0.24	1.00		0.51	0.00		0.02
Lane Grp Cap(c), veh/h	417	0	0	449	0	0	225	0	969	0	0	618
V/C Ratio(X)	0.22	0.00	0.00	0.19	0.00	0.00	0.79	0.00	0.89	0.00	0.00	0.39
Avail Cap(c_a), veh/h	904	0	0	874	0	0	225	0	1123	0	0	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	14.6	0.0	0.0	14.4	0.0	0.0	18.5	0.0	8.4	0.0	0.0	11.3
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	15.9	0.0	8.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.7	0.0	0.0	2.4	0.0	5.2	0.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	0.0	0.0	14.7	0.0	0.0	34.4	0.0	16.4	0.0	0.0	11.7
LnGrp LOS	B	A	A	B	A	A	C	A	B	A	A	B
Approach Vol, veh/h		93			86			1038			241	
Approach Delay, s/veh		14.9			14.7			19.5			11.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	30.0		13.4	10.0	20.0		13.4				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	20.8		4.1	6.1	6.3		3.7				
Green Ext Time (p_c), s	0.0	3.4		0.4	0.0	1.1		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			17.6									
HCM 6th LOS			B									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	527	74	29	476	922	125
Future Volume (vph)	527	74	29	476	922	125
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	43.0	43.0	9.6	77.0	67.4	67.4
Total Split (%)	35.8%	35.8%	8.0%	64.2%	56.2%	56.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	37.3	37.3	5.0	67.3	61.7	61.7
Actuated g/C Ratio	0.32	0.32	0.04	0.58	0.53	0.53
v/c Ratio	0.99	0.14	0.42	0.47	0.99	0.15
Control Delay	75.5	10.1	71.8	15.7	55.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	36.9	0.0
Total Delay	75.5	10.1	71.8	15.7	92.0	7.6
LOS	E	B	E	B	F	A
Approach Delay	67.5			19.0	81.9	
Approach LOS	E			B	F	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 116.2			
Natural Cycle: 140			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 63.1		Intersection LOS: E	
Intersection Capacity Utilization 87.4%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	527	74	29	476	922	125
Future Volume (veh/h)	527	74	29	476	922	125
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	573	80	32	517	1002	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	569	507	50	1116	990	839
Arrive On Green	0.31	0.31	0.03	0.59	0.52	0.52
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	573	80	32	517	1002	136
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	37.2	4.2	2.1	18.2	61.6	5.2
Cycle Q Clear(g_c), s	37.2	4.2	2.1	18.2	61.6	5.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	569	507	50	1116	990	839
V/C Ratio(X)	1.01	0.16	0.64	0.46	1.01	0.16
Avail Cap(c_a), veh/h	569	507	77	1144	990	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	29.2	56.9	13.8	28.3	14.8
Incr Delay (d2), s/veh	39.4	0.1	5.1	0.3	31.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.0	4.4	1.0	7.2	33.9	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	79.9	29.4	62.0	14.1	60.0	14.9
LnGrp LOS	F	C	E	B	F	B
Approach Vol, veh/h	653			549	1138	
Approach Delay, s/veh	73.7			16.9	54.6	
Approach LOS	E			B	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		75.3		43.0	7.9	67.4
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		71.2		37.2	5.0	61.6
Max Q Clear Time (g_c+I1), s		20.2		39.2	4.1	63.6
Green Ext Time (p_c), s		3.3		0.0	0.0	0.0

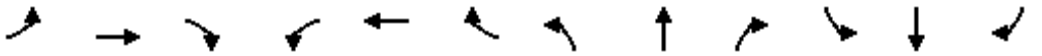
Intersection Summary		
HCM 6th Ctrl Delay		51.1
HCM 6th LOS		D

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	707
Future Volume (vph)	685	0	272	309	707
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	49.0	49.0	29.0	71.0	42.0
Total Split (%)	40.8%	40.8%	24.2%	59.2%	35.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	35.1	35.1	22.0	75.3	48.7
Actuated g/C Ratio	0.29	0.29	0.18	0.63	0.41
v/c Ratio	0.81	0.75	0.85	0.14	0.63
Control Delay	52.2	41.0	80.1	8.4	31.5
Queue Delay	0.7	0.6	0.0	0.0	51.0
Total Delay	52.9	41.6	80.1	8.4	82.6
LOS	D	D	F	A	F
Approach Delay		47.3		41.9	82.6
Approach LOS		D		D	F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 59.7	Intersection LOS: E
Intersection Capacity Utilization 111.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	707	169
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	707	169
Initial Q (Qb), veh				50	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	729	174
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1070	562	0	303	2254	0	0	1210	289
Arrive On Green				0.25	0.00	0.00	0.33	1.00	0.00	0.00	0.92	0.92
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	2986	690
Grp Volume(v), veh/h				800	0	0	280	319	0	0	455	448
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1776
Q Serve(g_s), s				25.5	0.0	0.0	17.9	0.0	0.0	0.0	4.6	4.6
Cycle Q Clear(g_c), s				25.5	0.0	0.0	17.9	0.0	0.0	0.0	4.6	4.6
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.39
Lane Grp Cap(c), veh/h				1070	562	0	303	2254	0	0	756	743
V/C Ratio(X)				0.75	0.00	0.00	0.92	0.14	0.00	0.00	0.60	0.60
Avail Cap(c_a), veh/h				1333	700	0	368	2411	0	0	834	821
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.68	0.68	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				41.1	0.0	0.0	39.2	0.0	0.0	0.0	7.2	7.3
Incr Delay (d2), s/veh				1.8	0.0	0.0	18.1	0.1	0.0	0.0	3.5	3.6
Initial Q Delay(d3),s/veh				62.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				23.3	0.0	0.0	8.2	0.0	0.0	0.0	3.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				105.3	0.0	0.0	57.3	0.1	0.0	0.0	10.8	10.8
LnGrp LOS				F	A	A	E	A	A	A	B	B
Approach Vol, veh/h					800			599			903	
Approach Delay, s/veh					105.3			26.8			10.8	
Approach LOS					F			C			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		85.0			24.7	60.3		35.0				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 66			24.4	* 37		44.2				
Max Q Clear Time (g_c+I1), s		2.0			19.9	6.6		27.5				
Green Ext Time (p_c), s		2.3			0.2	6.8		2.8				

Intersection Summary		
HCM 6th Ctrl Delay	47.8	
HCM 6th LOS	D	

Notes

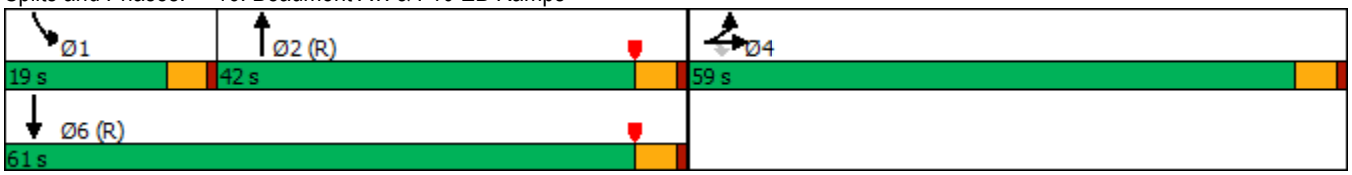
User approved volume balancing among the lanes for turning movement.

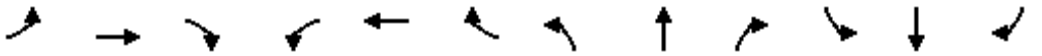
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	856	555	129	1152
Future Volume (vph)	11	856	555	129	1152
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	59.0	59.0	42.0	19.0	61.0
Total Split (%)	49.2%	49.2%	35.0%	15.8%	50.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	44.5	44.5	48.9	12.4	65.9
Actuated g/C Ratio	0.37	0.37	0.41	0.10	0.55
v/c Ratio	0.84	0.78	0.68	0.72	0.60
Control Delay	44.4	37.4	28.8	73.4	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.8
Total Delay	44.4	37.4	28.8	73.4	24.5
LOS	D	D	C	E	C
Approach Delay	41.0		28.8		29.4
Approach LOS	D		C		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 32.7	Intersection LOS: C
Intersection Capacity Utilization 111.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Future Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	1011				0	572	429	133	1188	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	795	1348				0	739	554	158	1811	0
Arrive On Green	0.00	0.00	0.35				0.00	0.45	0.45	0.17	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2061	1474	1810	3705	0
Grp Volume(v), veh/h	0	0	1011				0	525	476	133	1188	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	35.7				0.0	27.3	27.3	8.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	35.7				0.0	27.3	27.3	8.5	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	795	1348				0	679	615	158	1811	0
V/C Ratio(X)	0.00	0.00	0.75				0.00	0.77	0.77	0.84	0.66	0.00
Avail Cap(c_a), veh/h	0	858	1455				0	804	728	217	2061	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	0.0	0.0	34.2				0.0	33.1	33.1	48.7	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.1				0.0	8.4	9.2	10.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	89.3				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	34.6				0.0	14.9	13.6	4.0	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	125.6				0.0	41.5	42.4	58.9	2.8	0.0
LnGrp LOS	A	A	F				A	D	D	E	A	A
Approach Vol, veh/h		1011						1001			1321	
Approach Delay, s/veh		125.6						41.9			8.4	
Approach LOS		F						D			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.1	58.2		46.7		73.3
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	14.4	* 37		* 54		* 56
Max Q Clear Time (g_c+I1), s	10.5	29.3		37.7		2.0
Green Ext Time (p_c), s	0.1	4.0		4.1		12.3

Intersection Summary	
HCM 6th Ctrl Delay	54.0
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 6.1:

OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	235	29	127	254	42	147
Future Vol, veh/h	235	29	127	254	42	147
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	273	34	148	295	49	171
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	10.3	10	10.6
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	147	118	118	29	127	127	127
LT Vol	42	0	0	0	0	127	0	0
Through Vol	0	0	118	118	0	0	127	127
RT Vol	0	147	0	0	29	0	0	0
Lane Flow Rate	49	171	137	137	34	148	148	148
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.094	0.273	0.234	0.234	0.035	0.265	0.244	0.173
Departure Headway (Hd)	6.947	5.748	6.158	6.158	3.73	6.451	5.946	4.228
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	516	624	583	583	956	557	604	846
Service Time	4.69	3.49	3.897	3.897	1.469	4.187	3.681	1.963
HCM Lane V/C Ratio	0.095	0.274	0.235	0.235	0.036	0.266	0.245	0.175
HCM Control Delay	10.4	10.6	10.8	10.8	6.6	11.5	10.6	7.9
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.3	1.1	0.9	0.9	0.1	1.1	1	0.6

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	54	0	24	5	45	175	0
Future Vol, veh/h	0	0	0	10	0	54	0	24	5	45	175	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	83	0	37	8	69	269	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.8	7.6	9.9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	16%	20%
Vol Thru, %	83%	0%	80%
Vol Right, %	17%	84%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	29	64	220
LT Vol	0	10	45
Through Vol	24	0	175
RT Vol	5	54	0
Lane Flow Rate	45	98	338
Geometry Grp	1	1	1
Degree of Util (X)	0.054	0.117	0.39
Departure Headway (Hd)	4.36	4.271	4.149
Convergence, Y/N	Yes	Yes	Yes
Cap	824	844	860
Service Time	2.371	2.274	2.219
HCM Lane V/C Ratio	0.055	0.116	0.393
HCM Control Delay	7.6	7.8	9.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.4	1.9

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	37	14	0	29	24	138	150
Future Vol, veh/h	37	14	0	29	24	138	150
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	55	21	0	43	36	206	224
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	9.8	8.4	9.9
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	73%	0%	0%	0%	100%	23%
Vol Thru, %	27%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	77%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	51	0	29	24	92	196
LT Vol	37	0	0	0	92	46
Through Vol	14	0	29	0	0	0
RT Vol	0	0	0	24	0	150
Lane Flow Rate	76	0	43	36	137	293
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.13	0	0.067	0.049	0.209	0.371
Departure Headway (Hd)	6.136	5.611	5.611	4.905	5.481	4.56
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	583	0	637	728	655	787
Service Time	3.89	3.358	3.358	2.651	3.214	2.293
HCM Lane V/C Ratio	0.13	0	0.068	0.049	0.209	0.372
HCM Control Delay	9.8	8.4	8.8	7.9	9.7	10
HCM Lane LOS	A	N	A	A	A	A
HCM 95th-tile Q	0.4	0	0.2	0.2	0.8	1.7

Intersection	
Intersection Delay, s/veh	106.9
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	62	426	348	330	495	56
Future Vol, veh/h	62	426	348	330	495	56
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	71	490	400	379	569	64
Number of Lanes	1	1	3	0	1	0

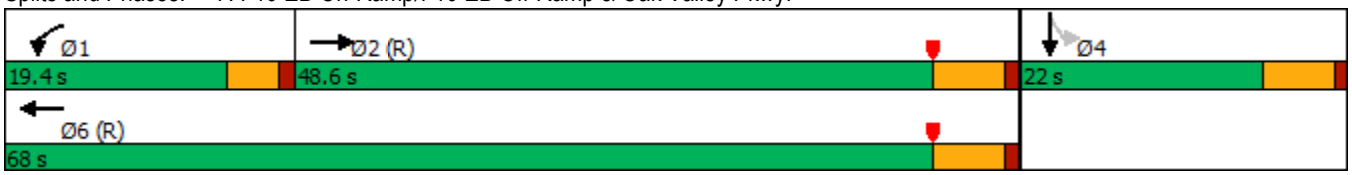
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	98.2	19.5	222.3
HCM LOS	F	C	F

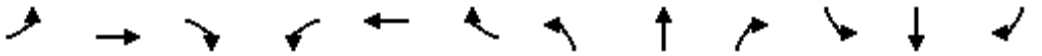
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	90%
Vol Thru, %	0%	100%	100%	100%	17%	0%
Vol Right, %	0%	0%	0%	0%	83%	10%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	426	139	139	400	551
LT Vol	62	0	0	0	0	495
Through Vol	0	426	139	139	70	0
RT Vol	0	0	0	0	330	56
Lane Flow Rate	71	490	160	160	459	633
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.172	1.112	0.335	0.335	0.671	1.414
Departure Headway (Hd)	9.906	9.375	9.023	9.023	6.624	8.311
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	364	392	402	402	551	443
Service Time	7.606	7.075	6.723	6.723	4.324	6.011
HCM Lane V/C Ratio	0.195	1.25	0.398	0.398	0.833	1.429
HCM Control Delay	14.7	110.3	16.2	16.2	21.8	222.3
HCM Lane LOS	B	F	C	C	C	F
HCM 95th-tile Q	0.6	15.6	1.4	1.4	5	30.1

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	453	260	575	3
Future Volume (vph)	453	260	575	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.17	0.99	0.49	1.23
Control Delay	114.0	74.8	4.0	158.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	114.0	74.8	4.0	158.0
LOS	F	E	A	F
Approach Delay	114.0		26.1	158.0
Approach LOS	F		C	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay: 86.9	Intersection LOS: F
Intersection Capacity Utilization 101.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	453	469	260	575	0	0	0	0	258	3	102
Future Volume (veh/h)	0	453	469	260	575	0	0	0	0	258	3	102
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	509	440	292	646	0				290	3	96
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	447	387	298	1313	0				236	2	78
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	941	813	1810	1900	0				1309	14	433
Grp Volume(v), veh/h	0	0	949	292	646	0				389	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1754	1810	1900	0				1756	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.4	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.4	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.46	1.00		0.00				0.75		0.25
Lane Grp Cap(c), veh/h	0	0	834	298	1313	0				316	0	0
V/C Ratio(X)	0.00	0.00	1.14	0.98	0.49	0.00				1.23	0.00	0.00
Avail Cap(c_a), veh/h	0	0	834	298	1313	0				316	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.29	0.29	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.1	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	76.5	23.5	0.4	0.0				128.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	32.9	6.6	0.1	0.0				17.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	100.1	53.5	0.4	0.0				165.1	0.0	0.0
LnGrp LOS	A	A	F	D	A	A				F	A	A
Approach Vol, veh/h		949			938						389	
Approach Delay, s/veh		100.1			16.9						165.1	
Approach LOS		F			B						F	

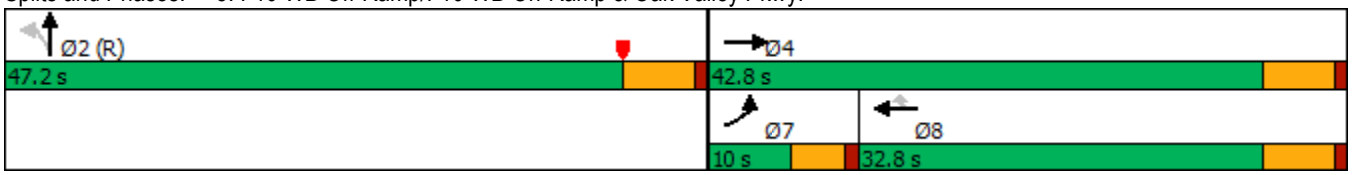
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2
Max Q Clear Time (g_c+I1), s	16.4	44.8		18.2		2.0
Green Ext Time (p_c), s	0.0	0.0		0.0		4.5

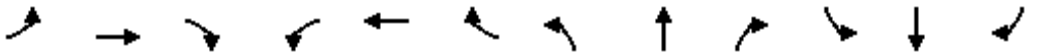
Intersection Summary		
HCM 6th Ctrl Delay		76.9
HCM 6th LOS		E

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	143	567	493	445	4
Future Volume (vph)	143	567	493	445	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	36.2	26.2	26.2	42.2
Actuated g/C Ratio	0.06	0.40	0.29	0.29	0.47
v/c Ratio	1.35	0.76	0.91	0.57	0.87
Control Delay	198.5	17.9	53.2	5.7	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	198.5	17.9	53.2	5.7	32.5
LOS	F	B	D	A	C
Approach Delay		54.3	30.7		32.5
Approach LOS		D	C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.35	
Intersection Signal Delay: 38.3	Intersection LOS: D
Intersection Capacity Utilization 101.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	567	0	0	493	445	343	4	379	0	0	0
Future Volume (veh/h)	143	567	0	0	493	445	343	4	379	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	146	579	0	0	503	338	350	4	265			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	758	0	0	547	464	459	5	347			
Arrive On Green	0.04	0.27	0.00	0.00	0.29	0.29	0.47	0.47	0.47			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	972	11	736			
Grp Volume(v), veh/h	146	579	0	0	503	338	619	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1719	0	0			
Q Serve(g_s), s	5.4	25.2	0.0	0.0	23.1	17.0	26.7	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	25.2	0.0	0.0	23.1	17.0	26.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.43			
Lane Grp Cap(c), veh/h	109	758	0	0	547	464	811	0	0			
V/C Ratio(X)	1.34	0.76	0.00	0.00	0.92	0.73	0.76	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	811	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.1	0.0	0.0	31.0	28.9	19.6	0.0	0.0			
Incr Delay (d2), s/veh	160.7	0.4	0.0	0.0	19.7	5.3	6.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.2	11.7	0.0	0.0	12.7	6.8	10.9	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	203.9	29.5	0.0	0.0	50.8	34.2	26.3	0.0	0.0			
LnGrp LOS	F	C	A	A	D	C	C	A	A			
Approach Vol, veh/h		725			841			619				
Approach Delay, s/veh		64.6			44.1			26.3				
Approach LOS		E			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		48.3		41.7			10.0	31.7				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		28.7		27.2			7.4	25.1				
Green Ext Time (p_c), s		3.2		2.4			0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			45.9									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	556	146	158	900	27	0	0	63	0	0	160
Future Vol, veh/h	3	556	146	158	900	27	0	0	63	0	0	160
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	611	160	174	989	30	0	0	69	0	0	176

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1019	0	0	771	0	0	-	-	386	-	-	1004
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	689	-	-	853	-	-	0	0	618	0	0	296
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	689	-	-	853	-	-	-	-	618	-	-	296
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	11.6	33.5
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	618	689	-	-	853	-	-	296
HCM Lane V/C Ratio	0.112	0.005	-	-	0.204	-	-	0.594
HCM Control Delay (s)	11.6	10.2	-	-	10.3	-	-	33.5
HCM Lane LOS	B	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.4	0	-	-	0.8	-	-	3.5

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	41	24	3	213	20	72	29	6	22	31	88
Future Vol, veh/h	34	41	24	3	213	20	72	29	6	22	31	88
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	45	55	32	4	284	27	96	39	8	29	41	117
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

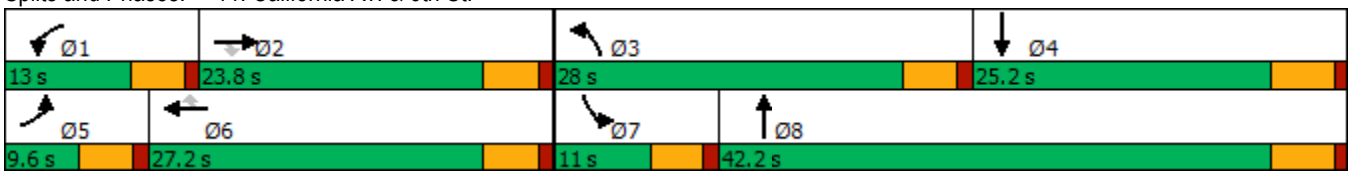
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	9.7	14.4	11.6	9.7
HCM LOS	A	B	B	A

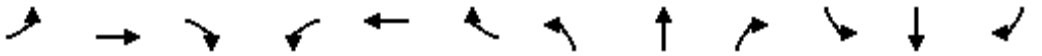
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	71%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	29%	0%	0%	100%	0%	0%	91%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	9%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	6	34	41	24	3	233	22	31	88
LT Vol	72	0	34	0	0	3	0	22	0	0
Through Vol	29	0	0	41	0	0	213	0	31	0
RT Vol	0	6	0	0	24	0	20	0	0	88
Lane Flow Rate	135	8	45	55	32	4	311	29	41	117
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.252	0.013	0.087	0.097	0.05	0.007	0.506	0.056	0.073	0.184
Departure Headway (Hd)	6.74	5.674	6.879	6.374	5.668	6.427	5.864	6.842	6.338	5.632
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	532	629	520	561	630	556	615	523	564	636
Service Time	4.49	3.424	4.632	4.127	3.42	4.17	3.606	4.591	4.086	3.38
HCM Lane V/C Ratio	0.254	0.013	0.087	0.098	0.051	0.007	0.506	0.055	0.073	0.184
HCM Control Delay	11.8	8.5	10.3	9.8	8.7	9.2	14.5	10	9.6	9.7
HCM Lane LOS	B	A	B	A	A	A	B	A	A	A
HCM 95th-tile Q	1	0	0.3	0.3	0.2	0	2.9	0.2	0.2	0.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	289	119	140	288	20	409	85	46	122
Future Volume (vph)	4	289	119	140	288	20	409	85	46	122
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	17.5	17.5	8.4	28.7	28.7	22.9	41.1	6.0	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.10	0.33	0.33	0.26	0.47	0.07	0.23
v/c Ratio	0.04	0.83	0.27	0.88	0.51	0.03	0.95	0.18	0.41	0.32
Control Delay	41.2	53.8	2.6	86.2	28.5	0.1	65.0	12.0	50.4	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	53.8	2.6	86.2	28.5	0.1	65.0	12.0	50.4	31.0
LOS	D	D	A	F	C	A	E	B	D	C
Approach Delay		38.9			45.2			51.6		36.2
Approach LOS		D			D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 88.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 44.8	Intersection LOS: D
Intersection Capacity Utilization 70.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	289	119	140	288	20	409	85	53	46	122	4
Future Volume (veh/h)	4	289	119	140	288	20	409	85	53	46	122	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	314	128	152	313	13	445	92	36	50	133	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	363	308	174	536	454	477	588	230	73	428	6
Arrive On Green	0.01	0.19	0.19	0.10	0.28	0.28	0.26	0.45	0.45	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1300	509	1810	1867	28
Grp Volume(v), veh/h	4	314	128	152	313	13	445	0	128	50	0	135
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1808	1810	0	1895
Q Serve(g_s), s	0.2	14.0	6.1	7.2	12.4	0.5	21.0	0.0	3.6	2.4	0.0	5.2
Cycle Q Clear(g_c), s	0.2	14.0	6.1	7.2	12.4	0.5	21.0	0.0	3.6	2.4	0.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.01
Lane Grp Cap(c), veh/h	10	363	308	174	536	454	477	0	818	73	0	434
V/C Ratio(X)	0.42	0.87	0.42	0.87	0.58	0.03	0.93	0.00	0.16	0.69	0.00	0.31
Avail Cap(c_a), veh/h	104	414	351	174	536	454	485	0	818	133	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	34.2	31.0	38.9	26.9	22.7	31.4	0.0	14.1	41.3	0.0	27.9
Incr Delay (d2), s/veh	10.4	15.7	0.9	34.0	1.6	0.0	24.5	0.0	0.4	4.2	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.9	2.3	4.8	5.7	0.2	11.7	0.0	1.4	1.1	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	50.0	31.9	72.9	28.6	22.7	55.9	0.0	14.5	45.6	0.0	29.8
LnGrp LOS	D	D	C	E	C	C	E	A	B	D	A	C
Approach Vol, veh/h		446			478			573			185	
Approach Delay, s/veh		44.8			42.5			46.7			34.0	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	21.5	27.6	25.2	5.1	29.4	8.1	44.7
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0
Max Q Clear Time (g_c+I1), s	9.2	16.0	23.0	7.2	2.2	14.4	4.4	5.6
Green Ext Time (p_c), s	0.0	0.7	0.0	0.4	0.0	1.1	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	3	75	27	10	30	300	544	19	13	325	2
Future Vol, veh/h	2	3	75	27	10	30	300	544	19	13	325	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	95	34	13	38	380	689	24	16	411	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1932	1918	413	1955	1907	701	414	0	0	713	0	0
Stage 1	445	445	-	1461	1461	-	-	-	-	-	-	-
Stage 2	1487	1473	-	494	446	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	50	68	643	49	69	442	1156	-	-	896	-	-
Stage 1	596	578	-	162	195	-	-	-	-	-	-	-
Stage 2	157	193	-	561	577	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	30	45	643	~ 30	45	442	1156	-	-	896	-	-
Mov Cap-2 Maneuver	61	97	-	57	90	-	-	-	-	-	-	-
Stage 1	400	568	-	109	131	-	-	-	-	-	-	-
Stage 2	87	130	-	466	567	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	120.8	3.3	0.3
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1156	-	-	444	103	896	-	-
HCM Lane V/C Ratio	0.329	-	-	0.228	0.823	0.018	-	-
HCM Control Delay (s)	9.6	-	-	15.5	120.8	9.1	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	1.4	-	-	0.9	4.6	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	20	65	819	182	207
Future Vol, veh/h	70	20	65	819	182	207
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	91	26	84	1064	236	269

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1603	371	505	0	-	0
Stage 1	371	-	-	-	-	-
Stage 2	1232	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	117	679	1070	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	278	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	108	679	1070	-	-	-
Mov Cap-2 Maneuver	108	-	-	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	278	-	-	-	-	-

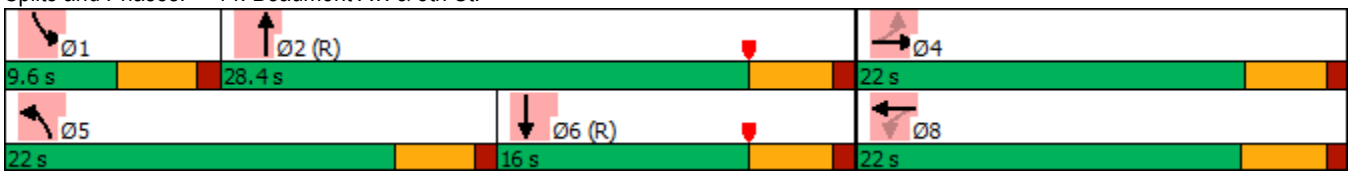
Approach	EB	NB	SB
HCM Control Delay, s	96.1	0.6	0
HCM LOS	F		

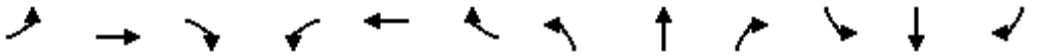
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1070	-	108	679	-	-
HCM Lane V/C Ratio	0.079	-	0.842	0.038	-	-
HCM Control Delay (s)	8.7	-	120.6	10.5	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	4.9	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	8	16	19	3	59	325	3	391
Future Volume (vph)	8	16	19	3	59	325	3	391
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1		10.0	6.7	46.3	5.0	40.8
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.20		0.15	0.32	0.13	0.02	0.18
Control Delay		14.2		17.9	27.7	4.5	25.7	7.6
Queue Delay		0.0		0.0	0.2	0.2	0.0	0.1
Total Delay		14.2		17.9	27.8	4.8	25.7	7.6
LOS		B		B	C	A	C	A
Approach Delay		14.2		17.9		8.2		7.7
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 35.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	16	31	19	3	11	59	325	14	3	391	9
Future Volume (veh/h)	8	16	31	19	3	11	59	325	14	3	391	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	17	34	21	3	12	64	353	15	3	425	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	81	127	192	41	69	99	2210	94	7	2075	49
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.11	1.00	1.00	0.00	0.58	0.58
Sat Flow, veh/h	119	613	956	727	311	519	1810	3529	150	1810	3605	85
Grp Volume(v), veh/h	60	0	0	36	0	0	64	180	188	3	213	222
Grp Sat Flow(s),veh/h/ln	1688	0	0	1558	0	0	1810	1805	1873	1810	1805	1885
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.1	3.4	3.4
Cycle Q Clear(g_c), s	1.9	0.0	0.0	1.1	0.0	0.0	2.0	0.0	0.0	0.1	3.4	3.4
Prop In Lane	0.15		0.57	0.58		0.33	1.00		0.08	1.00		0.04
Lane Grp Cap(c), veh/h	294	0	0	302	0	0	99	1130	1173	7	1039	1085
V/C Ratio(X)	0.20	0.00	0.00	0.12	0.00	0.00	0.65	0.16	0.16	0.41	0.20	0.21
Avail Cap(c_a), veh/h	552	0	0	530	0	0	525	1130	1173	151	1039	1085
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	0.0	23.0	0.0	0.0	26.2	0.0	0.0	29.8	6.1	6.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	2.6	0.3	0.3	12.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.4	0.0	0.0	0.9	0.1	0.1	0.1	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	0.0	23.2	0.0	0.0	28.8	0.3	0.3	42.7	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		60			36			432			438	
Approach Delay, s/veh		23.7			23.2			4.5			6.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.4		12.8	7.9	39.3		12.8				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		3.9	4.0	5.4		3.1				
Green Ext Time (p_c), s	0.0	2.1		0.2	0.0	1.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.4
HCM 6th LOS		A

Notes

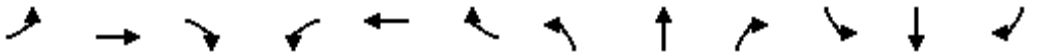
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	341	97	708	135	410	317
Future Volume (vph)	341	97	708	135	410	317
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.3	10.1	13.1	13.1	13.1	13.1
Actuated g/C Ratio	0.32	0.29	0.38	0.38	0.38	0.38
v/c Ratio	0.33	0.12	0.40	0.21	0.23	0.27
Control Delay	10.6	3.8	8.5	2.6	7.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	3.8	8.5	2.6	7.6	1.8
LOS	B	A	A	A	A	A
Approach Delay			7.6		5.0	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 34.8	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 7.0	Intersection LOS: A
Intersection Capacity Utilization 31.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	341	0	97	0	708	135	0	410	317
Future Volume (veh/h)	0	0	0	341	0	97	0	708	135	0	410	317
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				371	0	78	0	770	0	0	446	263
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				702	0	567	0	2040		0	2040	1115
Arrive On Green				0.20	0.00	0.20	0.00	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				371	0	78	0	770	0	0	446	263
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.5	0.0	0.6	0.0	2.8	0.0	0.0	1.5	1.6
Cycle Q Clear(g_c), s				2.5	0.0	0.6	0.0	2.8	0.0	0.0	1.5	1.6
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				702	0	567	0	2040		0	2040	1115
V/C Ratio(X)				0.53	0.00	0.14	0.00	0.38		0.00	0.22	0.24
Avail Cap(c_a), veh/h				5332	0	4304	0	13494		0	13494	7372
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.3	0.0	8.6	0.0	5.6	0.0	0.0	5.2	5.2
Incr Delay (d2), s/veh				0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.5	0.0	0.1	0.0	0.3	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.5	0.0	8.6	0.0	5.7	0.0	0.0	5.2	5.3
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					449			770	A		709	
Approach Delay, s/veh					9.4			5.7			5.3	
Approach LOS					A			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		16.3				16.3		9.9				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		69.2				69.2		40.4				
Max Q Clear Time (g_c+I1), s		4.8				3.6		4.5				
Green Ext Time (p_c), s		5.7				4.2		0.8				

Intersection Summary		
HCM 6th Ctrl Delay	6.4	
HCM 6th LOS	A	

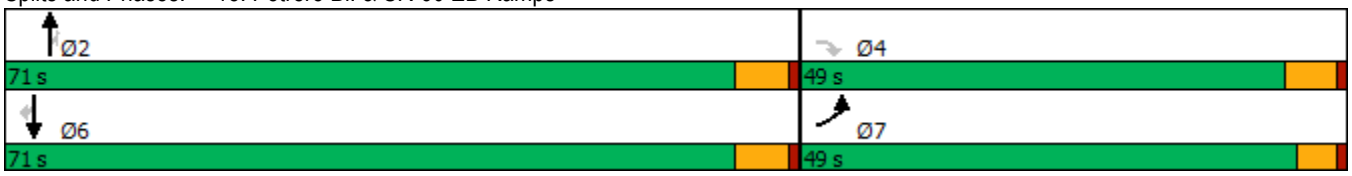
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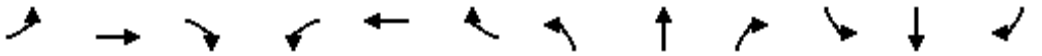
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	264	308	580	187	690	67
Future Volume (vph)	264	308	580	187	690	67
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	10.0	8.8	12.1	12.1	12.1	12.1
Actuated g/C Ratio	0.31	0.27	0.37	0.37	0.37	0.37
v/c Ratio	0.27	0.34	0.33	0.17	0.40	0.12
Control Delay	9.9	3.4	7.7	1.8	8.1	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	3.4	7.7	1.8	8.1	2.7
LOS	A	A	A	A	A	A
Approach Delay			6.3		7.6	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 32.6	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 6.8	Intersection LOS: A
Intersection Capacity Utilization 33.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	0	308	0	0	0	0	580	187	0	690	67
Future Volume (veh/h)	264	0	308	0	0	0	0	580	187	0	690	67
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	287	0	253				0	630	160	0	750	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1101	0	889				0	1788	977	0	1788	
Arrive On Green	0.32	0.00	0.32				0.00	0.35	0.35	0.00	0.35	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	287	0	253				0	630	160	0	750	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	1.9	0.0	2.1				0.0	2.9	1.2	0.0	3.5	0.0
Cycle Q Clear(g_c), s	1.9	0.0	2.1				0.0	2.9	1.2	0.0	3.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1101	0	889				0	1788	977	0	1788	
V/C Ratio(X)	0.26	0.00	0.28				0.00	0.35	0.16	0.00	0.42	
Avail Cap(c_a), veh/h	4887	0	3945				0	10604	5794	0	10604	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	7.9	0.0	8.0				0.0	7.6	7.0	0.0	7.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1				0.0	0.1	0.1	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.3				0.0	0.5	0.2	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	0.0	8.1				0.0	7.7	7.1	0.0	7.9	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h		540						790			750	A
Approach Delay, s/veh		8.0						7.6			7.9	
Approach LOS		A						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		16.8		14.6		16.8						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		65.2		44.4		65.2						
Max Q Clear Time (g_c+I1), s		4.9		4.1		5.5						
Green Ext Time (p_c), s		5.2		1.0		5.5						

Intersection Summary		
HCM 6th Ctrl Delay		7.8
HCM 6th LOS		A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	192	30	115	266	95	157
Future Vol, veh/h	192	30	115	266	95	157
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	211	33	126	292	104	173
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.9	9.8	10.6
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	157	96	96	30	115	133	133
LT Vol	95	0	0	0	0	115	0	0
Through Vol	0	0	96	96	0	0	133	133
RT Vol	0	157	0	0	30	0	0	0
Lane Flow Rate	104	173	105	105	33	126	146	146
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.196	0.266	0.184	0.184	0.035	0.228	0.243	0.173
Departure Headway (Hd)	6.747	5.549	6.282	6.282	3.849	6.491	5.985	4.264
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	532	647	571	571	926	554	601	839
Service Time	4.482	3.284	4.023	4.023	1.589	4.226	3.72	1.999
HCM Lane V/C Ratio	0.195	0.267	0.184	0.184	0.036	0.227	0.243	0.174
HCM Control Delay	11.1	10.3	10.4	10.4	6.7	11.1	10.6	7.9
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.7	1.1	0.7	0.7	0.1	0.9	0.9	0.6

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	96	0	221	0	10	139	0
Future Vol, veh/h	0	0	0	2	0	96	0	221	0	10	139	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	125	0	287	0	13	181	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	9.8	9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	7%
Vol Thru, %	100%	0%	93%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	221	98	149
LT Vol	0	2	10
Through Vol	221	0	139
RT Vol	0	96	0
Lane Flow Rate	287	127	194
Geometry Grp	1	1	1
Degree of Util (X)	0.351	0.155	0.242
Departure Headway (Hd)	4.397	4.38	4.507
Convergence, Y/N	Yes	Yes	Yes
Cap	818	818	797
Service Time	2.423	2.411	2.535
HCM Lane V/C Ratio	0.351	0.155	0.243
HCM Control Delay	9.8	8.2	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.6	0.5	0.9

Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	154	36	0	10	177	124	52
Future Vol, veh/h	154	36	0	10	177	124	52
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	230	54	0	15	264	185	78
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	15.5	10.6	11.1
HCM LOS	C	B	B

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	81%	0%	0%	0%	100%	44%
Vol Thru, %	19%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	56%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	0	10	177	83	93
LT Vol	154	0	0	0	83	41
Through Vol	36	0	10	0	0	0
RT Vol	0	0	0	177	0	52
Lane Flow Rate	284	0	15	264	123	139
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.505	0	0.024	0.369	0.232	0.236
Departure Headway (Hd)	6.413	5.735	5.735	5.027	6.769	6.093
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	561	0	625	716	531	589
Service Time	4.147	3.465	3.465	2.757	4.506	3.83
HCM Lane V/C Ratio	0.506	0	0.024	0.369	0.232	0.236
HCM Control Delay	15.5	8.5	8.6	10.7	11.5	10.7
HCM Lane LOS	C	N	A	B	B	B
HCM 95th-tile Q	2.8	0	0.1	1.7	0.9	0.9

Intersection	
Intersection Delay, s/veh	18.6
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	409	500	325	198	25
Future Vol, veh/h	24	409	500	325	198	25
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	422	515	335	204	26
Number of Lanes	1	1	3	0	1	0

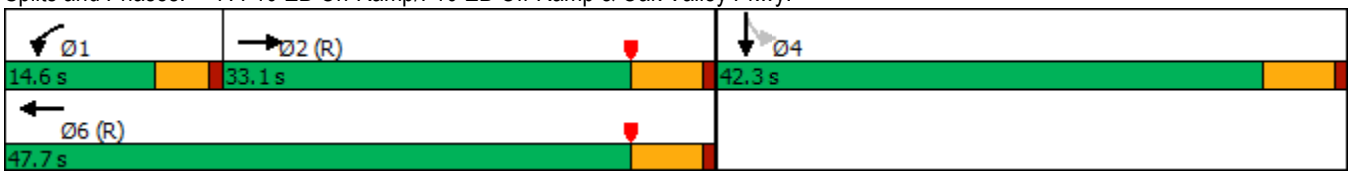
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	33.1	11.2	17.5
HCM LOS	D	B	C

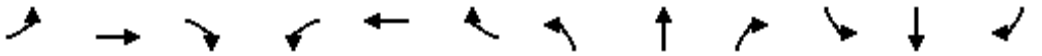
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	89%
Vol Thru, %	0%	100%	100%	100%	24%	0%
Vol Right, %	0%	0%	0%	0%	76%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	409	200	200	425	223
LT Vol	24	0	0	0	0	198
Through Vol	0	409	200	200	100	0
RT Vol	0	0	0	0	325	25
Lane Flow Rate	25	422	206	206	438	230
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.052	0.819	0.353	0.353	0.473	0.487
Departure Headway (Hd)	7.499	6.989	6.162	6.162	3.885	7.632
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	475	514	579	579	916	469
Service Time	5.286	4.776	3.941	3.941	1.662	5.419
HCM Lane V/C Ratio	0.053	0.821	0.356	0.356	0.478	0.49
HCM Control Delay	10.7	34.4	12.3	12.3	10.2	17.5
HCM Lane LOS	B	D	B	B	B	C
HCM 95th-tile Q	0.2	8	1.6	1.6	2.6	2.6

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	366	163	641	1
Future Volume (vph)	366	163	641	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	27.3	10.0	41.9	36.5
Actuated g/C Ratio	0.30	0.11	0.47	0.41
v/c Ratio	1.40	1.07	0.95	1.25
Control Delay	217.3	111.4	37.9	150.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	217.3	111.4	37.9	150.3
LOS	F	F	D	F
Approach Delay	217.3		52.7	150.3
Approach LOS	F		D	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 132.4	Intersection LOS: F
Intersection Capacity Utilization 96.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	366	241	163	641	0	0	0	0	509	1	184
Future Volume (veh/h)	0	366	241	163	641	0	0	0	0	509	1	184
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	482	245	214	843	0				670	1	176
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	360	183	201	885	0				566	1	149
Arrive On Green	0.00	0.30	0.30	0.07	0.31	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	1188	604	1810	1900	0				1396	2	367
Grp Volume(v), veh/h	0	0	727	214	843	0				847	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1791	1810	1900	0				1764	0	0
Q Serve(g_s), s	0.0	0.0	27.3	10.0	39.1	0.0				36.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	27.3	10.0	39.1	0.0				36.5	0.0	0.0
Prop In Lane	0.00		0.34	1.00		0.00				0.79		0.21
Lane Grp Cap(c), veh/h	0	0	543	201	885	0				715	0	0
V/C Ratio(X)	0.00	0.00	1.34	1.06	0.95	0.00				1.18	0.00	0.00
Avail Cap(c_a), veh/h	0	0	543	201	885	0				715	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.32	0.32	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	31.4	41.7	30.0	0.0				26.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	164.2	54.3	9.2	0.0				96.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	35.6	7.4	20.0	0.0				32.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	195.6	95.9	39.2	0.0				123.3	0.0	0.0
LnGrp LOS	A	A	F	F	D	A				F	A	A
Approach Vol, veh/h		727			1057						847	
Approach Delay, s/veh		195.6			50.7						123.3	
Approach LOS		F			D						F	

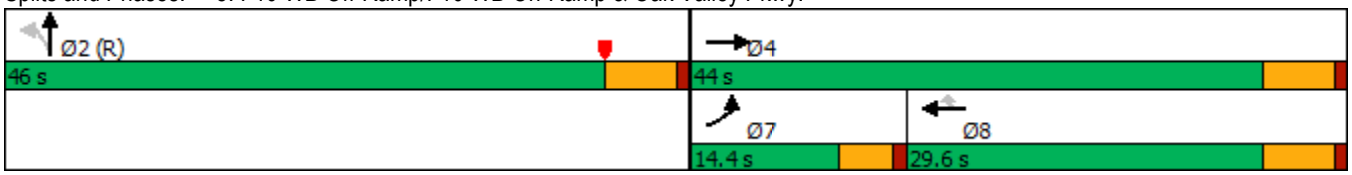
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9
Max Q Clear Time (g_c+I1), s	12.0	29.3		38.5		41.1
Green Ext Time (p_c), s	0.0	0.0		0.0		0.5

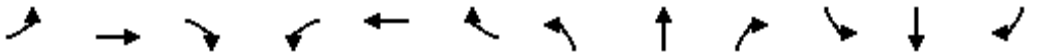
Intersection Summary		
HCM 6th Ctrl Delay		114.1
HCM 6th LOS		F

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	148	726	426	291	4
Future Volume (vph)	148	726	426	291	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	9.4	37.2	23.2	23.2	41.2
Actuated g/C Ratio	0.10	0.41	0.26	0.26	0.46
v/c Ratio	0.81	0.95	0.90	0.47	0.85
Control Delay	46.9	24.7	55.2	6.0	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	24.7	55.2	6.0	32.2
LOS	D	C	E	A	C
Approach Delay		28.4	35.2		32.2
Approach LOS		C	D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 31.7	Intersection LOS: C
Intersection Capacity Utilization 96.0%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	726	0	0	426	291	379	4	298	0	0	0
Future Volume (veh/h)	148	726	0	0	426	291	379	4	298	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	153	748	0	0	439	230	391	4	255			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	188	795	0	0	500	424	470	5	307			
Arrive On Green	0.03	0.14	0.00	0.00	0.26	0.26	0.45	0.45	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1038	11	677			
Grp Volume(v), veh/h	153	748	0	0	439	230	650	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1726	0	0			
Q Serve(g_s), s	7.6	35.1	0.0	0.0	19.9	11.1	29.7	0.0	0.0			
Cycle Q Clear(g_c), s	7.6	35.1	0.0	0.0	19.9	11.1	29.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.60		0.39			
Lane Grp Cap(c), veh/h	188	795	0	0	500	424	782	0	0			
V/C Ratio(X)	0.81	0.94	0.00	0.00	0.88	0.54	0.83	0.00	0.00			
Avail Cap(c_a), veh/h	197	806	0	0	502	426	782	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	42.6	37.7	0.0	0.0	31.8	28.5	21.6	0.0	0.0			
Incr Delay (d2), s/veh	2.2	2.6	0.0	0.0	16.1	1.4	10.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	18.1	0.0	0.0	10.7	4.2	12.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	40.3	0.0	0.0	47.8	29.9	31.6	0.0	0.0			
LnGrp LOS	D	D	A	A	D	C	C	A	A			
Approach Vol, veh/h		901			669			650				
Approach Delay, s/veh		41.1			41.7			31.6				
Approach LOS		D			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.6		43.4			14.0	29.5				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			9.8	23.8				
Max Q Clear Time (g_c+I1), s		31.7		37.1			9.6	21.9				
Green Ext Time (p_c), s		2.7		0.5			0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			38.5									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	833	128	110	668	56	0	0	119	0	0	66
Future Vol, veh/h	9	833	128	110	668	56	0	0	119	0	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	896	138	118	718	60	0	0	128	0	0	71

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	778	0	0	1034	0	0	-	-	517	-	-	748
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	848	-	-	680	-	-	0	0	509	0	0	416
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	848	-	-	680	-	-	-	-	509	-	-	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	14.4	15.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	509	848	-	-	680	-	-	416
HCM Lane V/C Ratio	0.251	0.011	-	-	0.174	-	-	0.171
HCM Control Delay (s)	14.4	9.3	-	-	11.4	-	-	15.4
HCM Lane LOS	B	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1	0	-	-	0.6	-	-	0.6

Intersection	
Intersection Delay, s/veh	14.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	107	206	78	9	166	31	40	38	11	14	60	34
Future Vol, veh/h	107	206	78	9	166	31	40	38	11	14	60	34
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	153	294	111	13	237	44	57	54	16	20	86	49
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

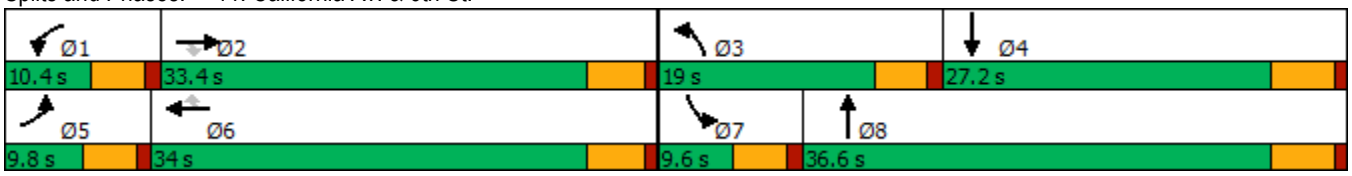
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	14.1	16.8	12.7	11.4
HCM LOS	B	C	B	B

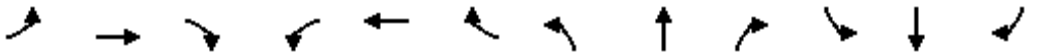
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	84%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	16%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	11	107	206	78	9	197	14	60	34
LT Vol	40	0	107	0	0	9	0	14	0	0
Through Vol	38	0	0	206	0	0	166	0	60	0
RT Vol	0	11	0	0	78	0	31	0	0	34
Lane Flow Rate	111	16	153	294	111	13	281	20	86	49
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.243	0.03	0.297	0.531	0.179	0.027	0.534	0.045	0.181	0.093
Departure Headway (Hd)	7.863	6.891	7.005	6.5	5.793	7.446	6.83	8.091	7.583	6.871
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	457	519	515	556	622	483	529	443	473	522
Service Time	5.609	4.636	4.721	4.215	3.508	5.163	4.547	5.833	5.325	4.613
HCM Lane V/C Ratio	0.243	0.031	0.297	0.529	0.178	0.027	0.531	0.045	0.182	0.094
HCM Control Delay	13.1	9.9	12.7	16.4	9.8	10.4	17.1	11.2	12	10.3
HCM Lane LOS	B	A	B	C	A	B	C	B	B	B
HCM 95th-tile Q	0.9	0.1	1.2	3.1	0.6	0.1	3.1	0.1	0.7	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	459	174	142	272	11	271	96	14	54
Future Volume (vph)	20	459	174	142	272	11	271	96	14	54
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.1	25.7	25.7	5.8	32.3	32.3	14.4	39.2	5.0	22.0
Actuated g/C Ratio	0.06	0.29	0.29	0.07	0.37	0.37	0.17	0.45	0.06	0.25
v/c Ratio	0.20	0.86	0.30	1.24	0.41	0.02	0.96	0.29	0.15	0.15
Control Delay	45.0	45.9	4.5	198.8	23.5	0.0	81.4	12.2	43.8	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	45.9	4.5	198.8	23.5	0.0	81.4	12.2	43.8	24.0
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		34.9			81.3			49.9		27.6
Approach LOS		C			F			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 51.0	Intersection LOS: D
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	459	174	142	272	11	271	96	130	14	54	11
Future Volume (veh/h)	20	459	174	142	272	11	271	96	130	14	54	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	483	179	149	286	7	285	101	106	15	57	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	546	463	122	631	534	302	344	361	32	431	45
Arrive On Green	0.02	0.29	0.29	0.07	0.33	0.33	0.17	0.40	0.40	0.02	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	849	891	1810	1690	178
Grp Volume(v), veh/h	21	483	179	149	286	7	285	0	207	15	0	63
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1740	1810	0	1868
Q Serve(g_s), s	1.0	20.9	7.7	5.8	10.2	0.3	13.4	0.0	6.9	0.7	0.0	2.2
Cycle Q Clear(g_c), s	1.0	20.9	7.7	5.8	10.2	0.3	13.4	0.0	6.9	0.7	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		0.10
Lane Grp Cap(c), veh/h	41	546	463	122	631	534	302	0	704	32	0	477
V/C Ratio(X)	0.51	0.88	0.39	1.22	0.45	0.01	0.94	0.00	0.29	0.47	0.00	0.13
Avail Cap(c_a), veh/h	109	631	534	122	644	546	302	0	704	105	0	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.6	29.3	24.6	40.2	22.6	19.3	35.5	0.0	17.3	41.9	0.0	24.7
Incr Delay (d2), s/veh	3.5	12.8	0.5	153.5	0.5	0.0	36.3	0.0	1.1	4.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.1	2.8	7.7	4.5	0.1	8.6	0.0	2.7	0.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	42.1	25.1	193.7	23.2	19.3	71.8	0.0	18.4	46.0	0.0	25.3
LnGrp LOS	D	D	C	F	C	B	E	A	B	D	A	C
Approach Vol, veh/h		683			442			492			78	
Approach Delay, s/veh		37.8			80.6			49.3			29.3	
Approach LOS		D			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	29.6	19.0	27.2	6.6	33.4	6.1	40.1
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	7.8	22.9	15.4	4.2	3.0	12.2	2.7	8.9
Green Ext Time (p_c), s	0.0	1.8	0.0	0.2	0.0	1.5	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↱		↰	↱	
Traffic Vol, veh/h	4	3	86	41	3	21	179	468	21	6	305	6
Future Vol, veh/h	4	3	86	41	3	21	179	468	21	6	305	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	91	43	3	22	188	493	22	6	321	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1229	1227	324	1263	1219	504	327	0	0	515	0	0
Stage 1	336	336	-	880	880	-	-	-	-	-	-	-
Stage 2	893	891	-	383	339	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	156	180	722	148	182	572	1244	-	-	1061	-	-
Stage 1	682	645	-	345	368	-	-	-	-	-	-	-
Stage 2	339	363	-	644	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	131	152	722	113	154	572	1244	-	-	1061	-	-
Mov Cap-2 Maneuver	215	244	-	200	235	-	-	-	-	-	-	-
Stage 1	579	641	-	293	312	-	-	-	-	-	-	-
Stage 2	274	308	-	557	639	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	24.2	2.3	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1244	-	-	620	255	1061	-	-
HCM Lane V/C Ratio	0.151	-	-	0.158	0.268	0.006	-	-
HCM Control Delay (s)	8.4	-	-	11.9	24.2	8.4	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.6	1.1	0	-	-

Intersection	
Int Delay, s/veh	74.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	182	85	48	505	978	179
Future Vol, veh/h	182	85	48	505	978	179
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	198	92	52	549	1063	195

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1814	1161	1258	0	-	0
Stage 1	1161	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 87	240	560	-	-	-
Stage 1	301	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 79	240	560	-	-	-
Mov Cap-2 Maneuver	~ 79	-	-	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	522	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s$	552.1	1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	560	-	79	240	-	-
HCM Lane V/C Ratio	0.093	-	2.504	0.385	-	-
HCM Control Delay (s)	12.1	-	-$ 796.3	29.1	-	-
HCM Lane LOS	B	-	F	D	-	-
HCM 95th %tile Q(veh)	0.3	-	18.8	1.7	-	-

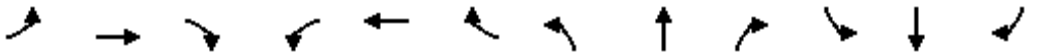
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	16	73	4	23	405	10	438
Future Volume (vph)	27	16	73	4	23	405	10	438
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.9		10.7	5.6	41.5	5.2	41.3
Actuated g/C Ratio		0.18		0.18	0.09	0.69	0.09	0.69
v/c Ratio		0.27		0.34	0.14	0.18	0.06	0.19
Control Delay		14.8		21.8	33.1	4.8	26.0	5.8
Queue Delay		0.3		0.4	1.0	0.3	0.0	0.2
Total Delay		15.1		22.1	34.1	5.1	26.0	6.0
LOS		B		C	C	A	C	A
Approach Delay		15.1		22.1		6.6		6.4
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 8.5	Intersection LOS: A
Intersection Capacity Utilization 38.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	16	40	73	4	16	23	405	31	10	438	12
Future Volume (veh/h)	27	16	40	73	4	16	23	405	31	10	438	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	16	41	75	4	16	24	418	32	10	452	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	82	126	286	23	41	50	2013	154	23	2075	55
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.05	1.00	1.00	0.01	0.58	0.58
Sat Flow, veh/h	332	519	793	1128	146	258	1810	3399	259	1810	3593	95
Grp Volume(v), veh/h	85	0	0	95	0	0	24	221	229	10	227	237
Grp Sat Flow(s),veh/h/ln	1643	0	0	1532	0	0	1810	1805	1853	1810	1805	1883
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.8	0.0	0.0	0.3	3.6	3.7
Cycle Q Clear(g_c), s	2.6	0.0	0.0	2.8	0.0	0.0	0.8	0.0	0.0	0.3	3.6	3.7
Prop In Lane	0.33		0.48	0.79		0.17	1.00		0.14	1.00		0.05
Lane Grp Cap(c), veh/h	340	0	0	350	0	0	50	1069	1097	23	1042	1087
V/C Ratio(X)	0.25	0.00	0.00	0.27	0.00	0.00	0.48	0.21	0.21	0.43	0.22	0.22
Avail Cap(c_a), veh/h	469	0	0	461	0	0	223	1069	1097	223	1042	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	0.0	22.4	0.0	0.0	27.9	0.0	0.0	29.4	6.1	6.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	2.7	0.4	0.4	4.7	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.2	0.0	0.0	0.4	0.1	0.1	0.2	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	0.0	22.8	0.0	0.0	30.6	0.4	0.4	34.1	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		85			95			474			474	
Approach Delay, s/veh		22.7			22.8			2.0			7.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.3		14.3	6.2	39.4		14.3				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		4.6	2.8	5.7		4.8				
Green Ext Time (p_c), s	0.0	2.7		0.2	0.0	2.6		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		7.5
HCM 6th LOS		A

Notes

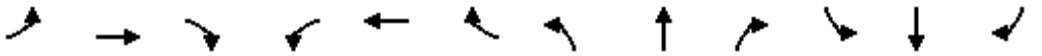
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	305	137	924	366	610	370
Future Volume (vph)	305	137	924	366	610	370
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.4	10.2	18.9	18.9	18.9	18.9
Actuated g/C Ratio	0.28	0.25	0.46	0.46	0.46	0.46
v/c Ratio	0.35	0.18	0.43	0.42	0.28	0.27
Control Delay	14.3	4.5	7.7	2.3	6.8	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	4.5	7.7	2.3	6.8	1.3
LOS	B	A	A	A	A	A
Approach Delay			6.2		4.7	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 40.9	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 6.5	Intersection LOS: A
Intersection Capacity Utilization 35.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	305	0	137	0	924	366	0	610	370
Future Volume (veh/h)	0	0	0	305	0	137	0	924	366	0	610	370
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				332	0	122	0	1004	0	0	663	320
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				629	0	508	0	2391		0	2391	1306
Arrive On Green				0.18	0.00	0.18	0.00	0.47	0.00	0.00	0.47	0.47
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				332	0	122	0	1004	0	0	663	320
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.6	0.0	1.1	0.0	3.9	0.0	0.0	2.4	2.0
Cycle Q Clear(g_c), s				2.6	0.0	1.1	0.0	3.9	0.0	0.0	2.4	2.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				629	0	508	0	2391		0	2391	1306
V/C Ratio(X)				0.53	0.00	0.24	0.00	0.42		0.00	0.28	0.24
Avail Cap(c_a), veh/h				4114	0	3321	0	12740		0	12740	6961
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				11.0	0.0	10.4	0.0	5.2	0.0	0.0	4.8	4.7
Incr Delay (d2), s/veh				0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.2	0.0	0.4	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.3	0.0	10.5	0.0	5.4	0.0	0.0	4.9	4.8
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					454			1004	A		983	
Approach Delay, s/veh					11.1			5.4			4.9	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	19.7		19.7		10.0			
Change Period (Y+Rc), s	5.8		5.8		4.6			
Max Green Setting (Gmax), s	74.2		74.2		35.4			
Max Q Clear Time (g_c+I1), s	5.9		4.4		4.6			
Green Ext Time (p_c), s	8.1		6.4		0.8			

Intersection Summary		
HCM 6th Ctrl Delay	6.2	
HCM 6th LOS	A	

Notes

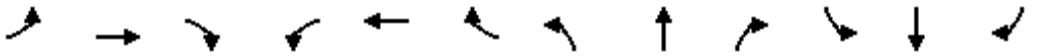
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	381	357	917	351	843	75
Future Volume (vph)	381	357	917	351	843	75
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	10.9	9.7	18.9	18.9	18.9	18.9
Actuated g/C Ratio	0.27	0.24	0.47	0.47	0.47	0.47
v/c Ratio	0.45	0.46	0.42	0.25	0.39	0.10
Control Delay	15.1	8.2	7.6	1.4	7.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	8.2	7.6	1.4	7.4	2.2
LOS	B	A	A	A	A	A
Approach Delay			5.8		6.9	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 40.5	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 7.7	Intersection LOS: A
Intersection Capacity Utilization 38.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	0	357	0	0	0	0	917	351	0	843	75
Future Volume (veh/h)	381	0	357	0	0	0	0	917	351	0	843	75
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	414	0	306				0	997	300	0	916	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	927	0	748				0	2312	1263	0	2312	
Arrive On Green	0.27	0.00	0.27				0.00	0.45	0.45	0.00	0.45	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	414	0	306				0	997	300	0	916	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	3.7	0.0	3.4				0.0	4.9	2.5	0.0	4.5	0.0
Cycle Q Clear(g_c), s	3.7	0.0	3.4				0.0	4.9	2.5	0.0	4.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	927	0	748				0	2312	1263	0	2312	
V/C Ratio(X)	0.45	0.00	0.41				0.00	0.43	0.24	0.00	0.40	
Avail Cap(c_a), veh/h	3745	0	3023				0	9479	5179	0	9479	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.3	0.0	11.2				0.0	6.9	6.3	0.0	6.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.7				0.0	0.9	0.4	0.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	0.0	11.3				0.0	7.1	6.4	0.0	6.9	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h		720						1297			916	A
Approach Delay, s/veh		11.4						6.9			6.9	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		22.7		14.6		22.7						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		69.2		40.4		69.2						
Max Q Clear Time (g_c+I1), s		6.9		5.7		6.5						
Green Ext Time (p_c), s		9.9		1.4		7.1						

Intersection Summary		
HCM 6th Ctrl Delay		8.0
HCM 6th LOS		A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.2:

OPENING YEAR CUMULATIVE (2023) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

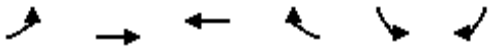
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Lane Group	EBT	WBT	Ø6
Lane Configurations			
Traffic Volume (vph)	48	161	
Future Volume (vph)	48	161	
Turn Type	NA	NA	
Protected Phases	4	8	6
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8
Total Split (s)	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	33%
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.8	5.8	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	None
Act Effct Green (s)	11.6	11.6	
Actuated g/C Ratio	0.79	0.79	
v/c Ratio	0.03	0.12	
Control Delay	0.2	0.4	
Queue Delay	0.0	0.0	
Total Delay	0.2	0.4	
LOS	A	A	
Approach Delay	0.2	0.4	
Approach LOS	A	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 14.7	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.12	
Intersection Signal Delay: 0.4	Intersection LOS: A
Intersection Capacity Utilization 13.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	48	161	0	0	0
Future Volume (veh/h)	0	48	161	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	52	175	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	672	871	871	738	17	15
Arrive On Green	0.00	0.46	0.46	0.00	0.00	0.00
Sat Flow, veh/h	1229	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	52	175	0	0	0
Grp Sat Flow(s),veh/h/ln	1229	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	0.2	0.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.2	0.6	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	672	871	871	738	17	15
V/C Ratio(X)	0.00	0.06	0.20	0.00	0.00	0.00
Avail Cap(c_a), veh/h	6327	9615	9615	8148	4089	3638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.6	1.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	1.6	1.8	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		52	175		0	
Approach Delay, s/veh		1.6	1.8		0.0	
Approach LOS		A	A			

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			10.7		0.0	10.7
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			2.2		0.0	2.6
Green Ext Time (p_c), s			0.2		0.0	0.9

Intersection Summary		
HCM 6th Ctrl Delay	1.8	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	235	29	154	254	42	155
Future Vol, veh/h	235	29	154	254	42	155
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	273	34	179	295	49	180
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	10.5	10.4	10.9
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	155	118	118	29	154	127	127
LT Vol	42	0	0	0	0	154	0	0
Through Vol	0	0	118	118	0	0	127	127
RT Vol	0	155	0	0	29	0	0	0
Lane Flow Rate	49	180	137	137	34	179	148	148
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.096	0.293	0.238	0.238	0.036	0.323	0.246	0.175
Departure Headway (Hd)	7.045	5.845	6.272	6.272	3.843	6.502	5.996	4.277
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	508	615	572	572	926	553	598	836
Service Time	4.79	3.59	4.018	4.018	1.588	4.245	3.739	2.019
HCM Lane V/C Ratio	0.096	0.293	0.24	0.24	0.037	0.324	0.247	0.177
HCM Control Delay	10.5	11	11	11	6.7	12.3	10.7	7.9
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.3	1.2	0.9	0.9	0.1	1.4	1	0.6

Intersection	
Intersection Delay, s/veh	9.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	54	0	32	5	45	202	0
Future Vol, veh/h	0	0	0	10	0	54	0	32	5	45	202	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	83	0	49	8	69	311	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8	7.8	10.5
HCM LOS	A	A	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	16%	18%
Vol Thru, %	86%	0%	82%
Vol Right, %	14%	84%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	37	64	247
LT Vol	0	10	45
Through Vol	32	0	202
RT Vol	5	54	0
Lane Flow Rate	57	98	380
Geometry Grp	1	1	1
Degree of Util (X)	0.07	0.12	0.438
Departure Headway (Hd)	4.429	4.389	4.154
Convergence, Y/N	Yes	Yes	Yes
Cap	811	821	855
Service Time	2.442	2.392	2.235
HCM Lane V/C Ratio	0.07	0.119	0.444
HCM Control Delay	7.8	8	10.5
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.2	0.4	2.3

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	80	19	0	45	24	138	295
Future Vol, veh/h	80	19	0	45	24	138	295
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	119	28	0	67	36	206	440
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	12.3	9.5	15.8
HCM LOS	B	A	C

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	81%	0%	0%	0%	100%	13%
Vol Thru, %	19%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	87%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	99	0	45	24	92	341
LT Vol	80	0	0	0	92	46
Through Vol	19	0	45	0	0	0
RT Vol	0	0	0	24	0	295
Lane Flow Rate	148	0	67	36	137	509
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.284	0	0.119	0.056	0.223	0.679
Departure Headway (Hd)	6.909	6.371	6.371	5.66	5.849	4.806
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	523	0	566	636	607	743
Service Time	4.615	4.077	4.077	3.366	3.647	2.603
HCM Lane V/C Ratio	0.283	0	0.118	0.057	0.226	0.685
HCM Control Delay	12.3	9.1	9.9	8.7	10.3	17.3
HCM Lane LOS	B	N	A	A	B	C
HCM 95th-tile Q	1.2	0	0.4	0.2	0.8	5.4

Intersection	
Intersection Delay, s/veh	111.1
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	433	370	330	495	61
Future Vol, veh/h	64	433	370	330	495	61
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	74	498	425	379	569	70
Number of Lanes	1	1	3	0	1	0

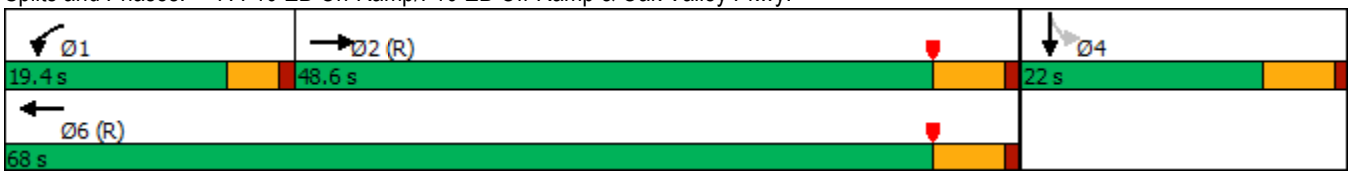
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	105.7	20.1	230.5
HCM LOS	F	C	F

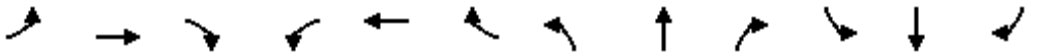
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	89%
Vol Thru, %	0%	100%	100%	100%	18%	0%
Vol Right, %	0%	0%	0%	0%	82%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	433	148	148	404	556
LT Vol	64	0	0	0	0	495
Through Vol	0	433	148	148	74	0
RT Vol	0	0	0	0	330	61
Lane Flow Rate	74	498	170	170	464	639
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.178	1.137	0.357	0.357	0.682	1.433
Departure Headway (Hd)	10.001	9.468	9.103	9.103	6.707	8.373
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	361	388	398	398	543	441
Service Time	7.701	7.168	6.803	6.803	4.407	6.073
HCM Lane V/C Ratio	0.205	1.284	0.427	0.427	0.855	1.449
HCM Control Delay	14.9	119.1	16.8	16.8	22.6	230.5
HCM Lane LOS	B	F	C	C	C	F
HCM 95th-tile Q	0.6	16.4	1.6	1.6	5.2	30.8

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	460	260	575	3
Future Volume (vph)	460	260	575	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.18	0.99	0.49	1.29
Control Delay	117.2	74.8	4.0	182.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	117.2	74.8	4.0	182.5
LOS	F	E	A	F
Approach Delay	117.2		26.1	182.5
Approach LOS	F		C	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay: 93.5	Intersection LOS: F
Intersection Capacity Utilization 102.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	460	469	260	575	0	0	0	0	258	3	124
Future Volume (veh/h)	0	460	469	260	575	0	0	0	0	258	3	124
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	517	440	292	646	0				290	3	120
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	451	384	298	1313	0				221	2	91
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	948	807	1810	1900	0				1227	13	508
Grp Volume(v), veh/h	0	0	957	292	646	0				413	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1755	1810	1900	0				1747	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.4	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.4	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.46	1.00		0.00				0.70		0.29
Lane Grp Cap(c), veh/h	0	0	834	298	1313	0				315	0	0
V/C Ratio(X)	0.00	0.00	1.15	0.98	0.49	0.00				1.31	0.00	0.00
Avail Cap(c_a), veh/h	0	0	834	298	1313	0				315	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.29	0.29	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.1	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	80.0	23.5	0.4	0.0				161.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	33.7	6.6	0.1	0.0				20.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	103.6	53.5	0.4	0.0				198.7	0.0	0.0
LnGrp LOS	A	A	F	D	A	A				F	A	A
Approach Vol, veh/h		957			938						413	
Approach Delay, s/veh		103.6			16.9						198.7	
Approach LOS		F			B						F	

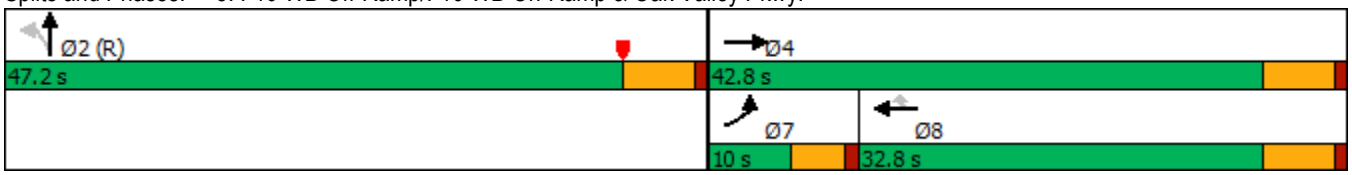
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.4	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		4.5						

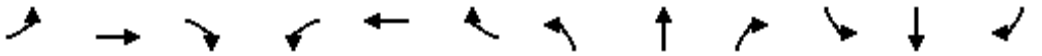
Intersection Summary												
HCM 6th Ctrl Delay			85.4									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	150	567	493	445	4
Future Volume (vph)	150	567	493	445	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	36.2	26.2	26.2	42.2
Actuated g/C Ratio	0.06	0.40	0.29	0.29	0.47
v/c Ratio	1.42	0.76	0.91	0.57	0.87
Control Delay	225.6	18.1	53.2	5.7	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	225.6	18.1	53.2	5.7	32.5
LOS	F	B	D	A	C
Approach Delay		61.5	30.7		32.5
Approach LOS		E	C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.42	
Intersection Signal Delay: 40.5	Intersection LOS: D
Intersection Capacity Utilization 102.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	567	0	0	493	445	343	4	379	0	0	0
Future Volume (veh/h)	150	567	0	0	493	445	343	4	379	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	153	579	0	0	503	338	350	4	265			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	758	0	0	547	464	459	5	347			
Arrive On Green	0.04	0.27	0.00	0.00	0.29	0.29	0.47	0.47	0.47			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	972	11	736			
Grp Volume(v), veh/h	153	579	0	0	503	338	619	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1719	0	0			
Q Serve(g_s), s	5.4	25.2	0.0	0.0	23.1	17.0	26.7	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	25.2	0.0	0.0	23.1	17.0	26.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.43			
Lane Grp Cap(c), veh/h	109	758	0	0	547	464	811	0	0			
V/C Ratio(X)	1.41	0.76	0.00	0.00	0.92	0.73	0.76	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	811	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.1	0.0	0.0	31.0	28.9	19.6	0.0	0.0			
Incr Delay (d2), s/veh	189.1	0.4	0.0	0.0	19.7	5.3	6.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.1	11.7	0.0	0.0	12.7	6.8	10.9	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	232.3	29.5	0.0	0.0	50.8	34.2	26.3	0.0	0.0			
LnGrp LOS	F	C	A	A	D	C	C	A	A			
Approach Vol, veh/h		732			841			619				
Approach Delay, s/veh		71.9			44.1			26.3				
Approach LOS		E			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		48.3		41.7			10.0	31.7				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		28.7		27.2			7.4	25.1				
Green Ext Time (p_c), s		3.2		2.4			0.0	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			48.4									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	556	146	158	900	27	0	0	63	0	0	160
Future Vol, veh/h	0	556	146	158	900	27	0	0	63	0	0	160
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	611	160	174	989	30	0	0	69	0	0	176

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	771	0	0	-	-	386	-	-	1004
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	853	-	-	0	0	618	0	0	296
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	853	-	-	-	-	618	-	-	296
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	11.6	33.5
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	618	-	-	853	-	-	296
HCM Lane V/C Ratio	0.112	-	-	0.204	-	-	0.594
HCM Control Delay (s)	11.6	-	-	10.3	-	-	33.5
HCM Lane LOS	B	-	-	B	-	-	D
HCM 95th %tile Q(veh)	0.4	-	-	0.8	-	-	3.5

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	46	24	3	229	20	72	29	6	22	31	88
Future Vol, veh/h	34	46	24	3	229	20	72	29	6	22	31	88
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	45	61	32	4	305	27	96	39	8	29	41	117
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

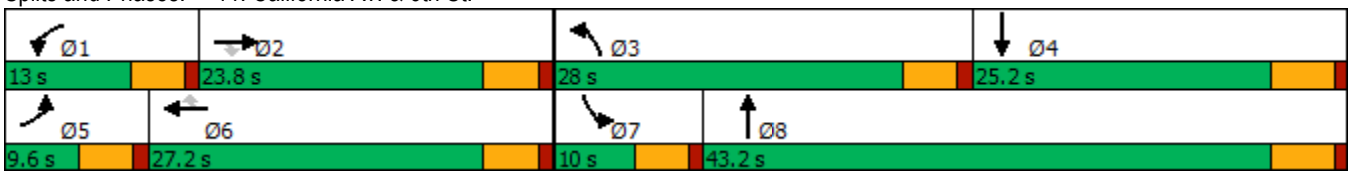
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	9.9	15.4	11.8	9.8
HCM LOS	A	C	B	A

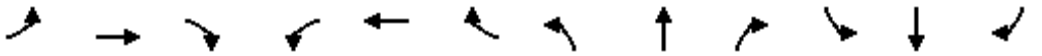
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	71%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	29%	0%	0%	100%	0%	0%	92%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	8%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	6	34	46	24	3	249	22	31	88
LT Vol	72	0	34	0	0	3	0	22	0	0
Through Vol	29	0	0	46	0	0	229	0	31	0
RT Vol	0	6	0	0	24	0	20	0	0	88
Lane Flow Rate	135	8	45	61	32	4	332	29	41	117
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.256	0.013	0.088	0.11	0.051	0.007	0.544	0.057	0.074	0.187
Departure Headway (Hd)	6.841	5.774	6.953	6.448	5.741	6.462	5.903	6.943	6.438	5.732
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	524	618	514	554	621	553	611	515	555	624
Service Time	4.598	3.531	4.71	4.204	3.497	4.208	3.648	4.699	4.194	3.488
HCM Lane V/C Ratio	0.258	0.013	0.088	0.11	0.052	0.007	0.543	0.056	0.074	0.188
HCM Control Delay	12	8.6	10.4	10	8.8	9.3	15.5	10.1	9.7	9.8
HCM Lane LOS	B	A	B	A	A	A	C	B	A	A
HCM 95th-tile Q	1	0	0.3	0.4	0.2	0	3.3	0.2	0.2	0.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	289	119	140	288	20	409	87	46	127
Future Volume (vph)	4	289	119	140	288	20	409	87	46	127
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	43.2	10.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	48.0%	11.1%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	17.5	17.5	8.4	28.7	28.7	22.9	41.7	5.3	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.10	0.33	0.33	0.26	0.47	0.06	0.23
v/c Ratio	0.04	0.83	0.27	0.88	0.51	0.03	0.95	0.18	0.46	0.33
Control Delay	41.2	53.8	2.6	86.2	28.5	0.1	65.0	11.8	54.8	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	53.8	2.6	86.2	28.5	0.1	65.0	11.8	54.8	31.5
LOS	D	D	A	F	C	A	E	B	D	C
Approach Delay		38.9			45.2			51.4		37.5
Approach LOS		D			D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 88.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 44.9	Intersection LOS: D
Intersection Capacity Utilization 70.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	289	119	140	288	20	409	87	53	46	127	4
Future Volume (veh/h)	4	289	119	140	288	20	409	87	53	46	127	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	314	128	152	313	13	445	95	15	50	138	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	363	308	174	536	454	477	725	114	73	428	6
Arrive On Green	0.01	0.19	0.19	0.10	0.28	0.28	0.26	0.45	0.45	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1602	253	1810	1868	27
Grp Volume(v), veh/h	4	314	128	152	313	13	445	0	110	50	0	140
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1854	1810	0	1895
Q Serve(g_s), s	0.2	14.0	6.1	7.2	12.4	0.5	21.0	0.0	3.0	2.4	0.0	5.4
Cycle Q Clear(g_c), s	0.2	14.0	6.1	7.2	12.4	0.5	21.0	0.0	3.0	2.4	0.0	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.01
Lane Grp Cap(c), veh/h	10	363	308	174	536	454	477	0	839	73	0	434
V/C Ratio(X)	0.42	0.87	0.42	0.87	0.58	0.03	0.93	0.00	0.13	0.69	0.00	0.32
Avail Cap(c_a), veh/h	104	414	351	174	536	454	485	0	839	112	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	34.2	31.0	38.9	26.9	22.7	31.4	0.0	13.9	41.3	0.0	28.0
Incr Delay (d2), s/veh	10.4	15.7	0.9	34.0	1.6	0.0	24.5	0.0	0.3	4.2	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.9	2.3	4.8	5.7	0.2	11.7	0.0	1.2	1.1	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	50.0	31.9	72.9	28.6	22.7	55.9	0.0	14.2	45.6	0.0	30.0
LnGrp LOS	D	D	C	E	C	C	E	A	B	D	A	C
Approach Vol, veh/h		446			478			555			190	
Approach Delay, s/veh		44.8			42.5			47.7			34.1	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	21.5	27.6	25.2	5.1	29.4	8.1	44.7
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	5.4	38.0
Max Q Clear Time (g_c+I1), s	9.2	16.0	23.0	7.4	2.2	14.4	4.4	5.0
Green Ext Time (p_c), s	0.0	0.7	0.0	0.4	0.0	1.1	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	43.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	11.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	3	75	32	10	30	300	546	21	13	330	2
Future Vol, veh/h	2	3	75	32	10	30	300	546	21	13	330	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	95	41	13	38	380	691	27	16	418	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1942	1930	420	1966	1918	705	421	0	0	718	0	0
Stage 1	452	452	-	1465	1465	-	-	-	-	-	-	-
Stage 2	1490	1478	-	501	453	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	50	67	638	48	68	440	1149	-	-	892	-	-
Stage 1	591	574	-	161	194	-	-	-	-	-	-	-
Stage 2	156	192	-	556	573	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	30	44	638	~ 29	45	440	1149	-	-	892	-	-
Mov Cap-2 Maneuver	60	95	-	55	89	-	-	-	-	-	-	-
Stage 1	395	564	-	108	130	-	-	-	-	-	-	-
Stage 2	86	128	-	462	563	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.7	165.9	3.3	0.3
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1149	-	-	438	94	892	-	-
HCM Lane V/C Ratio	0.331	-	-	0.231	0.97	0.018	-	-
HCM Control Delay (s)	9.7	-	-	15.7	165.9	9.1	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	1.5	-	-	0.9	5.7	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	73	22	70	819	182	218
Future Vol, veh/h	73	22	70	819	182	218
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	95	29	91	1064	236	283

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1624	378	519	0	-	0
Stage 1	378	-	-	-	-	-
Stage 2	1246	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	114	673	1057	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	673	1057	-	-	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	274	-	-	-	-	-

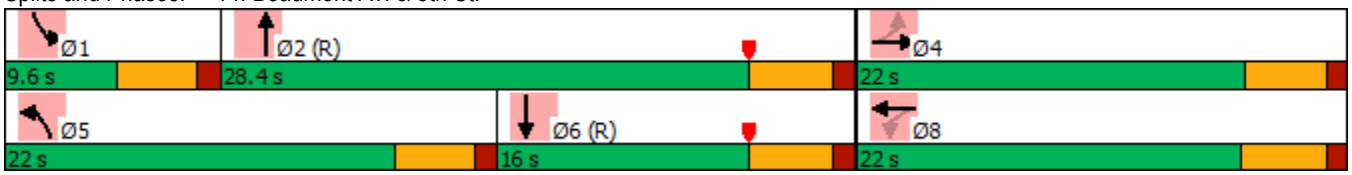
Approach	EB	NB	SB
HCM Control Delay, s	110.4	0.7	0
HCM LOS	F		

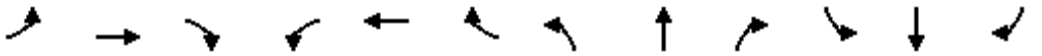
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1057	-	104	673	-	-
HCM Lane V/C Ratio	0.086	-	0.912	0.042	-	-
HCM Control Delay (s)	8.7	-	140.5	10.6	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	5.4	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	16	19	3	59	325	3	391
Future Volume (vph)	10	16	19	3	59	325	3	391
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1		10.0	6.7	46.3	5.0	40.8
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.20		0.15	0.32	0.13	0.02	0.18
Control Delay		14.5		17.9	27.5	4.5	25.7	7.5
Queue Delay		0.0		0.0	0.2	0.2	0.0	0.1
Total Delay		14.5		17.9	27.7	4.7	25.7	7.6
LOS		B		B	C	A	C	A
Approach Delay		14.5		17.9		8.1		7.7
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.32	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 35.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	16	31	19	3	11	59	325	14	3	391	14
Future Volume (veh/h)	10	16	31	19	3	11	59	325	14	3	391	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	17	34	21	3	12	64	353	15	3	425	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	82	124	193	42	70	99	2206	93	7	2044	72
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	147	614	924	730	310	520	1810	3529	150	1810	3557	125
Grp Volume(v), veh/h	62	0	0	36	0	0	64	180	188	3	215	225
Grp Sat Flow(s),veh/h/ln	1684	0	0	1560	0	0	1810	1805	1873	1810	1805	1877
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.1	3.5	3.5
Cycle Q Clear(g_c), s	1.9	0.0	0.0	1.1	0.0	0.0	2.0	0.0	0.0	0.1	3.5	3.5
Prop In Lane	0.18		0.55	0.58		0.33	1.00		0.08	1.00		0.07
Lane Grp Cap(c), veh/h	297	0	0	304	0	0	99	1128	1171	7	1037	1079
V/C Ratio(X)	0.21	0.00	0.00	0.12	0.00	0.00	0.65	0.16	0.16	0.41	0.21	0.21
Avail Cap(c_a), veh/h	552	0	0	530	0	0	525	1128	1171	151	1037	1079
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	0.0	0.0	23.0	0.0	0.0	26.2	0.0	0.0	29.8	6.2	6.2
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	2.6	0.3	0.3	12.9	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.4	0.0	0.0	0.9	0.1	0.1	0.1	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	0.0	23.1	0.0	0.0	28.8	0.3	0.3	42.7	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		62			36			432			443	
Approach Delay, s/veh		23.7			23.1			4.5			6.9	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.3		12.8	7.9	39.3		12.8				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		3.9	4.0	5.5		3.1				
Green Ext Time (p_c), s	0.0	2.1		0.2	0.0	1.3		0.1				

Intersection Summary			
HCM 6th Ctrl Delay		7.5	
HCM 6th LOS		A	

Notes

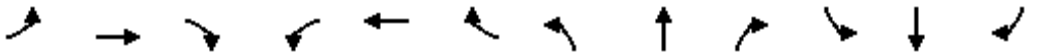
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	492	9	366	230	362
Future Volume (vph)	492	9	366	230	362
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	20.0	20.0	21.0	40.0	19.0
Total Split (%)	33.3%	33.3%	35.0%	66.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.8	14.8	15.4	35.6	15.6
Actuated g/C Ratio	0.25	0.25	0.26	0.59	0.26
v/c Ratio	0.88	0.76	0.86	0.12	0.51
Control Delay	47.2	28.5	46.6	5.2	14.7
Queue Delay	0.0	17.9	0.0	0.0	3.4
Total Delay	47.2	46.4	46.6	5.2	18.2
LOS	D	D	D	A	B
Approach Delay		46.8		30.6	18.2
Approach LOS		D		C	B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	492	9	169	366	230	0	0	362	79
Future Volume (veh/h)	0	0	0	492	9	169	366	230	0	0	362	79
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				364	249	184	398	250	0	0	393	86
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				458	257	190	495	2118	0	0	734	159
Arrive On Green				0.25	0.25	0.25	0.41	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1015	750	1810	3705	0	0	3045	639
Grp Volume(v), veh/h				364	0	433	398	250	0	0	239	240
Grp Sat Flow(s),veh/h/ln				1810	0	1765	1810	1805	0	0	1805	1785
Q Serve(g_s), s				11.3	0.0	14.6	12.4	0.1	0.0	0.0	7.6	7.7
Cycle Q Clear(g_c), s				11.3	0.0	14.6	12.4	0.1	0.0	0.0	7.6	7.7
Prop In Lane				1.00		0.42	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				458	0	447	495	2118	0	0	449	444
V/C Ratio(X)				0.79	0.00	0.97	0.80	0.12	0.00	0.00	0.53	0.54
Avail Cap(c_a), veh/h				458	0	447	495	2118	0	0	483	477
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.9	0.0	22.2	16.3	0.3	0.0	0.0	24.2	24.2
Incr Delay (d2), s/veh				9.3	0.0	34.3	7.1	0.1	0.0	0.0	4.4	4.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	458.0	18.2	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.2	0.0	9.4	68.2	5.4	0.0	0.0	3.9	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.3	0.0	56.5	481.4	18.6	0.0	0.0	28.6	28.9
LnGrp LOS				C	A	E	F	B	A	A	C	C
Approach Vol, veh/h					797			648			479	
Approach Delay, s/veh					44.5			302.9			28.7	
Approach LOS					D			F			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	40.0		19.2	20.8		20.0						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 35		16.4	* 14		15.2						
Max Q Clear Time (g_c+I1), s	2.1		14.4	9.7		16.6						
Green Ext Time (p_c), s	1.7		0.2	1.2		0.0						

Intersection Summary		
HCM 6th Ctrl Delay	127.6	
HCM 6th LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	525	523	106	749
Future Volume (vph)	11	525	523	106	749
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.4	12.4	28.0	7.3	38.0
Actuated g/C Ratio	0.21	0.21	0.47	0.12	0.63
v/c Ratio	0.67	0.67	0.57	0.50	0.34
Control Delay	16.3	16.1	9.3	20.6	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.1	9.3	20.6	8.6
LOS	B	B	A	C	A
Approach Delay	16.2		9.3		10.1
Approach LOS	B		A		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 11.3	Intersection LOS: B
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	72	11	525	0	0	0	0	523	447	106	749	0
Future Volume (veh/h)	72	11	525	0	0	0	0	523	447	106	749	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	635				0	545	466	110	780	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	440	746				0	1464	188	140	2197	0
Arrive On Green	0.00	0.00	0.23				0.00	0.45	0.45	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1939	1577	1810	3705	0
Grp Volume(v), veh/h	0	0	635				0	533	478	110	780	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1616	1810	1805	0
Q Serve(g_s), s	0.0	0.0	11.3				0.0	13.7	13.7	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.3				0.0	13.7	13.7	3.5	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	0	440	746				0	820	829	140	2197	0
V/C Ratio(X)	0.00	0.00	0.85				0.00	0.65	0.58	0.78	0.36	0.00
Avail Cap(c_a), veh/h	0	481	816				0	820	734	253	2197	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.69	0.69	0.00
Uniform Delay (d), s/veh	0.0	0.0	22.1				0.0	16.4	16.4	24.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	8.1				0.0	4.0	2.9	2.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	227.0	189.2	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.5				0.0	61.9	53.7	1.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	30.1				0.0	247.3	208.5	27.4	0.3	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		635						1011			890	
Approach Delay, s/veh		30.1						229.0			3.7	
Approach LOS		C						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.3	32.1		18.7		41.3
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35
Max Q Clear Time (g_c+I1), s	5.5	15.7		13.3		2.0
Green Ext Time (p_c), s	0.0	3.5		0.6		6.3

Intersection Summary	
HCM 6th Ctrl Delay	100.1
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

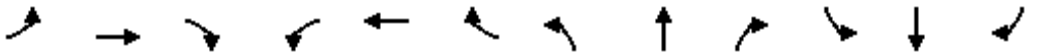
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	394	97	716	154	437	317
Future Volume (vph)	394	97	716	154	437	317
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.4	10.1	13.6	13.6	13.6	13.6
Actuated g/C Ratio	0.32	0.29	0.38	0.38	0.38	0.38
v/c Ratio	0.39	0.12	0.40	0.24	0.24	0.27
Control Delay	11.3	3.9	8.4	2.6	7.6	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	3.9	8.4	2.6	7.6	1.7
LOS	B	A	A	A	A	A
Approach Delay			7.4		5.1	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 35.4	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 33.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	394	0	97	0	716	154	0	437	317
Future Volume (veh/h)	0	0	0	394	0	97	0	716	154	0	437	317
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				428	0	78	0	778	0	0	475	263
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				756	0	610	0	2021		0	2021	1104
Arrive On Green				0.22	0.00	0.22	0.00	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				428	0	78	0	778	0	0	475	263
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				3.0	0.0	0.6	0.0	2.9	0.0	0.0	1.7	1.7
Cycle Q Clear(g_c), s				3.0	0.0	0.6	0.0	2.9	0.0	0.0	1.7	1.7
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				756	0	610	0	2021		0	2021	1104
V/C Ratio(X)				0.57	0.00	0.13	0.00	0.39		0.00	0.24	0.24
Avail Cap(c_a), veh/h				5175	0	4178	0	13098		0	13098	7156
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.4	0.0	8.5	0.0	5.8	0.0	0.0	5.4	5.4
Incr Delay (d2), s/veh				0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.1	0.0	0.3	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.6	0.0	8.5	0.0	5.9	0.0	0.0	5.5	5.5
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					506			778	A		738	
Approach Delay, s/veh					9.5			5.9			5.5	
Approach LOS					A			A			A	

Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		16.5				16.5		10.5				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		69.2				69.2		40.4				
Max Q Clear Time (g_c+I1), s		4.9				3.7		5.0				
Green Ext Time (p_c), s		5.7				4.4		0.9				

Intersection Summary		
HCM 6th Ctrl Delay	6.7	
HCM 6th LOS	A	

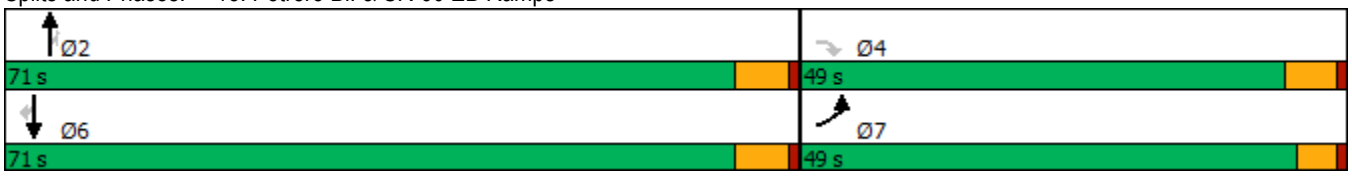
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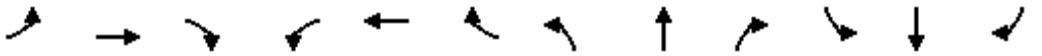
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	264	372	606	203	765	67
Future Volume (vph)	264	372	606	203	765	67
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	10.3	9.1	12.9	12.9	12.9	12.9
Actuated g/C Ratio	0.31	0.27	0.38	0.38	0.38	0.38
v/c Ratio	0.27	0.43	0.34	0.18	0.43	0.11
Control Delay	10.3	6.1	7.8	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	6.1	7.8	1.8	8.4	2.8
LOS	B	A	A	A	A	A
Approach Delay			6.3		7.9	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 33.7	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 7.3	Intersection LOS: A
Intersection Capacity Utilization 37.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	264	0	372	0	0	0	0	606	203	0	765	67
Future Volume (veh/h)	264	0	372	0	0	0	0	606	203	0	765	67
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	287	0	322				0	659	178	0	832	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1060	0	855				0	1912	1045	0	1912	
Arrive On Green	0.31	0.00	0.31				0.00	0.37	0.37	0.00	0.37	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	287	0	322				0	659	178	0	832	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	2.0	0.0	3.0				0.0	3.0	1.4	0.0	4.0	0.0
Cycle Q Clear(g_c), s	2.0	0.0	3.0				0.0	3.0	1.4	0.0	4.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1060	0	855				0	1912	1045	0	1912	
V/C Ratio(X)	0.27	0.00	0.38				0.00	0.34	0.17	0.00	0.44	
Avail Cap(c_a), veh/h	4705	0	3798				0	10208	5577	0	10208	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	8.5	0.0	8.9				0.0	7.3	6.8	0.0	7.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1				0.0	0.1	0.1	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5				0.0	0.5	0.2	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	0.0	9.0				0.0	7.4	6.9	0.0	7.8	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h		609						837			832	A
Approach Delay, s/veh		8.8						7.3			7.8	
Approach LOS		A						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		18.0		14.6		18.0						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		65.2		44.4		65.2						
Max Q Clear Time (g_c+I1), s		5.0		5.0		6.0						
Green Ext Time (p_c), s		5.5		1.2		6.2						

Intersection Summary												
HCM 6th Ctrl Delay			7.9									
HCM 6th LOS			A									

Notes

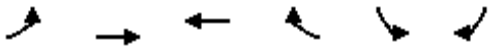
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	Ø6
Lane Configurations			
Traffic Volume (vph)	195	76	
Future Volume (vph)	195	76	
Turn Type	NA	NA	
Protected Phases	4	8	6
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8
Total Split (s)	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	33%
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.8	5.8	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	None
Act Effct Green (s)	11.5	11.5	
Actuated g/C Ratio	0.86	0.86	
v/c Ratio	0.13	0.05	
Control Delay	0.3	0.1	
Queue Delay	0.0	0.0	
Total Delay	0.3	0.1	
LOS	A	A	
Approach Delay	0.3	0.1	
Approach LOS	A	A	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 13.3		
Natural Cycle: 50		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.13		
Intersection Signal Delay: 0.2		Intersection LOS: A
Intersection Capacity Utilization 15.1%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	195	76	0	0	0
Future Volume (veh/h)	0	195	76	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	212	83	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	596	988	988	837	15	13
Arrive On Green	0.00	0.52	0.52	0.00	0.00	0.00
Sat Flow, veh/h	1336	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	212	83	0	0	0
Grp Sat Flow(s),veh/h/ln	1336	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	0.7	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.7	0.3	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	596	988	988	837	15	13
V/C Ratio(X)	0.00	0.21	0.08	0.00	0.00	0.00
Avail Cap(c_a), veh/h	5892	8521	8521	7221	3623	3224
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.6	1.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	1.7	1.5	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		212	83		0	
Approach Delay, s/veh		1.7	1.5		0.0	
Approach LOS		A	A			

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			12.1		0.0	12.1
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			2.7		0.0	2.3
Green Ext Time (p_c), s			1.2		0.0	0.4

Intersection Summary		
HCM 6th Ctrl Delay	1.6	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	192	30	129	266	95	193
Future Vol, veh/h	192	30	129	266	95	193
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	211	33	142	292	104	212
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	10.2	10.2	11.2
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	193	96	96	30	129	133	133
LT Vol	95	0	0	0	0	129	0	0
Through Vol	0	0	96	96	0	0	133	133
RT Vol	0	193	0	0	30	0	0	0
Lane Flow Rate	104	212	105	105	33	142	146	146
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.198	0.331	0.189	0.189	0.037	0.261	0.249	0.179
Departure Headway (Hd)	6.818	5.619	6.457	6.457	4.02	6.63	6.123	4.4
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	526	638	555	555	885	542	586	813
Service Time	4.564	3.365	4.208	4.208	1.77	4.373	3.865	2.141
HCM Lane V/C Ratio	0.198	0.332	0.189	0.189	0.037	0.262	0.249	0.18
HCM Control Delay	11.3	11.1	10.7	10.7	6.9	11.7	10.9	8.1
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.7	1.4	0.7	0.7	0.1	1	1	0.6

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	96	0	257	0	10	153	0
Future Vol, veh/h	0	0	0	2	0	96	0	257	0	10	153	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	125	0	334	0	13	199	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.4	10.5	9.3
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	6%
Vol Thru, %	100%	0%	94%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	257	98	163
LT Vol	0	2	10
Through Vol	257	0	153
RT Vol	0	96	0
Lane Flow Rate	334	127	212
Geometry Grp	1	1	1
Degree of Util (X)	0.41	0.16	0.268
Departure Headway (Hd)	4.426	4.523	4.563
Convergence, Y/N	Yes	Yes	Yes
Cap	814	792	785
Service Time	2.457	2.559	2.597
HCM Lane V/C Ratio	0.41	0.16	0.27
HCM Control Delay	10.5	8.4	9.3
HCM Lane LOS	B	A	A
HCM 95th-tile Q	2	0.6	1.1

Intersection	
Intersection Delay, s/veh	55.5
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	328	57	0	18	177	124	120
Future Vol, veh/h	328	57	0	18	177	124	120
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	490	85	0	27	264	185	179
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	102.6	13	15.2
HCM LOS	F	B	C

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	85%	0%	0%	0%	100%	26%
Vol Thru, %	15%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	74%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	385	0	18	177	83	161
LT Vol	328	0	0	0	83	41
Through Vol	57	0	18	0	0	0
RT Vol	0	0	0	177	0	120
Lane Flow Rate	575	0	27	264	123	241
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	1.121	0	0.049	0.431	0.267	0.46
Departure Headway (Hd)	7.023	6.815	6.815	6.098	8.125	7.212
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	0	529	594	445	503
Service Time	4.761	4.515	4.515	3.798	5.825	4.912
HCM Lane V/C Ratio	1.112	0	0.051	0.444	0.276	0.479
HCM Control Delay	102.6	9.5	9.9	13.3	13.8	15.9
HCM Lane LOS	F	N	A	B	B	C
HCM 95th-tile Q	19	0	0.2	2.2	1.1	2.4

Intersection	
Intersection Delay, s/veh	21.6
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	438	511	325	198	28
Future Vol, veh/h	31	438	511	325	198	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	452	527	335	204	29
Number of Lanes	1	1	3	0	1	0

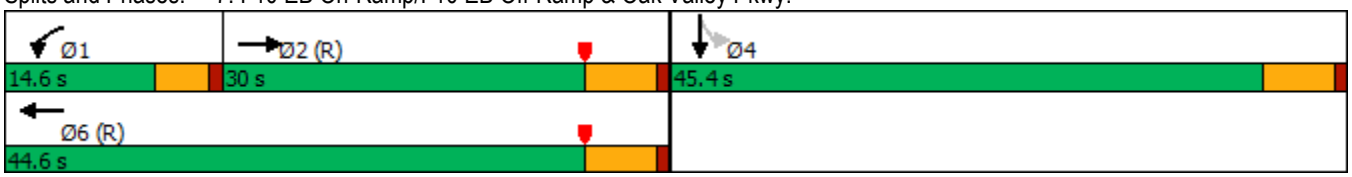
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	41.2	11.6	18.1
HCM LOS	E	B	C

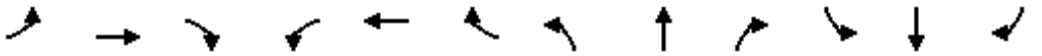
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	88%
Vol Thru, %	0%	100%	100%	100%	24%	0%
Vol Right, %	0%	0%	0%	0%	76%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	438	204	204	427	226
LT Vol	31	0	0	0	0	198
Through Vol	0	438	204	204	102	0
RT Vol	0	0	0	0	325	28
Lane Flow Rate	32	452	211	211	440	233
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.067	0.885	0.366	0.366	0.487	0.501
Departure Headway (Hd)	7.563	7.052	6.257	6.257	3.981	7.739
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	470	510	571	571	890	464
Service Time	5.359	4.848	4.047	4.047	1.768	5.534
HCM Lane V/C Ratio	0.068	0.886	0.37	0.37	0.494	0.502
HCM Control Delay	10.9	43.3	12.7	12.7	10.6	18.1
HCM Lane LOS	B	E	B	B	B	C
HCM 95th-tile Q	0.2	9.8	1.7	1.7	2.7	2.7

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	395	163	641	1
Future Volume (vph)	395	163	641	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	30.0	14.6	44.6	45.4
Total Split (%)	33.3%	16.2%	49.6%	50.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	26.0	10.6	40.6	41.4
Actuated g/C Ratio	0.29	0.12	0.45	0.46
v/c Ratio	1.54	1.01	0.98	1.12
Control Delay	276.6	96.5	45.9	95.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	276.6	96.5	45.9	95.6
LOS	F	F	D	F
Approach Delay	276.6		56.1	95.6
Approach LOS	F		E	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.54	
Intersection Signal Delay: 134.5	Intersection LOS: F
Intersection Capacity Utilization 94.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	395	241	163	641	0	0	0	0	509	1	195
Future Volume (veh/h)	0	395	241	163	641	0	0	0	0	509	1	195
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	520	245	214	843	0				670	1	191
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	353	166	213	857	0				630	1	180
Arrive On Green	0.00	0.29	0.27	0.04	0.15	0.00				0.46	0.46	0.44
Sat Flow, veh/h	0	1221	575	1810	1900	0				1369	2	390
Grp Volume(v), veh/h	0	0	765	214	843	0				862	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1796	1810	1900	0				1761	0	0
Q Serve(g_s), s	0.0	0.0	26.0	10.6	39.8	0.0				41.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	26.0	10.6	39.8	0.0				41.4	0.0	0.0
Prop In Lane	0.00		0.32	1.00		0.00				0.78		0.22
Lane Grp Cap(c), veh/h	0	0	519	213	857	0				810	0	0
V/C Ratio(X)	0.00	0.00	1.47	1.00	0.98	0.00				1.06	0.00	0.00
Avail Cap(c_a), veh/h	0	0	519	213	857	0				810	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.42	0.42	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	32.3	43.3	38.0	0.0				24.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	223.6	41.0	16.4	0.0				50.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	42.7	7.3	23.7	0.0				26.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	255.9	84.2	54.4	0.0				74.5	0.0	0.0
LnGrp LOS	A	A	F	F	D	A				F	A	A
Approach Vol, veh/h		765			1057						862	
Approach Delay, s/veh		255.9			60.4						74.5	
Approach LOS		F			E						E	

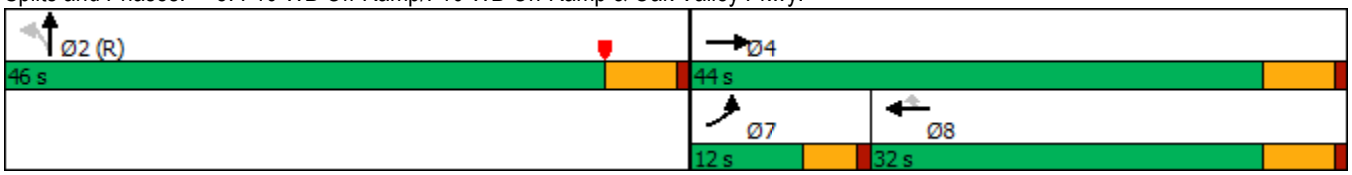
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	30.0		45.4		44.6
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	10.0	24.2		39.6		38.8
Max Q Clear Time (g_c+I1), s	12.6	28.0		43.4		41.8
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0

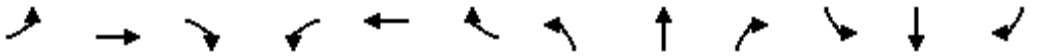
Intersection Summary		
HCM 6th Ctrl Delay		120.7
HCM 6th LOS		F

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	177	726	426	291	4
Future Volume (vph)	177	726	426	291	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	12.0	44.0	32.0	32.0	46.0
Total Split (%)	13.3%	48.9%	35.6%	35.6%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	8.0	38.8	26.8	26.8	43.2
Actuated g/C Ratio	0.09	0.43	0.30	0.30	0.48
v/c Ratio	1.14	0.91	0.78	0.43	0.81
Control Delay	108.1	22.3	39.2	5.1	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	108.1	22.3	39.2	5.1	28.0
LOS	F	C	D	A	C
Approach Delay		39.1	25.4		28.0
Approach LOS		D	C		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 31.5	Intersection LOS: C
Intersection Capacity Utilization 94.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	726	0	0	426	291	379	4	298	0	0	0
Future Volume (veh/h)	177	726	0	0	426	291	379	4	298	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	182	748	0	0	439	230	391	4	255			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	161	830	0	0	576	489	493	5	321			
Arrive On Green	0.03	0.14	0.00	0.00	0.30	0.30	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1038	11	677			
Grp Volume(v), veh/h	182	748	0	0	439	230	650	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1726	0	0			
Q Serve(g_s), s	8.0	34.9	0.0	0.0	18.8	10.4	28.7	0.0	0.0			
Cycle Q Clear(g_c), s	8.0	34.9	0.0	0.0	18.8	10.4	28.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.60		0.39			
Lane Grp Cap(c), veh/h	161	830	0	0	576	489	819	0	0			
V/C Ratio(X)	1.13	0.90	0.00	0.00	0.76	0.47	0.79	0.00	0.00			
Avail Cap(c_a), veh/h	161	844	0	0	591	501	819	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.7	36.6	0.0	0.0	28.4	25.5	20.3	0.0	0.0			
Incr Delay (d2), s/veh	66.9	1.4	0.0	0.0	5.7	0.7	7.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.6	17.7	0.0	0.0	8.8	3.8	12.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	110.5	38.0	0.0	0.0	34.0	26.2	28.1	0.0	0.0			
LnGrp LOS	F	D	A	A	C	C	C	A	A			
Approach Vol, veh/h		930			669			650				
Approach Delay, s/veh		52.2			31.3			28.1				
Approach LOS		D			C			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.7		43.3			12.0	31.3				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			7.4	26.2				
Max Q Clear Time (g_c+I1), s		30.7		36.9			10.0	20.8				
Green Ext Time (p_c), s		2.9		0.7			0.0	1.6				

Intersection Summary												
HCM 6th Ctrl Delay			39.0									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	833	128	110	668	56	0	0	119	0	0	66
Future Vol, veh/h	0	833	128	110	668	56	0	0	119	0	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	896	138	118	718	60	0	0	128	0	0	71

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1034	0	0	-	-	517	-	-	748
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	680	-	-	0	0	509	0	0	416
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	680	-	-	-	-	509	-	-	416
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	14.4	15.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	509	-	-	680	-	-	416
HCM Lane V/C Ratio	0.251	-	-	0.174	-	-	0.171
HCM Control Delay (s)	14.4	-	-	11.4	-	-	15.4
HCM Lane LOS	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1	-	-	0.6	-	-	0.6

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	107	227	78	9	174	31	40	38	11	14	60	34
Future Vol, veh/h	107	227	78	9	174	31	40	38	11	14	60	34
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	153	324	111	13	249	44	57	54	16	20	86	49
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

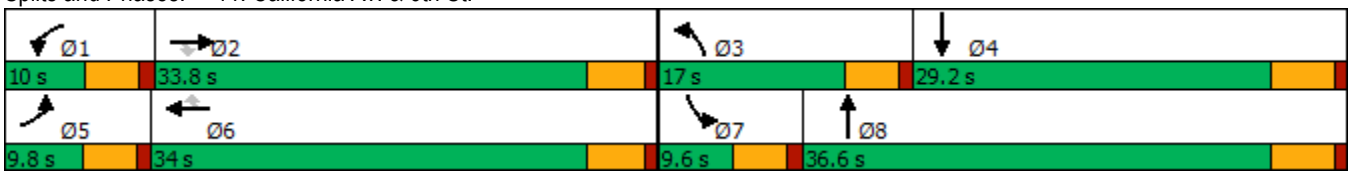
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	15.3	17.9	13	11.6
HCM LOS	C	C	B	B

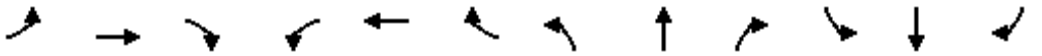
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	85%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	15%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	78	11	107	227	78	9	205	14	60	34
LT Vol	40	0	107	0	0	9	0	14	0	0
Through Vol	38	0	0	227	0	0	174	0	60	0
RT Vol	0	11	0	0	78	0	31	0	0	34
Lane Flow Rate	111	16	153	324	111	13	293	20	86	49
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.248	0.031	0.301	0.593	0.182	0.027	0.562	0.046	0.184	0.095
Departure Headway (Hd)	8.011	7.037	7.087	6.582	5.874	7.524	6.912	8.24	7.731	7.018
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	508	511	551	615	476	521	435	464	510
Service Time	5.758	4.785	4.787	4.282	3.574	5.267	4.654	5.988	5.479	4.766
HCM Lane V/C Ratio	0.248	0.031	0.299	0.588	0.18	0.027	0.562	0.046	0.185	0.096
HCM Control Delay	13.4	10	12.8	18.4	9.9	10.5	18.2	11.4	12.2	10.5
HCM Lane LOS	B	A	B	C	A	B	C	B	B	B
HCM 95th-tile Q	1	0.1	1.3	3.8	0.7	0.1	3.4	0.1	0.7	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	459	174	142	272	11	271	103	14	57
Future Volume (vph)	20	459	174	142	272	11	271	103	14	57
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.8	33.8	10.0	34.0	34.0	17.0	36.6	9.6	29.2
Total Split (%)	10.9%	37.6%	37.6%	11.1%	37.8%	37.8%	18.9%	40.7%	10.7%	32.4%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.7	26.5	26.5	6.0	32.8	32.8	13.0	40.5	5.6	25.3
Actuated g/C Ratio	0.07	0.30	0.30	0.07	0.38	0.38	0.15	0.47	0.06	0.29
v/c Ratio	0.18	0.83	0.29	1.19	0.40	0.02	1.06	0.29	0.13	0.13
Control Delay	43.5	41.8	4.3	181.7	22.9	0.0	108.9	12.0	42.6	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	41.8	4.3	181.7	22.9	0.0	108.9	12.0	42.6	21.9
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		31.8			75.2			64.1		25.4
Approach LOS		C			E			E		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 86.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 52.4	Intersection LOS: D
Intersection Capacity Utilization 63.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	459	174	142	272	11	271	103	130	14	57	11
Future Volume (veh/h)	20	459	174	142	272	11	271	103	130	14	57	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	483	179	149	286	7	285	108	106	15	60	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	563	477	127	639	542	275	372	365	44	501	50
Arrive On Green	0.03	0.30	0.30	0.07	0.34	0.34	0.15	0.42	0.41	0.02	0.29	0.28
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	880	864	1810	1699	170
Grp Volume(v), veh/h	21	483	179	149	286	7	285	0	214	15	0	66
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1744	1810	0	1869
Q Serve(g_s), s	1.0	20.5	7.5	6.0	10.1	0.2	13.0	0.0	7.0	0.7	0.0	2.2
Cycle Q Clear(g_c), s	1.0	20.5	7.5	6.0	10.1	0.2	13.0	0.0	7.0	0.7	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.09
Lane Grp Cap(c), veh/h	54	563	477	127	639	542	275	0	736	44	0	551
V/C Ratio(X)	0.39	0.86	0.38	1.17	0.45	0.01	1.04	0.00	0.29	0.34	0.00	0.12
Avail Cap(c_a), veh/h	123	662	561	127	666	565	275	0	736	118	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.7	28.4	23.8	39.8	22.2	18.9	36.3	0.0	16.5	41.0	0.0	22.1
Incr Delay (d2), s/veh	1.7	9.7	0.5	134.2	0.5	0.0	64.1	0.0	1.0	1.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.5	2.7	7.4	4.4	0.1	10.3	0.0	2.7	0.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	38.1	24.3	174.0	22.7	18.9	100.3	0.0	17.5	42.7	0.0	22.6
LnGrp LOS	D	D	C	F	C	B	F	A	B	D	A	C
Approach Vol, veh/h		683			442			499			81	
Approach Delay, s/veh		34.6			73.6			64.8			26.3	
Approach LOS		C			E			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	29.4	17.0	29.2	6.6	32.8	6.1	40.1
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.4	* 29	12.4	24.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	8.0	22.5	15.0	4.2	3.0	12.1	2.7	9.0
Green Ext Time (p_c), s	0.0	2.0	0.0	0.2	0.0	1.5	0.0	1.1

Intersection Summary	
HCM 6th Ctrl Delay	53.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	4	3	86	44	3	21	179	475	28	6	308	6
Future Vol, veh/h	4	3	86	44	3	21	179	475	28	6	308	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	91	46	3	22	188	500	29	6	324	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1242	1244	327	1277	1233	515	330	0	0	529	0	0
Stage 1	339	339	-	891	891	-	-	-	-	-	-	-
Stage 2	903	905	-	386	342	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	153	176	719	145	178	564	1241	-	-	1048	-	-
Stage 1	680	643	-	340	363	-	-	-	-	-	-	-
Stage 2	335	358	-	641	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	128	149	719	110	150	564	1241	-	-	1048	-	-
Mov Cap-2 Maneuver	212	240	-	197	231	-	-	-	-	-	-	-
Stage 1	577	639	-	289	308	-	-	-	-	-	-	-
Stage 2	270	304	-	554	638	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.9	25.2	2.2	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1241	-	-	616	249	1048	-	-
HCM Lane V/C Ratio	0.152	-	-	0.159	0.287	0.006	-	-
HCM Control Delay (s)	8.4	-	-	11.9	25.2	8.5	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	0.6	1.2	0	-	-

Intersection	
Int Delay, s/veh	91

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	196	92	51	505	978	185
Future Vol, veh/h	196	92	51	505	978	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	100	55	549	1063	201

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1823	1164	1264	0	-	0
Stage 1	1164	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 86	239	557	-	-	-
Stage 1	300	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 77	239	557	-	-	-
Mov Cap-2 Maneuver	~ 77	-	-	-	-	-
Stage 1	270	-	-	-	-	-
Stage 2	518	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 632	1.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	557	-	77	239	-	-
HCM Lane V/C Ratio	0.1	-	2.767	0.418	-	-
HCM Control Delay (s)	12.2	-	$ 914.3	30.5	-	-
HCM Lane LOS	B	-	F	D	-	-
HCM 95th %tile Q(veh)	0.3	-	20.8	1.9	-	-

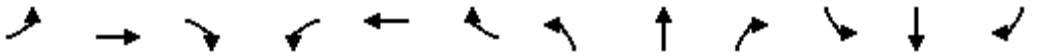
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	34	16	73	4	23	405	10	438
Future Volume (vph)	34	16	73	4	23	405	10	438
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		11.4		11.5	6.2	42.2	5.8	42.0
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.70
v/c Ratio		0.28		0.33	0.13	0.18	0.06	0.19
Control Delay		15.2		21.1	31.5	4.5	25.2	5.5
Queue Delay		0.3		0.3	1.1	0.3	0.0	0.2
Total Delay		15.4		21.4	32.6	4.8	25.2	5.6
LOS		B		C	C	A	C	A
Approach Delay		15.4		21.4		6.2		6.0
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.33	
Intersection Signal Delay: 8.2	Intersection LOS: A
Intersection Capacity Utilization 35.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	16	40	73	4	16	23	405	31	10	438	15
Future Volume (veh/h)	34	16	40	73	4	16	23	405	31	10	438	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	16	41	75	4	16	24	418	32	10	452	15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	154	81	123	303	24	44	68	2055	157	41	2103	70
Arrive On Green	0.17	0.17	0.16	0.17	0.17	0.16	0.07	1.00	1.00	0.02	0.59	0.58
Sat Flow, veh/h	422	478	724	1133	139	258	1810	3399	259	1810	3566	118
Grp Volume(v), veh/h	92	0	0	95	0	0	24	221	229	10	228	239
Grp Sat Flow(s),veh/h/ln	1625	0	0	1530	0	0	1810	1805	1853	1810	1805	1879
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.3	3.6	3.6
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.7	0.0	0.0	0.8	0.0	0.0	0.3	3.6	3.6
Prop In Lane	0.38		0.45	0.79		0.17	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	358	0	0	371	0	0	68	1091	1121	41	1065	1108
V/C Ratio(X)	0.26	0.00	0.00	0.26	0.00	0.00	0.35	0.20	0.20	0.24	0.21	0.22
Avail Cap(c_a), veh/h	484	0	0	481	0	0	241	1091	1121	241	1065	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	0.0	21.7	0.0	0.0	27.1	0.0	0.0	28.8	5.8	5.8
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	1.2	0.4	0.4	1.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.2	0.0	0.0	0.3	0.1	0.1	0.1	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	0.0	22.1	0.0	0.0	28.2	0.4	0.4	29.9	6.2	6.2
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		92			95			474			477	
Approach Delay, s/veh		22.3			22.1			1.8			6.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.3		14.4	6.2	39.4		14.4				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		4.8	2.8	5.6		4.7				
Green Ext Time (p_c), s	0.0	2.7		0.3	0.0	2.6		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		7.2
HCM 6th LOS		A

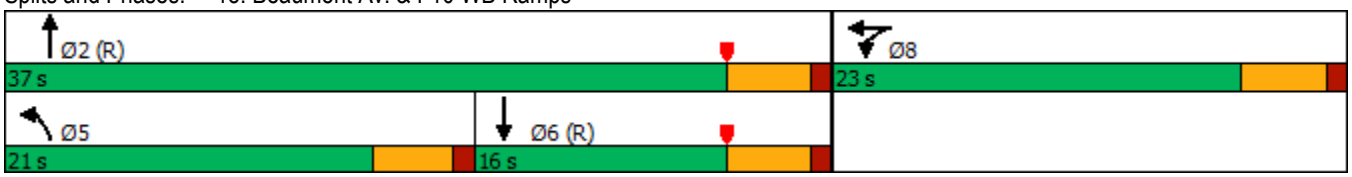
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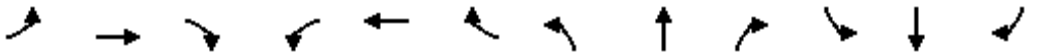
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	727	0	288	327	451
Future Volume (vph)	727	0	288	327	451
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.6	-0.8	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	18.3	18.3	14.0	33.7	15.7
Actuated g/C Ratio	0.30	0.30	0.23	0.56	0.26
v/c Ratio	0.86	0.74	0.71	0.17	0.60
Control Delay	38.1	22.6	35.0	6.6	21.9
Queue Delay	0.0	3.6	0.0	0.0	24.6
Total Delay	38.1	26.1	35.0	6.6	46.5
LOS	D	C	D	A	D
Approach Delay		32.2		19.9	46.5
Approach LOS		C		B	D

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 96.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	727	0	131	288	327	0	0	451	100
Future Volume (veh/h)	0	0	0	727	0	131	288	327	0	0	451	100
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				875	0	0	297	337	0	0	465	103
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1146	602	0	353	1986	0	0	848	187
Arrive On Green				0.29	0.00	0.00	0.39	1.00	0.00	0.00	0.10	0.10
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3036	647
Grp Volume(v), veh/h				875	0	0	297	337	0	0	284	284
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1783
Q Serve(g_s), s				13.6	0.0	0.0	8.9	0.0	0.0	0.0	8.9	9.0
Cycle Q Clear(g_c), s				13.6	0.0	0.0	8.9	0.0	0.0	0.0	8.9	9.0
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1146	602	0	353	1986	0	0	520	514
V/C Ratio(X)				0.76	0.00	0.00	0.84	0.17	0.00	0.00	0.55	0.55
Avail Cap(c_a), veh/h				1146	602	0	513	2083	0	0	569	562
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.76	0.76	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.5	0.0	0.0	17.5	0.0	0.0	0.0	23.4	23.5
Incr Delay (d2), s/veh				3.1	0.0	0.0	4.4	0.1	0.0	0.0	4.0	4.2
Initial Q Delay(d3),s/veh				129.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				27.6	0.0	0.0	3.1	0.0	0.0	0.0	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				152.8	0.0	0.0	21.9	0.1	0.0	0.0	27.4	27.7
LnGrp LOS				F	A	A	C	A	A	A	C	C
Approach Vol, veh/h					875			634			568	
Approach Delay, s/veh					152.8			10.3			27.6	
Approach LOS					F			B			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		38.6			15.7	22.9		21.4				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 32			16.4	* 11		18.2				
Max Q Clear Time (g_c+I1), s		2.0			10.9	11.0		15.6				
Green Ext Time (p_c), s		2.3			0.2	0.1		1.0				

Intersection Summary		
HCM 6th Ctrl Delay	75.0	
HCM 6th LOS	E	

Notes

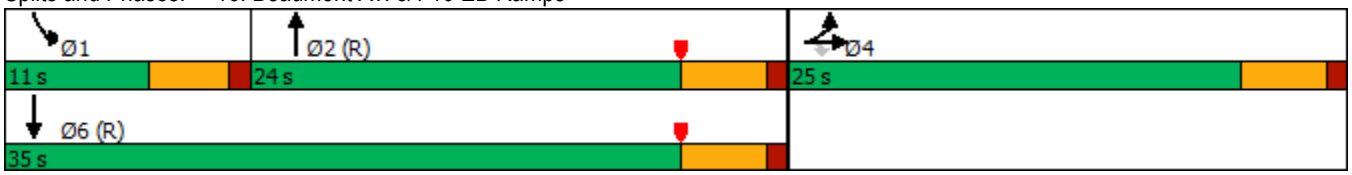
User approved volume balancing among the lanes for turning movement.

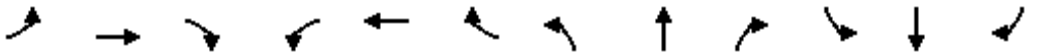
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	791	513	114	1064
Future Volume (vph)	11	791	513	114	1064
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.8	-0.6	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	19.7	19.7	23.5	6.7	32.3
Actuated g/C Ratio	0.33	0.33	0.39	0.11	0.54
v/c Ratio	0.85	0.78	0.61	0.58	0.56
Control Delay	32.1	24.5	12.0	27.6	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	24.5	12.0	27.6	16.1
LOS	C	C	B	C	B
Approach Delay	28.4		12.0		17.2
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 96.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	11	791	0	0	0	0	513	384	114	1064	0
Future Volume (veh/h)	103	11	791	0	0	0	0	513	384	114	1064	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	936				0	529	396	118	1097	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	665	1127				0	705	528	166	1865	0
Arrive On Green	0.00	0.00	0.33				0.00	0.37	0.36	0.18	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	936				0	485	440	118	1097	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	16.4				0.0	13.8	13.9	3.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	16.4				0.0	13.8	13.9	3.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	665	1127				0	647	586	166	1865	0
V/C Ratio(X)	0.00	0.00	0.83				0.00	0.75	0.75	0.71	0.59	0.00
Avail Cap(c_a), veh/h	0	665	1127				0	677	613	211	1924	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.63	0.63	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5				0.0	16.9	17.2	23.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	5.4				0.0	7.8	8.6	3.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	163.2				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	32.7				0.0	6.6	6.2	1.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	188.1				0.0	24.7	25.8	26.9	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h		936						925			1215	
Approach Delay, s/veh		188.1						25.2			3.4	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.5	26.5		24.0		36.0
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30
Max Q Clear Time (g_c+I1), s	5.7	15.9		18.4		2.0
Green Ext Time (p_c), s	0.0	1.8		0.8		9.4

Intersection Summary	
HCM 6th Ctrl Delay	66.2
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

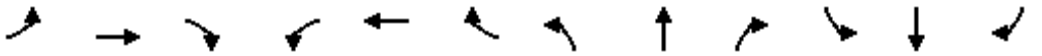
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	329	137	960	442	624	370
Future Volume (vph)	329	137	960	442	624	370
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.6	10.4	20.8	20.8	20.8	20.8
Actuated g/C Ratio	0.27	0.24	0.48	0.48	0.48	0.48
v/c Ratio	0.39	0.19	0.42	0.47	0.28	0.26
Control Delay	15.7	4.7	7.5	2.4	6.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	4.7	7.5	2.4	6.6	1.2
LOS	B	A	A	A	A	A
Approach Delay			5.9		4.6	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 43	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 6.5	Intersection LOS: A
Intersection Capacity Utilization 36.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	329	0	137	0	960	442	0	624	370
Future Volume (veh/h)	0	0	0	329	0	137	0	960	442	0	624	370
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				358	0	122	0	1043	0	0	678	320
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				647	0	523	0	2427		0	2427	1326
Arrive On Green				0.19	0.00	0.19	0.00	0.48	0.00	0.00	0.48	0.48
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				358	0	122	0	1043	0	0	678	320
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.9	0.0	1.1	0.0	4.2	0.0	0.0	2.5	2.1
Cycle Q Clear(g_c), s				2.9	0.0	1.1	0.0	4.2	0.0	0.0	2.5	2.1
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				647	0	523	0	2427		0	2427	1326
V/C Ratio(X)				0.55	0.00	0.23	0.00	0.43		0.00	0.28	0.24
Avail Cap(c_a), veh/h				3969	0	3204	0	12292		0	12292	6715
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				11.4	0.0	10.6	0.0	5.3	0.0	0.0	4.9	4.8
Incr Delay (d2), s/veh				0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.7	0.0	0.2	0.0	0.4	0.0	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.6	0.0	10.7	0.0	5.5	0.0	0.0	5.0	4.9
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					480			1043	A		998	
Approach Delay, s/veh					11.4			5.5			4.9	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	20.5		20.5		10.4			
Change Period (Y+Rc), s	5.8		5.8		4.6			
Max Green Setting (Gmax), s	74.2		74.2		35.4			
Max Q Clear Time (g_c+I1), s	6.2		4.5		4.9			
Green Ext Time (p_c), s	8.5		6.5		0.9			

Intersection Summary		
HCM 6th Ctrl Delay	6.4	
HCM 6th LOS	A	

Notes

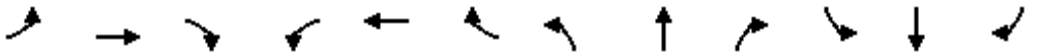
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	381	387	1022	413	878	75
Future Volume (vph)	381	387	1022	413	878	75
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.5	10.3	22.3	22.3	22.3	22.3
Actuated g/C Ratio	0.26	0.23	0.50	0.50	0.50	0.50
v/c Ratio	0.47	0.52	0.44	0.28	0.37	0.10
Control Delay	17.1	10.8	7.5	1.3	7.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	10.8	7.5	1.3	7.1	2.1
LOS	B	B	A	A	A	A
Approach Delay			5.7		6.7	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 44.5	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 8.0	Intersection LOS: A
Intersection Capacity Utilization 40.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	0	387	0	0	0	0	1022	413	0	878	75
Future Volume (veh/h)	381	0	387	0	0	0	0	1022	413	0	878	75
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	414	0	339				0	1111	367	0	954	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	862	0	696				0	2509	1371	0	2509	
Arrive On Green	0.25	0.00	0.25				0.00	0.49	0.49	0.00	0.49	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	414	0	339				0	1111	367	0	954	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	4.1	0.0	4.2				0.0	5.7	3.1	0.0	4.7	0.0
Cycle Q Clear(g_c), s	4.1	0.0	4.2				0.0	5.7	3.1	0.0	4.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	862	0	696				0	2509	1371	0	2509	
V/C Ratio(X)	0.48	0.00	0.49				0.00	0.44	0.27	0.00	0.38	
Avail Cap(c_a), veh/h	3481	0	2811				0	8811	4814	0	8811	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	12.8	0.0	12.9				0.0	6.6	6.0	0.0	6.4	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.2				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.9				0.0	1.0	0.5	0.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	0.0	13.1				0.0	6.8	6.1	0.0	6.5	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h		753						1478			954	A
Approach Delay, s/veh		13.0						6.6			6.5	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		25.5		14.6		25.5						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		69.2		40.4		69.2						
Max Q Clear Time (g_c+I1), s		7.7		6.2		6.7						
Green Ext Time (p_c), s		12.0		1.5		7.5						

Intersection Summary		
HCM 6th Ctrl Delay		8.1
HCM 6th LOS		A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.3:

OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

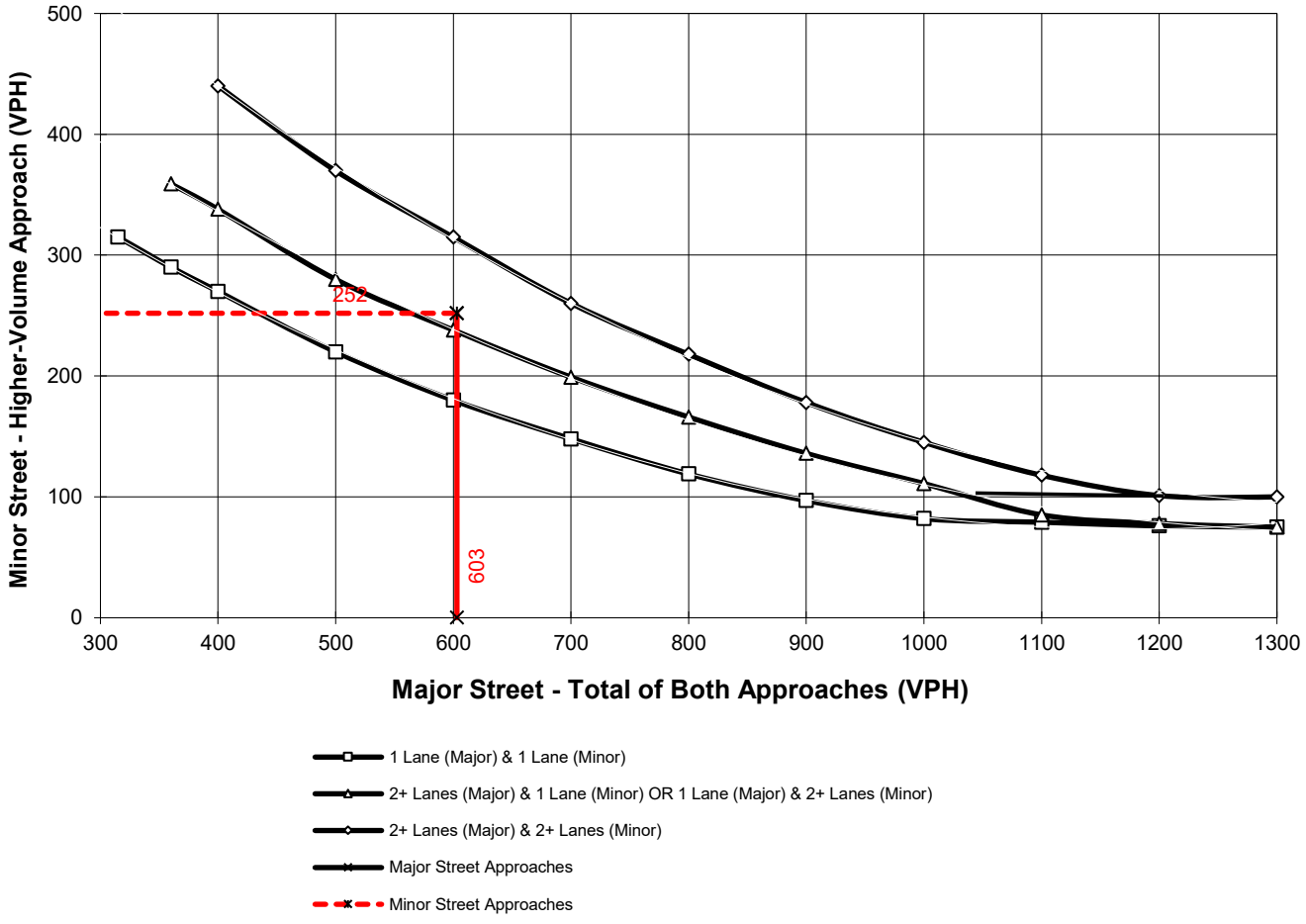
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2023 NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.** Total of Both Approaches (VPH) = **603**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **252**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

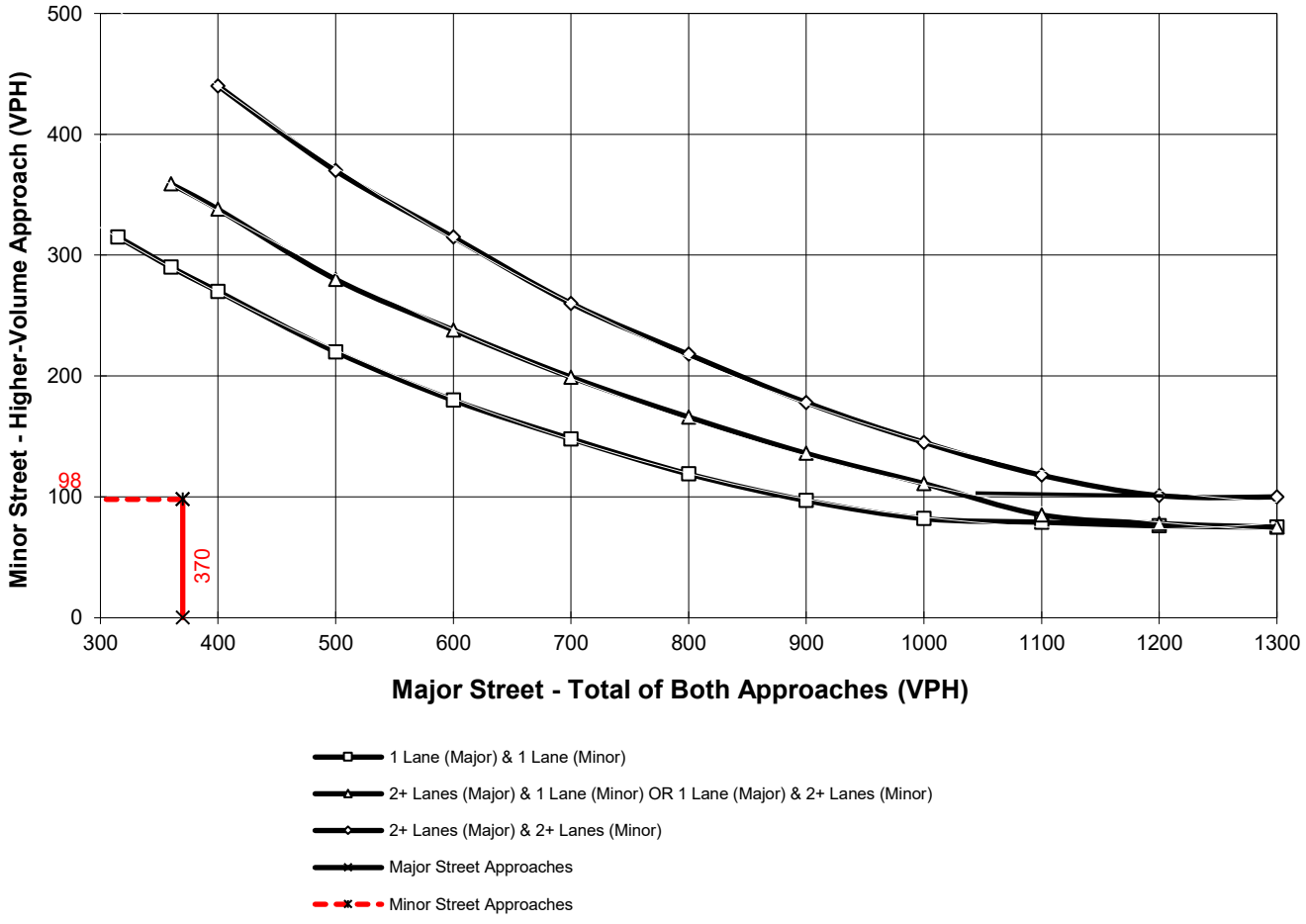
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2023 NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.** Total of Both Approaches (VPH) = **370**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **98**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.4:

OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

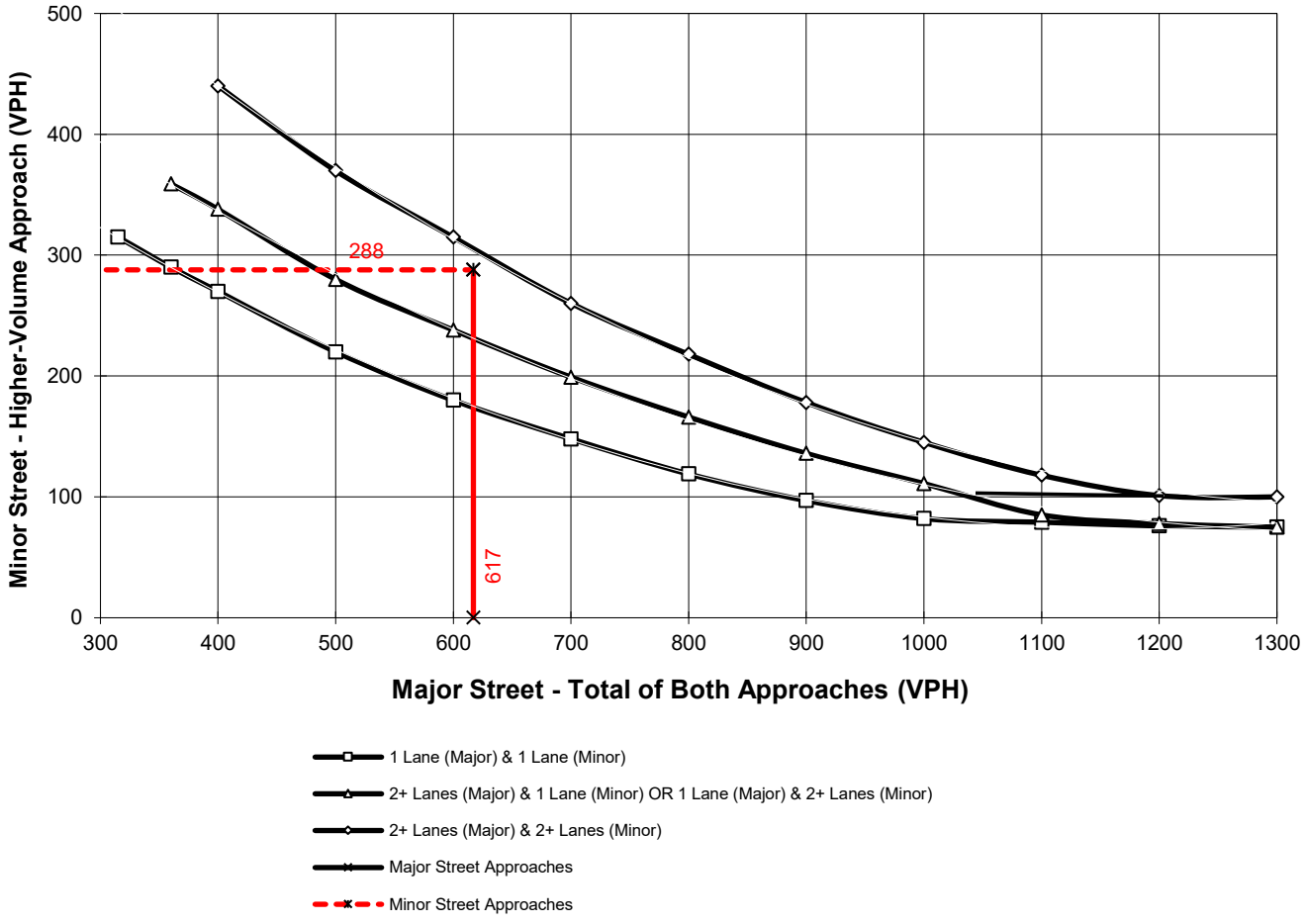
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2023 WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.**
Total of Both Approaches (VPH) = **617**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**
High Volume Approach (VPH) = **288**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

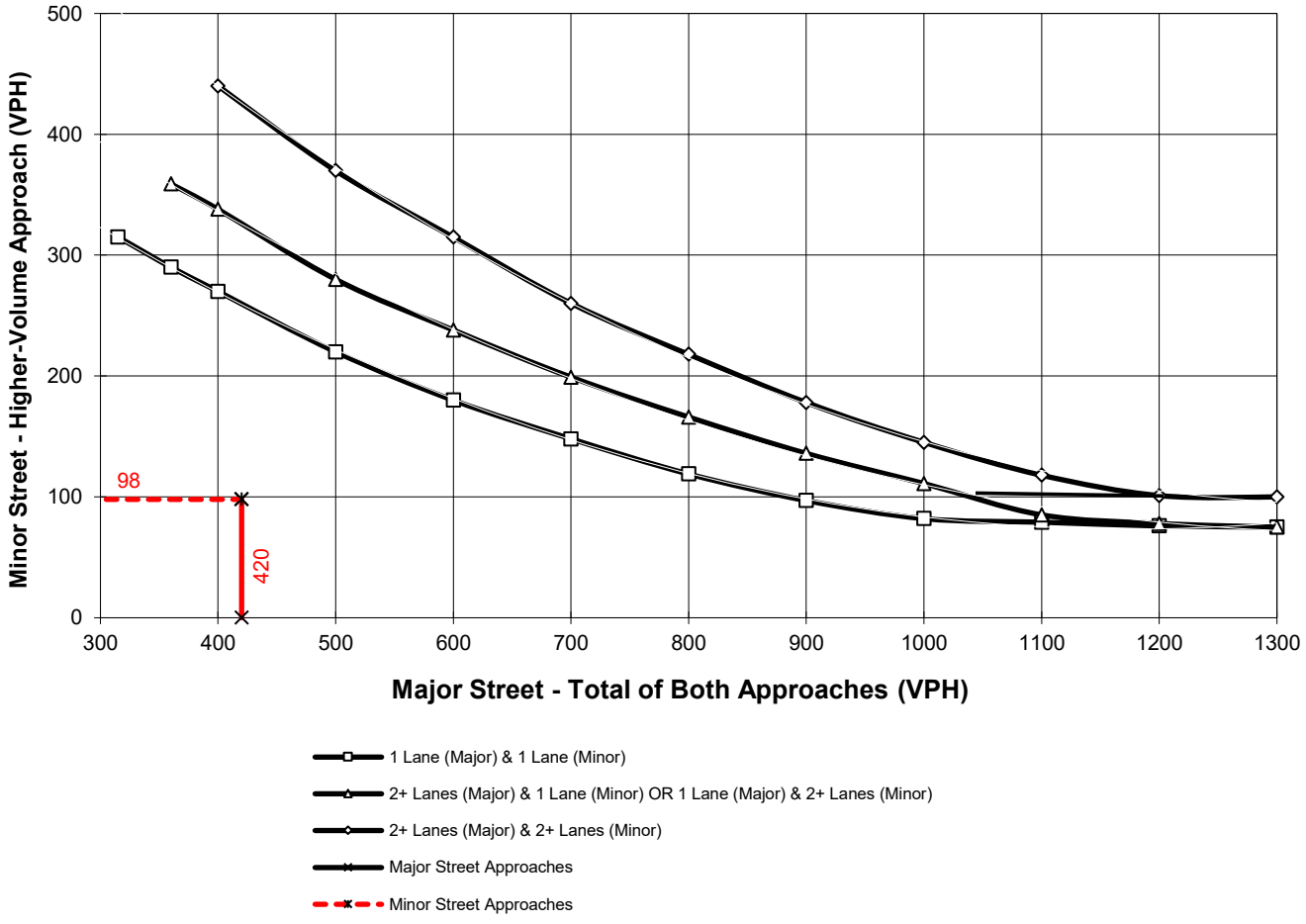
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2023 WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.** Total of Both Approaches (VPH) = **420**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **98**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



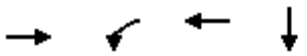
*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.5:

OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1036	292	646	408
v/c Ratio	1.17	0.99	0.49	1.23
Control Delay	114.0	74.8	4.0	158.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	114.0	74.8	4.0	158.0
Queue Length 50th (ft)	~689	140	42	~281
Queue Length 95th (ft)	#914	m#222	m65	#454
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	882	296	1313	333
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.17	0.99	0.49	1.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	146	579	503	454	741
v/c Ratio	1.35	0.76	0.91	0.57	0.87
Control Delay	198.5	17.9	53.2	5.7	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	198.5	17.9	53.2	5.7	32.5
Queue Length 50th (ft)	~110	230	271	0	336
Queue Length 95th (ft)	m#81	m192	#451	68	#577
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	802	851
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.35	0.74	0.88	0.57	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	374	355	398	250	479
v/c Ratio	0.88	0.76	0.86	0.12	0.51
Control Delay	47.2	28.5	45.6	5.7	14.7
Queue Delay	0.0	17.9	0.0	0.0	3.5
Total Delay	47.2	46.4	45.6	5.7	18.2
Queue Length 50th (ft)	135	92	155	14	74
Queue Length 95th (ft)	#278	#217	#279	m33	117
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	476	493	2140	944
Starvation Cap Reductn	0	0	0	0	361
Spillback Cap Reductn	0	113	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.98	0.81	0.12	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	321	312	1011	110	780
v/c Ratio	0.67	0.67	0.57	0.50	0.34
Control Delay	16.3	16.1	9.3	20.7	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.1	9.3	20.7	8.6
Queue Length 50th (ft)	44	41	75	27	86
Queue Length 95th (ft)	112	108	148	m53	m173
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	544	531	1786	252	2284
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.59	0.57	0.44	0.34

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	371	105	770	147	446	345
v/c Ratio	0.33	0.12	0.40	0.21	0.23	0.27
Control Delay	10.6	3.8	8.5	2.6	7.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	3.8	8.5	2.6	7.6	1.8
Queue Length 50th (ft)	24	0	36	0	19	0
Queue Length 95th (ft)	58	13	54	19	32	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3433	2784	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.04	0.15	0.09	0.09	0.12

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	287	335	630	203	750	73
v/c Ratio	0.27	0.34	0.33	0.17	0.40	0.12
Control Delay	9.9	3.4	7.7	1.8	8.1	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	3.4	7.7	1.8	8.1	2.7
Queue Length 50th (ft)	18	1	26	0	32	0
Queue Length 95th (ft)	42	22	41	10	49	12
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.12	0.12	0.07	0.15	0.05

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	799	214	843	913
v/c Ratio	1.32	1.01	0.91	1.19
Control Delay	181.3	95.0	31.6	125.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	181.3	95.0	31.6	125.1
Queue Length 50th (ft)	~581	~129	397	~628
Queue Length 95th (ft)	#620	m#190	454	#653
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	607	212	922	766
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.32	1.01	0.91	1.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	153	748	439	300	702
v/c Ratio	0.77	0.91	0.84	0.45	0.81
Control Delay	45.0	21.4	46.4	5.6	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	21.4	46.4	5.6	28.0
Queue Length 50th (ft)	86	305	232	0	311
Queue Length 95th (ft)	m67	m219	#383	58	#530
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	674	865
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.89	0.81	0.45	0.81

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	449	435	297	337	568
v/c Ratio	0.86	0.74	0.71	0.17	0.60
Control Delay	38.1	22.6	35.0	6.6	21.9
Queue Delay	0.0	3.6	0.0	0.0	24.6
Total Delay	38.1	26.1	35.0	6.6	46.5
Queue Length 50th (ft)	155	104	115	21	95
Queue Length 95th (ft)	#307	#234	m180	m46	#167
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	605	511	2026	945
Starvation Cap Reductn	0	0	0	0	387
Spillback Cap Reductn	0	97	0	60	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.86	0.58	0.17	1.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	476	456	925	118	1097
v/c Ratio	0.85	0.78	0.61	0.58	0.56
Control Delay	32.1	24.5	12.0	27.6	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	24.5	12.0	27.6	16.1
Queue Length 50th (ft)	137	109	90	45	186
Queue Length 95th (ft)	#296	#253	150	m60	m268
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	595	612	1527	211	1942
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.75	0.61	0.56	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	332	149	1004	398	663	402
v/c Ratio	0.35	0.18	0.43	0.42	0.28	0.27
Control Delay	14.3	4.5	7.7	2.3	6.8	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	4.5	7.7	2.3	6.8	1.3
Queue Length 50th (ft)	30	0	49	0	30	0
Queue Length 95th (ft)	71	19	71	27	45	14
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	2996	2388	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.06	0.20	0.25	0.13	0.14

Intersection Summary



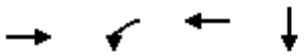
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	414	388	997	382	916	82
v/c Ratio	0.45	0.46	0.42	0.25	0.39	0.10
Control Delay	15.1	8.2	7.6	1.4	7.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	8.2	7.6	1.4	7.4	2.2
Queue Length 50th (ft)	38	15	45	0	41	0
Queue Length 95th (ft)	86	52	78	15	71	14
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3249	2624	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.15	0.20	0.14	0.18	0.05

Intersection Summary

APPENDIX 6.6:

OPENING YEAR CUMULATIVE (2023) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1044	292	646	432
v/c Ratio	1.18	0.99	0.49	1.29
Control Delay	117.2	74.8	4.0	182.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	117.2	74.8	4.0	182.5
Queue Length 50th (ft)	~699	140	42	~307
Queue Length 95th (ft)	#924	m#222	m65	#484
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	883	296	1313	335
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.18	0.99	0.49	1.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	153	579	503	454	741
v/c Ratio	1.42	0.76	0.91	0.57	0.87
Control Delay	225.6	18.1	53.2	5.7	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	225.6	18.1	53.2	5.7	32.5
Queue Length 50th (ft)	~119	232	271	0	336
Queue Length 95th (ft)	m#85	m190	#451	68	#577
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	802	851
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.42	0.74	0.88	0.57	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	374	355	398	250	479
v/c Ratio	0.88	0.76	0.86	0.12	0.51
Control Delay	47.2	28.5	46.6	5.2	14.7
Queue Delay	0.0	17.9	0.0	0.0	3.4
Total Delay	47.2	46.4	46.6	5.2	18.2
Queue Length 50th (ft)	135	92	153	14	74
Queue Length 95th (ft)	#278	#217	#278	30	117
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	476	493	2140	944
Starvation Cap Reductn	0	0	0	0	360
Spillback Cap Reductn	0	113	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.98	0.81	0.12	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	321	312	1011	110	780
v/c Ratio	0.67	0.67	0.57	0.50	0.34
Control Delay	16.3	16.1	9.3	20.6	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.1	9.3	20.6	8.6
Queue Length 50th (ft)	44	41	75	27	86
Queue Length 95th (ft)	112	108	148	m53	m173
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	544	531	1786	252	2284
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.59	0.57	0.44	0.34

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	428	105	778	167	475	345
v/c Ratio	0.39	0.12	0.40	0.24	0.24	0.27
Control Delay	11.3	3.9	8.4	2.6	7.6	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	3.9	8.4	2.6	7.6	1.7
Queue Length 50th (ft)	31	0	36	0	20	0
Queue Length 95th (ft)	68	13	56	20	35	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3430	2768	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.04	0.15	0.11	0.09	0.12

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	287	404	659	221	832	73
v/c Ratio	0.27	0.43	0.34	0.18	0.43	0.11
Control Delay	10.3	6.1	7.8	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	6.1	7.8	1.8	8.4	2.8
Queue Length 50th (ft)	18	11	27	0	36	0
Queue Length 95th (ft)	44	40	47	12	60	13
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.14	0.13	0.08	0.16	0.05

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	837	214	843	928
v/c Ratio	1.38	1.01	0.91	1.21
Control Delay	207.7	94.9	31.4	132.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	207.7	94.9	31.4	132.4
Queue Length 50th (ft)	~629	~129	397	~645
Queue Length 95th (ft)	#663	m#189	454	#667
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	607	212	922	767
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.38	1.01	0.91	1.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	182	748	439	300	702
v/c Ratio	0.88	0.91	0.85	0.46	0.82
Control Delay	47.7	21.3	47.4	5.6	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	21.3	47.4	5.6	28.2
Queue Length 50th (ft)	104	317	232	0	311
Queue Length 95th (ft)	m79	m218	#383	58	#530
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	674	861
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.88	0.89	0.81	0.45	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	449	435	297	337	568
v/c Ratio	0.86	0.74	0.71	0.17	0.60
Control Delay	38.1	22.6	35.0	6.6	21.9
Queue Delay	0.0	3.6	0.0	0.0	24.6
Total Delay	38.1	26.1	35.0	6.6	46.5
Queue Length 50th (ft)	155	104	115	21	95
Queue Length 95th (ft)	#307	#234	m180	m46	#167
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	605	511	2026	945
Starvation Cap Reductn	0	0	0	0	387
Spillback Cap Reductn	0	97	0	60	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.86	0.58	0.17	1.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	476	456	925	118	1097
v/c Ratio	0.85	0.78	0.61	0.58	0.56
Control Delay	32.1	24.5	12.0	27.6	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	24.5	12.0	27.6	16.1
Queue Length 50th (ft)	137	109	90	45	186
Queue Length 95th (ft)	#296	#253	150	m60	m268
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	595	612	1527	211	1942
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.75	0.61	0.56	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	358	149	1043	480	678	402
v/c Ratio	0.39	0.19	0.42	0.47	0.28	0.26
Control Delay	15.7	4.7	7.5	2.4	6.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	4.7	7.5	2.4	6.6	1.2
Queue Length 50th (ft)	35	0	52	0	31	0
Queue Length 95th (ft)	81	19	77	30	49	14
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	2875	2283	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.07	0.21	0.30	0.13	0.14

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	414	421	1111	449	954	82
v/c Ratio	0.47	0.52	0.44	0.28	0.37	0.10
Control Delay	17.1	10.8	7.5	1.3	7.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	10.8	7.5	1.3	7.1	2.1
Queue Length 50th (ft)	43	23	53	0	43	0
Queue Length 95th (ft)	97	71	94	17	79	14
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3085	2484	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.17	0.22	0.16	0.19	0.05

Intersection Summary

APPENDIX 6.7:

OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2023 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2235	7161	0.31	68.7	10.8	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2235	398	7200	2100	0.31	0.19	64.1	60.6	11.6	14.5	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1837	7161	0.26	68.7	8.9	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2636	799	7200	2100	0.37	0.38	64.2	62.4	13.7	14.7	B

Segment 5: Basic

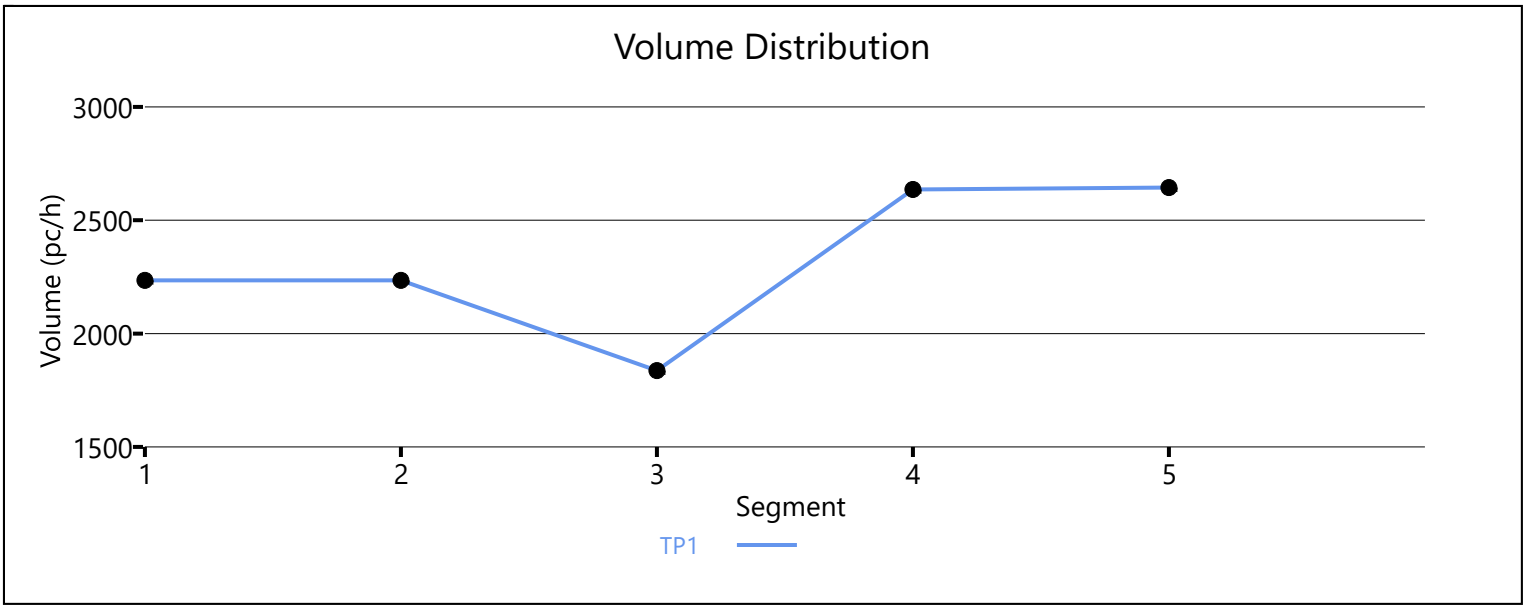
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2644	7161	0.37	68.7	12.8	B

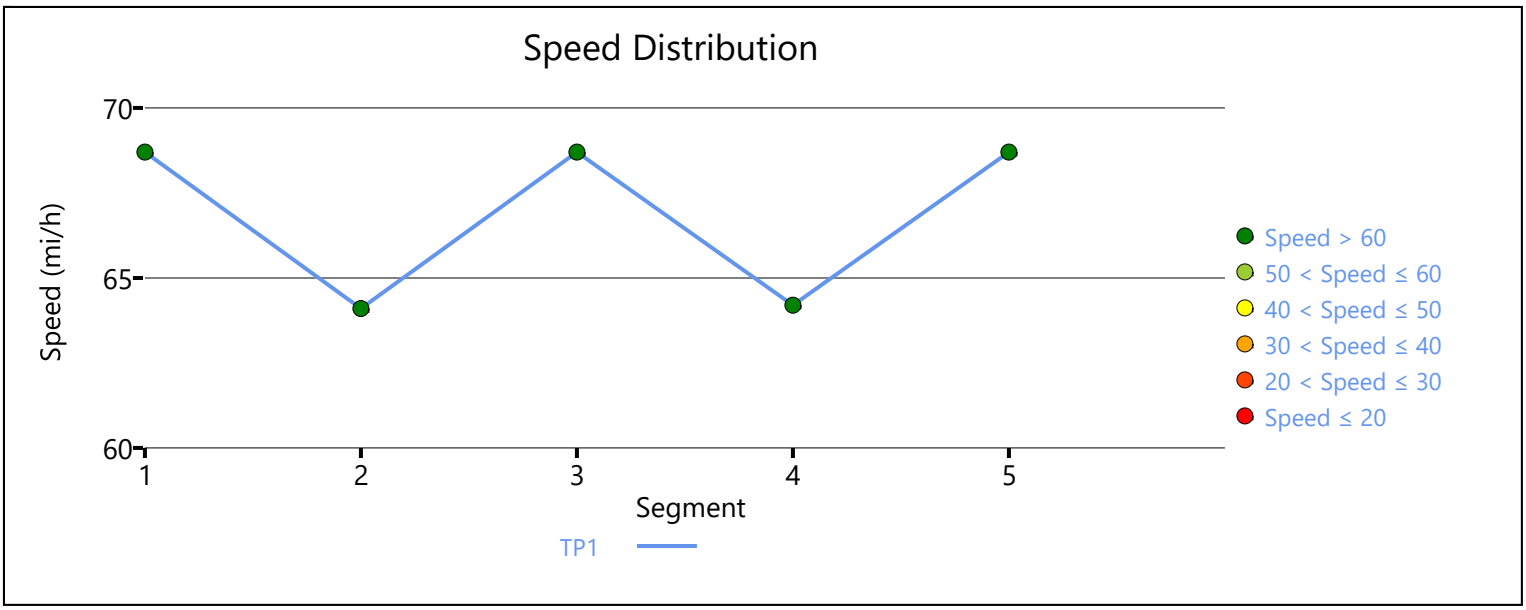
Facility Time Period Results

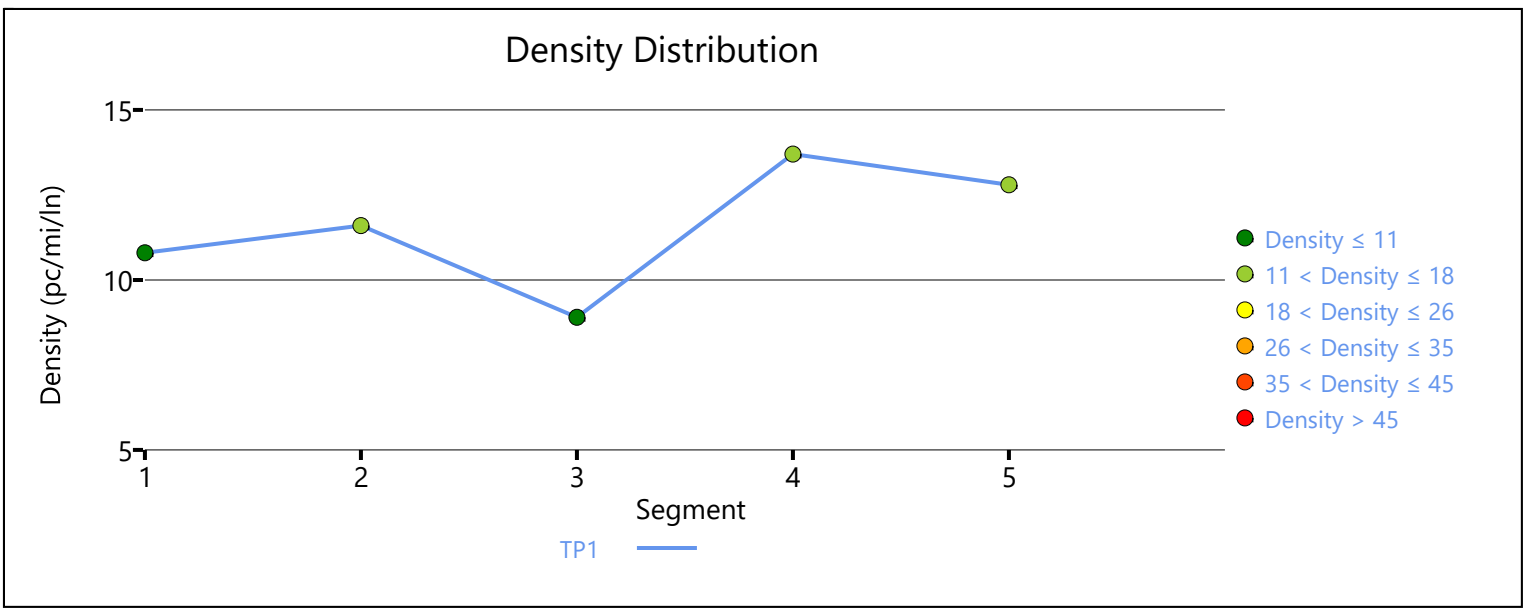
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.3	10.9	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	10.9
Average Travel Time, min	2.1	Density, pc/mi/ln	11.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2023 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2701	7161	0.38	68.7	13.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2701	795	7200	2100	0.38	0.38	63.0	59.6	14.3	17.8	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	1919	7161	0.27	68.7	9.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2563	644	7200	2100	0.36	0.31	64.5	62.7	13.2	13.4	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2550	7161	0.36	68.7	12.4	B

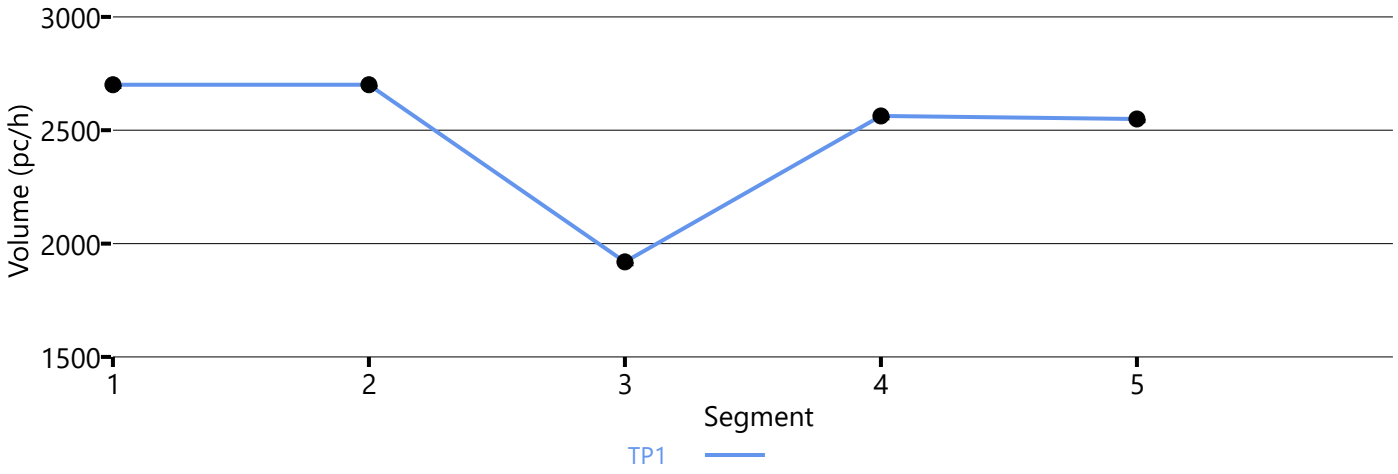
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	12.5	11.5	2.2	B

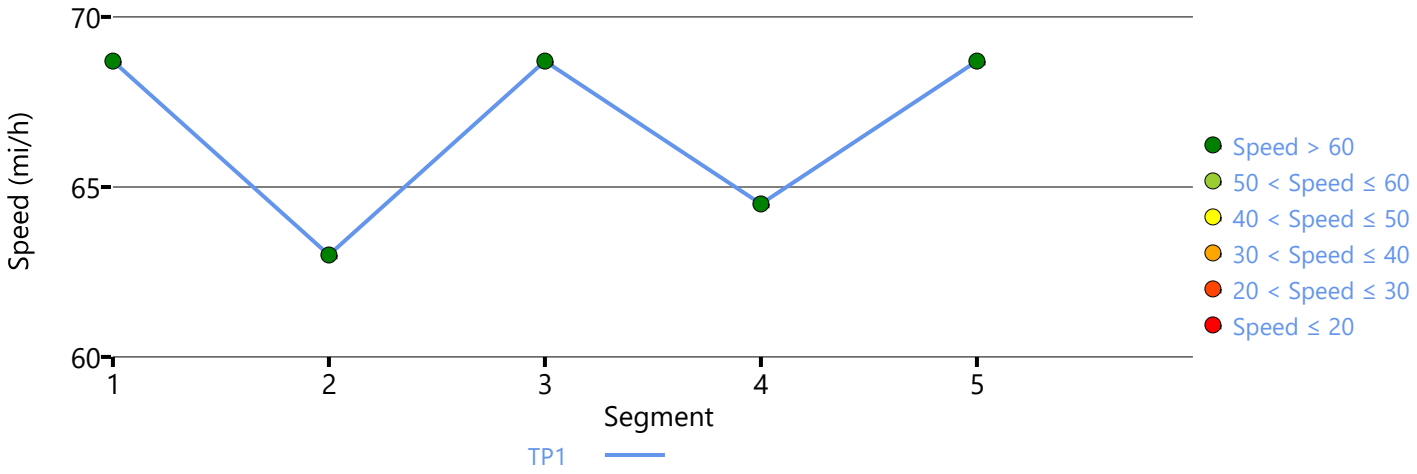
Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	11.5
Average Travel Time, min	2.2	Density, pc/mi/ln	12.5

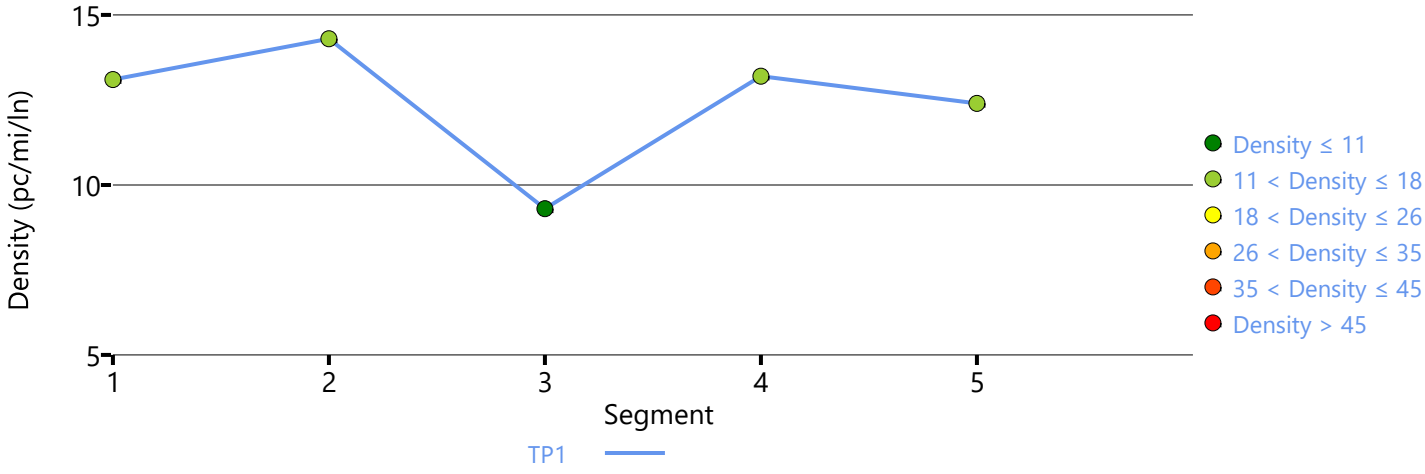
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2199	4764	0.46	68.2	16.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2199	1755	4800	2100	0.46	0.84	57.2	57.2	19.2	21.4	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	454	4764	0.10	68.2	3.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	698	244	4800	1900	0.15	0.13	61.1	61.1	5.7	9.6	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	697	4764	0.15	68.2	5.1	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1388	691	4800	2100	0.29	0.33	61.1	61.1	11.4	14.8	B

Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1388	4764	0.29	68.2	10.2	A

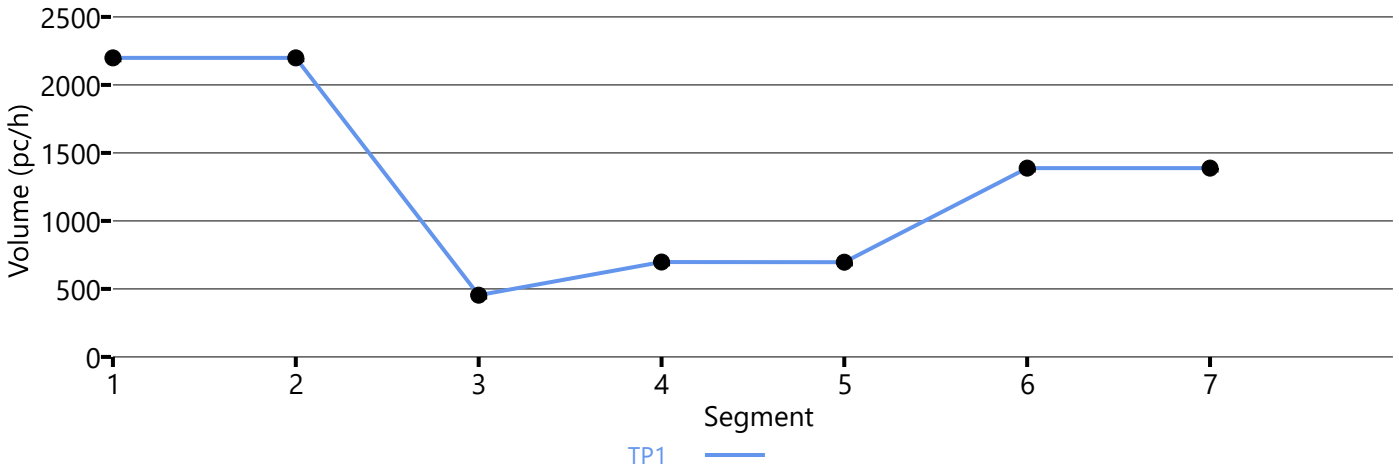
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	11.4	11.0	3.1	B

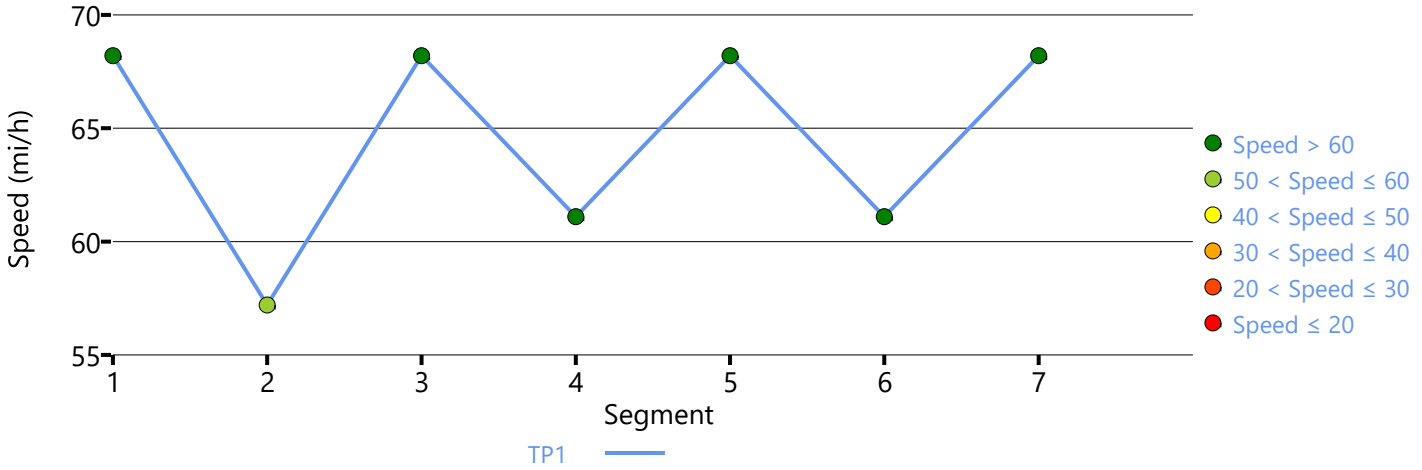
Facility Overall Results

Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	11.0
Average Travel Time, min	3.1	Density, pc/mi/ln	11.4

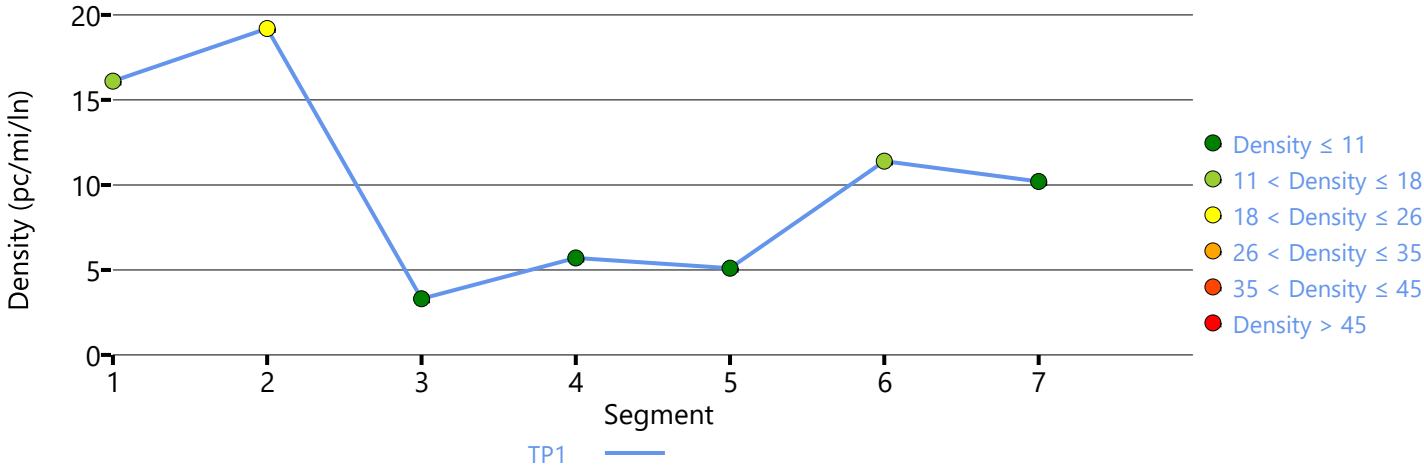
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1468	4764	0.31	68.2	10.8	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1468	1312	4800	2100	0.31	0.62	58.4	58.4	12.6	15.1	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	163	4764	0.03	68.2	1.2	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	764	601	4800	1900	0.16	0.32	61.1	61.1	6.3	10.0	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	764	4764	0.16	68.2	5.6	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1931	1167	4800	2100	0.40	0.56	60.8	60.8	15.9	18.8	B

Segment 7: Basic

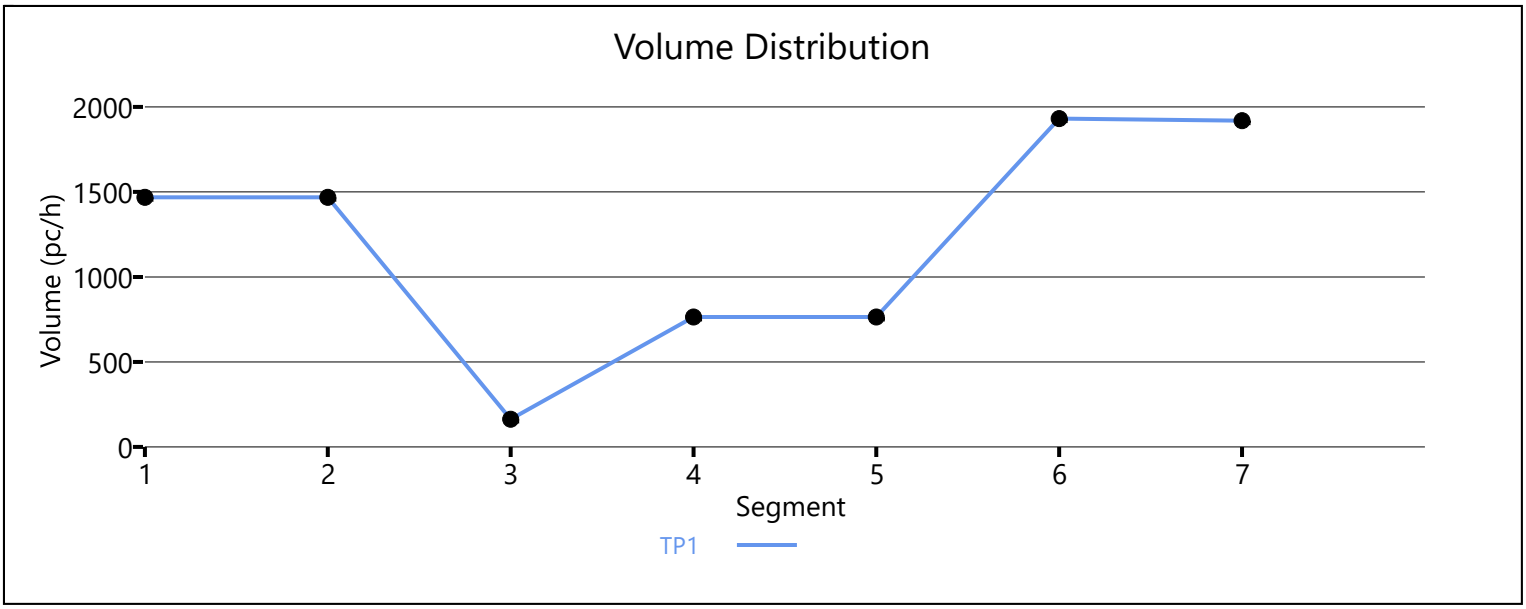
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1919	4764	0.40	68.2	14.1	B

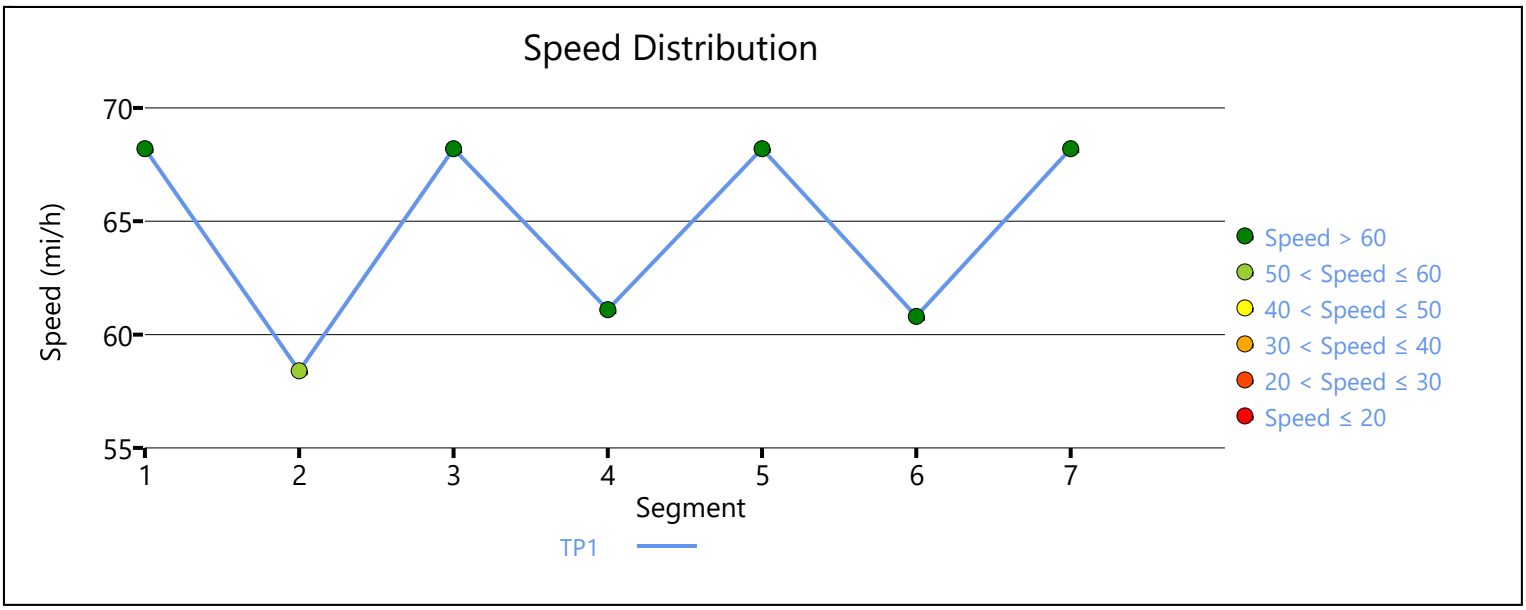
Facility Time Period Results

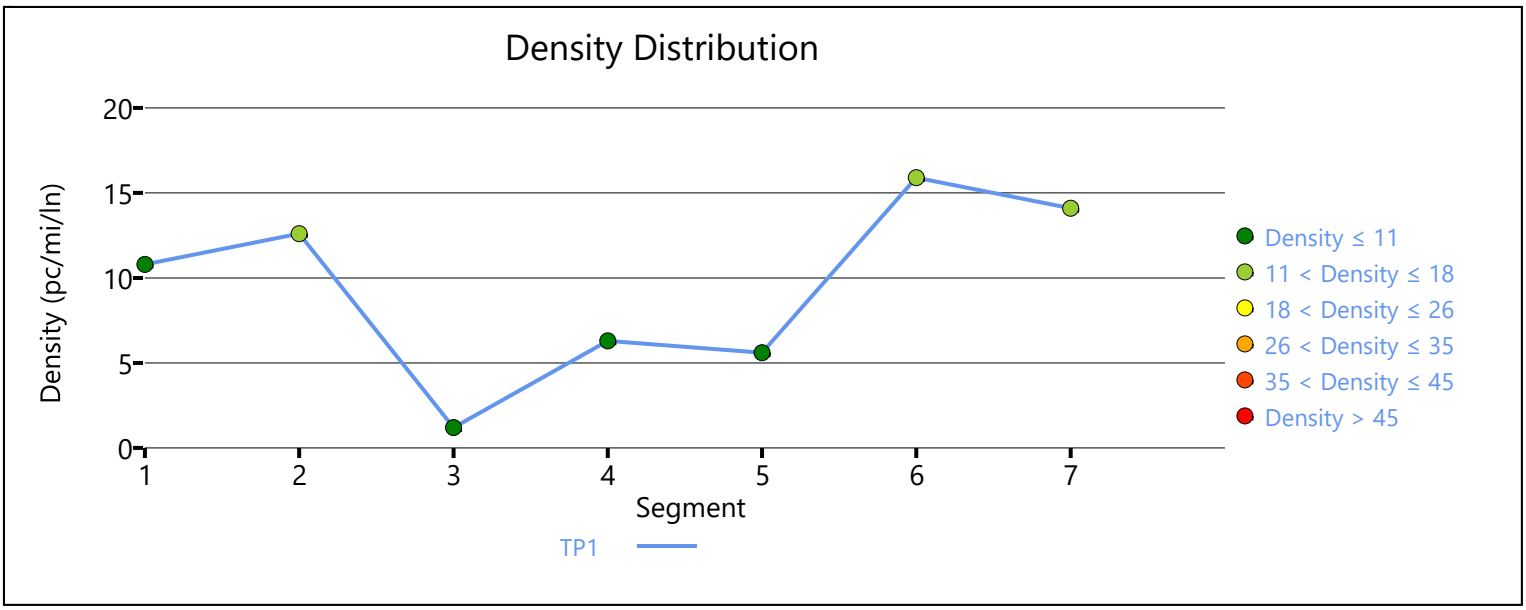
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.0	10.6	10.3	3.1	A

Facility Overall Results

Space Mean Speed, mi/h	66.0	Density, veh/mi/ln	10.3
Average Travel Time, min	3.1	Density, pc/mi/ln	10.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3073	7161	0.43	68.7	14.9	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3073	756	7200	2100	0.43	0.36	63.5	59.8	16.1	19.7	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2323	7161	0.32	68.7	11.3	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2767	444	7200	2100	0.38	0.21	64.4	62.5	14.3	14.4	B

Segment 5: Basic

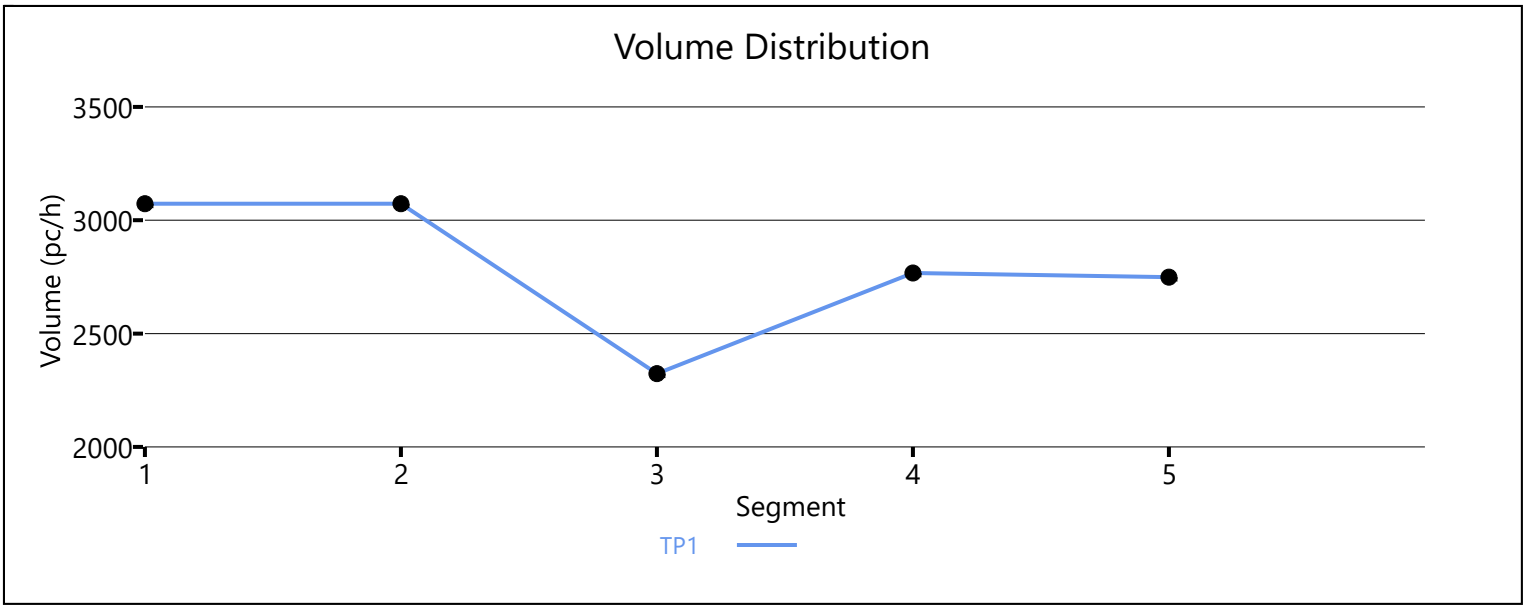
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2749	7161	0.38	68.7	13.3	B

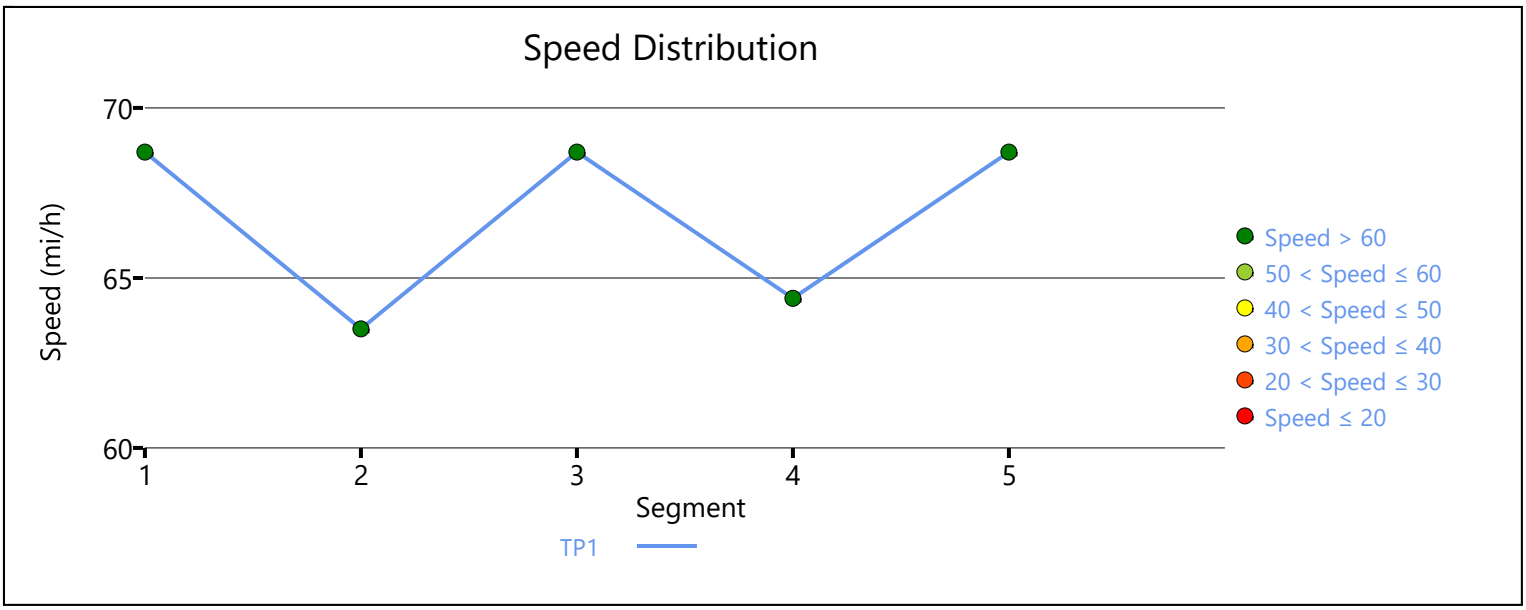
Facility Time Period Results

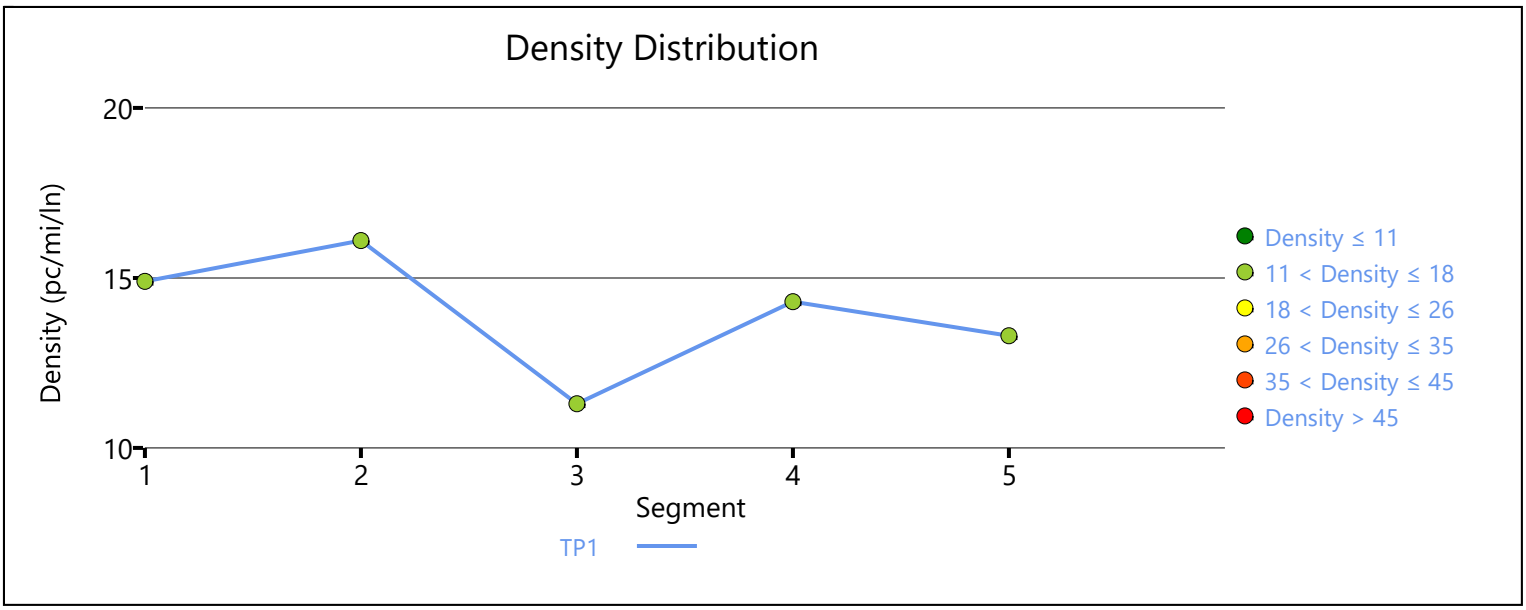
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	14.2	13.7	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	13.7
Average Travel Time, min	2.1	Density, pc/mi/ln	14.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3263	7161	0.46	68.7	15.8	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3263	742	7200	2100	0.45	0.35	63.7	59.8	17.1	20.5	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2526	7161	0.35	68.7	12.3	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3268	742	7200	2100	0.45	0.35	64.1	62.4	17.0	16.9	B

Segment 5: Basic

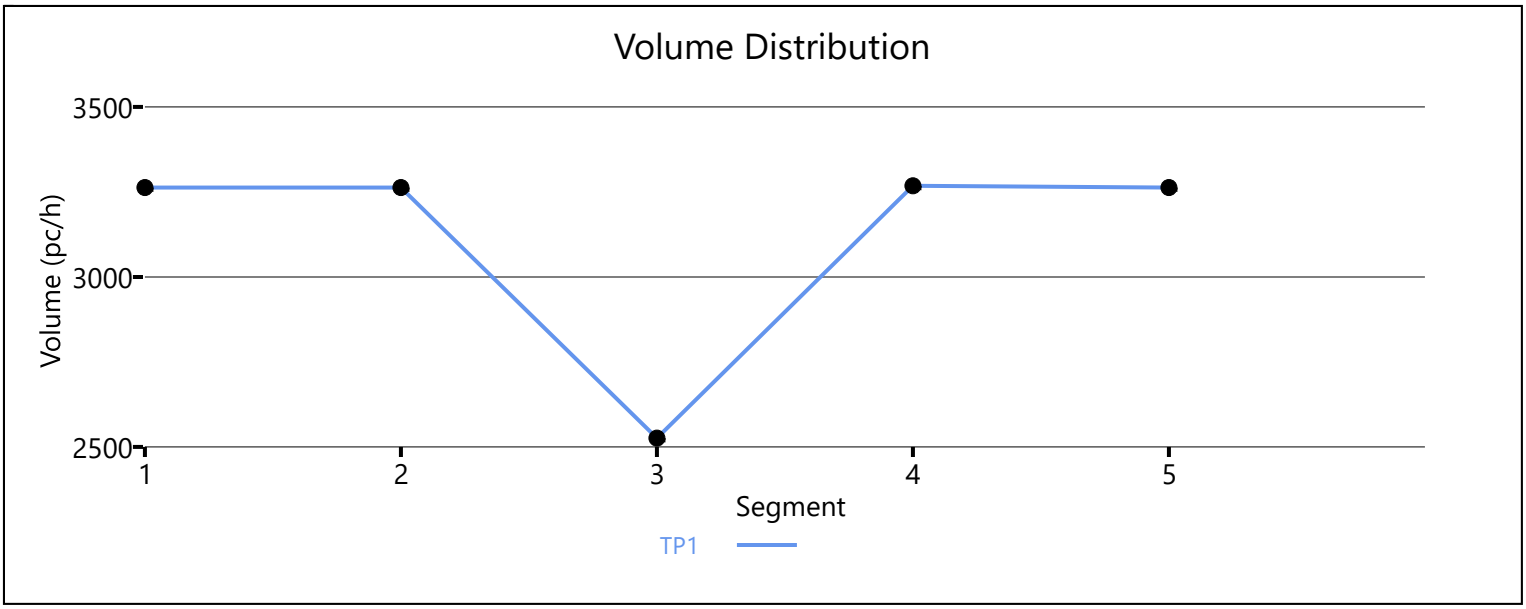
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3263	7161	0.46	68.7	15.8	B

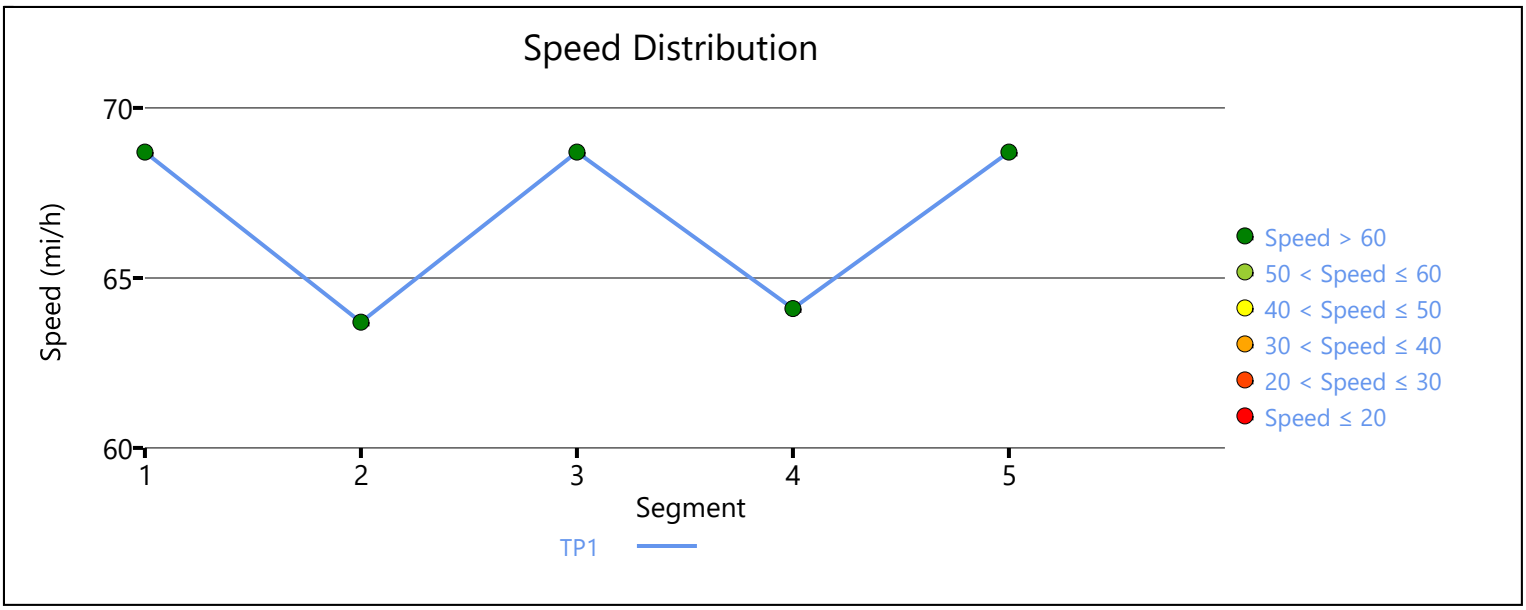
Facility Time Period Results

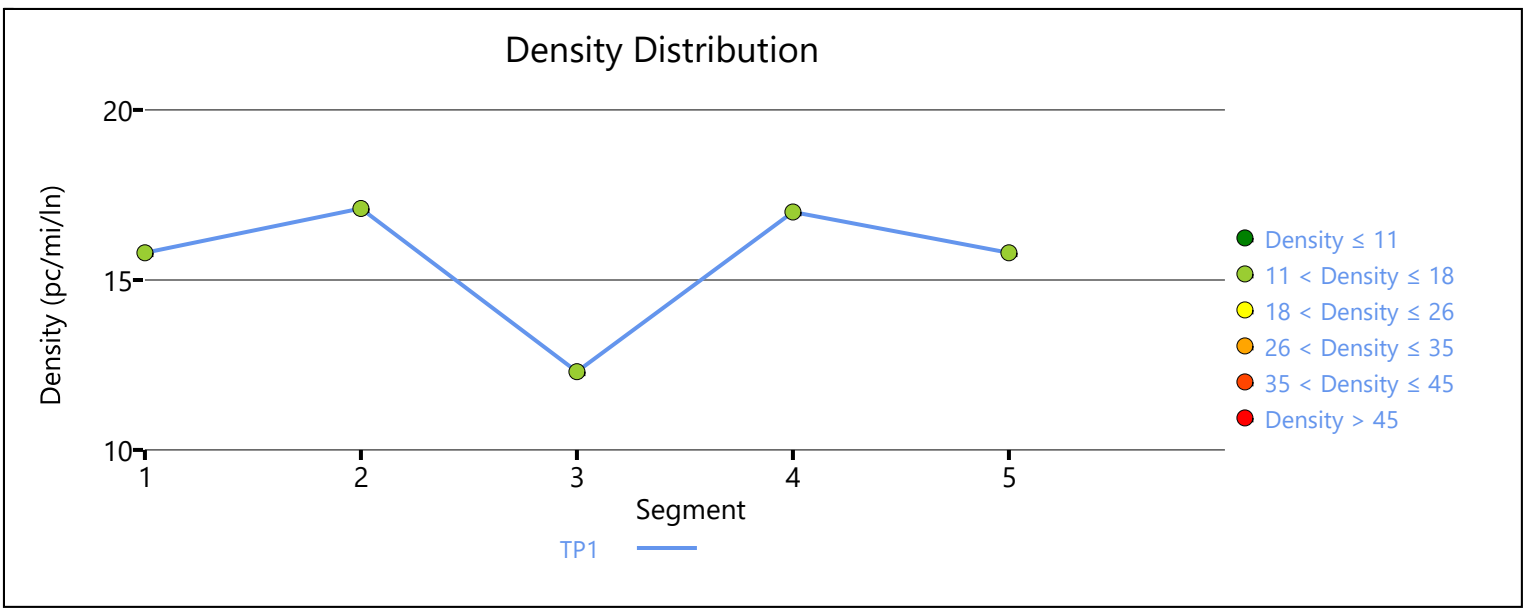
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	15.6	14.6	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	14.6
Average Travel Time, min	2.2	Density, pc/mi/ln	15.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	CP	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2668	4764	0.56	68.2	19.6	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2668	2441	4800	2100	0.56	1.16	53.3	55.5	45.0	25.4	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	227	4764	0.05	67.3	1.6	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	483	256	4800	1900	0.10	0.13	61.1	61.1	4.0	7.9	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	483	4764	0.10	67.3	3.5	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	1754	1271	4800	2100	0.37	0.61	60.9	60.9	14.4	17.4	B

Segment 7: Basic

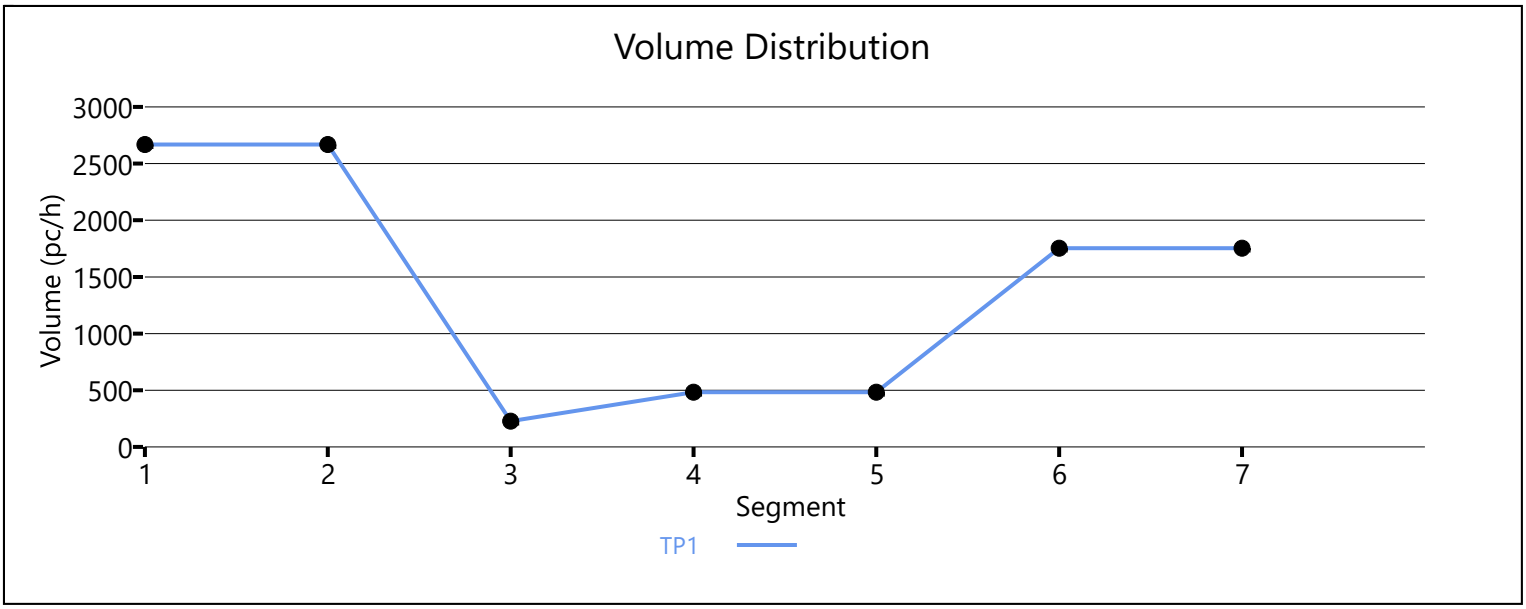
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1754	4764	0.37	68.2	12.5	B

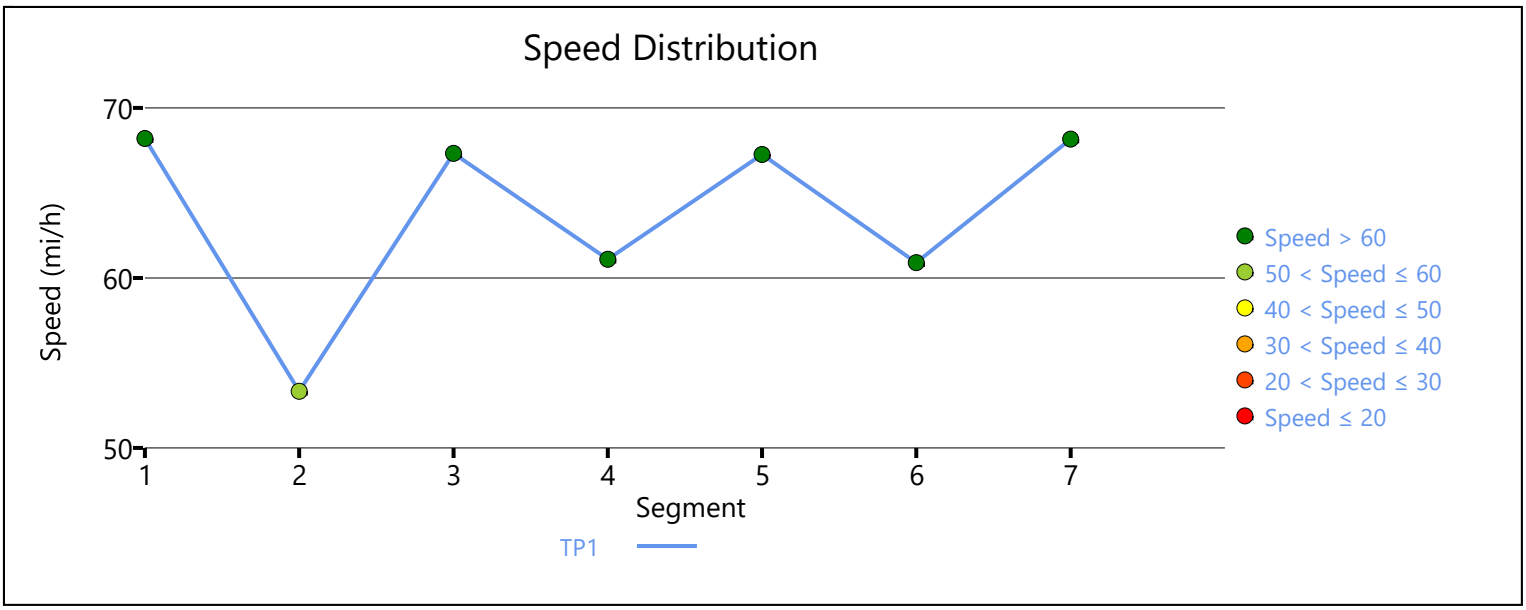
Facility Time Period Results

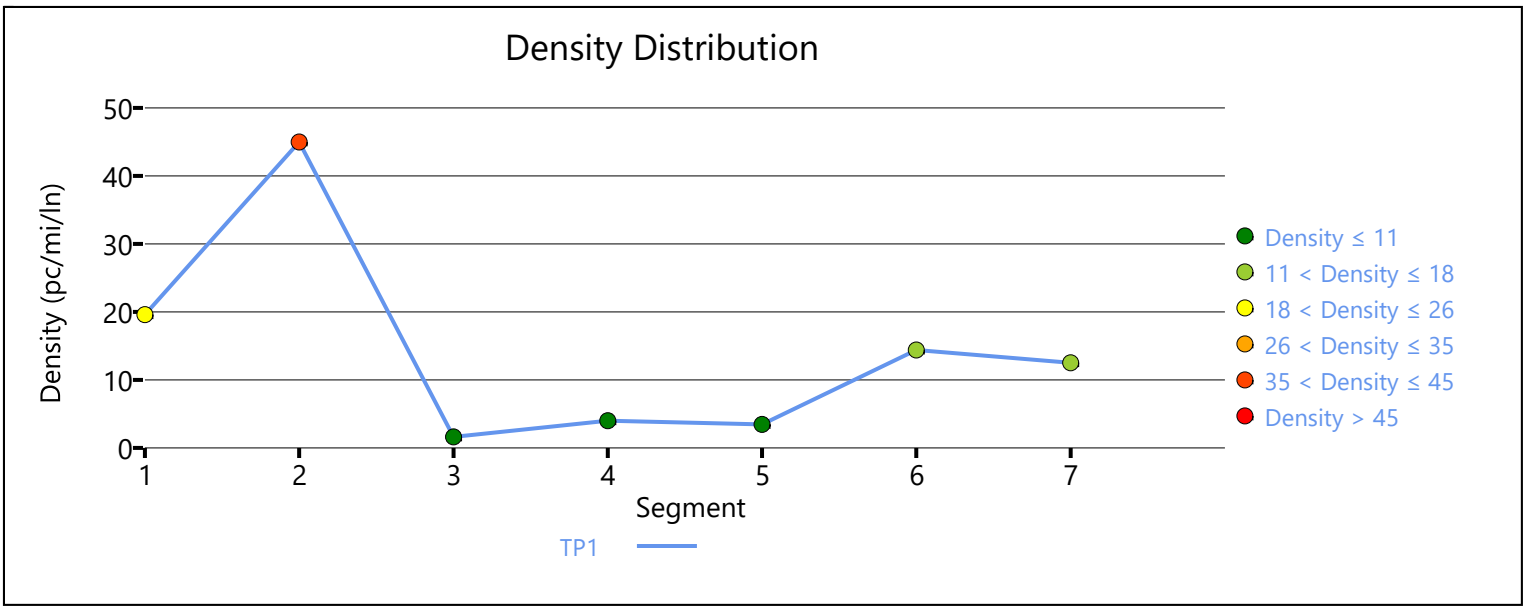
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.1	14.9	14.4	3.2	B

Facility Overall Results

Space Mean Speed, mi/h	65.1	Density, veh/mi/ln	14.4
Average Travel Time, min	3.2	Density, pc/mi/ln	14.9







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1617	4764	0.34	68.2	11.8	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	1617	1520	4800	2100	0.34	0.72	57.8	57.8	14.0	16.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	93	4764	0.02	68.2	0.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.962	1030	937	4800	1900	0.21	0.49	61.0	61.0	8.4	11.9	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1033	4764	0.22	68.2	7.6	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2281	1248	4800	2100	0.48	0.59	60.5	60.5	18.9	21.5	C

Segment 7: Basic

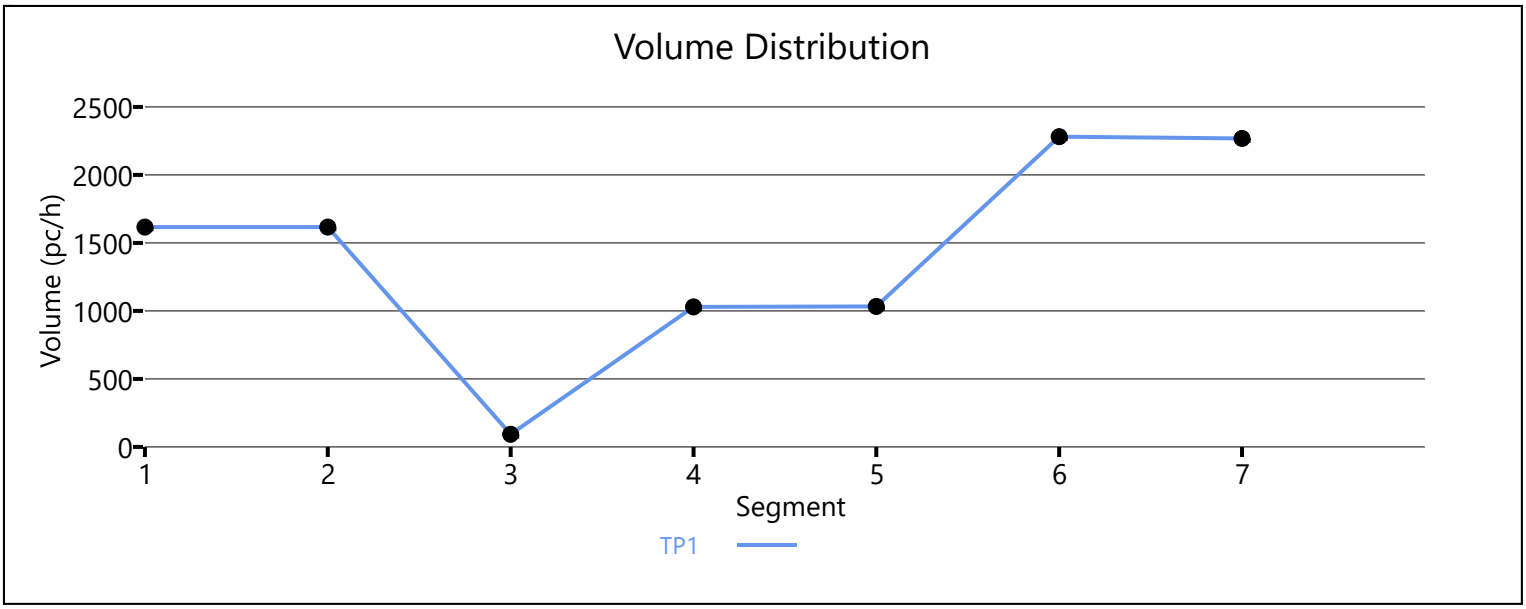
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2268	4764	0.48	68.2	16.6	B

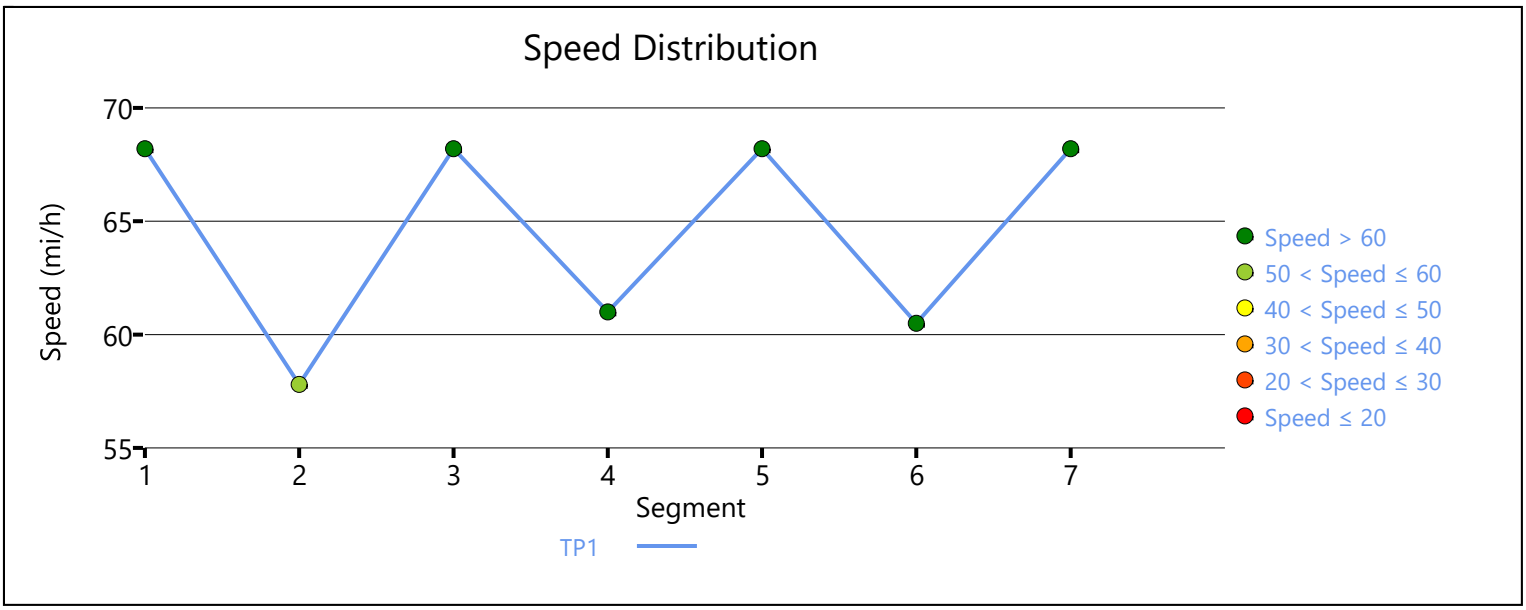
Facility Time Period Results

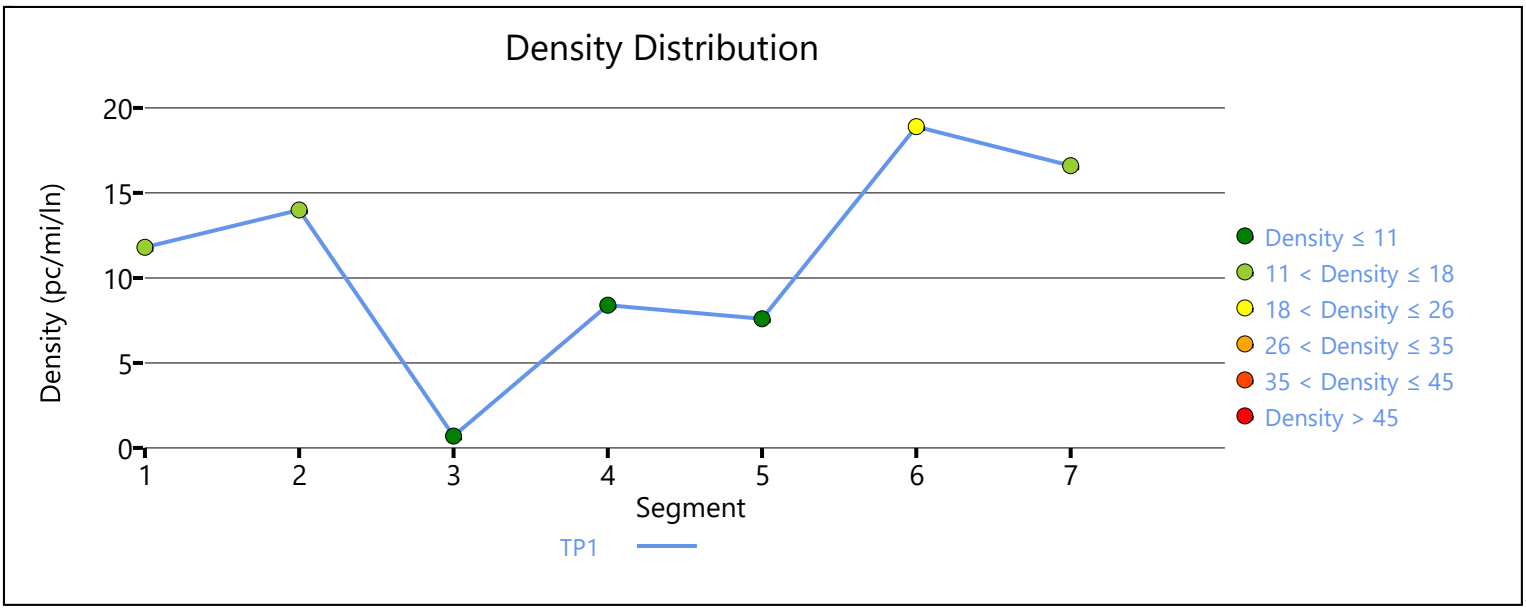
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	12.2	11.7	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	11.7
Average Travel Time, min	3.1	Density, pc/mi/ln	12.2







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APPENDIX 6.8:

OPENING YEAR CUMULATIVE (2023) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2023 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2260	7161	0.32	68.7	11.0	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2260	423	7200	2100	0.31	0.20	64.1	60.6	11.8	14.7	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1837	7161	0.26	68.7	8.9	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2636	799	7200	2100	0.37	0.38	64.2	62.4	13.7	14.7	B

Segment 5: Basic

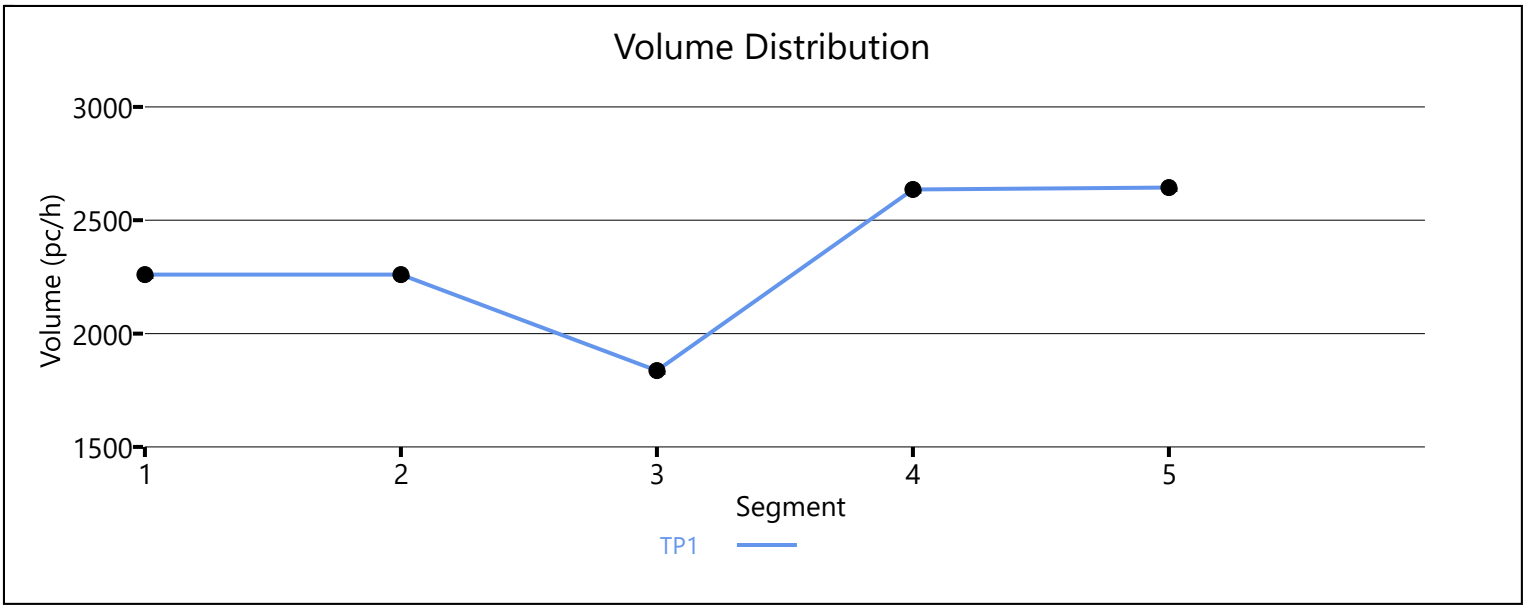
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2644	7161	0.37	68.7	12.8	B

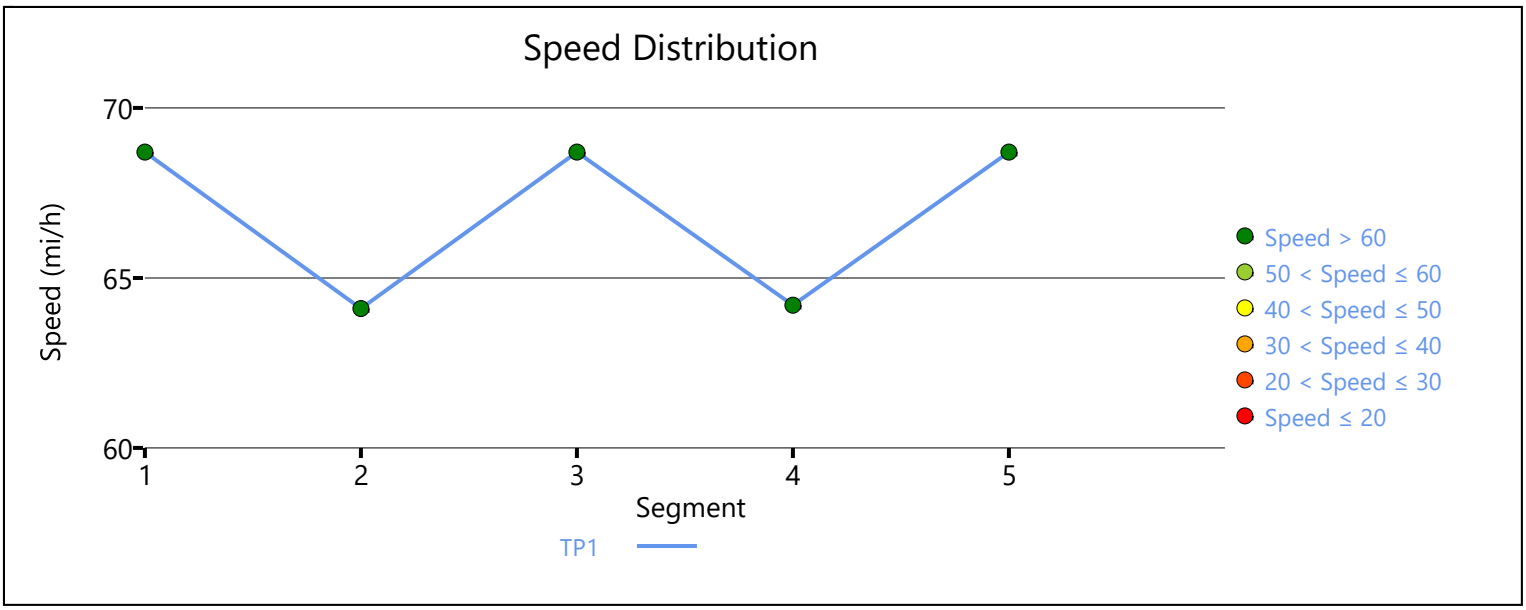
Facility Time Period Results

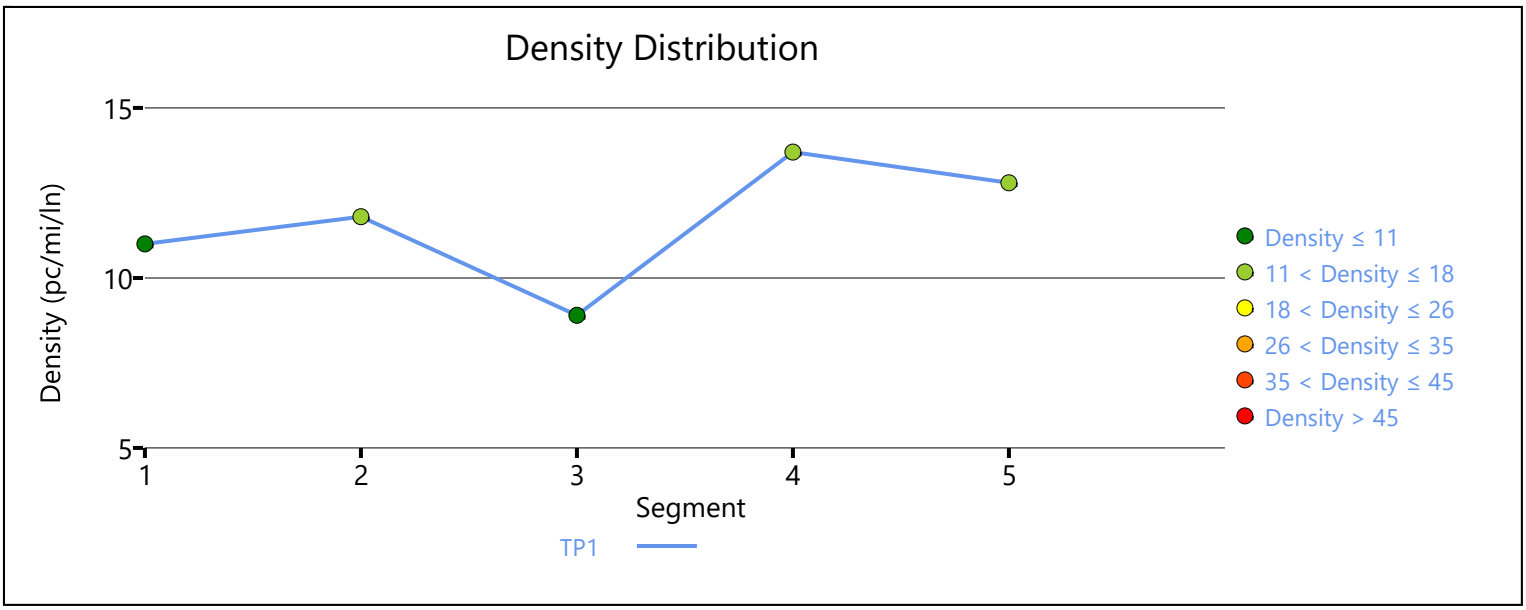
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.5	11.0	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	11.0
Average Travel Time, min	2.1	Density, pc/mi/ln	11.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2023 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2701	7161	0.38	68.7	13.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2701	795	7200	2100	0.38	0.38	63.0	59.6	14.3	17.8	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	1919	7161	0.27	68.7	9.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2571	652	7200	2100	0.36	0.31	64.5	62.7	13.3	13.4	B

Segment 5: Basic

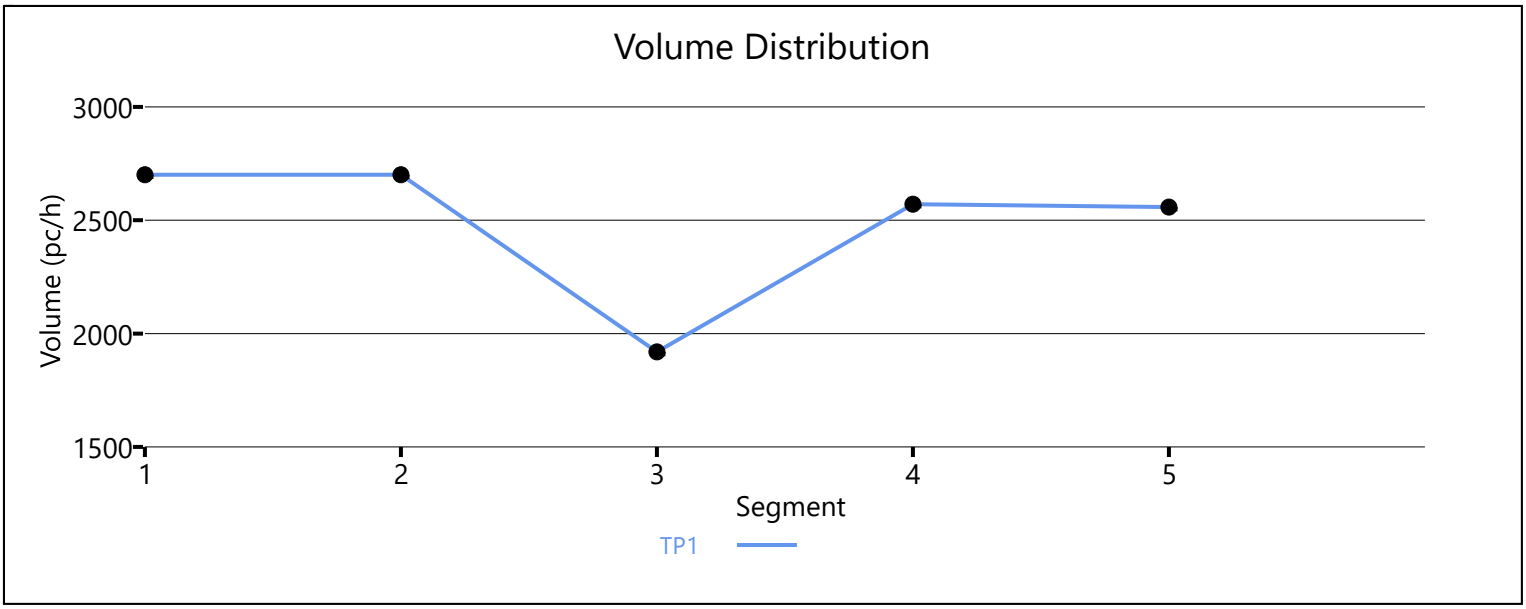
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2558	7161	0.36	68.7	12.4	B

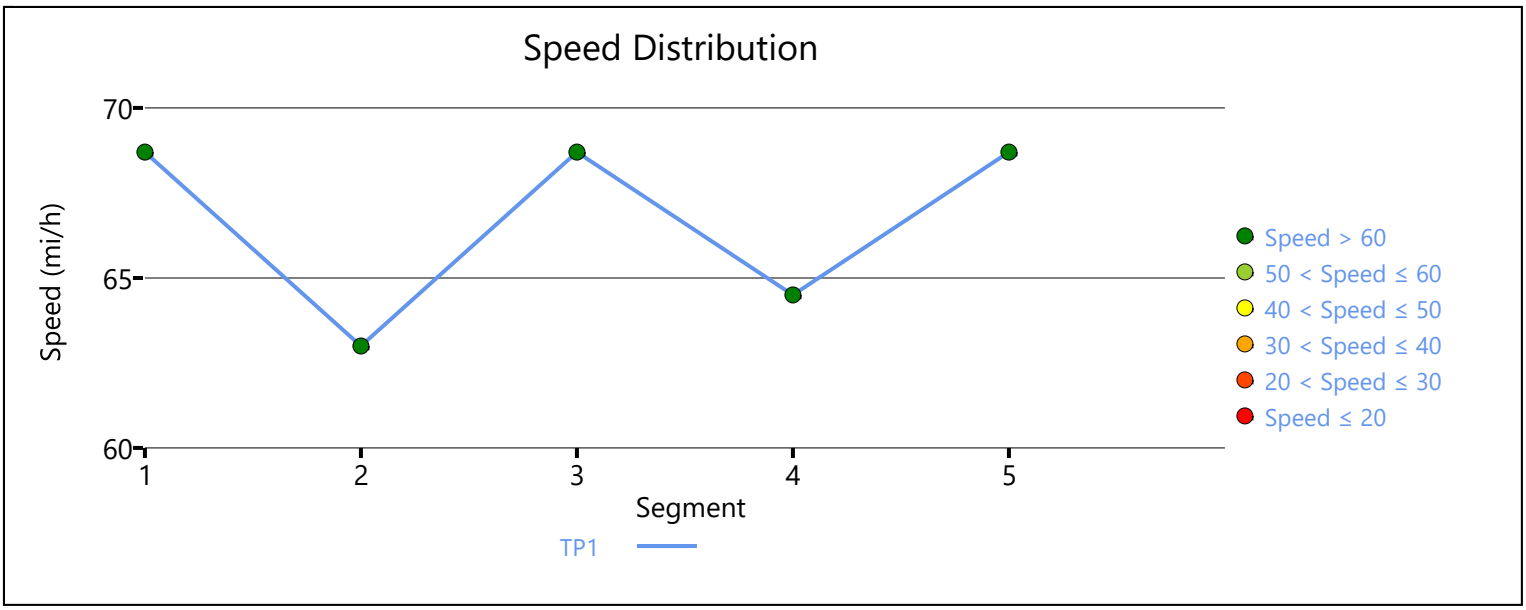
Facility Time Period Results

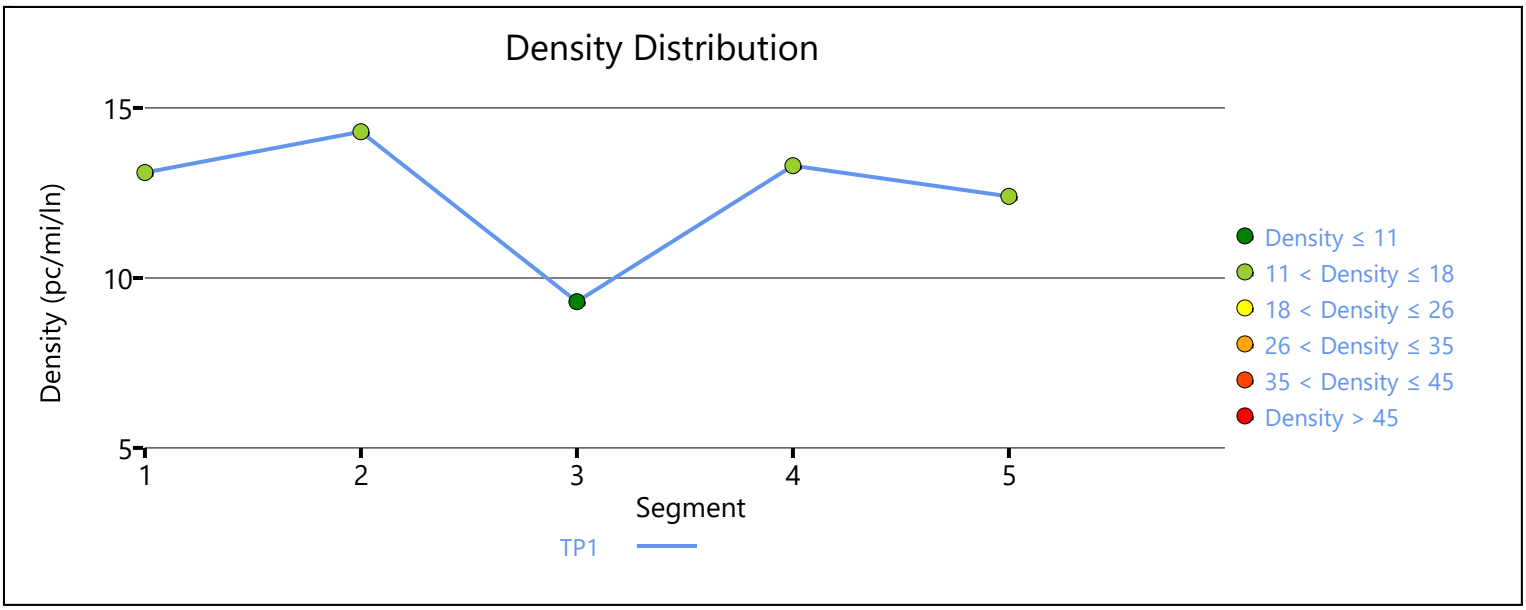
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	12.5	11.5	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	11.5
Average Travel Time, min	2.2	Density, pc/mi/ln	12.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2253	4764	0.47	68.2	16.5	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2253	1810	4800	2100	0.47	0.86	57.1	57.1	19.7	21.8	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	454	4764	0.10	68.2	3.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	698	244	4800	1900	0.15	0.13	61.1	61.1	5.7	9.6	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	697	4764	0.15	68.2	5.1	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1400	703	4800	2100	0.29	0.33	61.1	61.1	11.5	14.9	B

Segment 7: Basic

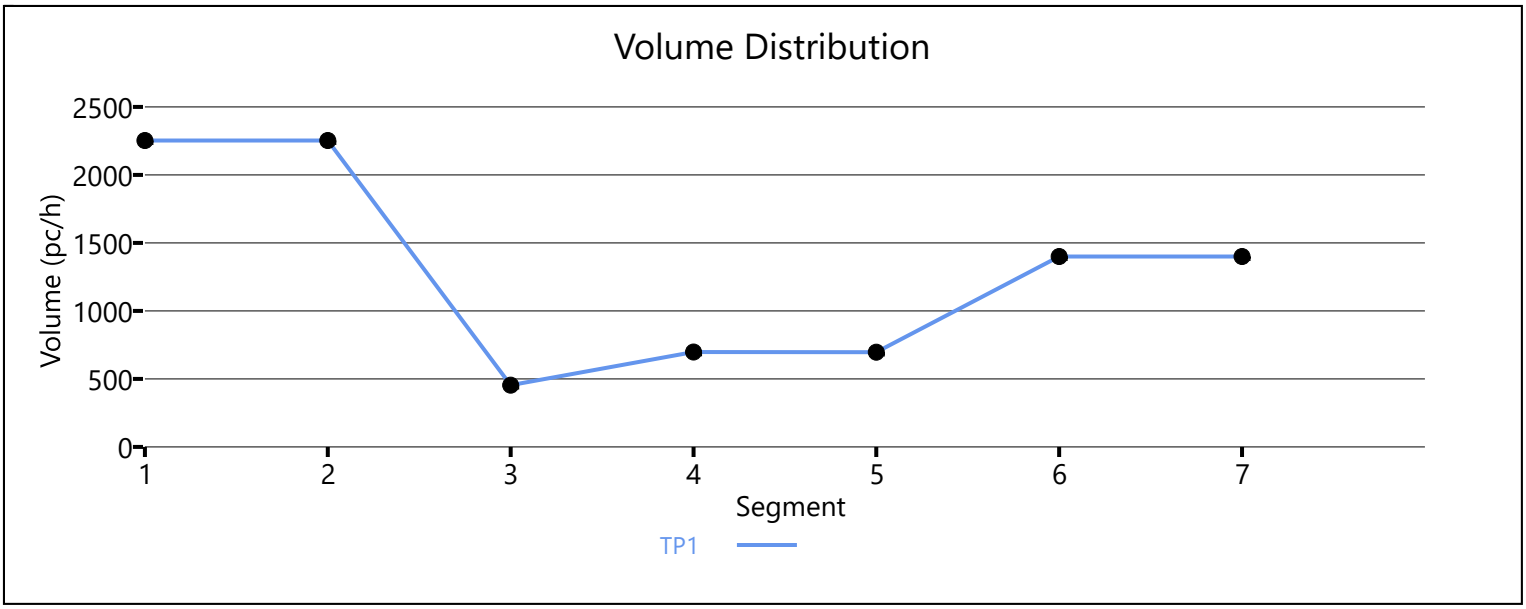
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1400	4764	0.29	68.2	10.3	A

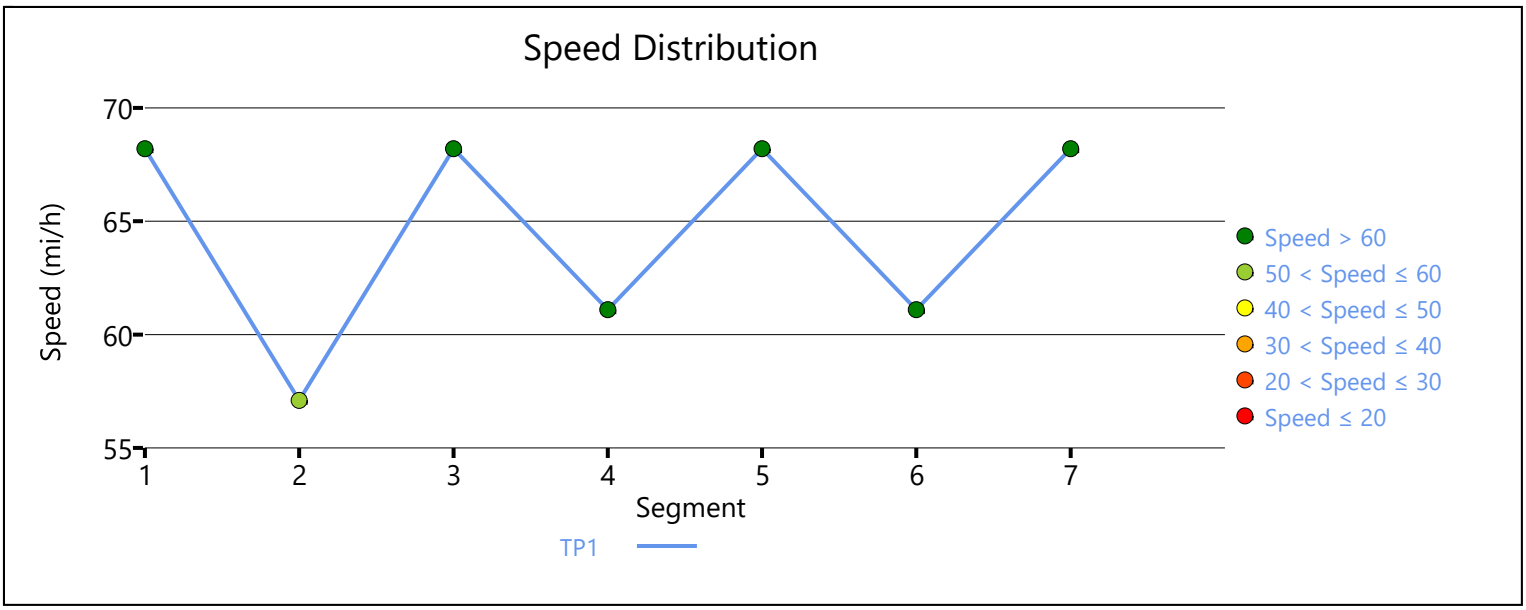
Facility Time Period Results

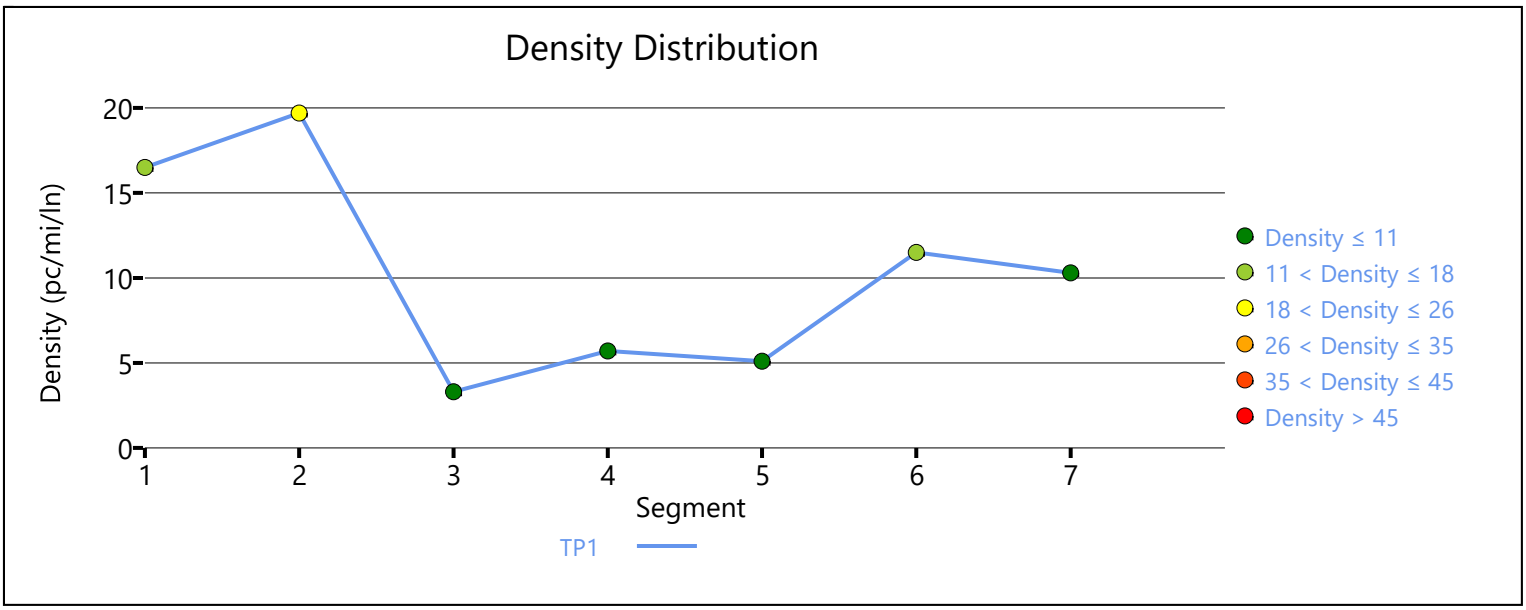
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.7	11.6	11.2	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.7	Density, veh/mi/ln	11.2
Average Travel Time, min	3.1	Density, pc/mi/ln	11.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1510	4764	0.32	68.2	11.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1510	1354	4800	2100	0.31	0.64	58.2	58.2	13.0	15.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	163	4764	0.03	68.2	1.2	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	781	618	4800	1900	0.16	0.33	61.0	61.0	6.4	10.1	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	781	4764	0.16	68.2	5.7	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1948	1167	4800	2100	0.41	0.56	60.8	60.8	16.0	19.0	B

Segment 7: Basic

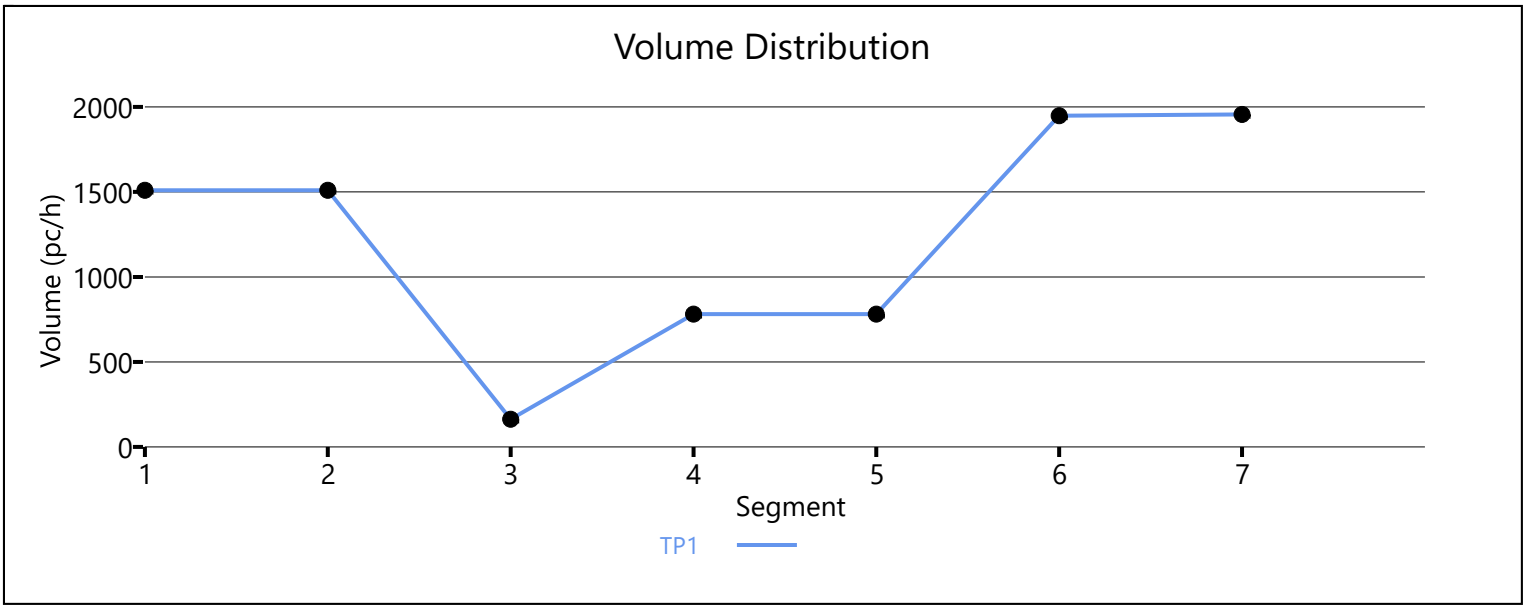
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1956	4764	0.41	68.2	14.3	B

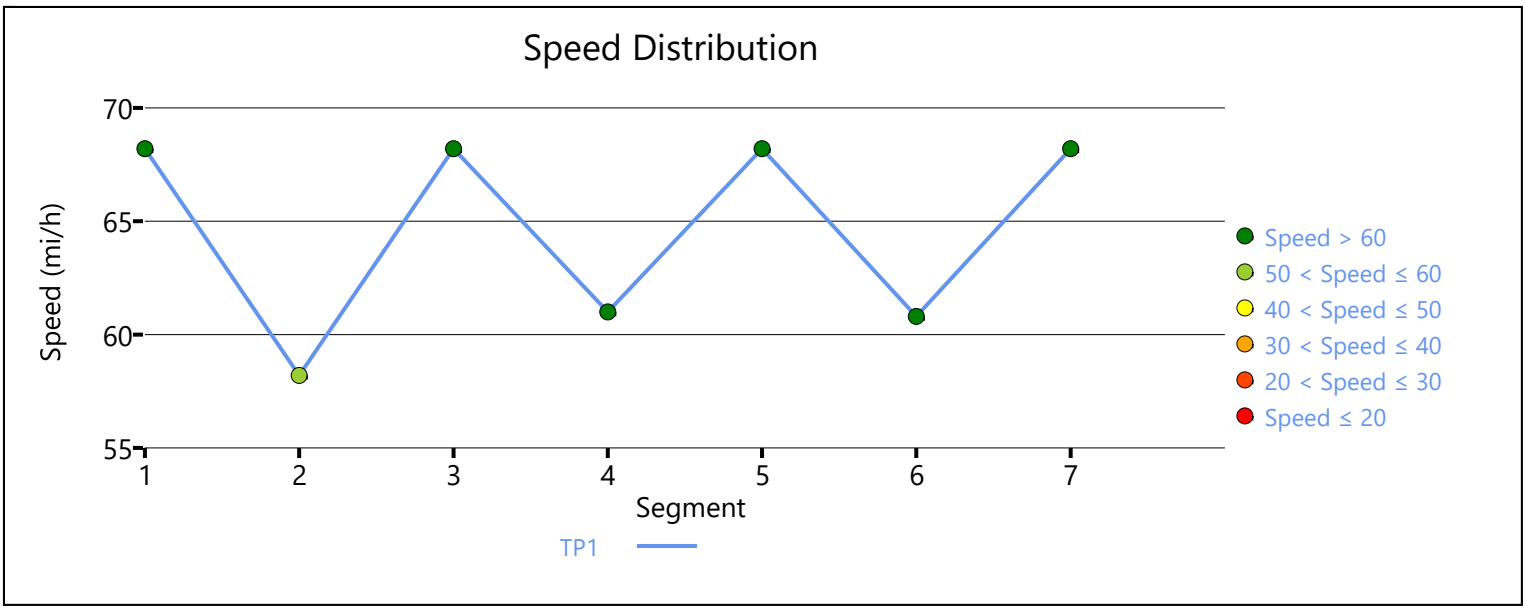
Facility Time Period Results

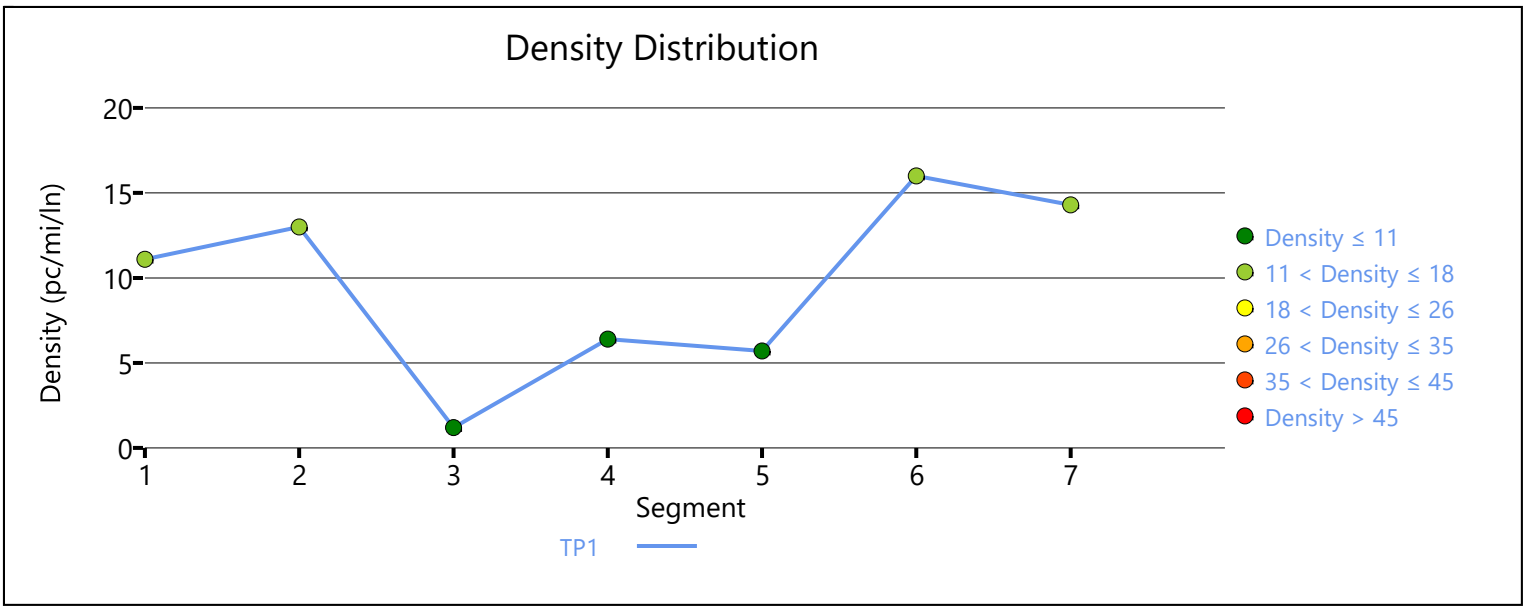
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.9	10.8	10.4	3.1	A

Facility Overall Results

Space Mean Speed, mi/h	65.9	Density, veh/mi/ln	10.4
Average Travel Time, min	3.1	Density, pc/mi/ln	10.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3085	7161	0.43	68.7	15.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3085	769	7200	2100	0.43	0.37	63.4	59.7	16.2	19.8	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2323	7161	0.32	68.7	11.3	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2767	444	7200	2100	0.38	0.21	64.4	62.5	14.3	14.4	B

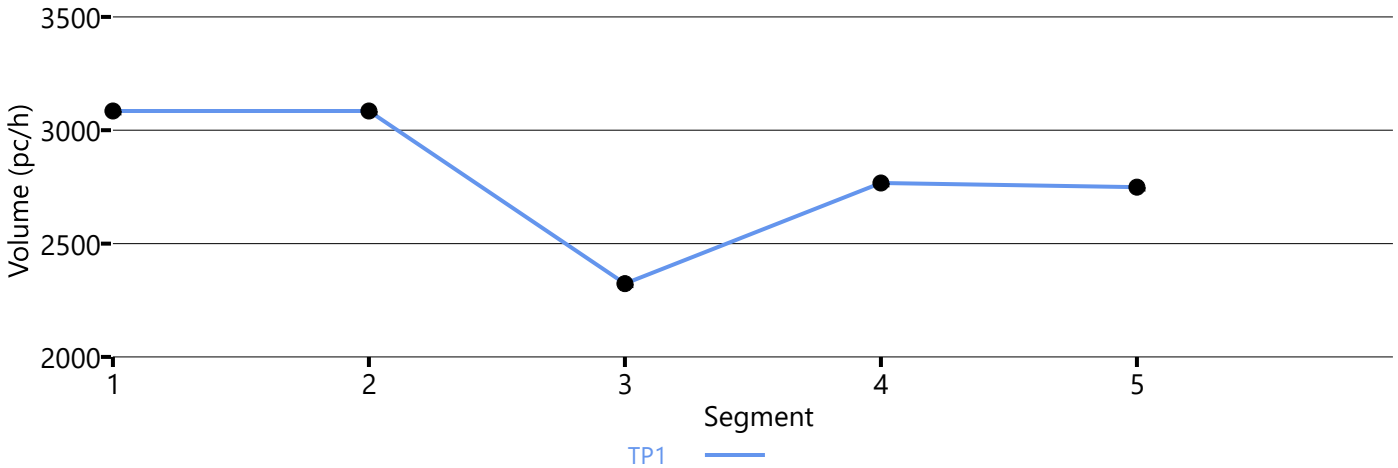
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2749	7161	0.38	68.7	13.3	B

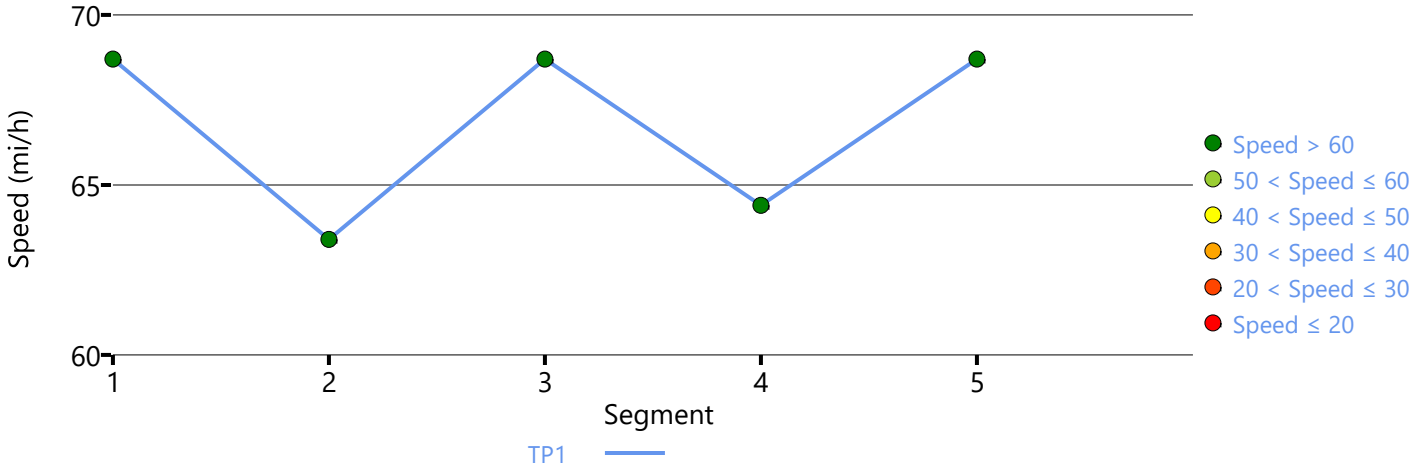
Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.4	14.2	13.8	2.1	B

Facility Overall Results			
Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	13.8
Average Travel Time, min	2.1	Density, pc/mi/ln	14.2

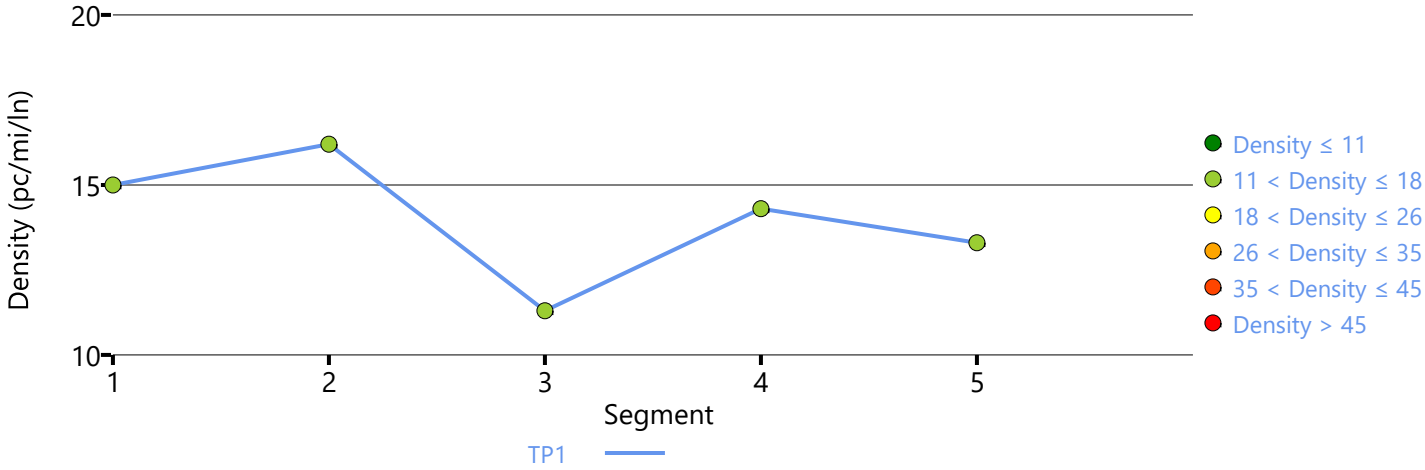
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3263	7161	0.46	68.7	15.8	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3263	742	7200	2100	0.45	0.35	63.7	59.8	17.1	20.5	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2526	7161	0.35	68.7	12.3	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3039	513	7200	2100	0.42	0.24	64.3	62.6	15.8	15.3	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	3050	7161	0.43	68.7	14.8	B

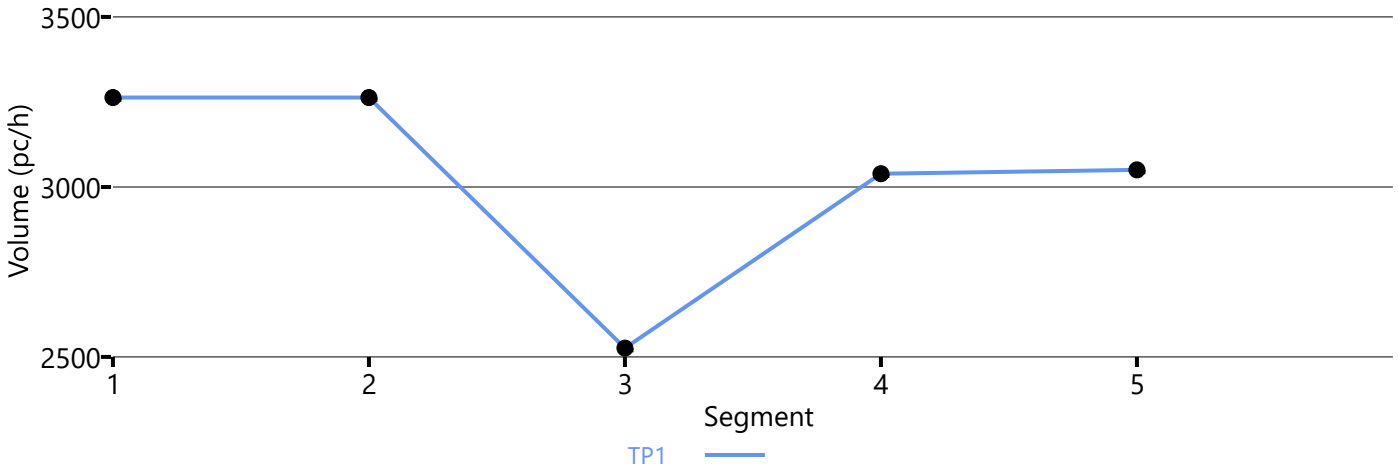
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	15.2	14.1	2.2	B

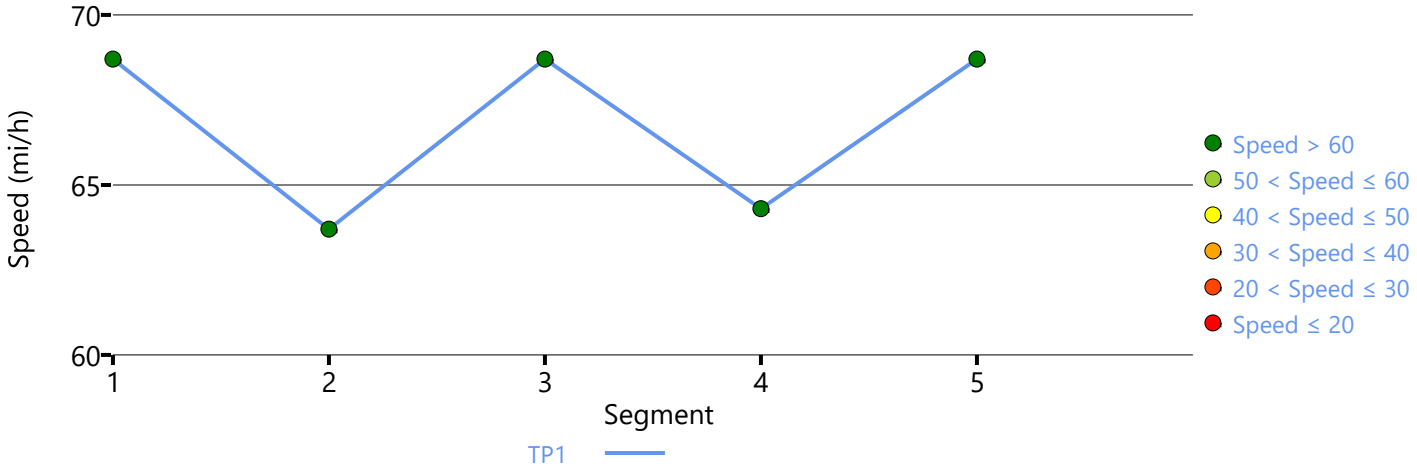
Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	14.1
Average Travel Time, min	2.2	Density, pc/mi/ln	15.2

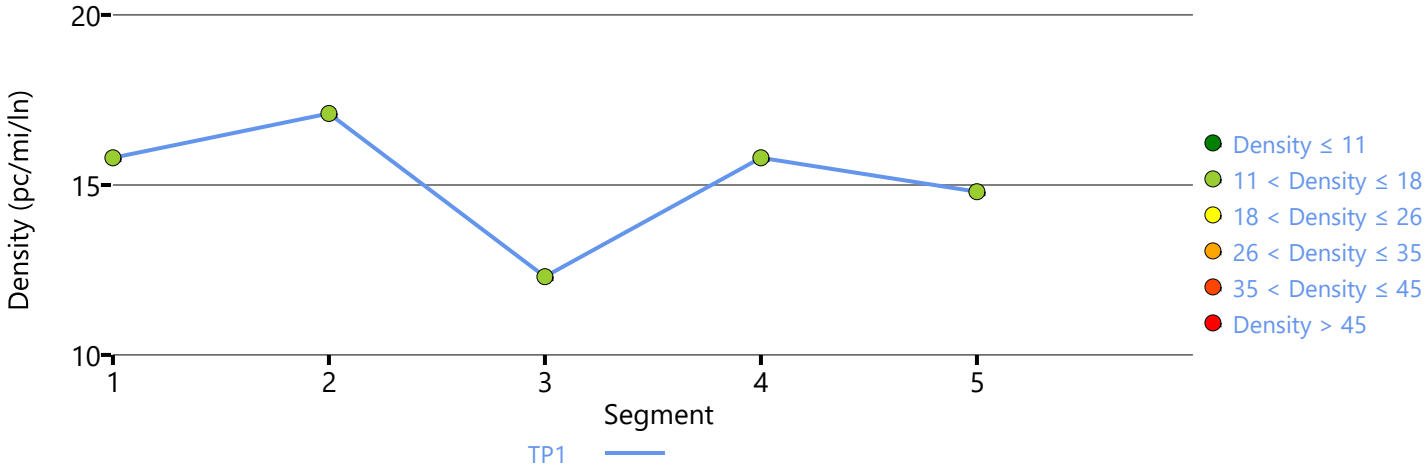
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2695	4764	0.57	68.1	19.8	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2695	2468	4800	2100	0.56	1.18	53.3	55.4	45.0	25.6	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	227	4764	0.05	67.3	1.6	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	483	256	4800	1900	0.10	0.13	61.1	61.1	4.0	7.9	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	483	4764	0.10	67.3	3.5	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1820	1337	4800	2100	0.38	0.64	60.8	60.8	15.0	17.9	B

Segment 7: Basic

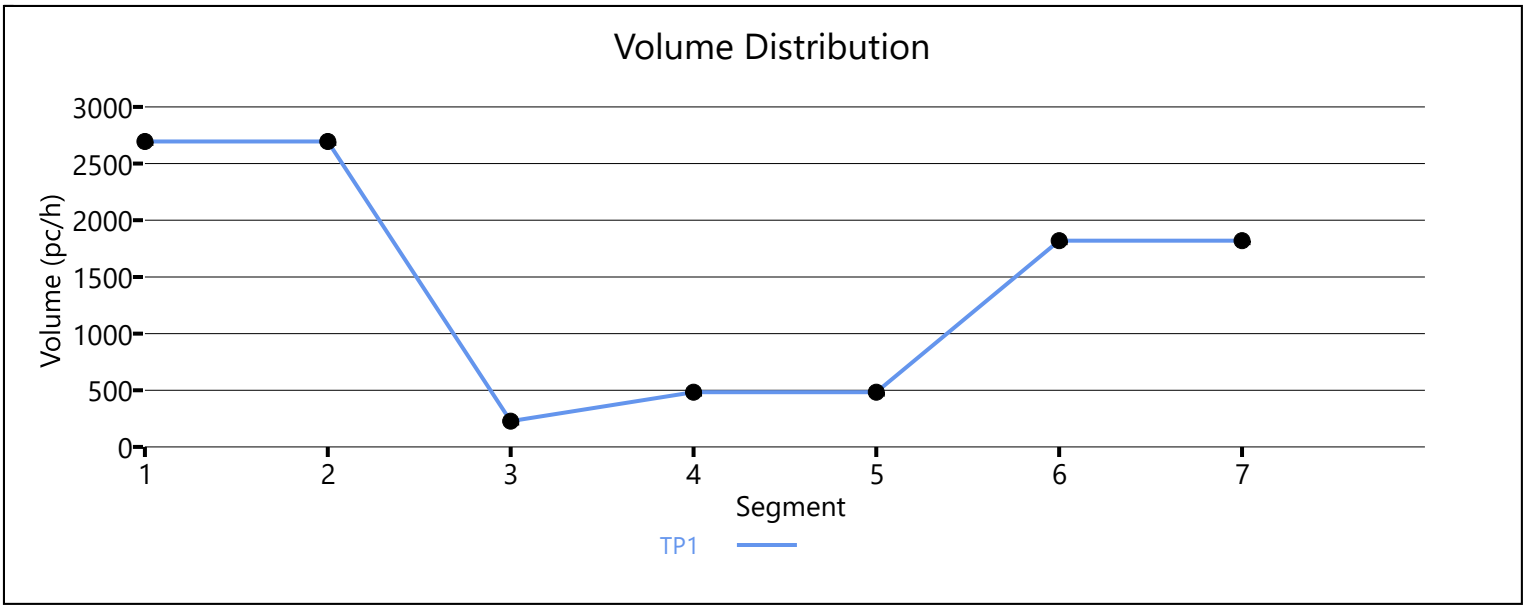
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1820	4764	0.38	68.2	13.0	B

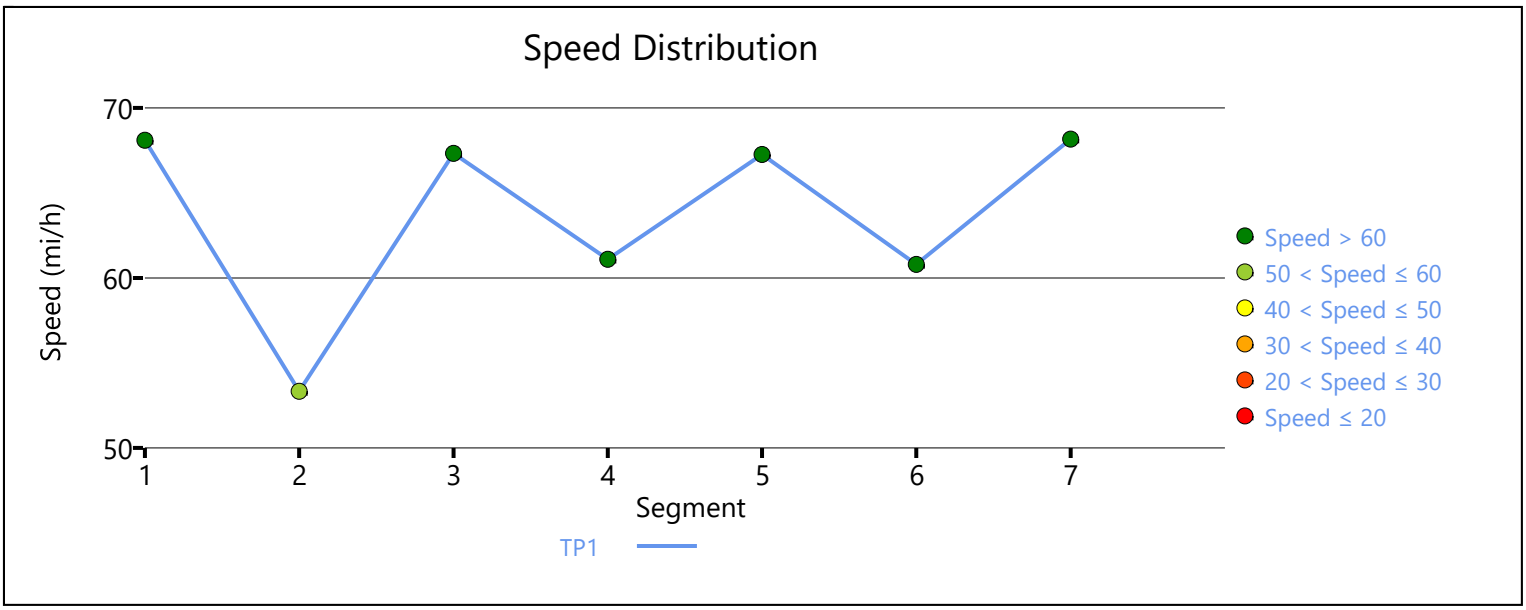
Facility Time Period Results

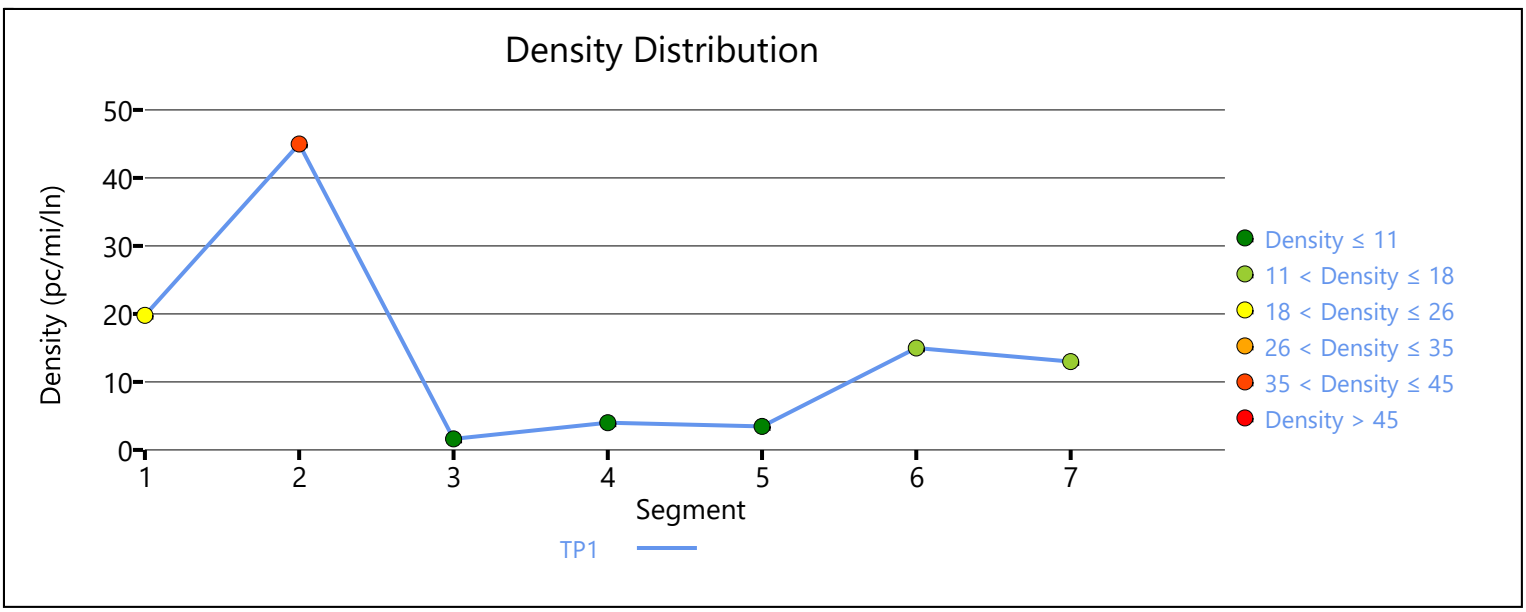
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.1	15.1	14.6	3.2	B

Facility Overall Results

Space Mean Speed, mi/h	65.1	Density, veh/mi/ln	14.6
Average Travel Time, min	3.2	Density, pc/mi/ln	15.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

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Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
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3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1637	4764	0.34	68.2	12.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	1637	1540	4800	2100	0.34	0.73	57.8	57.8	14.2	16.5	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	93	4764	0.02	68.2	0.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.952	1109	1016	4800	1900	0.23	0.53	61.0	61.0	9.1	12.5	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1113	4764	0.23	68.2	8.2	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2350	1248	4800	2100	0.49	0.59	60.4	60.4	19.5	22.0	C

Segment 7: Basic

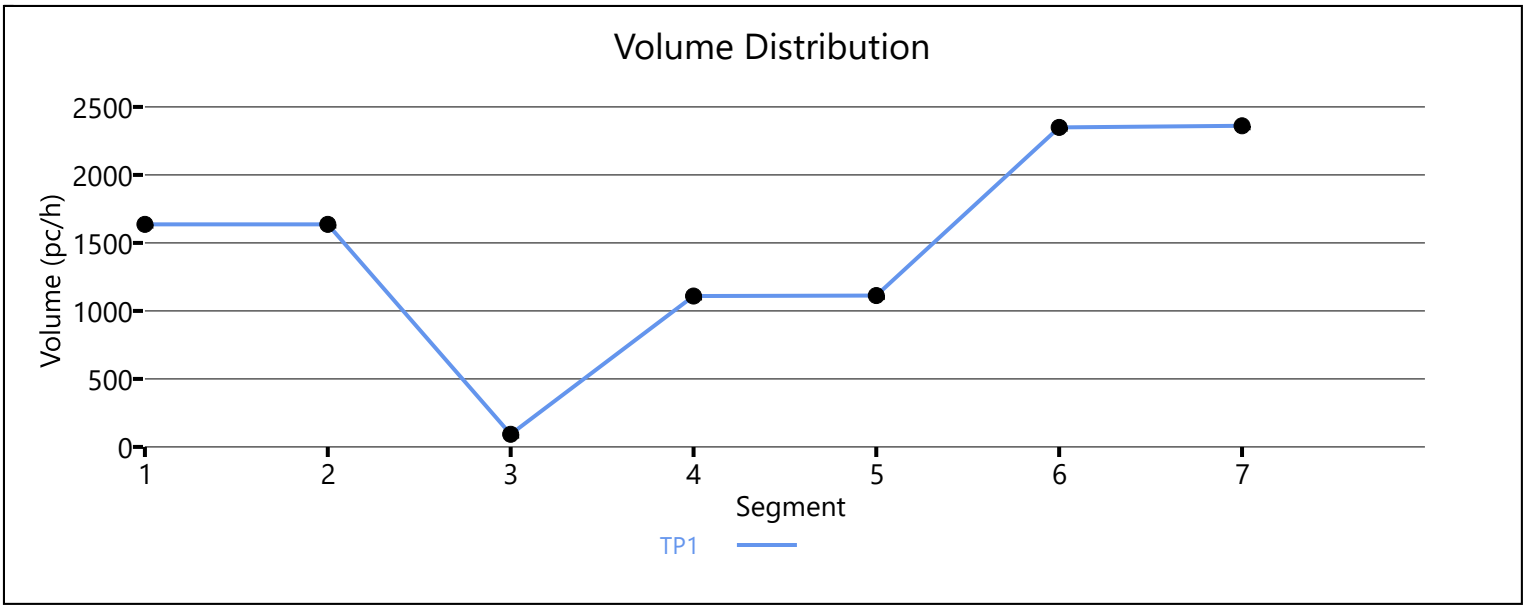
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	2361	4764	0.50	68.2	17.3	B

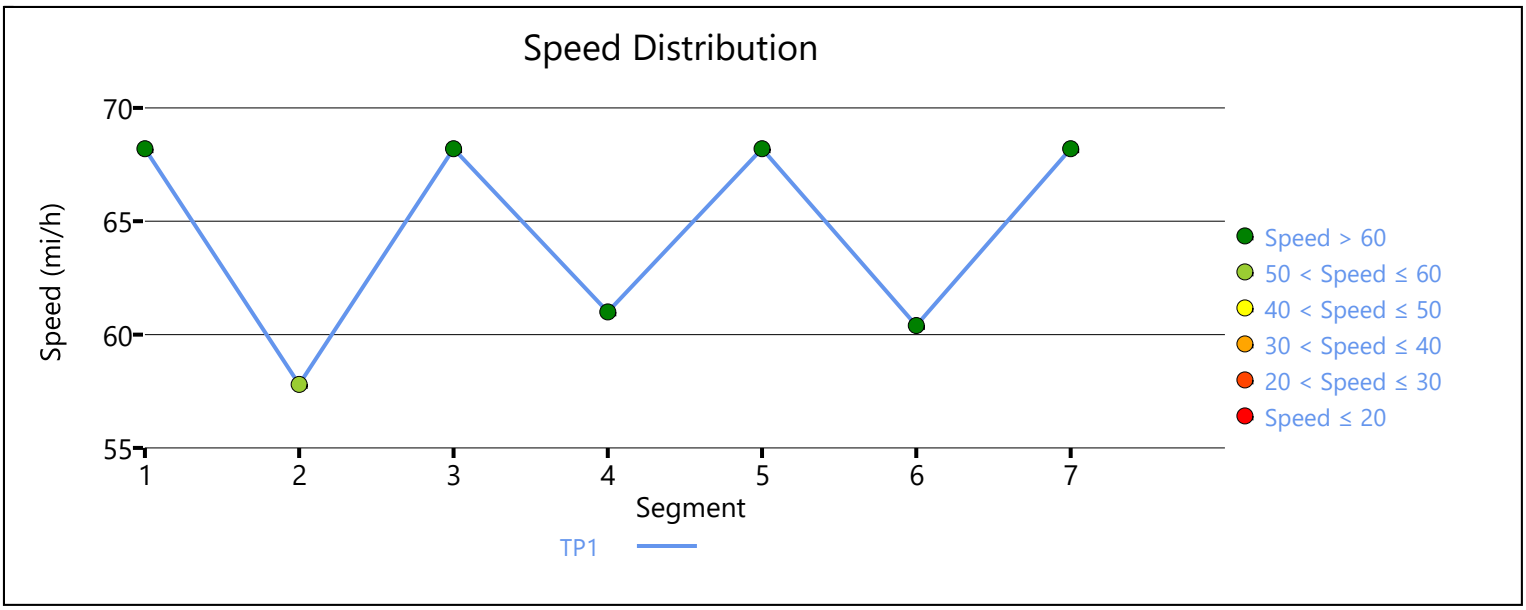
Facility Time Period Results

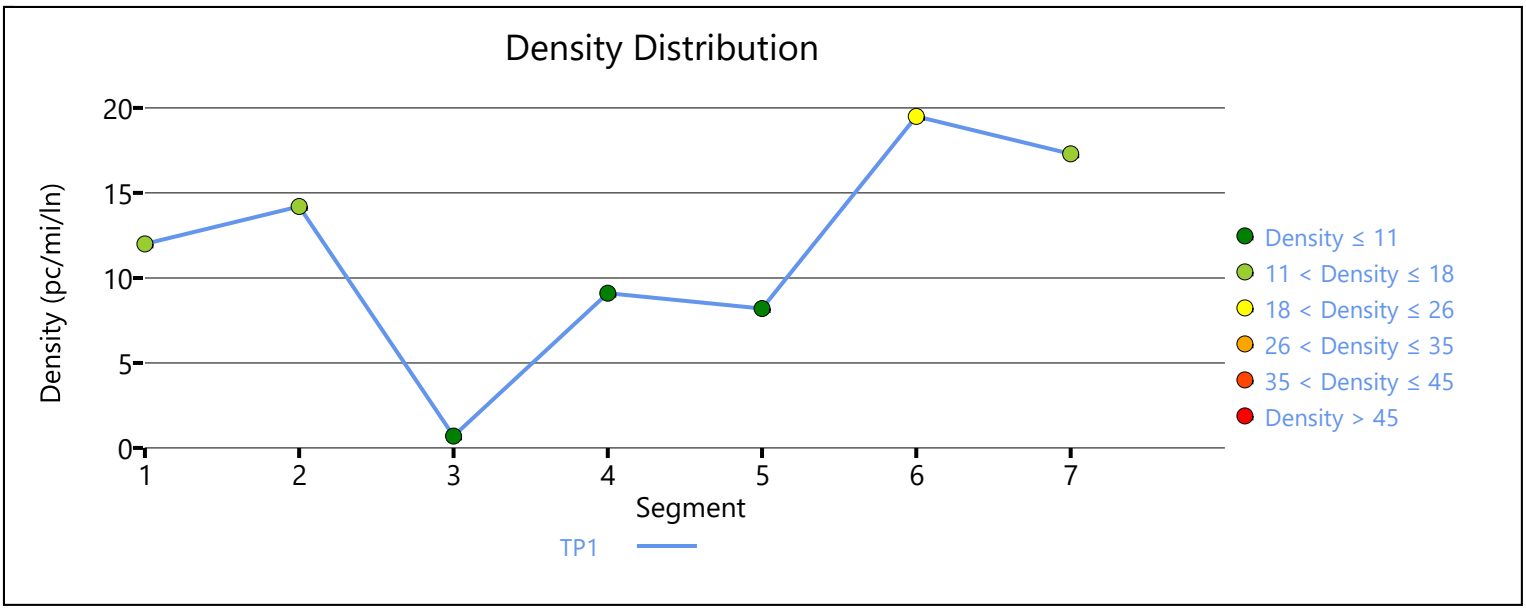
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	12.7	12.1	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	12.1
Average Travel Time, min	3.1	Density, pc/mi/ln	12.7







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APPENDIX 6.9:

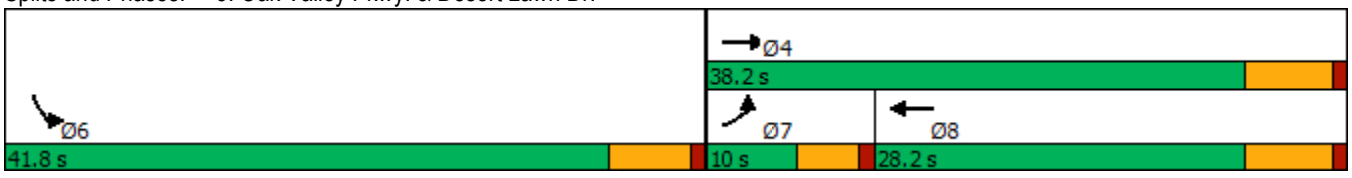
OPENING YEAR CUMULATIVE (2023) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

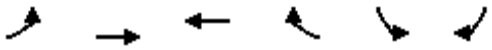
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Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	62	426	348	495
Future Volume (vph)	62	426	348	495
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.6	23.1	15.6	26.4
Actuated g/C Ratio	0.09	0.37	0.25	0.42
v/c Ratio	0.44	0.70	0.55	0.83
Control Delay	42.6	23.7	15.1	27.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.6	23.7	15.1	27.3
LOS	D	C	B	C
Approach Delay		26.1	15.1	27.3
Approach LOS		C	B	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 62.3	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 22.1	Intersection LOS: C
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	62	426	348	330	495	56
Future Volume (veh/h)	62	426	348	330	495	56
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	490	400	379	569	64
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	102	793	998	465	631	71
Arrive On Green	0.06	0.42	0.29	0.29	0.39	0.39
Sat Flow, veh/h	1810	1900	3629	1610	1604	180
Grp Volume(v), veh/h	71	490	400	379	634	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1787	0
Q Serve(g_s), s	2.4	12.8	5.9	13.9	21.2	0.0
Cycle Q Clear(g_c), s	2.4	12.8	5.9	13.9	21.2	0.0
Prop In Lane	1.00			1.00	0.90	0.10
Lane Grp Cap(c), veh/h	102	793	998	465	703	0
V/C Ratio(X)	0.70	0.62	0.40	0.82	0.90	0.00
Avail Cap(c_a), veh/h	154	958	1199	558	1014	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.4	14.5	18.2	21.0	18.1	0.0
Incr Delay (d2), s/veh	3.2	0.9	0.3	7.8	8.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.5	2.1	5.4	8.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.6	15.4	18.4	28.8	26.2	0.0
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		561	779		634	
Approach Delay, s/veh		17.6	23.5		26.2	
Approach LOS		B	C		C	

Timer - Assigned Phs		4		6	7	8
Phs Duration (G+Y+Rc), s		32.7		30.8	8.2	24.5
Change Period (Y+Rc), s		6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s		32.0		36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s		14.8		23.2	4.4	15.9
Green Ext Time (p_c), s		2.5		1.8	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

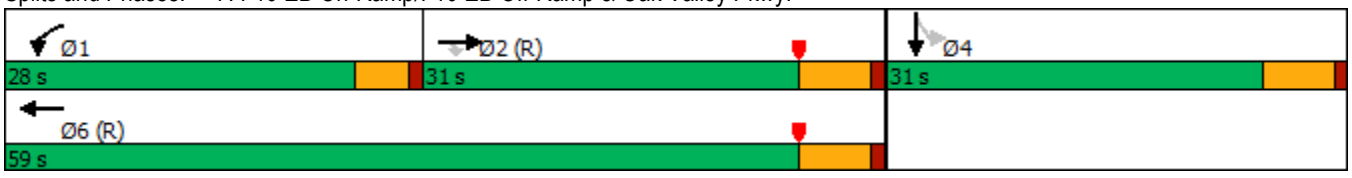
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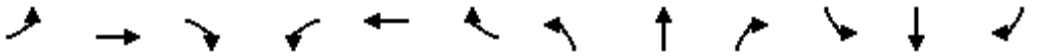
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	453	469	260	575	258	3
Future Volume (vph)	453	469	260	575	258	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	36.0	36.0	18.4	59.0	19.4	19.4
Actuated g/C Ratio	0.40	0.40	0.20	0.66	0.22	0.22
v/c Ratio	0.67	0.55	0.79	0.52	0.75	0.27
Control Delay	30.8	4.9	46.9	6.0	44.7	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	4.9	46.9	6.0	44.7	7.2
LOS	C	A	D	A	D	A
Approach Delay	17.6			18.7		33.8
Approach LOS	B			B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 72.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	453	469	260	575	0	0	0	0	258	3	102
Future Volume (veh/h)	0	453	469	260	575	0	0	0	0	258	3	102
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	509	440	292	646	0				290	3	96
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	857	727	327	1298	0				340	9	295
Arrive On Green	0.00	0.45	0.45	0.24	0.91	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	49	1569
Grp Volume(v), veh/h	0	509	440	292	646	0				290	0	99
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1618
Q Serve(g_s), s	0.0	18.1	18.6	14.0	5.1	0.0				13.9	0.0	4.8
Cycle Q Clear(g_c), s	0.0	18.1	18.6	14.0	5.1	0.0				13.9	0.0	4.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.97
Lane Grp Cap(c), veh/h	0	857	727	327	1298	0				340	0	304
V/C Ratio(X)	0.00	0.59	0.61	0.89	0.50	0.00				0.85	0.00	0.33
Avail Cap(c_a), veh/h	0	857	727	470	1298	0				507	0	453
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.55	0.55	0.67	0.67	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.5	18.6	33.3	1.5	0.0				35.3	0.0	31.6
Incr Delay (d2), s/veh	0.0	1.7	2.1	7.9	0.9	0.0				8.9	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	6.6	6.1	1.2	0.0				6.6	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.2	20.7	41.2	2.5	0.0				44.3	0.0	32.2
LnGrp LOS	A	C	C	D	A	A				D	A	C
Approach Vol, veh/h		949			938						389	
Approach Delay, s/veh		20.4			14.5						41.2	
Approach LOS		C			B						D	

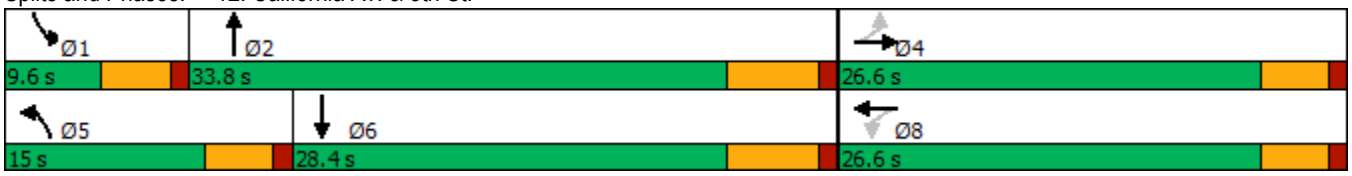
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.9	46.4		22.7		67.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	16.0	20.6		15.9		7.1						
Green Ext Time (p_c), s	0.3	2.0		1.0		4.5						

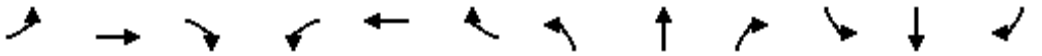
Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	27	10	300	544	325	
Future Volume (vph)	2	3	27	10	300	544	325	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.2		12.2	10.7	40.0	23.1	
Actuated g/C Ratio		0.21		0.21	0.19	0.70	0.40	
v/c Ratio		0.24		0.24	1.14	0.54	35.83	
Control Delay		7.1		14.0	121.4	9.3	15304.6	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.1		14.0	121.4	9.3	15304.6	
LOS		A		B	F	A	F	
Approach Delay		7.1		14.0		48.3	15304.6	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 57.5	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 35.83	
Intersection Signal Delay: 3880.5	Intersection LOS: F
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	75	27	10	30	300	544	19	13	325	2
Future Volume (veh/h)	2	3	75	27	10	30	300	544	19	13	325	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	95	34	13	38	380	689	24	16	411	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	18	289	187	86	136	393	1079	38	0	524	4
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.22	0.59	0.59	0.00	0.28	0.28
Sat Flow, veh/h	15	96	1511	426	450	708	1810	1825	64	0	1884	14
Grp Volume(v), veh/h	102	0	0	85	0	0	380	0	713	0	0	414
Grp Sat Flow(s),veh/h/ln	1622	0	0	1584	0	0	1810	0	1889	0	0	1898
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	11.9	0.0	0.0	9.6
Cycle Q Clear(g_c), s	2.6	0.0	0.0	2.0	0.0	0.0	10.0	0.0	11.9	0.0	0.0	9.6
Prop In Lane	0.03		0.93	0.40		0.45	1.00		0.03	0.00		0.01
Lane Grp Cap(c), veh/h	388	0	0	408	0	0	393	0	1117	0	0	528
V/C Ratio(X)	0.26	0.00	0.00	0.21	0.00	0.00	0.97	0.00	0.64	0.00	0.00	0.78
Avail Cap(c_a), veh/h	820	0	0	813	0	0	393	0	1117	0	0	895
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	0.0	16.5	0.0	0.0	18.6	0.0	6.4	0.0	0.0	16.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.3	0.0	0.0	36.5	0.0	1.2	0.0	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.8	0.0	0.0	7.3	0.0	2.5	0.0	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	0.0	0.0	16.7	0.0	0.0	55.1	0.0	7.6	0.0	0.0	18.6
LnGrp LOS	B	A	A	B	A	A	E	A	A	A	A	B
Approach Vol, veh/h		102			85			1093			414	
Approach Delay, s/veh		17.1			16.7			24.1			18.6	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	34.1		13.8	15.0	19.1		13.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	13.9		4.6	12.0	11.6		4.0				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	1.7		0.4				

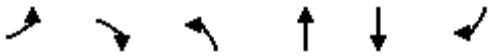
Intersection Summary			
HCM 6th Ctrl Delay		22.0	
HCM 6th LOS		C	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	20	65	819	182	207
Future Volume (vph)	70	20	65	819	182	207
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	12.7	12.7	8.2	47.6	37.7	37.7
Actuated g/C Ratio	0.19	0.19	0.13	0.73	0.58	0.58
v/c Ratio	0.26	0.08	0.37	0.77	0.22	0.26
Control Delay	28.9	11.7	36.2	14.7	12.5	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	11.7	36.2	14.7	12.5	2.7
LOS	C	B	D	B	B	A
Approach Delay	25.1			16.3	7.3	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 65.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 61.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	20	65	819	182	207
Future Volume (veh/h)	70	20	65	819	182	207
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	91	26	84	1064	236	269
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	267	238	117	1234	959	812
Arrive On Green	0.15	0.15	0.06	0.65	0.50	0.50
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	91	26	84	1064	236	269
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	2.6	0.8	2.6	25.5	4.0	5.7
Cycle Q Clear(g_c), s	2.6	0.8	2.6	25.5	4.0	5.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	267	238	117	1234	959	812
V/C Ratio(X)	0.34	0.11	0.72	0.86	0.25	0.33
Avail Cap(c_a), veh/h	696	620	421	1875	1280	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	21.1	26.2	8.0	8.0	8.4
Incr Delay (d2), s/veh	0.8	0.2	3.1	2.8	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.8	1.1	5.8	1.2	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.6	21.3	29.4	10.8	8.1	8.7
LnGrp LOS	C	C	C	B	A	A
Approach Vol, veh/h	117			1148	505	
Approach Delay, s/veh	22.3			12.2	8.4	
Approach LOS	C			B	A	

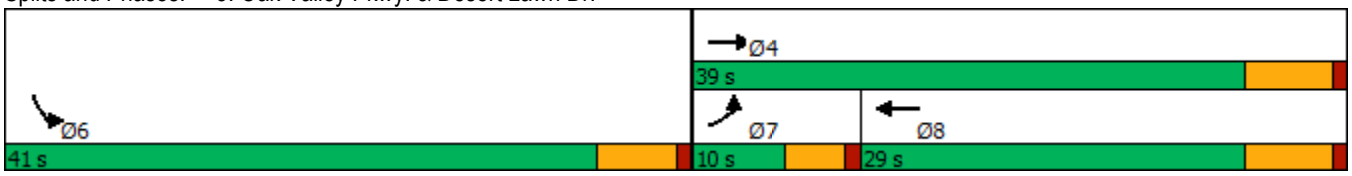
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		42.9		14.2	8.3	34.6
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		56.4		22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s		27.5		4.6	4.6	7.7
Green Ext Time (p_c), s		9.6		0.2	0.0	2.2

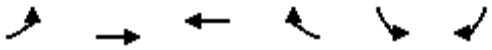
Intersection Summary		
HCM 6th Ctrl Delay		11.8
HCM 6th LOS		B

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	24	409	500	198
Future Volume (vph)	24	409	500	198
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.7	16.0	14.8	14.4
Actuated g/C Ratio	0.13	0.37	0.34	0.33
v/c Ratio	0.11	0.61	0.47	0.39
Control Delay	25.3	16.1	10.6	13.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.3	16.1	10.6	13.5
LOS	C	B	B	B
Approach Delay		16.6	10.6	13.5
Approach LOS		B	B	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 43.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 12.8	Intersection LOS: B
Intersection Capacity Utilization 44.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	409	500	325	198	25
Future Volume (veh/h)	24	409	500	325	198	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	422	515	335	204	26
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	55	893	1139	530	380	48
Arrive On Green	0.03	0.47	0.33	0.33	0.24	0.24
Sat Flow, veh/h	1810	1900	3629	1610	1576	201
Grp Volume(v), veh/h	25	422	515	335	231	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1785	0
Q Serve(g_s), s	0.6	6.3	4.9	7.3	4.7	0.0
Cycle Q Clear(g_c), s	0.6	6.3	4.9	7.3	4.7	0.0
Prop In Lane	1.00			1.00	0.88	0.11
Lane Grp Cap(c), veh/h	55	893	1139	530	430	0
V/C Ratio(X)	0.46	0.47	0.45	0.63	0.54	0.00
Avail Cap(c_a), veh/h	235	1501	1899	884	1513	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	7.5	11.0	11.8	13.7	0.0
Incr Delay (d2), s/veh	2.2	0.4	0.3	1.2	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.4	1.3	1.9	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.0	7.9	11.3	13.0	14.8	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		447	850		231	
Approach Delay, s/veh		8.7	12.0		14.8	
Approach LOS		A	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	25.7	15.8	5.9	19.9
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.8	35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s	8.3	6.7	2.6	9.3
Green Ext Time (p_c), s	2.3	0.6	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	11.4
HCM 6th LOS	B

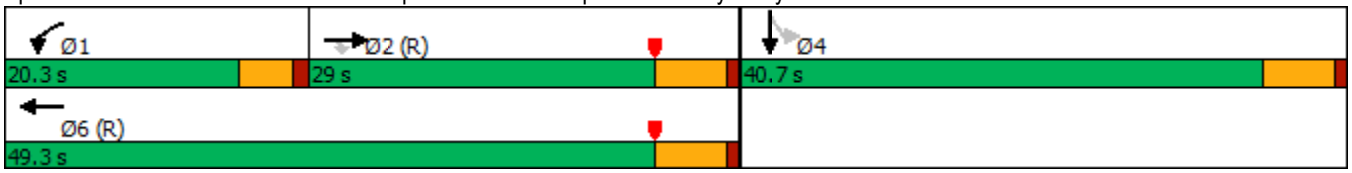
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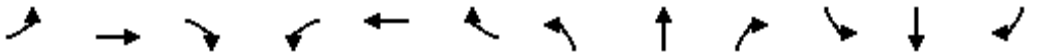
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	366	241	163	641	509	1
Future Volume (vph)	366	241	163	641	509	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.0	29.0	20.3	49.3	40.7	40.7
Total Split (%)	32.2%	32.2%	22.6%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	25.4	25.4	13.7	43.7	34.7	34.7
Actuated g/C Ratio	0.28	0.28	0.15	0.49	0.39	0.39
v/c Ratio	0.90	0.46	0.78	0.91	0.96	0.35
Control Delay	54.5	5.8	53.0	30.9	55.2	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	5.8	53.0	30.9	55.2	12.2
LOS	D	A	D	C	E	B
Approach Delay	35.1			35.4		43.7
Approach LOS	D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 38.1	Intersection LOS: D
Intersection Capacity Utilization 71.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	366	241	163	641	0	0	0	0	509	1	184
Future Volume (veh/h)	0	366	241	163	641	0	0	0	0	509	1	184
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	482	259	214	843	0				670	1	176
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	562	476	252	923	0				697	4	618
Arrive On Green	0.00	0.30	0.30	0.09	0.33	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	9	1602
Grp Volume(v), veh/h	0	482	259	214	843	0				670	0	177
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1612
Q Serve(g_s), s	0.0	21.6	12.2	10.5	38.3	0.0				32.5	0.0	6.8
Cycle Q Clear(g_c), s	0.0	21.6	12.2	10.5	38.3	0.0				32.5	0.0	6.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	562	476	252	923	0				697	0	621
V/C Ratio(X)	0.00	0.86	0.54	0.85	0.91	0.00				0.96	0.00	0.28
Avail Cap(c_a), veh/h	0	562	476	316	923	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.67	0.67	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.9	26.6	39.9	28.5	0.0				27.0	0.0	19.1
Incr Delay (d2), s/veh	0.0	13.3	3.7	9.7	10.8	0.0				24.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.2	4.8	5.3	20.1	0.0				17.3	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	43.3	30.3	49.6	39.3	0.0				51.5	0.0	19.3
LnGrp LOS	A	D	C	D	D	A				D	A	B
Approach Vol, veh/h		741			1057						847	
Approach Delay, s/veh		38.7			41.4						44.8	
Approach LOS		D			D						D	

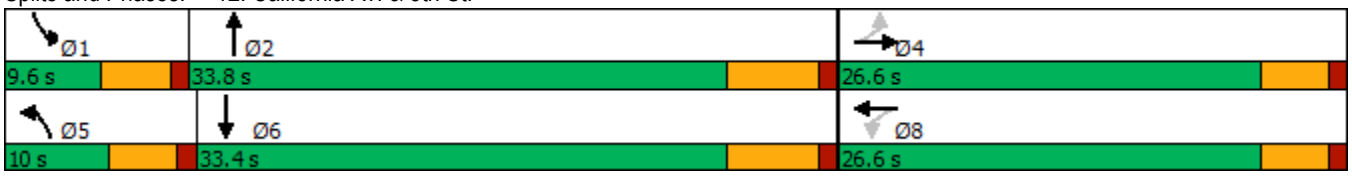
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	17.1	32.4		40.5		49.5
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	15.7	23.2		34.9		43.5
Max Q Clear Time (g_c+I1), s	12.5	23.6		34.5		40.3
Green Ext Time (p_c), s	0.1	0.0		0.2		1.6

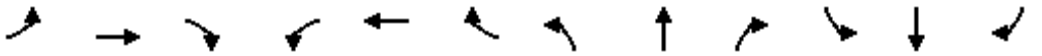
Intersection Summary		
HCM 6th Ctrl Delay		41.8
HCM 6th LOS		D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	4	3	41	3	179	468	305	
Future Volume (vph)	4	3	41	3	179	468	305	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.1		12.1	5.4	42.1	30.9	
Actuated g/C Ratio		0.20		0.20	0.09	0.70	0.51	
v/c Ratio		0.24		0.21	1.16	0.39	8.12	
Control Delay		7.3		16.0	152.7	7.3	3279.0	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.3		16.0	152.7	7.3	3279.0	
LOS		A		B	F	A	F	
Approach Delay		7.3		16.0		46.2	3279.0	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 60.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 8.12	
Intersection Signal Delay: 936.9	Intersection LOS: F
Intersection Capacity Utilization 66.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	86	41	3	21	179	468	21	6	305	6
Future Volume (veh/h)	4	3	86	41	3	21	179	468	21	6	305	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	91	43	3	22	188	493	22	6	321	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	20	325	326	48	106	239	925	41	0	485	9
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.13	0.51	0.51	0.00	0.26	0.26
Sat Flow, veh/h	23	93	1505	801	223	490	1810	1805	81	0	1859	35
Grp Volume(v), veh/h	98	0	0	68	0	0	188	0	515	0	0	327
Grp Sat Flow(s),veh/h/ln	1621	0	0	1515	0	0	1810	0	1886	0	0	1894
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	7.0	0.0	0.0	5.9
Cycle Q Clear(g_c), s	1.9	0.0	0.0	1.2	0.0	0.0	3.9	0.0	7.0	0.0	0.0	5.9
Prop In Lane	0.04		0.93	0.63		0.32	1.00		0.04	0.00		0.02
Lane Grp Cap(c), veh/h	448	0	0	481	0	0	239	0	967	0	0	494
V/C Ratio(X)	0.22	0.00	0.00	0.14	0.00	0.00	0.79	0.00	0.53	0.00	0.00	0.66
Avail Cap(c_a), veh/h	1023	0	0	989	0	0	255	0	1376	0	0	1362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.5	0.0	0.0	12.2	0.0	0.0	16.1	0.0	6.3	0.0	0.0	12.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	12.7	0.0	0.5	0.0	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.4	0.0	0.0	2.0	0.0	1.3	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	0.0	0.0	12.4	0.0	0.0	28.8	0.0	6.7	0.0	0.0	14.2
LnGrp LOS	B	A	A	B	A	A	C	A	A	A	A	B
Approach Vol, veh/h		98			68			703			327	
Approach Delay, s/veh		12.8			12.4			12.6			14.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.5		12.9	9.7	15.8		12.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	9.0		3.9	5.9	7.9		3.2				
Green Ext Time (p_c), s	0.0	2.8		0.5	0.0	1.6		0.3				

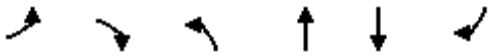
Intersection Summary			
HCM 6th Ctrl Delay		13.1	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	182	85	48	505	978	179
Future Volume (vph)	182	85	48	505	978	179
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	29.0	29.0	11.1	91.0	79.9	79.9
Total Split (%)	24.2%	24.2%	9.3%	75.8%	66.6%	66.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	17.0	17.0	6.4	70.0	61.9	61.9
Actuated g/C Ratio	0.17	0.17	0.06	0.70	0.62	0.62
v/c Ratio	0.64	0.26	0.45	0.41	0.90	0.19
Control Delay	52.6	10.8	65.0	7.1	29.1	3.8
Queue Delay	0.0	0.0	0.0	0.0	1.5	0.0
Total Delay	52.6	10.8	65.0	7.1	30.6	3.8
LOS	D	B	E	A	C	A
Approach Delay	39.3			12.1	26.4	
Approach LOS	D			B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 71.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	182	85	48	505	978	179
Future Volume (veh/h)	182	85	48	505	978	179
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	198	92	52	549	1063	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	249	221	76	1376	1192	1010
Arrive On Green	0.14	0.14	0.04	0.72	0.63	0.63
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	198	92	52	549	1063	195
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	8.9	4.4	2.4	9.4	39.7	4.3
Cycle Q Clear(g_c), s	8.9	4.4	2.4	9.4	39.7	4.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	249	221	76	1376	1192	1010
V/C Ratio(X)	0.80	0.42	0.69	0.40	0.89	0.19
Avail Cap(c_a), veh/h	501	446	140	1933	1681	1425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	33.0	39.6	4.5	13.2	6.6
Incr Delay (d2), s/veh	5.7	1.2	4.0	0.2	4.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.1	1.1	2.3	13.9	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.7	34.3	43.6	4.7	18.0	6.7
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	290			601	1258	
Approach Delay, s/veh	38.7			8.0	16.3	
Approach LOS	D			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		66.4		17.3	8.1	58.3
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		85.2		23.2	6.5	74.1
Max Q Clear Time (g_c+I1), s		11.4		10.9	4.4	41.7
Green Ext Time (p_c), s		3.6		0.7	0.0	10.9

Intersection Summary		
HCM 6th Ctrl Delay		17.0
HCM 6th LOS		B

APPENDIX 6.10:

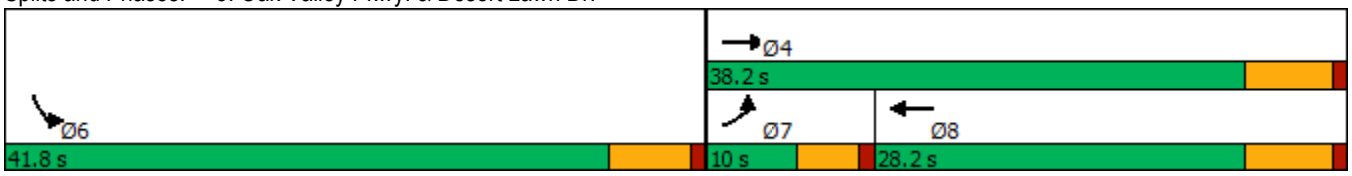
OPENING YEAR CUMULATIVE (2023) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

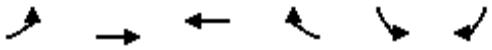
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Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	64	433	370	495
Future Volume (vph)	64	433	370	495
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.6	23.4	16.0	26.9
Actuated g/C Ratio	0.09	0.37	0.25	0.43
v/c Ratio	0.46	0.71	0.56	0.83
Control Delay	44.2	24.2	16.1	27.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	44.2	24.2	16.1	27.6
LOS	D	C	B	C
Approach Delay		26.8	16.1	27.6
Approach LOS		C	B	C

Intersection Summary		
Cycle Length: 80		
Actuated Cycle Length: 63.2		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.83		
Intersection Signal Delay: 22.8	Intersection LOS: C	
Intersection Capacity Utilization 63.9%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	64	433	370	330	495	61
Future Volume (veh/h)	64	433	370	330	495	61
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	498	425	379	569	70
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	103	792	997	464	629	77
Arrive On Green	0.06	0.42	0.29	0.29	0.40	0.40
Sat Flow, veh/h	1810	1900	3629	1610	1587	195
Grp Volume(v), veh/h	74	498	425	379	640	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1785	0
Q Serve(g_s), s	2.6	13.3	6.4	14.1	21.7	0.0
Cycle Q Clear(g_c), s	2.6	13.3	6.4	14.1	21.7	0.0
Prop In Lane	1.00			1.00	0.89	0.11
Lane Grp Cap(c), veh/h	103	792	997	464	708	0
V/C Ratio(X)	0.72	0.63	0.43	0.82	0.90	0.00
Avail Cap(c_a), veh/h	152	946	1184	551	1000	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.8	14.8	18.6	21.3	18.2	0.0
Incr Delay (d2), s/veh	3.5	1.0	0.3	8.0	8.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.7	2.3	5.6	8.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.2	15.8	18.9	29.3	26.9	0.0
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		572	804		640	
Approach Delay, s/veh		18.1	23.8		26.9	
Approach LOS		B	C		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	33.0	31.3	8.3	24.7
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.0	36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s	15.3	23.7	4.6	16.1
Green Ext Time (p_c), s	2.5	1.8	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

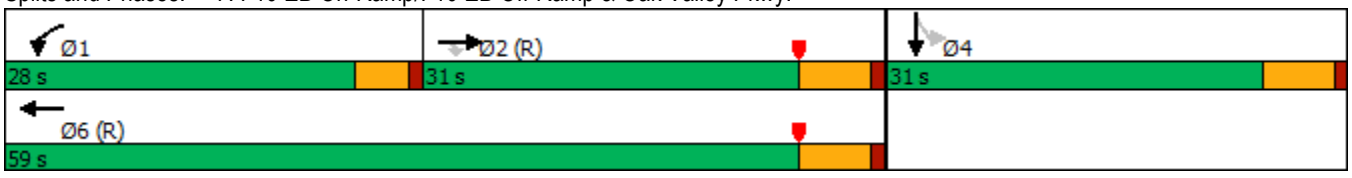
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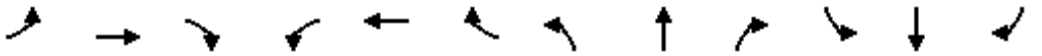
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	460	469	260	575	258	3
Future Volume (vph)	460	469	260	575	258	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	36.0	36.0	18.4	59.0	19.4	19.4
Actuated g/C Ratio	0.40	0.40	0.20	0.66	0.22	0.22
v/c Ratio	0.68	0.55	0.79	0.52	0.75	0.31
Control Delay	31.2	4.9	47.1	6.0	44.7	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	4.9	47.1	6.0	44.7	7.0
LOS	C	A	D	A	D	A
Approach Delay	17.9			18.8		32.3
Approach LOS	B			B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 73.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	460	469	260	575	0	0	0	0	258	3	124
Future Volume (veh/h)	0	460	469	260	575	0	0	0	0	258	3	124
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	517	440	292	646	0				290	3	120
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	855	725	327	1296	0				342	7	298
Arrive On Green	0.00	0.45	0.45	0.24	0.91	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	39	1577
Grp Volume(v), veh/h	0	517	440	292	646	0				290	0	123
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	18.5	18.6	14.0	5.2	0.0				13.9	0.0	6.0
Cycle Q Clear(g_c), s	0.0	18.5	18.6	14.0	5.2	0.0				13.9	0.0	6.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	855	725	327	1296	0				342	0	305
V/C Ratio(X)	0.00	0.60	0.61	0.89	0.50	0.00				0.85	0.00	0.40
Avail Cap(c_a), veh/h	0	855	725	470	1296	0				507	0	453
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.54	0.54	0.67	0.67	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.7	18.7	33.3	1.6	0.0				35.3	0.0	32.0
Incr Delay (d2), s/veh	0.0	1.7	2.0	7.9	0.9	0.0				8.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	6.6	6.1	1.2	0.0				6.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.4	20.8	41.2	2.5	0.0				43.9	0.0	32.9
LnGrp LOS	A	C	C	D	A	A				D	A	C
Approach Vol, veh/h		957			938						413	
Approach Delay, s/veh		20.6			14.5						40.6	
Approach LOS		C			B						D	

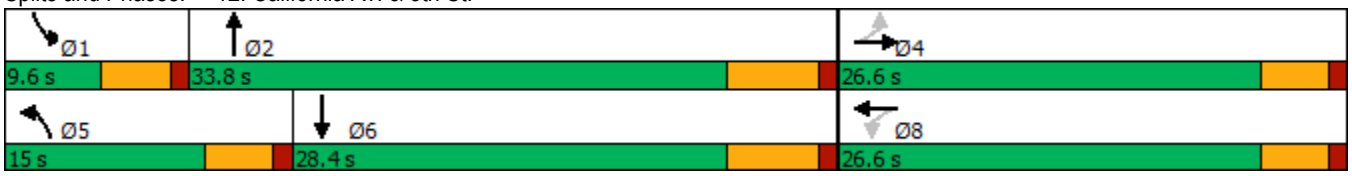
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	20.9	46.3		22.8		67.2
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2
Max Q Clear Time (g_c+I1), s	16.0	20.6		15.9		7.2
Green Ext Time (p_c), s	0.3	2.0		1.1		4.5

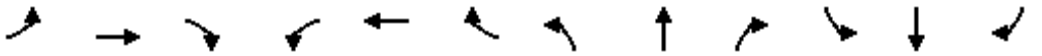
Intersection Summary		
HCM 6th Ctrl Delay		21.7
HCM 6th LOS		C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	32	10	300	546	330	
Future Volume (vph)	2	3	32	10	300	546	330	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.2		12.2	10.7	40.0	23.1	
Actuated g/C Ratio		0.21		0.21	0.19	0.70	0.40	
v/c Ratio		0.24		0.26	1.14	0.55	33.62	
Control Delay		7.1		14.8	121.4	9.4	14364.4	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.1		14.8	121.4	9.4	14364.4	
LOS		A		B	F	A	F	
Approach Delay		7.1		14.8		48.2	14364.4	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 57.5	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 33.62	
Intersection Signal Delay: 3662.4	Intersection LOS: F
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	75	32	10	30	300	546	21	13	330	2
Future Volume (veh/h)	2	3	75	32	10	30	300	546	21	13	330	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	95	41	13	38	380	691	27	16	418	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	18	290	205	81	125	390	1076	42	0	530	4
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.22	0.59	0.59	0.00	0.28	0.28
Sat Flow, veh/h	15	96	1511	503	420	650	1810	1816	71	0	1884	14
Grp Volume(v), veh/h	102	0	0	92	0	0	380	0	718	0	0	421
Grp Sat Flow(s),veh/h/ln	1622	0	0	1574	0	0	1810	0	1887	0	0	1898
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	12.1	0.0	0.0	9.9
Cycle Q Clear(g_c), s	2.6	0.0	0.0	2.1	0.0	0.0	10.1	0.0	12.1	0.0	0.0	9.9
Prop In Lane	0.03		0.93	0.45		0.41	1.00		0.04	0.00		0.01
Lane Grp Cap(c), veh/h	388	0	0	410	0	0	390	0	1118	0	0	534
V/C Ratio(X)	0.26	0.00	0.00	0.22	0.00	0.00	0.97	0.00	0.64	0.00	0.00	0.79
Avail Cap(c_a), veh/h	814	0	0	805	0	0	390	0	1118	0	0	889
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	0.0	16.6	0.0	0.0	18.8	0.0	6.5	0.0	0.0	16.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.3	0.0	0.0	38.4	0.0	1.3	0.0	0.0	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.8	0.0	0.0	7.5	0.0	2.6	0.0	0.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.2	0.0	0.0	16.9	0.0	0.0	57.2	0.0	7.7	0.0	0.0	18.6
LnGrp LOS	B	A	A	B	A	A	E	A	A	A	A	B
Approach Vol, veh/h		102			92			1098			421	
Approach Delay, s/veh		17.2			16.9			24.8			18.6	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	34.4		13.9	15.0	19.4		13.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	14.1		4.6	12.1	11.9		4.1				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	1.7		0.4				

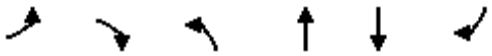
Intersection Summary			
HCM 6th Ctrl Delay		22.4	
HCM 6th LOS		C	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	73	22	70	819	182	218
Future Volume (vph)	73	22	70	819	182	218
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	12.8	12.8	8.4	47.6	37.5	37.5
Actuated g/C Ratio	0.20	0.20	0.13	0.73	0.57	0.57
v/c Ratio	0.27	0.09	0.40	0.77	0.22	0.27
Control Delay	29.1	11.3	36.3	14.8	12.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	11.3	36.3	14.8	12.7	2.7
LOS	C	B	D	B	B	A
Approach Delay	24.9			16.5	7.3	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 65.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 14.4	Intersection LOS: B
Intersection Capacity Utilization 61.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	73	22	70	819	182	218
Future Volume (veh/h)	73	22	70	819	182	218
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	29	91	1064	236	283
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	271	241	121	1232	954	808
Arrive On Green	0.15	0.15	0.07	0.65	0.50	0.50
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	95	29	91	1064	236	283
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	2.7	0.9	2.8	25.7	4.1	6.1
Cycle Q Clear(g_c), s	2.7	0.9	2.8	25.7	4.1	6.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	271	241	121	1232	954	808
V/C Ratio(X)	0.35	0.12	0.76	0.86	0.25	0.35
Avail Cap(c_a), veh/h	692	616	418	1862	1271	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	21.2	26.4	8.1	8.1	8.7
Incr Delay (d2), s/veh	0.8	0.2	3.6	2.9	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.9	1.2	6.0	1.2	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.7	21.4	30.0	11.0	8.3	8.9
LnGrp LOS	C	C	C	B	A	A
Approach Vol, veh/h	124			1155	519	
Approach Delay, s/veh	22.4			12.5	8.6	
Approach LOS	C			B	A	

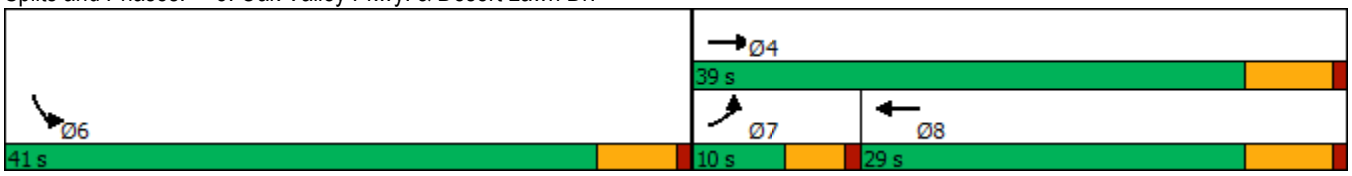
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		43.1		14.4	8.4	34.7
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		56.4		22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s		27.7		4.7	4.8	8.1
Green Ext Time (p_c), s		9.6		0.3	0.1	2.2

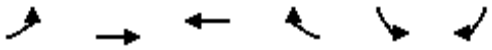
Intersection Summary		
HCM 6th Ctrl Delay		12.0
HCM 6th LOS		B

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	31	438	511	198
Future Volume (vph)	31	438	511	198
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.7	18.2	15.2	14.6
Actuated g/C Ratio	0.12	0.39	0.33	0.32
v/c Ratio	0.14	0.60	0.49	0.41
Control Delay	27.3	15.4	11.8	15.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	27.3	15.4	11.8	15.3
LOS	C	B	B	B
Approach Delay		16.2	11.8	15.3
Approach LOS		B	B	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 46.1	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 47.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	438	511	325	198	28
Future Volume (veh/h)	31	438	511	325	198	28
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	452	527	335	204	29
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	67	904	1138	530	370	53
Arrive On Green	0.04	0.48	0.33	0.33	0.24	0.24
Sat Flow, veh/h	1810	1900	3629	1610	1554	221
Grp Volume(v), veh/h	32	452	527	335	234	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1783	0
Q Serve(g_s), s	0.7	6.9	5.1	7.4	4.8	0.0
Cycle Q Clear(g_c), s	0.7	6.9	5.1	7.4	4.8	0.0
Prop In Lane	1.00			1.00	0.87	0.12
Lane Grp Cap(c), veh/h	67	904	1138	530	425	0
V/C Ratio(X)	0.48	0.50	0.46	0.63	0.55	0.00
Avail Cap(c_a), veh/h	233	1485	1879	875	1495	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	7.6	11.1	11.9	14.0	0.0
Incr Delay (d2), s/veh	1.9	0.4	0.3	1.3	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.5	1.4	2.0	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.7	8.0	11.4	13.2	15.1	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		484	862		234	
Approach Delay, s/veh		8.9	12.1		15.1	
Approach LOS		A	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	26.2	15.8	6.2	20.0
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.8	35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s	8.9	6.8	2.7	9.4
Green Ext Time (p_c), s	2.4	0.6	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

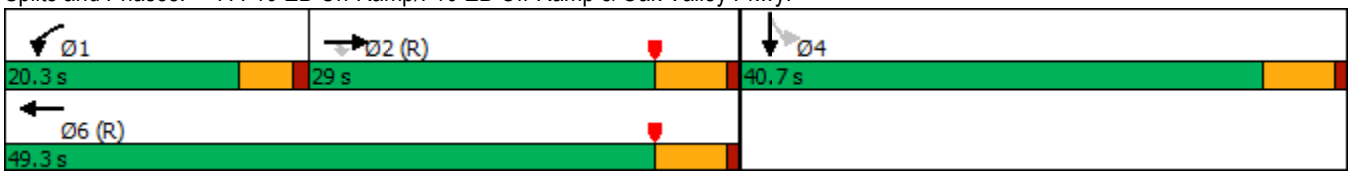
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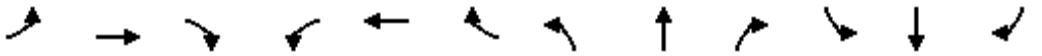
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	395	241	163	641	509	1
Future Volume (vph)	395	241	163	641	509	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.0	29.0	20.3	49.3	40.7	40.7
Total Split (%)	32.2%	32.2%	22.6%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	25.4	25.4	13.7	43.7	34.7	34.7
Actuated g/C Ratio	0.28	0.28	0.15	0.49	0.39	0.39
v/c Ratio	0.97	0.46	0.78	0.91	0.96	0.37
Control Delay	67.1	5.8	52.9	30.5	55.2	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	5.8	52.9	30.5	55.2	12.9
LOS	E	A	D	C	E	B
Approach Delay	43.9			35.0		43.4
Approach LOS	D			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 40.4	Intersection LOS: D
Intersection Capacity Utilization 71.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	395	241	163	641	0	0	0	0	509	1	195
Future Volume (veh/h)	0	395	241	163	641	0	0	0	0	509	1	195
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	520	259	214	843	0				670	1	191
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	561	476	252	923	0				697	3	618
Arrive On Green	0.00	0.30	0.30	0.09	0.33	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	8	1603
Grp Volume(v), veh/h	0	520	259	214	843	0				670	0	192
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1611
Q Serve(g_s), s	0.0	23.9	12.2	10.5	38.3	0.0				32.5	0.0	7.5
Cycle Q Clear(g_c), s	0.0	23.9	12.2	10.5	38.3	0.0				32.5	0.0	7.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	561	476	252	923	0				697	0	621
V/C Ratio(X)	0.00	0.93	0.54	0.85	0.91	0.00				0.96	0.00	0.31
Avail Cap(c_a), veh/h	0	561	476	316	923	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.66	0.66	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.7	26.6	39.9	28.5	0.0				27.0	0.0	19.3
Incr Delay (d2), s/veh	0.0	20.6	3.7	9.6	10.7	0.0				24.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.3	4.8	5.3	20.1	0.0				17.3	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	51.3	30.3	49.5	39.2	0.0				51.5	0.0	19.6
LnGrp LOS	A	D	C	D	D	A				D	A	B
Approach Vol, veh/h		779			1057						862	
Approach Delay, s/veh		44.3			41.3						44.4	
Approach LOS		D			D						D	

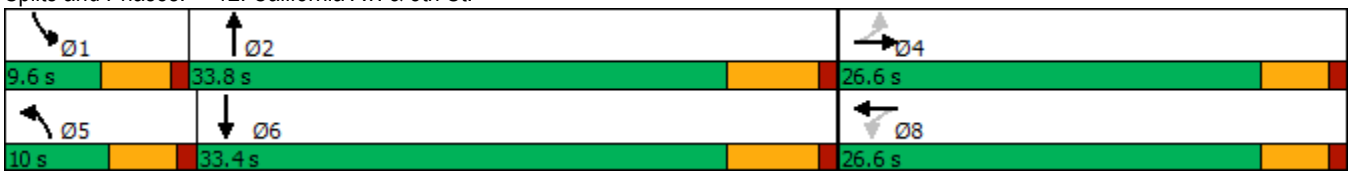
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	17.1	32.4		40.5		49.5
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	15.7	23.2		34.9		43.5
Max Q Clear Time (g_c+I1), s	12.5	25.9		34.5		40.3
Green Ext Time (p_c), s	0.1	0.0		0.2		1.6

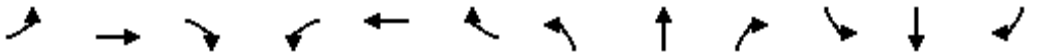
Intersection Summary		
HCM 6th Ctrl Delay		43.2
HCM 6th LOS		D

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	4	3	44	3	179	475	308	
Future Volume (vph)	4	3	44	3	179	475	308	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.1		12.1	5.4	42.1	30.9	
Actuated g/C Ratio		0.20		0.20	0.09	0.70	0.51	
v/c Ratio		0.24		0.22	1.16	0.40	8.20	
Control Delay		7.3		16.4	152.7	7.4	3311.9	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.3		16.4	152.7	7.4	3311.9	
LOS		A		B	F	A	F	
Approach Delay		7.3		16.4		45.5	3311.9	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 60.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 8.20	
Intersection Signal Delay: 938.9	Intersection LOS: F
Intersection Capacity Utilization 67.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	86	44	3	21	179	475	28	6	308	6
Future Volume (veh/h)	4	3	86	44	3	21	179	475	28	6	308	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	91	46	3	22	188	500	29	6	324	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	103	20	327	335	46	102	239	911	53	0	484	9
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.13	0.51	0.51	0.00	0.26	0.26
Sat Flow, veh/h	23	93	1505	829	214	468	1810	1778	103	0	1859	34
Grp Volume(v), veh/h	98	0	0	71	0	0	188	0	529	0	0	330
Grp Sat Flow(s),veh/h/ln	1621	0	0	1511	0	0	1810	0	1881	0	0	1894
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	7.3	0.0	0.0	6.0
Cycle Q Clear(g_c), s	1.9	0.0	0.0	1.2	0.0	0.0	3.9	0.0	7.3	0.0	0.0	6.0
Prop In Lane	0.04		0.93	0.65		0.31	1.00		0.05	0.00		0.02
Lane Grp Cap(c), veh/h	450	0	0	483	0	0	239	0	963	0	0	493
V/C Ratio(X)	0.22	0.00	0.00	0.15	0.00	0.00	0.79	0.00	0.55	0.00	0.00	0.67
Avail Cap(c_a), veh/h	1021	0	0	987	0	0	254	0	1371	0	0	1360
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	12.5	0.0	0.0	12.3	0.0	0.0	16.2	0.0	6.4	0.0	0.0	12.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	12.7	0.0	0.5	0.0	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.4	0.0	0.0	2.0	0.0	1.3	0.0	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.8	0.0	0.0	12.4	0.0	0.0	28.9	0.0	6.9	0.0	0.0	14.3
LnGrp LOS	B	A	A	B	A	A	C	A	A	A	A	B
Approach Vol, veh/h		98			71			717			330	
Approach Delay, s/veh		12.8			12.4			12.6			14.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.5		13.0	9.7	15.8		13.0				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	9.3		3.9	5.9	8.0		3.2				
Green Ext Time (p_c), s	0.0	2.9		0.5	0.0	1.6		0.3				

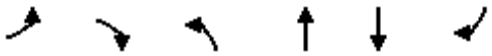
Intersection Summary												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	196	92	51	505	978	185
Future Volume (vph)	196	92	51	505	978	185
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	29.0	29.0	11.1	91.0	79.9	79.9
Total Split (%)	24.2%	24.2%	9.3%	75.8%	66.6%	66.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	17.6	17.6	6.5	69.8	61.8	61.8
Actuated g/C Ratio	0.18	0.18	0.06	0.70	0.62	0.62
v/c Ratio	0.67	0.27	0.47	0.41	0.91	0.19
Control Delay	53.6	10.5	66.5	7.4	30.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	1.8	0.0
Total Delay	53.6	10.5	66.5	7.4	32.0	3.9
LOS	D	B	E	A	C	A
Approach Delay	39.8			12.8	27.5	
Approach LOS	D			B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	196	92	51	505	978	185
Future Volume (veh/h)	196	92	51	505	978	185
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	213	100	55	549	1063	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	263	234	77	1369	1187	1006
Arrive On Green	0.15	0.15	0.04	0.72	0.62	0.62
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	213	100	55	549	1063	201
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	9.8	4.9	2.6	9.8	41.1	4.6
Cycle Q Clear(g_c), s	9.8	4.9	2.6	9.8	41.1	4.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	263	234	77	1369	1187	1006
V/C Ratio(X)	0.81	0.43	0.72	0.40	0.90	0.20
Avail Cap(c_a), veh/h	487	433	136	1877	1633	1384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	33.6	40.8	4.7	13.8	6.9
Incr Delay (d2), s/veh	5.9	1.2	4.6	0.2	5.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.1	1.2	2.5	14.8	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.6	34.8	45.3	4.9	19.1	7.0
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	313			604	1264	
Approach Delay, s/veh	39.5			8.6	17.2	
Approach LOS	D			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		67.9		18.3	8.3	59.6
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		85.2		23.2	6.5	74.1
Max Q Clear Time (g_c+I1), s		11.8		11.8	4.6	43.1
Green Ext Time (p_c), s		3.6		0.7	0.0	10.7

Intersection Summary		
HCM 6th Ctrl Delay		18.0
HCM 6th LOS		B

APPENDIX 7.1:

OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	33	158	280	48	175
Future Vol, veh/h	261	33	158	280	48	175
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	303	38	184	326	56	203
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	11.2	11	11.8
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	175	131	131	33	158	140	140
LT Vol	48	0	0	0	0	158	0	0
Through Vol	0	0	131	131	0	0	140	140
RT Vol	0	175	0	0	33	0	0	0
Lane Flow Rate	56	203	152	152	38	184	163	163
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.112	0.342	0.273	0.273	0.043	0.343	0.281	0.203
Departure Headway (Hd)	7.252	6.051	6.486	6.486	4.051	6.722	6.215	4.492
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	493	592	552	552	877	535	576	794
Service Time	5.011	3.809	4.245	4.245	1.809	4.475	3.968	2.244
HCM Lane V/C Ratio	0.114	0.343	0.275	0.275	0.043	0.344	0.283	0.205
HCM Control Delay	10.9	12	11.7	11.7	7	13	11.4	8.4
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.4	1.5	1.1	1.1	0.1	1.5	1.1	0.8

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	56	0	33	5	47	248	0
Future Vol, veh/h	0	0	0	10	0	56	0	33	5	47	248	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	86	0	51	8	72	382	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	7.9	11.8
HCM LOS	A	A	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	16%
Vol Thru, %	87%	0%	84%
Vol Right, %	13%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	38	66	295
LT Vol	0	10	47
Through Vol	33	0	248
RT Vol	5	56	0
Lane Flow Rate	58	102	454
Geometry Grp	1	1	1
Degree of Util (X)	0.073	0.128	0.524
Departure Headway (Hd)	4.522	4.553	4.155
Convergence, Y/N	Yes	Yes	Yes
Cap	794	792	853
Service Time	2.538	2.557	2.249
HCM Lane V/C Ratio	0.073	0.129	0.532
HCM Control Delay	7.9	8.2	11.8
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.2	0.4	3.1

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	53	17	0	39	29	193	214
Future Vol, veh/h	53	17	0	39	29	193	214
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	79	25	0	58	43	288	319
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	11.1	9.1	12.5
HCM LOS	B	A	B

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	76%	0%	0%	0%	100%	23%
Vol Thru, %	24%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	77%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	0	39	29	129	278
LT Vol	53	0	0	0	129	64
Through Vol	17	0	39	0	0	0
RT Vol	0	0	0	29	0	214
Lane Flow Rate	104	0	58	43	192	415
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.195	0	0.098	0.064	0.303	0.548
Departure Headway (Hd)	6.736	6.064	6.064	5.356	5.674	4.748
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	536	0	586	661	630	756
Service Time	4.436	3.859	3.859	3.149	3.438	2.512
HCM Lane V/C Ratio	0.194	0	0.099	0.065	0.305	0.549
HCM Control Delay	11.1	8.9	9.5	8.5	10.9	13.2
HCM Lane LOS	B	N	A	A	B	B
HCM 95th-tile Q	0.7	0	0.3	0.2	1.3	3.4

Intersection	
Intersection Delay, s/veh	141.9
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	498	403	345	519	63
Future Vol, veh/h	69	498	403	345	519	63
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	79	572	463	397	597	72
Number of Lanes	1	1	3	0	1	0

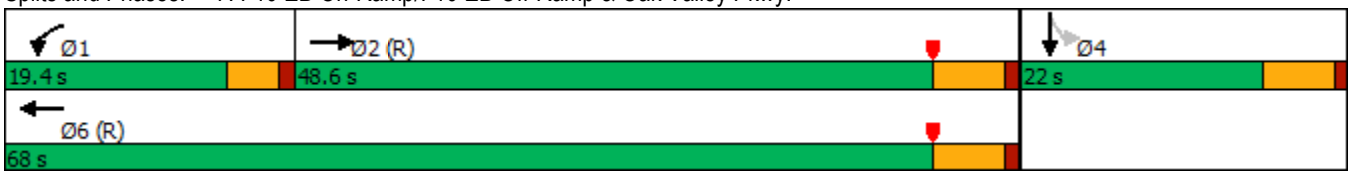
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	169.9	23.1	267.2
HCM LOS	F	C	F

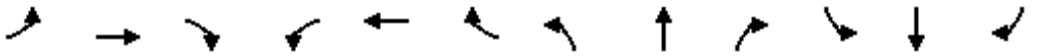
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	89%
Vol Thru, %	0%	100%	100%	100%	19%	0%
Vol Right, %	0%	0%	0%	0%	81%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	498	161	161	426	582
LT Vol	69	0	0	0	0	519
Through Vol	0	498	161	161	81	0
RT Vol	0	0	0	0	345	63
Lane Flow Rate	79	572	185	185	489	669
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.195	1.325	0.393	0.393	0.728	1.517
Departure Headway (Hd)	10.305	9.77	9.555	9.555	7.151	8.684
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	351	378	380	380	509	421
Service Time	8.005	7.47	7.255	7.255	4.851	6.384
HCM Lane V/C Ratio	0.225	1.513	0.487	0.487	0.961	1.589
HCM Control Delay	15.5	191.3	18.3	18.3	26.7	267.2
HCM Lane LOS	C	F	C	C	D	F
HCM 95th-tile Q	0.7	22.9	1.8	1.8	6	33.8

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	517	274	620	3
Future Volume (vph)	517	274	620	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.30	1.04	0.53	1.36
Control Delay	165.0	85.3	4.4	210.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	165.0	85.3	4.4	210.0
LOS	F	F	A	F
Approach Delay	165.0		29.2	210.0
Approach LOS	F		C	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.36	
Intersection Signal Delay: 120.5	Intersection LOS: F
Intersection Capacity Utilization 109.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	517	500	274	620	0	0	0	0	274	3	128
Future Volume (veh/h)	0	517	500	274	620	0	0	0	0	274	3	128
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	581	475	308	697	0				308	3	125
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	460	376	298	1313	0				222	2	90
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	967	791	1810	1900	0				1235	12	501
Grp Volume(v), veh/h	0	0	1056	308	697	0				436	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1758	1810	1900	0				1748	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.45	1.00		0.00				0.71		0.29
Lane Grp Cap(c), veh/h	0	0	836	298	1313	0				315	0	0
V/C Ratio(X)	0.00	0.00	1.26	1.04	0.53	0.00				1.39	0.00	0.00
Avail Cap(c_a), veh/h	0	0	836	298	1313	0				315	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.19	0.19	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.2	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	128.1	32.3	0.3	0.0				192.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	44.9	7.4	0.1	0.0				23.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	151.7	62.5	0.3	0.0				229.0	0.0	0.0
LnGrp LOS	A	A	F	F	A	A				F	A	A
Approach Vol, veh/h		1056			1005						436	
Approach Delay, s/veh		151.7			19.4						229.0	
Approach LOS		F			B						F	

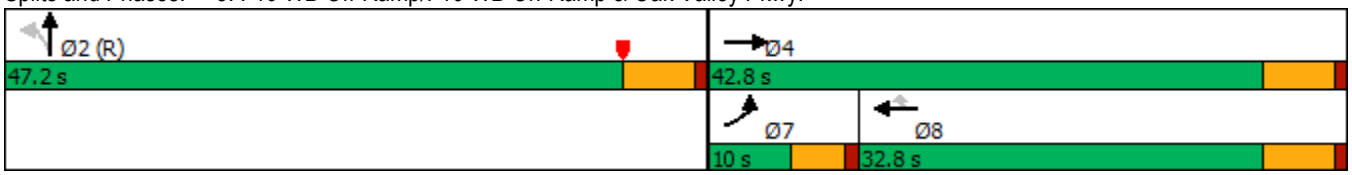
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		2.0
Green Ext Time (p_c), s	0.0	0.0		0.0		5.0

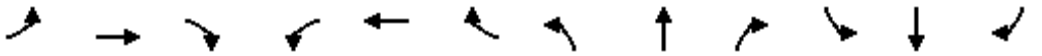
Intersection Summary			
HCM 6th Ctrl Delay		111.9	
HCM 6th LOS		F	

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	170	621	534	473	4
Future Volume (vph)	170	621	534	473	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	1.60	0.81	0.96	0.59	0.93
Control Delay	304.5	20.1	61.0	5.7	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	304.5	20.1	61.0	5.7	40.1
LOS	F	C	E	A	D
Approach Delay		81.0	35.0		40.1
Approach LOS		F	D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.60	
Intersection Signal Delay: 50.7	Intersection LOS: D
Intersection Capacity Utilization 109.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	621	0	0	534	473	361	4	398	0	0	0
Future Volume (veh/h)	170	621	0	0	534	473	361	4	398	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	173	634	0	0	545	367	368	4	284			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	443	5	342			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	964	10	744			
Grp Volume(v), veh/h	173	634	0	0	545	367	656	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1718	0	0			
Q Serve(g_s), s	5.4	28.0	0.0	0.0	25.3	18.6	30.0	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	28.0	0.0	0.0	25.3	18.6	30.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.56		0.43			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	790	0	0			
V/C Ratio(X)	1.59	0.81	0.00	0.00	0.96	0.76	0.83	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	790	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.4	0.0	0.0	30.9	28.6	21.2	0.0	0.0			
Incr Delay (d2), s/veh	271.0	0.6	0.0	0.0	27.0	6.9	9.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.5	13.0	0.0	0.0	14.9	7.5	12.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	314.2	30.0	0.0	0.0	58.0	35.5	31.1	0.0	0.0			
LnGrp LOS	F	C	A	A	E	D	C	A	A			
Approach Vol, veh/h		807			912			656				
Approach Delay, s/veh		90.9			48.9			31.1				
Approach LOS		F			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		47.2		42.8			10.0	32.8				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		32.0		30.0			7.4	27.3				
Green Ext Time (p_c), s		2.9		2.2			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			58.3									
HCM 6th LOS			E									

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	586	152	164	937	28	0	0	66	0	0	167
Future Vol, veh/h	0	586	152	164	937	28	0	0	66	0	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	644	167	180	1030	31	0	0	73	0	0	184

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	811	0	0	-	-	406	-	-	1046
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	824	-	-	0	0	600	0	0	280
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	824	-	-	-	-	600	-	-	280
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	11.8	39.3
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	600	-	-	824	-	-	280
HCM Lane V/C Ratio	0.121	-	-	0.219	-	-	0.655
HCM Control Delay (s)	11.8	-	-	10.6	-	-	39.3
HCM Lane LOS	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.4	-	-	0.8	-	-	4.2

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	47	25	3	283	21	75	30	6	23	32	99
Future Vol, veh/h	35	47	25	3	283	21	75	30	6	23	32	99
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	47	63	33	4	377	28	100	40	8	31	43	132
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

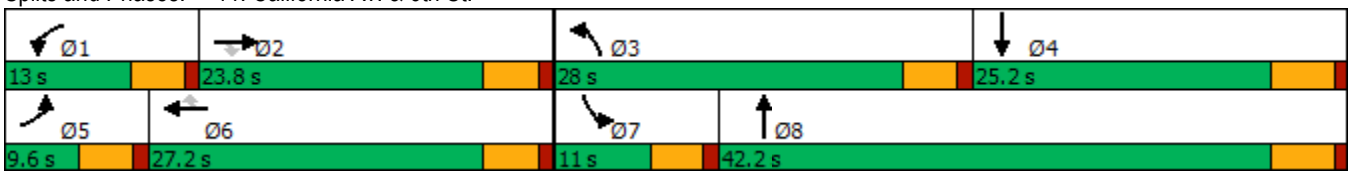
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	10.3	20.7	12.6	10.5
HCM LOS	B	C	B	B

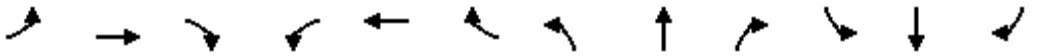
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	71%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	29%	0%	0%	100%	0%	0%	93%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	7%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	6	35	47	25	3	304	23	32	99
LT Vol	75	0	35	0	0	3	0	23	0	0
Through Vol	30	0	0	47	0	0	283	0	32	0
RT Vol	0	6	0	0	25	0	21	0	0	99
Lane Flow Rate	140	8	47	63	33	4	405	31	43	132
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.28	0.014	0.094	0.118	0.056	0.007	0.681	0.062	0.08	0.222
Departure Headway (Hd)	7.189	6.12	7.282	6.775	6.066	6.604	6.052	7.268	6.763	6.055
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	497	581	490	526	586	540	596	491	527	589
Service Time	4.967	3.897	5.063	4.556	3.846	4.363	3.811	5.045	4.539	3.831
HCM Lane V/C Ratio	0.282	0.014	0.096	0.12	0.056	0.007	0.68	0.063	0.082	0.224
HCM Control Delay	12.8	9	10.8	10.5	9.2	9.4	20.8	10.5	10.1	10.6
HCM Lane LOS	B	A	B	B	A	A	C	B	B	B
HCM 95th-tile Q	1.1	0	0.3	0.4	0.2	0	5.2	0.2	0.3	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	301	124	178	300	21	427	89	47	134
Future Volume (vph)	4	301	124	178	300	21	427	89	47	134
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	17.9	17.9	8.4	29.0	29.0	23.4	41.5	6.0	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.09	0.33	0.33	0.26	0.47	0.07	0.22
v/c Ratio	0.04	0.85	0.28	1.14	0.53	0.04	0.98	0.18	0.42	0.35
Control Delay	41.2	56.3	3.0	149.6	29.0	0.1	70.9	12.3	51.1	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	56.3	3.0	149.6	29.0	0.1	70.9	12.3	51.1	32.0
LOS	D	E	A	F	C	A	E	B	D	C
Approach Delay		40.8			70.7			56.0		36.8
Approach LOS		D			E			E		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 89	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 54.4	Intersection LOS: D
Intersection Capacity Utilization 73.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	301	124	178	300	21	427	89	56	47	134	4
Future Volume (veh/h)	4	301	124	178	300	21	427	89	56	47	134	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	327	134	193	326	14	464	97	39	51	146	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	373	316	172	543	460	479	581	234	73	423	6
Arrive On Green	0.01	0.20	0.20	0.10	0.29	0.29	0.26	0.45	0.45	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1289	518	1810	1870	26
Grp Volume(v), veh/h	4	327	134	193	326	14	464	0	136	51	0	148
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1807	1810	0	1895
Q Serve(g_s), s	0.2	14.8	6.4	8.4	13.1	0.6	22.4	0.0	3.9	2.5	0.0	5.8
Cycle Q Clear(g_c), s	0.2	14.8	6.4	8.4	13.1	0.6	22.4	0.0	3.9	2.5	0.0	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		0.01
Lane Grp Cap(c), veh/h	10	373	316	172	543	460	479	0	815	73	0	429
V/C Ratio(X)	0.42	0.88	0.42	1.12	0.60	0.03	0.97	0.00	0.17	0.70	0.00	0.34
Avail Cap(c_a), veh/h	102	409	346	172	543	460	479	0	815	131	0	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.8	34.5	31.1	40.0	27.2	22.7	32.1	0.0	14.4	41.8	0.0	28.7
Incr Delay (d2), s/veh	10.4	17.9	0.9	104.9	1.8	0.0	32.6	0.0	0.4	4.4	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.5	2.4	8.7	6.0	0.2	13.4	0.0	1.6	1.1	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	52.4	32.0	144.9	29.0	22.7	64.7	0.0	14.8	46.3	0.0	30.9
LnGrp LOS	D	D	C	F	C	C	E	A	B	D	A	C
Approach Vol, veh/h		465			533			600			199	
Approach Delay, s/veh		46.6			70.8			53.4			34.8	
Approach LOS		D			E			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.1	28.0	25.2	5.1	30.1	8.2	45.0
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0
Max Q Clear Time (g_c+I1), s	10.4	16.8	24.4	7.8	2.2	15.1	4.5	5.9
Green Ext Time (p_c), s	0.0	0.6	0.0	0.5	0.0	1.1	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	39

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	2	3	78	31	10	31	312	568	21	13	377	2
Future Vol, veh/h	2	3	78	31	10	31	312	568	21	13	377	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	99	39	13	39	395	719	27	16	477	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2060	2047	479	2085	2035	733	480	0	0	746	0	0
Stage 1	511	511	-	1523	1523	-	-	-	-	-	-	-
Stage 2	1549	1536	-	562	512	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	41	57	591	~ 39	58	424	1093	-	-	871	-	-
Stage 1	549	540	-	149	182	-	-	-	-	-	-	-
Stage 2	144	180	-	515	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	23	36	591	~ 22	36	424	1093	-	-	871	-	-
Mov Cap-2 Maneuver	50	84	-	~ 21	73	-	-	-	-	-	-	-
Stage 1	351	530	-	95	116	-	-	-	-	-	-	-
Stage 2	74	115	-	418	530	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	$ 719.2	3.5	0.3
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1093	-	-	400	43	871	-	-
HCM Lane V/C Ratio	0.361	-	-	0.263	2.12	0.019	-	-
HCM Control Delay (s)	10.1	-	-	17.2	$ 719.2	9.2	-	-
HCM Lane LOS	B	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	1.7	-	-	1	9.6	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	12.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	22	87	852	189	258
Future Vol, veh/h	76	22	87	852	189	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	99	29	113	1106	245	335

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1745	413	580	0	-	0
Stage 1	413	-	-	-	-	-
Stage 2	1332	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 96	643	1004	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 85	643	1004	-	-	-
Mov Cap-2 Maneuver	~ 85	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	249	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	186	0.8	0
HCM LOS	F		

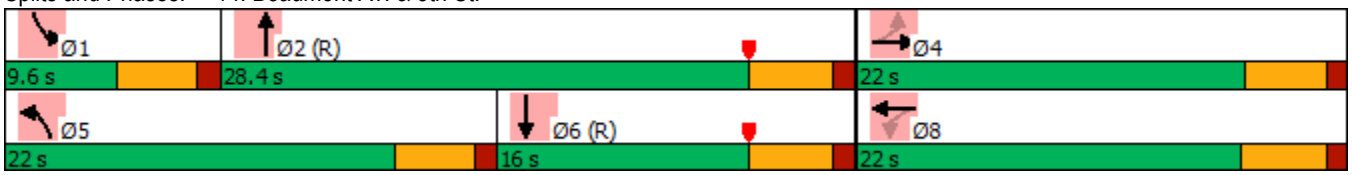
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1004	-	85	643	-	-
HCM Lane V/C Ratio	0.113	-	1.161	0.044	-	-
HCM Control Delay (s)	9	-	236.7	10.9	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.4	-	7	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	9	17	20	3	62	350	3	408
Future Volume (vph)	9	17	20	3	62	350	3	408
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1		10.0	6.8	46.3	5.0	40.8
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.21		0.15	0.33	0.14	0.02	0.19
Control Delay		14.3		18.1	27.3	4.6	25.7	7.6
Queue Delay		0.0		0.0	0.2	0.3	0.0	0.1
Total Delay		14.3		18.1	27.5	4.8	25.7	7.7
LOS		B		B	C	A	C	A
Approach Delay		14.3		18.1		8.1		7.8
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.33	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 36.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	9	17	32	20	3	11	62	350	14	3	408	13
Future Volume (veh/h)	9	17	32	20	3	11	62	350	14	3	408	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	18	35	22	3	12	67	380	15	3	443	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	84	127	197	41	68	101	2210	87	7	2044	64
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	128	622	938	751	301	505	1810	3540	139	1810	3572	113
Grp Volume(v), veh/h	63	0	0	37	0	0	67	193	202	3	224	233
Grp Sat Flow(s),veh/h/ln	1688	0	0	1558	0	0	1810	1805	1875	1810	1805	1880
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.1	3.6	3.6
Cycle Q Clear(g_c), s	2.0	0.0	0.0	1.1	0.0	0.0	2.1	0.0	0.0	0.1	3.6	3.6
Prop In Lane	0.16		0.56	0.59		0.32	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	298	0	0	306	0	0	101	1126	1170	7	1033	1075
V/C Ratio(X)	0.21	0.00	0.00	0.12	0.00	0.00	0.66	0.17	0.17	0.41	0.22	0.22
Avail Cap(c_a), veh/h	553	0	0	530	0	0	525	1126	1170	151	1033	1075
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	0.0	0.0	22.9	0.0	0.0	26.1	0.0	0.0	29.8	6.3	6.3
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.7	0.3	0.3	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.5	0.0	0.0	0.9	0.1	0.1	0.1	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	0.0	23.1	0.0	0.0	28.8	0.3	0.3	42.7	6.8	6.7
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		63			37			462			460	
Approach Delay, s/veh		23.6			23.1			4.5			7.0	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.2		12.9	8.0	39.1		12.9				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.0	4.1	5.6		3.1				
Green Ext Time (p_c), s	0.0	2.3		0.2	0.1	1.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.4
HCM 6th LOS		A

Notes

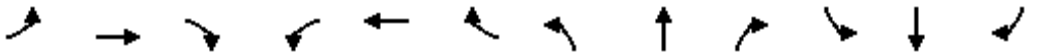
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	104	93	658	75	298	305
Future Volume (vph)	104	93	658	75	298	305
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.2	10.0	11.4	11.4	11.4	11.4
Actuated g/C Ratio	0.34	0.30	0.35	0.35	0.35	0.35
v/c Ratio	0.10	0.11	0.41	0.14	0.19	0.28
Control Delay	8.2	3.2	9.0	3.0	7.7	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	3.2	9.0	3.0	7.7	2.0
LOS	A	A	A	A	A	A
Approach Delay			8.4		4.8	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 33	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 6.6	Intersection LOS: A
Intersection Capacity Utilization 30.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	104	0	93	0	658	75	0	298	305
Future Volume (veh/h)	0	0	0	104	0	93	0	658	75	0	298	305
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				113	0	74	0	715	0	0	324	250
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				680	0	549	0	2010		0	2010	1098
Arrive On Green				0.20	0.00	0.20	0.00	0.39	0.00	0.00	0.39	0.39
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				113	0	74	0	715	0	0	324	250
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				0.7	0.0	0.6	0.0	2.5	0.0	0.0	1.0	1.5
Cycle Q Clear(g_c), s				0.7	0.0	0.6	0.0	2.5	0.0	0.0	1.0	1.5
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				680	0	549	0	2010		0	2010	1098
V/C Ratio(X)				0.17	0.00	0.13	0.00	0.36		0.00	0.16	0.23
Avail Cap(c_a), veh/h				5497	0	4437	0	13912		0	13912	7601
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				8.5	0.0	8.4	0.0	5.4	0.0	0.0	5.0	5.1
Incr Delay (d2), s/veh				0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				8.5	0.0	8.5	0.0	5.5	0.0	0.0	5.0	5.2
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					187			715	A		574	
Approach Delay, s/veh					8.5			5.5			5.1	
Approach LOS					A			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	15.8			15.8		9.6						
Change Period (Y+Rc), s	5.8			5.8		4.6						
Max Green Setting (Gmax), s	69.2			69.2		40.4						
Max Q Clear Time (g_c+I1), s	4.5			3.5		2.7						
Green Ext Time (p_c), s	5.2			3.2		0.3						

Intersection Summary		
HCM 6th Ctrl Delay	5.7	
HCM 6th LOS	A	

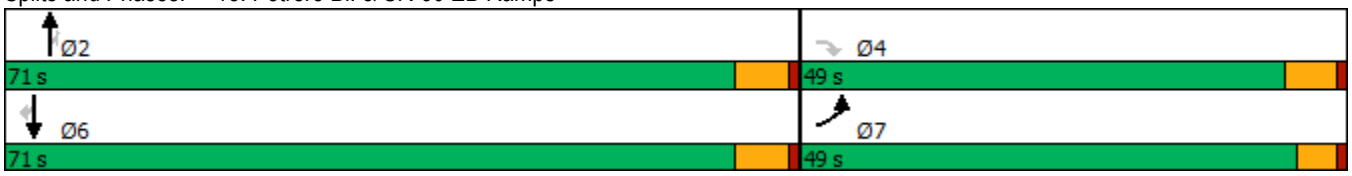
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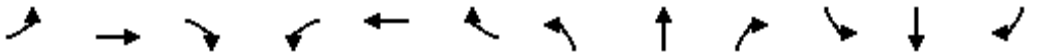
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	254	50	479	131	338	64
Future Volume (vph)	254	50	479	131	338	64
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	10.0	8.8	10.5	10.5	10.5	10.5
Actuated g/C Ratio	0.32	0.28	0.34	0.34	0.34	0.34
v/c Ratio	0.25	0.06	0.30	0.14	0.21	0.12
Control Delay	8.5	3.7	8.0	2.2	7.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.7	8.0	2.2	7.6	3.0
LOS	A	A	A	A	A	A
Approach Delay			6.8		6.8	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 30.9	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 7.0	Intersection LOS: A
Intersection Capacity Utilization 24.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	0	50	0	0	0	0	479	131	0	338	64
Future Volume (veh/h)	254	0	50	0	0	0	0	479	131	0	338	64
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	276	0	-28				0	521	99	0	367	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1137	0	918				0	1679	918	0	1679	
Arrive On Green	0.33	0.00	0.00				0.00	0.33	0.33	0.00	0.33	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	276	0	-28				0	521	99	0	367	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	1.8	0.0	0.0				0.0	2.3	0.8	0.0	1.6	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0				0.0	2.3	0.8	0.0	1.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1137	0	918				0	1679	918	0	1679	
V/C Ratio(X)	0.24	0.00	-0.03				0.00	0.31	0.11	0.00	0.22	
Avail Cap(c_a), veh/h	5048	0	4075				0	10952	5984	0	10952	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	7.4	0.0	0.0				0.0	7.6	7.1	0.0	7.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0				0.0	0.4	0.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.5	0.0	0.0				0.0	7.7	7.1	0.0	7.4	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h		248						620			367	A
Approach Delay, s/veh		8.3						7.6			7.4	
Approach LOS		A						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		15.8		14.6		15.8						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		65.2		44.4		65.2						
Max Q Clear Time (g_c+I1), s		4.3		3.8		3.6						
Green Ext Time (p_c), s		4.0		0.5		2.4						

Intersection Summary		
HCM 6th Ctrl Delay		7.7
HCM 6th LOS		A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	226	39	149	303	105	199
Future Vol, veh/h	226	39	149	303	105	199
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	248	43	164	333	115	219
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	10.9	11	12
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	199	113	113	39	149	152	152
LT Vol	105	0	0	0	0	149	0	0
Through Vol	0	0	113	113	0	0	152	152
RT Vol	0	199	0	0	39	0	0	0
Lane Flow Rate	115	219	124	124	43	164	166	166
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.228	0.36	0.231	0.231	0.051	0.312	0.293	0.214
Departure Headway (Hd)	7.125	5.925	6.703	6.703	4.261	6.852	6.344	4.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	503	606	534	534	833	524	564	772
Service Time	4.885	3.685	4.47	4.47	2.026	4.609	4.101	2.373
HCM Lane V/C Ratio	0.229	0.361	0.232	0.232	0.052	0.313	0.294	0.215
HCM Control Delay	12	12	11.5	11.5	7.3	12.7	11.7	8.6
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.9	1.6	0.9	0.9	0.2	1.3	1.2	0.8

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	100	0	315	0	10	198	0
Future Vol, veh/h	0	0	0	2	0	100	0	315	0	10	198	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	130	0	409	0	13	257	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.9	12.3	10.3
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	5%
Vol Thru, %	100%	0%	95%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	315	102	208
LT Vol	0	2	10
Through Vol	315	0	198
RT Vol	0	100	0
Lane Flow Rate	409	132	270
Geometry Grp	1	1	1
Degree of Util (X)	0.514	0.177	0.351
Departure Headway (Hd)	4.524	4.814	4.677
Convergence, Y/N	Yes	Yes	Yes
Cap	794	740	767
Service Time	2.568	2.874	2.725
HCM Lane V/C Ratio	0.515	0.178	0.352
HCM Control Delay	12.3	8.9	10.3
HCM Lane LOS	B	A	B
HCM 95th-tile Q	3	0.6	1.6

Intersection	
Intersection Delay, s/veh	22.3
Intersection LOS	C

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	220	46	0	14	252	176	75
Future Vol, veh/h	220	46	0	14	252	176	75
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	328	69	0	21	376	263	112
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	34.6	17	14.8
HCM LOS	D	C	B

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	83%	0%	0%	0%	100%	44%
Vol Thru, %	17%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	56%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	266	0	14	252	117	134
LT Vol	220	0	0	0	117	59
Through Vol	46	0	14	0	0	0
RT Vol	0	0	0	252	0	75
Lane Flow Rate	397	0	21	376	175	200
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.811	0	0.038	0.612	0.379	0.393
Departure Headway (Hd)	7.354	6.574	6.574	5.859	7.784	7.097
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	496	0	547	621	462	507
Service Time	5.07	4.286	4.286	3.571	5.526	4.838
HCM Lane V/C Ratio	0.8	0	0.038	0.605	0.379	0.394
HCM Control Delay	34.6	9.3	9.5	17.4	15.2	14.4
HCM Lane LOS	D	N	A	C	C	B
HCM 95th-tile Q	7.7	0	0.1	4.2	1.7	1.9

Intersection	
Intersection Delay, s/veh	35
Intersection LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	492	592	344	210	32
Future Vol, veh/h	31	492	592	344	210	32
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	507	610	355	216	33
Number of Lanes	1	1	3	0	1	0

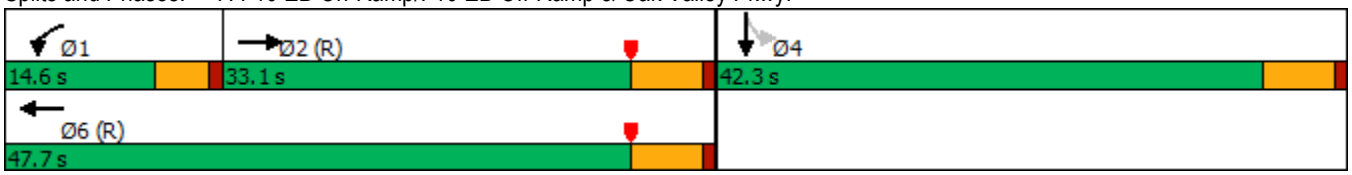
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	79.8	13.6	20.8
HCM LOS	F	B	C

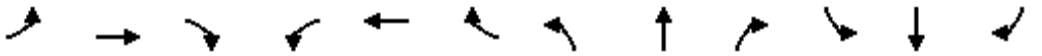
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	87%
Vol Thru, %	0%	100%	100%	100%	26%	0%
Vol Right, %	0%	0%	0%	0%	74%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	492	237	237	462	242
LT Vol	31	0	0	0	0	210
Through Vol	0	492	237	237	118	0
RT Vol	0	0	0	0	344	32
Lane Flow Rate	32	507	244	244	477	249
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.071	1.057	0.442	0.442	0.563	0.559
Departure Headway (Hd)	8.014	7.502	6.66	6.66	4.385	8.219
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	450	487	544	544	829	442
Service Time	5.714	5.202	4.36	4.36	2.085	5.919
HCM Lane V/C Ratio	0.071	1.041	0.449	0.449	0.575	0.563
HCM Control Delay	11.3	84.1	14.5	14.5	12.6	20.8
HCM Lane LOS	B	F	B	B	B	C
HCM 95th-tile Q	0.2	15.6	2.2	2.2	3.6	3.3

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	442	180	718	1
Future Volume (vph)	442	180	718	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	1.52	1.12	1.02	1.31
Control Delay	269.2	121.6	52.7	176.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	269.2	121.6	52.7	176.0
LOS	F	F	D	F
Approach Delay	269.2		66.5	176.0
Approach LOS	F		E	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.52	
Intersection Signal Delay: 162.1	Intersection LOS: F
Intersection Capacity Utilization 102.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	442	260	180	718	0	0	0	0	547	1	218
Future Volume (veh/h)	0	442	260	180	718	0	0	0	0	547	1	218
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	582	270	237	945	0				720	1	221
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	397	184	213	923	0				572	1	176
Arrive On Green	0.00	0.32	0.30	0.08	0.33	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1228	570	1810	1900	0				1344	2	413
Grp Volume(v), veh/h	0	0	852	237	945	0				942	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1797	1810	1900	0				1759	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.32	1.00		0.00				0.76		0.23
Lane Grp Cap(c), veh/h	0	0	581	213	923	0				748	0	0
V/C Ratio(X)	0.00	0.00	1.47	1.11	1.02	0.00				1.26	0.00	0.00
Avail Cap(c_a), veh/h	0	0	581	213	923	0				748	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.24	0.24	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.7	41.4	30.4	0.0				26.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	219.0	65.8	21.2	0.0				127.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	46.9	8.6	25.2	0.0				40.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	249.8	107.3	51.5	0.0				153.2	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		852			1182						942	
Approach Delay, s/veh		249.8			62.7						153.2	
Approach LOS		F			E						F	

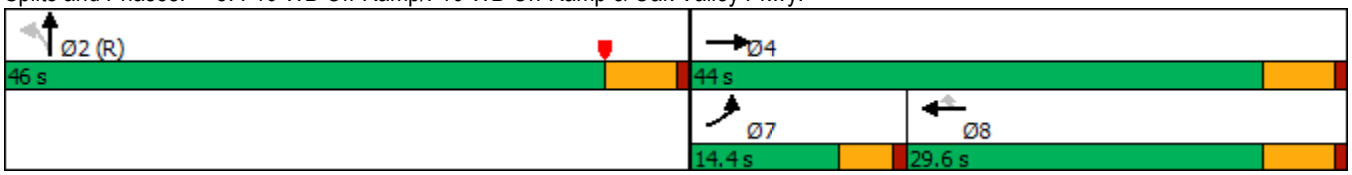
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						

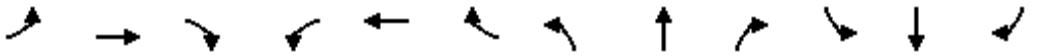
Intersection Summary												
HCM 6th Ctrl Delay			144.9									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	183	806	490	318	4
Future Volume (vph)	183	806	490	318	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	0.91	0.98	0.94	0.47	0.90
Control Delay	49.0	27.7	58.7	5.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	27.7	58.7	5.5	36.0
LOS	D	C	E	A	D
Approach Delay		31.7	37.8		36.0
Approach LOS		C	D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 34.9	Intersection LOS: C
Intersection Capacity Utilization 102.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	806	0	0	490	318	408	4	321	0	0	0
Future Volume (veh/h)	183	806	0	0	490	318	408	4	321	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	189	831	0	0	505	258	421	4	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	481	5	319			
Arrive On Green	0.04	0.15	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1032	10	684			
Grp Volume(v), veh/h	189	831	0	0	505	258	704	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1725	0	0			
Q Serve(g_s), s	9.4	39.3	0.0	0.0	23.3	12.3	33.2	0.0	0.0			
Cycle Q Clear(g_c), s	9.4	39.3	0.0	0.0	23.3	12.3	33.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.60		0.40			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	805	0	0			
V/C Ratio(X)	0.90	0.98	0.00	0.00	0.93	0.56	0.87	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	805	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	42.8	38.1	0.0	0.0	31.4	27.4	22.0	0.0	0.0			
Incr Delay (d2), s/veh	5.3	6.2	0.0	0.0	23.6	1.6	12.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.6	21.0	0.0	0.0	13.4	4.6	14.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	44.3	0.0	0.0	55.0	29.0	34.7	0.0	0.0			
LnGrp LOS	D	D	A	A	E	C	C	A	A			
Approach Vol, veh/h		1020			763			704				
Approach Delay, s/veh		45.0			46.2			34.7				
Approach LOS		D			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.0		44.0			14.4	29.6				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			9.8	23.8				
Max Q Clear Time (g_c+I1), s		35.2		41.3			11.4	25.3				
Green Ext Time (p_c), s		2.0		0.0			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			42.5									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	873	134	114	698	59	0	0	124	0	0	69
Future Vol, veh/h	0	873	134	114	698	59	0	0	124	0	0	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	939	144	123	751	63	0	0	133	0	0	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1083	0	0	-	-	542	-	-	783
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	652	-	-	0	0	490	0	0	397
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	652	-	-	-	-	490	-	-	397
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	15.1	16.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	490	-	-	652	-	-	397
HCM Lane V/C Ratio	0.272	-	-	0.188	-	-	0.187
HCM Control Delay (s)	15.1	-	-	11.8	-	-	16.1
HCM Lane LOS	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.1	-	-	0.7	-	-	0.7

Intersection	
Intersection Delay, s/veh	21.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	111	270	82	9	226	32	42	40	12	14	63	41
Future Vol, veh/h	111	270	82	9	226	32	42	40	12	14	63	41
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	159	386	117	13	323	46	60	57	17	20	90	59
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

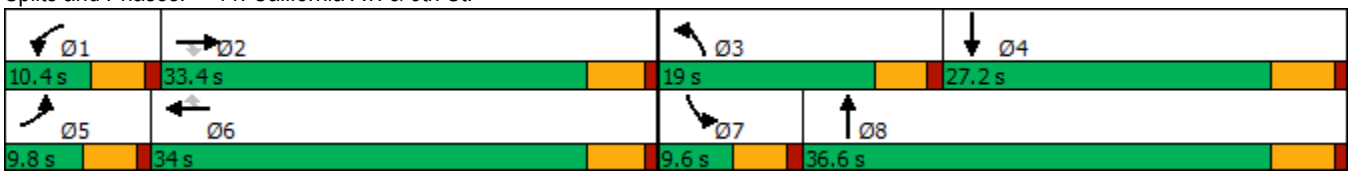
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	21.6	28.5	14.3	12.6
HCM LOS	C	D	B	B

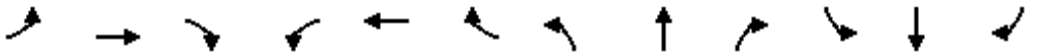
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	88%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	12%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	12	111	270	82	9	258	14	63	41
LT Vol	42	0	111	0	0	9	0	14	0	0
Through Vol	40	0	0	270	0	0	226	0	63	0
RT Vol	0	12	0	0	82	0	32	0	0	41
Lane Flow Rate	117	17	159	386	117	13	369	20	90	59
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.282	0.037	0.331	0.751	0.205	0.028	0.751	0.049	0.21	0.125
Departure Headway (Hd)	8.671	7.694	7.518	7.01	6.3	7.93	7.335	8.897	8.385	7.668
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	414	464	477	517	568	451	494	402	427	466
Service Time	6.442	5.464	5.271	4.764	4.053	5.687	5.093	6.668	6.155	5.438
HCM Lane V/C Ratio	0.283	0.037	0.333	0.747	0.206	0.029	0.747	0.05	0.211	0.127
HCM Control Delay	14.8	10.8	14	28.1	10.7	10.9	29.1	12.1	13.4	11.5
HCM Lane LOS	B	B	B	D	B	B	D	B	B	B
HCM 95th-tile Q	1.1	0.1	1.4	6.4	0.8	0.1	6.4	0.2	0.8	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	478	181	178	283	11	284	108	14	62
Future Volume (vph)	20	478	181	178	283	11	284	108	14	62
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.7	27.0	27.0	6.4	33.6	33.6	15.0	40.4	5.6	23.3
Actuated g/C Ratio	0.06	0.31	0.31	0.07	0.38	0.38	0.17	0.46	0.06	0.27
v/c Ratio	0.18	0.86	0.30	1.42	0.41	0.02	0.97	0.33	0.13	0.16
Control Delay	43.5	44.8	4.7	261.5	23.0	0.0	82.9	12.5	42.6	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	44.8	4.7	261.5	23.0	0.0	82.9	12.5	42.6	23.6
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		34.0			112.2			48.8		26.7
Approach LOS		C			F			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.42	
Intersection Signal Delay: 58.8	Intersection LOS: E
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	478	181	178	283	11	284	108	158	14	62	12
Future Volume (veh/h)	20	478	181	178	283	11	284	108	158	14	62	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	503	187	187	298	7	299	114	135	15	65	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	575	488	133	659	558	312	329	390	44	450	48
Arrive On Green	0.03	0.30	0.30	0.07	0.35	0.35	0.17	0.42	0.40	0.02	0.27	0.25
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	793	939	1810	1686	182
Grp Volume(v), veh/h	21	503	187	187	298	7	299	0	249	15	0	72
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1731	1810	0	1867
Q Serve(g_s), s	1.0	21.8	8.0	6.4	10.6	0.2	14.2	0.0	8.6	0.7	0.0	2.6
Cycle Q Clear(g_c), s	1.0	21.8	8.0	6.4	10.6	0.2	14.2	0.0	8.6	0.7	0.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.54	1.00		0.10
Lane Grp Cap(c), veh/h	54	575	488	133	659	558	312	0	719	44	0	498
V/C Ratio(X)	0.39	0.87	0.38	1.40	0.45	0.01	0.96	0.00	0.35	0.34	0.00	0.14
Avail Cap(c_a), veh/h	121	643	545	133	659	558	312	0	719	117	0	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.4	28.7	23.9	40.3	22.0	18.6	35.6	0.0	17.6	41.7	0.0	24.3
Incr Delay (d2), s/veh	1.7	11.9	0.5	220.3	0.5	0.0	39.2	0.0	1.3	1.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.5	2.9	11.0	4.6	0.1	9.3	0.0	3.4	0.3	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	40.6	24.4	260.5	22.5	18.6	74.9	0.0	18.9	43.4	0.0	24.9
LnGrp LOS	D	D	C	F	C	B	E	A	B	D	A	C
Approach Vol, veh/h		711			492			548			87	
Approach Delay, s/veh		36.4			112.9			49.4			28.1	
Approach LOS		D			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	30.3	19.0	27.2	6.6	34.1	6.1	40.1
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	8.4	23.8	16.2	4.6	3.0	12.6	2.7	10.6
Green Ext Time (p_c), s	0.0	1.7	0.0	0.2	0.0	1.6	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	60.4
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	4	3	90	44	3	22	186	521	25	7	354	7
Future Vol, veh/h	4	3	90	44	3	22	186	521	25	7	354	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	95	46	3	23	196	548	26	7	373	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1357	1357	377	1393	1347	561	380	0	0	574	0	0
Stage 1	391	391	-	953	953	-	-	-	-	-	-	-
Stage 2	966	966	-	440	394	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	127	150	674	120	152	531	1190	-	-	1009	-	-
Stage 1	637	611	-	314	340	-	-	-	-	-	-	-
Stage 2	309	336	-	600	609	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	104	124	674	89	126	531	1190	-	-	1009	-	-
Mov Cap-2 Maneuver	188	218	-	170	208	-	-	-	-	-	-	-
Stage 1	532	607	-	262	284	-	-	-	-	-	-	-
Stage 2	244	281	-	509	605	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	29.4	2.2	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1190	-	-	575	219	1009	-	-
HCM Lane V/C Ratio	0.165	-	-	0.178	0.332	0.007	-	-
HCM Control Delay (s)	8.6	-	-	12.6	29.4	8.6	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	0.6	1.4	0	-	-

Intersection	
Int Delay, s/veh	155.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	226	108	66	525	1018	224
Future Vol, veh/h	226	108	66	525	1018	224
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	246	117	72	571	1107	243

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1944	1229	1350	0	-	0
Stage 1	1229	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 72	219	516	-	-	-
Stage 1	279	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 62	219	516	-	-	-
Mov Cap-2 Maneuver	~ 62	-	-	-	-	-
Stage 1	~ 240	-	-	-	-	-
Stage 2	488	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 1007	1.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	516	-	62	219	-	-
HCM Lane V/C Ratio	0.139	-	3.962	0.536	-	-
HCM Control Delay (s)	13.1	-	$ 1469.6	39	-	-
HCM Lane LOS	B	-	F	E	-	-
HCM 95th %tile Q(veh)	0.5	-	26.4	2.8	-	-

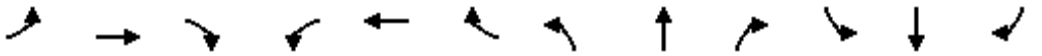
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	31	17	76	4	24	432	10	457
Future Volume (vph)	31	17	76	4	24	432	10	457
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		11.5		11.6	6.2	42.1	5.8	41.9
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.70
v/c Ratio		0.27		0.34	0.13	0.19	0.06	0.19
Control Delay		14.8		20.9	31.2	4.7	25.2	5.6
Queue Delay		0.3		0.4	1.2	0.4	0.0	0.2
Total Delay		15.1		21.3	32.5	5.0	25.2	5.8
LOS		B		C	C	A	C	A
Approach Delay		15.1		21.3		6.4		6.2
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 8.2	Intersection LOS: A
Intersection Capacity Utilization 37.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	17	41	76	4	17	24	432	32	10	457	14
Future Volume (veh/h)	31	17	41	76	4	17	24	432	32	10	457	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	18	42	78	4	18	25	445	33	10	471	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	144	88	127	300	24	48	69	2058	152	41	2106	63
Arrive On Green	0.17	0.17	0.16	0.17	0.17	0.16	0.08	1.00	1.00	0.02	0.59	0.58
Sat Flow, veh/h	370	520	747	1114	139	275	1810	3408	252	1810	3580	106
Grp Volume(v), veh/h	92	0	0	100	0	0	25	235	243	10	237	248
Grp Sat Flow(s),veh/h/ln	1637	0	0	1529	0	0	1810	1805	1855	1810	1805	1881
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.8	0.0	0.0	0.3	3.7	3.8
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.9	0.0	0.0	0.8	0.0	0.0	0.3	3.7	3.8
Prop In Lane	0.35		0.46	0.78		0.18	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	359	0	0	372	0	0	69	1090	1120	41	1062	1107
V/C Ratio(X)	0.26	0.00	0.00	0.27	0.00	0.00	0.36	0.22	0.22	0.24	0.22	0.22
Avail Cap(c_a), veh/h	486	0	0	481	0	0	241	1090	1120	241	1062	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	0.0	21.8	0.0	0.0	27.0	0.0	0.0	28.8	5.9	5.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	1.2	0.4	0.4	1.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.2	0.0	0.0	0.3	0.1	0.1	0.1	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	0.0	22.1	0.0	0.0	28.1	0.4	0.4	29.9	6.3	6.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		92			100			503			495	
Approach Delay, s/veh		22.3			22.1			1.8			6.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.2		14.4	6.3	39.3		14.4				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		4.8	2.8	5.8		4.9				
Green Ext Time (p_c), s	0.0	2.9		0.3	0.0	2.7		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		7.2
HCM 6th LOS		A

Notes

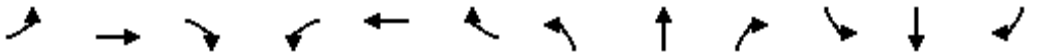
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	239	132	781	100	564	356
Future Volume (vph)	239	132	781	100	564	356
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.3	10.0	13.5	13.5	13.5	13.5
Actuated g/C Ratio	0.32	0.28	0.38	0.38	0.38	0.38
v/c Ratio	0.24	0.16	0.44	0.16	0.31	0.30
Control Delay	10.3	3.6	8.6	2.6	7.9	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	3.6	8.6	2.6	7.9	1.7
LOS	B	A	A	A	A	A
Approach Delay			7.9		5.5	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 35.2	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 33.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	239	0	132	0	781	100	0	564	356
Future Volume (veh/h)	0	0	0	239	0	132	0	781	100	0	564	356
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				260	0	116	0	849	0	0	613	305
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				642	0	519	0	2183		0	2183	1192
Arrive On Green				0.19	0.00	0.19	0.00	0.43	0.00	0.00	0.43	0.43
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				260	0	116	0	849	0	0	613	305
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				1.8	0.0	1.0	0.0	3.1	0.0	0.0	2.1	1.9
Cycle Q Clear(g_c), s				1.8	0.0	1.0	0.0	3.1	0.0	0.0	2.1	1.9
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				642	0	519	0	2183		0	2183	1192
V/C Ratio(X)				0.40	0.00	0.22	0.00	0.39		0.00	0.28	0.26
Avail Cap(c_a), veh/h				4548	0	3671	0	14086		0	14086	7696
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.6	0.0	9.3	0.0	5.3	0.0	0.0	5.0	4.9
Incr Delay (d2), s/veh				0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.2	0.0	0.3	0.0	0.0	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.8	0.0	9.4	0.0	5.4	0.0	0.0	5.1	5.1
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					376			849	A		918	
Approach Delay, s/veh					9.7			5.4			5.1	
Approach LOS					A			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	17.3			17.3		9.6						
Change Period (Y+Rc), s	5.8			5.8		4.6						
Max Green Setting (Gmax), s	74.2			74.2		35.4						
Max Q Clear Time (g_c+I1), s	5.1			4.1		3.8						
Green Ext Time (p_c), s	6.4			5.8		0.7						

Intersection Summary												
HCM 6th Ctrl Delay			6.0									
HCM 6th LOS			A									

Notes

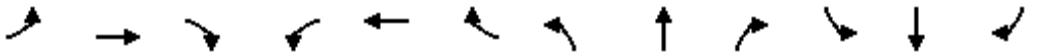
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	366	294	516	128	730	72
Future Volume (vph)	366	294	516	128	730	72
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	10.3	9.0	13.2	13.2	13.2	13.2
Actuated g/C Ratio	0.30	0.27	0.39	0.39	0.39	0.39
v/c Ratio	0.38	0.33	0.28	0.12	0.40	0.12
Control Delay	11.2	3.2	7.4	2.0	8.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	3.2	7.4	2.0	8.1	2.6
LOS	B	A	A	A	A	A
Approach Delay			6.3		7.6	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 33.9	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 34.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	0	294	0	0	0	0	516	128	0	730	72
Future Volume (veh/h)	366	0	294	0	0	0	0	516	128	0	730	72
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	398	0	238				0	561	57	0	793	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1079	0	871				0	1854	1013	0	1854	
Arrive On Green	0.31	0.00	0.31				0.00	0.36	0.36	0.00	0.36	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	398	0	238				0	561	57	0	793	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	2.9	0.0	2.1				0.0	2.5	0.4	0.0	3.8	0.0
Cycle Q Clear(g_c), s	2.9	0.0	2.1				0.0	2.5	0.4	0.0	3.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1079	0	871				0	1854	1013	0	1854	
V/C Ratio(X)	0.37	0.00	0.27				0.00	0.30	0.06	0.00	0.43	
Avail Cap(c_a), veh/h	4358	0	3518				0	11030	6026	0	11030	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	8.3				0.0	7.3	6.6	0.0	7.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1				0.0	0.1	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.3				0.0	0.5	0.1	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	0.0	8.3				0.0	7.4	6.7	0.0	7.8	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h		636						618			793	A
Approach Delay, s/veh		8.5						7.3			7.8	
Approach LOS		A						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		17.4		14.6		17.4						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		69.2		40.4		69.2						
Max Q Clear Time (g_c+I1), s		4.5		4.9		5.8						
Green Ext Time (p_c), s		4.1		1.2		5.9						

Intersection Summary		
HCM 6th Ctrl Delay		7.9
HCM 6th LOS		A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 7.2:

OPENING YEAR CUMULATIVE (2025) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

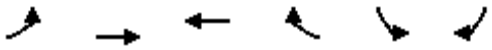
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Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	190	825	92	21
Future Volume (vph)	190	825	92	21
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	32.0	32.0	32.0	13.0
Actuated g/C Ratio	0.94	0.94	0.94	0.38
v/c Ratio	0.12	0.50	0.07	0.03
Control Delay	1.5	3.4	0.8	17.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.5	3.4	0.8	17.8
LOS	A	A	A	B
Approach Delay	1.5	3.1		17.8
Approach LOS	A	A		B

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 34.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.50	
Intersection Signal Delay: 3.1	Intersection LOS: A
Intersection Capacity Utilization 61.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	190	825	92	21	0
Future Volume (veh/h)	0	190	825	92	21	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	207	897	100	23	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	201	1175	1175	996	103	92
Arrive On Green	0.00	0.62	0.62	0.62	0.06	0.00
Sat Flow, veh/h	574	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	207	897	100	23	0
Grp Sat Flow(s),veh/h/ln	574	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	1.7	12.2	0.9	0.4	0.0
Cycle Q Clear(g_c), s	0.0	1.7	12.2	0.9	0.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	201	1175	1175	996	103	92
V/C Ratio(X)	0.00	0.18	0.76	0.10	0.22	0.00
Avail Cap(c_a), veh/h	716	2879	2879	2440	1224	1089
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	2.9	4.9	2.8	16.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.1	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.8	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	3.0	6.0	2.8	17.2	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		207	997		23	
Approach Delay, s/veh		3.0	5.7		17.2	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			27.9		7.8	27.9
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			3.7		2.4	14.2
Green Ext Time (p_c), s			1.1		0.0	7.9

Intersection Summary		
HCM 6th Ctrl Delay	5.4	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	33	308	280	48	210
Future Vol, veh/h	261	33	308	280	48	210
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	303	38	358	326	56	244
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	12.4	17.8	14.1
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	210	131	131	33	308	140	140
LT Vol	48	0	0	0	0	308	0	0
Through Vol	0	0	131	131	0	0	140	140
RT Vol	0	210	0	0	33	0	0	0
Lane Flow Rate	56	244	152	152	38	358	163	163
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.121	0.447	0.3	0.3	0.05	0.696	0.294	0.215
Departure Headway (Hd)	7.795	6.591	7.121	7.121	4.674	7.001	6.493	4.765
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	457	542	501	501	755	512	550	746
Service Time	5.592	4.387	4.921	4.921	2.471	4.785	4.276	2.546
HCM Lane V/C Ratio	0.123	0.45	0.303	0.303	0.05	0.699	0.296	0.218
HCM Control Delay	11.7	14.7	13	13	7.7	24.4	12	8.9
HCM Lane LOS	B	B	B	B	A	C	B	A
HCM 95th-tile Q	0.4	2.3	1.2	1.2	0.2	5.4	1.2	0.8

Intersection	
Intersection Delay, s/veh	20.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	56	0	68	5	47	398	0
Future Vol, veh/h	0	0	0	10	0	56	0	68	5	47	398	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	86	0	105	8	72	612	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.1	8.7	23.8
HCM LOS	A	A	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	11%
Vol Thru, %	93%	0%	89%
Vol Right, %	7%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	73	66	445
LT Vol	0	10	47
Through Vol	68	0	398
RT Vol	5	56	0
Lane Flow Rate	112	102	685
Geometry Grp	1	1	1
Degree of Util (X)	0.151	0.146	0.82
Departure Headway (Hd)	4.831	5.169	4.312
Convergence, Y/N	Yes	Yes	Yes
Cap	739	690	842
Service Time	2.88	3.226	2.344
HCM Lane V/C Ratio	0.152	0.148	0.814
HCM Control Delay	8.7	9.1	23.8
HCM Lane LOS	A	A	C
HCM 95th-tile Q	0.5	0.5	9.2

Intersection	
Intersection Delay, s/veh	636.1
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	410	63	0	108	391	238	978
Future Vol, veh/h	410	63	0	108	391	238	978
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	612	94	0	161	584	355	1460
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	391.5	101.1	950.7
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	87%	0%	0%	0%	100%	8%
Vol Thru, %	13%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	92%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	473	0	108	391	159	1057
LT Vol	410	0	0	0	159	79
Through Vol	63	0	108	0	0	0
RT Vol	0	0	0	391	0	978
Lane Flow Rate	706	0	161	584	237	1578
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	1.776	0	0.344	1.133	0.578	3.366
Departure Headway (Hd)	12.667	11.549	11.549	10.792	10.329	9.164
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	297	0	314	344	353	410
Service Time	10.367	9.249	9.249	8.492	8.029	6.864
HCM Lane V/C Ratio	2.377	0	0.513	1.698	0.671	3.849
HCM Control Delay	391.5	14.2	20.2	123.4	26.3	1089.4
HCM Lane LOS	F	N	C	F	D	F
HCM 95th-tile Q	33.3	0	1.5	15	3.5	120.3

Intersection	
Intersection Delay, s/veh	165.2
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	76	526	523	345	519	93
Future Vol, veh/h	76	526	523	345	519	93
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	87	605	601	397	597	107
Number of Lanes	1	1	3	0	1	0

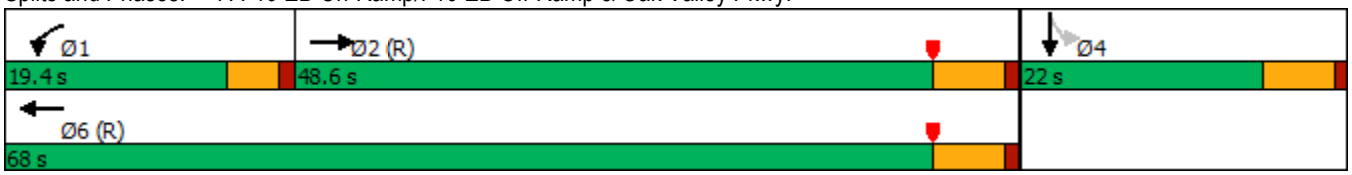
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	211.6	27.3	315
HCM LOS	F	D	F

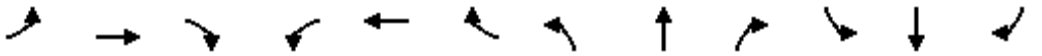
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	85%
Vol Thru, %	0%	100%	100%	100%	23%	0%
Vol Right, %	0%	0%	0%	0%	77%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	526	209	209	450	612
LT Vol	76	0	0	0	0	519
Through Vol	0	526	209	209	105	0
RT Vol	0	0	0	0	345	93
Lane Flow Rate	87	605	240	240	517	703
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.22	1.439	0.51	0.51	0.774	1.626
Departure Headway (Hd)	10.8	10.262	9.965	9.965	7.58	8.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	335	363	365	365	481	415
Service Time	8.5	7.962	7.665	7.665	5.28	6.67
HCM Lane V/C Ratio	0.26	1.667	0.658	0.658	1.075	1.694
HCM Control Delay	16.5	239.8	22.6	22.6	31.7	315
HCM Lane LOS	C	F	C	C	D	F
HCM 95th-tile Q	0.8	26.4	2.8	2.8	6.8	37.9

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	545	274	620	3
Future Volume (vph)	545	274	620	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.33	1.04	0.53	1.70
Control Delay	180.9	85.3	4.4	350.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	180.9	85.3	4.4	350.8
LOS	F	F	A	F
Approach Delay	180.9		29.2	350.8
Approach LOS	F		C	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.70	
Intersection Signal Delay: 162.0	Intersection LOS: F
Intersection Capacity Utilization 118.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	545	500	274	620	0	0	0	0	274	3	248
Future Volume (veh/h)	0	545	500	274	620	0	0	0	0	274	3	248
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	612	475	308	697	0				308	3	260
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	472	366	298	1313	0				166	2	140
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	992	770	1810	1900	0				924	9	780
Grp Volume(v), veh/h	0	0	1087	308	697	0				571	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1761	1810	1900	0				1713	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.44	1.00		0.00				0.54		0.46
Lane Grp Cap(c), veh/h	0	0	838	298	1313	0				308	0	0
V/C Ratio(X)	0.00	0.00	1.30	1.04	0.53	0.00				1.85	0.00	0.00
Avail Cap(c_a), veh/h	0	0	838	298	1313	0				308	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.19	0.19	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.2	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	142.7	32.3	0.3	0.0				395.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	48.4	7.4	0.1	0.0				40.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	166.3	62.5	0.3	0.0				432.4	0.0	0.0
LnGrp LOS	A	A	F	F	A	A				F	A	A
Approach Vol, veh/h		1087			1005						571	
Approach Delay, s/veh		166.3			19.4						432.4	
Approach LOS		F			B						F	

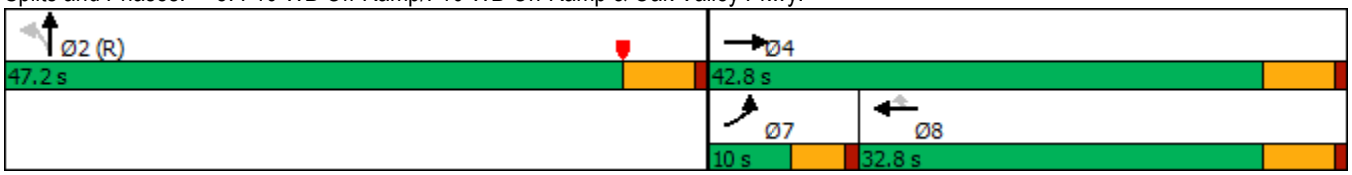
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		5.0						

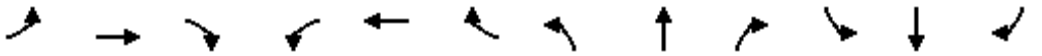
Intersection Summary												
HCM 6th Ctrl Delay			167.9									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	198	621	534	473	4
Future Volume (vph)	198	621	534	473	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	1.87	0.81	0.96	0.59	0.93
Control Delay	420.7	21.0	61.0	5.7	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	420.7	21.0	61.0	5.7	40.1
LOS	F	C	E	A	D
Approach Delay		117.5	35.0		40.1
Approach LOS		F	D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.87	
Intersection Signal Delay: 62.6	Intersection LOS: E
Intersection Capacity Utilization 118.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	621	0	0	534	473	361	4	398	0	0	0
Future Volume (veh/h)	198	621	0	0	534	473	361	4	398	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	202	634	0	0	545	367	368	4	284			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	443	5	342			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	964	10	744			
Grp Volume(v), veh/h	202	634	0	0	545	367	656	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1718	0	0			
Q Serve(g_s), s	5.4	28.0	0.0	0.0	25.3	18.6	30.0	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	28.0	0.0	0.0	25.3	18.6	30.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.56		0.43			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	790	0	0			
V/C Ratio(X)	1.86	0.81	0.00	0.00	0.96	0.76	0.83	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	790	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.4	0.0	0.0	30.9	28.6	21.2	0.0	0.0			
Incr Delay (d2), s/veh	390.4	0.6	0.0	0.0	27.0	6.9	9.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	14.1	13.0	0.0	0.0	14.9	7.5	12.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	433.6	30.0	0.0	0.0	58.0	35.5	31.1	0.0	0.0			
LnGrp LOS	F	C	A	A	E	D	C	A	A			
Approach Vol, veh/h		836			912			656				
Approach Delay, s/veh		127.5			48.9			31.1				
Approach LOS		F			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		47.2		42.8			10.0	32.8				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		32.0		30.0			7.4	27.3				
Green Ext Time (p_c), s		2.9		2.2			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			71.4									
HCM 6th LOS			E									

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	586	152	164	937	28	0	0	66	0	0	167
Future Vol, veh/h	0	586	152	164	937	28	0	0	66	0	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	644	167	180	1030	31	0	0	73	0	0	184

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	811	0	0	-	-	406	-	-	1046
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	824	-	-	0	0	600	0	0	280
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	824	-	-	-	-	600	-	-	280
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	11.8	39.3
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	600	-	-	824	-	-	280
HCM Lane V/C Ratio	0.121	-	-	0.219	-	-	0.655
HCM Control Delay (s)	11.8	-	-	10.6	-	-	39.3
HCM Lane LOS	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.4	-	-	0.8	-	-	4.2

Intersection	
Intersection Delay, s/veh	29.3
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	35	68	25	3	373	21	75	30	6	23	32	99
Future Vol, veh/h	35	68	25	3	373	21	75	30	6	23	32	99
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	47	91	33	4	497	28	100	40	8	31	43	132
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

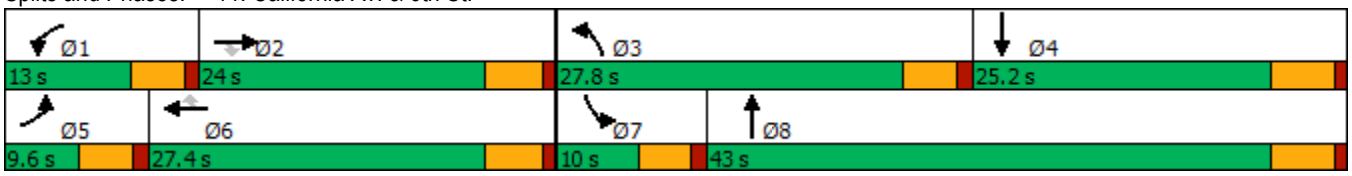
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	11.3	46.4	13.9	11.5
HCM LOS	B	E	B	B

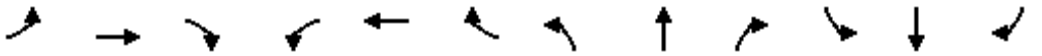
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	71%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	29%	0%	0%	100%	0%	0%	95%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	5%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	6	35	68	25	3	394	23	32	99
LT Vol	75	0	35	0	0	3	0	23	0	0
Through Vol	30	0	0	68	0	0	373	0	32	0
RT Vol	0	6	0	0	25	0	21	0	0	99
Lane Flow Rate	140	8	47	91	33	4	525	31	43	132
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.307	0.015	0.102	0.185	0.061	0.008	0.927	0.068	0.088	0.247
Departure Headway (Hd)	7.884	6.809	7.84	7.331	6.618	6.896	6.354	7.96	7.452	6.741
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	456	525	457	490	541	522	573	450	480	532
Service Time	5.635	4.56	5.587	5.078	4.365	4.596	4.054	5.711	5.203	4.492
HCM Lane V/C Ratio	0.307	0.015	0.103	0.186	0.061	0.008	0.916	0.069	0.09	0.248
HCM Control Delay	14.1	9.7	11.5	11.7	9.8	9.7	46.7	11.3	10.9	11.7
HCM Lane LOS	B	A	B	B	A	A	E	B	B	B
HCM 95th-tile Q	1.3	0	0.3	0.7	0.2	0	11.7	0.2	0.3	1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	301	124	178	300	21	427	96	47	164
Future Volume (vph)	4	301	124	178	300	21	427	96	47	164
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	24.0	24.0	13.0	27.4	27.4	27.8	43.0	10.0	25.2
Total Split (%)	10.7%	26.7%	26.7%	14.4%	30.4%	30.4%	30.9%	47.8%	11.1%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	18.0	18.0	8.4	29.1	29.1	23.2	41.9	5.3	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.09	0.33	0.33	0.26	0.47	0.06	0.23
v/c Ratio	0.04	0.85	0.28	1.14	0.52	0.03	0.99	0.19	0.47	0.43
Control Delay	41.2	55.8	2.9	149.1	28.8	0.1	72.7	12.4	55.7	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	55.8	2.9	149.1	28.8	0.1	72.7	12.4	55.7	33.4
LOS	D	E	A	F	C	A	E	B	E	C
Approach Delay		40.4			70.4			56.9		38.2
Approach LOS		D			E			E		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 88.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 54.4	Intersection LOS: D
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	301	124	178	300	21	427	96	56	47	164	4
Future Volume (veh/h)	4	301	124	178	300	21	427	96	56	47	164	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	327	134	193	326	14	464	104	23	51	178	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	374	317	172	545	462	476	678	150	73	426	5
Arrive On Green	0.01	0.20	0.20	0.10	0.29	0.29	0.26	0.45	0.45	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1507	333	1810	1875	21
Grp Volume(v), veh/h	4	327	134	193	326	14	464	0	127	51	0	180
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1840	1810	0	1896
Q Serve(g_s), s	0.2	14.7	6.4	8.4	13.0	0.6	22.4	0.0	3.6	2.5	0.0	7.1
Cycle Q Clear(g_c), s	0.2	14.7	6.4	8.4	13.0	0.6	22.4	0.0	3.6	2.5	0.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.01
Lane Grp Cap(c), veh/h	10	374	317	172	545	462	476	0	828	73	0	430
V/C Ratio(X)	0.42	0.88	0.42	1.12	0.60	0.03	0.97	0.00	0.15	0.70	0.00	0.42
Avail Cap(c_a), veh/h	103	414	351	172	545	462	476	0	828	111	0	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.7	34.4	31.0	39.9	27.1	22.6	32.2	0.0	14.3	41.7	0.0	29.1
Incr Delay (d2), s/veh	10.4	17.3	0.9	104.1	1.8	0.0	34.3	0.0	0.4	4.4	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.4	2.4	8.7	6.0	0.2	13.6	0.0	1.4	1.1	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	51.7	31.9	143.9	28.9	22.6	66.5	0.0	14.7	46.1	0.0	32.1
LnGrp LOS	D	D	C	F	C	C	E	A	B	D	A	C
Approach Vol, veh/h		465			533			591			231	
Approach Delay, s/veh		46.0			70.4			55.4			35.2	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.1	27.8	25.2	5.1	30.1	8.2	44.8
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	23.2	20.0	5.0	* 23	5.4	37.8
Max Q Clear Time (g_c+I1), s	10.4	16.7	24.4	9.1	2.2	15.0	4.5	5.6
Green Ext Time (p_c), s	0.0	0.6	0.0	0.6	0.0	1.1	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	54.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↑		↰	↑	
Traffic Vol, veh/h	2	3	78	61	10	31	312	575	28	13	407	2
Future Vol, veh/h	2	3	78	61	10	31	312	575	28	13	407	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	99	77	13	39	395	728	35	16	515	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2111	2102	517	2136	2086	746	518	0	0	763	0	0
Stage 1	549	549	-	1536	1536	-	-	-	-	-	-	-
Stage 2	1562	1553	-	600	550	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	38	52	562	~ 36	54	417	1058	-	-	859	-	-
Stage 1	524	520	-	147	180	-	-	-	-	-	-	-
Stage 2	142	176	-	491	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	21	32	562	~ 20	33	417	1058	-	-	859	-	-
Mov Cap-2 Maneuver	48	79	-	~ -9	67	-	-	-	-	-	-	-
Stage 1	329	510	-	92	113	-	-	-	-	-	-	-
Stage 2	72	110	-	394	509	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.1		3.6	0.3
HCM LOS	C	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1058	-	-	380	+	859	-	-
HCM Lane V/C Ratio	0.373	-	-	0.276	-	0.019	-	-
HCM Control Delay (s)	10.4	-	-	18.1	-	9.3	-	-
HCM Lane LOS	B	-	-	C	-	A	-	-
HCM 95th %tile Q(veh)	1.8	-	-	1.1	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	27.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	90	29	117	852	189	318
Future Vol, veh/h	90	29	117	852	189	318
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	117	38	152	1106	245	413

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1862	452	658	0	-	0
Stage 1	452	-	-	-	-	-
Stage 2	1410	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 81	612	939	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 68	612	939	-	-	-
Mov Cap-2 Maneuver	~ 68	-	-	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	228	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 364.8	1.2	0
HCM LOS	F		

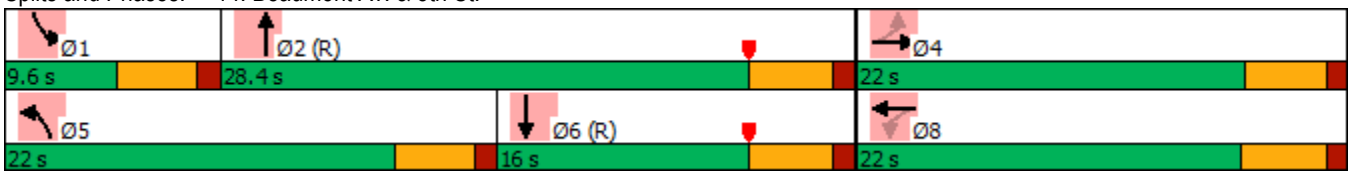
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	939	-	68	612	-	-
HCM Lane V/C Ratio	0.162	-	1.719	0.062	-	-
HCM Control Delay (s)	9.6	-	$ 478.7	11.3	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.6	-	10.3	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	17	20	3	62	350	3	408
Future Volume (vph)	16	17	20	3	62	350	3	408
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1		10.0	6.8	46.3	5.0	40.8
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.23		0.14	0.33	0.14	0.02	0.20
Control Delay		15.3		17.8	27.3	4.6	25.7	7.6
Queue Delay		0.0		0.0	0.2	0.3	0.0	0.1
Total Delay		15.3		17.8	27.5	4.8	25.7	7.6
LOS		B		B	C	A	C	A
Approach Delay		15.3		17.8		8.1		7.7
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.33	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 37.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	17	32	20	3	11	62	350	14	3	408	43
Future Volume (veh/h)	16	17	32	20	3	11	62	350	14	3	408	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	18	35	22	3	12	67	380	15	3	443	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	105	85	116	201	41	70	101	2197	87	7	1873	198
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	222	616	837	759	298	507	1810	3540	139	1810	3294	348
Grp Volume(v), veh/h	70	0	0	37	0	0	67	193	202	3	242	248
Grp Sat Flow(s),veh/h/ln	1675	0	0	1564	0	0	1810	1805	1875	1810	1805	1837
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.1	4.0	4.0
Cycle Q Clear(g_c), s	2.2	0.0	0.0	1.1	0.0	0.0	2.1	0.0	0.0	0.1	4.0	4.0
Prop In Lane	0.24		0.50	0.59		0.32	1.00		0.07	1.00		0.19
Lane Grp Cap(c), veh/h	307	0	0	313	0	0	101	1120	1164	7	1026	1045
V/C Ratio(X)	0.23	0.00	0.00	0.12	0.00	0.00	0.66	0.17	0.17	0.41	0.24	0.24
Avail Cap(c_a), veh/h	552	0	0	531	0	0	525	1120	1164	151	1026	1045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.7	0.0	0.0	26.1	0.0	0.0	29.8	6.4	6.5
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.7	0.3	0.3	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.5	0.0	0.0	0.9	0.1	0.1	0.1	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	0.0	22.9	0.0	0.0	28.8	0.3	0.3	42.7	7.0	7.0
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		70			37			462			493	
Approach Delay, s/veh		23.6			22.9			4.5			7.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.0		13.1	8.0	38.9		13.1				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.2	4.1	6.0		3.1				
Green Ext Time (p_c), s	0.0	2.3		0.2	0.1	1.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.6
HCM 6th LOS		A

Notes

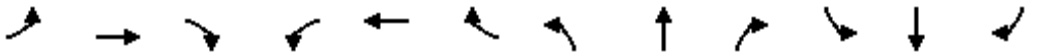
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	512	9	380	239	377
Future Volume (vph)	512	9	380	239	377
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	20.0	20.0	21.0	40.0	19.0
Total Split (%)	33.3%	33.3%	35.0%	66.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	15.1	15.1	15.7	35.3	15.0
Actuated g/C Ratio	0.25	0.25	0.26	0.59	0.25
v/c Ratio	0.91	0.78	0.88	0.12	0.55
Control Delay	51.7	29.4	47.4	5.5	15.6
Queue Delay	0.0	35.6	0.0	0.0	5.6
Total Delay	51.7	65.0	47.4	5.5	21.3
LOS	D	E	D	A	C
Approach Delay		58.2		31.2	21.3
Approach LOS		E		C	C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 39.3	Intersection LOS: D
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	512	9	187	380	239	0	0	377	82
Future Volume (veh/h)	0	0	0	512	9	187	380	239	0	0	377	82
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				385	251	203	413	260	0	0	410	89
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				458	246	199	495	2118	0	0	717	154
Arrive On Green				0.25	0.25	0.25	0.42	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	972	786	1810	3705	0	0	3050	636
Grp Volume(v), veh/h				385	0	454	413	260	0	0	249	250
Grp Sat Flow(s),veh/h/ln				1810	0	1758	1810	1805	0	0	1805	1786
Q Serve(g_s), s				12.1	0.0	15.2	12.9	0.1	0.0	0.0	7.9	8.1
Cycle Q Clear(g_c), s				12.1	0.0	15.2	12.9	0.1	0.0	0.0	7.9	8.1
Prop In Lane				1.00		0.45	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				458	0	445	495	2118	0	0	438	433
V/C Ratio(X)				0.84	0.00	1.02	0.84	0.12	0.00	0.00	0.57	0.58
Avail Cap(c_a), veh/h				458	0	445	495	2118	0	0	469	464
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				21.2	0.0	22.4	16.3	0.3	0.0	0.0	24.6	24.6
Incr Delay (d2), s/veh				13.1	0.0	47.6	8.9	0.1	0.0	0.0	5.2	5.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	471.6	18.3	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.0	0.0	11.2	70.3	5.5	0.0	0.0	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.3	0.0	70.0	496.9	18.7	0.0	0.0	29.8	30.1
LnGrp LOS				C	A	F	F	B	A	A	C	C
Approach Vol, veh/h					839			673			499	
Approach Delay, s/veh					53.6			312.2			29.9	
Approach LOS					D			F			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		40.0			19.6	20.4		20.0				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 35			16.4	* 14		15.2				
Max Q Clear Time (g_c+I1), s		2.1			14.9	10.1		17.2				
Green Ext Time (p_c), s		1.8			0.1	1.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	134.3	
HCM 6th LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	547	544	111	779
Future Volume (vph)	11	547	544	111	779
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.6	12.6	27.7	7.4	37.8
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	20.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	20.8	9.1
LOS	B	B	A	C	A
Approach Delay	18.7		9.9		10.6
Approach LOS	B		A		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 12.3	Intersection LOS: B
Intersection Capacity Utilization 66.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Future Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	661				0	567	484	116	811	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	452	766				0	1424	187	148	2174	0
Arrive On Green	0.00	0.00	0.24				0.00	0.44	0.44	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1942	1575	1810	3705	0
Grp Volume(v), veh/h	0	0	661				0	554	497	116	811	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	452	766				0	801	810	148	2174	0
V/C Ratio(X)	0.00	0.00	0.86				0.00	0.69	0.61	0.79	0.37	0.00
Avail Cap(c_a), veh/h	0	481	816				0	801	718	253	2174	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.64	0.64	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.9				0.0	16.7	16.7	24.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.1				0.0	4.9	3.5	2.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	254.3	215.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.8				0.0	66.9	58.4	1.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.0				0.0	275.8	235.2	26.8	0.3	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		661						1051			927	
Approach Delay, s/veh		31.0						256.6			3.6	
Approach LOS		C						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.5	31.4		19.1		40.9
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35
Max Q Clear Time (g_c+I1), s	5.7	16.8		13.8		2.0
Green Ext Time (p_c), s	0.0	3.1		0.5		6.6

Intersection Summary	
HCM 6th Ctrl Delay	111.2
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

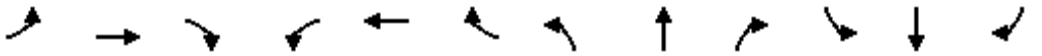
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	413	93	693	160	448	305
Future Volume (vph)	413	93	693	160	448	305
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.4	10.2	13.5	13.5	13.5	13.5
Actuated g/C Ratio	0.32	0.29	0.38	0.38	0.38	0.38
v/c Ratio	0.41	0.12	0.39	0.24	0.25	0.26
Control Delay	11.4	3.9	8.4	2.6	7.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	3.9	8.4	2.6	7.6	1.8
LOS	B	A	A	A	A	A
Approach Delay			7.3		5.2	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 35.4	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 33.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	413	0	93	0	693	160	0	448	305
Future Volume (veh/h)	0	0	0	413	0	93	0	693	160	0	448	305
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				449	0	74	0	753	0	0	487	250
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				780	0	630	0	1973		0	1973	1078
Arrive On Green				0.23	0.00	0.23	0.00	0.39	0.00	0.00	0.39	0.39
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				449	0	74	0	753	0	0	487	250
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				3.1	0.0	0.6	0.0	2.8	0.0	0.0	1.7	1.6
Cycle Q Clear(g_c), s				3.1	0.0	0.6	0.0	2.8	0.0	0.0	1.7	1.6
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				780	0	630	0	1973		0	1973	1078
V/C Ratio(X)				0.58	0.00	0.12	0.00	0.38		0.00	0.25	0.23
Avail Cap(c_a), veh/h				5206	0	4203	0	13176		0	13176	7199
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.2	0.0	8.3	0.0	5.9	0.0	0.0	5.6	5.5
Incr Delay (d2), s/veh				0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.1	0.0	0.3	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.5	0.0	8.3	0.0	6.0	0.0	0.0	5.6	5.7
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					523			753	A		737	
Approach Delay, s/veh					9.3			6.0			5.6	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	16.2		16.2		10.7			
Change Period (Y+Rc), s	5.8		5.8		4.6			
Max Green Setting (Gmax), s	69.2		69.2		40.4			
Max Q Clear Time (g_c+I1), s	4.8		3.7		5.1			
Green Ext Time (p_c), s	5.5		4.4		1.0			

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

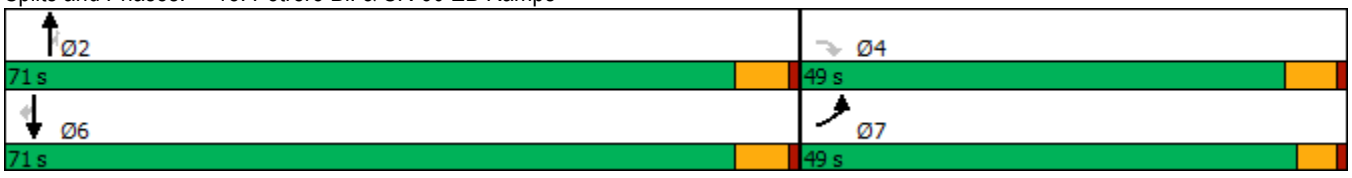
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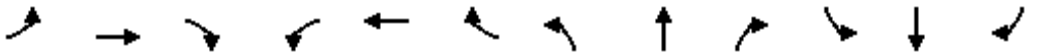
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	254	419	599	202	797	64
Future Volume (vph)	254	419	599	202	797	64
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	10.9	9.7	13.9	13.9	13.9	13.9
Actuated g/C Ratio	0.31	0.27	0.39	0.39	0.39	0.39
v/c Ratio	0.26	0.49	0.33	0.18	0.43	0.11
Control Delay	10.7	7.7	7.9	1.9	8.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	7.7	7.9	1.9	8.5	2.9
LOS	B	A	A	A	A	A
Approach Delay			6.4		8.1	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 35.4	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.49	
Intersection Signal Delay: 7.7	Intersection LOS: A
Intersection Capacity Utilization 39.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	0	419	0	0	0	0	599	202	0	797	64
Future Volume (veh/h)	254	0	419	0	0	0	0	599	202	0	797	64
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	276	0	373				0	651	177	0	866	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1043	0	842				0	1963	1072	0	1963	
Arrive On Green	0.30	0.00	0.30				0.00	0.38	0.38	0.00	0.38	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	276	0	373				0	651	177	0	866	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	2.0	0.0	3.6				0.0	3.0	1.4	0.0	4.2	0.0
Cycle Q Clear(g_c), s	2.0	0.0	3.6				0.0	3.0	1.4	0.0	4.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1043	0	842				0	1963	1072	0	1963	
V/C Ratio(X)	0.26	0.00	0.44				0.00	0.33	0.17	0.00	0.44	
Avail Cap(c_a), veh/h	4630	0	3738				0	10046	5489	0	10046	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	9.3				0.0	7.2	6.7	0.0	7.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1				0.0	0.1	0.1	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.6				0.0	0.5	0.2	0.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.8	0.0	9.5				0.0	7.3	6.8	0.0	7.7	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h		649						828			866	A
Approach Delay, s/veh		9.2						7.2			7.7	
Approach LOS		A						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		18.5		14.6		18.5						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		65.2		44.4		65.2						
Max Q Clear Time (g_c+I1), s		5.0		5.6		6.2						
Green Ext Time (p_c), s		5.5		1.3		6.6						

Intersection Summary		
HCM 6th Ctrl Delay		7.9
HCM 6th LOS		A

Notes

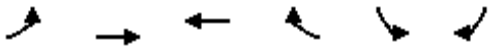
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	884	269	30	98
Future Volume (vph)	884	269	30	98
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	38.1	38.1	38.1	13.4
Actuated g/C Ratio	0.70	0.70	0.70	0.25
v/c Ratio	0.72	0.22	0.03	0.24
Control Delay	11.6	5.1	1.7	26.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.6	5.1	1.7	26.2
LOS	B	A	A	C
Approach Delay	11.6	4.8		26.2
Approach LOS	B	A		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 54.1	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 11.1	Intersection LOS: B
Intersection Capacity Utilization 64.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	884	269	30	98	0
Future Volume (veh/h)	0	884	269	30	98	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	961	292	33	107	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	146	1156	1156	979	282	251
Arrive On Green	0.00	0.61	0.61	0.61	0.16	0.00
Sat Flow, veh/h	1072	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	961	292	33	107	0
Grp Sat Flow(s),veh/h/ln	1072	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	19.7	3.5	0.4	2.6	0.0
Cycle Q Clear(g_c), s	0.0	19.7	3.5	0.4	2.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	146	1156	1156	979	282	251
V/C Ratio(X)	0.00	0.83	0.25	0.03	0.38	0.00
Avail Cap(c_a), veh/h	674	2092	2092	1773	890	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.6	4.5	3.9	18.6	0.0
Incr Delay (d2), s/veh	0.0	1.6	0.1	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	0.6	0.1	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.3	4.6	3.9	19.5	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		961	325		107	
Approach Delay, s/veh		9.3	4.5		19.5	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			35.7		13.5	35.7
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			21.7		4.6	5.5
Green Ext Time (p_c), s			8.2		0.2	1.7

Intersection Summary		
HCM 6th Ctrl Delay	8.9	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	226	39	202	303	105	370
Future Vol, veh/h	226	39	202	303	105	370
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	248	43	222	333	115	407
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	12.5	13.9	21.3
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	370	113	113	39	202	152	152
LT Vol	105	0	0	0	0	202	0	0
Through Vol	0	0	113	113	0	0	152	152
RT Vol	0	370	0	0	39	0	0	0
Lane Flow Rate	115	407	124	124	43	222	166	166
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.242	0.718	0.265	0.265	0.062	0.473	0.331	0.251
Departure Headway (Hd)	7.564	6.361	7.697	7.697	5.226	7.673	7.161	5.417
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	475	569	467	467	684	471	503	663
Service Time	5.298	4.095	5.441	5.441	2.969	5.409	4.896	3.151
HCM Lane V/C Ratio	0.242	0.715	0.266	0.266	0.063	0.471	0.33	0.25
HCM Control Delay	12.7	23.7	13.2	13.2	8.3	17.1	13.4	10
HCM Lane LOS	B	C	B	B	A	C	B	A
HCM 95th-tile Q	0.9	5.9	1.1	1.1	0.2	2.5	1.4	1

Intersection	
Intersection Delay, s/veh	19.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	100	0	486	0	10	251	0
Future Vol, veh/h	0	0	0	2	0	100	0	486	0	10	251	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	130	0	631	0	13	326	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	10	25	12.4
HCM LOS	A	C	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	4%
Vol Thru, %	100%	0%	96%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	486	102	261
LT Vol	0	2	10
Through Vol	486	0	251
RT Vol	0	100	0
Lane Flow Rate	631	132	339
Geometry Grp	1	1	1
Degree of Util (X)	0.815	0.204	0.467
Departure Headway (Hd)	4.65	5.548	4.961
Convergence, Y/N	Yes	Yes	Yes
Cap	770	650	715
Service Time	2.732	3.548	3.059
HCM Lane V/C Ratio	0.819	0.203	0.474
HCM Control Delay	25	10	12.4
HCM Lane LOS	C	A	B
HCM 95th-tile Q	8.8	0.8	2.5

Intersection	
Intersection Delay, s/veh	1083.1
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	1100	148	0	46	425	442	851
Future Vol, veh/h	1100	148	0	46	425	442	851
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	1642	221	0	69	634	660	1270
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	1729.4	124.6	808.4
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	88%	0%	0%	0%	100%	15%
Vol Thru, %	12%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	85%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1248	0	46	425	295	998
LT Vol	1100	0	0	0	295	147
Through Vol	148	0	46	0	0	0
RT Vol	0	0	0	425	0	851
Lane Flow Rate	1863	0	69	634	440	1490
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	4.782	0	0.149	1.249	1.06	3.17
Departure Headway (Hd)	11.021	4.989	4.989	4.221	14.868	13.723
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	354	0	723	863	251	283
Service Time	8.721	2.689	2.689	1.921	12.568	11.423
HCM Lane V/C Ratio	5.263	0	0.095	0.735	1.753	5.265
HCM Control Delay	1729.4	7.7	8.6	137.2	116.4	1012.6
HCM Lane LOS	F	N	A	F	F	F
HCM 95th-tile Q	158.1	0	0.5	37.3	10.8	75.3

Intersection	
Intersection Delay, s/veh	75.8
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	628	635	344	210	43
Future Vol, veh/h	65	628	635	344	210	43
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	67	647	655	355	216	44
Number of Lanes	1	1	3	0	1	0

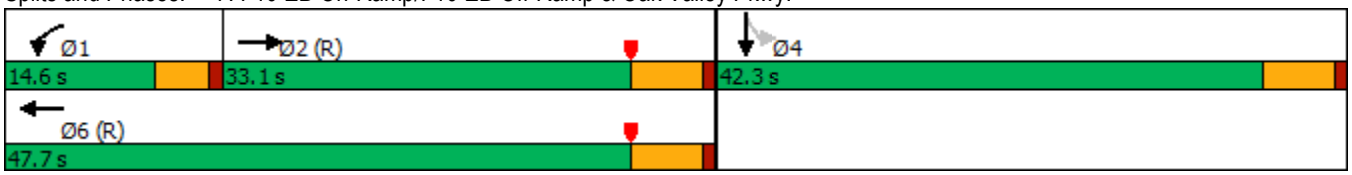
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	180.8	15.1	22.8
HCM LOS	F	C	C

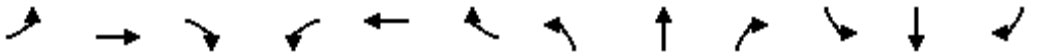
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	83%
Vol Thru, %	0%	100%	100%	100%	27%	0%
Vol Right, %	0%	0%	0%	0%	73%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	628	254	254	471	253
LT Vol	65	0	0	0	0	210
Through Vol	0	628	254	254	127	0
RT Vol	0	0	0	0	344	43
Lane Flow Rate	67	647	262	262	486	261
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.151	1.362	0.478	0.478	0.588	0.583
Departure Headway (Hd)	8.086	7.573	7.05	7.05	4.777	8.652
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	442	479	516	516	762	420
Service Time	5.859	5.346	4.75	4.75	2.477	6.352
HCM Lane V/C Ratio	0.152	1.351	0.508	0.508	0.638	0.621
HCM Control Delay	12.3	198.2	16	16	14.1	22.8
HCM Lane LOS	B	F	C	C	B	C
HCM 95th-tile Q	0.5	29.5	2.6	2.6	3.9	3.6

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	578	180	718	1
Future Volume (vph)	578	180	718	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	1.82	1.12	1.02	1.39
Control Delay	399.2	121.6	52.7	208.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	399.2	121.6	52.7	208.0
LOS	F	F	D	F
Approach Delay	399.2		66.5	208.0
Approach LOS	F		E	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.82	
Intersection Signal Delay: 221.0	Intersection LOS: F
Intersection Capacity Utilization 112.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	578	260	180	718	0	0	0	0	547	1	261
Future Volume (veh/h)	0	578	260	180	718	0	0	0	0	547	1	261
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	761	270	237	945	0				720	1	277
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	433	154	213	923	0				537	1	207
Arrive On Green	0.00	0.32	0.30	0.08	0.33	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1339	475	1810	1900	0				1262	2	486
Grp Volume(v), veh/h	0	0	1031	237	945	0				998	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1814	1810	1900	0				1749	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.26	1.00		0.00				0.72		0.28
Lane Grp Cap(c), veh/h	0	0	587	213	923	0				745	0	0
V/C Ratio(X)	0.00	0.00	1.76	1.11	1.02	0.00				1.34	0.00	0.00
Avail Cap(c_a), veh/h	0	0	587	213	923	0				745	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.24	0.24	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.7	41.4	30.4	0.0				26.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	347.8	65.8	21.2	0.0				162.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	68.3	8.6	25.2	0.0				47.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	378.5	107.3	51.5	0.0				188.3	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1031			1182						998	
Approach Delay, s/veh		378.5			62.7						188.3	
Approach LOS		F			E						F	

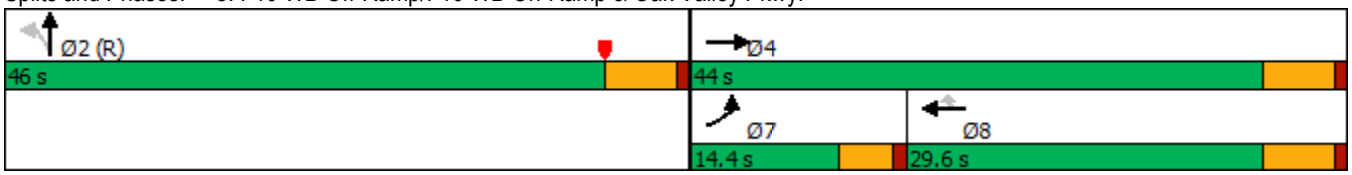
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						

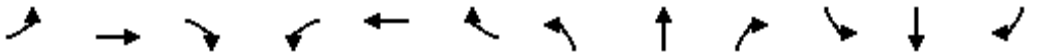
Intersection Summary												
HCM 6th Ctrl Delay			203.1									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	319	806	490	318	4
Future Volume (vph)	319	806	490	318	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	1.58	0.98	0.94	0.47	0.90
Control Delay	292.7	28.4	58.7	5.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	292.7	28.4	58.7	5.5	36.0
LOS	F	C	E	A	D
Approach Delay		103.4	37.8		36.0
Approach LOS		F	D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.58	
Intersection Signal Delay: 65.0	Intersection LOS: E
Intersection Capacity Utilization 112.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	806	0	0	490	318	408	4	321	0	0	0
Future Volume (veh/h)	319	806	0	0	490	318	408	4	321	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	329	831	0	0	505	258	421	4	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	481	5	319			
Arrive On Green	0.04	0.15	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1032	10	684			
Grp Volume(v), veh/h	329	831	0	0	505	258	704	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1725	0	0			
Q Serve(g_s), s	10.4	39.3	0.0	0.0	23.3	12.3	33.2	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	39.3	0.0	0.0	23.3	12.3	33.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.60		0.40			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	805	0	0			
V/C Ratio(X)	1.57	0.98	0.00	0.00	0.93	0.56	0.87	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	805	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.3	38.1	0.0	0.0	31.4	27.4	22.0	0.0	0.0			
Incr Delay (d2), s/veh	260.1	6.2	0.0	0.0	23.6	1.6	12.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	19.9	21.0	0.0	0.0	13.4	4.6	14.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	303.4	44.3	0.0	0.0	55.0	29.0	34.7	0.0	0.0			
LnGrp LOS	F	D	A	A	E	C	C	A	A			
Approach Vol, veh/h		1160			763			704				
Approach Delay, s/veh		117.8			46.2			34.7				
Approach LOS		F			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.0		44.0			14.4	29.6				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			9.8	23.8				
Max Q Clear Time (g_c+I1), s		35.2		41.3			12.4	25.3				
Green Ext Time (p_c), s		2.0		0.0			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			74.7									
HCM 6th LOS			E									

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	873	134	114	698	59	0	0	124	0	0	69
Future Vol, veh/h	0	873	134	114	698	59	0	0	124	0	0	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	939	144	123	751	63	0	0	133	0	0	74

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1083	0	0	-	-	542	-	-	783
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	652	-	-	0	0	490	0	0	397
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	652	-	-	-	-	490	-	-	397
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.5	15.1	16.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	490	-	-	652	-	-	397
HCM Lane V/C Ratio	0.272	-	-	0.188	-	-	0.187
HCM Control Delay (s)	15.1	-	-	11.8	-	-	16.1
HCM Lane LOS	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.1	-	-	0.7	-	-	0.7

Intersection	
Intersection Delay, s/veh	49.1
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	111	372	82	9	258	32	42	40	12	14	63	41
Future Vol, veh/h	111	372	82	9	258	32	42	40	12	14	63	41
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	159	531	117	13	369	46	60	57	17	20	90	59
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

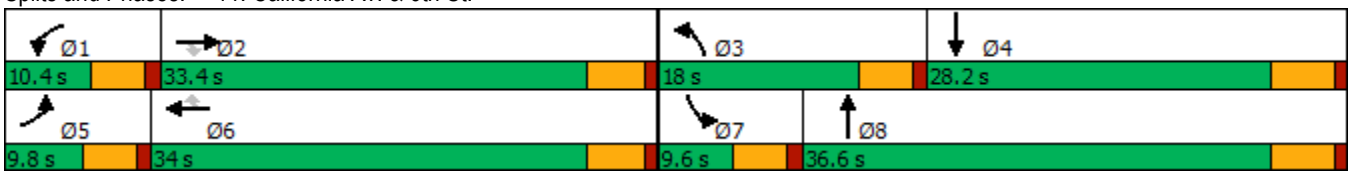
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	64.7	44.3	15.5	13.5
HCM LOS	F	E	C	B

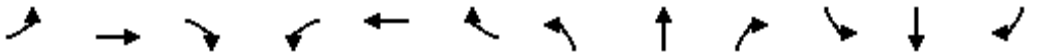
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	89%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	11%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	12	111	372	82	9	290	14	63	41
LT Vol	42	0	111	0	0	9	0	14	0	0
Through Vol	40	0	0	372	0	0	258	0	63	0
RT Vol	0	12	0	0	82	0	32	0	0	41
Lane Flow Rate	117	17	159	531	117	13	414	20	90	59
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.297	0.039	0.346	1.083	0.216	0.029	0.878	0.052	0.221	0.132
Departure Headway (Hd)	9.436	8.452	7.846	7.337	6.625	8.465	7.879	9.68	9.164	8.441
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	383	426	461	500	545	425	464	372	394	428
Service Time	7.136	6.152	5.546	5.037	4.325	6.165	5.579	7.38	6.864	6.141
HCM Lane V/C Ratio	0.305	0.04	0.345	1.062	0.215	0.031	0.892	0.054	0.228	0.138
HCM Control Delay	16.1	11.5	14.6	91.4	11.1	11.4	45.3	12.9	14.4	12.4
HCM Lane LOS	C	B	B	F	B	B	E	B	B	B
HCM 95th-tile Q	1.2	0.1	1.5	16.9	0.8	0.1	9.3	0.2	0.8	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	478	181	178	283	11	284	142	14	73
Future Volume (vph)	20	478	181	178	283	11	284	142	14	73
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	18.0	36.6	9.6	28.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	20.0%	40.7%	10.7%	31.3%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.7	27.0	27.0	6.4	33.6	33.6	14.0	40.4	5.6	24.3
Actuated g/C Ratio	0.06	0.31	0.31	0.07	0.38	0.38	0.16	0.46	0.06	0.28
v/c Ratio	0.18	0.86	0.30	1.42	0.41	0.02	1.04	0.37	0.13	0.17
Control Delay	43.5	44.8	4.7	261.5	23.0	0.0	102.4	14.6	42.6	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	44.8	4.7	261.5	23.0	0.0	102.4	14.6	42.6	23.7
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		34.0			112.2			57.4		26.4
Approach LOS		C			F			E		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 87.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.42	
Intersection Signal Delay: 61.1	Intersection LOS: E
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	478	181	178	283	11	284	142	158	14	73	12
Future Volume (veh/h)	20	478	181	178	283	11	284	142	158	14	73	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	503	187	187	298	7	299	149	135	15	77	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	575	488	133	659	558	291	381	345	44	478	43
Arrive On Green	0.03	0.30	0.30	0.07	0.35	0.35	0.16	0.42	0.40	0.02	0.28	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	918	832	1810	1716	156
Grp Volume(v), veh/h	21	503	187	187	298	7	299	0	284	15	0	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1750	1810	0	1872
Q Serve(g_s), s	1.0	21.8	8.0	6.4	10.6	0.2	14.0	0.0	9.9	0.7	0.0	3.0
Cycle Q Clear(g_c), s	1.0	21.8	8.0	6.4	10.6	0.2	14.0	0.0	9.9	0.7	0.0	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		0.08
Lane Grp Cap(c), veh/h	54	575	488	133	659	558	291	0	727	44	0	521
V/C Ratio(X)	0.39	0.87	0.38	1.40	0.45	0.01	1.03	0.00	0.39	0.34	0.00	0.16
Avail Cap(c_a), veh/h	121	643	545	133	659	558	291	0	727	117	0	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.4	28.7	23.9	40.3	22.0	18.6	36.5	0.0	18.0	41.7	0.0	23.7
Incr Delay (d2), s/veh	1.7	11.9	0.5	220.3	0.5	0.0	59.5	0.0	1.6	1.7	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.5	2.9	11.0	4.6	0.1	10.6	0.0	3.9	0.3	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	40.6	24.4	260.5	22.5	18.6	96.0	0.0	19.5	43.4	0.0	24.4
LnGrp LOS	D	D	C	F	C	B	F	A	B	D	A	C
Approach Vol, veh/h		711			492			583			99	
Approach Delay, s/veh		36.4			112.9			58.7			27.3	
Approach LOS		D			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	30.3	18.0	28.2	6.6	34.1	6.1	40.1
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	13.4	23.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	8.4	23.8	16.0	5.0	3.0	12.6	2.7	11.9
Green Ext Time (p_c), s	0.0	1.7	0.0	0.3	0.0	1.6	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	62.8
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	4	3	90	55	3	22	186	555	59	7	365	7
Future Vol, veh/h	4	3	90	55	3	22	186	555	59	7	365	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	95	58	3	23	196	584	62	7	384	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1422	1440	388	1458	1412	615	391	0	0	646	0	0
Stage 1	402	402	-	1007	1007	-	-	-	-	-	-	-
Stage 2	1020	1038	-	451	405	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	115	134	665	109	139	495	1179	-	-	949	-	-
Stage 1	629	604	-	293	321	-	-	-	-	-	-	-
Stage 2	288	311	-	592	602	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	94	111	665	80	115	495	1179	-	-	949	-	-
Mov Cap-2 Maneuver	174	201	-	160	196	-	-	-	-	-	-	-
Stage 1	525	600	-	244	268	-	-	-	-	-	-	-
Stage 2	226	259	-	501	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	36	2	0.2
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1179	-	-	560	198	949	-	-
HCM Lane V/C Ratio	0.166	-	-	0.182	0.425	0.008	-	-
HCM Control Delay (s)	8.7	-	-	12.9	36	8.8	-	-
HCM Lane LOS	A	-	-	B	E	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	0.7	2	0	-	-

Intersection	
Int Delay, s/veh	281

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	294	142	77	525	1018	245
Future Vol, veh/h	294	142	77	525	1018	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	320	154	84	571	1107	266

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1979	1240	1373	0	-	0
Stage 1	1240	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 69	216	506	-	-	-
Stage 1	~ 276	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 58	216	506	-	-	-
Mov Cap-2 Maneuver	~ 58	-	-	-	-	-
Stage 1	~ 230	-	-	-	-	-
Stage 2	476	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, $	1480.8	1.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	506	-	58	216	-	-
HCM Lane V/C Ratio	0.165	-	5.51	0.715	-	-
HCM Control Delay (s)	13.5	-	$ 2169.6	54.8	-	-
HCM Lane LOS	B	-	F	F	-	-
HCM 95th %tile Q(veh)	0.6	-	36	4.7	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	65	17	76	4	24	432	10	457
Future Volume (vph)	65	17	76	4	24	432	10	457
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		11.5		11.6	6.2	42.1	5.8	41.9
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.70
v/c Ratio		0.40		0.37	0.13	0.19	0.06	0.20
Control Delay		18.9		21.7	31.2	4.7	25.2	5.5
Queue Delay		0.5		0.4	1.2	0.4	0.0	0.2
Total Delay		19.3		22.1	32.5	5.0	25.2	5.8
LOS		B		C	C	A	C	A
Approach Delay		19.3		22.1		6.4		6.1
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 34.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	17	41	76	4	17	24	432	32	10	457	25
Future Volume (veh/h)	65	17	41	76	4	17	24	432	32	10	457	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	67	18	42	78	4	18	25	445	33	10	471	26
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	67	92	309	25	50	69	2048	151	41	2037	112
Arrive On Green	0.17	0.17	0.16	0.18	0.18	0.16	0.08	1.00	1.00	0.02	0.59	0.57
Sat Flow, veh/h	689	388	532	1149	139	283	1810	3408	252	1810	3479	192
Grp Volume(v), veh/h	127	0	0	100	0	0	25	235	243	10	244	253
Grp Sat Flow(s),veh/h/ln	1609	0	0	1572	0	0	1810	1805	1855	1810	1805	1866
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.3	3.9	3.9
Cycle Q Clear(g_c), s	3.9	0.0	0.0	2.9	0.0	0.0	0.8	0.0	0.0	0.3	3.9	3.9
Prop In Lane	0.53		0.33	0.78		0.18	1.00		0.14	1.00		0.10
Lane Grp Cap(c), veh/h	370	0	0	384	0	0	69	1085	1115	41	1057	1092
V/C Ratio(X)	0.34	0.00	0.00	0.26	0.00	0.00	0.36	0.22	0.22	0.24	0.23	0.23
Avail Cap(c_a), veh/h	488	0	0	488	0	0	241	1085	1115	241	1057	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	0.0	21.6	0.0	0.0	27.0	0.0	0.0	28.8	6.0	6.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.4	0.0	0.0	1.2	0.5	0.4	1.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	1.2	0.0	0.0	0.3	0.1	0.1	0.1	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	0.0	22.0	0.0	0.0	28.1	0.5	0.4	29.9	6.5	6.5
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		127			100			503			507	
Approach Delay, s/veh		22.7			22.0			1.8			6.9	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.1		14.6	6.3	39.1		14.6				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		5.9	2.8	5.9		4.9				
Green Ext Time (p_c), s	0.0	2.9		0.4	0.0	2.8		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		7.7
HCM 6th LOS		A

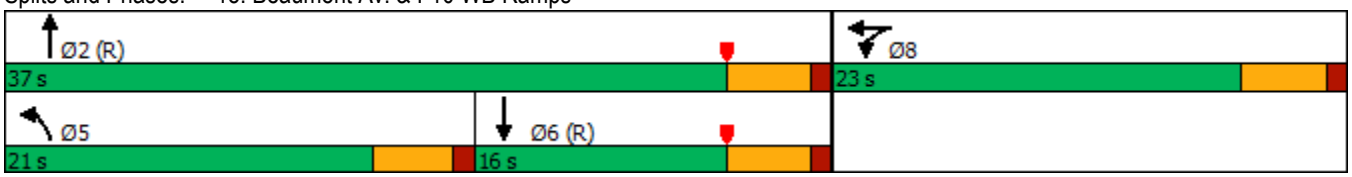
Notes

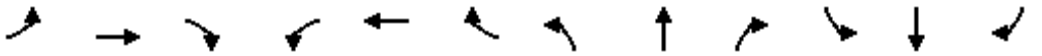
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	756	0	300	341	470
Future Volume (vph)	756	0	300	341	470
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.6	-0.8	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	18.5	18.5	14.3	33.5	15.2
Actuated g/C Ratio	0.31	0.31	0.24	0.56	0.25
v/c Ratio	0.88	0.79	0.72	0.17	0.64
Control Delay	41.1	25.5	35.3	6.9	23.3
Queue Delay	0.0	14.9	0.0	0.0	37.5
Total Delay	41.1	40.4	35.3	6.9	60.7
LOS	D	D	D	A	E
Approach Delay		40.8		20.2	60.7
Approach LOS		D		C	E

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 39.9	Intersection LOS: D
Intersection Capacity Utilization 100.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	756	0	147	300	341	0	0	470	104
Future Volume (veh/h)	0	0	0	756	0	147	300	341	0	0	470	104
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				921	0	0	309	352	0	0	485	107
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1146	602	0	364	1986	0	0	830	182
Arrive On Green				0.30	0.00	0.00	0.40	1.00	0.00	0.00	0.10	0.09
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3038	646
Grp Volume(v), veh/h				921	0	0	309	352	0	0	296	296
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1784
Q Serve(g_s), s				14.4	0.0	0.0	9.3	0.0	0.0	0.0	9.4	9.5
Cycle Q Clear(g_c), s				14.4	0.0	0.0	9.3	0.0	0.0	0.0	9.4	9.5
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1146	602	0	364	1986	0	0	509	503
V/C Ratio(X)				0.80	0.00	0.00	0.85	0.18	0.00	0.00	0.58	0.59
Avail Cap(c_a), veh/h				1146	602	0	513	2050	0	0	541	535
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.73	0.73	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.5	0.0	0.0	17.1	0.0	0.0	0.0	23.8	23.9
Incr Delay (d2), s/veh				4.2	0.0	0.0	5.1	0.1	0.0	0.0	4.7	4.9
Initial Q Delay(d3),s/veh				147.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				30.7	0.0	0.0	3.3	0.0	0.0	0.0	5.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				172.0	0.0	0.0	22.2	0.1	0.0	0.0	28.6	28.8
LnGrp LOS				F	A	A	C	A	A	A	C	C
Approach Vol, veh/h					921			661			592	
Approach Delay, s/veh					172.0			10.4			28.7	
Approach LOS					F			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	38.1		16.1	22.0		21.9						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 32		16.4	* 11		18.2						
Max Q Clear Time (g_c+I1), s	2.0		11.3	11.5		16.4						
Green Ext Time (p_c), s	2.4		0.2	0.0		0.8						

Intersection Summary		
HCM 6th Ctrl Delay	83.8	
HCM 6th LOS	F	

Notes

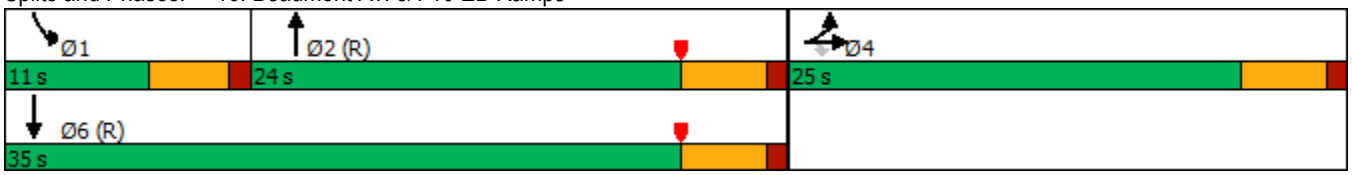
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	823	533	120	1107
Future Volume (vph)	11	823	533	120	1107
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.8	-0.6	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	20.0	20.0	23.2	6.7	32.0
Actuated g/C Ratio	0.33	0.33	0.39	0.11	0.53
v/c Ratio	0.87	0.81	0.63	0.61	0.59
Control Delay	35.4	26.3	12.6	28.4	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.4	26.3	12.6	28.4	16.8
LOS	D	C	B	C	B
Approach Delay	30.9		12.6		17.9
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 20.3	Intersection LOS: C
Intersection Capacity Utilization 100.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Future Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	973				0	549	412	124	1141	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	665	1127				0	697	523	173	1865	0
Arrive On Green	0.00	0.00	0.34				0.00	0.36	0.35	0.19	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2060	1475	1810	3705	0
Grp Volume(v), veh/h	0	0	973				0	504	457	124	1141	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	17.1				0.0	14.8	14.9	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	17.1				0.0	14.8	14.9	3.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	665	1127				0	640	580	173	1865	0
V/C Ratio(X)	0.00	0.00	0.86				0.00	0.79	0.79	0.72	0.61	0.00
Avail Cap(c_a), veh/h	0	665	1127				0	656	594	211	1898	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.58	0.58	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5				0.0	17.3	17.7	23.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	7.1				0.0	9.5	10.4	3.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	178.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	35.3				0.0	7.2	6.8	1.6	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	204.6				0.0	26.8	28.1	27.1	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h		973						961			1265	
Approach Delay, s/veh		204.6						27.4			3.5	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.7	25.8		24.5		35.5
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30
Max Q Clear Time (g_c+I1), s	5.9	16.9		19.1		2.0
Green Ext Time (p_c), s	0.0	1.4		0.5		9.9

Intersection Summary	
HCM 6th Ctrl Delay	71.8
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

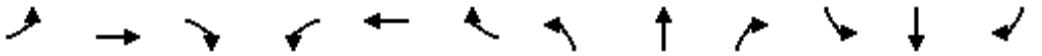
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	335	132	952	489	617	356
Future Volume (vph)	335	132	952	489	617	356
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.7	10.5	21.6	21.6	21.6	21.6
Actuated g/C Ratio	0.27	0.24	0.49	0.49	0.49	0.49
v/c Ratio	0.40	0.18	0.41	0.51	0.27	0.25
Control Delay	16.2	4.9	7.4	2.6	6.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	4.9	7.4	2.6	6.5	1.2
LOS	B	A	A	A	A	A
Approach Delay			5.7		4.6	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 43.9	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 6.5	Intersection LOS: A
Intersection Capacity Utilization 36.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	335	0	132	0	952	489	0	617	356
Future Volume (veh/h)	0	0	0	335	0	132	0	952	489	0	617	356
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				364	0	116	0	1035	0	0	671	305
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				653	0	527	0	2413		0	2413	1318
Arrive On Green				0.19	0.00	0.19	0.00	0.47	0.00	0.00	0.47	0.47
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				364	0	116	0	1035	0	0	671	305
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.9	0.0	1.1	0.0	4.1	0.0	0.0	2.5	2.0
Cycle Q Clear(g_c), s				2.9	0.0	1.1	0.0	4.1	0.0	0.0	2.5	2.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				653	0	527	0	2413		0	2413	1318
V/C Ratio(X)				0.56	0.00	0.22	0.00	0.43		0.00	0.28	0.23
Avail Cap(c_a), veh/h				3980	0	3213	0	12326		0	12326	6734
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				11.3	0.0	10.5	0.0	5.4	0.0	0.0	4.9	4.8
Incr Delay (d2), s/veh				0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.7	0.0	0.2	0.0	0.4	0.0	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.6	0.0	10.6	0.0	5.5	0.0	0.0	5.0	4.9
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					480			1035	A		976	
Approach Delay, s/veh					11.3			5.5			5.0	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	20.3		20.3		10.4			
Change Period (Y+Rc), s	5.8		5.8		4.6			
Max Green Setting (Gmax), s	74.2		74.2		35.4			
Max Q Clear Time (g_c+I1), s	6.1		4.5		4.9			
Green Ext Time (p_c), s	8.4		6.4		0.9			

Intersection Summary		
HCM 6th Ctrl Delay	6.4	
HCM 6th LOS	A	

Notes

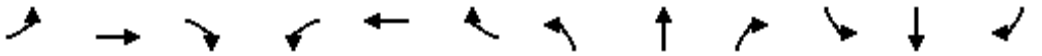
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	366	412	1075	449	880	72
Future Volume (vph)	366	412	1075	449	880	72
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	12.3	11.0	24.6	24.6	24.6	24.6
Actuated g/C Ratio	0.26	0.23	0.52	0.52	0.52	0.52
v/c Ratio	0.45	0.56	0.44	0.29	0.36	0.09
Control Delay	18.1	12.2	7.7	1.2	7.2	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	12.2	7.7	1.2	7.2	2.1
LOS	B	B	A	A	A	A
Approach Delay			5.8		6.8	
Approach LOS			A		A	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 47.7			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 8.3		Intersection LOS: A	
Intersection Capacity Utilization 41.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	0	412	0	0	0	0	1075	449	0	880	72
Future Volume (veh/h)	366	0	412	0	0	0	0	1075	449	0	880	72
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	398	0	366				0	1168	406	0	957	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	829	0	669				0	2608	1425	0	2608	
Arrive On Green	0.24	0.00	0.24				0.00	0.51	0.51	0.00	0.51	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	398	0	366				0	1168	406	0	957	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	4.1	0.0	4.8				0.0	6.1	3.5	0.0	4.7	0.0
Cycle Q Clear(g_c), s	4.1	0.0	4.8				0.0	6.1	3.5	0.0	4.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	829	0	669				0	2608	1425	0	2608	
V/C Ratio(X)	0.48	0.00	0.55				0.00	0.45	0.28	0.00	0.37	
Avail Cap(c_a), veh/h	3349	0	2703				0	8475	4630	0	8475	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	13.9				0.0	6.5	5.8	0.0	6.1	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.3				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.1				0.0	1.1	0.5	0.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	0.0	14.1				0.0	6.6	5.9	0.0	6.2	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h		764						1574			957	A
Approach Delay, s/veh		13.9						6.4			6.2	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		27.1		14.6		27.1						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		69.2		40.4		69.2						
Max Q Clear Time (g_c+I1), s		8.1		6.8		6.7						
Green Ext Time (p_c), s		13.2		1.5		7.5						

Intersection Summary		
HCM 6th Ctrl Delay		8.1
HCM 6th LOS		A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 7.3:

OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

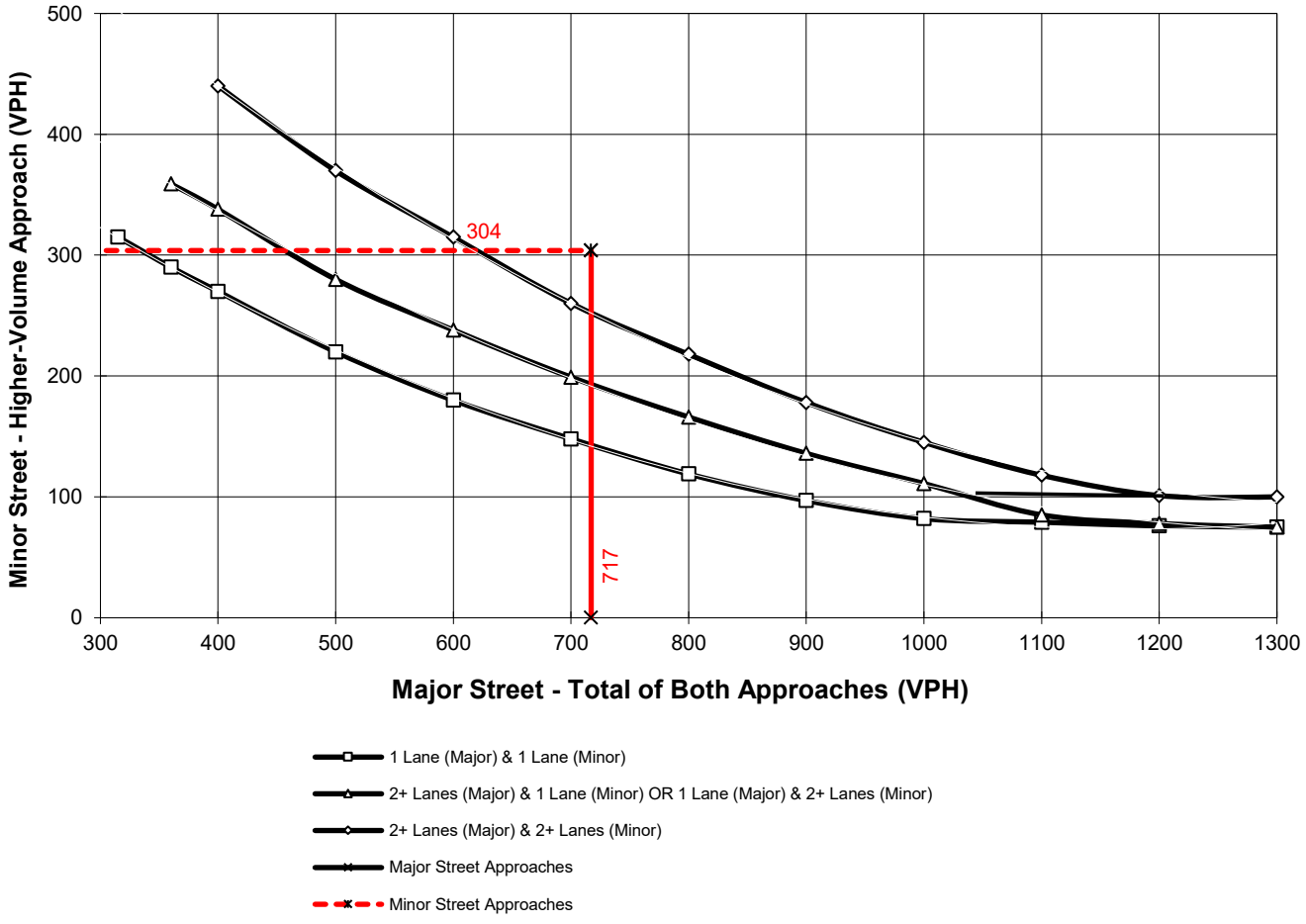
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2025 NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.**
Total of Both Approaches (VPH) = **717**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**
High Volume Approach (VPH) = **304**
Number of Approach Lanes Minor Street = **2**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

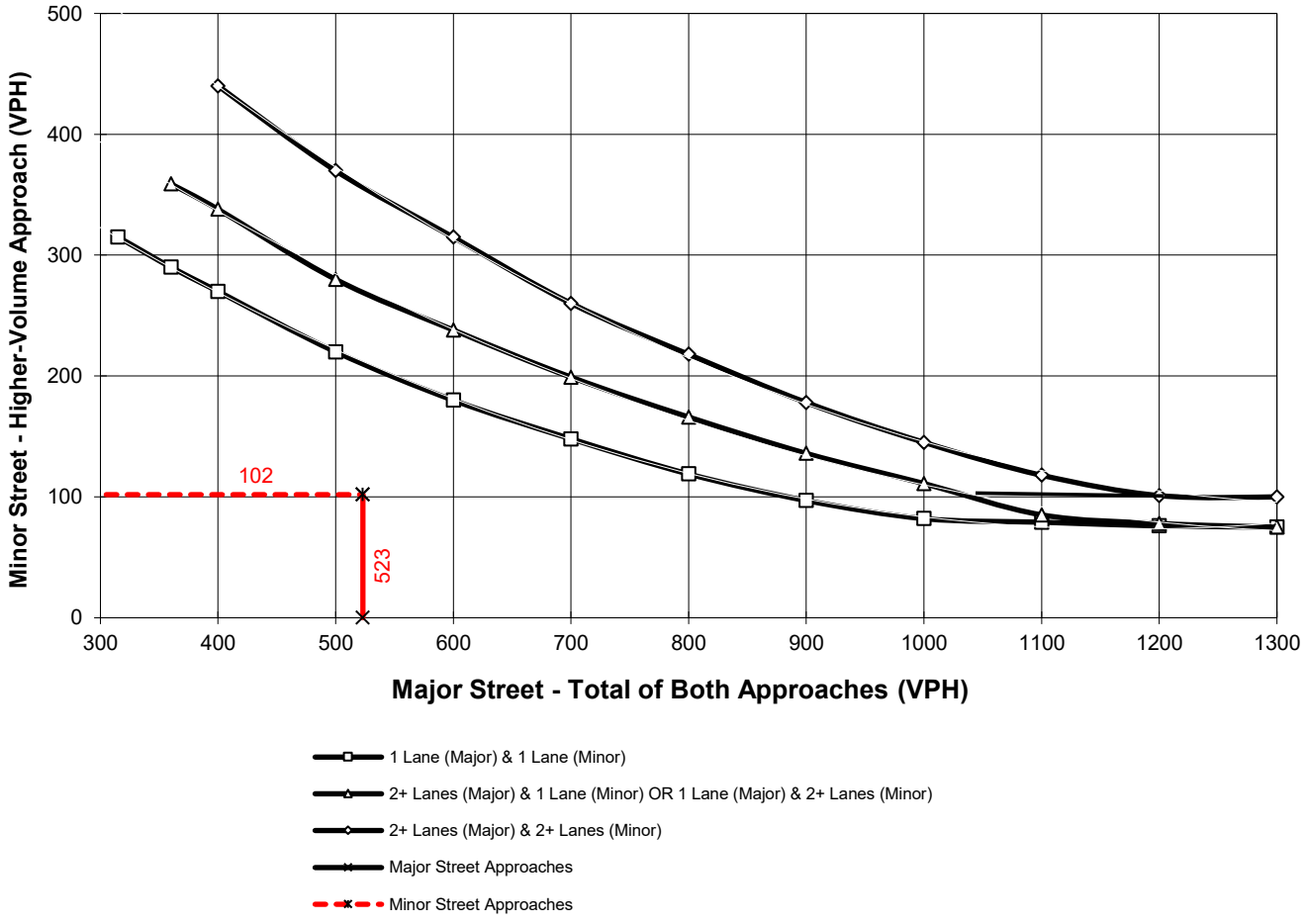
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2025 NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.**
Total of Both Approaches (VPH) = **523**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**
High Volume Approach (VPH) = **102**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 7.4:

OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

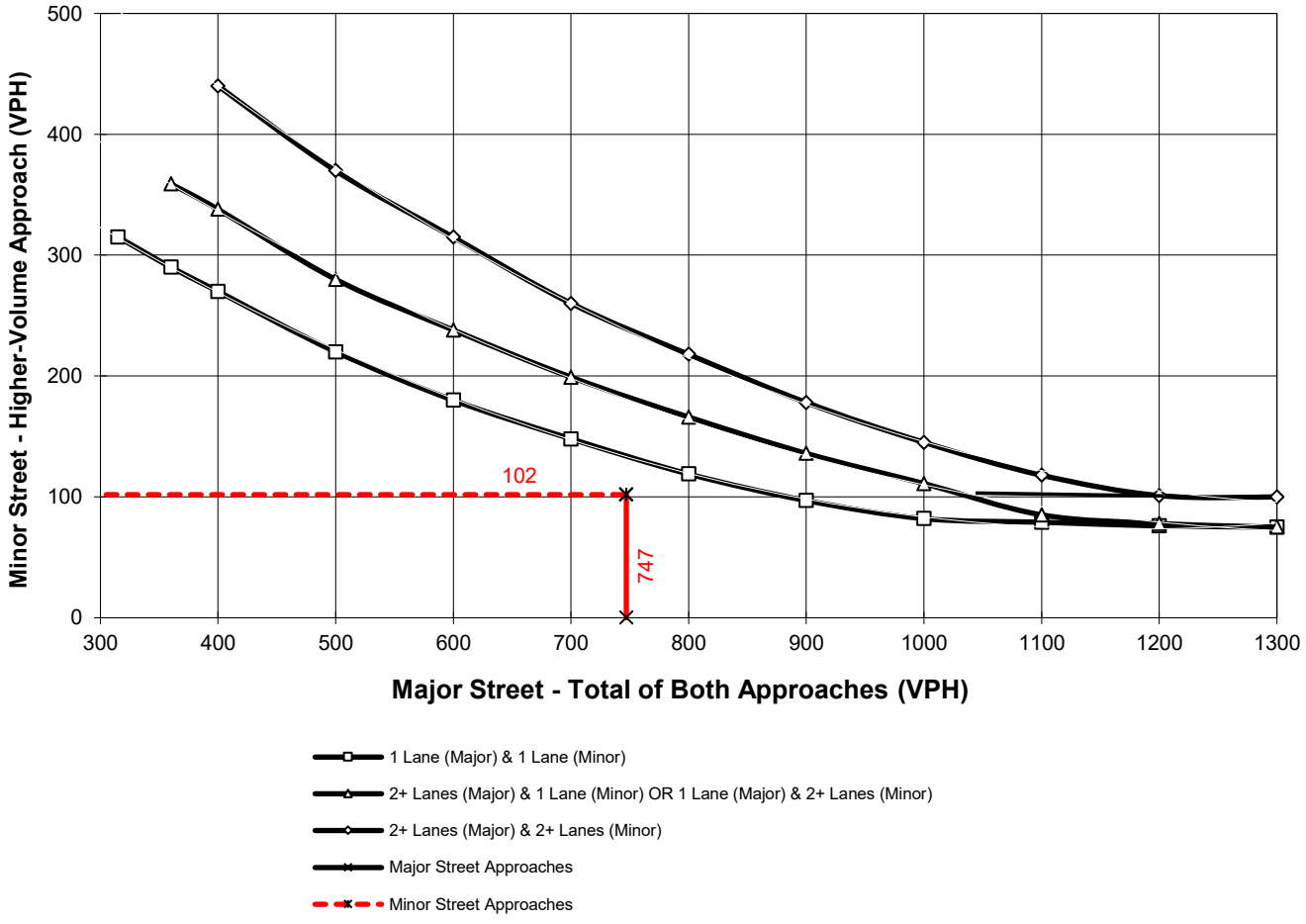
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2025 WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.** Total of Both Approaches (VPH) = **747**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **102**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



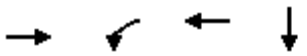
*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 7.5:

OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1143	308	697	455
v/c Ratio	1.30	1.04	0.53	1.36
Control Delay	165.0	85.3	4.4	210.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	165.0	85.3	4.4	210.0
Queue Length 50th (ft)	~821	~168	51	~335
Queue Length 95th (ft)	#1051	m#217	m65	#516
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	882	296	1313	335
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.30	1.04	0.53	1.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	173	634	545	483	778
v/c Ratio	1.60	0.81	0.96	0.59	0.93
Control Delay	304.5	20.1	61.0	5.7	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	304.5	20.1	61.0	5.7	40.1
Queue Length 50th (ft)	~142	287	303	0	370
Queue Length 95th (ft)	m#91	m197	#507	71	#624
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	822	837
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.60	0.81	0.96	0.59	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	395	375	413	260	499
v/c Ratio	0.91	0.78	0.88	0.12	0.55
Control Delay	51.7	29.4	47.4	5.5	15.6
Queue Delay	0.0	35.6	0.0	0.0	5.7
Total Delay	51.7	65.0	47.4	5.5	21.3
Queue Length 50th (ft)	145	97	160	15	78
Queue Length 95th (ft)	#300	#232	#293	m33	123
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	482	493	2121	907
Starvation Cap Reductn	0	0	0	0	342
Spillback Cap Reductn	0	124	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	1.05	0.84	0.13	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	325	1051	116	811
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	20.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	20.8	9.1
Queue Length 50th (ft)	52	49	86	31	106
Queue Length 95th (ft)	127	124	159	m53	m176
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	534	521	1773	252	2272
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.59	0.46	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



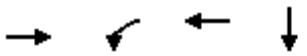
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	113	101	715	82	324	332
v/c Ratio	0.10	0.11	0.41	0.14	0.19	0.28
Control Delay	8.2	3.2	9.0	3.0	7.7	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	3.2	9.0	3.0	7.7	2.0
Queue Length 50th (ft)	6	0	32	0	13	0
Queue Length 95th (ft)	17	10	50	14	24	14
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3433	2787	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.04	0.14	0.05	0.06	0.12

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	276	54	521	142	367	70
v/c Ratio	0.25	0.06	0.30	0.14	0.21	0.12
Control Delay	8.5	3.7	8.0	2.2	7.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.7	8.0	2.2	7.6	3.0
Queue Length 50th (ft)	15	0	21	0	14	0
Queue Length 95th (ft)	32	6	34	9	24	12
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.02	0.10	0.05	0.07	0.04

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	924	237	945	1008
v/c Ratio	1.52	1.12	1.02	1.31
Control Delay	269.2	121.6	52.7	176.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	269.2	121.6	52.7	176.0
Queue Length 50th (ft)	~735	~157	~579	~743
Queue Length 95th (ft)	#757	m#191	#601	#754
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	607	212	922	767
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.52	1.12	1.02	1.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	189	831	505	328	756
v/c Ratio	0.91	0.98	0.94	0.47	0.90
Control Delay	49.0	27.7	58.7	5.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	27.7	58.7	5.5	36.0
Queue Length 50th (ft)	108	406	279	0	356
Queue Length 95th (ft)	m73	m224	#472	60	#601
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	694	842
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.98	0.94	0.47	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	467	464	309	352	592
v/c Ratio	0.88	0.79	0.72	0.17	0.64
Control Delay	41.1	25.5	35.3	6.9	23.1
Queue Delay	0.0	14.9	0.0	0.0	38.2
Total Delay	41.1	40.4	35.3	6.9	61.2
Queue Length 50th (ft)	164	116	120	22	101
Queue Length 95th (ft)	#325	#263	m186	m50	#178
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	604	511	2015	921
Starvation Cap Reductn	0	0	0	0	363
Spillback Cap Reductn	0	129	0	62	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.98	0.60	0.18	1.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	494	475	961	124	1141
v/c Ratio	0.87	0.81	0.63	0.61	0.59
Control Delay	35.4	26.3	12.6	28.4	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.4	26.3	12.6	28.4	16.8
Queue Length 50th (ft)	149	117	97	47	201
Queue Length 95th (ft)	#317	#273	159	m59	m274
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	591	612	1515	210	1925
Starvation Cap Reductn	0	0	0	0	140
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.84	0.78	0.63	0.59	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	260	143	849	109	613	387
v/c Ratio	0.24	0.16	0.44	0.16	0.31	0.30
Control Delay	10.3	3.6	8.6	2.6	7.9	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	3.6	8.6	2.6	7.9	1.7
Queue Length 50th (ft)	18	0	40	0	27	0
Queue Length 95th (ft)	42	15	60	16	43	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3335	2666	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.05	0.17	0.07	0.12	0.14

Intersection Summary



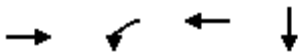
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	398	320	561	139	793	78
v/c Ratio	0.38	0.33	0.28	0.12	0.40	0.12
Control Delay	11.2	3.2	7.4	2.0	8.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	3.2	7.4	2.0	8.1	2.6
Queue Length 50th (ft)	27	0	23	0	34	0
Queue Length 95th (ft)	60	22	39	9	55	13
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.11	0.11	0.05	0.16	0.05

Intersection Summary

APPENDIX 7.6:

OPENING YEAR CUMULATIVE (2025) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1174	308	697	590
v/c Ratio	1.33	1.04	0.53	1.70
Control Delay	180.9	85.3	4.4	350.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	180.9	85.3	4.4	350.8
Queue Length 50th (ft)	~862	~168	51	~481
Queue Length 95th (ft)	#1091	m#217	m65	#677
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	348
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.33	1.04	0.53	1.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	202	634	545	483	778
v/c Ratio	1.87	0.81	0.96	0.59	0.93
Control Delay	420.7	21.0	61.0	5.7	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	420.7	21.0	61.0	5.7	40.1
Queue Length 50th (ft)	~178	307	303	0	370
Queue Length 95th (ft)	m#103	m187	#507	71	#624
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	822	837
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.87	0.81	0.96	0.59	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	395	375	413	260	499
v/c Ratio	0.91	0.78	0.88	0.12	0.55
Control Delay	51.7	29.4	47.4	5.5	15.6
Queue Delay	0.0	35.6	0.0	0.0	5.6
Total Delay	51.7	65.0	47.4	5.5	21.3
Queue Length 50th (ft)	145	97	160	15	78
Queue Length 95th (ft)	#300	#232	#293	m33	123
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	482	493	2121	907
Starvation Cap Reductn	0	0	0	0	341
Spillback Cap Reductn	0	124	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	1.05	0.84	0.13	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	325	1051	116	811
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	20.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	20.8	9.1
Queue Length 50th (ft)	52	49	86	31	106
Queue Length 95th (ft)	127	124	159	m53	m176
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	534	521	1773	252	2272
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.59	0.46	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



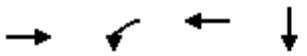
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	449	101	753	174	487	332
v/c Ratio	0.41	0.12	0.39	0.24	0.25	0.26
Control Delay	11.4	3.9	8.4	2.6	7.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	3.9	8.4	2.6	7.6	1.8
Queue Length 50th (ft)	33	0	35	0	21	0
Queue Length 95th (ft)	71	13	55	21	36	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3428	2767	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.04	0.15	0.11	0.10	0.12

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	276	455	651	220	866	70
v/c Ratio	0.26	0.49	0.33	0.18	0.43	0.11
Control Delay	10.7	7.7	7.9	1.9	8.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	7.7	7.9	1.9	8.5	2.9
Queue Length 50th (ft)	19	18	27	0	38	0
Queue Length 95th (ft)	46	54	51	13	69	14
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.16	0.13	0.08	0.17	0.04

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1103	237	945	1064
v/c Ratio	1.82	1.12	1.02	1.39
Control Delay	399.2	121.6	52.7	208.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	399.2	121.6	52.7	208.0
Queue Length 50th (ft)	~958	~157	~579	~810
Queue Length 95th (ft)	#955	m#191	#601	#813
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	606	212	922	766
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.82	1.12	1.02	1.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	329	831	505	328	756
v/c Ratio	1.58	0.98	0.94	0.47	0.90
Control Delay	292.7	28.4	58.7	5.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	292.7	28.4	58.7	5.5	36.0
Queue Length 50th (ft)	~274	433	279	0	356
Queue Length 95th (ft)	m119	m214	#472	60	#601
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	694	842
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.58	0.98	0.94	0.47	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	467	464	309	352	592
v/c Ratio	0.88	0.79	0.72	0.17	0.64
Control Delay	41.1	25.5	35.3	6.9	23.3
Queue Delay	0.0	14.9	0.0	0.0	37.5
Total Delay	41.1	40.4	35.3	6.9	60.7
Queue Length 50th (ft)	164	116	120	22	101
Queue Length 95th (ft)	#325	#263	m186	m50	#178
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	604	511	2015	921
Starvation Cap Reductn	0	0	0	0	362
Spillback Cap Reductn	0	129	0	64	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.98	0.60	0.18	1.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	494	475	961	124	1141
v/c Ratio	0.87	0.81	0.63	0.61	0.59
Control Delay	35.4	26.3	12.6	28.4	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.4	26.3	12.6	28.4	16.8
Queue Length 50th (ft)	149	117	97	47	200
Queue Length 95th (ft)	#317	#273	159	m59	m274
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	591	612	1515	210	1925
Starvation Cap Reductn	0	0	0	0	140
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.84	0.78	0.63	0.59	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	364	143	1035	532	671	387
v/c Ratio	0.40	0.18	0.41	0.51	0.27	0.25
Control Delay	16.2	4.9	7.4	2.6	6.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	4.9	7.4	2.6	6.5	1.2
Queue Length 50th (ft)	37	0	51	0	30	0
Queue Length 95th (ft)	84	19	78	32	48	14
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	2904	2322	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.06	0.20	0.34	0.13	0.14

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	398	448	1168	488	957	78
v/c Ratio	0.45	0.56	0.44	0.29	0.36	0.09
Control Delay	18.1	12.2	7.7	1.2	7.2	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	12.2	7.7	1.2	7.2	2.1
Queue Length 50th (ft)	45	29	60	0	46	0
Queue Length 95th (ft)	102	85	107	17	85	14
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	2943	2370	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.19	0.23	0.18	0.19	0.05

Intersection Summary

APPENDIX 7.7:

OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2025 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2357	7161	0.33	68.7	11.4	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2357	444	7200	2100	0.33	0.21	64.0	60.5	12.3	15.3	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1913	7161	0.27	68.7	9.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2763	850	7200	2100	0.38	0.40	64.1	62.4	14.4	15.4	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2770	7161	0.39	68.7	13.4	B

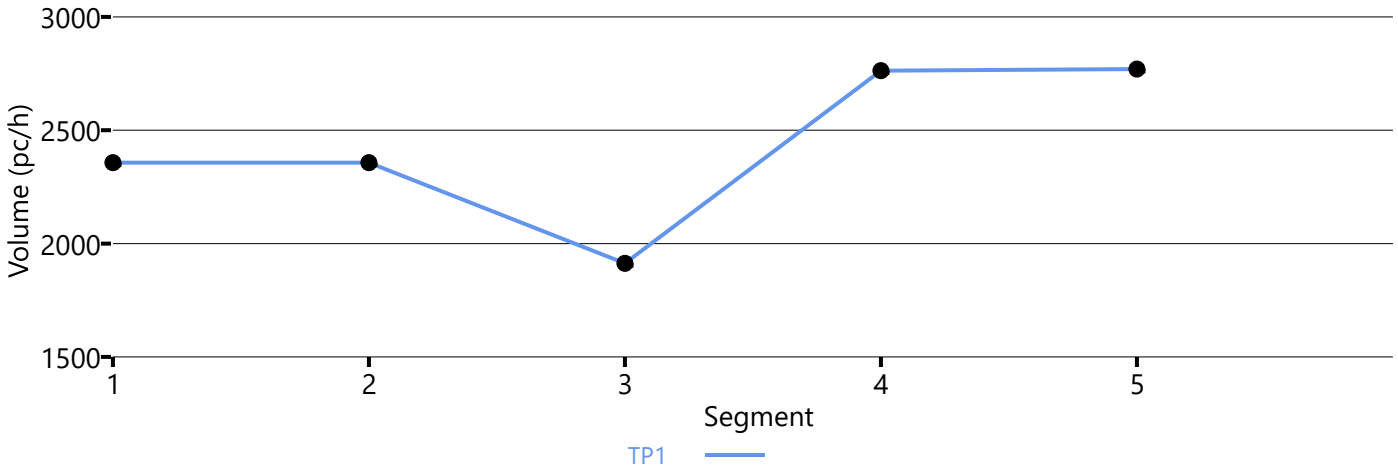
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	11.9	11.5	2.1	B

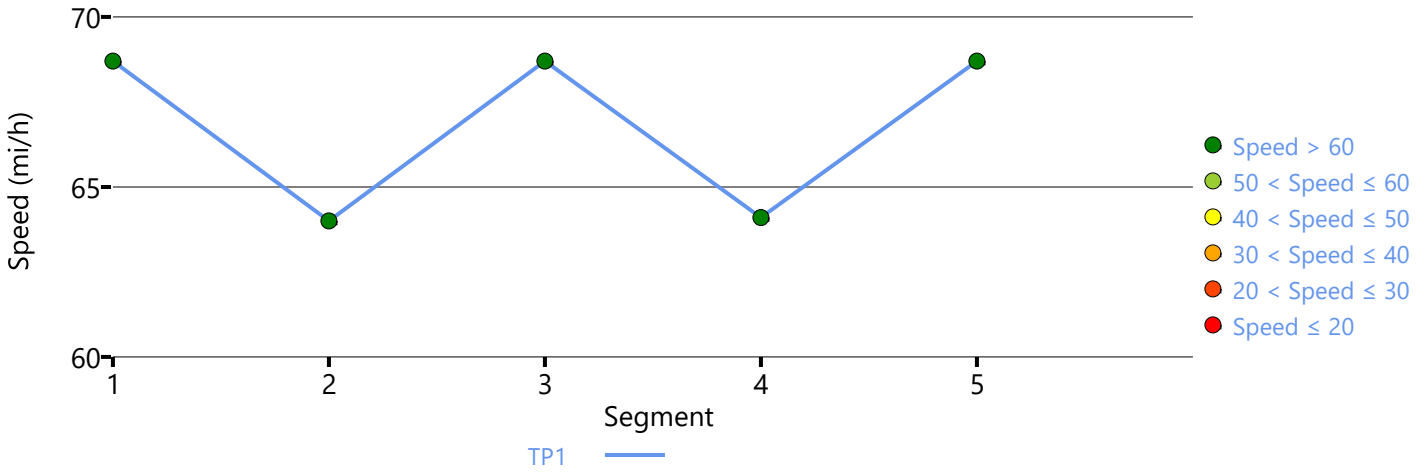
Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	11.5
Average Travel Time, min	2.1	Density, pc/mi/ln	11.9

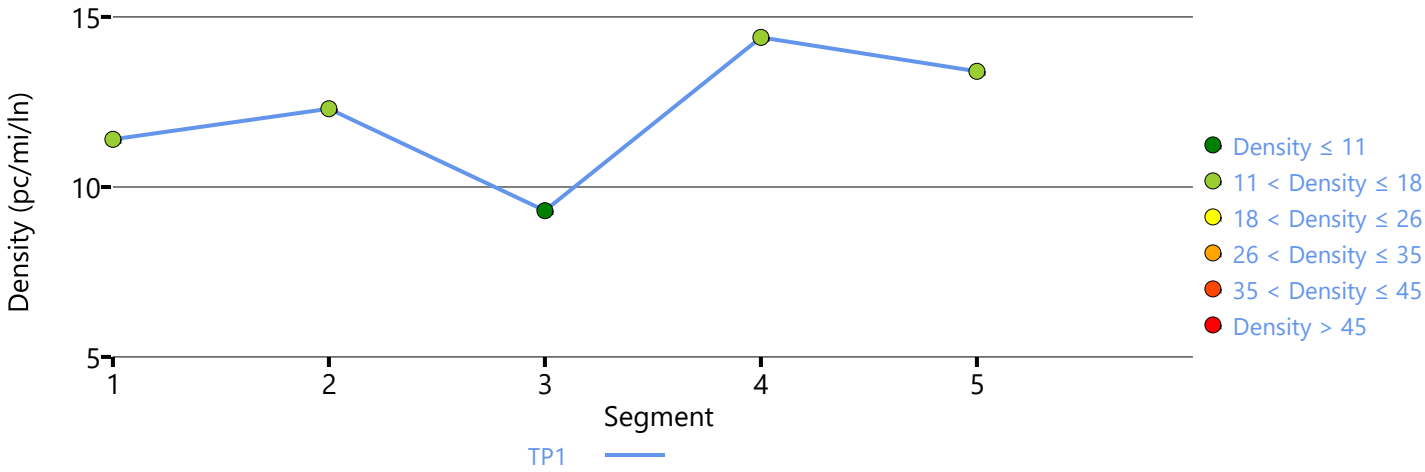
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2025 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2820	7161	0.39	68.7	13.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2820	836	7200	2100	0.39	0.40	63.1	59.6	14.9	18.5	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	1997	7161	0.28	68.7	9.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2702	705	7200	2100	0.38	0.34	64.4	62.7	14.0	14.2	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2689	7161	0.38	68.7	13.0	B

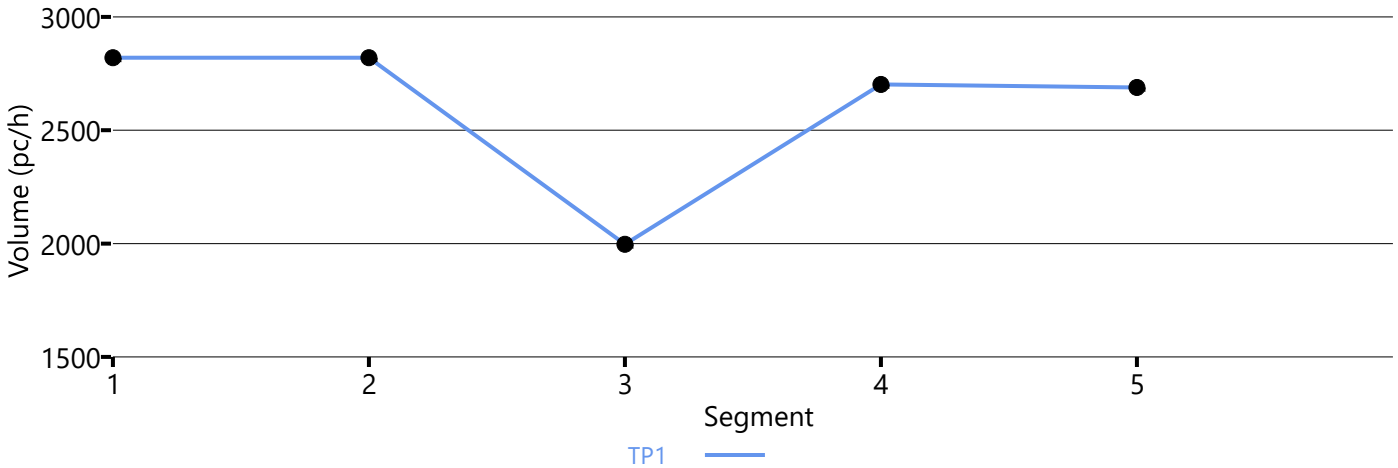
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	13.1	12.1	2.2	B

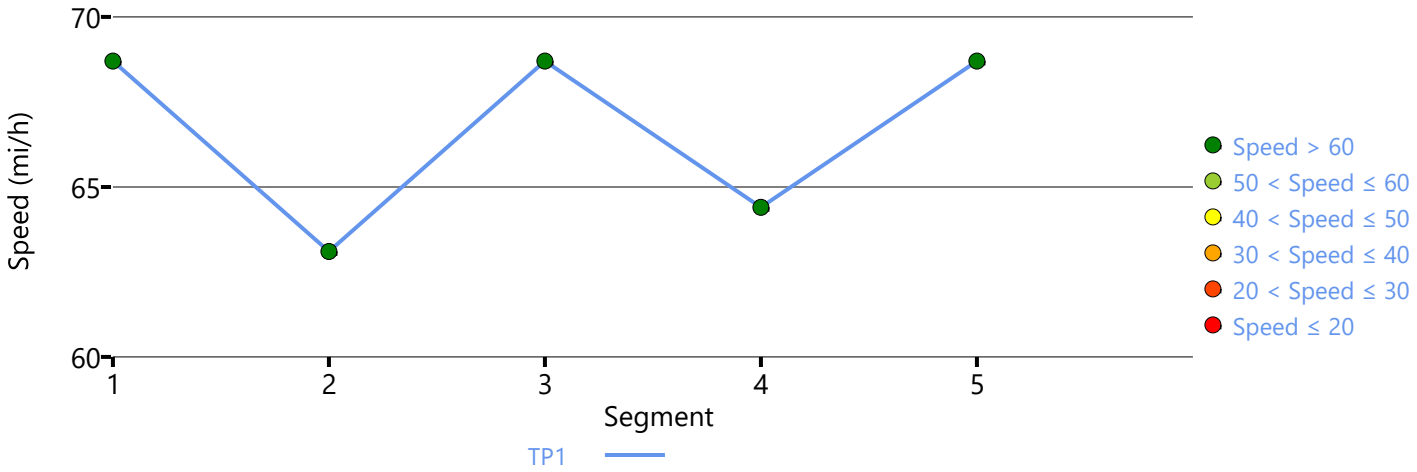
Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	12.1
Average Travel Time, min	2.2	Density, pc/mi/ln	13.1

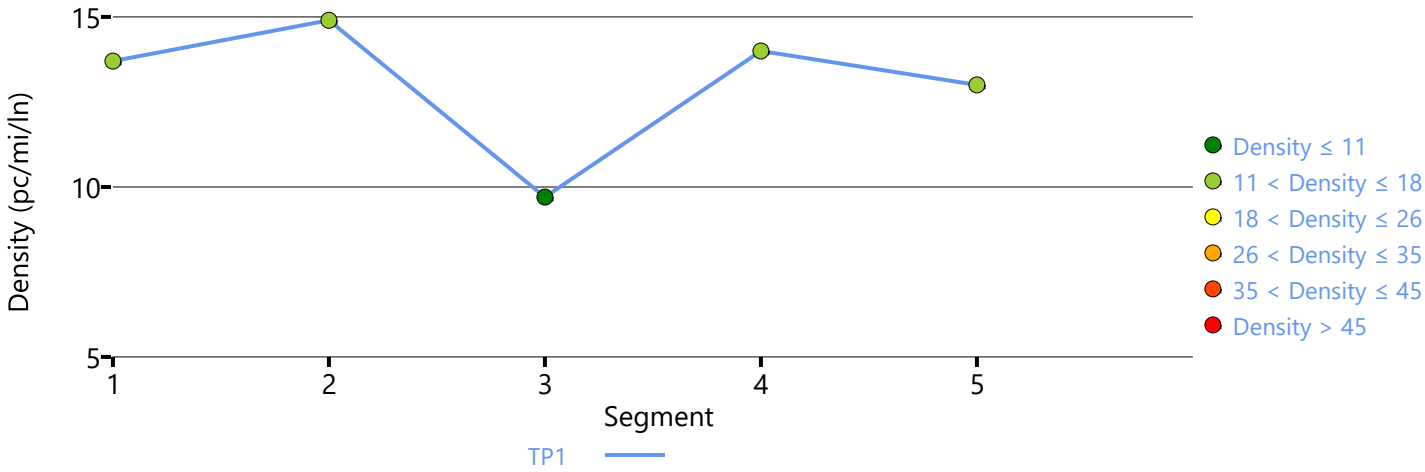
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2354	4764	0.49	68.2	17.3	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2354	1892	4800	2100	0.49	0.90	56.9	56.9	20.7	22.7	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	472	4764	0.10	68.2	3.5	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	727	255	4800	1900	0.15	0.13	61.1	61.1	5.9	9.8	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	727	4764	0.15	68.2	5.3	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1453	726	4800	2100	0.30	0.35	61.0	61.0	11.9	15.3	B

Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1452	4764	0.30	68.2	10.6	A

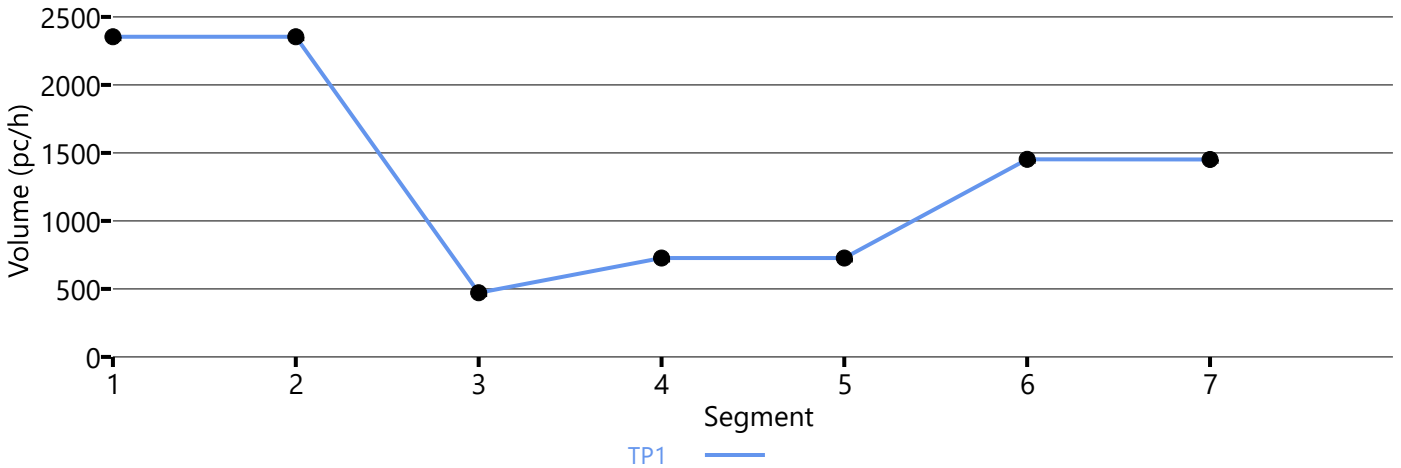
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.7	12.0	11.6	3.1	B

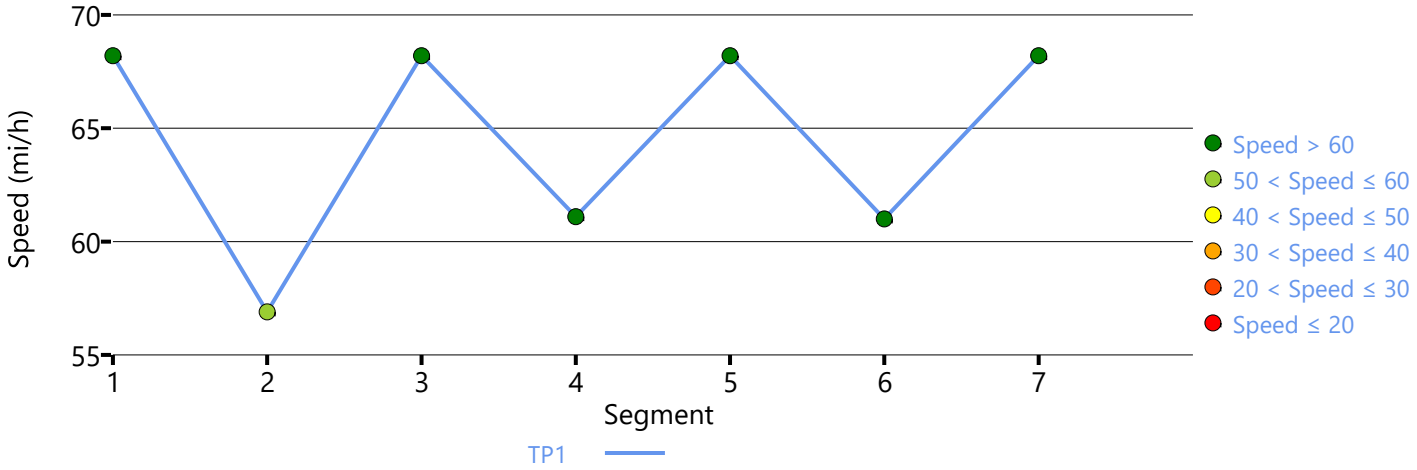
Facility Overall Results

Space Mean Speed, mi/h	65.7	Density, veh/mi/ln	11.6
Average Travel Time, min	3.1	Density, pc/mi/ln	12.0

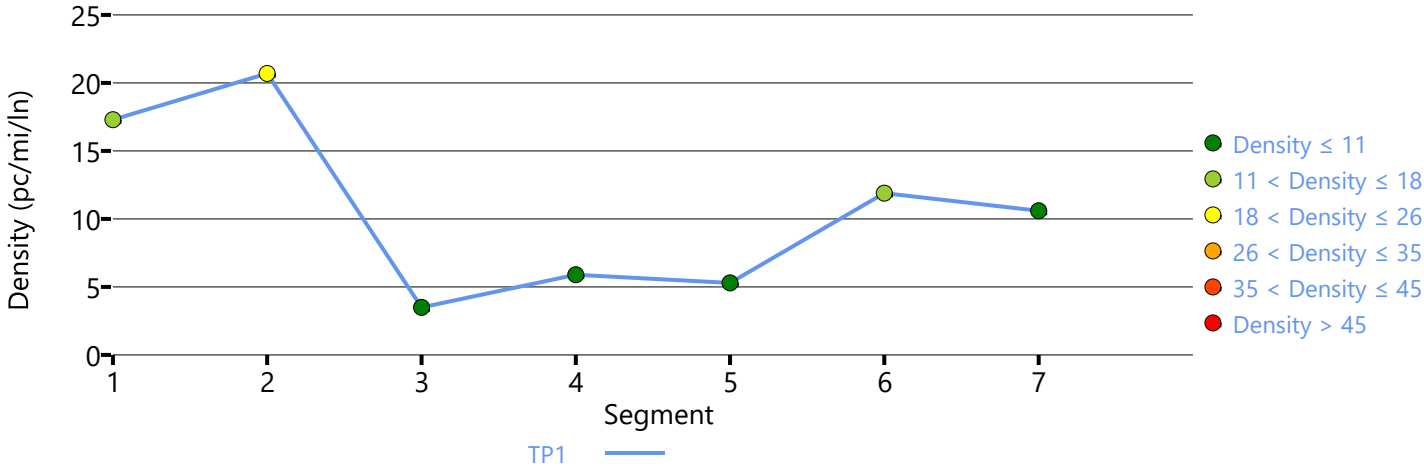
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1563	4764	0.33	68.2	11.5	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1563	1402	4800	2100	0.33	0.67	58.1	58.1	13.5	15.9	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	168	4764	0.04	68.2	1.2	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	806	638	4800	1900	0.17	0.34	61.0	61.0	6.6	10.3	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	807	4764	0.17	68.2	5.9	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2021	1214	4800	2100	0.42	0.58	60.7	60.7	16.6	19.5	B

Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	2029	4764	0.43	68.2	14.9	B

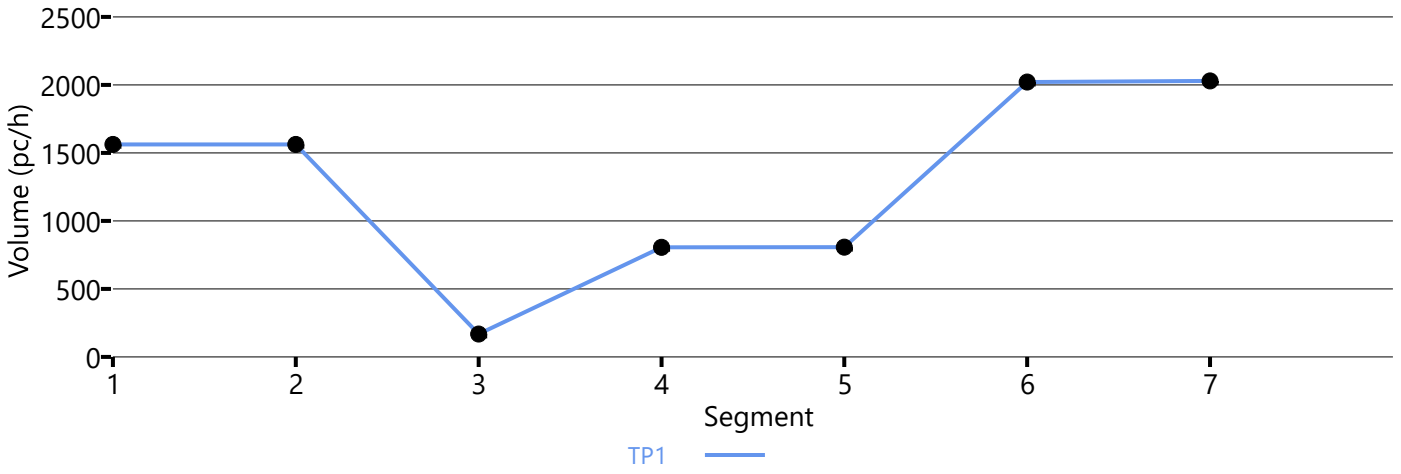
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.9	11.2	10.8	3.1	B

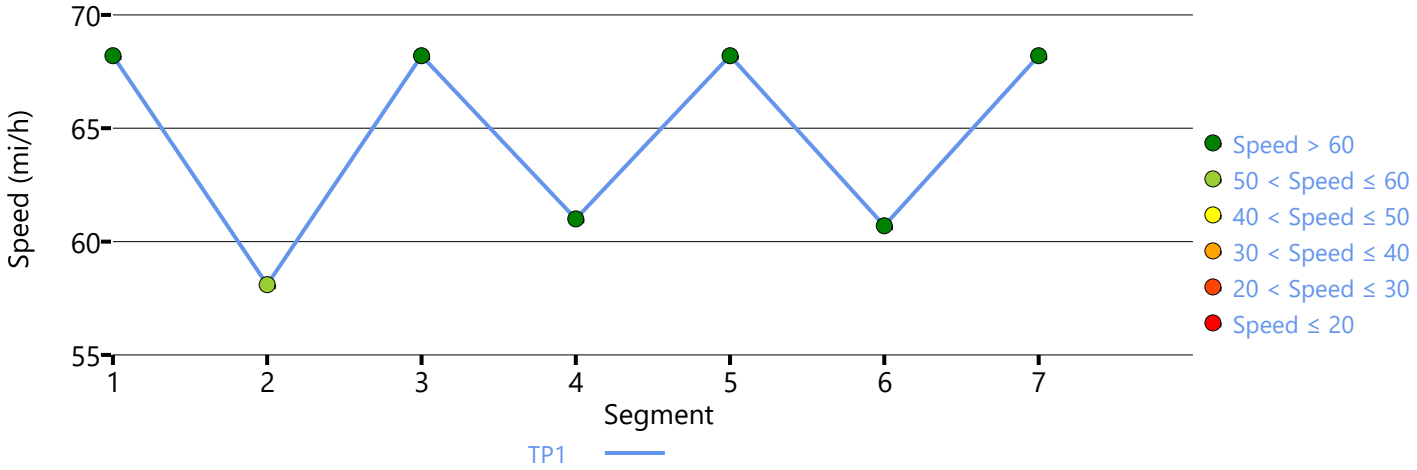
Facility Overall Results

Space Mean Speed, mi/h	65.9	Density, veh/mi/ln	10.8
Average Travel Time, min	3.1	Density, pc/mi/ln	11.2

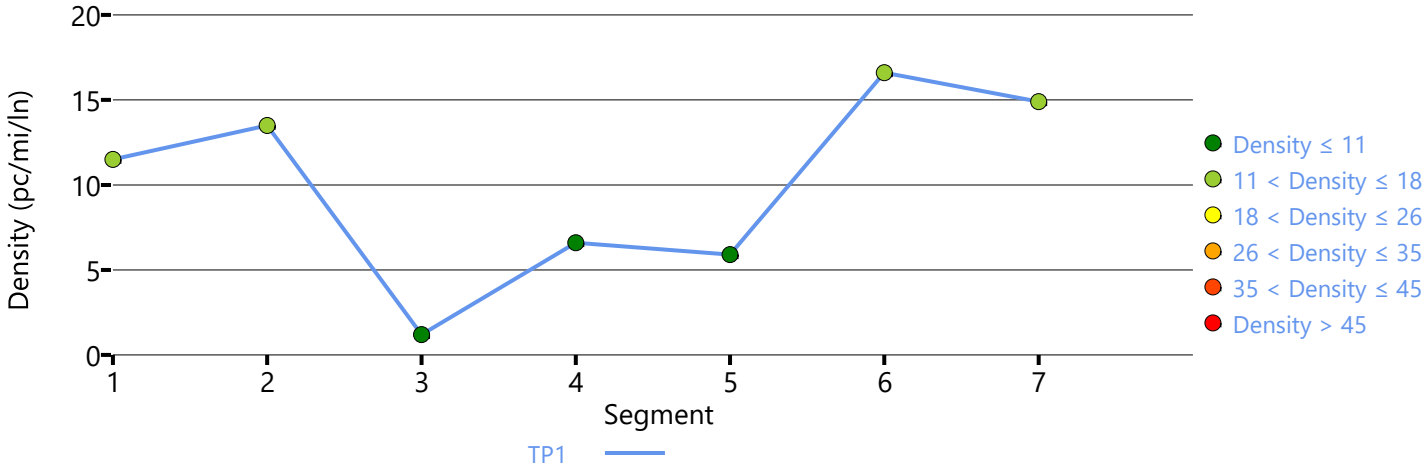
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3246	7161	0.45	68.7	15.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3246	837	7200	2100	0.45	0.40	63.4	59.6	17.1	20.7	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2416	7161	0.34	68.7	11.7	B

Segment 4: Merge

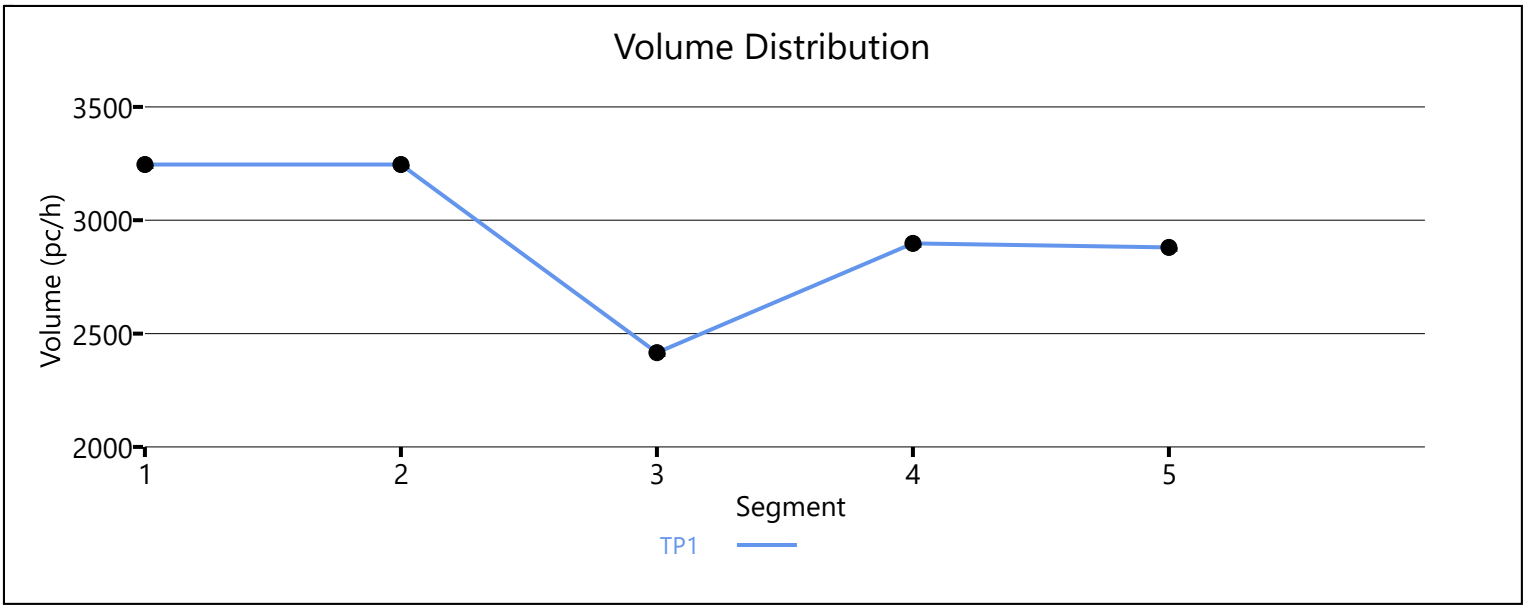
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2898	482	7200	2100	0.40	0.23	64.2	62.4	15.0	15.1	B

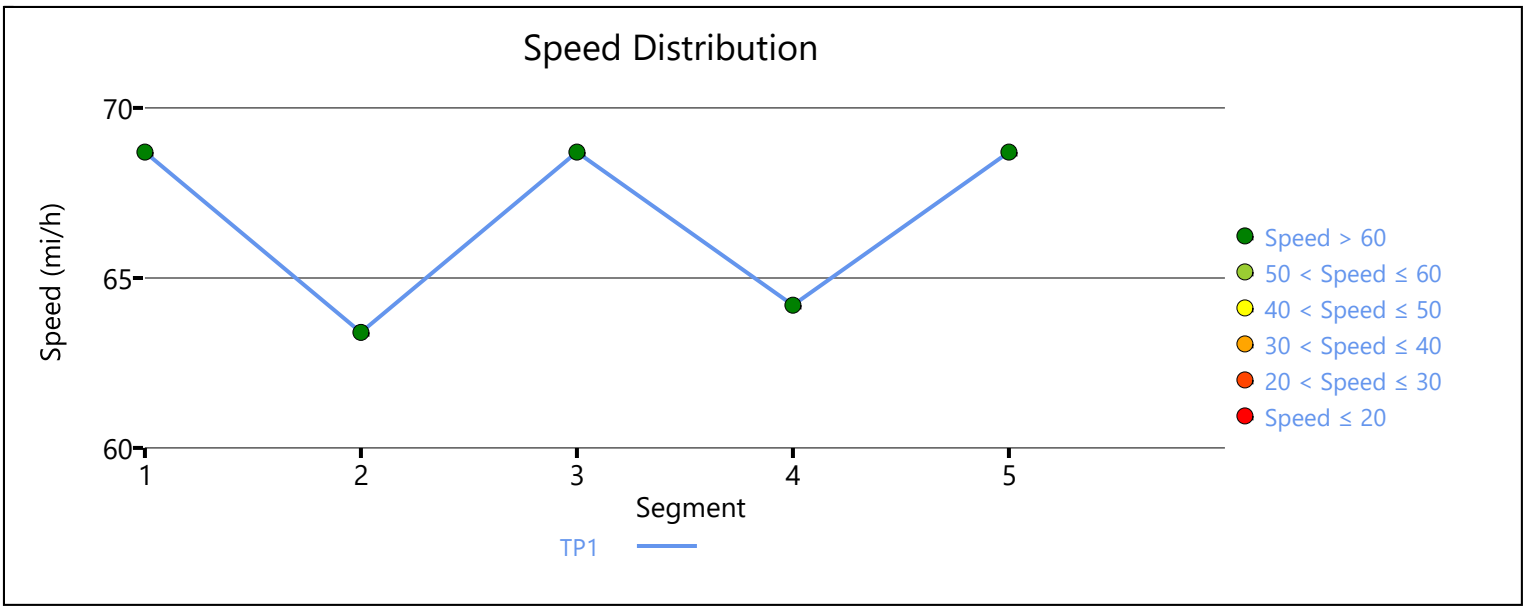
Segment 5: Basic

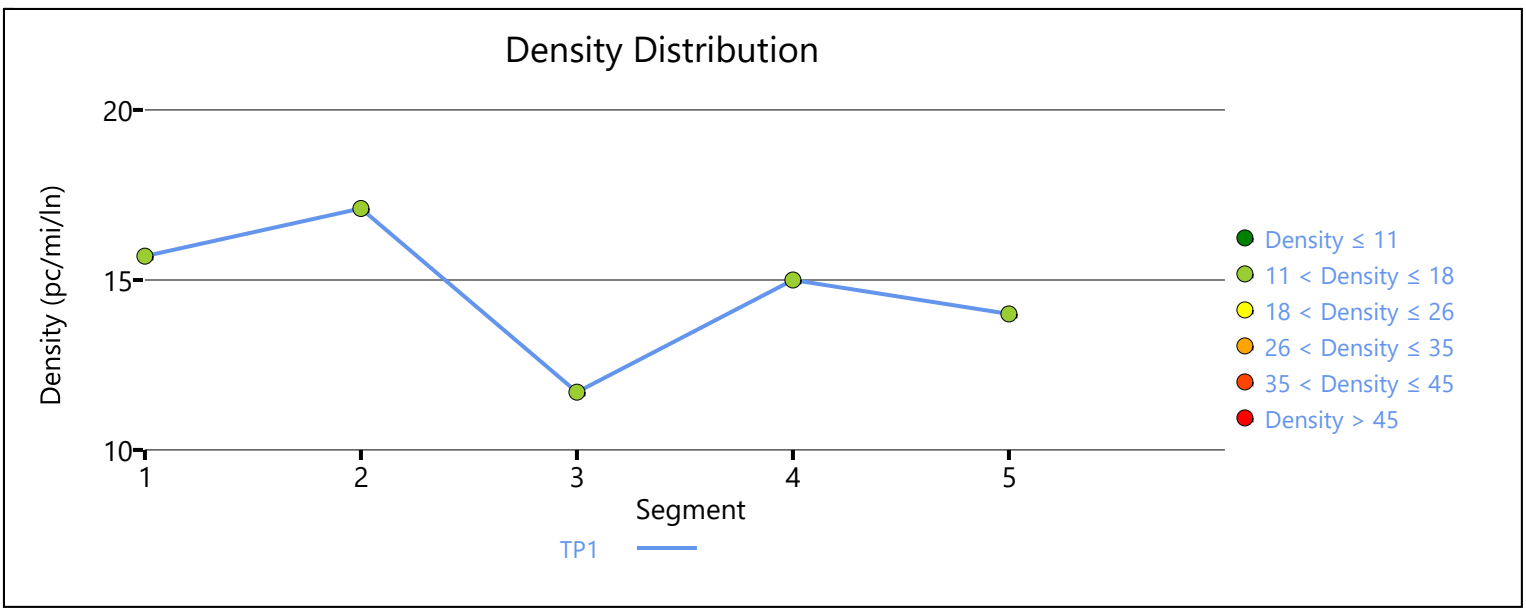
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2880	7161	0.40	68.7	14.0	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.4	14.9	14.4	2.1	B

Facility Overall Results			
Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	14.4
Average Travel Time, min	2.1	Density, pc/mi/ln	14.9







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3424	7161	0.48	68.7	16.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3424	799	7200	2100	0.48	0.38	63.5	59.6	18.0	21.5	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2628	7161	0.37	68.7	12.8	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3178	550	7200	2100	0.44	0.26	64.2	62.5	16.5	16.0	B

Segment 5: Basic

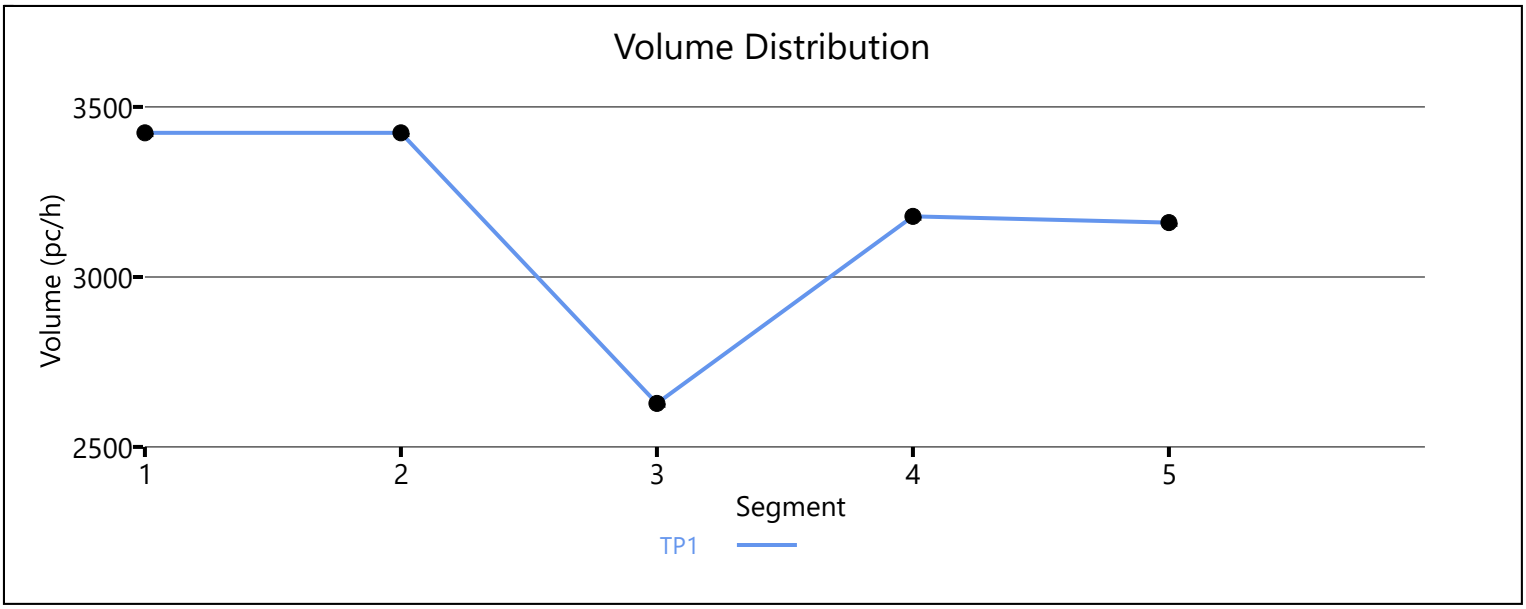
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3160	7161	0.44	68.7	15.3	B

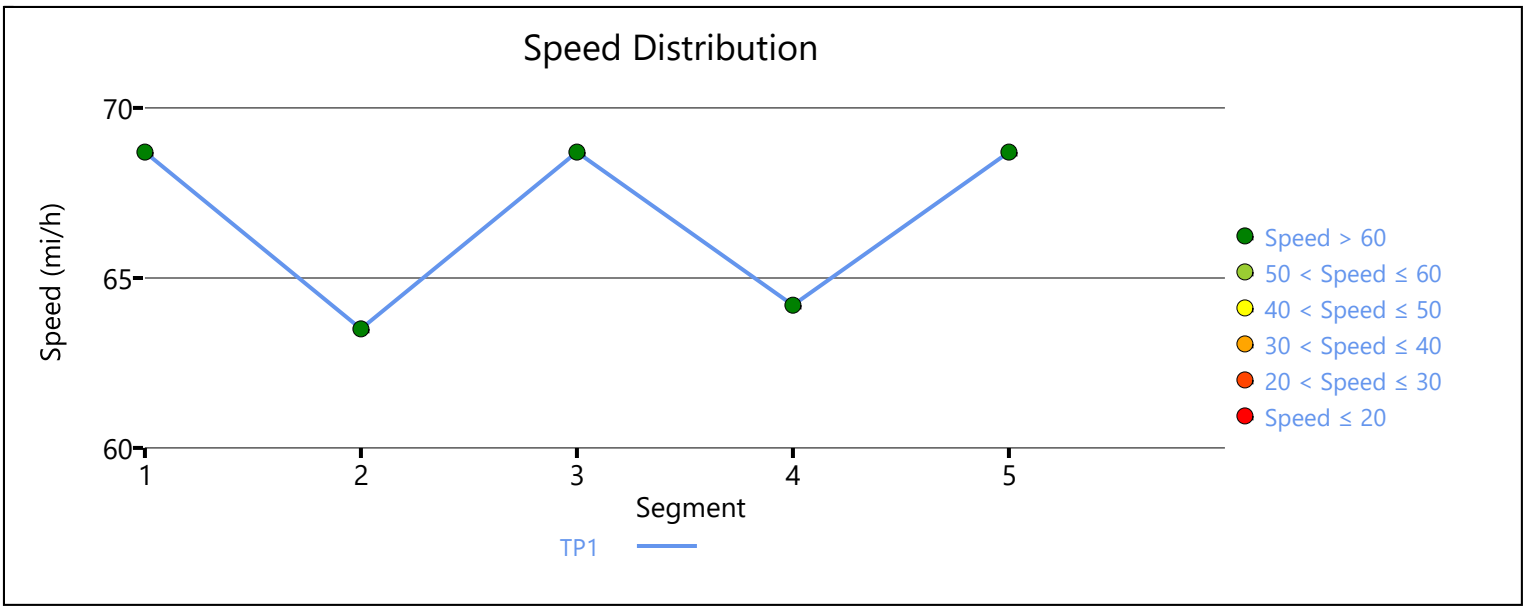
Facility Time Period Results

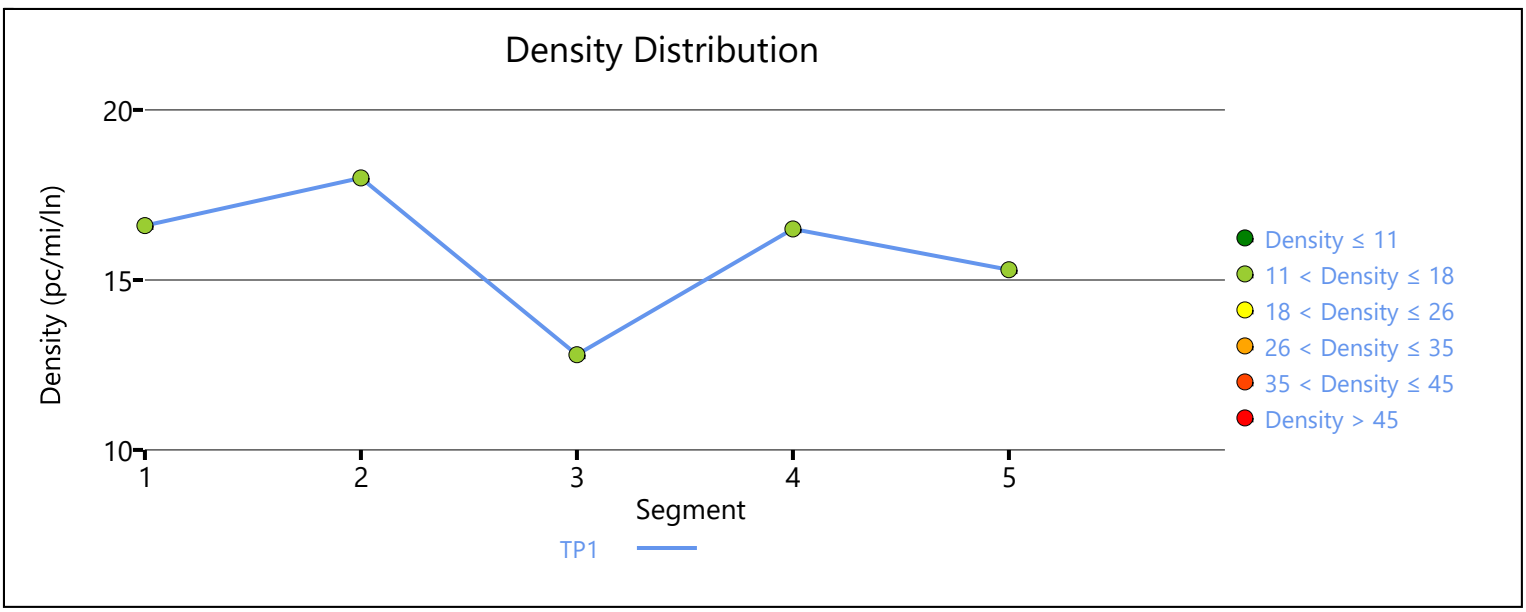
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	15.8	14.7	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.5	Density, veh/mi/ln	14.7
Average Travel Time, min	2.2	Density, pc/mi/ln	15.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2818	4764	0.59	68.0	20.7	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2818	2583	4800	2100	0.59	1.23	53.3	55.2	45.0	26.7	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	235	4764	0.05	67.3	1.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	501	266	4800	1900	0.11	0.14	61.1	61.1	4.1	8.1	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	501	4764	0.11	67.3	3.6	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	1878	1377	4800	2100	0.40	0.66	60.8	60.8	15.4	18.3	B

Segment 7: Basic

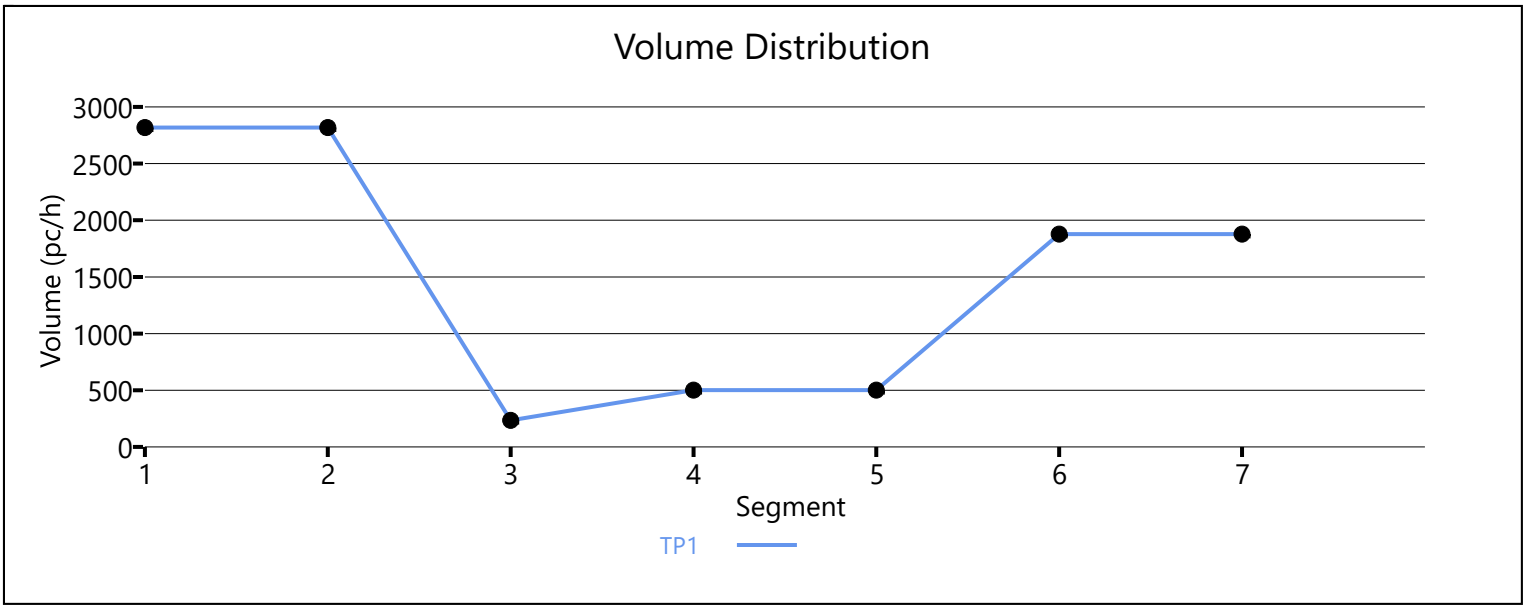
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1878	4764	0.40	68.2	13.4	B

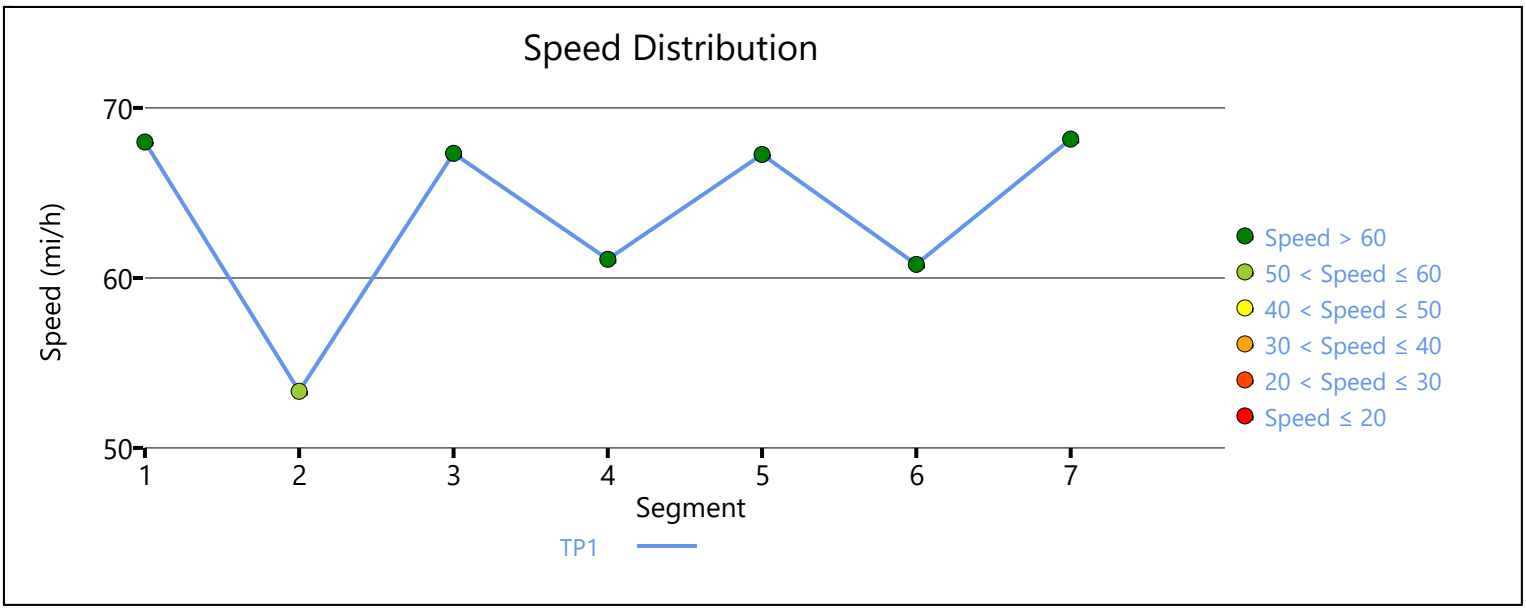
Facility Time Period Results

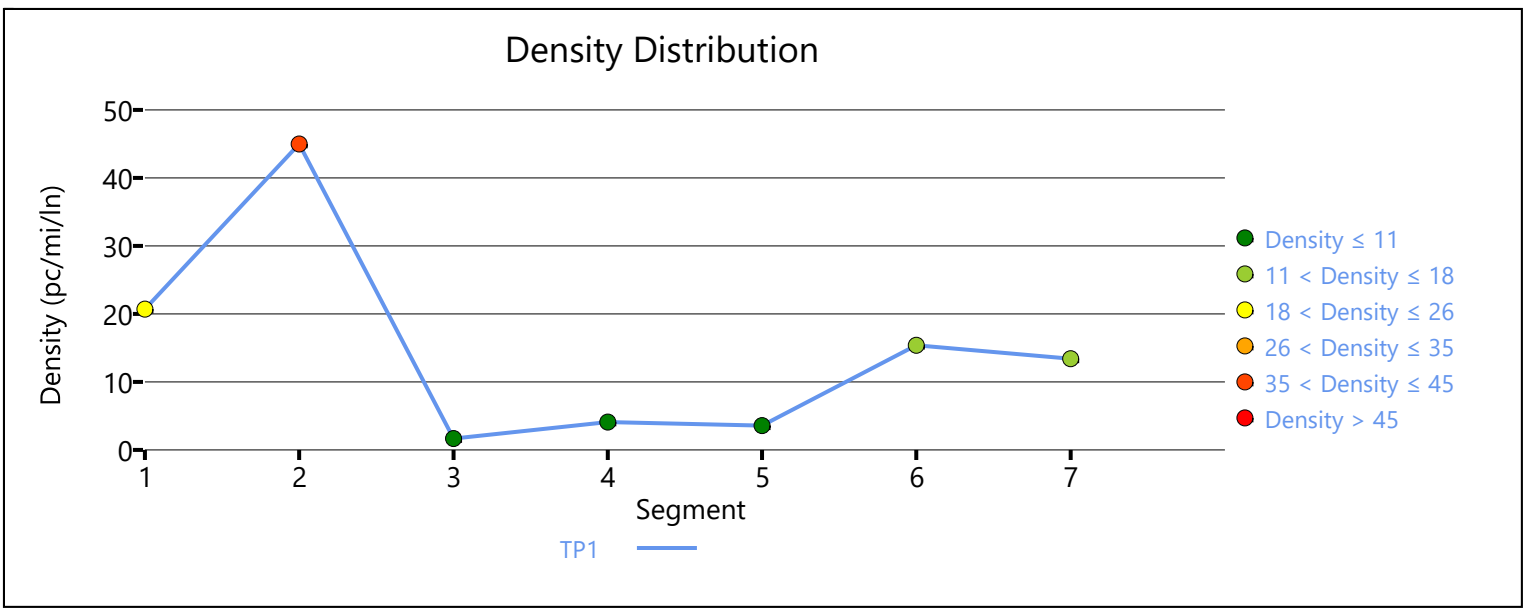
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	15.6	15.0	3.2	B

Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	15.0
Average Travel Time, min	3.2	Density, pc/mi/ln	15.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1702	4764	0.36	68.2	12.5	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	1702	1602	4800	2100	0.35	0.76	57.6	57.6	14.8	17.1	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	97	4764	0.02	68.2	0.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.962	1140	1043	4800	1900	0.24	0.55	61.0	61.0	9.3	12.7	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1154	4764	0.24	68.2	8.5	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2440	1298	4800	2100	0.51	0.62	60.3	60.3	20.2	22.7	C

Segment 7: Basic

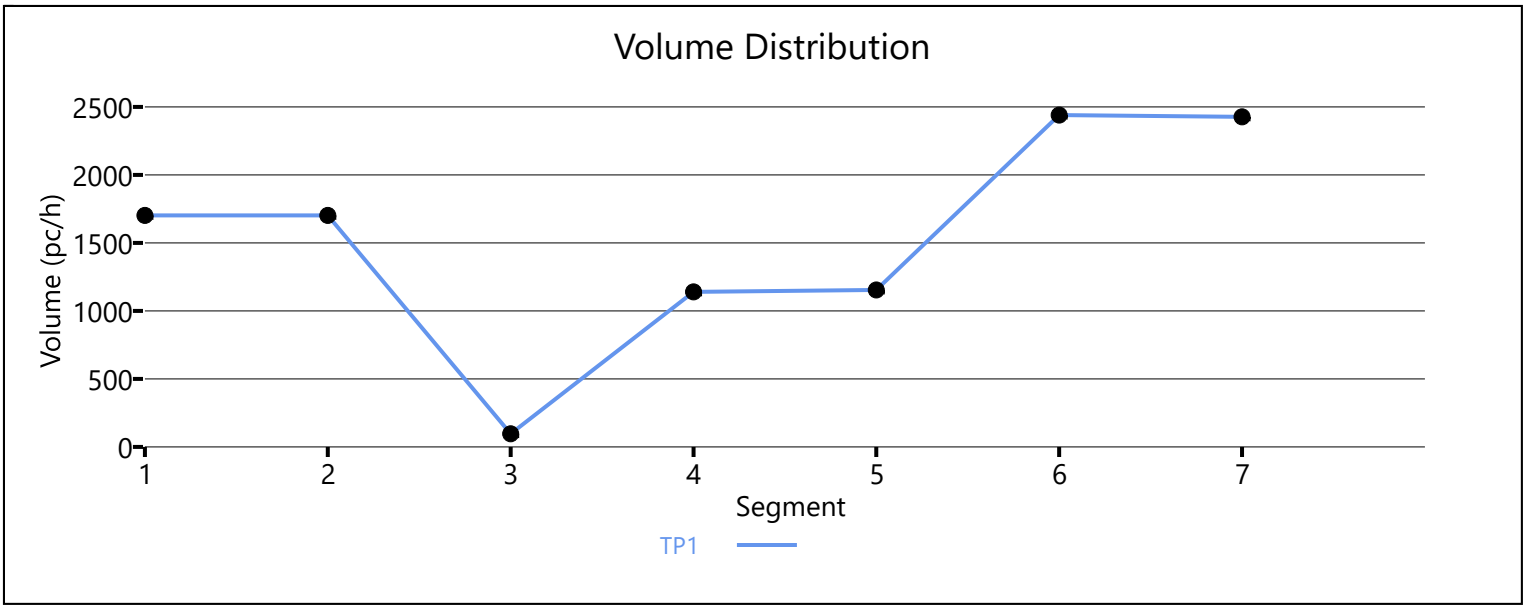
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2427	4764	0.51	68.2	17.8	B

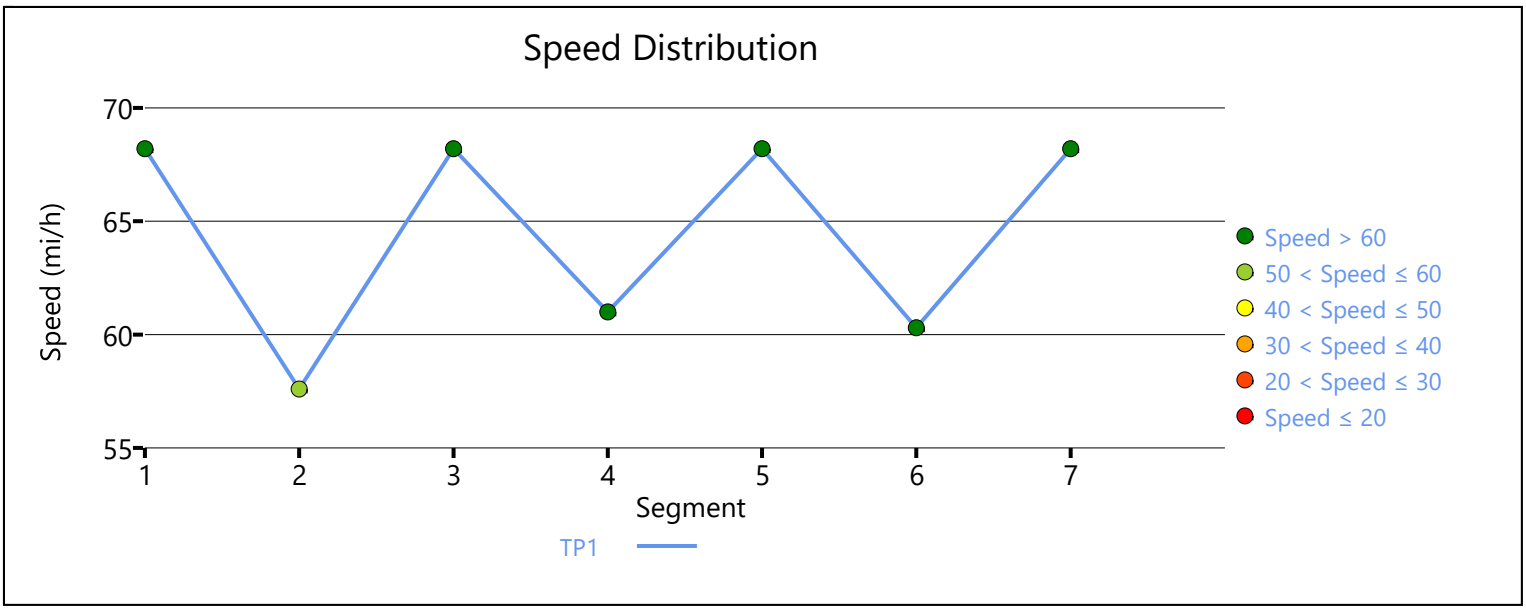
Facility Time Period Results

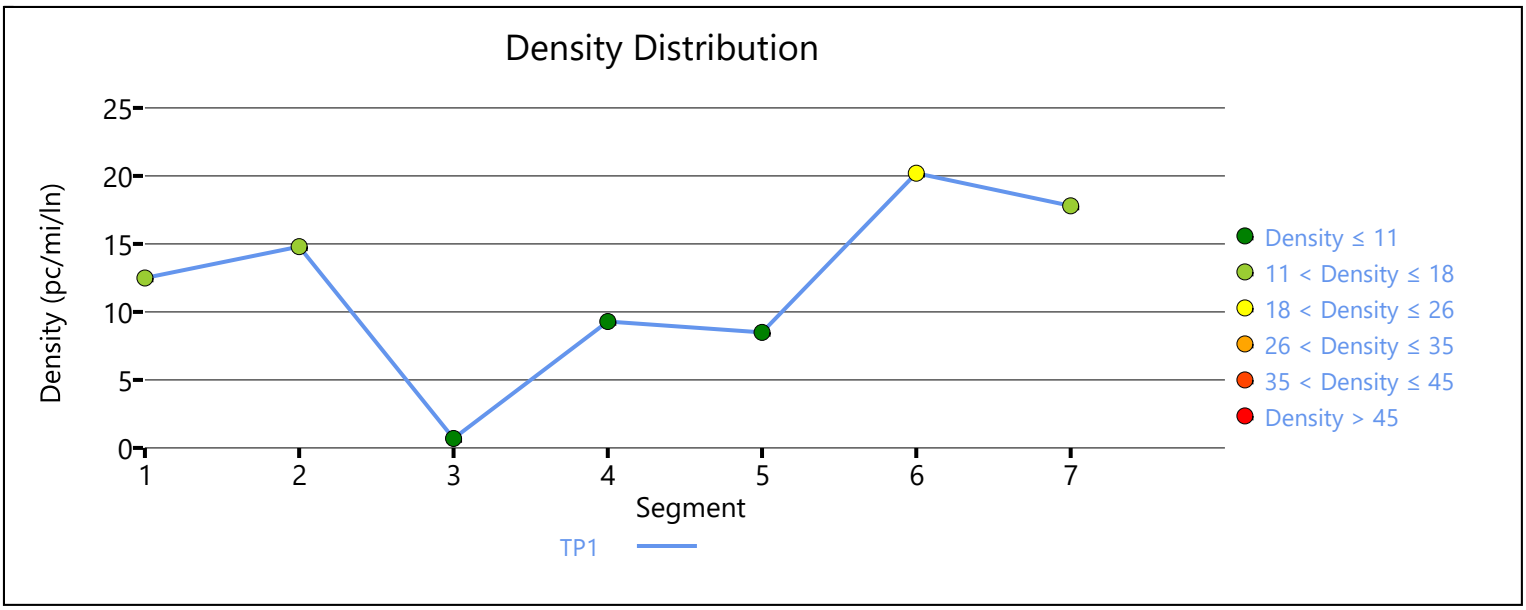
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	13.1	12.6	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	12.6
Average Travel Time, min	3.1	Density, pc/mi/ln	13.1







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APPENDIX 7.8:

OPENING YEAR CUMULATIVE (2025) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2493	7161	0.35	68.7	12.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2493	580	7200	2100	0.35	0.28	63.7	60.2	13.0	16.3	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1913	7161	0.27	68.7	9.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2763	850	7200	2100	0.38	0.40	64.1	62.4	14.4	15.4	B

Segment 5: Basic

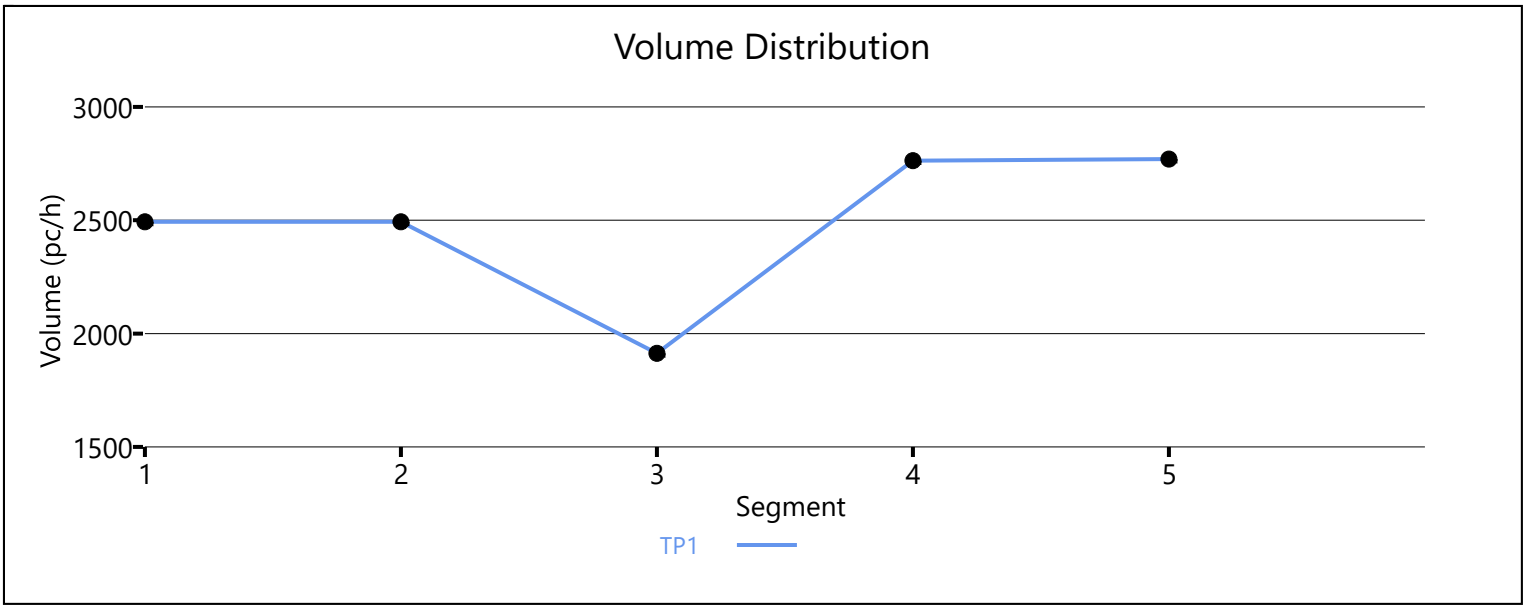
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2770	7161	0.39	68.7	13.4	B

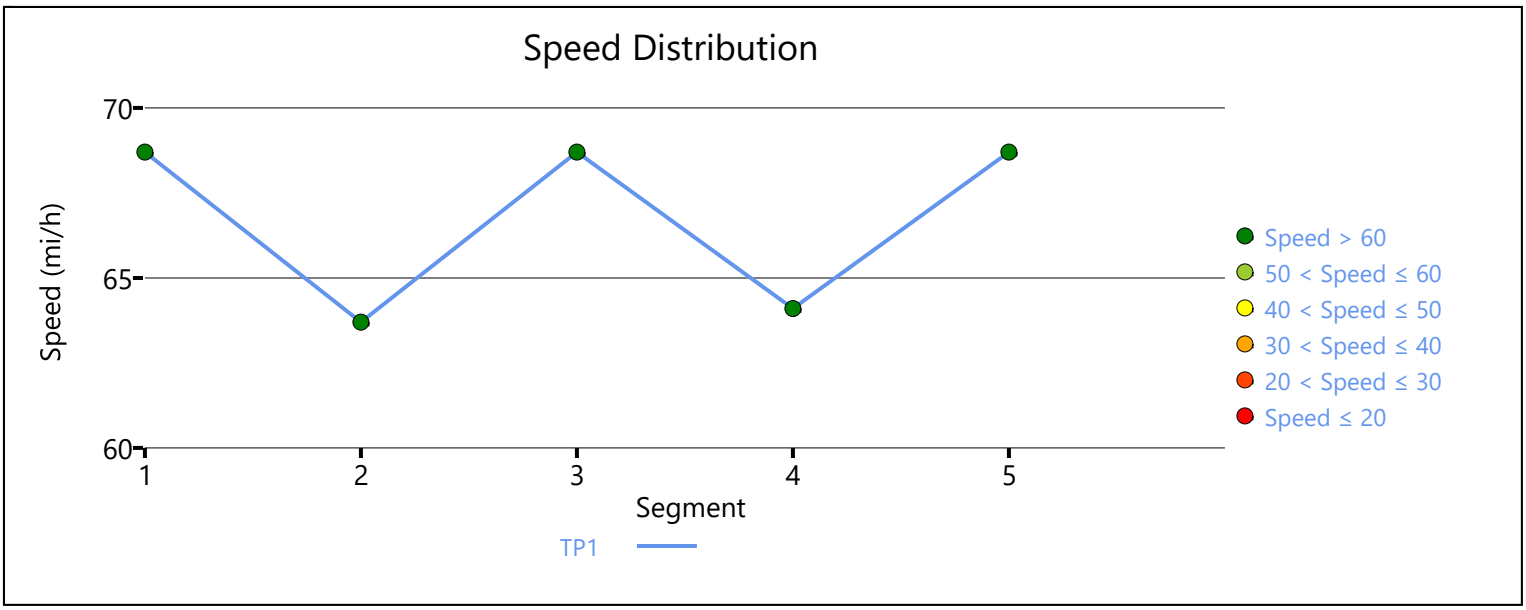
Facility Time Period Results

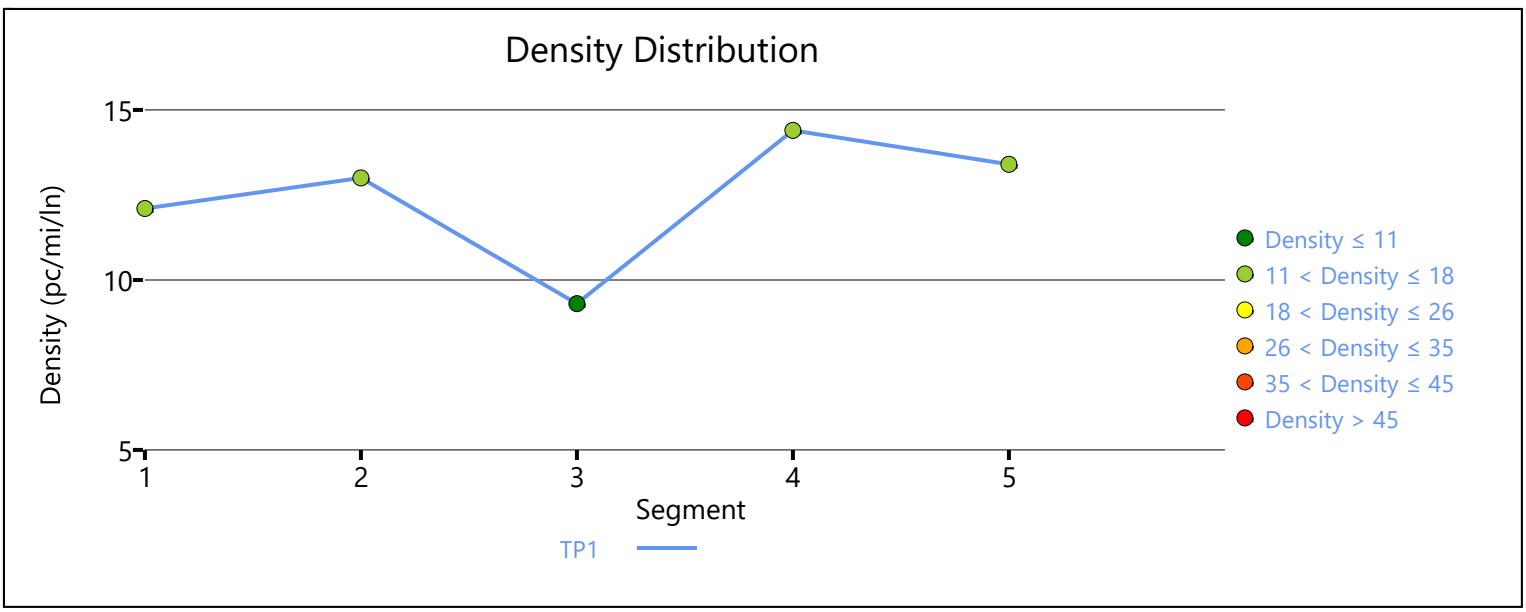
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	12.3	11.8	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	11.8
Average Travel Time, min	2.1	Density, pc/mi/ln	12.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2820	7161	0.39	68.7	13.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2820	836	7200	2100	0.39	0.40	63.1	59.6	14.9	18.5	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	1997	7161	0.28	68.7	9.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2733	736	7200	2100	0.38	0.35	64.3	62.6	14.2	14.4	B

Segment 5: Basic

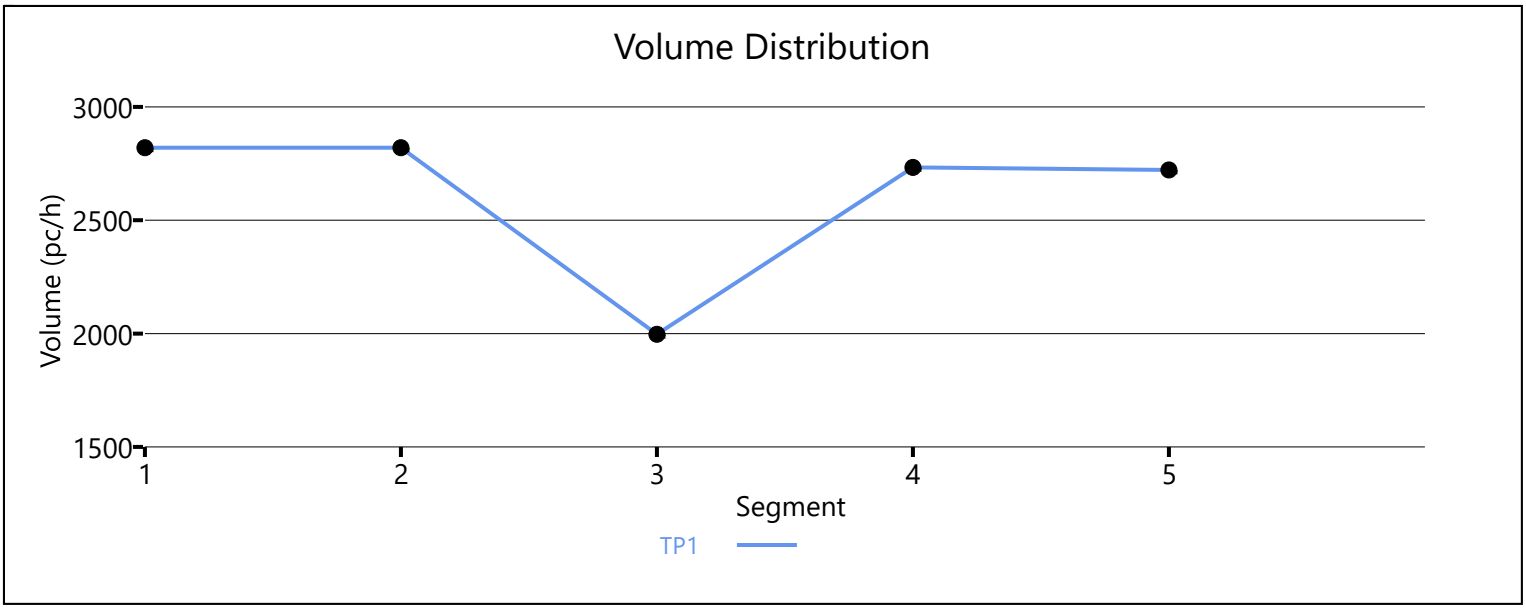
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2722	7161	0.38	68.7	13.2	B

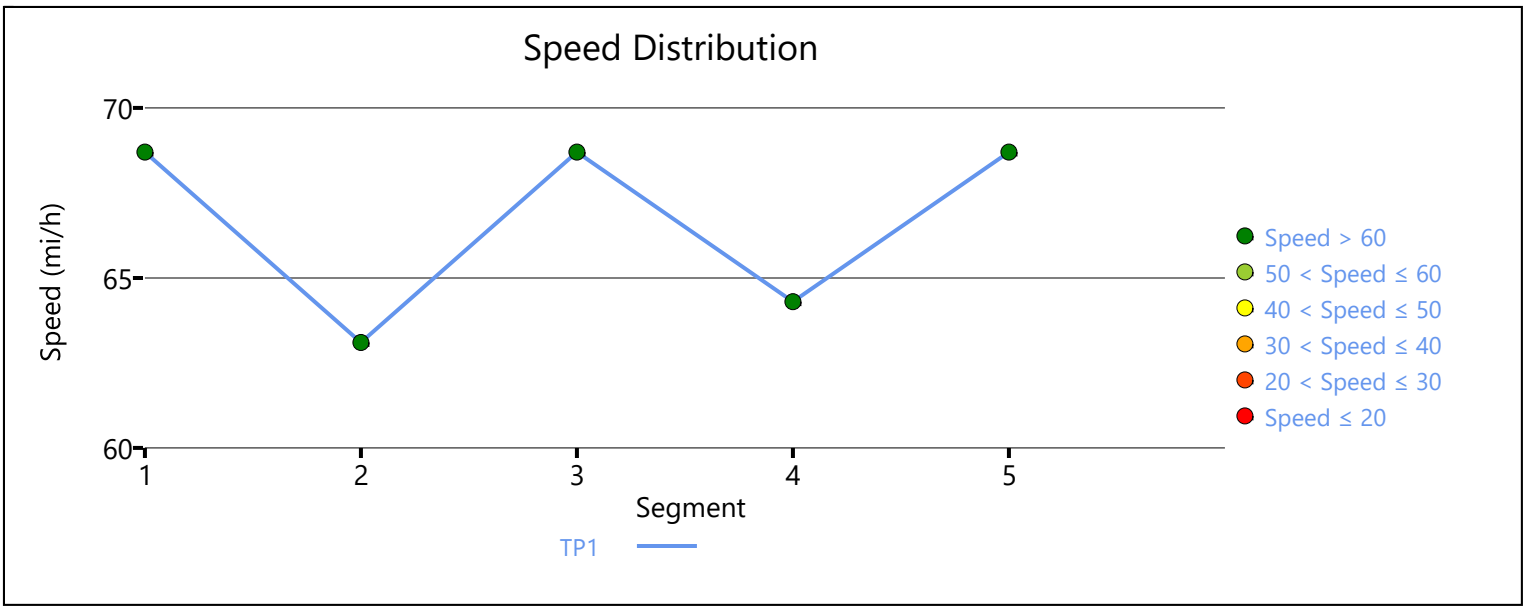
Facility Time Period Results

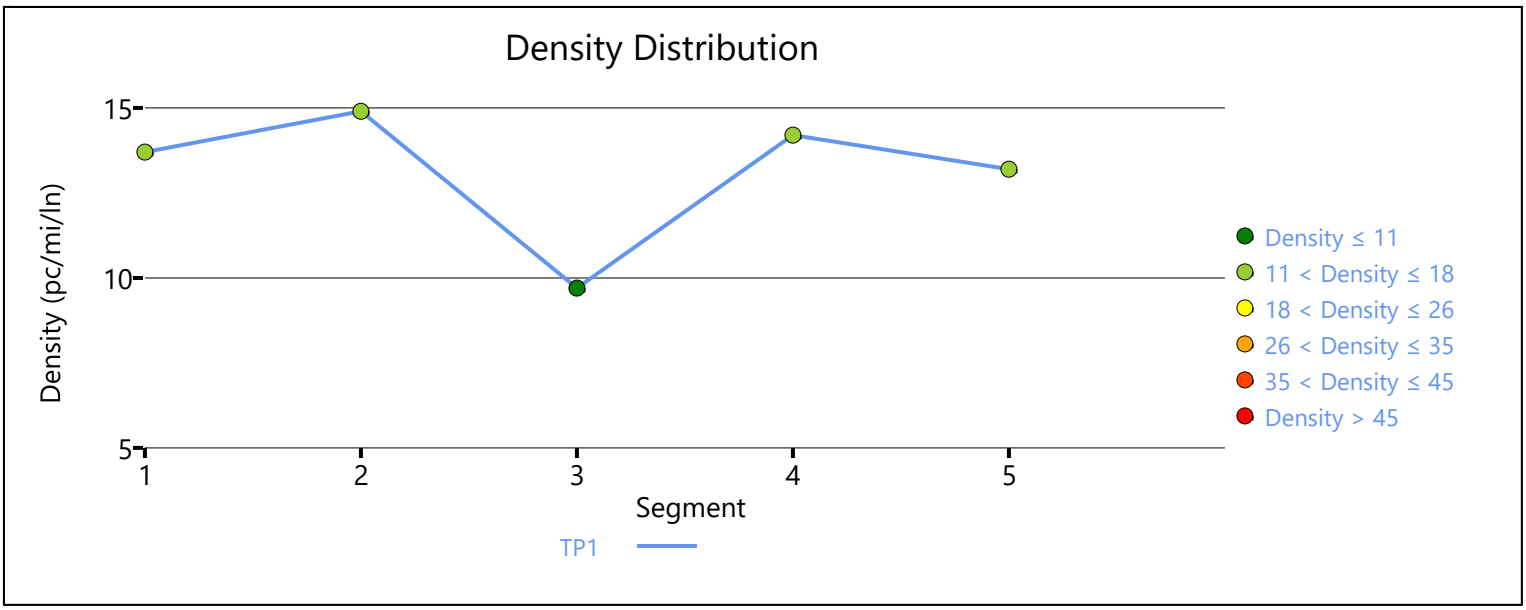
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	13.2	12.2	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	12.2
Average Travel Time, min	2.2	Density, pc/mi/ln	13.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	2719	4764	0.57	68.1	20.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.935	2719	2247	4800	2100	0.57	1.07	53.3	56.0	45.0	25.8	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	472	4764	0.10	67.3	3.4	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	727	255	4800	1900	0.15	0.13	61.1	61.1	5.9	9.8	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	727	4764	0.15	67.3	5.2	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.943	1533	806	4800	2100	0.32	0.38	61.0	61.0	12.6	15.9	B

Segment 7: Basic

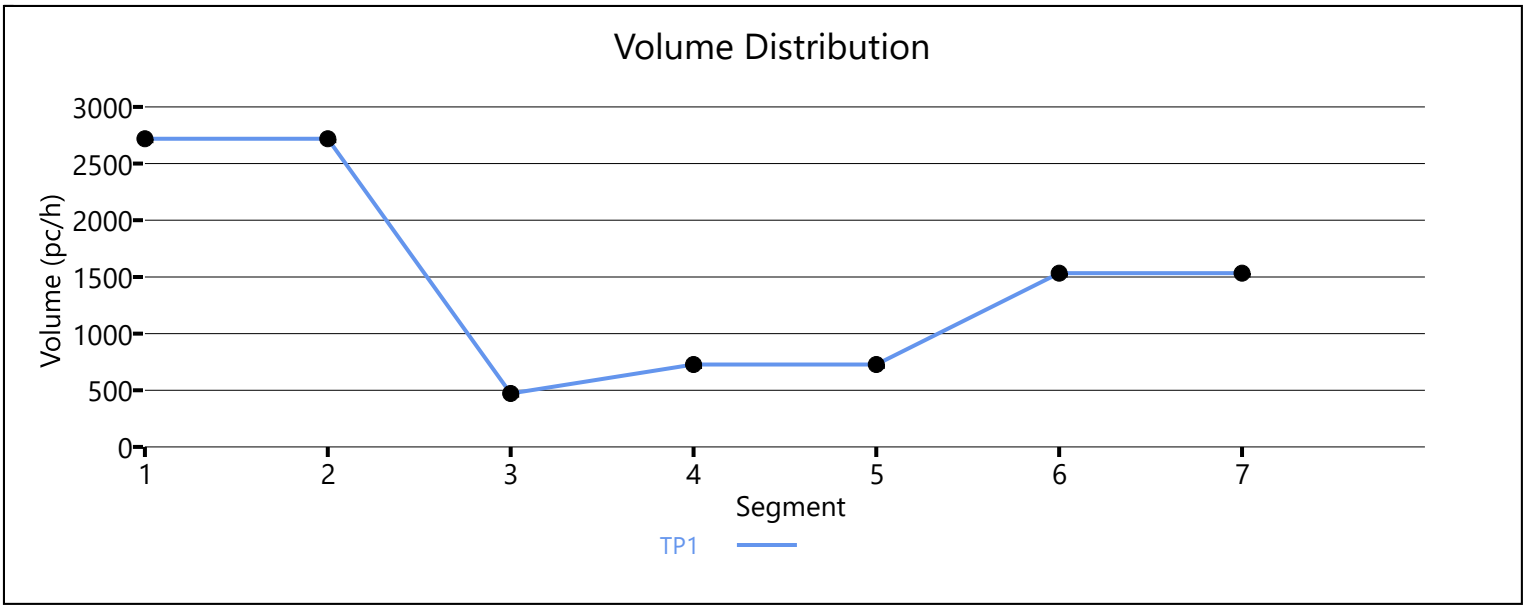
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1533	4764	0.32	68.2	11.0	A

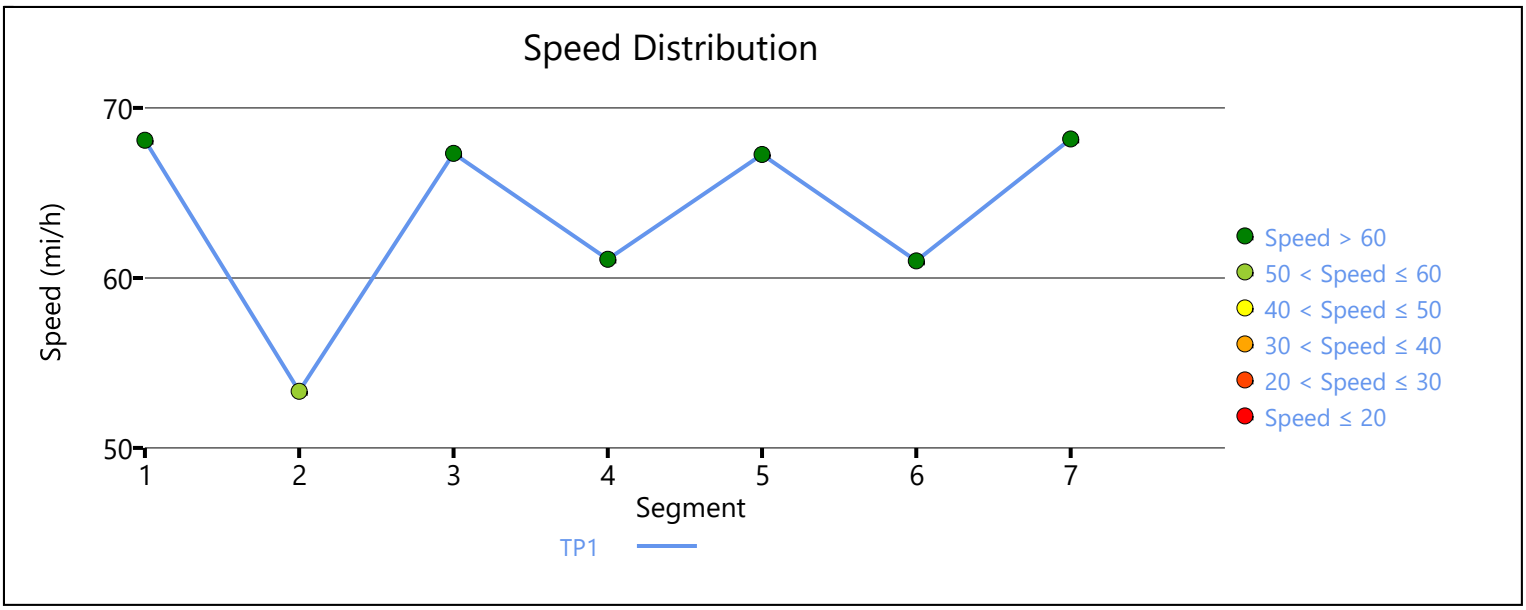
Facility Time Period Results

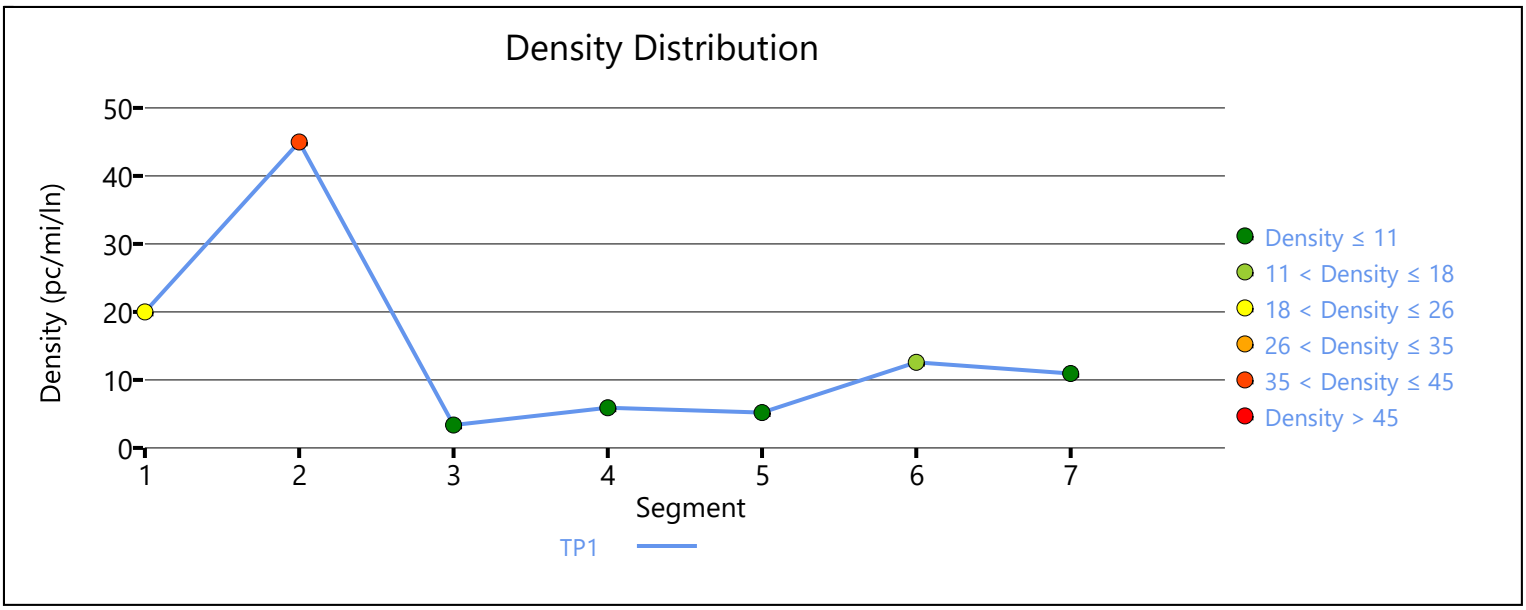
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	14.8	14.1	3.2	B

Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	14.1
Average Travel Time, min	3.2	Density, pc/mi/ln	14.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	1877	4764	0.39	68.2	13.8	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.926	1877	1695	4800	2100	0.39	0.81	57.4	57.4	16.4	18.6	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	168	4764	0.04	68.2	1.2	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.935	875	707	4800	1900	0.18	0.37	61.0	61.0	7.2	10.8	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	871	4764	0.18	68.2	6.4	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	2085	1214	4800	2100	0.43	0.58	60.6	60.6	17.2	20.0	B

Segment 7: Basic

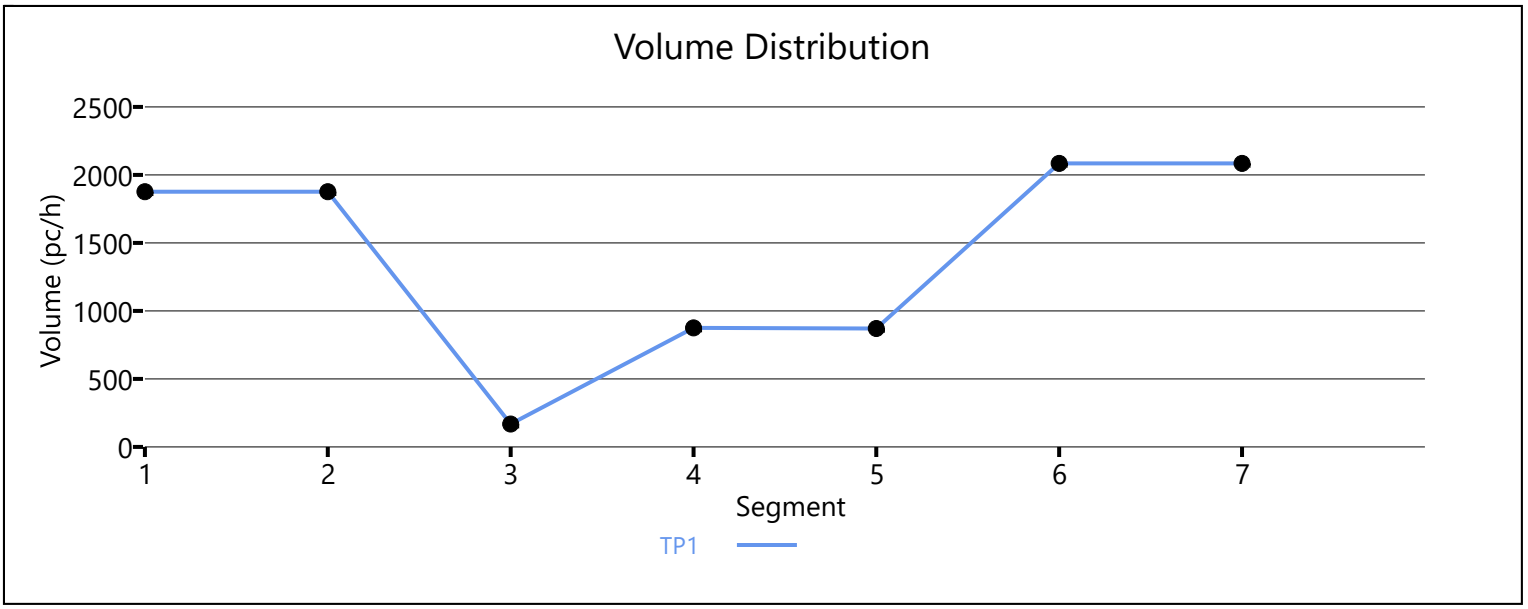
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	2085	4764	0.44	68.2	15.3	B

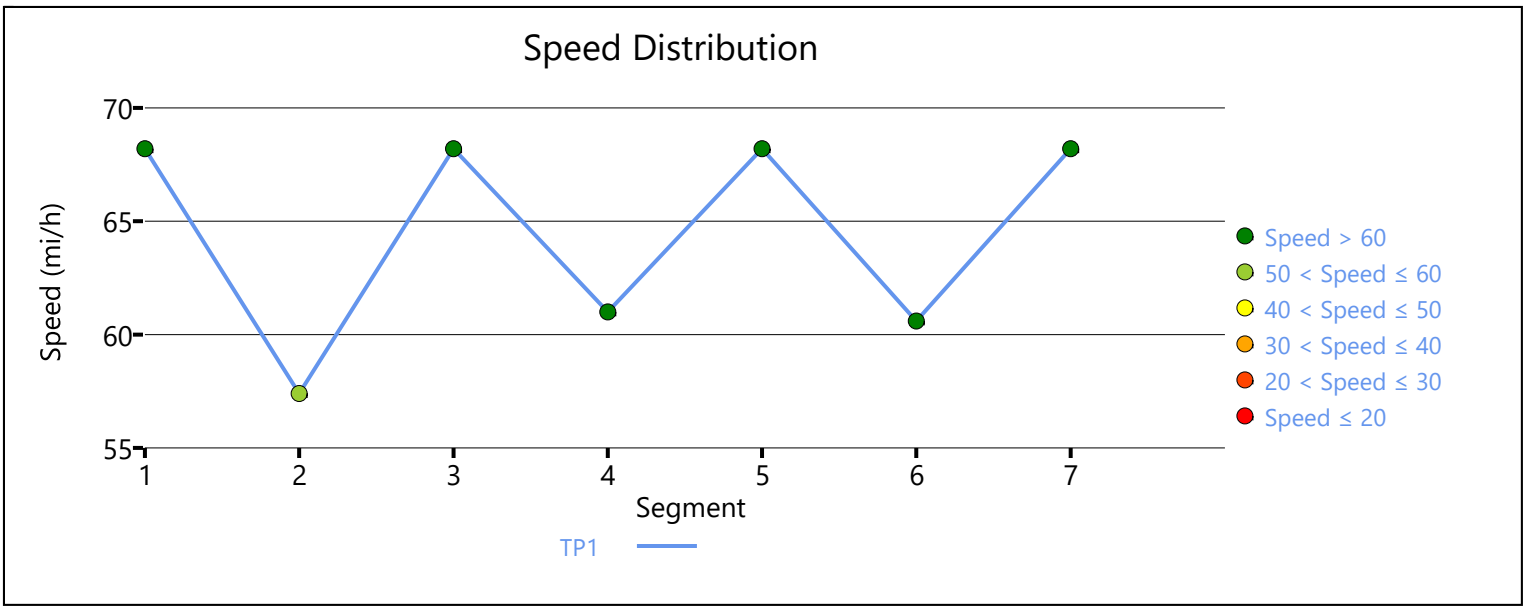
Facility Time Period Results

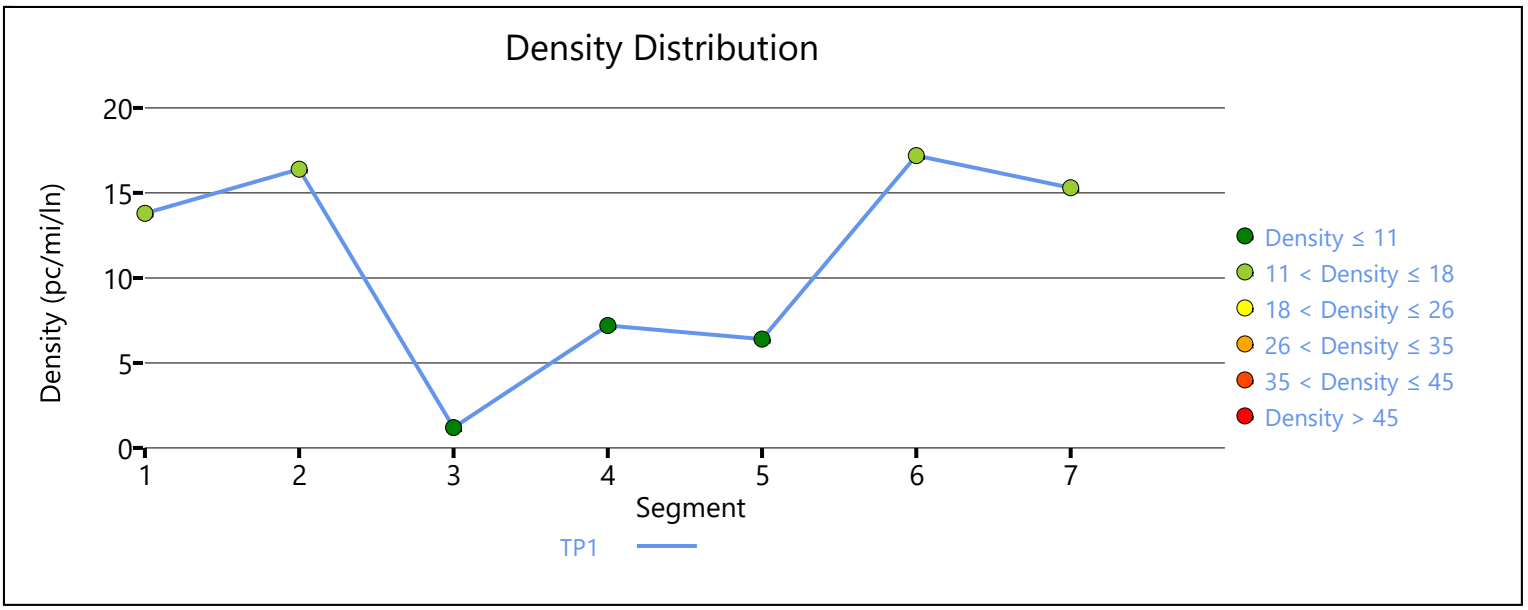
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	12.4	11.7	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	11.7
Average Travel Time, min	3.1	Density, pc/mi/ln	12.4







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3294	7161	0.46	68.7	16.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3294	884	7200	2100	0.46	0.42	63.2	59.4	17.4	21.1	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2416	7161	0.34	68.7	11.7	B

Segment 4: Merge

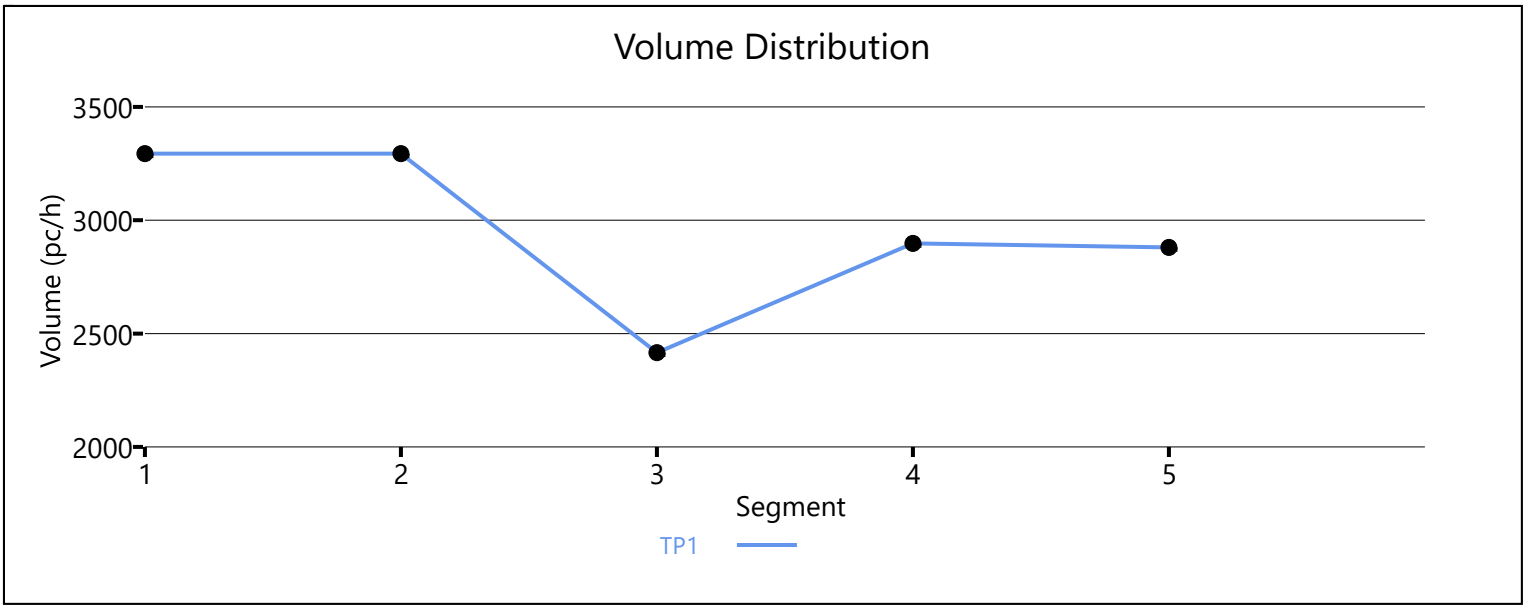
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2898	482	7200	2100	0.40	0.23	64.2	62.4	15.0	15.1	B

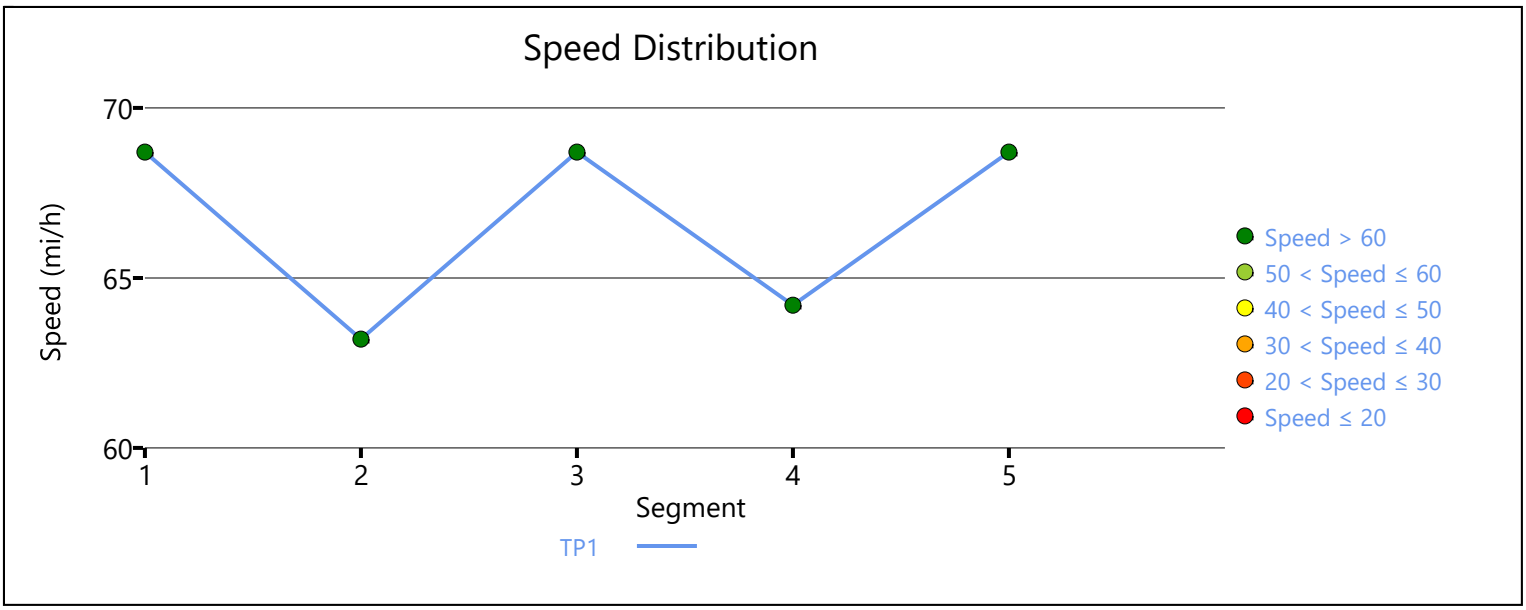
Segment 5: Basic

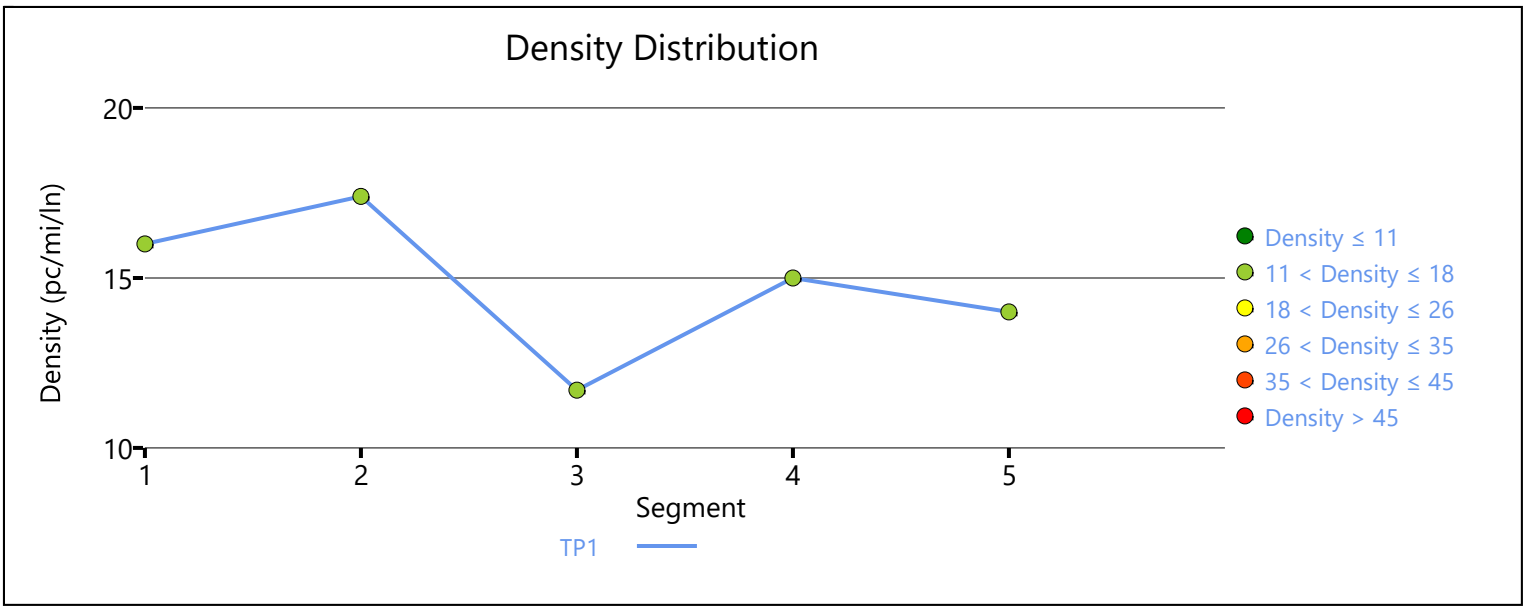
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2880	7161	0.40	68.7	14.0	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.4	15.1	14.6	2.1	B

Facility Overall Results			
Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	14.6
Average Travel Time, min	2.1	Density, pc/mi/ln	15.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3424	7161	0.48	68.7	16.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3424	799	7200	2100	0.48	0.38	63.5	59.6	18.0	21.5	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2628	7161	0.37	68.7	12.8	B

Segment 4: Merge

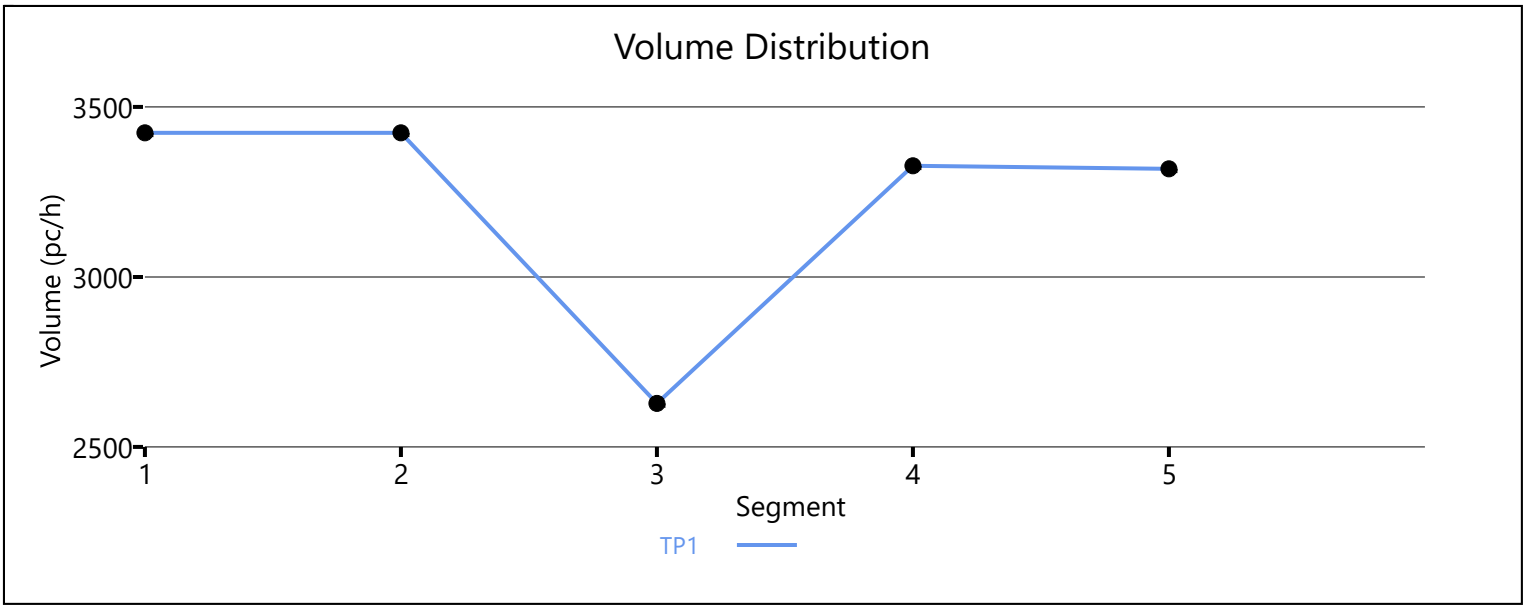
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3327	699	7200	2100	0.46	0.33	64.0	62.3	17.3	17.1	B

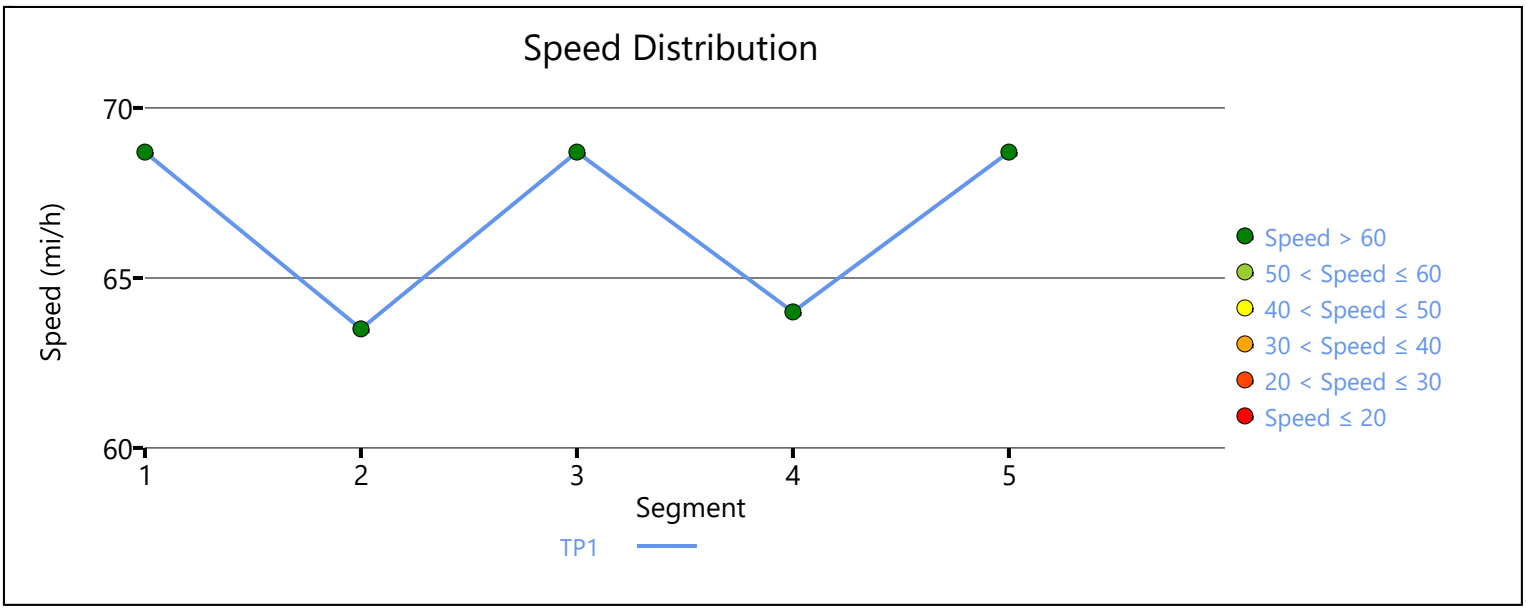
Segment 5: Basic

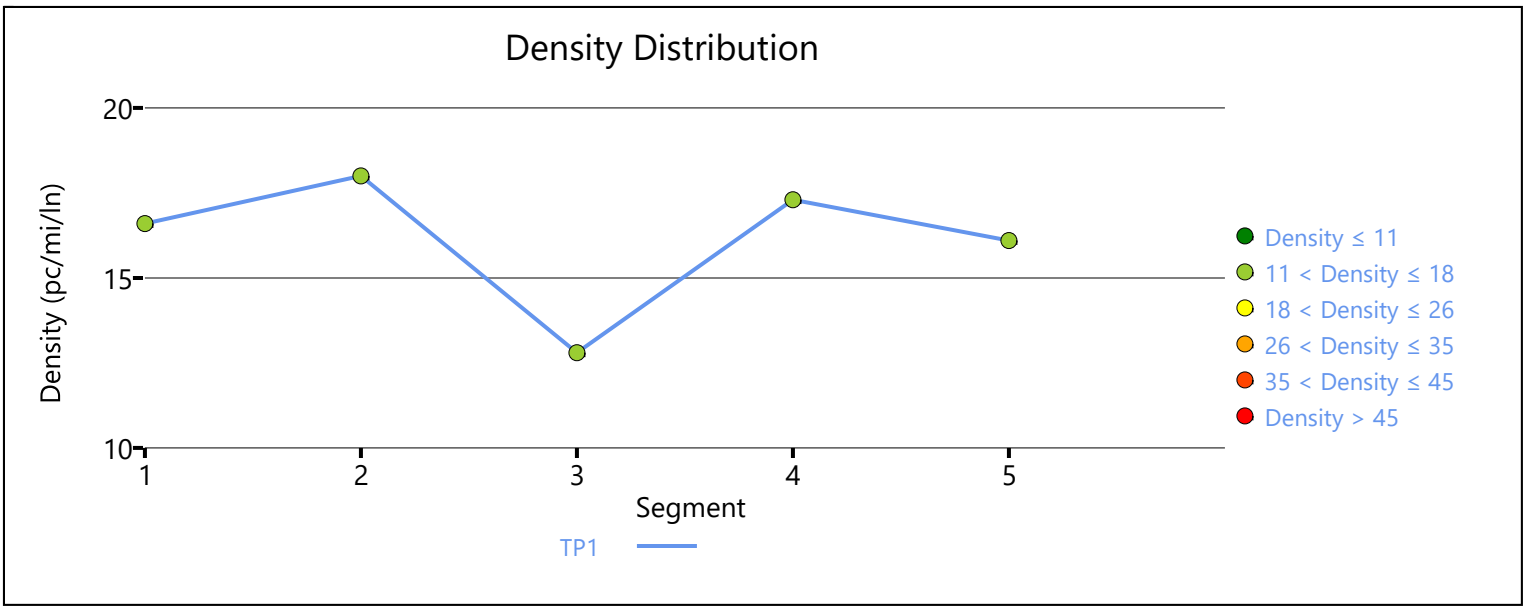
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3318	7161	0.46	68.7	16.1	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.4	16.2	15.1	2.2	B

Facility Overall Results			
Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	15.1
Average Travel Time, min	2.2	Density, pc/mi/ln	16.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	2954	4764	0.62	67.7	21.8	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	2954	2689	4800	2100	0.62	1.28	53.3	54.9	45.0	27.9	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	265	4764	0.05	67.3	1.9	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	531	266	4800	1900	0.11	0.14	61.1	61.1	4.3	8.3	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	531	4764	0.11	67.3	3.8	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.926	2237	1706	4800	2100	0.46	0.81	60.5	60.5	18.5	21.0	C

Segment 7: Basic

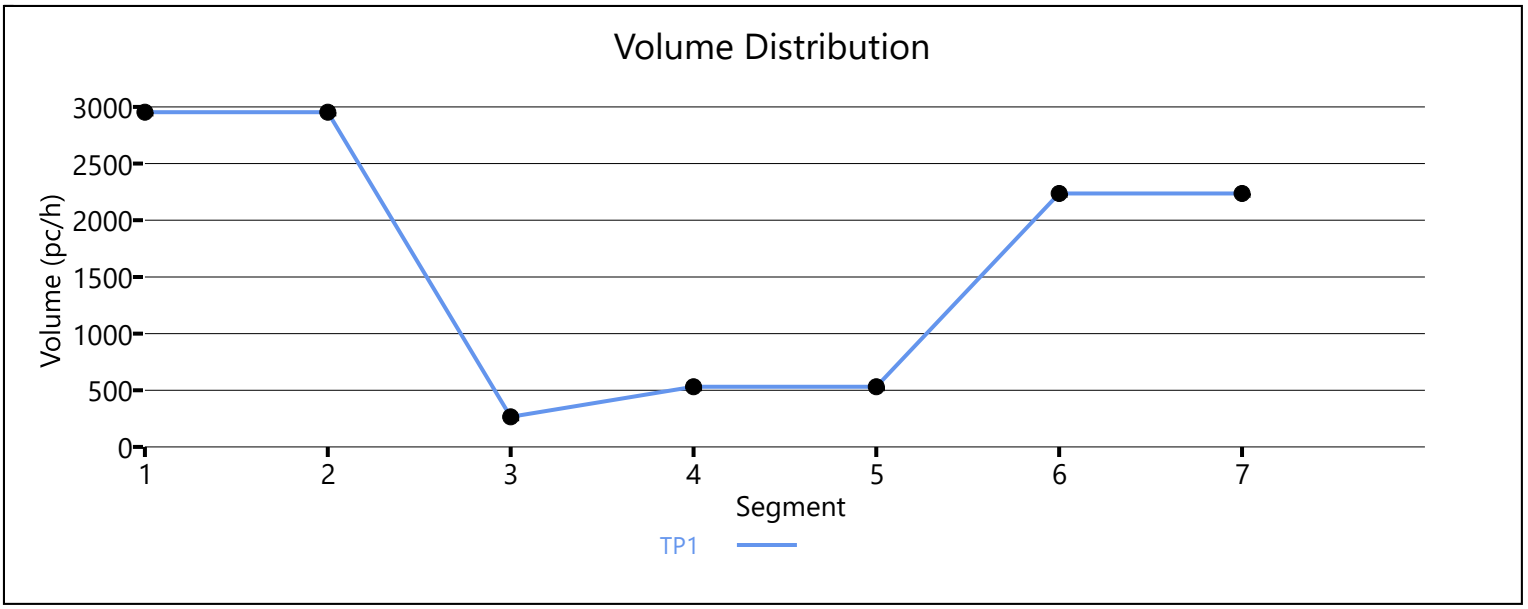
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	2237	4764	0.47	68.2	16.0	B

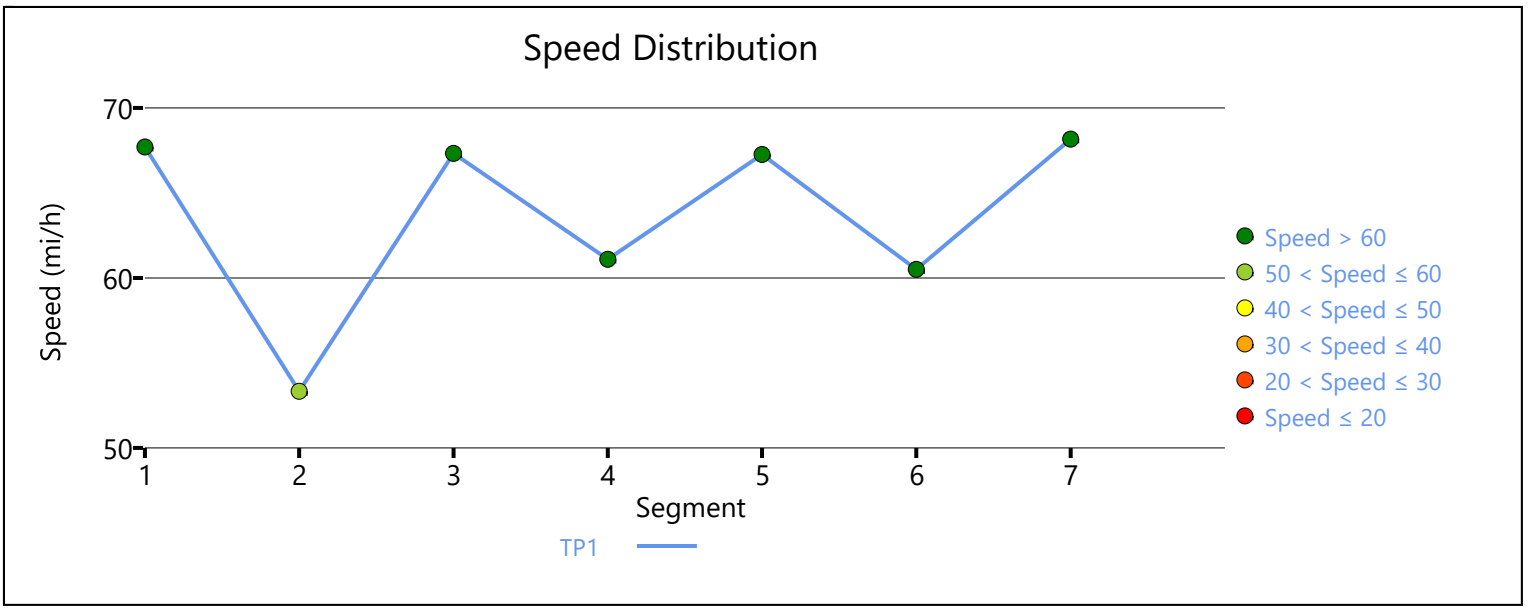
Facility Time Period Results

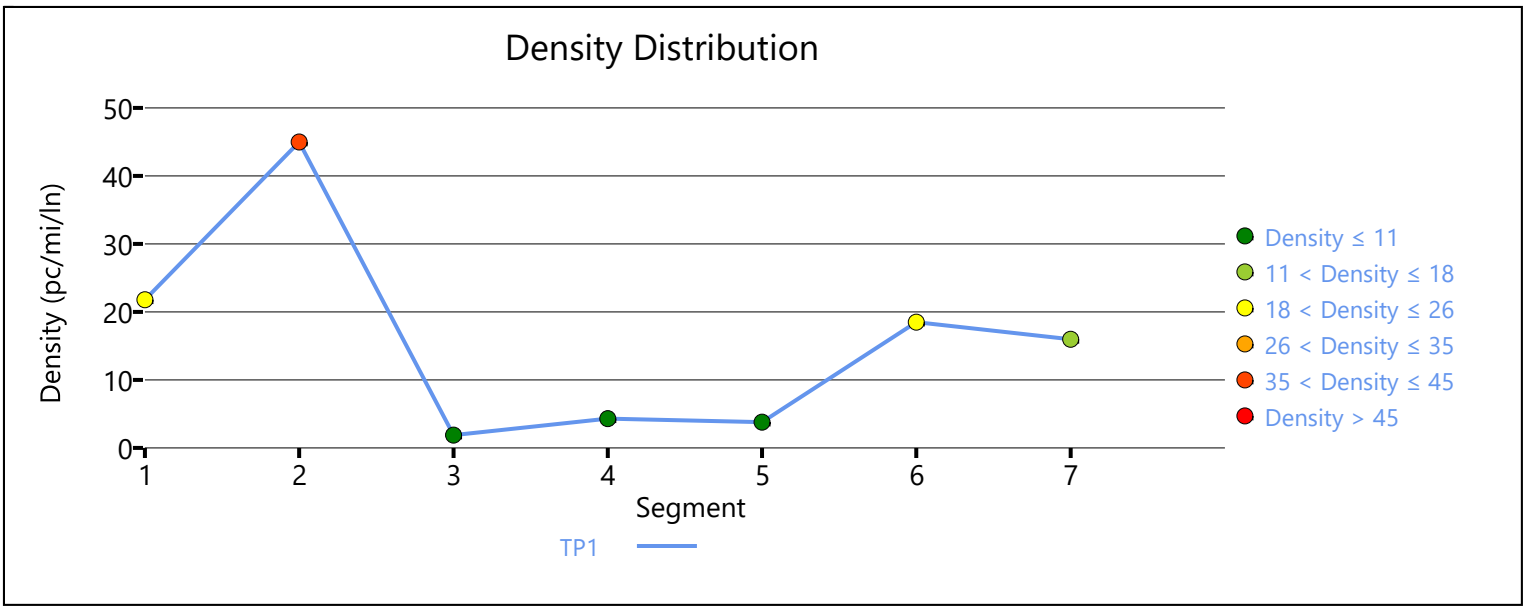
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.1	17.0	16.1	3.2	B

Facility Overall Results

Space Mean Speed, mi/h	65.1	Density, veh/mi/ln	16.1
Average Travel Time, min	3.2	Density, pc/mi/ln	17.0







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
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3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1783	4764	0.37	68.2	13.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.943	1783	1699	4800	2100	0.37	0.81	57.4	57.4	15.5	17.8	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	97	4764	0.02	68.2	0.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.926	1535	1438	4800	1900	0.32	0.76	60.8	60.8	12.6	15.6	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	1541	4764	0.32	68.2	11.3	B

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.952	2839	1298	4800	2100	0.59	0.62	59.6	59.6	23.8	25.8	C

Segment 7: Basic

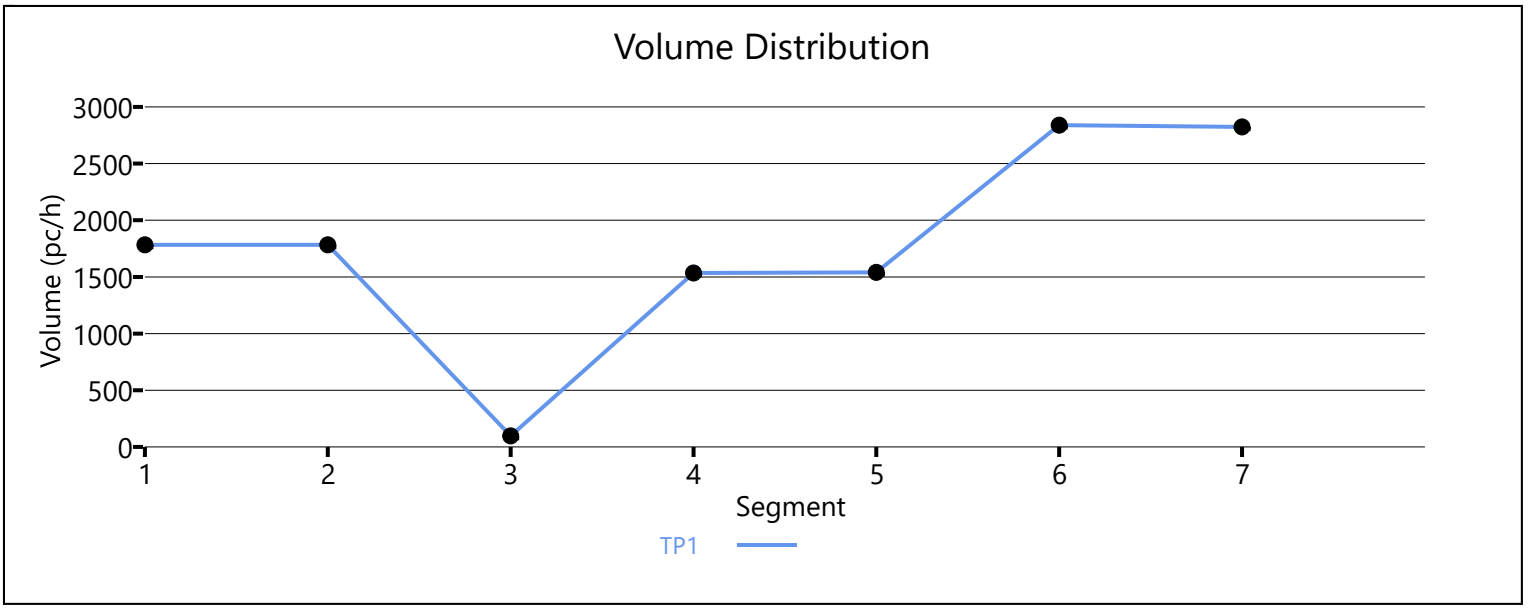
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	2824	4764	0.59	68.0	20.8	C

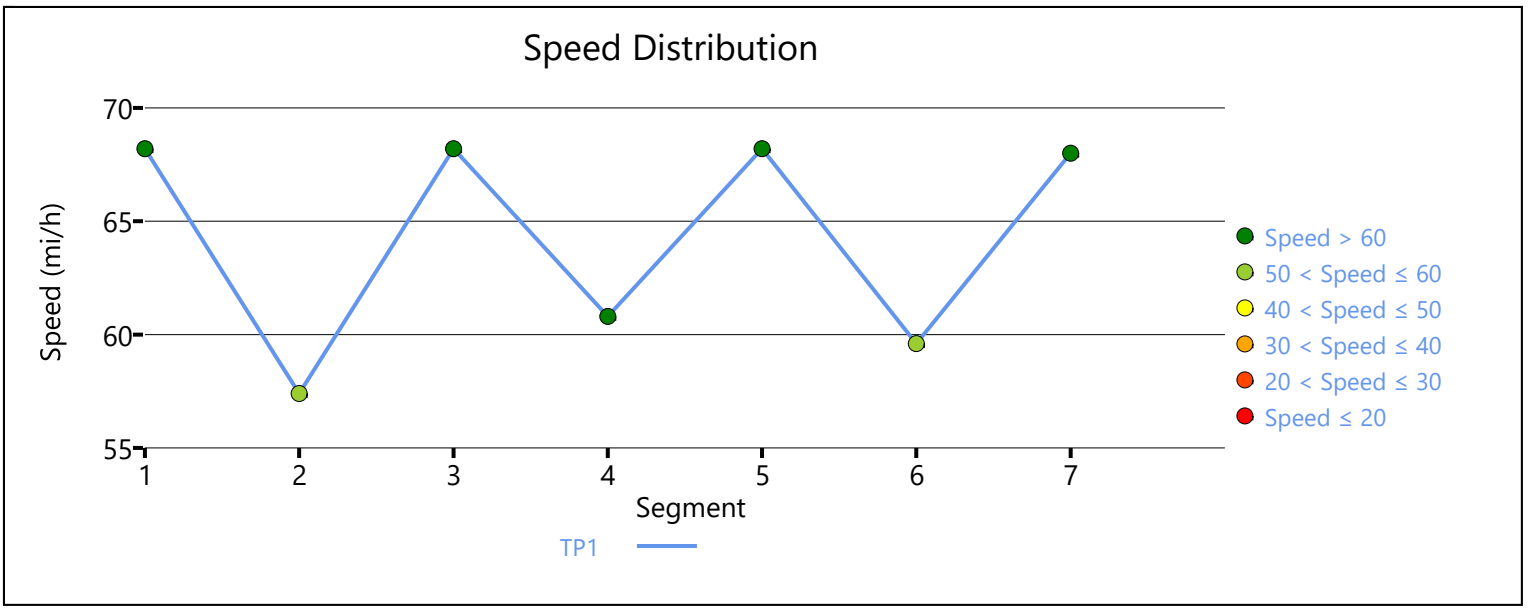
Facility Time Period Results

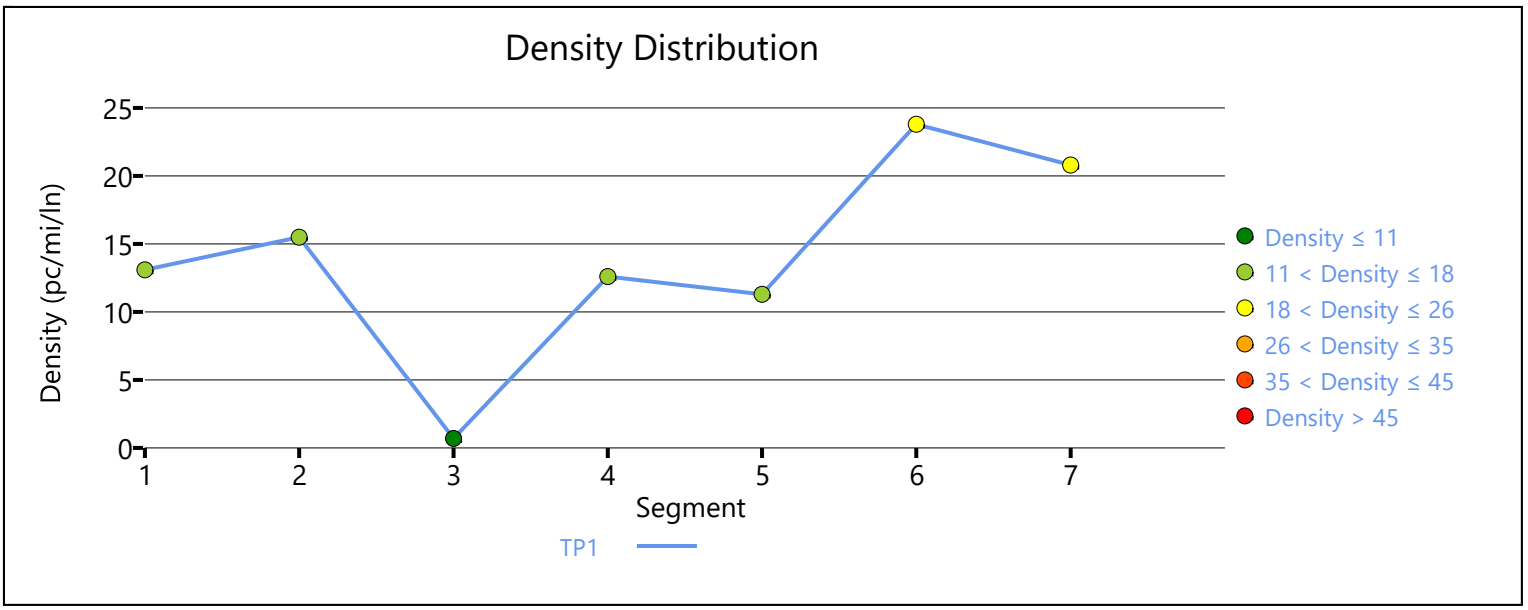
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.5	14.9	14.1	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.5	Density, veh/mi/ln	14.1
Average Travel Time, min	3.1	Density, pc/mi/ln	14.9





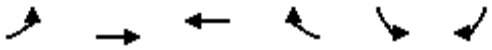


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APPENDIX 7.9:

OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

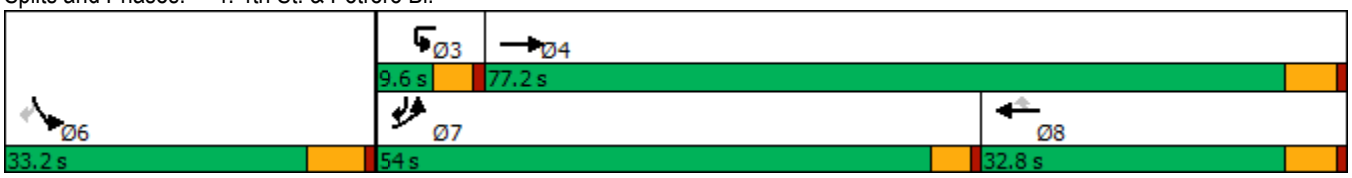
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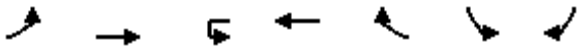


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	53	17	39	29	193	214	
Future Volume (vph)	53	17	39	29	193	214	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	54.0	77.2	32.8	32.8	33.2	54.0	9.6
Total Split (%)	45.0%	64.3%	27.3%	27.3%	27.7%	45.0%	8%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effct Green (s)	9.6	18.8	13.1	13.1	13.1	32.1	
Actuated g/C Ratio	0.21	0.42	0.29	0.29	0.29	0.71	
v/c Ratio	0.10	0.03	0.10	0.08	0.27	0.24	
Control Delay	22.5	7.9	14.8	6.4	14.6	1.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	22.5	7.9	14.8	6.4	14.6	1.8	
LOS	C	A	B	A	B	A	
Approach Delay		19.0	11.2		7.9		
Approach LOS		B	B		A		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 45.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.27	
Intersection Signal Delay: 9.7	Intersection LOS: A
Intersection Capacity Utilization 30.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	53	17	0	39	29	193	214
Future Volume (veh/h)	53	17	0	39	29	193	214
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	79	25		58	28	288	170
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	277	770		368	312	1013	592
Arrive On Green	0.08	0.39		0.19	0.19	0.28	0.28
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	79	25		58	28	288	170
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	0.7	0.3		0.9	0.5	2.2	2.6
Cycle Q Clear(g_c), s	0.7	0.3		0.9	0.5	2.2	2.6
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	277	770		368	312	1013	592
V/C Ratio(X)	0.29	0.03		0.16	0.09	0.28	0.29
Avail Cap(c_a), veh/h	5004	3915		1480	1254	2735	1381
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	6.8		12.3	12.1	10.2	8.4
Incr Delay (d2), s/veh	0.2	0.0		0.2	0.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1		0.3	0.1	0.6	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	15.9	6.8		12.5	12.3	10.4	8.7
LnGrp LOS	B	A		B	B	B	A
Approach Vol, veh/h		104		86		458	
Approach Delay, s/veh		13.7		12.4		9.7	
Approach LOS		B		B		A	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				19.8		16.2	7.3	12.5
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				71.4		27.0	49.4	27.0
Max Q Clear Time (g_c+I1), s				2.3		4.6	2.7	2.9
Green Ext Time (p_c), s				0.1		1.5	0.1	0.3

Intersection Summary		
HCM 6th Ctrl Delay	10.7	
HCM 6th LOS	B	

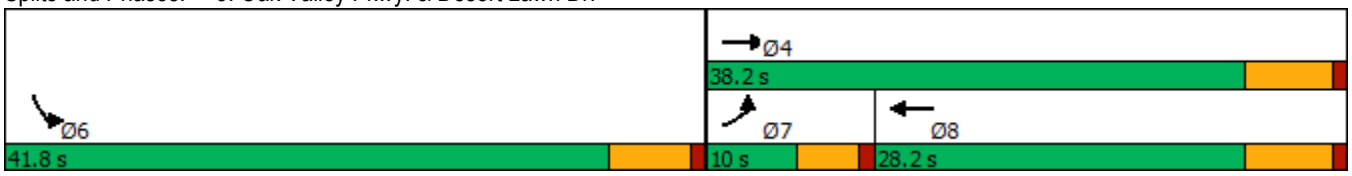
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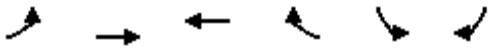
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	69	498	403	519
Future Volume (vph)	69	498	403	519
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.6	25.6	18.2	28.9
Actuated g/C Ratio	0.08	0.38	0.27	0.43
v/c Ratio	0.53	0.79	0.57	0.86
Control Delay	49.8	28.5	17.1	31.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	49.8	28.5	17.1	31.0
LOS	D	C	B	C
Approach Delay		31.1	17.1	31.0
Approach LOS		C	B	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 67.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 25.5	Intersection LOS: C
Intersection Capacity Utilization 68.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	498	403	345	519	63
Future Volume (veh/h)	69	498	403	345	519	63
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	572	463	397	597	72
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	103	788	1004	468	652	79
Arrive On Green	0.06	0.41	0.29	0.29	0.41	0.41
Sat Flow, veh/h	1810	1900	3629	1610	1591	192
Grp Volume(v), veh/h	79	572	463	397	670	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1786	0
Q Serve(g_s), s	2.9	17.2	7.5	15.8	24.2	0.0
Cycle Q Clear(g_c), s	2.9	17.2	7.5	15.8	24.2	0.0
Prop In Lane	1.00			1.00	0.89	0.11
Lane Grp Cap(c), veh/h	103	788	1004	468	731	0
V/C Ratio(X)	0.77	0.73	0.46	0.85	0.92	0.00
Avail Cap(c_a), veh/h	143	891	1115	519	942	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	16.7	19.8	22.8	19.0	0.0
Incr Delay (d2), s/veh	9.3	2.6	0.3	11.7	11.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	6.5	2.7	6.7	10.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.0	19.3	20.2	34.5	30.4	0.0
LnGrp LOS	D	B	C	C	C	A
Approach Vol, veh/h		651	860		670	
Approach Delay, s/veh		22.0	26.8		30.4	
Approach LOS		C	C		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			34.5		33.7	8.5	26.0
Change Period (Y+Rc), s			6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s			32.0		36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s			19.2		26.2	4.9	17.8
Green Ext Time (p_c), s			2.6		1.8	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

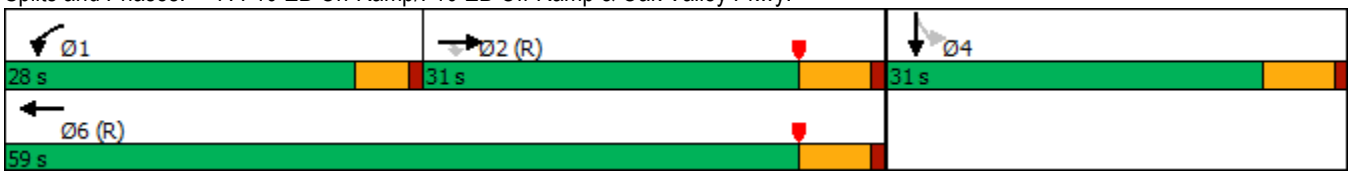
Notes

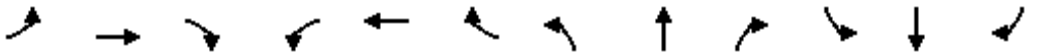
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	517	500	274	620	274	3
Future Volume (vph)	517	500	274	620	274	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	34.6	34.6	19.0	58.2	20.2	20.2
Actuated g/C Ratio	0.38	0.38	0.21	0.65	0.22	0.22
v/c Ratio	0.42	0.58	0.81	0.57	0.76	0.31
Control Delay	23.5	5.2	47.8	6.8	44.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	5.2	47.8	6.8	44.8	6.7
LOS	C	A	D	A	D	A
Approach Delay	14.5			19.3		32.5
Approach LOS	B			B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 77.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	517	500	274	620	0	0	0	0	274	3	128
Future Volume (veh/h)	0	517	500	274	620	0	0	0	0	274	3	128
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	581	475	308	697	0				308	3	125
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1559	695	343	1278	0				359	8	313
Arrive On Green	0.00	0.43	0.43	0.25	0.89	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	3705	1610	1810	1900	0				1810	38	1578
Grp Volume(v), veh/h	0	581	475	308	697	0				308	0	128
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	9.8	21.4	14.8	6.8	0.0				14.8	0.0	6.2
Cycle Q Clear(g_c), s	0.0	9.8	21.4	14.8	6.8	0.0				14.8	0.0	6.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	1559	695	343	1278	0				359	0	321
V/C Ratio(X)	0.00	0.37	0.68	0.90	0.55	0.00				0.86	0.00	0.40
Avail Cap(c_a), veh/h	0	1559	695	470	1278	0				507	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.45	0.45	0.60	0.60	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.3	20.6	32.8	1.9	0.0				34.8	0.0	31.4
Incr Delay (d2), s/veh	0.0	0.3	2.5	8.5	1.0	0.0				10.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	7.6	6.4	1.5	0.0				7.1	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.6	23.1	41.3	2.9	0.0				44.9	0.0	32.2
LnGrp LOS	A	B	C	D	A	A				D	A	C
Approach Vol, veh/h		1056			1005						436	
Approach Delay, s/veh		20.1			14.7						41.1	
Approach LOS		C			B						D	

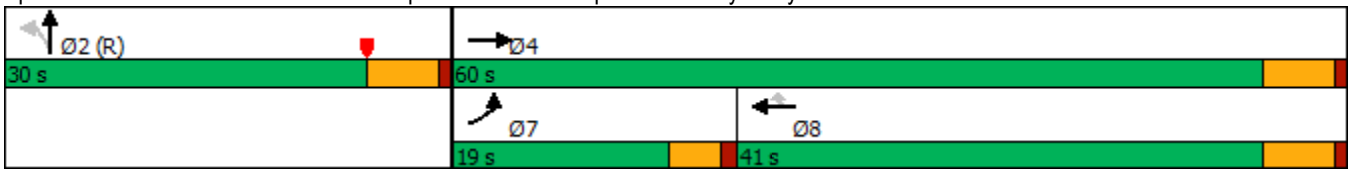
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.7	44.7		23.7		66.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	16.8	23.4		16.8		8.8						
Green Ext Time (p_c), s	0.3	1.0		1.1		5.0						

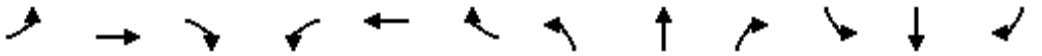
Intersection Summary												
HCM 6th Ctrl Delay			21.6									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	170	621	534	473	361	4
Future Volume (vph)	170	621	534	473	361	4
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	19.0	60.0	41.0	41.0	30.0	30.0
Total Split (%)	21.1%	66.7%	45.6%	45.6%	33.3%	33.3%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	12.0	47.8	31.1	31.1	30.6	30.6
Actuated g/C Ratio	0.13	0.53	0.35	0.35	0.34	0.34
v/c Ratio	0.72	0.63	0.83	0.55	0.60	0.56
Control Delay	51.7	21.6	38.3	4.5	32.1	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	21.6	38.3	4.5	32.1	12.4
LOS	D	C	D	A	C	B
Approach Delay		28.0	22.4			21.7
Approach LOS		C	C			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 23.9	Intersection LOS: C
Intersection Capacity Utilization 77.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	621	0	0	534	473	361	4	398	0	0	0
Future Volume (veh/h)	170	621	0	0	534	473	361	4	398	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	173	634	0	0	545	367	368	4	284			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	208	937	0	0	621	526	684	8	602			
Arrive On Green	0.12	0.49	0.00	0.00	0.33	0.33	0.38	0.38	0.38			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1810	22	1591			
Grp Volume(v), veh/h	173	634	0	0	545	367	368	0	288			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1810	0	1614			
Q Serve(g_s), s	8.4	22.8	0.0	0.0	24.4	17.9	14.3	0.0	12.2			
Cycle Q Clear(g_c), s	8.4	22.8	0.0	0.0	24.4	17.9	14.3	0.0	12.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	208	937	0	0	621	526	684	0	610			
V/C Ratio(X)	0.83	0.68	0.00	0.00	0.88	0.70	0.54	0.00	0.47			
Avail Cap(c_a), veh/h	290	1144	0	0	743	630	684	0	610			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.83	0.83	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.0	17.4	0.0	0.0	28.6	26.4	21.9	0.0	21.2			
Incr Delay (d2), s/veh	8.2	1.0	0.0	0.0	10.2	2.7	3.0	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.0	8.9	0.0	0.0	11.9	6.7	6.1	0.0	4.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	18.4	0.0	0.0	38.8	29.1	24.9	0.0	23.8			
LnGrp LOS	D	B	A	A	D	C	C	A	C			
Approach Vol, veh/h		807			912			656				
Approach Delay, s/veh		24.5			34.9			24.4				
Approach LOS		C			C			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		39.8		50.2			15.0	35.2				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		24.2		54.2			14.4	35.2				
Max Q Clear Time (g_c+I1), s		16.3		24.8			10.4	26.4				
Green Ext Time (p_c), s		1.8		4.1			0.1	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			28.5									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	5	586	152	164	937	28	0	0	66	0	0	167	0	0
Future Vol, veh/h	5	586	152	164	937	28	0	0	66	0	0	167	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	644	167	180	1030	31	0	0	73	0	0	184	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1061	0	0	811	0	0	-	-	406	-	-	531
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	664	-	-	824	-	-	0	0	600	0	0	498
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	664	-	-	824	-	-	-	-	600	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

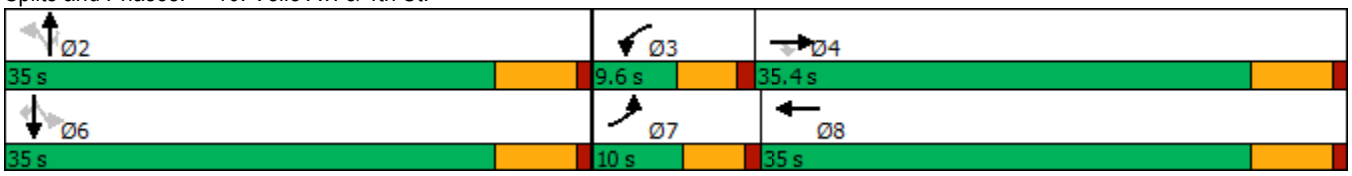
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	11.8	16.4
HCM LOS			B	C

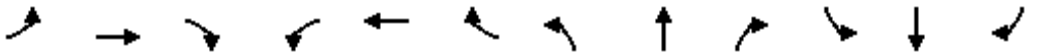
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	600	664	-	-	824	-	-	498
HCM Lane V/C Ratio	0.121	0.008	-	-	0.219	-	-	0.369
HCM Control Delay (s)	11.8	10.5	-	-	10.6	-	-	16.4
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	0.8	-	-	1.7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	35	47	25	3	283	75	30	6	23	32	99
Future Volume (vph)	35	47	25	3	283	75	30	6	23	32	99
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.8	18.1	18.1	5.6	16.3		13.6	13.6	13.6	13.6	13.6
Actuated g/C Ratio	0.13	0.39	0.39	0.12	0.36		0.30	0.30	0.30	0.30	0.30
v/c Ratio	0.21	0.08	0.05	0.02	0.60		0.33	0.01	0.08	0.08	0.23
Control Delay	27.7	10.6	0.1	27.7	17.9		17.7	0.0	15.8	15.2	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	10.6	0.1	27.7	17.9		17.7	0.0	15.8	15.2	5.0
LOS	C	B	A	C	B		B	A	B	B	A
Approach Delay		13.8			18.0		16.7			8.8	
Approach LOS		B			B		B			A	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 45.9			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.60			
Intersection Signal Delay: 15.0		Intersection LOS: B	
Intersection Capacity Utilization 47.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	47	25	3	283	21	75	30	6	23	32	99
Future Volume (veh/h)	35	47	25	3	283	21	75	30	6	23	32	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	63	33	4	377	28	100	40	8	31	43	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	648	549	10	516	38	400	136	402	425	474	
Arrive On Green	0.05	0.34	0.34	0.01	0.30	0.30	0.25	0.25	0.25	0.25	0.25	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1747	130	987	546	1610	1379	1900	1610
Grp Volume(v), veh/h	47	63	33	4	0	405	140	0	8	31	43	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1877	1533	0	1610	1379	1900	1610
Q Serve(g_s), s	1.0	0.9	0.6	0.1	0.0	7.8	2.1	0.0	0.2	0.8	0.7	0.0
Cycle Q Clear(g_c), s	1.0	0.9	0.6	0.1	0.0	7.8	2.9	0.0	0.2	3.6	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.71		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	648	549	10	0	554	537	0	402	425	474	
V/C Ratio(X)	0.51	0.10	0.06	0.41	0.00	0.73	0.26	0.00	0.02	0.07	0.09	
Avail Cap(c_a), veh/h	244	1403	1189	226	0	1367	1256	0	1173	1086	1384	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.5	9.0	8.9	19.9	0.0	12.7	12.3	0.0	11.3	13.8	11.5	0.0
Incr Delay (d2), s/veh	1.6	0.1	0.0	9.7	0.0	1.9	0.3	0.0	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.1	0.1	0.0	2.5	0.8	0.0	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	9.1	8.9	29.6	0.0	14.6	12.6	0.0	11.4	13.9	11.6	0.0
LnGrp LOS	C	A	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		143			409			148			74	A
Approach Delay, s/veh		12.7			14.7			12.5			12.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	4.8	19.5		15.8	6.6	17.6				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		29.2	5.0	29.6		29.2	5.4	29.2				
Max Q Clear Time (g_c+I1), s		4.9	2.1	2.9		5.6	3.0	9.8				
Green Ext Time (p_c), s		0.7	0.0	0.3		0.2	0.0	2.1				

Intersection Summary												
HCM 6th Ctrl Delay			13.7									
HCM 6th LOS			B									

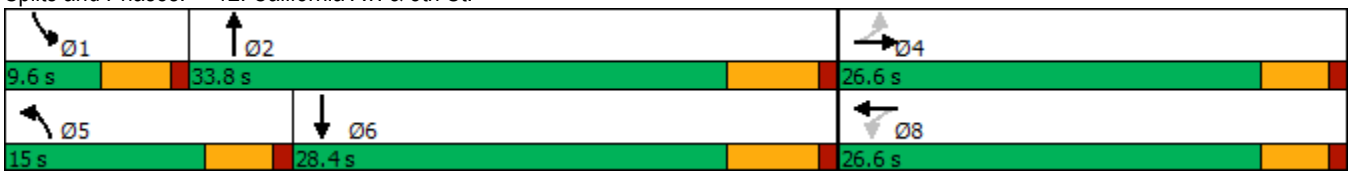
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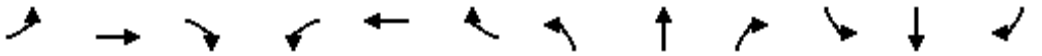
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	31	10	312	568	377	
Future Volume (vph)	2	3	31	10	312	568	377	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.2		12.2	10.7	40.0	23.1	
Actuated g/C Ratio		0.21		0.21	0.19	0.70	0.40	
v/c Ratio		0.25		0.25	1.18	0.57	35.43	
Control Delay		7.1		14.5	137.4	9.7	15399.4	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.1		14.5	137.4	9.7	15399.4	
LOS		A		B	F	A	F	
Approach Delay		7.1		14.5		53.9	15399.4	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 57.5	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 35.43	
Intersection Signal Delay: 4199.4	Intersection LOS: F
Intersection Capacity Utilization 76.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	78	31	10	31	312	568	21	13	377	2
Future Volume (veh/h)	2	3	78	31	10	31	312	568	21	13	377	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	99	39	13	39	395	719	27	16	477	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	76	17	282	191	79	126	374	1105	41	0	583	4
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.21	0.61	0.61	0.00	0.31	0.31
Sat Flow, veh/h	15	92	1515	478	426	678	1810	1819	68	0	1886	12
Grp Volume(v), veh/h	106	0	0	91	0	0	395	0	746	0	0	480
Grp Sat Flow(s),veh/h/ln	1622	0	0	1582	0	0	1810	0	1888	0	0	1898
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0	12.9	0.0	0.0	11.8
Cycle Q Clear(g_c), s	2.9	0.0	0.0	2.2	0.0	0.0	10.4	0.0	12.9	0.0	0.0	11.8
Prop In Lane	0.03		0.93	0.43		0.43	1.00		0.04	0.00		0.01
Lane Grp Cap(c), veh/h	375	0	0	397	0	0	374	0	1146	0	0	587
V/C Ratio(X)	0.28	0.00	0.00	0.23	0.00	0.00	1.06	0.00	0.65	0.00	0.00	0.82
Avail Cap(c_a), veh/h	780	0	0	773	0	0	374	0	1146	0	0	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	0.0	17.6	0.0	0.0	20.0	0.0	6.4	0.0	0.0	16.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.3	0.0	0.0	62.1	0.0	1.3	0.0	0.0	4.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.9	0.0	0.0	10.0	0.0	2.8	0.0	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	0.0	0.0	17.9	0.0	0.0	82.1	0.0	7.7	0.0	0.0	20.2
LnGrp LOS	B	A	A	B	A	A	F	A	A	A	A	C
Approach Vol, veh/h		106			91			1141			480	
Approach Delay, s/veh		18.2			17.9			33.5			20.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	36.4		14.0	15.0	21.4		14.0				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	14.9		4.9	12.4	13.8		4.2				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	1.8		0.4				

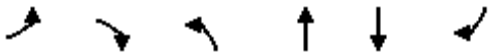
Intersection Summary			
HCM 6th Ctrl Delay		28.3	
HCM 6th LOS		C	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	76	22	87	852	189	258
Future Volume (vph)	76	22	87	852	189	258
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	12.7	12.7	9.2	51.3	40.6	40.6
Actuated g/C Ratio	0.18	0.18	0.13	0.74	0.59	0.59
v/c Ratio	0.30	0.09	0.47	0.79	0.22	0.31
Control Delay	31.0	11.5	39.1	15.3	12.8	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	11.5	39.1	15.3	12.8	2.7
LOS	C	B	D	B	B	A
Approach Delay	26.6			17.5	7.0	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.

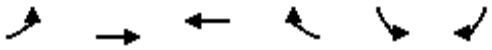




Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	76	22	87	852	189	258
Future Volume (veh/h)	76	22	87	852	189	258
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	29	113	1106	245	335
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	263	234	147	1262	964	817
Arrive On Green	0.15	0.15	0.08	0.66	0.51	0.51
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	99	29	113	1106	245	335
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	3.0	1.0	3.7	28.5	4.4	7.9
Cycle Q Clear(g_c), s	3.0	1.0	3.7	28.5	4.4	7.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	263	234	147	1262	964	817
V/C Ratio(X)	0.38	0.12	0.77	0.88	0.25	0.41
Avail Cap(c_a), veh/h	654	582	395	1760	1202	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	22.6	27.4	8.2	8.5	9.3
Incr Delay (d2), s/veh	0.9	0.2	3.2	3.9	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.9	1.6	7.0	1.4	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.4	22.9	30.6	12.2	8.6	9.7
LnGrp LOS	C	C	C	B	A	A
Approach Vol, veh/h	128			1219	580	
Approach Delay, s/veh	24.1			13.9	9.2	
Approach LOS	C			B	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.2		14.7	9.5	36.7
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		56.4		22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s		30.5		5.0	5.7	9.9
Green Ext Time (p_c), s		9.9		0.3	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

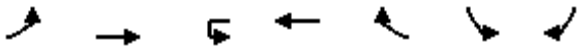


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	220	46	14	252	176	75	
Future Volume (vph)	220	46	14	252	176	75	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	64.0	87.2	32.8	32.8	33.2	64.0	9.6
Total Split (%)	49.2%	67.1%	25.2%	25.2%	25.5%	49.2%	7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effct Green (s)	9.4	27.2	12.8	12.8	12.8	28.9	
Actuated g/C Ratio	0.18	0.52	0.24	0.24	0.24	0.55	
v/c Ratio	0.49	0.07	0.04	0.54	0.29	0.11	
Control Delay	24.1	7.3	17.4	5.7	17.9	2.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	24.1	7.3	17.4	5.7	17.9	2.1	
LOS	C	A	B	A	B	A	
Approach Delay		21.2	6.3		13.2		
Approach LOS		C	A		B		

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 52.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	220	46	0	14	252	176	75
Future Volume (veh/h)	220	46	0	14	252	176	75
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	328	69		21	115	263	97
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	522	931		430	365	877	642
Arrive On Green	0.14	0.47		0.22	0.22	0.24	0.24
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	328	69		21	115	263	97
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	3.5	0.8		0.3	2.4	2.5	1.6
Cycle Q Clear(g_c), s	3.5	0.8		0.3	2.4	2.5	1.6
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	522	931		430	365	877	642
V/C Ratio(X)	0.63	0.07		0.05	0.32	0.30	0.15
Avail Cap(c_a), veh/h	5211	3865		1282	1086	2369	1326
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	6.0		12.9	13.7	12.9	8.4
Incr Delay (d2), s/veh	0.5	0.0		0.0	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.2		0.1	0.7	0.7	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.3	6.1		12.9	14.2	13.1	8.5
LnGrp LOS	B	A		B	B	B	A
Approach Vol, veh/h		397		136		360	
Approach Delay, s/veh		15.3		14.0		11.9	
Approach LOS		B		B		B	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				25.4		16.2	10.6	14.9
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				81.4		27.0	59.4	27.0
Max Q Clear Time (g_c+I1), s				2.8		4.5	5.5	4.4
Green Ext Time (p_c), s				0.4		1.1	0.6	0.4

Intersection Summary	
HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

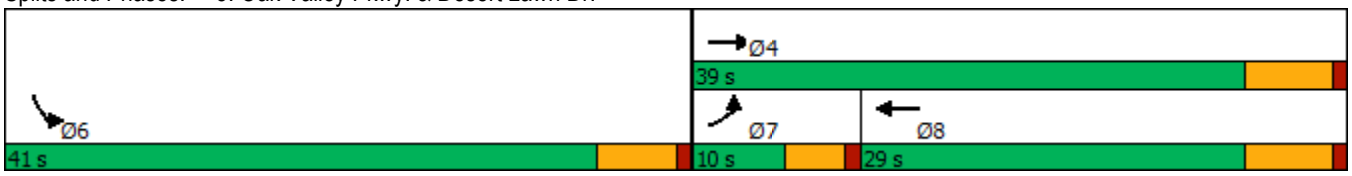
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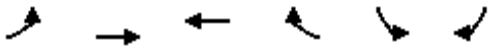
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	31	492	592	210
Future Volume (vph)	31	492	592	210
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.7	19.3	16.3	15.0
Actuated g/C Ratio	0.12	0.41	0.34	0.32
v/c Ratio	0.15	0.66	0.54	0.44
Control Delay	28.3	16.7	12.8	16.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	28.3	16.7	12.8	16.2
LOS	C	B	B	B
Approach Delay		17.4	12.8	16.2
Approach LOS		B	B	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 47.6	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 14.7	Intersection LOS: B
Intersection Capacity Utilization 49.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	492	592	344	210	32
Future Volume (veh/h)	31	492	592	344	210	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	507	610	355	216	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	67	928	1192	555	358	55
Arrive On Green	0.04	0.49	0.34	0.34	0.23	0.23
Sat Flow, veh/h	1810	1900	3629	1610	1539	235
Grp Volume(v), veh/h	32	507	610	355	250	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1781	0
Q Serve(g_s), s	0.7	8.0	6.0	8.0	5.4	0.0
Cycle Q Clear(g_c), s	0.7	8.0	6.0	8.0	5.4	0.0
Prop In Lane	1.00			1.00	0.86	0.13
Lane Grp Cap(c), veh/h	67	928	1192	555	414	0
V/C Ratio(X)	0.48	0.55	0.51	0.64	0.60	0.00
Avail Cap(c_a), veh/h	227	1449	1833	853	1457	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.3	7.7	11.2	11.8	14.7	0.0
Incr Delay (d2), s/veh	2.0	0.5	0.3	1.2	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.7	1.6	2.1	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	8.2	11.6	13.1	16.2	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		539	965		250	
Approach Delay, s/veh		9.0	12.1		16.2	
Approach LOS		A	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			27.2		15.8	6.2	21.0
Change Period (Y+Rc), s			6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s			32.8		35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s			10.0		7.4	2.7	10.0
Green Ext Time (p_c), s			2.8		0.7	0.0	4.9

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

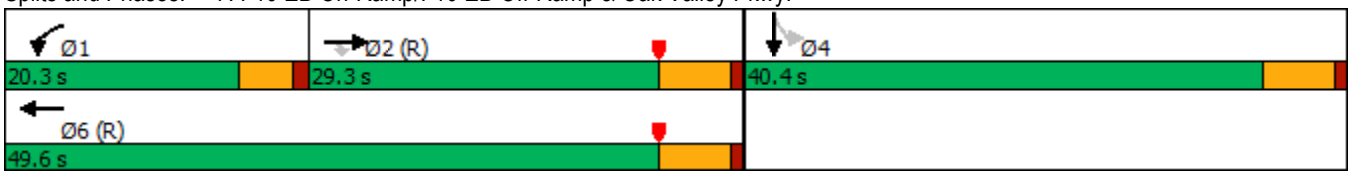
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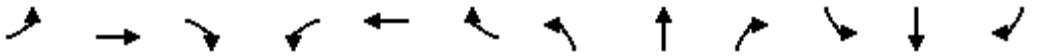
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	442	260	180	718	547	1
Future Volume (vph)	442	260	180	718	547	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.3	29.3	20.3	49.6	40.4	40.4
Total Split (%)	32.6%	32.6%	22.6%	55.1%	44.9%	44.9%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	24.9	24.9	14.3	43.8	34.6	34.6
Actuated g/C Ratio	0.28	0.28	0.16	0.49	0.38	0.38
v/c Ratio	0.58	0.49	0.83	1.02	1.04	0.43
Control Delay	31.3	5.9	55.4	51.9	73.9	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	5.9	55.4	51.9	73.9	16.6
LOS	C	A	E	D	E	B
Approach Delay	21.9			52.6		57.5
Approach LOS	C			D		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 45.1	Intersection LOS: D
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	442	260	180	718	0	0	0	0	547	1	218
Future Volume (veh/h)	0	442	260	180	718	0	0	0	0	547	1	218
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	582	284	237	945	0				720	1	221
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1028	459	273	925	0				696	3	617
Arrive On Green	0.00	0.28	0.28	0.15	0.49	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	3705	1610	1810	1900	0				1810	7	1604
Grp Volume(v), veh/h	0	582	284	237	945	0				720	0	222
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1900	0				1810	0	1611
Q Serve(g_s), s	0.0	12.4	13.8	11.5	43.8	0.0				34.6	0.0	8.9
Cycle Q Clear(g_c), s	0.0	12.4	13.8	11.5	43.8	0.0				34.6	0.0	8.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1028	459	273	925	0				696	0	619
V/C Ratio(X)	0.00	0.57	0.62	0.87	1.02	0.00				1.03	0.00	0.36
Avail Cap(c_a), veh/h	0	1028	459	316	925	0				696	0	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.78	0.56	0.56	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	27.4	27.9	37.4	23.1	0.0				27.7	0.0	19.8
Incr Delay (d2), s/veh	0.0	1.8	4.8	11.2	27.9	0.0				43.5	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.2	5.5	5.7	23.8	0.0				21.8	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.2	32.8	48.5	51.0	0.0				71.2	0.0	20.1
LnGrp LOS	A	C	C	D	F	A				F	A	C
Approach Vol, veh/h		866			1182						942	
Approach Delay, s/veh		30.4			50.5						59.1	
Approach LOS		C			D						E	

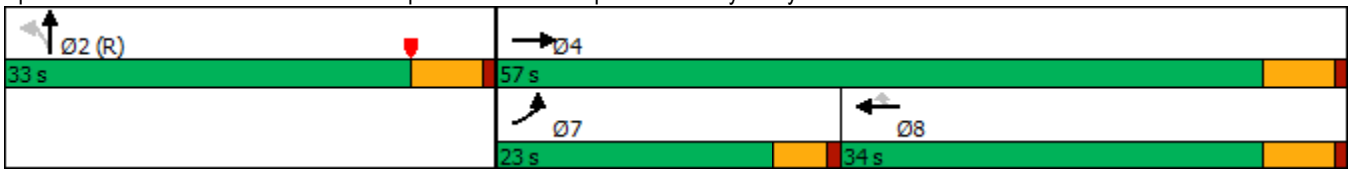
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.2	31.4		40.4		49.6
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	15.7	23.5		34.6		43.8
Max Q Clear Time (g_c+I1), s	13.5	15.8		36.6		45.8
Green Ext Time (p_c), s	0.1	2.8		0.0		0.0

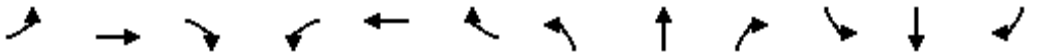
Intersection Summary		
HCM 6th Ctrl Delay		47.4
HCM 6th LOS		D

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	183	806	490	318	408	4
Future Volume (vph)	183	806	490	318	408	4
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	23.0	57.0	34.0	34.0	33.0	33.0
Total Split (%)	25.6%	63.3%	37.8%	37.8%	36.7%	36.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	13.6	45.9	27.7	27.7	32.5	32.5
Actuated g/C Ratio	0.15	0.51	0.31	0.31	0.36	0.36
v/c Ratio	0.69	0.86	0.86	0.45	0.65	0.49
Control Delay	46.4	16.2	45.5	4.9	31.7	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	16.2	45.5	4.9	31.7	15.4
LOS	D	B	D	A	C	B
Approach Delay		21.8	29.6			24.5
Approach LOS		C	C			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	806	0	0	490	318	408	4	321	0	0	0
Future Volume (veh/h)	183	806	0	0	490	318	408	4	321	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	189	831	0	0	505	258	421	4	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	228	940	0	0	603	511	681	9	599			
Arrive On Green	0.04	0.16	0.00	0.00	0.32	0.32	0.38	0.38	0.38			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1810	23	1591			
Grp Volume(v), veh/h	189	831	0	0	505	258	421	0	283			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1810	0	1614			
Q Serve(g_s), s	9.3	38.5	0.0	0.0	22.2	11.7	17.0	0.0	11.9			
Cycle Q Clear(g_c), s	9.3	38.5	0.0	0.0	22.2	11.7	17.0	0.0	11.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	228	940	0	0	603	511	681	0	607			
V/C Ratio(X)	0.83	0.88	0.00	0.00	0.84	0.50	0.62	0.00	0.47			
Avail Cap(c_a), veh/h	370	1081	0	0	603	511	681	0	607			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.44	0.44	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.2	35.1	0.0	0.0	28.6	25.0	22.8	0.0	21.2			
Incr Delay (d2), s/veh	1.6	3.8	0.0	0.0	10.1	0.8	4.2	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.4	20.2	0.0	0.0	11.0	4.3	7.4	0.0	4.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	38.9	0.0	0.0	38.6	25.8	27.0	0.0	23.8			
LnGrp LOS	D	D	A	A	D	C	C	A	C			
Approach Vol, veh/h		1020			763			704				
Approach Delay, s/veh		39.8			34.3			25.7				
Approach LOS		D			C			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		39.7		50.3			16.0	34.4				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		27.2		51.2			18.4	28.2				
Max Q Clear Time (g_c+I1), s		19.0		40.5			11.3	24.2				
Green Ext Time (p_c), s		2.0		4.0			0.1	1.5				
Intersection Summary												
HCM 6th Ctrl Delay			34.1									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	14	873	134	114	698	59	0	0	124	0	0	69	0	0
Future Vol, veh/h	14	873	134	114	698	59	0	0	124	0	0	69	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	939	144	123	751	63	0	0	133	0	0	74	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	814	0	0	1083	0	0	-	-	542	-	-	407
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	822	-	-	652	-	-	0	0	490	0	0	599
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	822	-	-	652	-	-	-	-	490	-	-	599
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

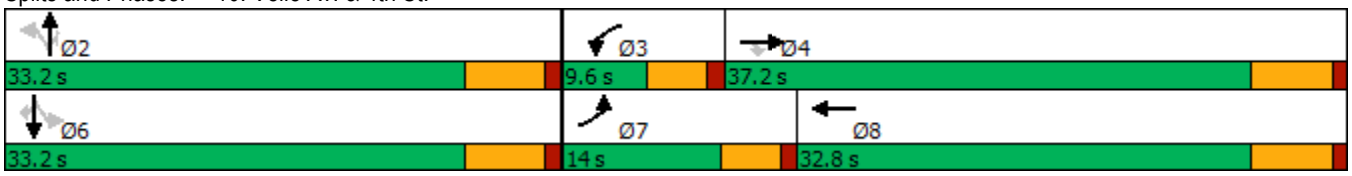
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.5	15.1	11.9
HCM LOS			C	B

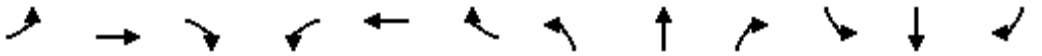
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	490	822	-	-	652	-	-	599
HCM Lane V/C Ratio	0.272	0.018	-	-	0.188	-	-	0.124
HCM Control Delay (s)	15.1	9.5	-	-	11.8	-	-	11.9
HCM Lane LOS	C	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.7	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	111	270	82	9	226	42	40	12	14	63	41
Future Volume (vph)	111	270	82	9	226	42	40	12	14	63	41
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	8.8	28.1	28.1	5.2	15.9		13.0	13.0	13.0	13.0	13.0
Actuated g/C Ratio	0.16	0.51	0.51	0.10	0.29		0.24	0.24	0.24	0.24	0.24
v/c Ratio	0.55	0.39	0.13	0.08	0.67		0.33	0.04	0.06	0.20	0.13
Control Delay	33.9	11.6	3.3	29.9	24.1		21.1	0.2	18.1	19.0	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	11.6	3.3	29.9	24.1		21.1	0.2	18.1	19.0	2.0
LOS	C	B	A	C	C		C	A	B	B	A
Approach Delay		15.5			24.3		18.5			12.9	
Approach LOS		B			C		B			B	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 54.6			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 17.9		Intersection LOS: B	
Intersection Capacity Utilization 45.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	270	82	9	226	32	42	40	12	14	63	41
Future Volume (veh/h)	111	270	82	9	226	32	42	40	12	14	63	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	386	117	13	323	46	60	57	17	20	90	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	698	592	30	440	63	281	228	379	416	447	
Arrive On Green	0.11	0.37	0.37	0.02	0.27	0.27	0.24	0.24	0.24	0.24	0.24	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1627	232	650	969	1610	1347	1900	1610
Grp Volume(v), veh/h	159	386	117	13	0	369	117	0	17	20	90	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1858	1619	0	1610	1347	1900	1610
Q Serve(g_s), s	3.6	6.9	2.1	0.3	0.0	7.7	0.4	0.0	0.3	0.5	1.6	0.0
Cycle Q Clear(g_c), s	3.6	6.9	2.1	0.3	0.0	7.7	2.2	0.0	0.3	2.7	1.6	0.0
Prop In Lane	1.00		1.00	1.00		0.12	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	698	592	30	0	503	509	0	379	416	447	
V/C Ratio(X)	0.77	0.55	0.20	0.43	0.00	0.73	0.23	0.00	0.04	0.05	0.20	
Avail Cap(c_a), veh/h	400	1402	1189	213	0	1179	1145	0	1037	967	1224	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.3	10.7	9.2	20.7	0.0	14.1	13.3	0.0	12.6	14.4	13.1	0.0
Incr Delay (d2), s/veh	2.4	0.7	0.2	3.5	0.0	2.1	0.2	0.0	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.0	0.5	0.1	0.0	2.6	0.7	0.0	0.1	0.1	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.7	11.4	9.3	24.3	0.0	16.2	13.5	0.0	12.6	14.4	13.3	0.0
LnGrp LOS	C	B	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		662			382			134			110	A
Approach Delay, s/veh		13.2			16.5			13.4			13.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	5.3	21.4		15.8	9.4	17.3				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		27.4	5.0	31.4		27.4	9.4	27.0				
Max Q Clear Time (g_c+I1), s		4.2	2.3	8.9		4.7	5.6	9.7				
Green Ext Time (p_c), s		0.6	0.0	2.4		0.4	0.1	1.8				

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

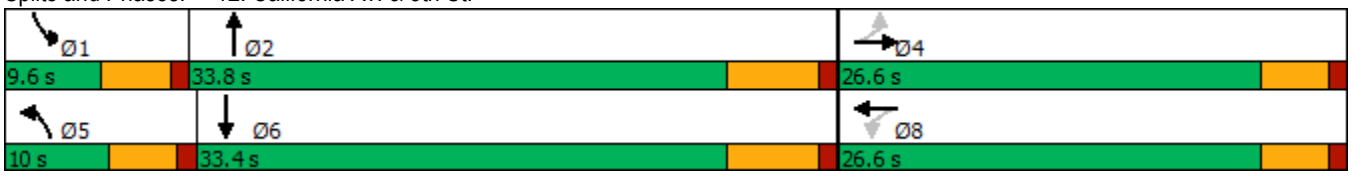
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	4	3	44	3	186	521	354	
Future Volume (vph)	4	3	44	3	186	521	354	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.1		12.1	5.4	42.1	30.9	
Actuated g/C Ratio		0.20		0.20	0.09	0.70	0.51	
v/c Ratio		0.25		0.23	1.21	0.44	9.68	
Control Delay		7.3		16.3	169.7	7.8	4003.4	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.3		16.3	169.7	7.8	4003.4	
LOS		A		B	F	A	F	
Approach Delay		7.3		16.3		49.0	4003.4	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 60.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 9.68	
Intersection Signal Delay: 1193.8	Intersection LOS: F
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	90	44	3	22	186	521	25	7	354	7
Future Volume (veh/h)	4	3	90	44	3	22	186	521	25	7	354	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	95	46	3	23	196	548	26	7	373	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	98	19	322	322	45	103	243	949	45	0	517	10
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.13	0.53	0.53	0.00	0.28	0.28
Sat Flow, veh/h	22	89	1509	819	213	484	1810	1799	85	0	1859	35
Grp Volume(v), veh/h	102	0	0	72	0	0	196	0	574	0	0	380
Grp Sat Flow(s),veh/h/ln	1621	0	0	1517	0	0	1810	0	1885	0	0	1894
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	8.3	0.0	0.0	7.3
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.3	0.0	0.0	4.2	0.0	8.3	0.0	0.0	7.3
Prop In Lane	0.04		0.93	0.64		0.32	1.00		0.05	0.00		0.02
Lane Grp Cap(c), veh/h	439	0	0	471	0	0	243	0	994	0	0	527
V/C Ratio(X)	0.23	0.00	0.00	0.15	0.00	0.00	0.81	0.00	0.58	0.00	0.00	0.72
Avail Cap(c_a), veh/h	977	0	0	945	0	0	243	0	1315	0	0	1302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	0.0	12.9	0.0	0.0	16.9	0.0	6.4	0.0	0.0	13.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.1	0.0	0.0	16.5	0.0	0.5	0.0	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.5	0.0	0.0	2.4	0.0	1.6	0.0	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.5	0.0	0.0	13.1	0.0	0.0	33.3	0.0	7.0	0.0	0.0	15.0
LnGrp LOS	B	A	A	B	A	A	C	A	A	A	A	B
Approach Vol, veh/h		102			72			770			380	
Approach Delay, s/veh		13.5			13.1			13.7			15.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	27.0		13.2	10.0	17.0		13.2				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	10.3		4.1	6.2	9.3		3.3				
Green Ext Time (p_c), s	0.0	3.2		0.5	0.0	1.9		0.3				

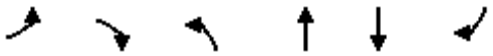
Intersection Summary			
HCM 6th Ctrl Delay		14.0	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	226	108	66	525	1018	224
Future Volume (vph)	226	108	66	525	1018	224
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	29.0	29.0	11.1	91.0	79.9	79.9
Total Split (%)	24.2%	24.2%	9.3%	75.8%	66.6%	66.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	19.5	19.5	6.5	76.5	68.3	68.3
Actuated g/C Ratio	0.18	0.18	0.06	0.71	0.63	0.63
v/c Ratio	0.76	0.30	0.66	0.42	0.92	0.23
Control Delay	59.9	9.8	83.1	7.8	32.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	5.3	0.0
Total Delay	59.9	9.8	83.1	7.8	38.2	4.2
LOS	E	A	F	A	D	A
Approach Delay	43.7			16.2	32.1	
Approach LOS	D			B	C	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 108			
Natural Cycle: 100			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 29.5		Intersection LOS: C	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	226	108	66	525	1018	224
Future Volume (veh/h)	226	108	66	525	1018	224
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	246	117	72	571	1107	243
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	287	256	93	1381	1197	1015
Arrive On Green	0.16	0.16	0.05	0.73	0.63	0.63
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	246	117	72	571	1107	243
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	13.4	6.7	4.0	11.9	52.4	6.7
Cycle Q Clear(g_c), s	13.4	6.7	4.0	11.9	52.4	6.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	287	256	93	1381	1197	1015
V/C Ratio(X)	0.86	0.46	0.78	0.41	0.92	0.24
Avail Cap(c_a), veh/h	414	368	116	1596	1388	1176
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	38.7	47.5	5.4	16.6	8.2
Incr Delay (d2), s/veh	11.5	1.3	17.3	0.2	9.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.1	2.2	3.5	21.5	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.1	40.0	64.9	5.6	26.4	8.3
LnGrp LOS	D	D	E	A	C	A
Approach Vol, veh/h	363			643	1350	
Approach Delay, s/veh	48.8			12.2	23.1	
Approach LOS	D			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		79.5		21.9	9.8	69.7
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		85.2		23.2	6.5	74.1
Max Q Clear Time (g_c+I1), s		13.9		15.4	6.0	54.4
Green Ext Time (p_c), s		3.8		0.7	0.0	9.6

Intersection Summary	
HCM 6th Ctrl Delay	24.1
HCM 6th LOS	C

APPENDIX 7.10:

OPENING YEAR CUMULATIVE (2025) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

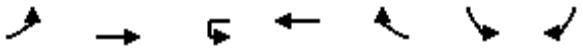
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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	410	63	108	391	238	978	
Future Volume (vph)	410	63	108	391	238	978	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	54.0	77.2	32.8	32.8	33.2	54.0	9.6
Total Split (%)	45.0%	64.3%	27.3%	27.3%	27.7%	45.0%	8%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effct Green (s)	50.1	70.6	15.9	15.9	15.7	72.1	
Actuated g/C Ratio	0.51	0.72	0.16	0.16	0.16	0.73	
v/c Ratio	0.32	0.06	0.49	0.83	0.60	1.06	
Control Delay	16.7	5.0	43.3	17.9	43.1	54.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	16.7	5.0	43.3	17.9	43.1	54.5	
LOS	B	A	D	B	D	D	
Approach Delay		15.1	23.4		52.3		
Approach LOS		B	C		D		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 98.5	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 37.7	Intersection LOS: D
Intersection Capacity Utilization 77.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	410	63	0	108	391	238	978
Future Volume (veh/h)	410	63	0	108	391	238	978
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	612	94		161	360	355	863
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	732	1003		492	417	1245	907
Arrive On Green	0.20	0.51		0.25	0.25	0.34	0.34
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	612	94		161	360	355	863
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	12.7	1.9		5.3	16.3	5.6	27.0
Cycle Q Clear(g_c), s	12.7	1.9		5.3	16.3	5.6	27.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	732	1003		492	417	1245	907
V/C Ratio(X)	0.84	0.09		0.33	0.86	0.29	0.95
Avail Cap(c_a), veh/h	2278	1782		674	571	1245	907
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	10.1		24.3	28.5	19.0	17.2
Incr Delay (d2), s/veh	1.0	0.0		0.4	9.9	0.1	19.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.7		2.3	7.1	2.1	32.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.4	10.1		24.7	38.4	19.2	36.4
LnGrp LOS	C	B		C	D	B	D
Approach Vol, veh/h		706		521		1218	
Approach Delay, s/veh		28.6		34.1		31.4	
Approach LOS		C		C		C	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				46.0		33.2	20.5	25.5
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				71.4		27.0	49.4	27.0
Max Q Clear Time (g_c+I1), s				3.9		29.0	14.7	18.3
Green Ext Time (p_c), s				0.5		0.0	1.1	1.4

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

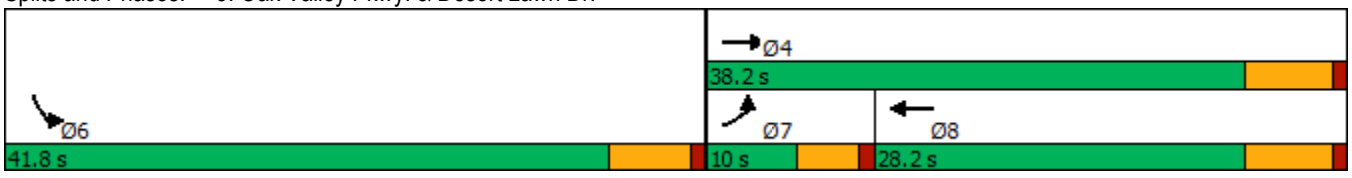
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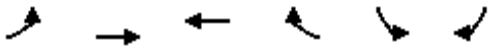
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	76	526	523	519
Future Volume (vph)	76	526	523	519
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.6	27.3	19.9	31.2
Actuated g/C Ratio	0.08	0.38	0.28	0.44
v/c Ratio	0.62	0.83	0.66	0.89
Control Delay	57.0	31.8	21.3	34.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	57.0	31.8	21.3	34.2
LOS	E	C	C	C
Approach Delay		34.9	21.3	34.2
Approach LOS		C	C	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 71	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 29.0	Intersection LOS: C
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	76	526	523	345	519	93
Future Volume (veh/h)	76	526	523	345	519	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	605	601	397	597	107
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	112	778	983	458	641	115
Arrive On Green	0.06	0.41	0.28	0.28	0.43	0.43
Sat Flow, veh/h	1810	1900	3629	1610	1504	270
Grp Volume(v), veh/h	87	605	601	397	705	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1776	0
Q Serve(g_s), s	3.5	20.1	11.0	17.1	27.5	0.0
Cycle Q Clear(g_c), s	3.5	20.1	11.0	17.1	27.5	0.0
Prop In Lane	1.00			1.00	0.85	0.15
Lane Grp Cap(c), veh/h	112	778	983	458	756	0
V/C Ratio(X)	0.78	0.78	0.61	0.87	0.93	0.00
Avail Cap(c_a), veh/h	134	834	1044	486	877	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.7	18.6	22.6	24.8	19.9	0.0
Incr Delay (d2), s/veh	16.9	4.4	1.0	14.7	15.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	8.2	4.1	7.6	12.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.5	23.1	23.5	39.4	35.0	0.0
LnGrp LOS	D	C	C	D	D	A
Approach Vol, veh/h		692	998		705	
Approach Delay, s/veh		26.5	29.9		35.0	
Approach LOS		C	C		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			36.0		36.8	9.1	26.9
Change Period (Y+Rc), s			6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s			32.0		36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s			22.1		29.5	5.5	19.1
Green Ext Time (p_c), s			2.5		1.5	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

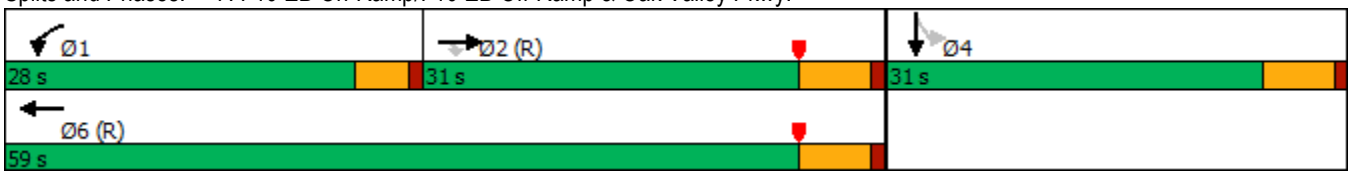
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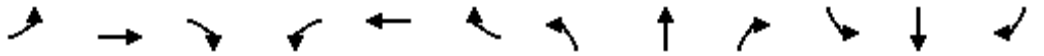
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	545	500	274	620	274	3
Future Volume (vph)	545	500	274	620	274	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	34.5	34.5	19.0	58.0	20.4	20.4
Actuated g/C Ratio	0.38	0.38	0.21	0.64	0.23	0.23
v/c Ratio	0.44	0.58	0.81	0.57	0.75	0.52
Control Delay	23.9	5.2	48.4	6.8	44.2	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	5.2	48.4	6.8	44.2	9.8
LOS	C	A	D	A	D	A
Approach Delay	14.9			19.6		27.8
Approach LOS	B			B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 19.4	Intersection LOS: B
Intersection Capacity Utilization 78.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	545	500	274	620	0	0	0	0	274	3	248
Future Volume (veh/h)	0	545	500	274	620	0	0	0	0	274	3	248
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	612	475	308	697	0				308	3	260
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1540	687	343	1268	0				369	4	325
Arrive On Green	0.00	0.43	0.43	0.25	0.89	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	3705	1610	1810	1900	0				1810	18	1595
Grp Volume(v), veh/h	0	612	475	308	697	0				308	0	263
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1900	0				1810	0	1613
Q Serve(g_s), s	0.0	10.5	21.6	14.8	7.3	0.0				14.7	0.0	14.0
Cycle Q Clear(g_c), s	0.0	10.5	21.6	14.8	7.3	0.0				14.7	0.0	14.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1540	687	343	1268	0				369	0	329
V/C Ratio(X)	0.00	0.40	0.69	0.90	0.55	0.00				0.83	0.00	0.80
Avail Cap(c_a), veh/h	0	1540	687	470	1268	0				507	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.39	0.39	0.59	0.59	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.8	21.0	32.8	2.1	0.0				34.4	0.0	34.1
Incr Delay (d2), s/veh	0.0	0.3	2.3	8.4	1.0	0.0				8.5	0.0	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	7.7	6.4	1.6	0.0				6.9	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.1	23.2	41.2	3.1	0.0				42.9	0.0	41.1
LnGrp LOS	A	B	C	D	A	A				D	A	D
Approach Vol, veh/h		1087			1005						571	
Approach Delay, s/veh		20.4			14.8						42.1	
Approach LOS		C			B						D	

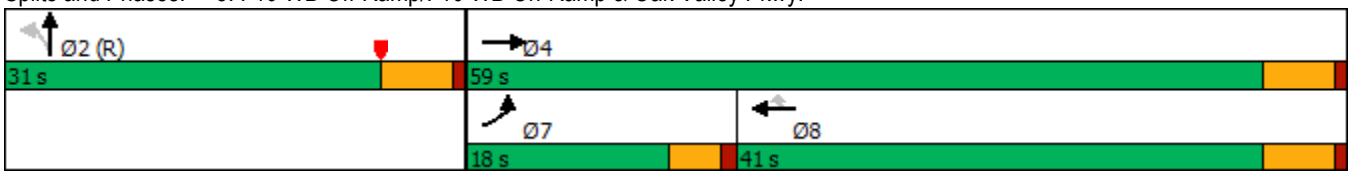
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.7	44.2		24.2		65.8						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	16.8	23.6		16.7		9.3						
Green Ext Time (p_c), s	0.3	0.9		1.7		5.0						

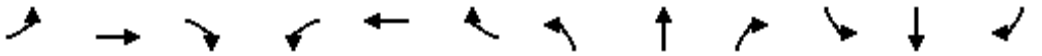
Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	198	621	534	473	361	4
Future Volume (vph)	198	621	534	473	361	4
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	18.0	59.0	41.0	41.0	31.0	31.0
Total Split (%)	20.0%	65.6%	45.6%	45.6%	34.4%	34.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	12.4	48.2	31.1	31.1	30.2	30.2
Actuated g/C Ratio	0.14	0.54	0.35	0.35	0.34	0.34
v/c Ratio	0.81	0.62	0.83	0.55	0.61	0.57
Control Delay	60.2	21.6	38.3	4.5	32.1	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	21.6	38.3	4.5	32.1	12.8
LOS	E	C	D	A	C	B
Approach Delay		30.9	22.4			21.9
Approach LOS		C	C			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 78.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	621	0	0	534	473	361	4	398	0	0	0
Future Volume (veh/h)	198	621	0	0	534	473	361	4	398	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	202	634	0	0	545	367	368	4	284			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	237	967	0	0	621	526	655	8	576			
Arrive On Green	0.13	0.51	0.00	0.00	0.33	0.33	0.36	0.36	0.36			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1810	22	1591			
Grp Volume(v), veh/h	202	634	0	0	545	367	368	0	288			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1810	0	1614			
Q Serve(g_s), s	9.8	22.1	0.0	0.0	24.4	17.9	14.7	0.0	12.5			
Cycle Q Clear(g_c), s	9.8	22.1	0.0	0.0	24.4	17.9	14.7	0.0	12.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	237	967	0	0	621	526	655	0	584			
V/C Ratio(X)	0.85	0.66	0.00	0.00	0.88	0.70	0.56	0.00	0.49			
Avail Cap(c_a), veh/h	269	1123	0	0	743	630	655	0	584			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.2	16.3	0.0	0.0	28.6	26.4	23.0	0.0	22.3			
Incr Delay (d2), s/veh	15.6	0.9	0.0	0.0	10.2	2.7	3.5	0.0	3.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.2	8.5	0.0	0.0	11.9	6.7	6.4	0.0	4.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	17.2	0.0	0.0	38.8	29.1	26.4	0.0	25.2			
LnGrp LOS	D	B	A	A	D	C	C	A	C			
Approach Vol, veh/h		836			912			656				
Approach Delay, s/veh		26.1			34.9			25.9				
Approach LOS		C			C			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		38.4		51.6			16.4	35.2				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		25.2		53.2			13.4	35.2				
Max Q Clear Time (g_c+I1), s		16.7		24.1			11.8	26.4				
Green Ext Time (p_c), s		1.9		4.1			0.0	3.1				

Intersection Summary												
HCM 6th Ctrl Delay			29.4									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	23	586	152	164	937	28	0	0	66	0	0	167	0	0
Future Vol, veh/h	23	586	152	164	937	28	0	0	66	0	0	167	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	644	167	180	1030	31	0	0	73	0	0	184	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1061	0	0	811	0	0	-	-	406	-	-	531
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	664	-	-	824	-	-	0	0	600	0	0	498
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	664	-	-	824	-	-	-	-	600	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

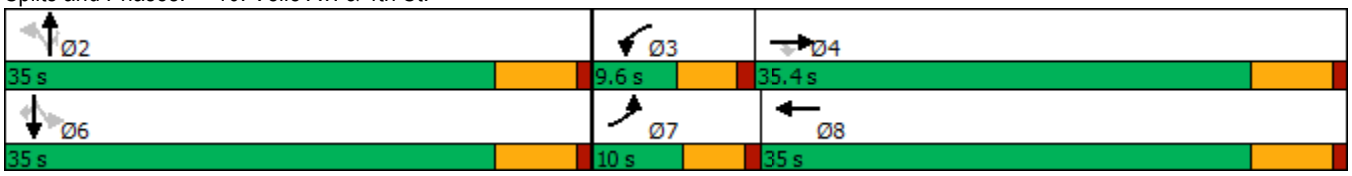
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.5	11.8	16.4
HCM LOS			B	C

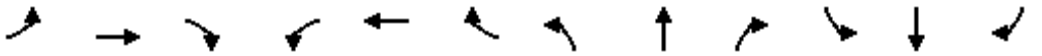
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	600	664	-	-	824	-	-	498
HCM Lane V/C Ratio	0.121	0.038	-	-	0.219	-	-	0.369
HCM Control Delay (s)	11.8	10.6	-	-	10.6	-	-	16.4
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.8	-	-	1.7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	35	68	25	3	373	75	30	6	23	32	99
Future Volume (vph)	35	68	25	3	373	75	30	6	23	32	99
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.8	23.0	23.0	5.6	19.2		14.0	14.0	14.0	14.0	14.0
Actuated g/C Ratio	0.11	0.45	0.45	0.11	0.38		0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.23	0.11	0.04	0.02	0.74		0.35	0.02	0.09	0.08	0.25
Control Delay	31.2	10.1	0.1	30.0	22.7		20.9	0.0	18.2	17.6	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	10.1	0.1	30.0	22.7		20.9	0.0	18.2	17.6	5.4
LOS	C	B	A	C	C		C	A	B	B	A
Approach Delay		14.0			22.7		19.7			9.8	
Approach LOS		B			C		B			A	

Intersection Summary		
Cycle Length: 80		
Actuated Cycle Length: 51.2		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.74		
Intersection Signal Delay: 18.4	Intersection LOS: B	
Intersection Capacity Utilization 52.1%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	68	25	3	373	21	75	30	6	23	32	99
Future Volume (veh/h)	35	68	25	3	373	21	75	30	6	23	32	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	91	33	4	497	28	100	40	8	31	43	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	761	645	10	635	36	364	124	365	373	431	
Arrive On Green	0.05	0.40	0.40	0.01	0.36	0.36	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1782	100	987	546	1610	1379	1900	1610
Grp Volume(v), veh/h	47	91	33	4	0	525	140	0	8	31	43	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1882	1533	0	1610	1379	1900	1610
Q Serve(g_s), s	1.1	1.3	0.6	0.1	0.0	11.0	2.5	0.0	0.2	0.9	0.8	0.0
Cycle Q Clear(g_c), s	1.1	1.3	0.6	0.1	0.0	11.0	3.3	0.0	0.2	4.1	0.8	0.0
Prop In Lane	1.00		1.00	1.00		0.05	0.71		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	90	761	645	10	0	671	487	0	365	373	431	
V/C Ratio(X)	0.52	0.12	0.05	0.41	0.00	0.78	0.29	0.00	0.02	0.08	0.10	
Avail Cap(c_a), veh/h	222	1275	1080	205	0	1246	1141	0	1066	974	1258	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.5	8.3	8.1	21.9	0.0	12.7	14.4	0.0	13.3	16.2	13.5	0.0
Incr Delay (d2), s/veh	1.8	0.1	0.0	9.8	0.0	2.0	0.3	0.0	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.1	0.1	0.0	3.5	0.9	0.0	0.0	0.2	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.2	8.4	8.1	31.6	0.0	14.7	14.7	0.0	13.3	16.3	13.6	0.0
LnGrp LOS	C	A	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		171			529			148			74	A
Approach Delay, s/veh		12.1			14.8			14.6			14.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	4.8	23.5		15.8	6.8	21.5				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		29.2	5.0	29.6		29.2	5.4	29.2				
Max Q Clear Time (g_c+I1), s		5.3	2.1	3.3		6.1	3.1	13.0				
Green Ext Time (p_c), s		0.7	0.0	0.5		0.2	0.0	2.7				

Intersection Summary												
HCM 6th Ctrl Delay			14.3									
HCM 6th LOS			B									

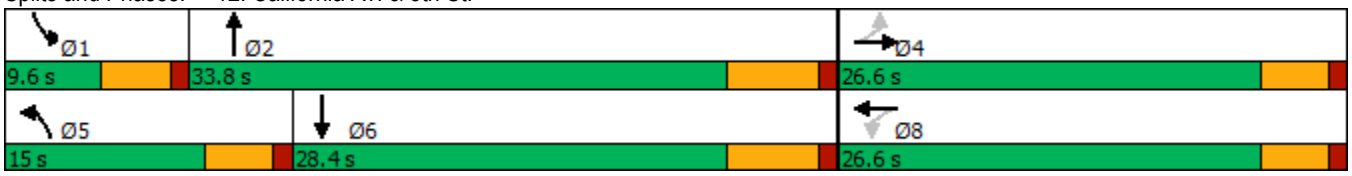
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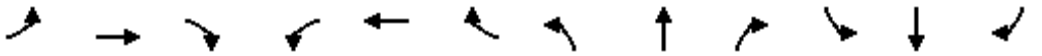
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	61	10	312	575	407	
Future Volume (vph)	2	3	61	10	312	575	407	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.4		12.4	10.6	40.0	23.1	
Actuated g/C Ratio		0.21		0.21	0.18	0.69	0.40	
v/c Ratio		0.25		0.37	1.19	0.58	35.60	
Control Delay		7.0		19.2	139.2	10.1	15481.8	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.0		19.2	139.2	10.1	15481.8	
LOS		A		B	F	B	F	
Approach Delay		7.0		19.2		54.2	15481.8	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 57.7	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 35.60	
Intersection Signal Delay: 4324.5	Intersection LOS: F
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	78	61	10	31	312	575	28	13	407	2
Future Volume (veh/h)	2	3	78	61	10	31	312	575	28	13	407	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	99	77	13	39	395	728	35	16	515	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	74	17	282	256	57	87	362	1104	53	0	614	4
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.20	0.61	0.61	0.00	0.33	0.33
Sat Flow, veh/h	15	93	1515	780	305	470	1810	1798	86	0	1887	11
Grp Volume(v), veh/h	106	0	0	129	0	0	395	0	763	0	0	518
Grp Sat Flow(s),veh/h/ln	1622	0	0	1556	0	0	1810	0	1884	0	0	1898
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	0.0	10.4	0.0	13.7	0.0	0.0	13.2
Cycle Q Clear(g_c), s	3.0	0.0	0.0	3.3	0.0	0.0	10.4	0.0	13.7	0.0	0.0	13.2
Prop In Lane	0.03		0.93	0.60		0.30	1.00		0.05	0.00		0.01
Lane Grp Cap(c), veh/h	373	0	0	400	0	0	362	0	1157	0	0	618
V/C Ratio(X)	0.28	0.00	0.00	0.32	0.00	0.00	1.09	0.00	0.66	0.00	0.00	0.84
Avail Cap(c_a), veh/h	755	0	0	741	0	0	362	0	1157	0	0	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	18.5	0.0	0.0	20.8	0.0	6.5	0.0	0.0	16.3
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.5	0.0	0.0	74.0	0.0	1.4	0.0	0.0	5.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.3	0.0	0.0	11.1	0.0	3.0	0.0	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	0.0	0.0	19.0	0.0	0.0	94.8	0.0	7.9	0.0	0.0	22.1
LnGrp LOS	B	A	A	B	A	A	F	A	A	A	A	C
Approach Vol, veh/h		106			129			1158			518	
Approach Delay, s/veh		18.8			19.0			37.5			22.1	
Approach LOS		B			B			D			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	37.7		14.3	15.0	22.7		14.3				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	15.7		5.0	12.4	15.2		5.3				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	1.8		0.6				

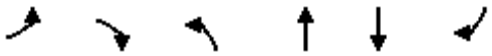
Intersection Summary			
HCM 6th Ctrl Delay		31.1	
HCM 6th LOS		C	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	90	29	117	852	189	318
Future Volume (vph)	90	29	117	852	189	318
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	13.1	13.1	10.4	51.3	33.9	33.9
Actuated g/C Ratio	0.19	0.19	0.15	0.74	0.49	0.49
v/c Ratio	0.34	0.11	0.57	0.79	0.26	0.41
Control Delay	31.7	10.6	40.6	15.5	14.0	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	10.6	40.6	15.5	14.0	3.1
LOS	C	B	D	B	B	A
Approach Delay	26.5			18.6	7.2	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 69.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	29	117	852	189	318
Future Volume (veh/h)	90	29	117	852	189	318
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	38	152	1106	245	413
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	272	242	194	1258	913	774
Arrive On Green	0.15	0.15	0.11	0.66	0.48	0.48
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	117	38	152	1106	245	413
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	3.6	1.3	5.1	29.1	4.8	11.1
Cycle Q Clear(g_c), s	3.6	1.3	5.1	29.1	4.8	11.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	272	242	194	1258	913	774
V/C Ratio(X)	0.43	0.16	0.78	0.88	0.27	0.53
Avail Cap(c_a), veh/h	644	573	389	1733	1183	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	22.9	26.9	8.5	9.6	11.2
Incr Delay (d2), s/veh	1.1	0.3	2.6	4.2	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	2.1	7.5	1.5	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.9	23.2	29.5	12.6	9.7	11.8
LnGrp LOS	C	C	C	B	A	B
Approach Vol, veh/h	155			1258	658	
Approach Delay, s/veh	24.5			14.7	11.0	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.7		15.1	11.2	35.5
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		56.4		22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s		31.1		5.6	7.1	13.1
Green Ext Time (p_c), s		9.8		0.3	0.1	2.8

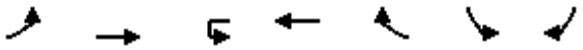
Intersection Summary		
HCM 6th Ctrl Delay		14.3
HCM 6th LOS		B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	1100	148	46	425	442	851	
Future Volume (vph)	1100	148	46	425	442	851	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	64.0	87.2	32.8	32.8	33.2	64.0	9.6
Total Split (%)	49.2%	67.1%	25.2%	25.2%	25.5%	49.2%	7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effct Green (s)	58.0	89.3	26.7	26.7	25.6	89.8	
Actuated g/C Ratio	0.46	0.70	0.21	0.21	0.20	0.71	
v/c Ratio	0.96	0.15	0.16	0.98	0.88	0.89	
Control Delay	48.3	6.7	43.3	51.2	63.3	15.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	48.3	6.7	43.3	51.2	63.3	15.3	
LOS	D	A	D	D	E	B	
Approach Delay		43.3	50.5		31.7		
Approach LOS		D	D		C		

Intersection Summary	
Cycle Length: 130	
Actuated Cycle Length: 126.9	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 39.5	Intersection LOS: D
Intersection Capacity Utilization 69.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	1100	148	0	46	425	442	851
Future Volume (veh/h)	1100	148	0	46	425	442	851
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	1642	221		69	373	660	673
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1668	1383		410	348	758	1113
Arrive On Green	0.46	0.70		0.21	0.21	0.21	0.21
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	1642	221		69	373	660	673
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	57.7	4.9		3.7	27.0	22.7	27.0
Cycle Q Clear(g_c), s	57.7	4.9		3.7	27.0	22.7	27.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1668	1383		410	348	758	1113
V/C Ratio(X)	0.98	0.16		0.17	1.07	0.87	0.60
Avail Cap(c_a), veh/h	1668	1383		410	348	758	1113
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	6.6		42.3	51.5	49.8	12.2
Incr Delay (d2), s/veh	18.3	0.1		0.2	68.9	10.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.2	1.8		1.8	17.6	11.1	32.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	53.1	6.6		42.5	120.4	60.5	13.2
LnGrp LOS	D	A		D	F	E	B
Approach Vol, veh/h		1863		442		1333	
Approach Delay, s/veh		47.6		108.2		36.6	
Approach LOS		D		F		D	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				96.8		33.2	64.0	32.8
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				81.4		27.0	59.4	27.0
Max Q Clear Time (g_c+I1), s				6.9		29.0	59.7	29.0
Green Ext Time (p_c), s				1.2		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

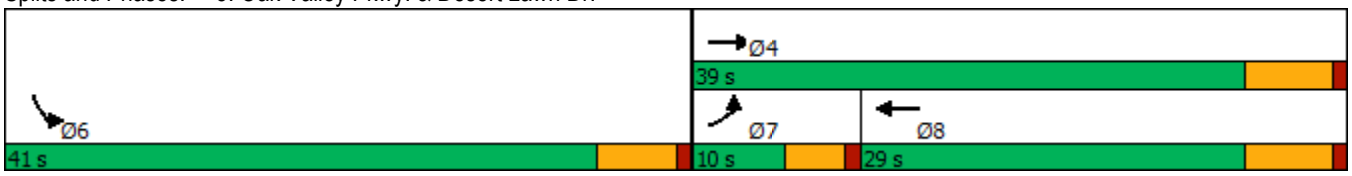
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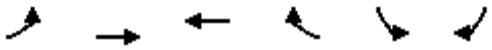
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	65	628	635	210
Future Volume (vph)	65	628	635	210
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	5.7	23.8	18.6	15.4
Actuated g/C Ratio	0.11	0.46	0.36	0.30
v/c Ratio	0.34	0.75	0.54	0.48
Control Delay	33.4	19.5	14.0	18.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	33.4	19.5	14.0	18.2
LOS	C	B	B	B
Approach Delay		20.8	14.0	18.2
Approach LOS		C	B	B

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 52.1	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	628	635	344	210	43
Future Volume (veh/h)	65	628	635	344	210	43
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	67	647	655	355	216	44
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	114	966	1185	552	328	67
Arrive On Green	0.06	0.51	0.34	0.34	0.22	0.22
Sat Flow, veh/h	1810	1900	3629	1610	1467	299
Grp Volume(v), veh/h	67	647	655	355	261	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1773	0
Q Serve(g_s), s	1.6	11.4	6.9	8.3	6.0	0.0
Cycle Q Clear(g_c), s	1.6	11.4	6.9	8.3	6.0	0.0
Prop In Lane	1.00			1.00	0.83	0.17
Lane Grp Cap(c), veh/h	114	966	1185	552	396	0
V/C Ratio(X)	0.59	0.67	0.55	0.64	0.66	0.00
Avail Cap(c_a), veh/h	218	1392	1761	820	1394	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.4	8.2	11.9	12.4	15.8	0.0
Incr Delay (d2), s/veh	1.8	0.8	0.4	1.3	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.5	1.9	2.3	2.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.2	9.0	12.3	13.7	17.7	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		714	1010		261	
Approach Delay, s/veh		10.2	12.8		17.7	
Approach LOS		B	B		B	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	29.0	15.8	7.4	21.5
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	32.8	35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s	13.4	8.0	3.6	10.3
Green Ext Time (p_c), s	3.7	0.7	0.0	5.0

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

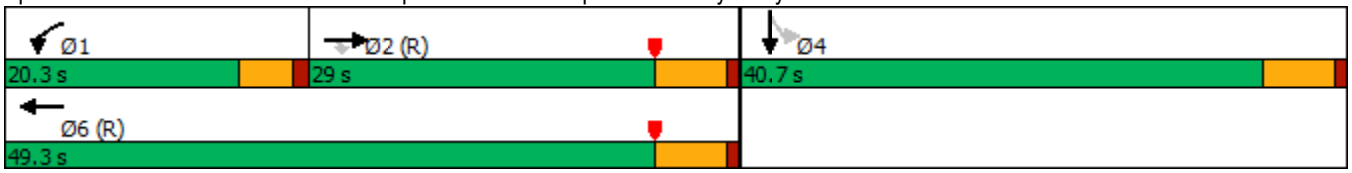
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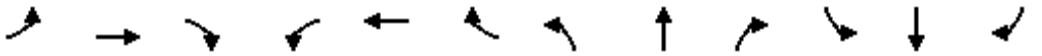
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	578	260	180	718	547	1
Future Volume (vph)	578	260	180	718	547	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.0	29.0	20.3	49.3	40.7	40.7
Total Split (%)	32.2%	32.2%	22.6%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	24.6	24.6	14.3	43.5	34.9	34.9
Actuated g/C Ratio	0.27	0.27	0.16	0.48	0.39	0.39
v/c Ratio	0.77	0.50	0.83	1.03	1.03	0.51
Control Delay	37.0	5.9	54.6	52.1	71.1	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	5.9	54.6	52.1	71.1	18.9
LOS	D	A	D	D	E	B
Approach Delay	27.4			52.6		54.2
Approach LOS	C			D		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 44.8	Intersection LOS: D
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	578	260	180	718	0	0	0	0	547	1	261
Future Volume (veh/h)	0	578	260	180	718	0	0	0	0	547	1	261
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	761	284	237	945	0				720	1	277
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1013	452	274	918	0				702	2	622
Arrive On Green	0.00	0.28	0.28	0.10	0.32	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	3705	1610	1810	1900	0				1810	6	1605
Grp Volume(v), veh/h	0	761	284	237	945	0				720	0	278
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1900	0				1810	0	1611
Q Serve(g_s), s	0.0	17.3	13.9	11.6	43.5	0.0				34.9	0.0	11.5
Cycle Q Clear(g_c), s	0.0	17.3	13.9	11.6	43.5	0.0				34.9	0.0	11.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1013	452	274	918	0				702	0	625
V/C Ratio(X)	0.00	0.75	0.63	0.86	1.03	0.00				1.03	0.00	0.44
Avail Cap(c_a), veh/h	0	1013	452	316	918	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.69	0.69	0.47	0.47	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.5	28.3	39.5	30.4	0.0				27.5	0.0	20.4
Incr Delay (d2), s/veh	0.0	3.6	4.5	9.2	28.2	0.0				40.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	5.5	5.8	26.9	0.0				21.4	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.1	32.8	48.7	58.6	0.0				68.3	0.0	20.9
LnGrp LOS	A	C	C	D	F	A				F	A	C
Approach Vol, veh/h		1045			1182						998	
Approach Delay, s/veh		33.0			56.6						55.1	
Approach LOS		C			E						E	

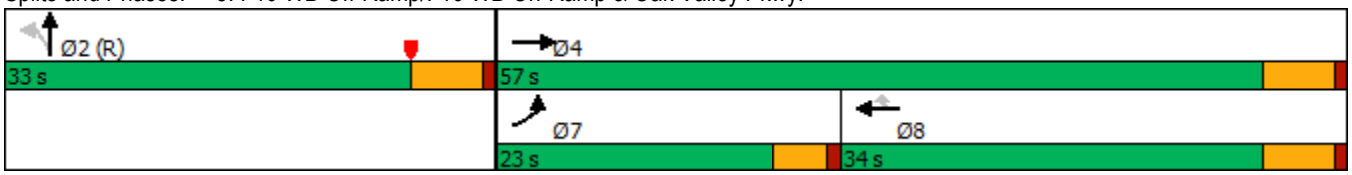
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.2	31.1		40.7		49.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	15.7	23.2		34.9		43.5						
Max Q Clear Time (g_c+I1), s	13.6	19.3		36.9		45.5						
Green Ext Time (p_c), s	0.1	2.0		0.0		0.0						

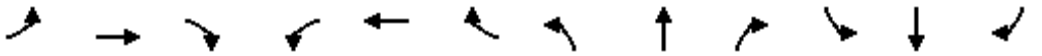
Intersection Summary												
HCM 6th Ctrl Delay			48.5									
HCM 6th LOS			D									

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	319	806	490	318	408	4
Future Volume (vph)	319	806	490	318	408	4
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	23.0	57.0	34.0	34.0	33.0	33.0
Total Split (%)	25.6%	63.3%	37.8%	37.8%	36.7%	36.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	17.8	49.1	26.7	26.7	29.3	29.3
Actuated g/C Ratio	0.20	0.55	0.30	0.30	0.33	0.33
v/c Ratio	0.92	0.80	0.90	0.46	0.72	0.53
Control Delay	53.1	14.3	50.5	5.1	36.0	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	14.3	50.5	5.1	36.0	16.7
LOS	D	B	D	A	D	B
Approach Delay		25.3	32.7			27.4
Approach LOS		C	C			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 28.1	Intersection LOS: C
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	806	0	0	490	318	408	4	321	0	0	0
Future Volume (veh/h)	319	806	0	0	490	318	408	4	321	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	329	831	0	0	505	258	421	4	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	367	1037	0	0	555	470	589	7	517			
Arrive On Green	0.07	0.18	0.00	0.00	0.29	0.29	0.33	0.33	0.33			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1810	23	1591			
Grp Volume(v), veh/h	329	831	0	0	505	258	421	0	283			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1810	0	1614			
Q Serve(g_s), s	16.2	37.7	0.0	0.0	23.1	12.2	18.4	0.0	12.9			
Cycle Q Clear(g_c), s	16.2	37.7	0.0	0.0	23.1	12.2	18.4	0.0	12.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	367	1037	0	0	555	470	589	0	525			
V/C Ratio(X)	0.90	0.80	0.00	0.00	0.91	0.55	0.72	0.00	0.54			
Avail Cap(c_a), veh/h	370	1081	0	0	595	505	589	0	525			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.32	0.32	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.1	32.2	0.0	0.0	30.7	26.9	26.7	0.0	24.8			
Incr Delay (d2), s/veh	9.1	1.4	0.0	0.0	17.5	1.1	7.3	0.0	3.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.7	19.2	0.0	0.0	12.4	4.5	8.5	0.0	5.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	33.6	0.0	0.0	48.2	27.9	34.0	0.0	28.8			
LnGrp LOS	D	C	A	A	D	C	C	A	C			
Approach Vol, veh/h		1160			763			704				
Approach Delay, s/veh		38.3			41.4			31.9				
Approach LOS		D			D			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		35.1		54.9			22.8	32.1				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		27.2		51.2			18.4	28.2				
Max Q Clear Time (g_c+I1), s		20.4		39.7			18.2	25.1				
Green Ext Time (p_c), s		1.8		4.2			0.0	1.2				

Intersection Summary												
HCM 6th Ctrl Delay			37.5									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	89	873	134	114	698	59	0	0	124	0	0	69	0	0
Future Vol, veh/h	89	873	134	114	698	59	0	0	124	0	0	69	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	96	939	144	123	751	63	0	0	133	0	0	74	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	814	0	0	1083	0	0	-	-	542	-	-	407
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	822	-	-	652	-	-	0	0	490	0	0	599
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	822	-	-	652	-	-	-	-	490	-	-	599
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

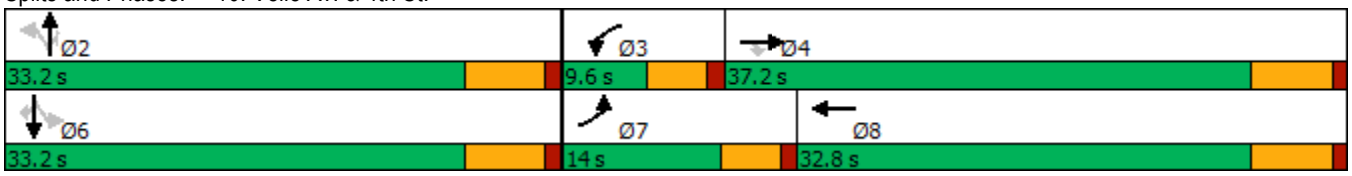
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	1.5	15.1	11.9
HCM LOS			C	B

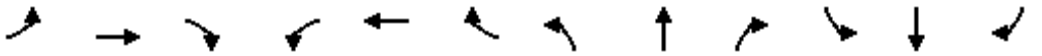
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	490	822	-	-	652	-	-	599
HCM Lane V/C Ratio	0.272	0.116	-	-	0.188	-	-	0.124
HCM Control Delay (s)	15.1	10	-	-	11.8	-	-	11.9
HCM Lane LOS	C	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.1	0.4	-	-	0.7	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	111	372	82	9	258	42	40	12	14	63	41
Future Volume (vph)	111	372	82	9	258	42	40	12	14	63	41
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	8.8	29.3	29.3	5.2	17.0		13.1	13.1	13.1	13.1	13.1
Actuated g/C Ratio	0.16	0.53	0.53	0.09	0.30		0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.56	0.53	0.13	0.08	0.72		0.33	0.04	0.07	0.20	0.13
Control Delay	34.9	13.4	3.3	30.4	25.7		21.7	0.2	18.5	19.5	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	34.9	13.4	3.3	30.4	25.7		21.7	0.2	18.5	19.5	2.0
LOS	C	B	A	C	C		C	A	B	B	A
Approach Delay		16.2			25.9		19.0			13.3	
Approach LOS		B			C		B			B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 55.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	372	82	9	258	32	42	40	12	14	63	41
Future Volume (veh/h)	111	372	82	9	258	32	42	40	12	14	63	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	531	117	13	369	46	60	57	17	20	90	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	742	629	30	487	61	270	219	364	396	430	
Arrive On Green	0.11	0.39	0.39	0.02	0.29	0.29	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1656	206	650	969	1610	1347	1900	1610
Grp Volume(v), veh/h	159	531	117	13	0	415	117	0	17	20	90	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1863	1619	0	1610	1347	1900	1610
Q Serve(g_s), s	3.8	10.4	2.1	0.3	0.0	8.9	0.5	0.0	0.4	0.6	1.7	0.0
Cycle Q Clear(g_c), s	3.8	10.4	2.1	0.3	0.0	8.9	2.3	0.0	0.4	2.9	1.7	0.0
Prop In Lane	1.00		1.00	1.00		0.11	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	205	742	629	30	0	548	490	0	364	396	430	
V/C Ratio(X)	0.78	0.72	0.19	0.43	0.00	0.76	0.24	0.00	0.05	0.05	0.21	
Avail Cap(c_a), veh/h	385	1350	1144	205	0	1138	1102	0	998	926	1178	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.0	11.4	8.9	21.5	0.0	14.2	14.1	0.0	13.4	15.3	13.9	0.0
Incr Delay (d2), s/veh	2.4	1.3	0.1	3.6	0.0	2.2	0.2	0.0	0.1	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	3.2	0.5	0.1	0.0	3.1	0.8	0.0	0.1	0.1	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	12.7	9.0	25.1	0.0	16.4	14.4	0.0	13.4	15.4	14.1	0.0
LnGrp LOS	C	B	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		807			428			134			110	A
Approach Delay, s/veh		13.9			16.6			14.2			14.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	5.3	23.1		15.8	9.6	18.8				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		27.4	5.0	31.4		27.4	9.4	27.0				
Max Q Clear Time (g_c+I1), s		4.3	2.3	12.4		4.9	5.8	10.9				
Green Ext Time (p_c), s		0.6	0.0	3.3		0.4	0.1	2.0				

Intersection Summary												
HCM 6th Ctrl Delay			14.7									
HCM 6th LOS			B									

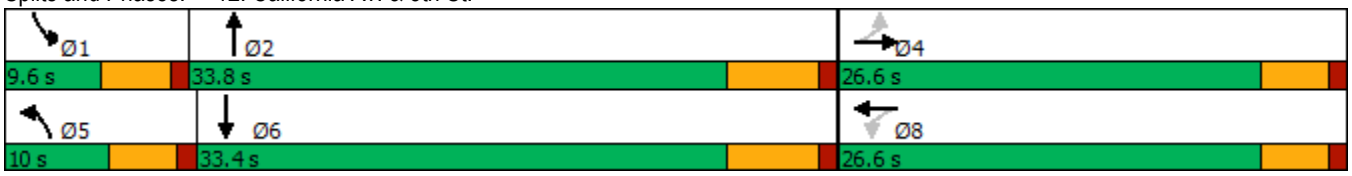
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	4	3	55	3	186	555	365	
Future Volume (vph)	4	3	55	3	186	555	365	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.1		12.1	5.4	42.1	30.9	
Actuated g/C Ratio		0.20		0.20	0.09	0.70	0.51	
v/c Ratio		0.25		0.27	1.21	0.49	10.21	
Control Delay		7.3		17.6	169.7	8.4	4246.3	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.3		17.6	169.7	8.4	4246.3	
LOS		A		B	F	A	F	
Approach Delay		7.3		17.6		46.0	4246.3	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 60.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 10.21	
Intersection Signal Delay: 1213.9	Intersection LOS: F
Intersection Capacity Utilization 77.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	90	55	3	22	186	555	59	7	365	7
Future Volume (veh/h)	4	3	90	55	3	22	186	555	59	7	365	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	95	58	3	23	196	584	62	7	384	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	97	19	325	346	39	89	240	893	95	0	527	10
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.13	0.53	0.53	0.00	0.28	0.28
Sat Flow, veh/h	22	90	1509	913	181	412	1810	1688	179	0	1860	34
Grp Volume(v), veh/h	102	0	0	84	0	0	196	0	646	0	0	391
Grp Sat Flow(s),veh/h/ln	1621	0	0	1506	0	0	1810	0	1868	0	0	1894
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	10.1	0.0	0.0	7.6
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.5	0.0	0.0	4.3	0.0	10.1	0.0	0.0	7.6
Prop In Lane	0.04		0.93	0.69		0.27	1.00		0.10	0.00		0.02
Lane Grp Cap(c), veh/h	441	0	0	474	0	0	240	0	988	0	0	537
V/C Ratio(X)	0.23	0.00	0.00	0.18	0.00	0.00	0.82	0.00	0.65	0.00	0.00	0.73
Avail Cap(c_a), veh/h	963	0	0	929	0	0	240	0	1284	0	0	1283
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	0.0	13.1	0.0	0.0	17.2	0.0	6.9	0.0	0.0	13.2
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	18.2	0.0	0.8	0.0	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.6	0.0	0.0	2.6	0.0	1.9	0.0	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.6	0.0	0.0	13.3	0.0	0.0	35.4	0.0	7.7	0.0	0.0	15.1
LnGrp LOS	B	A	A	B	A	A	D	A	A	A	A	B
Approach Vol, veh/h		102			84			842			391	
Approach Delay, s/veh		13.6			13.3			14.1			15.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	27.3		13.4	10.0	17.3		13.4				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	12.1		4.1	6.3	9.6		3.5				
Green Ext Time (p_c), s	0.0	3.6		0.5	0.0	2.0		0.4				

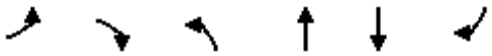
Intersection Summary			
HCM 6th Ctrl Delay		14.3	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	294	142	77	525	1018	245
Future Volume (vph)	294	142	77	525	1018	245
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	29.0	29.0	11.1	91.0	79.9	79.9
Total Split (%)	24.2%	24.2%	9.3%	75.8%	66.6%	66.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	22.3	22.3	6.6	81.4	70.2	70.2
Actuated g/C Ratio	0.19	0.19	0.06	0.71	0.61	0.61
v/c Ratio	0.92	0.35	0.82	0.43	0.96	0.25
Control Delay	78.5	8.9	107.3	8.3	40.2	4.3
Queue Delay	0.0	0.0	0.0	0.0	29.1	0.0
Total Delay	78.5	8.9	107.3	8.3	69.3	4.3
LOS	E	A	F	A	E	A
Approach Delay	55.9			21.0	56.7	
Approach LOS	E			C	E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.4	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 47.2	Intersection LOS: D
Intersection Capacity Utilization 87.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	294	142	77	525	1018	245
Future Volume (veh/h)	294	142	77	525	1018	245
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	320	154	84	571	1107	266
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	349	310	102	1343	1161	984
Arrive On Green	0.19	0.19	0.06	0.71	0.61	0.61
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	320	154	84	571	1107	266
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	20.0	9.9	5.3	14.5	62.8	8.9
Cycle Q Clear(g_c), s	20.0	9.9	5.3	14.5	62.8	8.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	349	310	102	1343	1161	984
V/C Ratio(X)	0.92	0.50	0.83	0.43	0.95	0.27
Avail Cap(c_a), veh/h	363	323	102	1400	1218	1032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	41.7	54.0	7.1	21.0	10.5
Incr Delay (d2), s/veh	27.1	1.2	38.2	0.2	15.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	9.0	3.4	4.9	28.7	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	72.9	42.9	92.2	7.3	36.6	10.6
LnGrp LOS	E	D	F	A	D	B
Approach Vol, veh/h	474			655	1373	
Approach Delay, s/veh	63.2			18.2	31.5	
Approach LOS	E			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		87.5		28.1	11.1	76.4
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		85.2		23.2	6.5	74.1
Max Q Clear Time (g_c+I1), s		16.5		22.0	7.3	64.8
Green Ext Time (p_c), s		3.8		0.2	0.0	5.9

Intersection Summary		
HCM 6th Ctrl Delay		34.0
HCM 6th LOS		C

APPENDIX 8.1:

OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	16.7
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	327	45	255	349	66	259
Future Vol, veh/h	327	45	255	349	66	259
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	380	52	297	406	77	301
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	14.7	17	18.3
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	259	164	164	45	255	175	175
LT Vol	66	0	0	0	0	255	0	0
Through Vol	0	0	164	164	0	0	175	175
RT Vol	0	259	0	0	45	0	0	0
Lane Flow Rate	77	301	190	190	52	297	203	203
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.177	0.592	0.405	0.405	0.076	0.634	0.405	0.307
Departure Headway (Hd)	8.289	7.08	7.669	7.669	5.206	7.697	7.185	5.444
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	509	470	470	685	468	501	659
Service Time	6.041	4.831	5.423	5.423	2.959	5.446	4.934	3.192
HCM Lane V/C Ratio	0.178	0.591	0.404	0.404	0.076	0.635	0.405	0.308
HCM Control Delay	12.8	19.7	15.6	15.6	8.4	22.9	14.8	10.6
HCM Lane LOS	B	C	C	C	A	C	B	B
HCM 95th-tile Q	0.6	3.8	1.9	1.9	0.2	4.3	1.9	1.3

Intersection	
Intersection Delay, s/veh	42.7
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	59	0	64	5	49	490	0
Future Vol, veh/h	0	0	0	10	0	59	0	64	5	49	490	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	91	0	98	8	75	754	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.6	9	51.2
HCM LOS	A	A	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	9%
Vol Thru, %	93%	0%	91%
Vol Right, %	7%	86%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	69	69	539
LT Vol	0	10	49
Through Vol	64	0	490
RT Vol	5	59	0
Lane Flow Rate	106	106	829
Geometry Grp	1	1	1
Degree of Util (X)	0.148	0.161	0.998
Departure Headway (Hd)	5.009	5.469	4.332
Convergence, Y/N	Yes	Yes	Yes
Cap	711	651	838
Service Time	3.073	3.545	2.369
HCM Lane V/C Ratio	0.149	0.163	0.989
HCM Control Delay	9	9.6	51.2
HCM Lane LOS	A	A	F
HCM 95th-tile Q	0.5	0.6	17.5

Intersection	
Intersection Delay, s/veh	90.1
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	105	25	0	71	45	375	428
Future Vol, veh/h	105	25	0	71	45	375	428
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	157	37	0	106	67	560	639
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	17.1	11.7	113.3
HCM LOS	C	B	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	81%	0%	0%	0%	100%	23%
Vol Thru, %	19%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	77%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	0	71	45	250	553
LT Vol	105	0	0	0	250	125
Through Vol	25	0	71	0	0	0
RT Vol	0	0	0	45	0	428
Lane Flow Rate	194	0	106	67	373	825
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	0.426	0	0.211	0.121	0.674	1.277
Departure Headway (Hd)	8.373	7.682	7.682	6.965	6.505	5.568
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	0	471	518	560	660
Service Time	6.073	5.382	5.382	4.665	4.215	3.278
HCM Lane V/C Ratio	0.448	0	0.225	0.129	0.666	1.25
HCM Control Delay	17.1	10.4	12.4	10.6	21.6	154.8
HCM Lane LOS	C	N	B	B	C	F
HCM 95th-tile Q	2.1	0	0.8	0.4	5.1	32

Intersection	
Intersection Delay, s/veh	249.9
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	86	709	565	365	553	81
Future Vol, veh/h	86	709	565	365	553	81
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	99	815	649	420	636	93
Number of Lanes	1	1	3	0	1	0

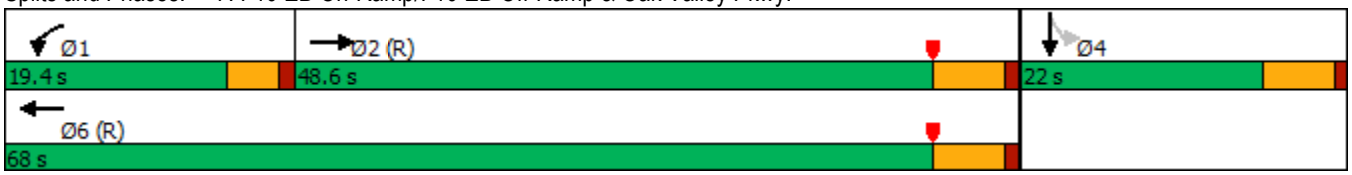
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	419.4	33.2	355.1
HCM LOS	F	D	F

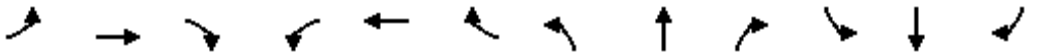
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	87%
Vol Thru, %	0%	100%	100%	100%	24%	0%
Vol Right, %	0%	0%	0%	0%	76%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	709	226	226	478	634
LT Vol	86	0	0	0	0	553
Through Vol	0	709	226	226	113	0
RT Vol	0	0	0	0	365	81
Lane Flow Rate	99	815	260	260	549	729
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.252	1.965	0.551	0.551	0.825	1.713
Departure Headway (Hd)	11.119	10.578	10.797	10.797	8.388	9.695
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	325	350	338	338	440	379
Service Time	8.819	8.278	8.497	8.497	6.088	7.395
HCM Lane V/C Ratio	0.305	2.329	0.769	0.769	1.248	1.923
HCM Control Delay	17.5	468.1	26	26	40	355.1
HCM Lane LOS	C	F	D	D	E	F
HCM 95th-tile Q	1	46.5	3.2	3.2	7.7	39.2

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	702	300	720	3
Future Volume (vph)	702	300	720	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.61	1.14	0.62	1.71
Control Delay	302.7	110.0	5.4	357.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	302.7	110.0	5.4	357.2
LOS	F	F	A	F
Approach Delay	302.7		36.2	357.2
Approach LOS	F		D	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.71	
Intersection Signal Delay: 215.7	Intersection LOS: F
Intersection Capacity Utilization 131.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	702	561	300	720	0	0	0	0	305	3	209
Future Volume (veh/h)	0	702	561	300	720	0	0	0	0	305	3	209
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	789	543	337	809	0				343	3	216
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	499	343	298	1313	0				190	2	120
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1049	722	1810	1900	0				1054	9	664
Grp Volume(v), veh/h	0	0	1332	337	809	0				562	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1770	1810	1900	0				1728	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.41	1.00		0.00				0.61		0.38
Lane Grp Cap(c), veh/h	0	0	842	298	1313	0				311	0	0
V/C Ratio(X)	0.00	0.00	1.58	1.13	0.62	0.00				1.81	0.00	0.00
Avail Cap(c_a), veh/h	0	0	842	298	1313	0				311	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.2	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	267.7	64.0	0.2	0.0				375.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	77.9	10.1	0.1	0.0				38.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	291.3	94.2	0.2	0.0				412.6	0.0	0.0
LnGrp LOS	A	A	F	F	A	A				F	A	A
Approach Vol, veh/h		1332			1146						562	
Approach Delay, s/veh		291.3			27.8						412.6	
Approach LOS		F			C						F	

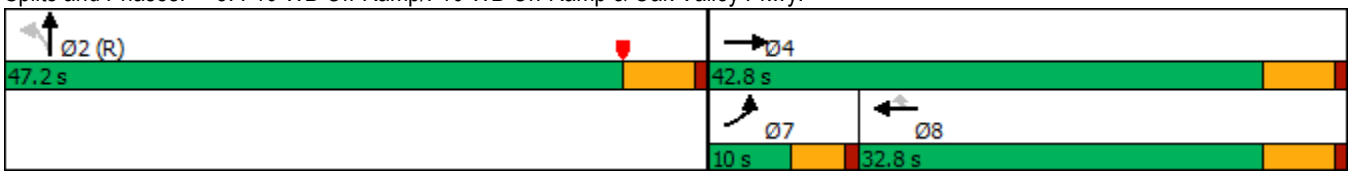
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		6.4						

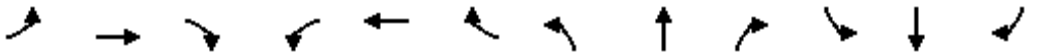
Intersection Summary												
HCM 6th Ctrl Delay			214.4									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	251	755	631	529	5
Future Volume (vph)	251	755	631	529	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	2.37	0.99	1.13	0.63	1.00
Control Delay	640.3	31.6	110.3	6.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	640.3	31.6	110.3	6.5	55.5
LOS	F	C	F	A	E
Approach Delay		183.5	63.0		55.5
Approach LOS		F	E		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.37	
Intersection Signal Delay: 101.4	Intersection LOS: F
Intersection Capacity Utilization 131.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	755	0	0	631	529	390	5	427	0	0	0
Future Volume (veh/h)	251	755	0	0	631	529	390	5	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	256	770	0	0	644	424	398	5	314			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	438	6	346			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	953	12	752			
Grp Volume(v), veh/h	256	770	0	0	644	424	717	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1717	0	0			
Q Serve(g_s), s	5.4	36.3	0.0	0.0	27.0	22.5	34.8	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	36.3	0.0	0.0	27.0	22.5	34.8	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.56		0.44			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	790	0	0			
V/C Ratio(X)	2.36	0.99	0.00	0.00	1.13	0.88	0.91	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	790	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	32.3	0.0	0.0	31.5	29.9	22.5	0.0	0.0			
Incr Delay (d2), s/veh	613.6	6.8	0.0	0.0	78.8	16.6	16.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	20.9	18.1	0.0	0.0	23.8	10.2	15.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	656.8	39.2	0.0	0.0	110.3	46.5	38.7	0.0	0.0			
LnGrp LOS	F	D	A	A	F	D	D	A	A			
Approach Vol, veh/h		1026			1068			717				
Approach Delay, s/veh		193.3			85.0			38.7				
Approach LOS		F			F			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		47.2		42.8			10.0	32.8				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		36.8		38.3			7.4	29.0				
Green Ext Time (p_c), s		1.9		0.0			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			112.7									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	636	159	171	980	29	0	0	70	0	0	173
Future Vol, veh/h	0	636	159	171	980	29	0	0	70	0	0	173
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	699	175	188	1077	32	0	0	77	0	0	190

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	874	0	0	-	-	437	-	-	1093
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	781	-	-	0	0	573	0	0	263
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	781	-	-	-	-	573	-	-	263
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	12.3	47.7
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	573	-	-	781	-	-	263
HCM Lane V/C Ratio	0.134	-	-	0.241	-	-	0.723
HCM Control Delay (s)	12.3	-	-	11.1	-	-	47.7
HCM Lane LOS	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.5	-	-	0.9	-	-	5

Intersection	
Intersection Delay, s/veh	96.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	65	26	3	510	22	79	31	6	24	33	130
Future Vol, veh/h	38	65	26	3	510	22	79	31	6	24	33	130
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	51	87	35	4	680	29	105	41	8	32	44	173
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

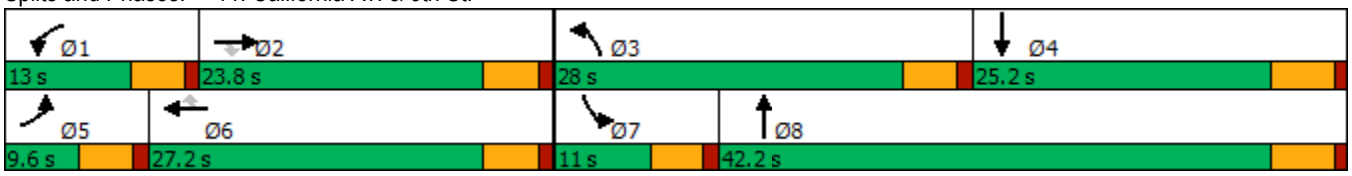
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	12.2	163.1	15.5	13.4
HCM LOS	B	F	C	B

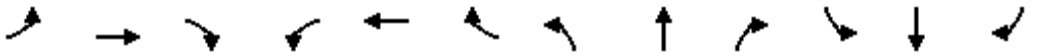
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	72%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	28%	0%	0%	100%	0%	0%	96%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	4%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	6	38	65	26	3	532	24	33	130
LT Vol	79	0	38	0	0	3	0	24	0	0
Through Vol	31	0	0	65	0	0	510	0	33	0
RT Vol	0	6	0	0	26	0	22	0	0	130
Lane Flow Rate	147	8	51	87	35	4	709	32	44	173
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.33	0.016	0.114	0.183	0.066	0.008	1.289	0.072	0.093	0.332
Departure Headway (Hd)	8.81	7.726	8.705	8.191	7.473	7.077	6.542	8.791	8.28	7.564
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	411	466	414	441	482	505	560	410	436	478
Service Time	6.51	5.426	6.405	5.891	5.173	4.825	4.29	6.491	5.98	5.264
HCM Lane V/C Ratio	0.358	0.017	0.123	0.197	0.073	0.008	1.266	0.078	0.101	0.362
HCM Control Delay	15.8	10.6	12.5	12.7	10.7	9.9	164	12.2	11.8	14
HCM Lane LOS	C	B	B	B	B	A	F	B	B	B
HCM 95th-tile Q	1.4	0	0.4	0.7	0.2	0	28.9	0.2	0.3	1.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	314	129	297	312	22	449	94	49	167
Future Volume (vph)	4	314	129	297	312	22	449	94	49	167
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	18.2	18.2	8.4	29.4	29.4	23.4	41.5	6.0	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.09	0.33	0.33	0.26	0.46	0.07	0.22
v/c Ratio	0.04	0.88	0.29	1.91	0.54	0.04	1.03	0.20	0.44	0.44
Control Delay	41.2	59.2	3.2	455.3	29.5	0.1	84.4	12.6	51.8	33.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	59.2	3.2	455.3	29.5	0.1	84.4	12.6	51.8	33.8
LOS	D	E	A	F	C	A	F	B	D	C
Approach Delay		42.9			229.0			66.1		37.7
Approach LOS		D			F			E		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 89.3	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.91	
Intersection Signal Delay: 111.4	Intersection LOS: F
Intersection Capacity Utilization 82.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	314	129	297	312	22	449	94	60	49	167	5
Future Volume (veh/h)	4	314	129	297	312	22	449	94	60	49	167	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	341	139	323	339	15	488	102	43	53	182	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	383	325	171	553	468	476	567	239	74	419	7
Arrive On Green	0.01	0.20	0.20	0.09	0.29	0.29	0.26	0.45	0.45	0.04	0.22	0.22
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1269	535	1810	1864	31
Grp Volume(v), veh/h	4	341	139	323	339	15	488	0	145	53	0	185
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1804	1810	0	1894
Q Serve(g_s), s	0.2	15.5	6.7	8.4	13.7	0.6	23.4	0.0	4.3	2.6	0.0	7.5
Cycle Q Clear(g_c), s	0.2	15.5	6.7	8.4	13.7	0.6	23.4	0.0	4.3	2.6	0.0	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.02
Lane Grp Cap(c), veh/h	10	383	325	171	553	468	476	0	806	74	0	426
V/C Ratio(X)	0.42	0.89	0.43	1.89	0.61	0.03	1.02	0.00	0.18	0.71	0.00	0.43
Avail Cap(c_a), veh/h	102	406	344	171	553	468	476	0	806	130	0	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	34.5	31.0	40.3	27.2	22.6	32.8	0.0	14.8	42.1	0.0	29.6
Incr Delay (d2), s/veh	10.4	20.2	0.9	421.6	2.0	0.0	47.7	0.0	0.5	4.7	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.1	2.5	23.7	6.3	0.2	15.8	0.0	1.7	1.2	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	54.8	31.9	461.9	29.2	22.6	80.5	0.0	15.3	46.8	0.0	32.8
LnGrp LOS	D	D	C	F	C	C	F	A	B	D	A	C
Approach Vol, veh/h		484			677			633			238	
Approach Delay, s/veh		48.2			235.5			65.6			35.9	
Approach LOS		D			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.7	28.0	25.2	5.1	30.7	8.2	45.0
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0
Max Q Clear Time (g_c+I1), s	10.4	17.5	25.4	9.5	2.2	15.7	4.6	6.3
Green Ext Time (p_c), s	0.0	0.4	0.0	0.6	0.0	1.1	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	114.6
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	17.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	3	82	42	10	33	325	600	24	14	532	2
Future Vol, veh/h	2	3	82	42	10	33	325	600	24	14	532	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	104	53	13	42	411	759	30	18	673	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2335	2322	675	2361	2308	774	676	0	0	789	0	0
Stage 1	711	711	-	1596	1596	-	-	-	-	-	-	-
Stage 2	1624	1611	-	765	712	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	26	38	457	~ 25	39	402	925	-	-	840	-	-
Stage 1	427	439	-	136	168	-	-	-	-	-	-	-
Stage 2	131	165	-	399	439	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	6	21	457	~ 12	21	402	925	-	-	840	-	-
Mov Cap-2 Maneuver	31	62	-	132	17	-	-	-	-	-	-	-
Stage 1	237	430	-	76	93	-	-	-	-	-	-	-
Stage 2	56	92	-	299	430	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24	266.9	4.1	0.2
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	925	-	-	298	86	840	-	-
HCM Lane V/C Ratio	0.445	-	-	0.37	1.251	0.021	-	-
HCM Control Delay (s)	12	-	-	24	266.9	9.4	-	-
HCM Lane LOS	B	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	2.3	-	-	1.6	7.8	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	48.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	91	27	156	887	197	418
Future Vol, veh/h	91	27	156	887	197	418
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	118	35	203	1152	256	543

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2086	528	799	0	-	0
Stage 1	528	-	-	-	-	-
Stage 2	1558	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 59	554	833	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 45	554	833	-	-	-
Mov Cap-2 Maneuver	~ 45	-	-	-	-	-
Stage 1	451	-	-	-	-	-
Stage 2	193	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s$	719.1	1.6	0
HCM LOS	F		

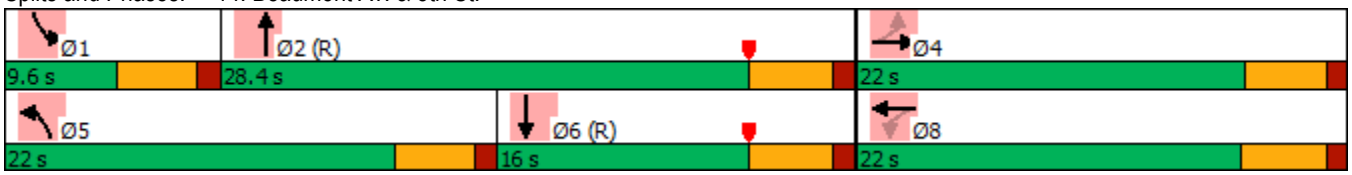
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	833	-	45	554	-	-
HCM Lane V/C Ratio	0.243	-	2.626	0.063	-	-
HCM Control Delay (s)	10.7	-	-$ 928.9	11.9	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1	-	12.7	0.2	-	-

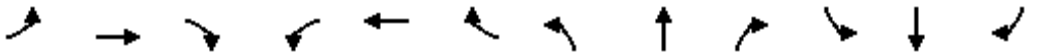
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	11	17	21	3	64	405	3	426
Future Volume (vph)	11	17	21	3	64	405	3	426
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1		10.0	6.9	46.3	5.0	40.7
Actuated g/C Ratio		0.17		0.17	0.12	0.77	0.08	0.68
v/c Ratio		0.22		0.15	0.34	0.16	0.02	0.20
Control Delay		14.5		18.1	27.0	4.8	25.7	7.7
Queue Delay		0.0		0.0	0.2	0.3	0.0	0.1
Total Delay		14.5		18.1	27.2	5.0	25.7	7.8
LOS		B		B	C	A	C	A
Approach Delay		14.5		18.1		8.0		7.9
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 8.7	Intersection LOS: A
Intersection Capacity Utilization 36.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	17	33	21	3	11	64	405	15	3	426	23
Future Volume (veh/h)	11	17	33	21	3	11	64	405	15	3	426	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	18	36	23	3	12	70	440	16	3	463	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	84	126	203	40	68	104	2210	80	7	1981	107
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	152	613	918	774	292	492	1810	3553	129	1810	3484	188
Grp Volume(v), veh/h	66	0	0	38	0	0	70	223	233	3	239	249
Grp Sat Flow(s),veh/h/ln	1683	0	0	1558	0	0	1810	1805	1877	1810	1805	1866
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.1	4.0	4.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.1	0.0	0.0	2.2	0.0	0.0	0.1	4.0	4.0
Prop In Lane	0.18		0.55	0.61		0.32	1.00		0.07	1.00		0.10
Lane Grp Cap(c), veh/h	302	0	0	310	0	0	104	1123	1167	7	1027	1061
V/C Ratio(X)	0.22	0.00	0.00	0.12	0.00	0.00	0.67	0.20	0.20	0.41	0.23	0.23
Avail Cap(c_a), veh/h	552	0	0	530	0	0	525	1123	1167	151	1027	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.8	0.0	0.0	26.0	0.0	0.0	29.8	6.4	6.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.8	0.4	0.4	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.5	0.0	0.0	1.0	0.1	0.1	0.1	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	0.0	23.0	0.0	0.0	28.8	0.4	0.4	42.7	7.0	7.0
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		66			38			526			491	
Approach Delay, s/veh		23.6			23.0			4.2			7.2	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.1		13.0	8.0	38.9		13.0				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.1	4.2	6.0		3.1				
Green Ext Time (p_c), s	0.0	2.7		0.2	0.1	1.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.3
HCM 6th LOS		A

Notes

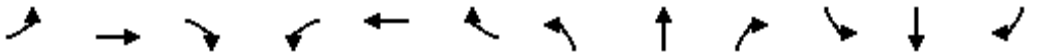
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	125	108	788	406	350	356
Future Volume (vph)	125	108	788	406	350	356
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.3	10.1	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.30	0.27	0.42	0.42	0.42	0.42
v/c Ratio	0.13	0.14	0.40	0.48	0.18	0.28
Control Delay	11.3	4.2	7.9	2.8	6.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	4.2	7.9	2.8	6.7	1.5
LOS	B	A	A	A	A	A
Approach Delay			6.2		4.1	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 37.8	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.48	
Intersection Signal Delay: 5.7	Intersection LOS: A
Intersection Capacity Utilization 33.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	0	108	0	788	406	0	350	356
Future Volume (veh/h)	0	0	0	125	0	108	0	788	406	0	350	356
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				136	0	90	0	857	0	0	380	305
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				640	0	517	0	2194		0	2194	1199
Arrive On Green				0.19	0.00	0.19	0.00	0.43	0.00	0.00	0.43	0.43
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				136	0	90	0	857	0	0	380	305
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				0.9	0.0	0.7	0.0	3.1	0.0	0.0	1.2	1.9
Cycle Q Clear(g_c), s				0.9	0.0	0.7	0.0	3.1	0.0	0.0	1.2	1.9
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				640	0	517	0	2194		0	2194	1199
V/C Ratio(X)				0.21	0.00	0.17	0.00	0.39		0.00	0.17	0.25
Avail Cap(c_a), veh/h				5170	0	4174	0	13085		0	13085	7149
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.3	0.0	9.3	0.0	5.3	0.0	0.0	4.7	4.9
Incr Delay (d2), s/veh				0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	0.1	0.0	0.3	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.4	0.0	9.3	0.0	5.4	0.0	0.0	4.8	5.0
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					226			857	A		685	
Approach Delay, s/veh					9.4			5.4			4.9	
Approach LOS					A			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	17.4		17.4		9.6			
Change Period (Y+Rc), s	5.8		5.8		4.6			
Max Green Setting (Gmax), s	69.2		69.2		40.4			
Max Q Clear Time (g_c+I1), s	5.1		3.9		2.9			
Green Ext Time (p_c), s	6.5		3.9		0.4			

Intersection Summary		
HCM 6th Ctrl Delay	5.7	
HCM 6th LOS	A	

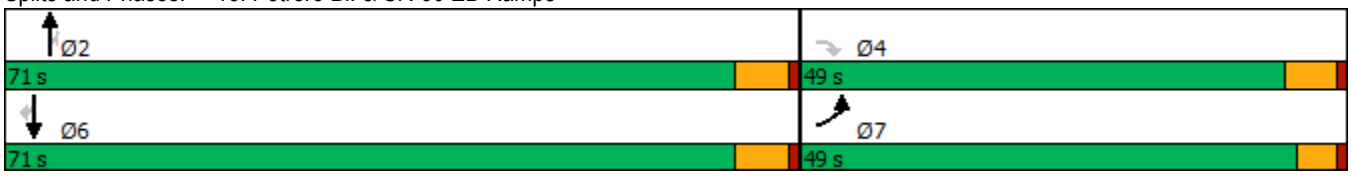
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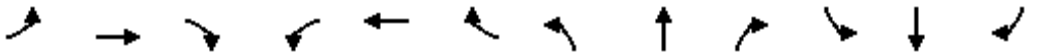
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	436	257	758	332	355	120
Future Volume (vph)	436	257	758	332	355	120
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.0	9.8	15.8	15.8	15.8	15.8
Actuated g/C Ratio	0.29	0.26	0.42	0.42	0.42	0.42
v/c Ratio	0.47	0.30	0.38	0.26	0.18	0.17
Control Delay	13.4	3.3	7.9	1.6	6.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	3.3	7.9	1.6	6.8	2.4
LOS	B	A	A	A	A	A
Approach Delay			6.0		5.7	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 37.4	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.47	
Intersection Signal Delay: 7.1	Intersection LOS: A
Intersection Capacity Utilization 35.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	436	0	257	0	0	0	0	758	332	0	355	120
Future Volume (veh/h)	436	0	257	0	0	0	0	758	332	0	355	120
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	474	0	197				0	824	318	0	386	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1007	0	813				0	2071	1131	0	2071	
Arrive On Green	0.29	0.00	0.29				0.00	0.41	0.41	0.00	0.41	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	474	0	197				0	824	318	0	386	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	3.9	0.0	1.8				0.0	3.9	2.6	0.0	1.7	0.0
Cycle Q Clear(g_c), s	3.9	0.0	1.8				0.0	3.9	2.6	0.0	1.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1007	0	813				0	2071	1131	0	2071	
V/C Ratio(X)	0.47	0.00	0.24				0.00	0.40	0.28	0.00	0.19	
Avail Cap(c_a), veh/h	4471	0	3609				0	9701	5300	0	9701	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	10.0	0.0	9.3				0.0	7.2	6.8	0.0	6.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1				0.0	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.3				0.0	0.7	0.4	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	0.0	9.3				0.0	7.4	7.0	0.0	6.6	0.0
LnGrp LOS	B	A	A				A	A	A	A	A	
Approach Vol, veh/h		671						1142			386	A
Approach Delay, s/veh		9.9						7.2			6.6	
Approach LOS		A						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		19.7		14.6		19.7						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		65.2		44.4		65.2						
Max Q Clear Time (g_c+I1), s		5.9		5.9		3.7						
Green Ext Time (p_c), s		8.0		1.3		2.6						

Intersection Summary		
HCM 6th Ctrl Delay		7.9
HCM 6th LOS		A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	332	65	259	411	130	331
Future Vol, veh/h	332	65	259	411	130	331
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	365	71	285	452	143	364
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	15.8	18.9	24.7
HCM LOS	C	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	331	166	166	65	259	206	206
LT Vol	130	0	0	0	0	259	0	0
Through Vol	0	0	166	166	0	0	206	206
RT Vol	0	331	0	0	65	0	0	0
Lane Flow Rate	143	364	182	182	71	285	226	226
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.339	0.74	0.421	0.421	0.116	0.651	0.484	0.374
Departure Headway (Hd)	8.537	7.327	8.312	8.312	5.832	8.237	7.722	5.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	420	491	432	432	610	438	465	601
Service Time	6.307	5.096	6.091	6.091	3.609	6.005	5.489	3.736
HCM Lane V/C Ratio	0.34	0.741	0.421	0.421	0.116	0.651	0.486	0.376
HCM Control Delay	15.7	28.3	17.1	17.1	9.4	25.2	17.6	12.3
HCM Lane LOS	C	D	C	C	A	D	C	B
HCM 95th-tile Q	1.5	6.1	2	2	0.4	4.5	2.6	1.7

Intersection	
Intersection Delay, s/veh	65.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Future Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	135	0	816	0	13	510	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	11.3	101.3	23
HCM LOS	B	F	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	2%
Vol Thru, %	100%	0%	98%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	628	106	403
LT Vol	0	2	10
Through Vol	628	0	393
RT Vol	0	104	0
Lane Flow Rate	816	138	523
Geometry Grp	1	1	1
Degree of Util (X)	1.145	0.231	0.752
Departure Headway (Hd)	5.056	6.414	5.427
Convergence, Y/N	Yes	Yes	Yes
Cap	726	563	670
Service Time	3.056	4.414	3.427
HCM Lane V/C Ratio	1.124	0.245	0.781
HCM Control Delay	101.3	11.3	23
HCM Lane LOS	F	B	C
HCM 95th-tile Q	25.1	0.9	6.8

Intersection	
Intersection Delay, s/veh	246.3
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	439	80	0	25	501	348	149
Future Vol, veh/h	439	80	0	25	501	348	149
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	655	119	0	37	748	519	222
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	452.7	226.5	51.6
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	85%	0%	0%	0%	100%	44%
Vol Thru, %	15%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	56%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	519	0	25	501	232	265
LT Vol	439	0	0	0	232	116
Through Vol	80	0	25	0	0	0
RT Vol	0	0	0	501	0	149
Lane Flow Rate	775	0	37	748	346	396
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	1.935	0	0.08	1.453	0.83	0.874
Departure Headway (Hd)	9.832	8.634	8.634	7.899	10.811	10.094
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	380	0	418	464	339	364
Service Time	7.532	6.334	6.334	5.599	8.511	7.794
HCM Lane V/C Ratio	2.039	0	0.089	1.612	1.021	1.088
HCM Control Delay	452.7	11.3	12.1	237.2	49.4	53.5
HCM Lane LOS	F	N	B	F	E	F
HCM 95th-tile Q	48.3	0	0.3	33.3	7.2	8.4

Intersection	
Intersection Delay, s/veh	135
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	745	871	376	232	53
Future Vol, veh/h	54	745	871	376	232	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	56	768	898	388	239	55
Number of Lanes	1	1	3	0	1	0

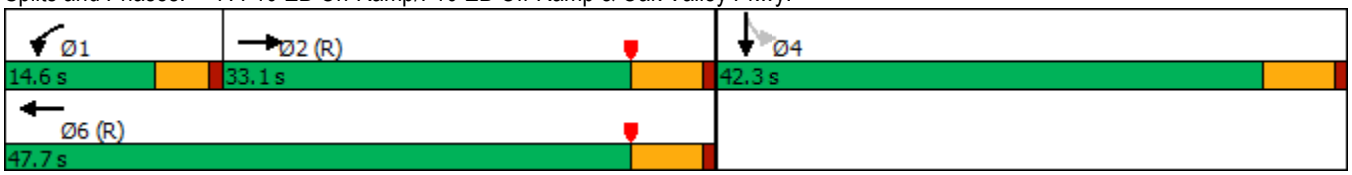
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	346.3	23.5	30.6
HCM LOS	F	C	D

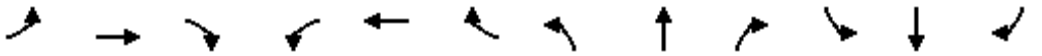
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	81%
Vol Thru, %	0%	100%	100%	100%	32%	0%
Vol Right, %	0%	0%	0%	0%	68%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	745	348	348	550	285
LT Vol	54	0	0	0	0	232
Through Vol	0	745	348	348	174	0
RT Vol	0	0	0	0	376	53
Lane Flow Rate	56	768	359	359	567	294
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.135	1.758	0.678	0.678	0.727	0.685
Departure Headway (Hd)	8.758	8.242	7.712	7.712	5.455	9.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	445	471	471	669	382
Service Time	6.557	6.041	5.412	5.412	3.155	7.227
HCM Lane V/C Ratio	0.137	1.726	0.762	0.762	0.848	0.77
HCM Control Delay	12.9	370.5	25.2	25.2	21.3	30.6
HCM Lane LOS	B	F	D	D	C	D
HCM 95th-tile Q	0.5	47	5	5	6.3	4.9

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	677	225	927	1
Future Volume (vph)	677	225	927	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	2.12	1.40	1.32	1.64
Control Delay	531.9	217.4	170.8	316.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	531.9	217.4	170.8	316.3
LOS	F	F	F	F
Approach Delay	531.9		179.9	316.3
Approach LOS	F		F	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.12	
Intersection Signal Delay: 333.7	Intersection LOS: F
Intersection Capacity Utilization 131.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Future Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	891	323	296	1220	0				833	1	356
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	430	156	213	923	0				520	1	222
Arrive On Green	0.00	0.32	0.30	0.12	0.49	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1331	482	1810	1900	0				1221	1	522
Grp Volume(v), veh/h	0	0	1214	296	1220	0				1190	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1813	1810	1900	0				1745	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.27	1.00		0.00				0.70		0.30
Lane Grp Cap(c), veh/h	0	0	586	213	923	0				743	0	0
V/C Ratio(X)	0.00	0.00	2.07	1.39	1.32	0.00				1.60	0.00	0.00
Avail Cap(c_a), veh/h	0	0	586	213	923	0				743	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.7	39.7	23.1	0.0				26.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	487.7	177.7	145.8	0.0				277.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	91.1	15.0	54.0	0.0				71.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	518.4	217.4	169.0	0.0				303.6	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1214			1516						1190	
Approach Delay, s/veh		518.4			178.4						303.6	
Approach LOS		F			F						F	

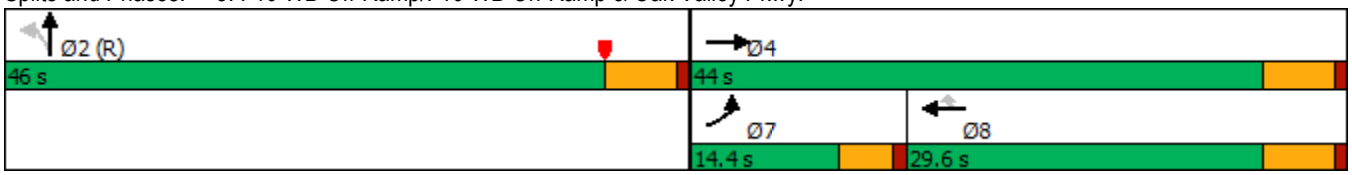
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						

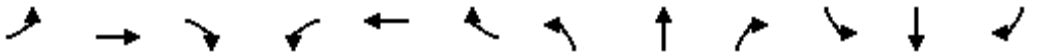
Intersection Summary												
HCM 6th Ctrl Delay			321.7									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	295	1014	678	383	5
Future Volume (vph)	295	1014	678	383	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	1.46	1.24	1.29	0.56	1.05
Control Delay	240.6	130.9	175.8	8.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	240.6	130.9	175.8	8.1	69.6
LOS	F	F	F	A	E
Approach Delay		155.7	115.2		69.6
Approach LOS		F	F		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.46	
Intersection Signal Delay: 119.6	Intersection LOS: F
Intersection Capacity Utilization 131.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Future Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	304	1045	0	0	699	325	488	5	333			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	475	5	324			
Arrive On Green	0.04	0.15	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1019	10	695			
Grp Volume(v), veh/h	304	1045	0	0	699	325	826	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1724	0	0			
Q Serve(g_s), s	10.4	40.0	0.0	0.0	25.6	16.3	42.0	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	40.0	0.0	0.0	25.6	16.3	42.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.59		0.40			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	805	0	0			
V/C Ratio(X)	1.45	1.24	0.00	0.00	1.29	0.71	1.03	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	805	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.3	38.4	0.0	0.0	32.2	28.9	24.4	0.0	0.0			
Incr Delay (d2), s/veh	206.7	107.9	0.0	0.0	145.4	5.0	38.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.8	45.2	0.0	0.0	32.6	6.5	23.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	250.0	146.3	0.0	0.0	177.6	33.9	63.1	0.0	0.0			
LnGrp LOS	F	F	A	A	F	C	F	A	A			
Approach Vol, veh/h		1349			1024			826				
Approach Delay, s/veh		169.6			132.0			63.1				
Approach LOS		F			F			E				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.0		44.0			14.4	29.6				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			9.8	23.8				
Max Q Clear Time (g_c+I1), s		44.0		42.0			12.4	27.6				
Green Ext Time (p_c), s		0.0		0.0			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			130.1									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	930	139	119	735	61	0	0	130	0	0	72
Future Vol, veh/h	0	930	139	119	735	61	0	0	130	0	0	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1000	149	128	790	66	0	0	140	0	0	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1149	0	0	-	-	575	-	-	823
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	615	-	-	0	0	466	0	0	377
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	615	-	-	-	-	466	-	-	377
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	16	17
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	466	-	-	615	-	-	377
HCM Lane V/C Ratio	0.3	-	-	0.208	-	-	0.205
HCM Control Delay (s)	16	-	-	12.4	-	-	17
HCM Lane LOS	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.2	-	-	0.8	-	-	0.8

Intersection	
Intersection Delay, s/veh	166.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	117	479	85	10	424	33	44	41	12	15	65	65
Future Vol, veh/h	117	479	85	10	424	33	44	41	12	15	65	65
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	167	684	121	14	606	47	63	59	17	21	93	93
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

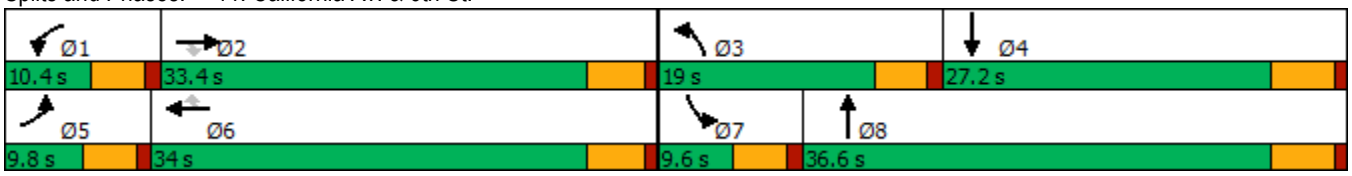
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	173.3	232.9	18.3	15.9
HCM LOS	F	F	C	C

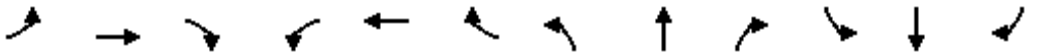
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	52%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	48%	0%	0%	100%	0%	0%	93%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	7%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	12	117	479	85	10	457	15	65	65
LT Vol	44	0	117	0	0	10	0	15	0	0
Through Vol	41	0	0	479	0	0	424	0	65	0
RT Vol	0	12	0	0	85	0	33	0	0	65
Lane Flow Rate	121	17	167	684	121	14	653	21	93	93
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.325	0.041	0.378	1.454	0.234	0.034	1.448	0.058	0.237	0.219
Departure Headway (Hd)	11.087	10.085	9.022	8.507	7.787	9.18	8.618	11.239	10.713	9.977
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	327	357	401	431	464	392	424	321	337	362
Service Time	8.787	7.785	6.722	6.207	5.487	6.88	6.318	8.939	8.413	7.677
HCM Lane V/C Ratio	0.37	0.048	0.416	1.587	0.261	0.036	1.54	0.065	0.276	0.257
HCM Control Delay	19	13.2	17.1	239.9	12.8	12.2	237.7	14.6	16.7	15.5
HCM Lane LOS	C	B	C	F	B	B	F	B	C	C
HCM 95th-tile Q	1.4	0.1	1.7	31.4	0.9	0.1	30.8	0.2	0.9	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	21	498	188	292	294	11	304	142	15	85
Future Volume (vph)	21	498	188	292	294	11	304	142	15	85
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.7	27.5	27.5	6.4	34.1	34.1	15.0	40.4	5.6	23.2
Actuated g/C Ratio	0.06	0.31	0.31	0.07	0.39	0.39	0.17	0.46	0.06	0.26
v/c Ratio	0.19	0.89	0.31	2.34	0.42	0.02	1.04	0.48	0.14	0.21
Control Delay	43.9	47.3	4.8	652.9	23.1	0.0	101.6	15.3	42.9	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	47.3	4.8	652.9	23.1	0.0	101.6	15.3	42.9	25.3
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		35.9			330.6			53.3		27.7
Approach LOS		D			F			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 88.2	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.34	
Intersection Signal Delay: 124.7	Intersection LOS: F
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Future Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	524	194	307	309	7	320	149	226	16	89	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	590	500	132	670	568	309	279	423	46	459	36
Arrive On Green	0.03	0.31	0.31	0.07	0.35	0.35	0.17	0.41	0.40	0.03	0.26	0.25
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	681	1033	1810	1739	137
Grp Volume(v), veh/h	22	524	194	307	309	7	320	0	375	16	0	96
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1714	1810	0	1875
Q Serve(g_s), s	1.0	23.1	8.3	6.4	11.0	0.2	15.0	0.0	14.6	0.8	0.0	3.5
Cycle Q Clear(g_c), s	1.0	23.1	8.3	6.4	11.0	0.2	15.0	0.0	14.6	0.8	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.07
Lane Grp Cap(c), veh/h	55	590	500	132	670	568	309	0	702	46	0	495
V/C Ratio(X)	0.40	0.89	0.39	2.33	0.46	0.01	1.04	0.00	0.53	0.35	0.00	0.19
Avail Cap(c_a), veh/h	119	636	539	132	670	568	309	0	702	115	0	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.8	28.9	23.8	40.7	22.0	18.5	36.4	0.0	19.9	42.1	0.0	25.1
Incr Delay (d2), s/veh	1.7	13.8	0.5	621.2	0.5	0.0	60.8	0.0	2.9	1.7	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	12.4	3.0	25.5	4.9	0.1	11.4	0.0	5.9	0.3	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	42.7	24.3	661.9	22.5	18.5	97.2	0.0	22.8	43.8	0.0	26.0
LnGrp LOS	D	D	C	F	C	B	F	A	C	D	A	C
Approach Vol, veh/h		740			623			695			112	
Approach Delay, s/veh		37.9			337.5			57.1			28.5	
Approach LOS		D			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	31.3	19.0	27.2	6.7	35.0	6.2	40.0
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	8.4	25.1	17.0	5.5	3.0	13.0	2.8	16.6
Green Ext Time (p_c), s	0.0	1.4	0.0	0.3	0.0	1.6	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	129.6
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↱		↰	↱	
Traffic Vol, veh/h	5	3	94	49	3	22	194	659	36	7	496	7
Future Vol, veh/h	5	3	94	49	3	22	194	659	36	7	496	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	3	99	52	3	23	204	694	38	7	522	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1674	1680	526	1712	1664	713	529	0	0	732	0	0
Stage 1	540	540	-	1121	1121	-	-	-	-	-	-	-
Stage 2	1134	1140	-	591	543	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	77	96	556	72	98	435	1048	-	-	882	-	-
Stage 1	530	524	-	253	284	-	-	-	-	-	-	-
Stage 2	249	278	-	497	523	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	77	556	~ 49	78	435	1048	-	-	882	-	-
Mov Cap-2 Maneuver	138	167	-	114	155	-	-	-	-	-	-	-
Stage 1	427	520	-	204	229	-	-	-	-	-	-	-
Stage 2	187	224	-	403	519	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	53.6	2	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1048	-	-	457	148	882	-	-
HCM Lane V/C Ratio	0.195	-	-	0.235	0.526	0.008	-	-
HCM Control Delay (s)	9.3	-	-	15.3	53.6	9.1	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	0.9	2.6	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	696.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	363	182	126	546	1059	365
Future Vol, veh/h	363	182	126	546	1059	365
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	395	198	137	593	1151	397

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2217	1350	1548	0	-	0
Stage 1	1350	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 49	~ 186	434	-	-	-
Stage 1	~ 244	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 34	~ 186	434	-	-	-
Mov Cap-2 Maneuver	~ 34	-	-	-	-	-
Stage 1	~ 167	-	-	-	-	-
Stage 2	415	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, $	3373.2	3.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	434	-	34	186	-	-
HCM Lane V/C Ratio	0.316	-	11.605	1.064	-	-
HCM Control Delay (s)	17.1	-	$ 4996.3	136	-	-
HCM Lane LOS	C	-	F	F	-	-
HCM 95th %tile Q(veh)	1.3	-	48.1	9.4	-	-

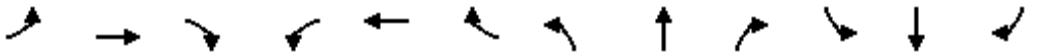
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	17	79	5	25	486	10	479
Future Volume (vph)	43	17	79	5	25	486	10	479
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		11.5		11.5	6.2	42.2	5.8	39.8
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.66
v/c Ratio		0.32		0.37	0.14	0.21	0.06	0.22
Control Delay		16.1		21.9	30.1	5.0	25.2	6.8
Queue Delay		0.4		0.5	1.3	0.4	0.0	0.3
Total Delay		16.4		22.3	31.4	5.4	25.2	7.1
LOS		B		C	C	A	C	A
Approach Delay		16.4		22.3		6.6		7.5
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 37.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	17	43	79	5	17	25	486	33	10	479	18
Future Volume (veh/h)	43	17	43	79	5	17	25	486	33	10	479	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	18	44	81	5	18	26	501	34	10	494	19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	80	116	304	27	47	71	2066	140	41	2076	80
Arrive On Green	0.17	0.17	0.16	0.17	0.17	0.16	0.08	1.00	1.00	0.02	0.59	0.57
Sat Flow, veh/h	485	464	674	1125	152	267	1810	3431	232	1810	3544	136
Grp Volume(v), veh/h	106	0	0	104	0	0	26	263	272	10	251	262
Grp Sat Flow(s),veh/h/ln	1623	0	0	1544	0	0	1810	1805	1858	1810	1805	1875
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.3	4.0	4.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	3.0	0.0	0.0	0.8	0.0	0.0	0.3	4.0	4.0
Prop In Lane	0.42		0.42	0.78		0.17	1.00		0.13	1.00		0.07
Lane Grp Cap(c), veh/h	363	0	0	377	0	0	71	1087	1119	41	1057	1099
V/C Ratio(X)	0.29	0.00	0.00	0.28	0.00	0.00	0.37	0.24	0.24	0.24	0.24	0.24
Avail Cap(c_a), veh/h	486	0	0	483	0	0	241	1087	1119	241	1057	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	0.0	21.7	0.0	0.0	26.9	0.0	0.0	28.8	6.0	6.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	1.2	0.5	0.5	1.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.3	0.0	0.0	0.4	0.2	0.2	0.1	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.1	0.0	0.0	28.1	0.5	0.5	29.9	6.5	6.5
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		106			104			561			523	
Approach Delay, s/veh		22.5			22.1			1.8			7.0	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.1		14.5	6.4	39.1		14.5				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		5.2	2.8	6.0		5.0				
Green Ext Time (p_c), s	0.0	3.2		0.3	0.0	2.9		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		7.2
HCM 6th LOS		A

Notes

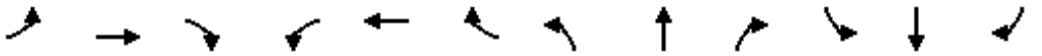
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	209	152	870	379	582	410
Future Volume (vph)	209	152	870	379	582	410
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.3	10.1	17.6	17.6	17.6	17.6
Actuated g/C Ratio	0.29	0.26	0.45	0.45	0.45	0.45
v/c Ratio	0.23	0.20	0.42	0.44	0.28	0.30
Control Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	4.1	7.8	2.5	7.0	1.4
LOS	B	A	A	A	A	A
Approach Delay			6.2		4.7	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 39.4	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 6.0	Intersection LOS: A
Intersection Capacity Utilization 34.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	209	0	152	0	870	379	0	582	410
Future Volume (veh/h)	0	0	0	209	0	152	0	870	379	0	582	410
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				227	0	138	0	946	0	0	633	364
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				610	0	493	0	2329		0	2329	1273
Arrive On Green				0.18	0.00	0.18	0.00	0.46	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				227	0	138	0	946	0	0	633	364
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				1.6	0.0	1.2	0.0	3.5	0.0	0.0	2.2	2.3
Cycle Q Clear(g_c), s				1.6	0.0	1.2	0.0	3.5	0.0	0.0	2.2	2.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				610	0	493	0	2329		0	2329	1273
V/C Ratio(X)				0.37	0.00	0.28	0.00	0.41		0.00	0.27	0.29
Avail Cap(c_a), veh/h				4320	0	3487	0	13378		0	13378	7309
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.3	0.0	10.1	0.0	5.1	0.0	0.0	4.8	4.8
Incr Delay (d2), s/veh				0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.2	0.0	0.3	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				10.4	0.0	10.2	0.0	5.3	0.0	0.0	4.8	4.9
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					365			946	A		997	
Approach Delay, s/veh					10.3			5.3			4.9	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8							
Phs Duration (G+Y+Rc), s	18.7		18.7		9.6							
Change Period (Y+Rc), s	5.8		5.8		4.6							
Max Green Setting (Gmax), s	74.2		74.2		35.4							
Max Q Clear Time (g_c+I1), s	5.5		4.3		3.6							
Green Ext Time (p_c), s	7.4		6.3		0.7							

Intersection Summary		
HCM 6th Ctrl Delay	5.9	
HCM 6th LOS	A	

Notes

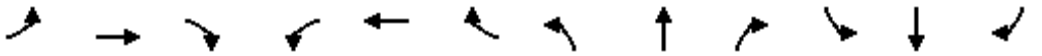
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	570	257	679	332	709	83
Future Volume (vph)	570	257	679	332	709	83
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	12.0	10.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.31	0.28	0.41	0.41	0.41	0.41
v/c Ratio	0.58	0.28	0.35	0.27	0.37	0.13
Control Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.1	8.4	1.8	8.4	2.8
LOS	B	A	A	A	A	A
Approach Delay			6.2		7.9	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 38.3	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 8.1	Intersection LOS: A
Intersection Capacity Utilization 38.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	570	0	257	0	0	0	0	679	332	0	709	83
Future Volume (veh/h)	570	0	257	0	0	0	0	679	332	0	709	83
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	620	0	197				0	738	279	0	771	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1057	0	853				0	1921	1049	0	1921	
Arrive On Green	0.31	0.00	0.31				0.00	0.38	0.38	0.00	0.38	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	620	0	197				0	738	279	0	771	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	5.0	0.0	1.7				0.0	3.4	2.3	0.0	3.6	0.0
Cycle Q Clear(g_c), s	5.0	0.0	1.7				0.0	3.4	2.3	0.0	3.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1057	0	853				0	1921	1049	0	1921	
V/C Ratio(X)	0.59	0.00	0.23				0.00	0.38	0.27	0.00	0.40	
Avail Cap(c_a), veh/h	4269	0	3446				0	10805	5903	0	10805	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	9.6	0.0	8.5				0.0	7.4	7.1	0.0	7.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.1				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.3				0.0	0.6	0.3	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.8	0.0	8.5				0.0	7.6	7.2	0.0	7.6	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h		817						1017			771	A
Approach Delay, s/veh		9.5						7.5			7.6	
Approach LOS		A						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		18.1		14.6		18.1						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		69.2		40.4		69.2						
Max Q Clear Time (g_c+I1), s		5.4		7.0		5.6						
Green Ext Time (p_c), s		6.9		1.6		5.7						

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 8.2:

OPENING YEAR CUMULATIVE (2027) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

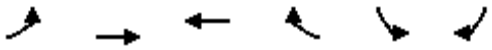
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Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	170	785	234	100
Future Volume (vph)	170	785	234	100
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	33.4	33.4	33.4	13.7
Actuated g/C Ratio	0.68	0.68	0.68	0.28
v/c Ratio	0.14	0.66	0.22	0.22
Control Delay	5.2	10.7	1.2	23.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	10.7	1.2	23.4
LOS	A	B	A	C
Approach Delay	5.2	8.5		23.4
Approach LOS	A	A		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 49.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 9.2	Intersection LOS: A
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	170	785	234	100	0
Future Volume (veh/h)	0	170	785	234	100	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	185	853	254	109	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	1087	1087	921	301	268
Arrive On Green	0.00	0.57	0.57	0.57	0.17	0.00
Sat Flow, veh/h	517	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	185	853	254	109	0
Grp Sat Flow(s),veh/h/ln	517	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	2.0	15.5	3.6	2.4	0.0
Cycle Q Clear(g_c), s	0.0	2.0	15.5	3.6	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	162	1087	1087	921	301	268
V/C Ratio(X)	0.00	0.17	0.78	0.28	0.36	0.00
Avail Cap(c_a), veh/h	498	2321	2321	1967	987	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.5	7.4	4.8	16.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.3	0.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	3.0	0.5	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.6	8.7	5.0	17.1	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		185	1107		109	
Approach Delay, s/veh		4.6	7.8		17.1	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			31.2		13.2	31.2
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			4.0		4.4	17.5
Green Ext Time (p_c), s			1.0		0.2	7.9

Intersection Summary		
HCM 6th Ctrl Delay	8.1	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	45.8
Intersection LOS	E

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	327	45	430	349	66	309
Future Vol, veh/h	327	45	430	349	66	309
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	380	52	500	406	77	359
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	17	67.8	28.5
HCM LOS	C	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	309	164	164	45	430	175	175
LT Vol	66	0	0	0	0	430	0	0
Through Vol	0	0	164	164	0	0	175	175
RT Vol	0	309	0	0	45	0	0	0
Lane Flow Rate	77	359	190	190	52	500	203	203
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.188	0.762	0.44	0.44	0.086	1.132	0.43	0.331
Departure Headway (Hd)	9.082	7.867	8.661	8.661	6.175	8.147	7.632	5.881
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	398	463	418	418	584	445	473	611
Service Time	6.782	5.567	6.361	6.361	3.875	5.889	5.374	3.622
HCM Lane V/C Ratio	0.193	0.775	0.455	0.455	0.089	1.124	0.429	0.332
HCM Control Delay	13.9	31.6	18	18	9.5	111.7	16	11.5
HCM Lane LOS	B	D	C	C	A	F	C	B
HCM 95th-tile Q	0.7	6.5	2.2	2.2	0.3	17.8	2.1	1.4

Intersection	
Intersection Delay, s/veh	148.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	59	0	114	5	49	665	0
Future Vol, veh/h	0	0	0	10	0	59	0	114	5	49	665	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	91	0	175	8	75	1023	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	10.6	10.3	185.3
HCM LOS	B	B	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	7%
Vol Thru, %	96%	0%	93%
Vol Right, %	4%	86%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	119	69	714
LT Vol	0	10	49
Through Vol	114	0	665
RT Vol	5	59	0
Lane Flow Rate	183	106	1098
Geometry Grp	1	1	1
Degree of Util (X)	0.257	0.163	1.361
Departure Headway (Hd)	5.423	6.325	4.461
Convergence, Y/N	Yes	Yes	Yes
Cap	666	571	824
Service Time	3.423	4.325	2.467
HCM Lane V/C Ratio	0.275	0.186	1.333
HCM Control Delay	10.3	10.6	185.3
HCM Lane LOS	B	B	F
HCM 95th-tile Q	1	0.6	45.4

Intersection	
Intersection Delay, s/veh	881.7
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	679	106	0	134	651	463	1063
Future Vol, veh/h	679	106	0	134	651	463	1063
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	1013	158	0	200	972	691	1587
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	976.3	353.9	1104.6
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	86%	0%	0%	0%	100%	13%
Vol Thru, %	14%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	87%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	785	0	134	651	309	1217
LT Vol	679	0	0	0	309	154
Through Vol	106	0	134	0	0	0
RT Vol	0	0	0	651	0	1063
Lane Flow Rate	1172	0	200	972	461	1817
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	3.094	0	0.433	1.915	1.132	3.937
Departure Headway (Hd)	12.771	4.096	4.096	3.358	12.763	11.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	305	0	882	1088	290	345
Service Time	10.471	1.796	1.796	1.058	10.463	9.317
HCM Lane V/C Ratio	3.843	0	0.227	0.893	1.59	5.267
HCM Control Delay	976.3	6.8	9.9	424.7	131.1	1351.4
HCM Lane LOS	F	N	A	F	F	F
HCM 95th-tile Q	78	0	2.2	128.6	13.5	117.7

Intersection	
Intersection Delay, s/veh	284.6
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	96	749	705	365	553	116
Future Vol, veh/h	96	749	705	365	553	116
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	110	861	810	420	636	133
Number of Lanes	1	1	3	0	1	0

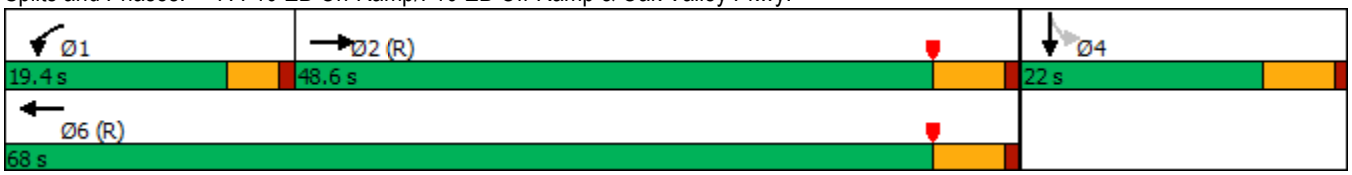
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	487.1	42.2	416.7
HCM LOS	F	E	F

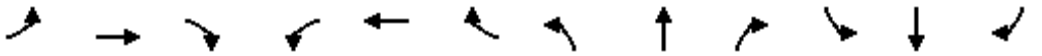
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	83%
Vol Thru, %	0%	100%	100%	100%	28%	0%
Vol Right, %	0%	0%	0%	0%	72%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	749	282	282	506	669
LT Vol	96	0	0	0	0	553
Through Vol	0	749	282	282	141	0
RT Vol	0	0	0	0	365	116
Lane Flow Rate	110	861	324	324	582	769
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.29	2.14	0.688	0.688	0.879	1.851
Departure Headway (Hd)	11.73	11.186	11.27	11.27	8.877	10.126
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	309	336	324	324	413	369
Service Time	9.43	8.886	8.97	8.97	6.577	7.826
HCM Lane V/C Ratio	0.356	2.563	1	1	1.409	2.084
HCM Control Delay	19.2	547.1	35.5	35.5	49.6	416.7
HCM Lane LOS	C	F	E	E	E	F
HCM 95th-tile Q	1.2	50.9	4.8	4.8	8.9	43.5

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	742	300	720	3
Future Volume (vph)	742	300	720	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.66	1.14	0.62	2.08
Control Delay	325.2	110.0	5.4	517.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	325.2	110.0	5.4	517.3
LOS	F	F	A	F
Approach Delay	325.2		36.2	517.3
Approach LOS	F		D	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.08	
Intersection Signal Delay: 268.6	Intersection LOS: F
Intersection Capacity Utilization 141.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	742	561	300	720	0	0	0	0	305	3	349
Future Volume (veh/h)	0	742	561	300	720	0	0	0	0	305	3	349
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	834	543	337	809	0				343	3	373
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	511	333	298	1313	0				146	1	159
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1074	700	1810	1900	0				811	7	882
Grp Volume(v), veh/h	0	0	1377	337	809	0				719	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1774	1810	1900	0				1701	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.39	1.00		0.00				0.48		0.52
Lane Grp Cap(c), veh/h	0	0	844	298	1313	0				306	0	0
V/C Ratio(X)	0.00	0.00	1.63	1.13	0.62	0.00				2.35	0.00	0.00
Avail Cap(c_a), veh/h	0	0	844	298	1313	0				306	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.2	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	289.9	64.0	0.2	0.0				617.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	83.3	10.1	0.1	0.0				58.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	313.5	94.2	0.2	0.0				653.9	0.0	0.0
LnGrp LOS	A	A	F	F	A	A				F	A	A
Approach Vol, veh/h		1377			1146						719	
Approach Delay, s/veh		313.5			27.8						653.9	
Approach LOS		F			C						F	

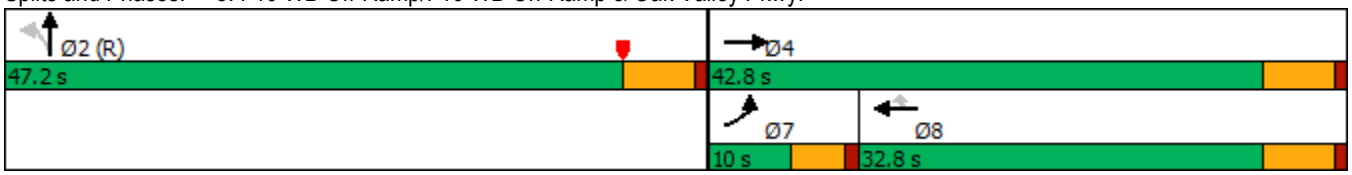
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		6.4						

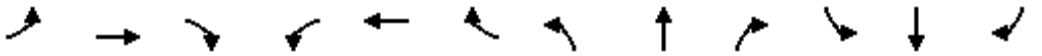
Intersection Summary												
HCM 6th Ctrl Delay			288.0									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	291	755	631	529	5
Future Volume (vph)	291	755	631	529	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	2.75	0.99	1.13	0.63	1.00
Control Delay	808.4	32.4	110.3	6.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	808.4	32.4	110.3	6.5	55.5
LOS	F	C	F	A	E
Approach Delay		248.4	63.0		55.5
Approach LOS		F	E		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.75	
Intersection Signal Delay: 124.9	Intersection LOS: F
Intersection Capacity Utilization 141.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	755	0	0	631	529	390	5	427	0	0	0
Future Volume (veh/h)	291	755	0	0	631	529	390	5	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	297	770	0	0	644	424	398	5	314			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	438	6	346			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	953	12	752			
Grp Volume(v), veh/h	297	770	0	0	644	424	717	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1717	0	0			
Q Serve(g_s), s	5.4	36.3	0.0	0.0	27.0	22.5	34.8	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	36.3	0.0	0.0	27.0	22.5	34.8	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.56		0.44			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	790	0	0			
V/C Ratio(X)	2.74	0.99	0.00	0.00	1.13	0.88	0.91	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	790	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	32.3	0.0	0.0	31.5	29.9	22.5	0.0	0.0			
Incr Delay (d2), s/veh	783.3	6.8	0.0	0.0	78.8	16.6	16.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	26.0	18.1	0.0	0.0	23.8	10.2	15.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	826.5	39.2	0.0	0.0	110.3	46.5	38.7	0.0	0.0			
LnGrp LOS	F	D	A	A	F	D	D	A	A			
Approach Vol, veh/h		1067			1068			717				
Approach Delay, s/veh		258.3			85.0			38.7				
Approach LOS		F			F			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		47.2		42.8			10.0	32.8				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		36.8		38.3			7.4	29.0				
Green Ext Time (p_c), s		1.9		0.0			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			138.2									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	636	159	171	980	29	0	0	70	0	0	173
Future Vol, veh/h	0	636	159	171	980	29	0	0	70	0	0	173
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	699	175	188	1077	32	0	0	77	0	0	190

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	874	0	0	-	-	437	-	-	1093
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	781	-	-	0	0	573	0	0	263
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	781	-	-	-	-	573	-	-	263
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	12.3	47.7
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	573	-	-	781	-	-	263
HCM Lane V/C Ratio	0.134	-	-	0.241	-	-	0.723
HCM Control Delay (s)	12.3	-	-	11.1	-	-	47.7
HCM Lane LOS	B	-	-	B	-	-	E
HCM 95th %tile Q(veh)	0.5	-	-	0.9	-	-	5

Intersection	
Intersection Delay, s/veh	172.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	95	26	3	615	22	79	31	6	24	33	130
Future Vol, veh/h	38	95	26	3	615	22	79	31	6	24	33	130
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	51	127	35	4	820	29	105	41	8	32	44	173
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

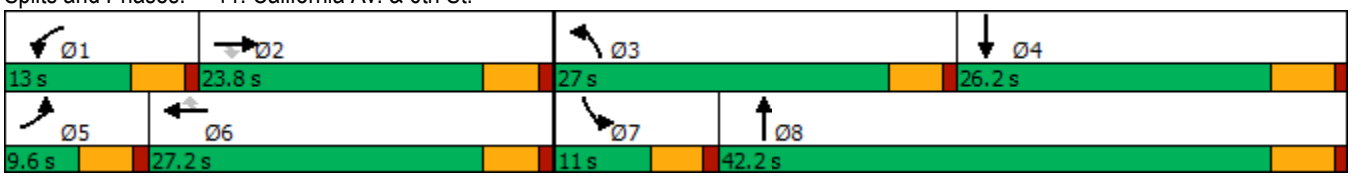
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	13.7	286.4	16.7	14.4
HCM LOS	B	F	C	B

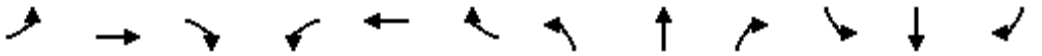
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	72%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	28%	0%	0%	100%	0%	0%	97%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	3%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	110	6	38	95	26	3	637	24	33	130
LT Vol	79	0	38	0	0	3	0	24	0	0
Through Vol	31	0	0	95	0	0	615	0	33	0
RT Vol	0	6	0	0	26	0	22	0	0	130
Lane Flow Rate	147	8	51	127	35	4	849	32	44	173
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.336	0.016	0.114	0.268	0.067	0.008	1.58	0.073	0.095	0.339
Departure Headway (Hd)	9.517	8.427	9.213	8.697	7.975	7.227	6.697	9.5	8.986	8.266
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	380	427	392	415	452	495	544	380	401	439
Service Time	7.217	6.127	6.913	6.397	5.675	4.975	4.445	7.2	6.686	5.966
HCM Lane V/C Ratio	0.387	0.019	0.13	0.306	0.077	0.008	1.561	0.084	0.11	0.394
HCM Control Delay	17	11.3	13.1	14.6	11.2	10	287.7	12.9	12.6	15.1
HCM Lane LOS	C	B	B	B	B	A	F	B	B	C
HCM 95th-tile Q	1.5	0	0.4	1.1	0.2	0	45.6	0.2	0.3	1.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	314	129	297	312	22	449	104	49	202
Future Volume (vph)	4	314	129	297	312	22	449	104	49	202
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	27.0	42.2	11.0	26.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	30.0%	46.9%	12.2%	29.1%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	18.2	18.2	8.4	29.4	29.4	22.4	41.5	6.0	21.0
Actuated g/C Ratio	0.06	0.20	0.20	0.09	0.33	0.33	0.25	0.46	0.07	0.24
v/c Ratio	0.04	0.88	0.29	1.91	0.54	0.04	1.08	0.21	0.44	0.50
Control Delay	41.2	59.2	3.2	455.3	29.5	0.1	99.0	13.2	51.8	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	59.2	3.2	455.3	29.5	0.1	99.0	13.2	51.8	34.4
LOS	D	E	A	F	C	A	F	B	D	C
Approach Delay		42.9			229.0			76.1		37.7
Approach LOS		D			F			E		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 89.3	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.91	
Intersection Signal Delay: 113.0	Intersection LOS: F
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	314	129	297	312	22	449	104	60	49	202	5
Future Volume (veh/h)	4	314	129	297	312	22	449	104	60	49	202	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	341	139	323	339	15	488	113	43	53	220	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	383	325	171	553	468	456	586	223	74	442	6
Arrive On Green	0.01	0.20	0.20	0.09	0.29	0.29	0.25	0.45	0.45	0.04	0.24	0.24
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1311	499	1810	1870	25
Grp Volume(v), veh/h	4	341	139	323	339	15	488	0	156	53	0	223
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1810	1810	0	1895
Q Serve(g_s), s	0.2	15.5	6.7	8.4	13.7	0.6	22.4	0.0	4.6	2.6	0.0	9.1
Cycle Q Clear(g_c), s	0.2	15.5	6.7	8.4	13.7	0.6	22.4	0.0	4.6	2.6	0.0	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.01
Lane Grp Cap(c), veh/h	10	383	325	171	553	468	456	0	809	74	0	448
V/C Ratio(X)	0.42	0.89	0.43	1.89	0.61	0.03	1.07	0.00	0.19	0.71	0.00	0.50
Avail Cap(c_a), veh/h	102	406	344	171	553	468	456	0	809	130	0	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	34.5	31.0	40.3	27.2	22.6	33.3	0.0	14.9	42.1	0.0	29.4
Incr Delay (d2), s/veh	10.4	20.2	0.9	421.6	2.0	0.0	62.3	0.0	0.5	4.7	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.1	2.5	23.7	6.3	0.2	17.0	0.0	1.8	1.2	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	54.8	31.9	461.9	29.2	22.6	95.6	0.0	15.4	46.8	0.0	33.3
LnGrp LOS	D	D	C	F	C	C	F	A	B	D	A	C
Approach Vol, veh/h		484			677			644			276	
Approach Delay, s/veh		48.2			235.5			76.2			35.9	
Approach LOS		D			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	22.7	27.0	26.2	5.1	30.7	8.2	45.0
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	22.4	21.0	5.0	* 22	6.4	37.0
Max Q Clear Time (g_c+I1), s	10.4	17.5	24.4	11.1	2.2	15.7	4.6	6.6
Green Ext Time (p_c), s	0.0	0.4	0.0	0.7	0.0	1.1	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	116.2
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	3	82	77	10	33	325	610	34	14	567	2
Future Vol, veh/h	2	3	82	77	10	33	325	610	34	14	567	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	104	97	13	42	411	772	43	18	718	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2399	2393	720	2426	2373	794	721	0	0	815	0	0
Stage 1	756	756	-	1616	1616	-	-	-	-	-	-	-
Stage 2	1643	1637	-	810	757	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	23	34	431	~ 22	35	391	890	-	-	821	-	-
Stage 1	403	419	-	132	164	-	-	-	-	-	-	-
Stage 2	127	160	-	377	419	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	28	18	431	~ 10	18	391	890	-	-	821	-	-
Mov Cap-2 Maneuver	31	57	-	106	~ -7	-	-	-	-	-	-	-
Stage 1	217	410	-	~ 71	88	-	-	-	-	-	-	-
Stage 2	52	86	-	277	410	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.6		4.2	0.2
HCM LOS	D	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	890	-	-	283	+	821	-	-
HCM Lane V/C Ratio	0.462	-	-	0.389	-	0.022	-	-
HCM Control Delay (s)	12.5	-	-	25.6	-	9.5	-	-
HCM Lane LOS	B	-	-	D	-	A	-	-
HCM 95th %tile Q(veh)	2.5	-	-	1.8	-	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	103.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	111	37	191	887	197	488
Future Vol, veh/h	111	37	191	887	197	488
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	144	48	248	1152	256	634

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2221	573	890	0	-	0
Stage 1	573	-	-	-	-	-
Stage 2	1648	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 48	523	770	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 33	523	770	-	-	-
Mov Cap-2 Maneuver	~ 33	-	-	-	-	-
Stage 1	385	-	-	-	-	-
Stage 2	174	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, $	1323.2	2.1	0
HCM LOS	F		

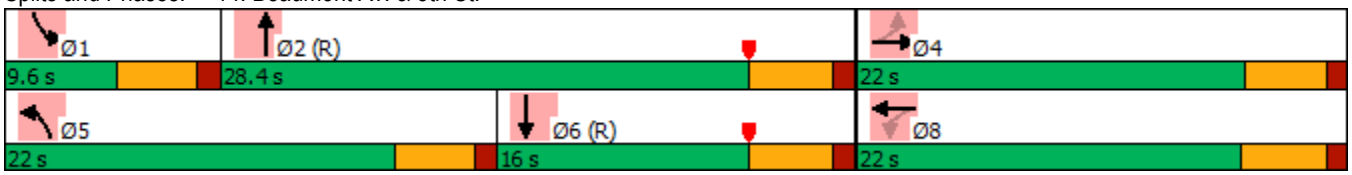
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	770	-	33	523	-	-
HCM Lane V/C Ratio	0.322	-	4.368	0.092	-	-
HCM Control Delay (s)	11.9	-	$ 1760.1	12.6	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1.4	-	17.1	0.3	-	-

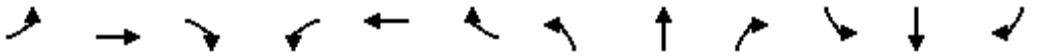
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	17	21	3	64	405	3	426
Future Volume (vph)	21	17	21	3	64	405	3	426
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.1		10.0	6.9	46.3	5.0	40.7
Actuated g/C Ratio		0.17		0.17	0.12	0.77	0.08	0.68
v/c Ratio		0.26		0.14	0.34	0.16	0.02	0.22
Control Delay		16.1		17.9	27.0	4.8	25.7	7.6
Queue Delay		0.0		0.0	0.2	0.3	0.0	0.1
Total Delay		16.1		17.9	27.2	5.0	25.7	7.7
LOS		B		B	C	A	C	A
Approach Delay		16.1		17.9		8.0		7.8
Approach LOS		B		B		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.34	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 38.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	17	33	21	3	11	64	405	15	3	426	58
Future Volume (veh/h)	21	17	33	21	3	11	64	405	15	3	426	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	18	36	23	3	12	70	440	16	3	463	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	119	84	110	208	41	70	104	2193	80	7	1801	244
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.56	0.56
Sat Flow, veh/h	292	593	777	786	287	495	1810	3553	129	1810	3195	433
Grp Volume(v), veh/h	77	0	0	38	0	0	70	223	233	3	261	265
Grp Sat Flow(s),veh/h/ln	1662	0	0	1569	0	0	1810	1805	1877	1810	1805	1822
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.1	4.4	4.5
Cycle Q Clear(g_c), s	2.4	0.0	0.0	1.1	0.0	0.0	2.2	0.0	0.0	0.1	4.4	4.5
Prop In Lane	0.30		0.47	0.61		0.32	1.00		0.07	1.00		0.24
Lane Grp Cap(c), veh/h	314	0	0	319	0	0	104	1114	1158	7	1018	1027
V/C Ratio(X)	0.25	0.00	0.00	0.12	0.00	0.00	0.67	0.20	0.20	0.41	0.26	0.26
Avail Cap(c_a), veh/h	551	0	0	532	0	0	525	1114	1158	151	1018	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	0.0	22.6	0.0	0.0	26.0	0.0	0.0	29.8	6.7	6.7
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.8	0.4	0.4	12.9	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.5	0.0	0.0	1.0	0.1	0.1	0.1	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	0.0	0.0	22.7	0.0	0.0	28.8	0.4	0.4	42.7	7.3	7.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		77			38			526			529	
Approach Delay, s/veh		23.5			22.7			4.2			7.5	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	41.8		13.3	8.0	38.6		13.3				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.4	4.2	6.5		3.1				
Green Ext Time (p_c), s	0.0	2.7		0.3	0.1	1.3		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		7.5
HCM 6th LOS		A

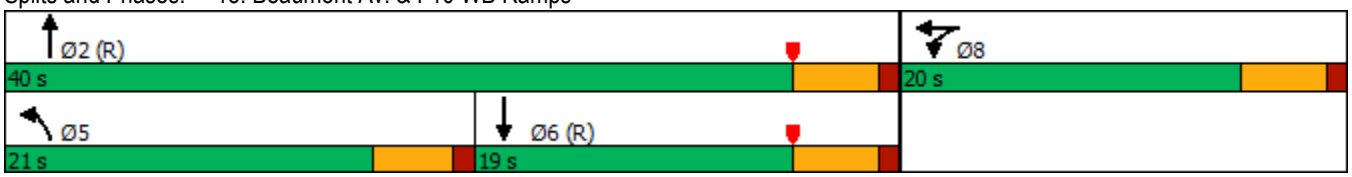
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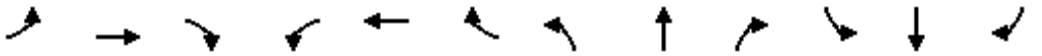
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	533	10	396	249	395
Future Volume (vph)	533	10	396	249	395
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	20.0	20.0	21.0	40.0	19.0
Total Split (%)	33.3%	33.3%	35.0%	66.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	15.2	15.2	15.8	35.2	14.8
Actuated g/C Ratio	0.25	0.25	0.26	0.59	0.25
v/c Ratio	1.01	0.80	0.90	0.13	0.58
Control Delay	73.5	27.9	50.2	5.7	16.3
Queue Delay	0.0	53.9	0.0	0.0	6.8
Total Delay	73.5	81.9	50.2	5.7	23.1
LOS	E	F	D	A	C
Approach Delay		77.5		33.0	23.1
Approach LOS		E		C	C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 48.7	Intersection LOS: D
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	533	10	235	396	249	0	0	395	86
Future Volume (veh/h)	0	0	0	533	10	235	396	249	0	0	395	86
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				422	230	255	430	271	0	0	429	93
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				458	209	231	495	2118	0	0	711	153
Arrive On Green				0.25	0.25	0.25	0.43	0.98	0.00	0.00	0.08	0.08
Sat Flow, veh/h				1810	823	913	1810	3705	0	0	3050	636
Grp Volume(v), veh/h				422	0	485	430	271	0	0	261	261
Grp Sat Flow(s),veh/h/ln				1810	0	1736	1810	1805	0	0	1805	1786
Q Serve(g_s), s				13.6	0.0	15.2	13.4	0.1	0.0	0.0	8.3	8.5
Cycle Q Clear(g_c), s				13.6	0.0	15.2	13.4	0.1	0.0	0.0	8.3	8.5
Prop In Lane				1.00		0.53	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				458	0	440	495	2118	0	0	434	429
V/C Ratio(X)				0.92	0.00	1.10	0.87	0.13	0.00	0.00	0.60	0.61
Avail Cap(c_a), veh/h				458	0	440	495	2118	0	0	454	449
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.00	0.00	0.98	0.98
Uniform Delay (d), s/veh				21.8	0.0	22.4	16.3	0.3	0.0	0.0	24.8	24.9
Incr Delay (d2), s/veh				23.9	0.0	73.9	11.4	0.1	0.0	0.0	5.9	6.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	487.1	18.4	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.9	0.0	14.2	72.8	5.5	0.0	0.0	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.7	0.0	96.3	514.8	18.8	0.0	0.0	30.7	31.1
LnGrp LOS				D	A	F	F	B	A	A	C	C
Approach Vol, veh/h					907			701			522	
Approach Delay, s/veh					72.7			323.1			30.9	
Approach LOS					E			F			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	40.0		20.1	19.9		20.0						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 35		16.4	* 14		15.2						
Max Q Clear Time (g_c+I1), s	2.1		15.4	10.5		17.2						
Green Ext Time (p_c), s	1.9		0.1	1.1		0.0						

Intersection Summary		
HCM 6th Ctrl Delay	144.9	
HCM 6th LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

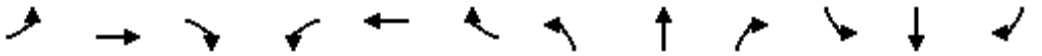
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	569	567	117	810
Future Volume (vph)	11	569	567	117	810
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	12.8	12.8	27.5	7.4	37.6
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	20.7	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	20.7	9.4
LOS	C	C	B	C	A
Approach Delay	21.6		10.6		10.8
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 69.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Future Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	687				0	591	504	122	844	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	463	785				0	1385	189	155	2153	0
Arrive On Green	0.00	0.00	0.24				0.00	0.43	0.43	0.17	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1944	1573	1810	3705	0
Grp Volume(v), veh/h	0	0	687				0	577	518	122	844	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	12.3				0.0	16.0	16.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	12.3				0.0	16.0	16.0	3.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	463	785				0	783	791	155	2153	0
V/C Ratio(X)	0.00	0.00	0.88				0.00	0.74	0.66	0.79	0.39	0.00
Avail Cap(c_a), veh/h	0	481	816				0	783	702	253	2153	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.53	0.53	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.8				0.0	17.0	17.0	24.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	10.3				0.0	6.1	4.2	1.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	283.4	243.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	5.1				0.0	72.1	63.5	1.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	32.1				0.0	306.5	264.4	26.1	0.3	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		687						1095			966	
Approach Delay, s/veh		32.1						286.6			3.6	
Approach LOS		C						F			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	9.7	30.8		19.4		40.6
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35
Max Q Clear Time (g_c+I1), s	5.9	18.0		14.3		2.0
Green Ext Time (p_c), s	0.0	2.6		0.3		7.0

Intersection Summary		
HCM 6th Ctrl Delay		123.5
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

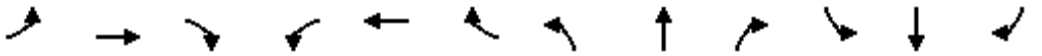
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	459	108	838	511	525	356
Future Volume (vph)	459	108	838	511	525	356
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	12.3	11.1	20.0	20.0	20.0	20.0
Actuated g/C Ratio	0.29	0.26	0.47	0.47	0.47	0.47
v/c Ratio	0.51	0.14	0.38	0.54	0.24	0.26
Control Delay	15.9	4.6	7.8	3.0	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	4.6	7.8	3.0	7.0	1.4
LOS	B	A	A	A	A	A
Approach Delay			6.0		4.8	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 43	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 7.2	Intersection LOS: A
Intersection Capacity Utilization 37.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	459	0	108	0	838	511	0	525	356
Future Volume (veh/h)	0	0	0	459	0	108	0	838	511	0	525	356
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				499	0	90	0	911	0	0	571	305
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				801	0	647	0	2166		0	2166	1183
Arrive On Green				0.23	0.00	0.23	0.00	0.42	0.00	0.00	0.42	0.42
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				499	0	90	0	911	0	0	571	305
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				3.9	0.0	0.8	0.0	3.8	0.0	0.0	2.2	2.1
Cycle Q Clear(g_c), s				3.9	0.0	0.8	0.0	3.8	0.0	0.0	2.2	2.1
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				801	0	647	0	2166		0	2166	1183
V/C Ratio(X)				0.62	0.00	0.14	0.00	0.42		0.00	0.26	0.26
Avail Cap(c_a), veh/h				4619	0	3729	0	11691		0	11691	6387
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.4	0.0	9.2	0.0	6.1	0.0	0.0	5.6	5.6
Incr Delay (d2), s/veh				0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.9	0.0	0.1	0.0	0.5	0.0	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				10.7	0.0	9.3	0.0	6.2	0.0	0.0	5.7	5.7
LnGrp LOS				B	A	A	A	A		A	A	A
Approach Vol, veh/h					589			911	A		876	
Approach Delay, s/veh					10.5			6.2			5.7	
Approach LOS					B			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	18.6			18.6		11.6						
Change Period (Y+Rc), s	5.8			5.8		4.6						
Max Green Setting (Gmax), s	69.2			69.2		40.4						
Max Q Clear Time (g_c+I1), s	5.8			4.2		5.9						
Green Ext Time (p_c), s	7.0			5.4		1.1						

Intersection Summary		
HCM 6th Ctrl Delay	7.1	
HCM 6th LOS	A	

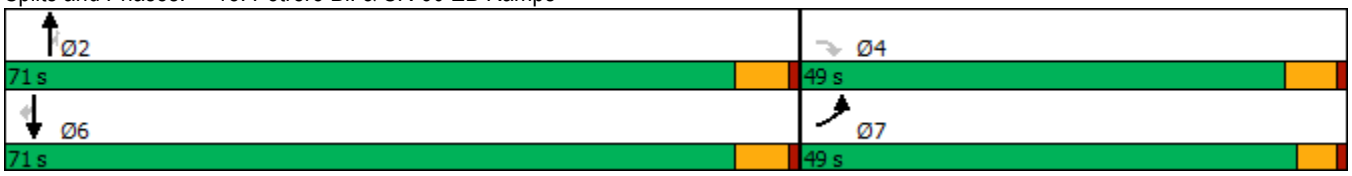
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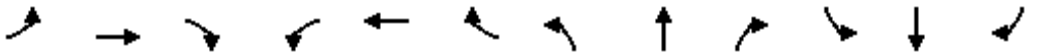
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	436	661	913	417	865	120
Future Volume (vph)	436	661	913	417	865	120
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	17.8	16.6	22.8	22.8	22.8	22.8
Actuated g/C Ratio	0.35	0.32	0.44	0.44	0.44	0.44
v/c Ratio	0.40	0.70	0.44	0.31	0.42	0.17
Control Delay	14.6	15.6	10.9	1.8	10.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	15.6	10.9	1.8	10.7	2.9
LOS	B	B	B	A	B	A
Approach Delay			8.1		9.8	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 51.5	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 10.8	Intersection LOS: B
Intersection Capacity Utilization 49.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	436	0	661	0	0	0	0	913	417	0	865	120
Future Volume (veh/h)	436	0	661	0	0	0	0	913	417	0	865	120
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	474	0	636				0	992	410	0	940	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1068	0	862				0	2249	1229	0	2249	
Arrive On Green	0.31	0.00	0.31				0.00	0.44	0.44	0.00	0.44	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	474	0	636				0	992	410	0	940	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	4.6	0.0	8.5				0.0	5.6	4.0	0.0	5.2	0.0
Cycle Q Clear(g_c), s	4.6	0.0	8.5				0.0	5.6	4.0	0.0	5.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1068	0	862				0	2249	1229	0	2249	
V/C Ratio(X)	0.44	0.00	0.74				0.00	0.44	0.33	0.00	0.42	
Avail Cap(c_a), veh/h	3695	0	2983				0	8018	4380	0	8018	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.5	0.0	12.8				0.0	8.1	7.6	0.0	8.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.5				0.0	0.1	0.2	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.9				0.0	1.2	0.7	0.0	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.6	0.0	13.3				0.0	8.2	7.8	0.0	8.1	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h		1110						1402			940	A
Approach Delay, s/veh		12.6						8.1			8.1	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		24.1		17.4		24.1						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		65.2		44.4		65.2						
Max Q Clear Time (g_c+I1), s		7.6		10.5		7.2						
Green Ext Time (p_c), s		10.7		2.4		7.3						

Intersection Summary	
HCM 6th Ctrl Delay	9.5
HCM 6th LOS	A

Notes

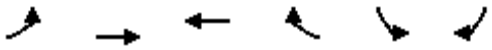
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	881	266	322	297
Future Volume (vph)	881	266	322	297
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	41.7	41.7	41.7	18.2
Actuated g/C Ratio	0.58	0.58	0.58	0.25
v/c Ratio	0.87	0.26	0.32	0.71
Control Delay	23.9	8.5	1.8	36.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.9	8.5	1.8	36.5
LOS	C	A	A	D
Approach Delay	23.9	4.8		36.5
Approach LOS	C	A		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 72.3	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	881	266	322	297	0
Future Volume (veh/h)	0	881	266	322	297	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	958	289	350	323	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	122	1115	1115	945	391	348
Arrive On Green	0.00	0.59	0.59	0.59	0.22	0.00
Sat Flow, veh/h	802	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	958	289	350	323	0
Grp Sat Flow(s),veh/h/ln	802	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	24.7	4.4	6.7	10.0	0.0
Cycle Q Clear(g_c), s	0.0	24.7	4.4	6.7	10.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	122	1115	1115	945	391	348
V/C Ratio(X)	0.00	0.86	0.26	0.37	0.83	0.00
Avail Cap(c_a), veh/h	391	1752	1752	1485	745	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.1	5.9	6.4	22.0	0.0
Incr Delay (d2), s/veh	0.0	2.7	0.1	0.2	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.0	1.1	1.5	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.9	6.0	6.7	26.5	0.0
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h		958	639		323	
Approach Delay, s/veh		12.9	6.4		26.5	
Approach LOS		B	A		C	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			40.3		18.5	40.3
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			26.7		12.0	8.7
Green Ext Time (p_c), s			7.8		0.7	2.9

Intersection Summary		
HCM 6th Ctrl Delay	13.0	
HCM 6th LOS	B	

Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	332	65	259	411	130	331
Future Vol, veh/h	332	65	259	411	130	331
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	365	71	285	452	143	364
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	15.8	18.9	24.7
HCM LOS	C	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	331	166	166	65	259	206	206
LT Vol	130	0	0	0	0	259	0	0
Through Vol	0	0	166	166	0	0	206	206
RT Vol	0	331	0	0	65	0	0	0
Lane Flow Rate	143	364	182	182	71	285	226	226
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.339	0.74	0.421	0.421	0.116	0.651	0.484	0.374
Departure Headway (Hd)	8.537	7.327	8.312	8.312	5.832	8.237	7.722	5.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	420	491	432	432	610	438	465	601
Service Time	6.307	5.096	6.091	6.091	3.609	6.005	5.489	3.736
HCM Lane V/C Ratio	0.34	0.741	0.421	0.421	0.116	0.651	0.486	0.376
HCM Control Delay	15.7	28.3	17.1	17.1	9.4	25.2	17.6	12.3
HCM Lane LOS	C	D	C	C	A	D	C	B
HCM 95th-tile Q	1.5	6.1	2	2	0.4	4.5	2.6	1.7

Intersection	
Intersection Delay, s/veh	65.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Future Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	135	0	816	0	13	510	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	11.3	101.3	23
HCM LOS	B	F	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	2%
Vol Thru, %	100%	0%	98%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	628	106	403
LT Vol	0	2	10
Through Vol	628	0	393
RT Vol	0	104	0
Lane Flow Rate	816	138	523
Geometry Grp	1	1	1
Degree of Util (X)	1.145	0.231	0.752
Departure Headway (Hd)	5.056	6.414	5.427
Convergence, Y/N	Yes	Yes	Yes
Cap	726	563	670
Service Time	3.056	4.414	3.427
HCM Lane V/C Ratio	1.124	0.245	0.781
HCM Control Delay	101.3	11.3	23
HCM Lane LOS	F	B	C
HCM 95th-tile Q	25.1	0.9	6.8

Intersection	
Intersection Delay, s/veh	246.3
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	439	80	0	25	501	348	149
Future Vol, veh/h	439	80	0	25	501	348	149
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	655	119	0	37	748	519	222
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	452.7	226.5	51.6
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	85%	0%	0%	0%	100%	44%
Vol Thru, %	15%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	56%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	519	0	25	501	232	265
LT Vol	439	0	0	0	232	116
Through Vol	80	0	25	0	0	0
RT Vol	0	0	0	501	0	149
Lane Flow Rate	775	0	37	748	346	396
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	1.935	0	0.08	1.453	0.83	0.874
Departure Headway (Hd)	9.832	8.634	8.634	7.899	10.811	10.094
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	380	0	418	464	339	364
Service Time	7.532	6.334	6.334	5.599	8.511	7.794
HCM Lane V/C Ratio	2.039	0	0.089	1.612	1.021	1.088
HCM Control Delay	452.7	11.3	12.1	237.2	49.4	53.5
HCM Lane LOS	F	N	B	F	E	F
HCM 95th-tile Q	48.3	0	0.3	33.3	7.2	8.4

Intersection	
Intersection Delay, s/veh	135
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	745	871	376	232	53
Future Vol, veh/h	54	745	871	376	232	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	56	768	898	388	239	55
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	346.3	23.5	30.6
HCM LOS	F	C	D

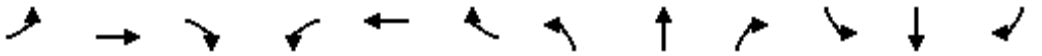
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	81%
Vol Thru, %	0%	100%	100%	100%	32%	0%
Vol Right, %	0%	0%	0%	0%	68%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	745	348	348	550	285
LT Vol	54	0	0	0	0	232
Through Vol	0	745	348	348	174	0
RT Vol	0	0	0	0	376	53
Lane Flow Rate	56	768	359	359	567	294
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.135	1.758	0.678	0.678	0.727	0.685
Departure Headway (Hd)	8.758	8.242	7.712	7.712	5.455	9.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	445	471	471	669	382
Service Time	6.557	6.041	5.412	5.412	3.155	7.227
HCM Lane V/C Ratio	0.137	1.726	0.762	0.762	0.848	0.77
HCM Control Delay	12.9	370.5	25.2	25.2	21.3	30.6
HCM Lane LOS	B	F	D	D	C	D
HCM 95th-tile Q	0.5	47	5	5	6.3	4.9

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	677	225	927	1
Future Volume (vph)	677	225	927	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	2.12	1.40	1.32	1.64
Control Delay	531.9	217.4	170.8	316.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	531.9	217.4	170.8	316.3
LOS	F	F	F	F
Approach Delay	531.9		179.9	316.3
Approach LOS	F		F	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.12	
Intersection Signal Delay: 333.7	Intersection LOS: F
Intersection Capacity Utilization 131.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Future Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	891	323	296	1220	0				833	1	356
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	430	156	213	923	0				520	1	222
Arrive On Green	0.00	0.32	0.30	0.12	0.49	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1331	482	1810	1900	0				1221	1	522
Grp Volume(v), veh/h	0	0	1214	296	1220	0				1190	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1813	1810	1900	0				1745	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.27	1.00		0.00				0.70		0.30
Lane Grp Cap(c), veh/h	0	0	586	213	923	0				743	0	0
V/C Ratio(X)	0.00	0.00	2.07	1.39	1.32	0.00				1.60	0.00	0.00
Avail Cap(c_a), veh/h	0	0	586	213	923	0				743	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.7	39.7	23.1	0.0				26.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	487.7	177.7	145.8	0.0				277.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	91.1	15.0	54.0	0.0				71.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	518.4	217.4	169.0	0.0				303.6	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1214			1516						1190	
Approach Delay, s/veh		518.4			178.4						303.6	
Approach LOS		F			F						F	

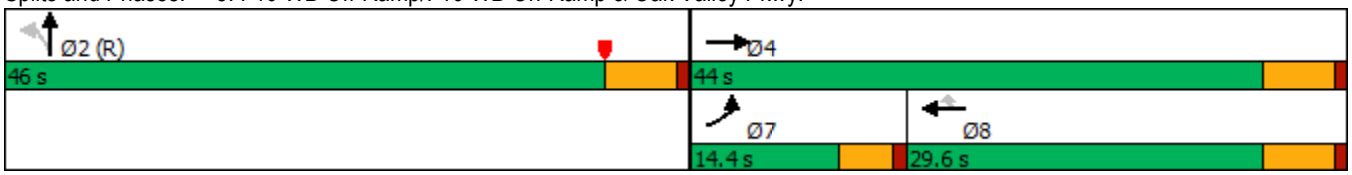
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						

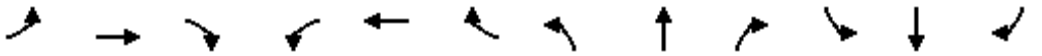
Intersection Summary												
HCM 6th Ctrl Delay			321.7									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	295	1014	678	383	5
Future Volume (vph)	295	1014	678	383	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	1.46	1.24	1.29	0.56	1.05
Control Delay	240.6	130.9	175.8	8.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	240.6	130.9	175.8	8.1	69.6
LOS	F	F	F	A	E
Approach Delay		155.7	115.2		69.6
Approach LOS		F	F		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.46	
Intersection Signal Delay: 119.6	Intersection LOS: F
Intersection Capacity Utilization 131.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Future Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	304	1045	0	0	699	325	488	5	333			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	475	5	324			
Arrive On Green	0.04	0.15	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1019	10	695			
Grp Volume(v), veh/h	304	1045	0	0	699	325	826	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1724	0	0			
Q Serve(g_s), s	10.4	40.0	0.0	0.0	25.6	16.3	42.0	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	40.0	0.0	0.0	25.6	16.3	42.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.59		0.40			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	805	0	0			
V/C Ratio(X)	1.45	1.24	0.00	0.00	1.29	0.71	1.03	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	805	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.3	38.4	0.0	0.0	32.2	28.9	24.4	0.0	0.0			
Incr Delay (d2), s/veh	206.7	107.9	0.0	0.0	145.4	5.0	38.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.8	45.2	0.0	0.0	32.6	6.5	23.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	250.0	146.3	0.0	0.0	177.6	33.9	63.1	0.0	0.0			
LnGrp LOS	F	F	A	A	F	C	F	A	A			
Approach Vol, veh/h		1349			1024			826				
Approach Delay, s/veh		169.6			132.0			63.1				
Approach LOS		F			F			E				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.0		44.0			14.4	29.6				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			9.8	23.8				
Max Q Clear Time (g_c+I1), s		44.0		42.0			12.4	27.6				
Green Ext Time (p_c), s		0.0		0.0			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			130.1									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	930	139	119	735	61	0	0	130	0	0	72
Future Vol, veh/h	0	930	139	119	735	61	0	0	130	0	0	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	1000	149	128	790	66	0	0	140	0	0	77

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1149	0	0	-	-	575	-	-	823
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	615	-	-	0	0	466	0	0	377
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	615	-	-	-	-	466	-	-	377
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	16	17
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	466	-	-	615	-	-	377
HCM Lane V/C Ratio	0.3	-	-	0.208	-	-	0.205
HCM Control Delay (s)	16	-	-	12.4	-	-	17
HCM Lane LOS	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.2	-	-	0.8	-	-	0.8

Intersection	
Intersection Delay, s/veh	166.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	117	479	85	10	424	33	44	41	12	15	65	65
Future Vol, veh/h	117	479	85	10	424	33	44	41	12	15	65	65
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	167	684	121	14	606	47	63	59	17	21	93	93
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

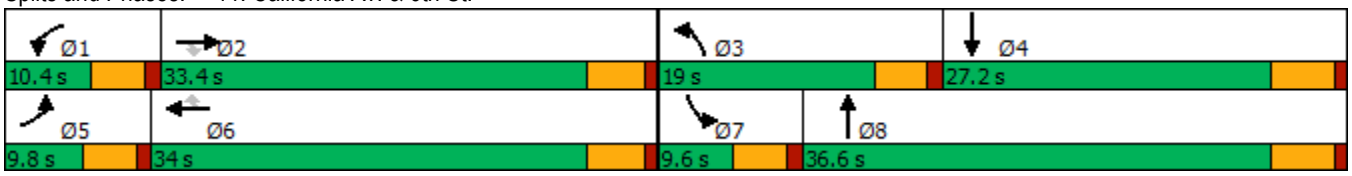
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	173.3	232.9	18.3	15.9
HCM LOS	F	F	C	C

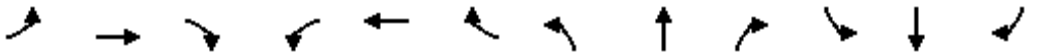
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	52%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	48%	0%	0%	100%	0%	0%	93%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	7%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	12	117	479	85	10	457	15	65	65
LT Vol	44	0	117	0	0	10	0	15	0	0
Through Vol	41	0	0	479	0	0	424	0	65	0
RT Vol	0	12	0	0	85	0	33	0	0	65
Lane Flow Rate	121	17	167	684	121	14	653	21	93	93
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.325	0.041	0.378	1.454	0.234	0.034	1.448	0.058	0.237	0.219
Departure Headway (Hd)	11.087	10.085	9.022	8.507	7.787	9.18	8.618	11.239	10.713	9.977
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	327	357	401	431	464	392	424	321	337	362
Service Time	8.787	7.785	6.722	6.207	5.487	6.88	6.318	8.939	8.413	7.677
HCM Lane V/C Ratio	0.37	0.048	0.416	1.587	0.261	0.036	1.54	0.065	0.276	0.257
HCM Control Delay	19	13.2	17.1	239.9	12.8	12.2	237.7	14.6	16.7	15.5
HCM Lane LOS	C	B	C	F	B	B	F	B	C	C
HCM 95th-tile Q	1.4	0.1	1.7	31.4	0.9	0.1	30.8	0.2	0.9	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	21	498	188	292	294	11	304	142	15	85
Future Volume (vph)	21	498	188	292	294	11	304	142	15	85
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.7	27.5	27.5	6.4	34.1	34.1	15.0	40.4	5.6	23.2
Actuated g/C Ratio	0.06	0.31	0.31	0.07	0.39	0.39	0.17	0.46	0.06	0.26
v/c Ratio	0.19	0.89	0.31	2.34	0.42	0.02	1.04	0.48	0.14	0.21
Control Delay	43.9	47.3	4.8	652.9	23.1	0.0	101.6	15.3	42.9	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	47.3	4.8	652.9	23.1	0.0	101.6	15.3	42.9	25.3
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		35.9			330.6			53.3		27.7
Approach LOS		D			F			D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 88.2	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.34	
Intersection Signal Delay: 124.7	Intersection LOS: F
Intersection Capacity Utilization 75.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Future Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	524	194	307	309	7	320	149	226	16	89	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	590	500	132	670	568	309	279	423	46	459	36
Arrive On Green	0.03	0.31	0.31	0.07	0.35	0.35	0.17	0.41	0.40	0.03	0.26	0.25
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	681	1033	1810	1739	137
Grp Volume(v), veh/h	22	524	194	307	309	7	320	0	375	16	0	96
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1714	1810	0	1875
Q Serve(g_s), s	1.0	23.1	8.3	6.4	11.0	0.2	15.0	0.0	14.6	0.8	0.0	3.5
Cycle Q Clear(g_c), s	1.0	23.1	8.3	6.4	11.0	0.2	15.0	0.0	14.6	0.8	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.07
Lane Grp Cap(c), veh/h	55	590	500	132	670	568	309	0	702	46	0	495
V/C Ratio(X)	0.40	0.89	0.39	2.33	0.46	0.01	1.04	0.00	0.53	0.35	0.00	0.19
Avail Cap(c_a), veh/h	119	636	539	132	670	568	309	0	702	115	0	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.8	28.9	23.8	40.7	22.0	18.5	36.4	0.0	19.9	42.1	0.0	25.1
Incr Delay (d2), s/veh	1.7	13.8	0.5	621.2	0.5	0.0	60.8	0.0	2.9	1.7	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	12.4	3.0	25.5	4.9	0.1	11.4	0.0	5.9	0.3	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	42.7	24.3	661.9	22.5	18.5	97.2	0.0	22.8	43.8	0.0	26.0
LnGrp LOS	D	D	C	F	C	B	F	A	C	D	A	C
Approach Vol, veh/h		740			623			695			112	
Approach Delay, s/veh		37.9			337.5			57.1			28.5	
Approach LOS		D			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	31.3	19.0	27.2	6.7	35.0	6.2	40.0
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	8.4	25.1	17.0	5.5	3.0	13.0	2.8	16.6
Green Ext Time (p_c), s	0.0	1.4	0.0	0.3	0.0	1.6	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	129.6
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	5	3	94	49	3	22	194	659	36	7	496	7
Future Vol, veh/h	5	3	94	49	3	22	194	659	36	7	496	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	3	99	52	3	23	204	694	38	7	522	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1674	1680	526	1712	1664	713	529	0	0	732	0	0
Stage 1	540	540	-	1121	1121	-	-	-	-	-	-	-
Stage 2	1134	1140	-	591	543	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	77	96	556	72	98	435	1048	-	-	882	-	-
Stage 1	530	524	-	253	284	-	-	-	-	-	-	-
Stage 2	249	278	-	497	523	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	61	77	556	~ 49	78	435	1048	-	-	882	-	-
Mov Cap-2 Maneuver	138	167	-	114	155	-	-	-	-	-	-	-
Stage 1	427	520	-	204	229	-	-	-	-	-	-	-
Stage 2	187	224	-	403	519	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	53.6	2	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1048	-	-	457	148	882	-	-
HCM Lane V/C Ratio	0.195	-	-	0.235	0.526	0.008	-	-
HCM Control Delay (s)	9.3	-	-	15.3	53.6	9.1	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.7	-	-	0.9	2.6	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	696.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	363	182	126	546	1059	365
Future Vol, veh/h	363	182	126	546	1059	365
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	395	198	137	593	1151	397

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2217	1350	1548	0	-	0
Stage 1	1350	-	-	-	-	-
Stage 2	867	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 49	~ 186	434	-	-	-
Stage 1	~ 244	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 34	~ 186	434	-	-	-
Mov Cap-2 Maneuver	~ 34	-	-	-	-	-
Stage 1	~ 167	-	-	-	-	-
Stage 2	415	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, $	3373.2	3.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	434	-	34	186	-	-
HCM Lane V/C Ratio	0.316	-	11.605	1.064	-	-
HCM Control Delay (s)	17.1	-	$ 4996.3	136	-	-
HCM Lane LOS	C	-	F	F	-	-
HCM 95th %tile Q(veh)	1.3	-	48.1	9.4	-	-

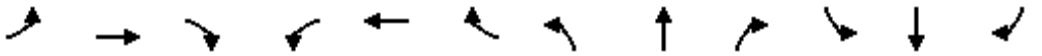
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	17	79	5	25	486	10	479
Future Volume (vph)	43	17	79	5	25	486	10	479
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		11.5		11.5	6.2	42.2	5.8	39.8
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.66
v/c Ratio		0.32		0.37	0.14	0.21	0.06	0.22
Control Delay		16.1		21.9	30.1	5.0	25.2	6.8
Queue Delay		0.4		0.5	1.3	0.4	0.0	0.3
Total Delay		16.4		22.3	31.4	5.4	25.2	7.1
LOS		B		C	C	A	C	A
Approach Delay		16.4		22.3		6.6		7.5
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 37.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	17	43	79	5	17	25	486	33	10	479	18
Future Volume (veh/h)	43	17	43	79	5	17	25	486	33	10	479	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	18	44	81	5	18	26	501	34	10	494	19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	80	116	304	27	47	71	2066	140	41	2076	80
Arrive On Green	0.17	0.17	0.16	0.17	0.17	0.16	0.08	1.00	1.00	0.02	0.59	0.57
Sat Flow, veh/h	485	464	674	1125	152	267	1810	3431	232	1810	3544	136
Grp Volume(v), veh/h	106	0	0	104	0	0	26	263	272	10	251	262
Grp Sat Flow(s),veh/h/ln	1623	0	0	1544	0	0	1810	1805	1858	1810	1805	1875
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.3	4.0	4.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	3.0	0.0	0.0	0.8	0.0	0.0	0.3	4.0	4.0
Prop In Lane	0.42		0.42	0.78		0.17	1.00		0.13	1.00		0.07
Lane Grp Cap(c), veh/h	363	0	0	377	0	0	71	1087	1119	41	1057	1099
V/C Ratio(X)	0.29	0.00	0.00	0.28	0.00	0.00	0.37	0.24	0.24	0.24	0.24	0.24
Avail Cap(c_a), veh/h	486	0	0	483	0	0	241	1087	1119	241	1057	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	0.0	21.7	0.0	0.0	26.9	0.0	0.0	28.8	6.0	6.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	1.2	0.5	0.5	1.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.3	0.0	0.0	0.4	0.2	0.2	0.1	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.1	0.0	0.0	28.1	0.5	0.5	29.9	6.5	6.5
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		106			104			561			523	
Approach Delay, s/veh		22.5			22.1			1.8			7.0	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.1		14.5	6.4	39.1		14.5				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		5.2	2.8	6.0		5.0				
Green Ext Time (p_c), s	0.0	3.2		0.3	0.0	2.9		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		7.2
HCM 6th LOS		A

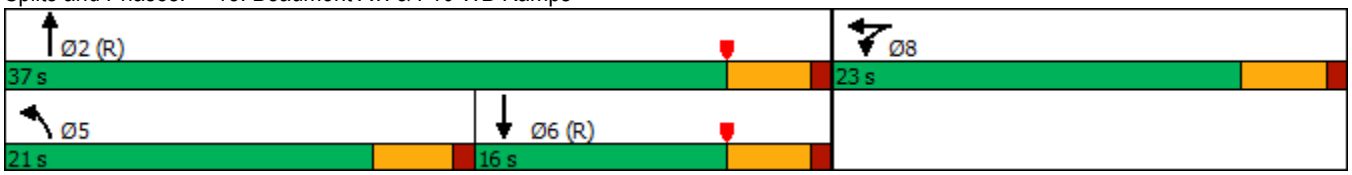
Notes

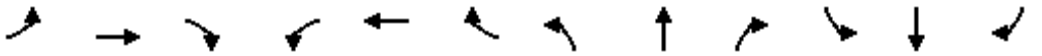
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	787	0	312	354	494
Future Volume (vph)	787	0	312	354	494
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.6	-0.8	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	18.9	18.9	14.5	33.1	14.6
Actuated g/C Ratio	0.32	0.32	0.24	0.55	0.24
v/c Ratio	0.90	0.87	0.74	0.18	0.70
Control Delay	43.5	33.2	35.6	7.3	24.2
Queue Delay	0.0	50.6	0.0	0.0	52.7
Total Delay	43.5	83.8	35.6	7.3	76.8
LOS	D	F	D	A	E
Approach Delay		64.3		20.6	76.8
Approach LOS		E		C	E

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 54.7	Intersection LOS: D
Intersection Capacity Utilization 106.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	787	0	191	312	354	0	0	494	108
Future Volume (veh/h)	0	0	0	787	0	191	312	354	0	0	494	108
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				504	430	197	322	365	0	0	509	111
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				573	391	179	376	1986	0	0	813	176
Arrive On Green				0.32	0.32	0.30	0.42	1.00	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1233	565	1810	3705	0	0	3045	640
Grp Volume(v), veh/h				504	0	627	322	365	0	0	311	309
Grp Sat Flow(s),veh/h/ln				1810	0	1798	1810	1805	0	0	1805	1785
Q Serve(g_s), s				15.8	0.0	19.0	9.7	0.0	0.0	0.0	9.9	10.0
Cycle Q Clear(g_c), s				15.8	0.0	19.0	9.7	0.0	0.0	0.0	9.9	10.0
Prop In Lane				1.00		0.31	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				573	0	569	376	1986	0	0	497	492
V/C Ratio(X)				0.88	0.00	1.10	0.86	0.18	0.00	0.00	0.62	0.63
Avail Cap(c_a), veh/h				573	0	569	513	1986	0	0	497	492
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.69	0.69	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.5	0.0	20.6	16.7	0.0	0.0	0.0	24.3	24.4
Incr Delay (d2), s/veh				14.6	0.0	68.4	5.7	0.1	0.0	0.0	5.8	5.9
Initial Q Delay(d3),s/veh				417.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				75.3	0.0	17.4	3.4	0.0	0.0	0.0	5.4	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				452.1	0.0	89.0	22.4	0.1	0.0	0.0	30.0	30.3
LnGrp LOS				F	A	F	C	A	A	A	C	C
Approach Vol, veh/h					1131			687			620	
Approach Delay, s/veh					250.8			10.6			30.2	
Approach LOS					F			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	37.0		16.5	20.5		23.0						
Change Period (Y+Rc), s	* 4.8		4.6	* 4.8		4.8						
Max Green Setting (Gmax), s	* 32		16.4	* 11		18.2						
Max Q Clear Time (g_c+I1), s	2.0		11.7	12.0		21.0						
Green Ext Time (p_c), s	2.5		0.2	0.0		0.0						

Intersection Summary		
HCM 6th Ctrl Delay	127.0	
HCM 6th LOS	F	

Notes

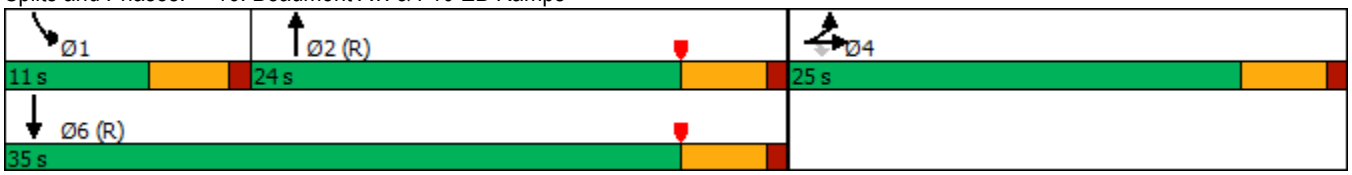
User approved volume balancing among the lanes for turning movement.

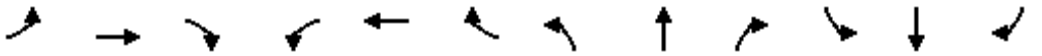
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	11	856	555	129	1152
Future Volume (vph)	11	856	555	129	1152
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.8	-0.6	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effct Green (s)	20.5	20.5	22.7	6.8	31.5
Actuated g/C Ratio	0.34	0.34	0.38	0.11	0.52
v/c Ratio	0.90	0.82	0.67	0.66	0.63
Control Delay	38.7	27.7	13.5	29.2	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	38.7	27.7	13.5	29.2	17.6
LOS	D	C	B	C	B
Approach Delay	33.3		13.5		18.8
Approach LOS	C		B		B

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 106.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Future Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	1011				0	572	429	133	1188	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	665	1127				0	686	514	183	1865	0
Arrive On Green	0.00	0.00	0.35				0.00	0.35	0.34	0.20	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2061	1474	1810	3705	0
Grp Volume(v), veh/h	0	0	1011				0	525	476	133	1188	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	17.9				0.0	16.0	16.1	4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	17.9				0.0	16.0	16.1	4.1	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	665	1127				0	630	570	183	1865	0
V/C Ratio(X)	0.00	0.00	0.90				0.00	0.83	0.83	0.73	0.64	0.00
Avail Cap(c_a), veh/h	0	665	1127				0	634	574	211	1873	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.52	0.52	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5				0.0	17.9	18.3	23.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.6				0.0	12.3	13.4	4.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	193.2				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	38.1				0.0	8.0	7.6	1.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	222.3				0.0	30.3	31.7	27.4	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h		1011						1001			1321	
Approach Delay, s/veh		222.3						31.0			3.5	
Approach LOS		F						C			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.1	25.1		24.9		35.1
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30
Max Q Clear Time (g_c+I1), s	6.1	18.1		19.9		2.0
Green Ext Time (p_c), s	0.0	0.7		0.2		10.4

Intersection Summary	
HCM 6th Ctrl Delay	78.1
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

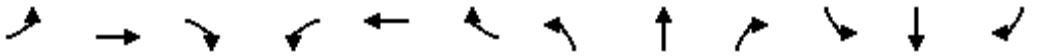
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	209	152	870	379	582	410
Future Volume (vph)	209	152	870	379	582	410
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.3	10.1	17.6	17.6	17.6	17.6
Actuated g/C Ratio	0.29	0.26	0.45	0.45	0.45	0.45
v/c Ratio	0.23	0.20	0.42	0.44	0.28	0.30
Control Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	4.1	7.8	2.5	7.0	1.4
LOS	B	A	A	A	A	A
Approach Delay			6.2		4.7	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 39.4	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 6.0	Intersection LOS: A
Intersection Capacity Utilization 34.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	209	0	152	0	870	379	0	582	410
Future Volume (veh/h)	0	0	0	209	0	152	0	870	379	0	582	410
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				227	0	138	0	946	0	0	633	364
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				610	0	493	0	2329		0	2329	1273
Arrive On Green				0.18	0.00	0.18	0.00	0.46	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				227	0	138	0	946	0	0	633	364
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				1.6	0.0	1.2	0.0	3.5	0.0	0.0	2.2	2.3
Cycle Q Clear(g_c), s				1.6	0.0	1.2	0.0	3.5	0.0	0.0	2.2	2.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				610	0	493	0	2329		0	2329	1273
V/C Ratio(X)				0.37	0.00	0.28	0.00	0.41		0.00	0.27	0.29
Avail Cap(c_a), veh/h				4320	0	3487	0	13378		0	13378	7309
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.3	0.0	10.1	0.0	5.1	0.0	0.0	4.8	4.8
Incr Delay (d2), s/veh				0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.2	0.0	0.3	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				10.4	0.0	10.2	0.0	5.3	0.0	0.0	4.8	4.9
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					365			946	A		997	
Approach Delay, s/veh					10.3			5.3			4.9	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	18.7		18.7		9.6			
Change Period (Y+Rc), s	5.8		5.8		4.6			
Max Green Setting (Gmax), s	74.2		74.2		35.4			
Max Q Clear Time (g_c+I1), s	5.5		4.3		3.6			
Green Ext Time (p_c), s	7.4		6.3		0.7			

Intersection Summary		
HCM 6th Ctrl Delay	5.9	
HCM 6th LOS	A	

Notes

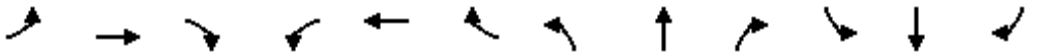
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	570	257	679	332	709	83
Future Volume (vph)	570	257	679	332	709	83
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	12.0	10.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.31	0.28	0.41	0.41	0.41	0.41
v/c Ratio	0.58	0.28	0.35	0.27	0.37	0.13
Control Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.1	8.4	1.8	8.4	2.8
LOS	B	A	A	A	A	A
Approach Delay			6.2		7.9	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 38.3	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 8.1	Intersection LOS: A
Intersection Capacity Utilization 38.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	570	0	257	0	0	0	0	679	332	0	709	83
Future Volume (veh/h)	570	0	257	0	0	0	0	679	332	0	709	83
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	620	0	197				0	738	279	0	771	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1057	0	853				0	1921	1049	0	1921	
Arrive On Green	0.31	0.00	0.31				0.00	0.38	0.38	0.00	0.38	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	620	0	197				0	738	279	0	771	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	5.0	0.0	1.7				0.0	3.4	2.3	0.0	3.6	0.0
Cycle Q Clear(g_c), s	5.0	0.0	1.7				0.0	3.4	2.3	0.0	3.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1057	0	853				0	1921	1049	0	1921	
V/C Ratio(X)	0.59	0.00	0.23				0.00	0.38	0.27	0.00	0.40	
Avail Cap(c_a), veh/h	4269	0	3446				0	10805	5903	0	10805	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	9.6	0.0	8.5				0.0	7.4	7.1	0.0	7.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.1				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.3				0.0	0.6	0.3	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.8	0.0	8.5				0.0	7.6	7.2	0.0	7.6	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h		817						1017			771	A
Approach Delay, s/veh		9.5						7.5			7.6	
Approach LOS		A						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		18.1		14.6		18.1						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		69.2		40.4		69.2						
Max Q Clear Time (g_c+I1), s		5.4		7.0		5.6						
Green Ext Time (p_c), s		6.9		1.6		5.7						

Intersection Summary	
HCM 6th Ctrl Delay	8.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 8.3:

OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

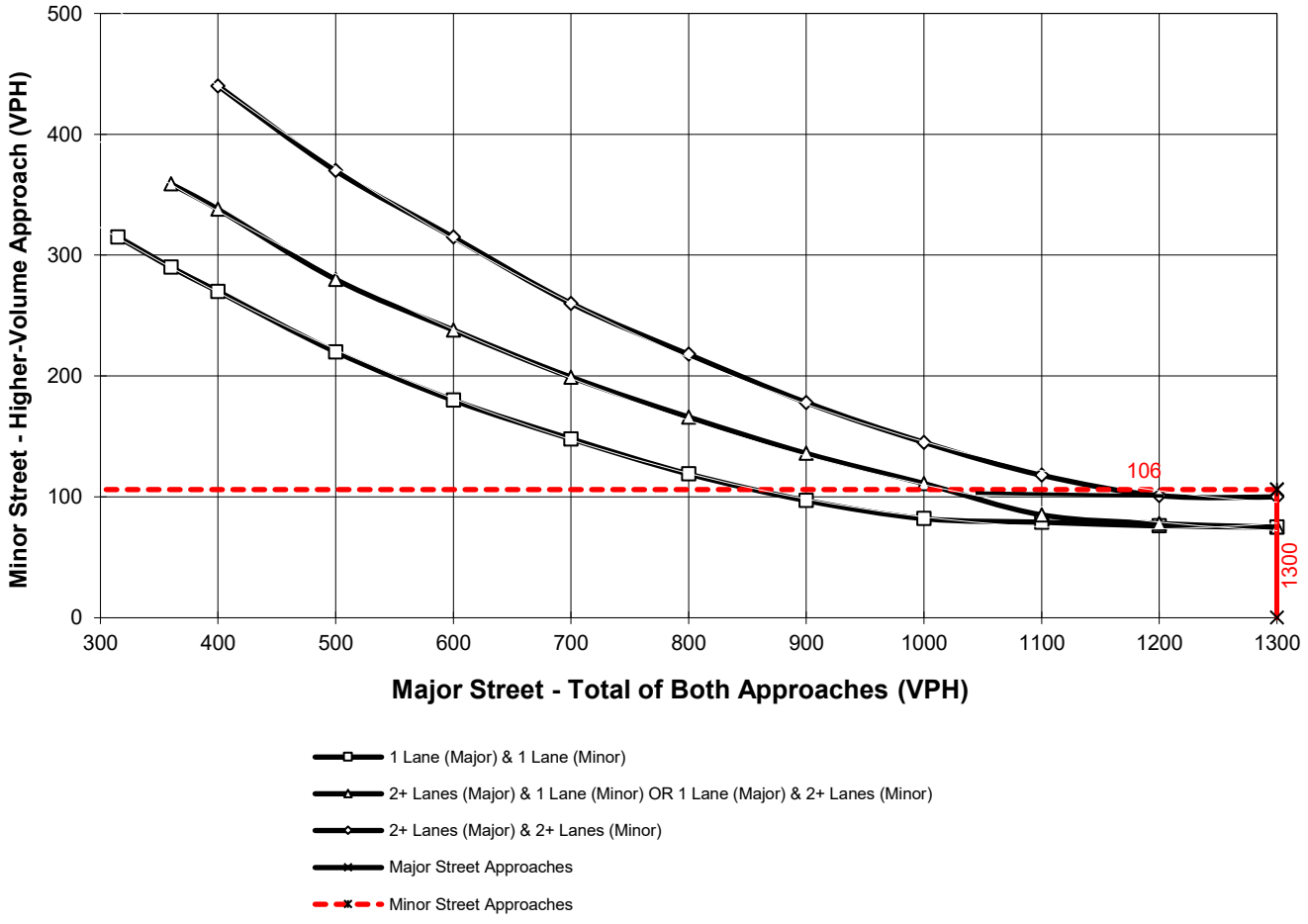
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2027 NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.** Total of Both Approaches (VPH) = **1376**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **106**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



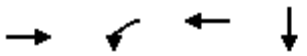
*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 8.4:

OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1419	337	809	581
v/c Ratio	1.61	1.14	0.62	1.71
Control Delay	302.7	110.0	5.4	357.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	302.7	110.0	5.4	357.2
Queue Length 50th (ft)	~1164	~218	66	~480
Queue Length 95th (ft)	#1400	m#207	m63	#675
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	340
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.61	1.14	0.62	1.71

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	256	770	644	540	839
v/c Ratio	2.37	0.99	1.13	0.63	1.00
Control Delay	640.3	31.6	110.3	6.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	640.3	31.6	110.3	6.5	55.5
Queue Length 50th (ft)	~243	479	~429	5	~433
Queue Length 95th (ft)	m#123	m207	#636	86	#704
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	853	837
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.37	0.99	1.13	0.63	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	440	405	430	271	522
v/c Ratio	1.01	0.80	0.90	0.13	0.58
Control Delay	73.5	27.9	50.2	5.7	16.2
Queue Delay	0.0	53.9	0.0	0.0	7.2
Total Delay	73.5	81.9	50.2	5.7	23.4
Queue Length 50th (ft)	~170	93	168	15	83
Queue Length 95th (ft)	#343	#236	#310	m36	128
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	509	493	2117	895
Starvation Cap Reductn	0	0	0	0	322
Spillback Cap Reductn	0	150	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.01	1.13	0.87	0.13	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	347	338	1095	122	844
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	20.7	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	20.7	9.4
Queue Length 50th (ft)	61	57	100	34	117
Queue Length 95th (ft)	#143	#141	173	m52	m174
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	525	511	1759	252	2260
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.66	0.62	0.48	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	136	117	857	441	380	387
v/c Ratio	0.13	0.14	0.40	0.48	0.18	0.28
Control Delay	11.3	4.2	7.9	2.8	6.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	4.2	7.9	2.8	6.7	1.5
Queue Length 50th (ft)	9	0	41	0	16	0
Queue Length 95th (ft)	28	15	60	31	27	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3385	2731	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.17	0.28	0.07	0.14

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	474	279	824	361	386	130
v/c Ratio	0.47	0.30	0.38	0.26	0.18	0.17
Control Delay	13.4	3.3	7.9	1.6	6.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	3.3	7.9	1.6	6.8	2.4
Queue Length 50th (ft)	38	0	36	0	15	0
Queue Length 95th (ft)	85	22	65	16	31	19
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3406	2754	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.10	0.16	0.13	0.08	0.08

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1286	296	1220	1256
v/c Ratio	2.12	1.40	1.32	1.64
Control Delay	531.9	217.4	170.8	316.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	531.9	217.4	170.8	316.3
Queue Length 50th (ft)	~1182	~223	~921	~1043
Queue Length 95th (ft)	#1151	m#199	m#736	#1018
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	606	212	922	767
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.12	1.40	1.32	1.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	304	1045	699	395	878
v/c Ratio	1.46	1.24	1.29	0.56	1.05
Control Delay	240.6	130.9	175.8	8.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	240.6	130.9	175.8	8.1	69.6
Queue Length 50th (ft)	~243	~747	~512	20	~535
Queue Length 95th (ft)	m90	m230	#725	98	#766
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	707	836
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.46	1.24	1.29	0.56	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	487	521	322	365	620
v/c Ratio	0.90	0.87	0.74	0.18	0.70
Control Delay	43.5	33.2	35.6	7.3	24.2
Queue Delay	0.0	50.6	0.0	0.0	52.7
Total Delay	43.5	83.8	35.6	7.3	76.8
Queue Length 50th (ft)	173	144	125	24	108
Queue Length 95th (ft)	#344	#321	m186	m52	#192
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	602	511	1991	885
Starvation Cap Reductn	0	0	0	0	340
Spillback Cap Reductn	0	162	0	61	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	1.18	0.63	0.19	1.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	513	494	1001	133	1188
v/c Ratio	0.90	0.82	0.67	0.66	0.63
Control Delay	38.7	27.7	13.5	29.2	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	38.7	27.7	13.5	29.2	17.6
Queue Length 50th (ft)	162	127	106	49	215
Queue Length 95th (ft)	#341	#291	172	m59	m275
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	586	612	1491	210	1897
Starvation Cap Reductn	0	0	0	0	151
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.88	0.81	0.67	0.63	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	227	165	946	412	633	446
v/c Ratio	0.23	0.20	0.42	0.44	0.28	0.30
Control Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Length 50th (ft)	18	0	46	0	28	0
Queue Length 95th (ft)	46	19	66	28	43	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3090	2463	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.07	0.19	0.26	0.12	0.16

Intersection Summary



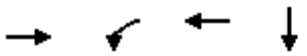
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	620	279	738	361	771	90
v/c Ratio	0.58	0.28	0.35	0.27	0.37	0.13
Control Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Length 50th (ft)	54	0	34	0	36	0
Queue Length 95th (ft)	111	21	64	17	67	17
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3314	2673	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.10	0.15	0.13	0.15	0.06

Intersection Summary

APPENDIX 8.5:

OPENING YEAR CUMULATIVE (2027) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1464	337	809	738
v/c Ratio	1.66	1.14	0.62	2.08
Control Delay	325.2	110.0	5.4	517.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	325.2	110.0	5.4	517.3
Queue Length 50th (ft)	~1220	~218	66	~652
Queue Length 95th (ft)	#1456	m#207	m63	#861
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	355
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.66	1.14	0.62	2.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	297	770	644	540	839
v/c Ratio	2.75	0.99	1.13	0.63	1.00
Control Delay	808.4	32.4	110.3	6.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	808.4	32.4	110.3	6.5	55.5
Queue Length 50th (ft)	~292	479	~429	5	~433
Queue Length 95th (ft)	m#137	m198	#636	86	#704
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	853	837
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.75	0.99	1.13	0.63	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	440	405	430	271	522
v/c Ratio	1.01	0.80	0.90	0.13	0.58
Control Delay	73.5	27.9	50.2	5.7	16.3
Queue Delay	0.0	53.9	0.0	0.0	6.8
Total Delay	73.5	81.9	50.2	5.7	23.1
Queue Length 50th (ft)	~170	93	168	15	83
Queue Length 95th (ft)	#343	#236	#310	m36	129
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	509	493	2117	895
Starvation Cap Reductn	0	0	0	0	319
Spillback Cap Reductn	0	150	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.01	1.13	0.87	0.13	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	347	338	1095	122	844
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	20.7	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	20.7	9.4
Queue Length 50th (ft)	61	57	100	34	117
Queue Length 95th (ft)	#143	#141	173	m52	m174
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	525	511	1759	252	2260
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.66	0.62	0.48	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



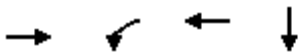
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	499	117	911	555	571	387
v/c Ratio	0.51	0.14	0.38	0.54	0.24	0.26
Control Delay	15.9	4.6	7.8	3.0	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	4.6	7.8	3.0	7.0	1.4
Queue Length 50th (ft)	49	0	44	0	25	0
Queue Length 95th (ft)	107	17	77	37	47	16
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3169	2540	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.05	0.18	0.35	0.11	0.14

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	474	718	992	453	940	130
v/c Ratio	0.40	0.70	0.44	0.31	0.42	0.17
Control Delay	14.6	15.6	10.9	1.8	10.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	15.6	10.9	1.8	10.7	2.9
Queue Length 50th (ft)	52	71	67	0	62	0
Queue Length 95th (ft)	109	163	126	23	119	25
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	2953	2392	5014	2754	5014	1563
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.30	0.20	0.16	0.19	0.08

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1516	296	1220	1388
v/c Ratio	2.50	1.40	1.32	1.77
Control Delay	697.9	217.4	170.8	373.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	697.9	217.4	170.8	373.5
Queue Length 50th (ft)	~1465	~223	~921	~1192
Queue Length 95th (ft)	#1397	m#199	m#736	#1146
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	607	212	922	785
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.50	1.40	1.32	1.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	485	1045	699	395	878
v/c Ratio	2.33	1.24	1.29	0.56	1.05
Control Delay	621.5	131.4	175.8	8.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	621.5	131.4	175.8	8.1	69.6
Queue Length 50th (ft)	~465	~752	~512	20	~535
Queue Length 95th (ft)	m#145	m211	#725	98	#766
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	707	836
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.33	1.24	1.29	0.56	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	487	521	322	365	620
v/c Ratio	0.90	0.87	0.74	0.18	0.70
Control Delay	43.5	33.2	35.6	7.3	24.0
Queue Delay	0.0	50.6	0.0	0.0	52.6
Total Delay	43.5	83.8	35.6	7.3	76.6
Queue Length 50th (ft)	173	144	125	24	108
Queue Length 95th (ft)	#344	#321	m186	m52	#192
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	602	511	1991	885
Starvation Cap Reductn	0	0	0	0	333
Spillback Cap Reductn	0	162	0	77	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	1.18	0.63	0.19	1.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	513	494	1001	133	1188
v/c Ratio	0.90	0.82	0.67	0.66	0.63
Control Delay	38.7	27.7	13.5	29.1	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	38.7	27.7	13.5	29.1	17.6
Queue Length 50th (ft)	162	127	106	49	216
Queue Length 95th (ft)	#341	#291	172	m59	m276
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	586	612	1491	210	1897
Starvation Cap Reductn	0	0	0	0	151
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.88	0.81	0.67	0.63	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	227	165	946	412	633	446
v/c Ratio	0.23	0.20	0.42	0.44	0.28	0.30
Control Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Length 50th (ft)	18	0	46	0	28	0
Queue Length 95th (ft)	46	19	66	28	43	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3090	2463	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.07	0.19	0.26	0.12	0.16

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	620	279	738	361	771	90
v/c Ratio	0.58	0.28	0.35	0.27	0.37	0.13
Control Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Length 50th (ft)	54	0	34	0	36	0
Queue Length 95th (ft)	111	21	64	17	67	17
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3314	2673	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.10	0.15	0.13	0.15	0.06

Intersection Summary

APPENDIX 8.6:

OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2560	7161	0.36	68.7	12.4	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2560	571	7200	2100	0.36	0.27	63.7	60.2	13.4	16.6	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1990	7161	0.28	68.7	9.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2935	945	7200	2100	0.41	0.45	63.9	62.2	15.3	16.5	B

Segment 5: Basic

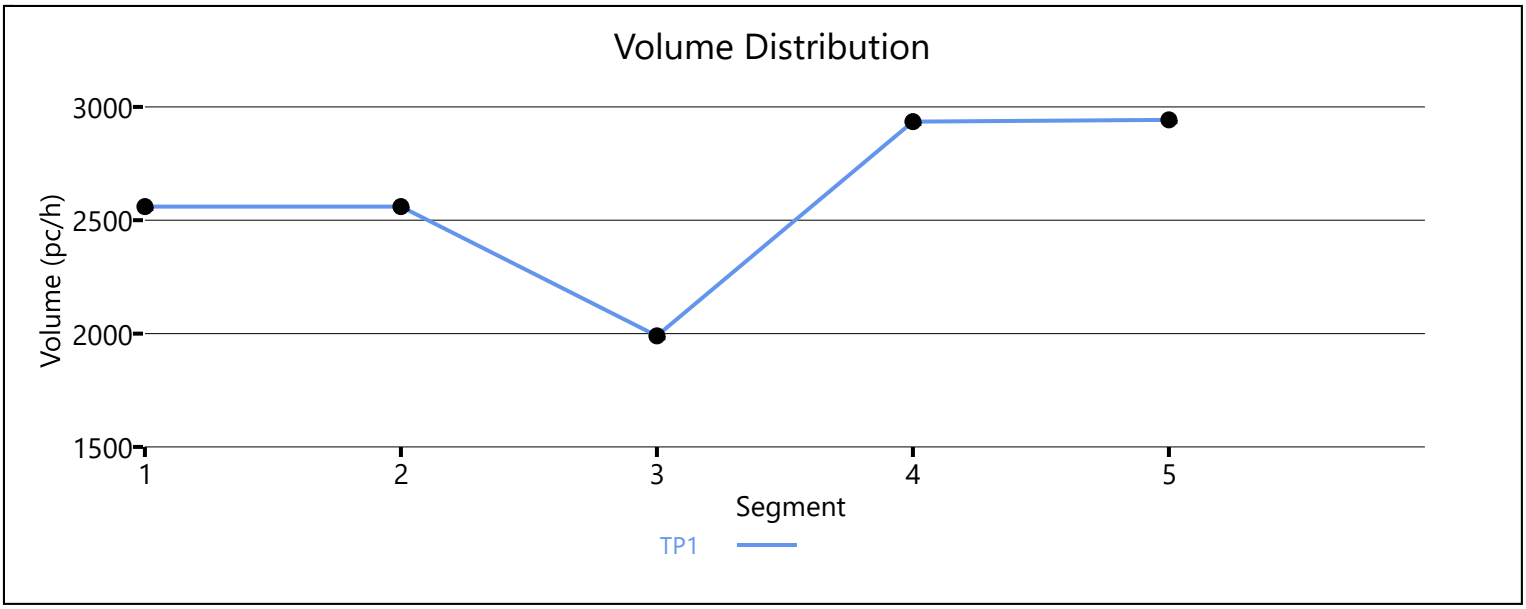
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2943	7161	0.41	68.7	14.3	B

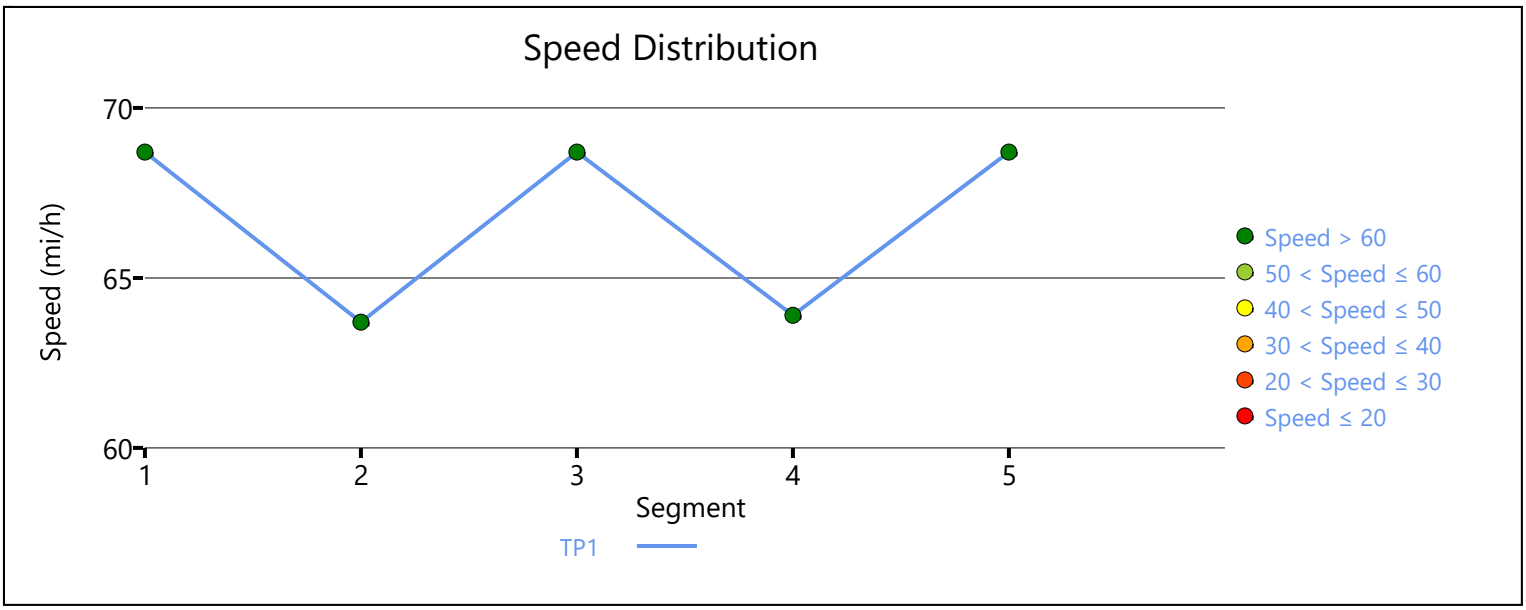
Facility Time Period Results

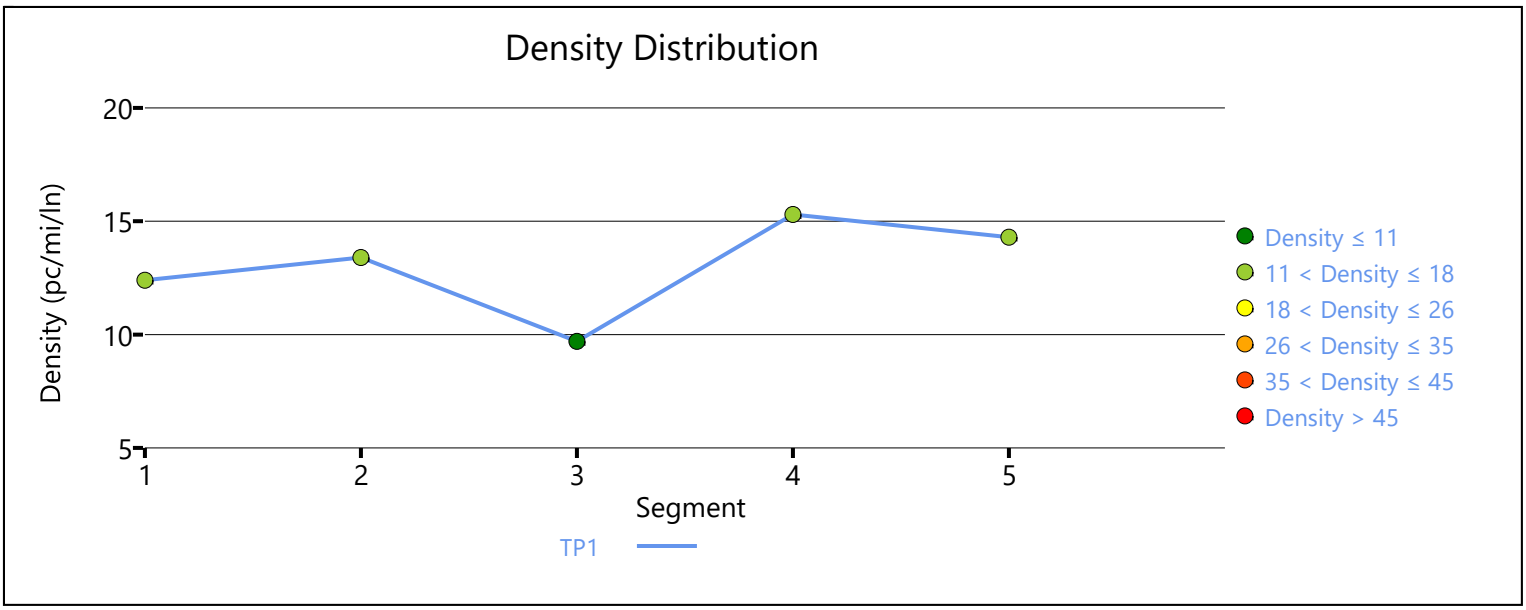
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	12.8	12.3	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	12.3
Average Travel Time, min	2.1	Density, pc/mi/ln	12.8







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2966	7161	0.41	68.7	14.4	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2966	901	7200	2100	0.41	0.43	62.9	59.4	15.7	19.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	2077	7161	0.29	68.7	10.1	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.990	2926	849	7200	2100	0.41	0.40	64.2	62.5	15.2	15.6	B

Segment 5: Basic

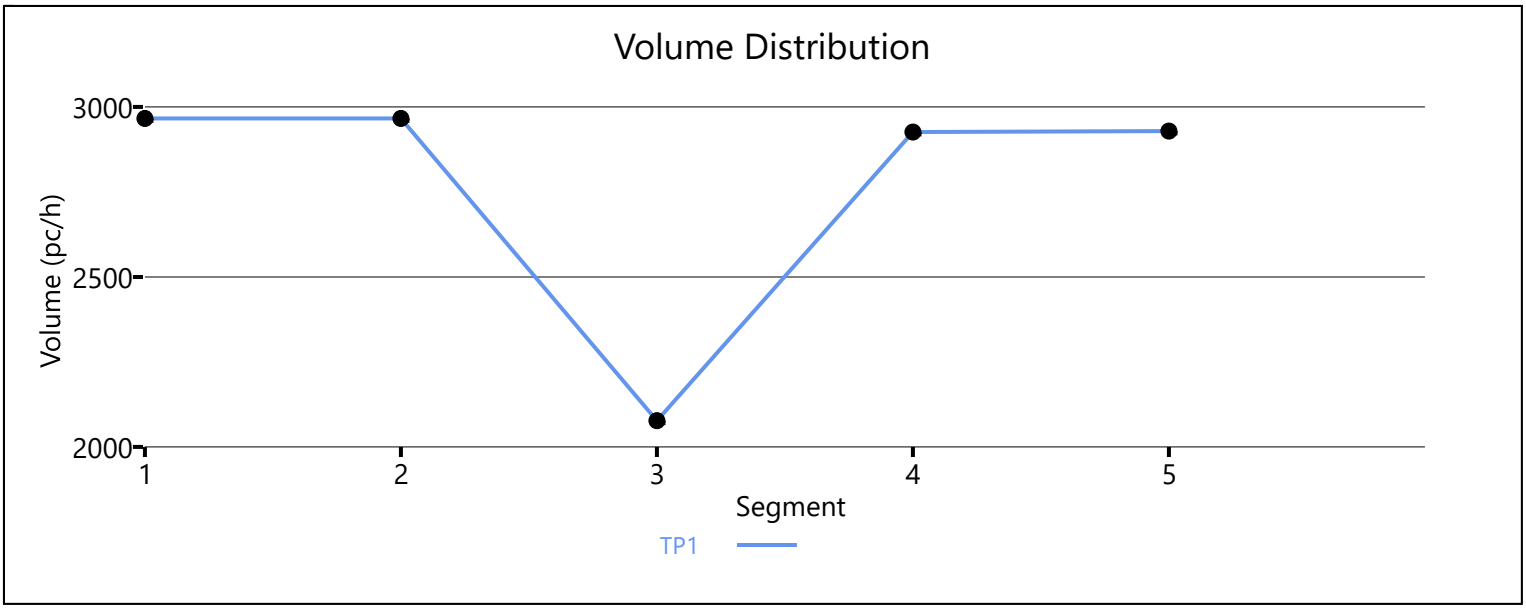
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2929	7161	0.41	68.7	14.2	B

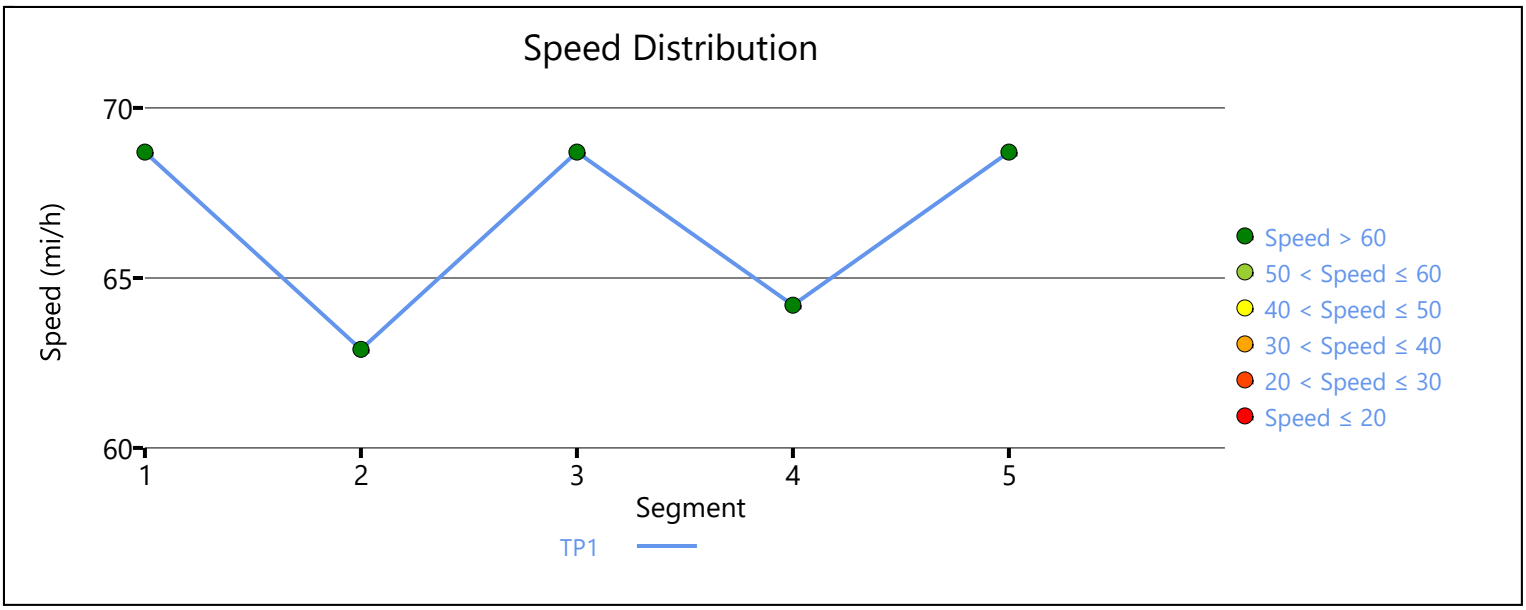
Facility Time Period Results

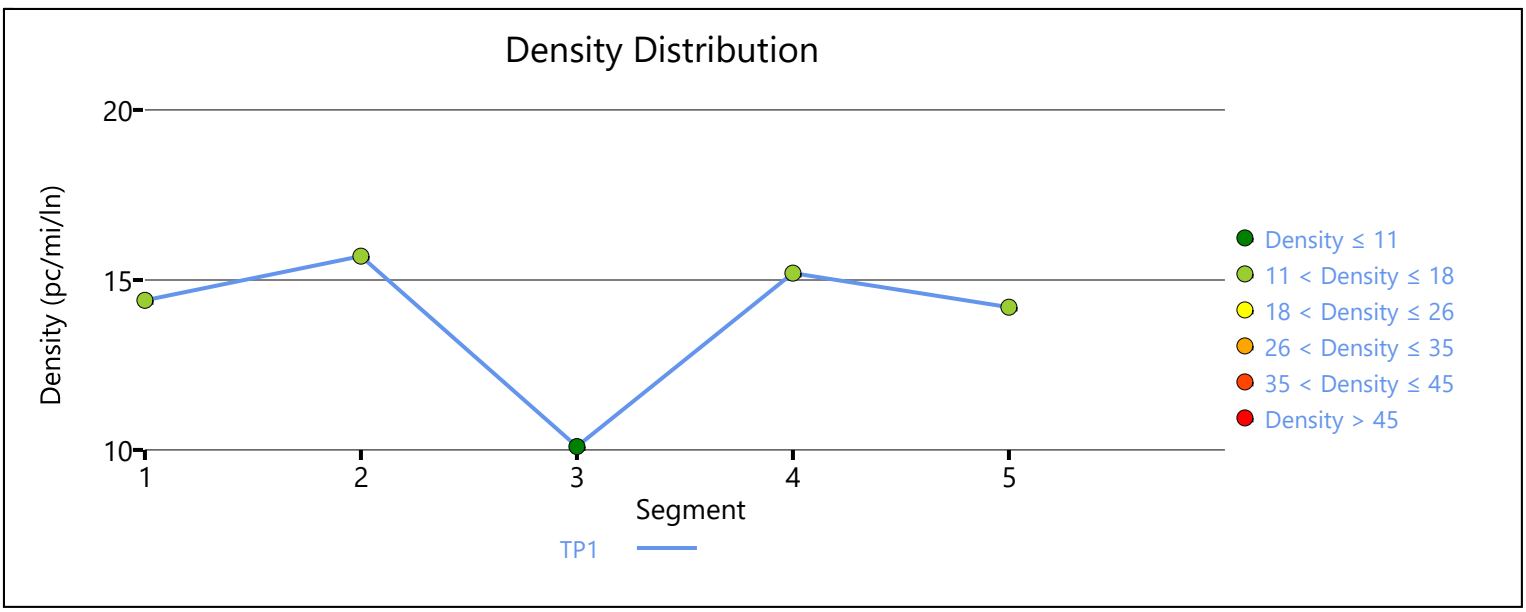
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	14.0	12.9	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	12.9
Average Travel Time, min	2.2	Density, pc/mi/ln	14.0







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2656	4764	0.56	68.2	19.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	2656	2180	4800	2100	0.55	1.04	53.3	56.2	45.0	25.3	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	476	4764	0.10	67.3	3.4	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	741	265	4800	1900	0.16	0.14	61.1	61.1	6.1	10.0	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	741	4764	0.16	67.3	5.3	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1523	782	4800	2100	0.32	0.37	61.0	61.0	12.5	15.8	B

Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1523	4764	0.32	68.2	10.9	A

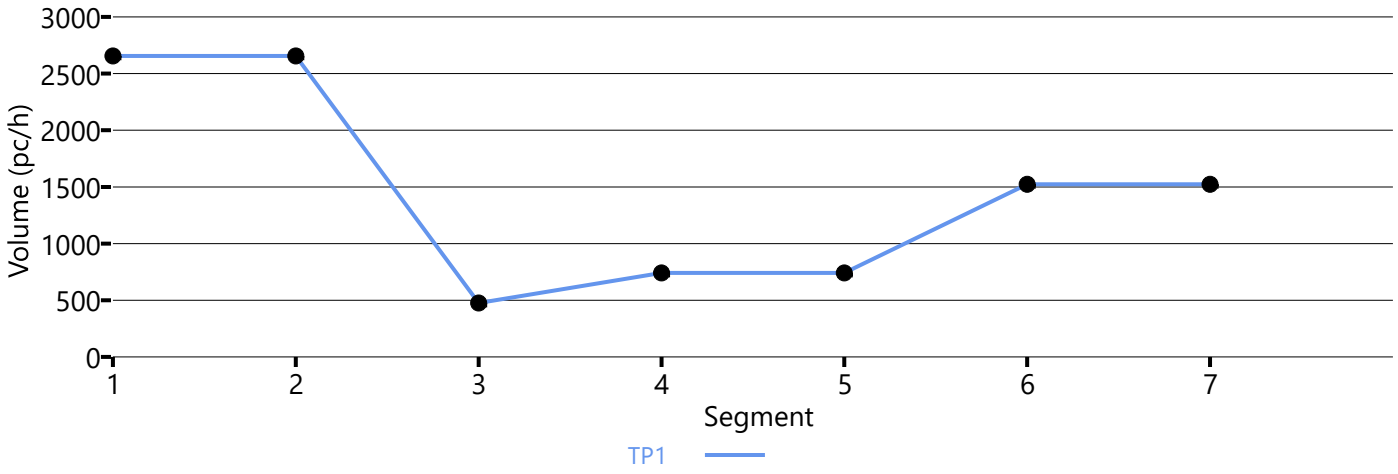
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	14.7	14.3	3.2	B

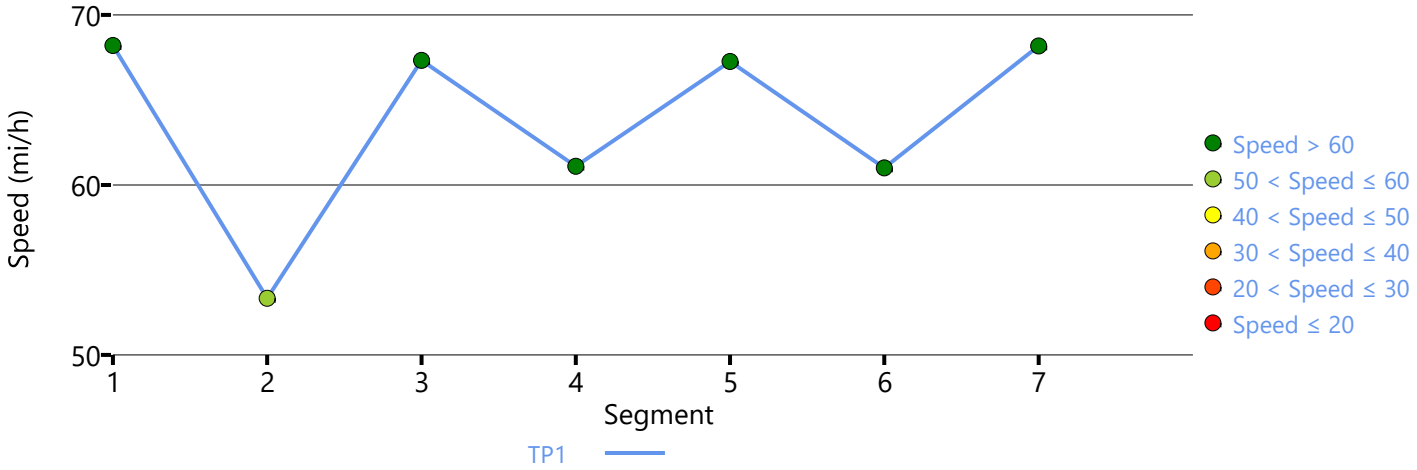
Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	14.3
Average Travel Time, min	3.2	Density, pc/mi/ln	14.7

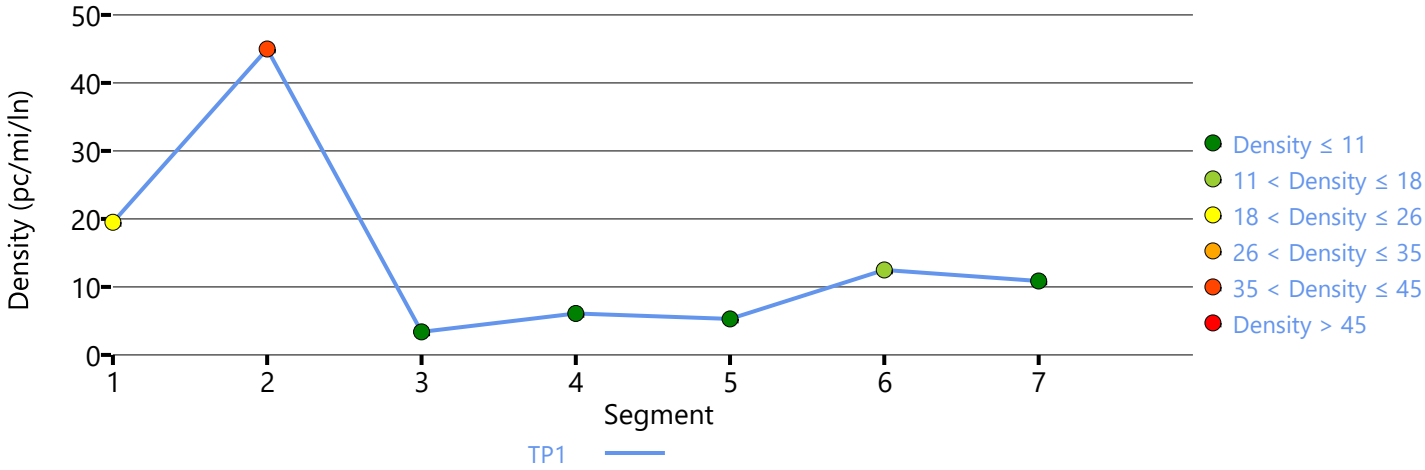
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1754	4764	0.37	68.2	12.9	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	1754	1571	4800	2100	0.37	0.75	57.7	57.7	15.2	17.5	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	176	4764	0.04	68.2	1.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.962	878	702	4800	1900	0.18	0.37	61.0	61.0	7.2	10.8	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	877	4764	0.18	68.2	6.4	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	2140	1263	4800	2100	0.45	0.60	60.6	60.6	17.7	20.4	C

Segment 7: Basic

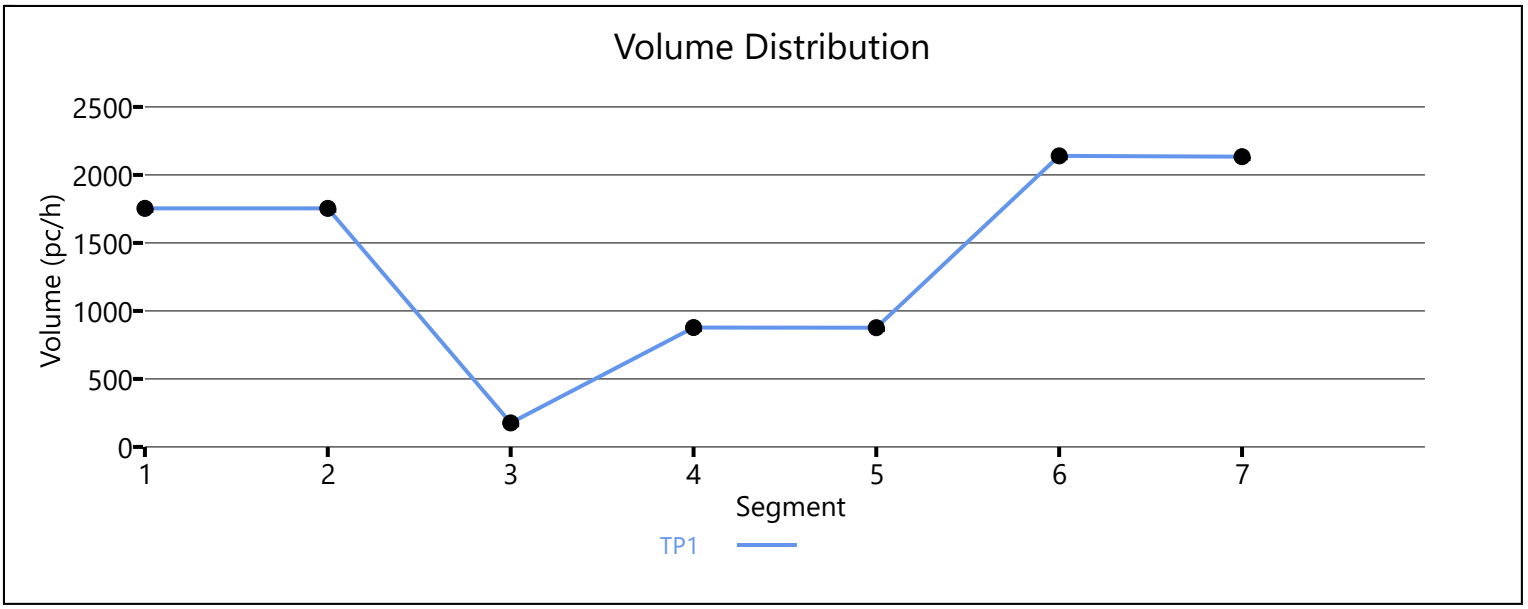
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2134	4764	0.45	68.2	15.6	B

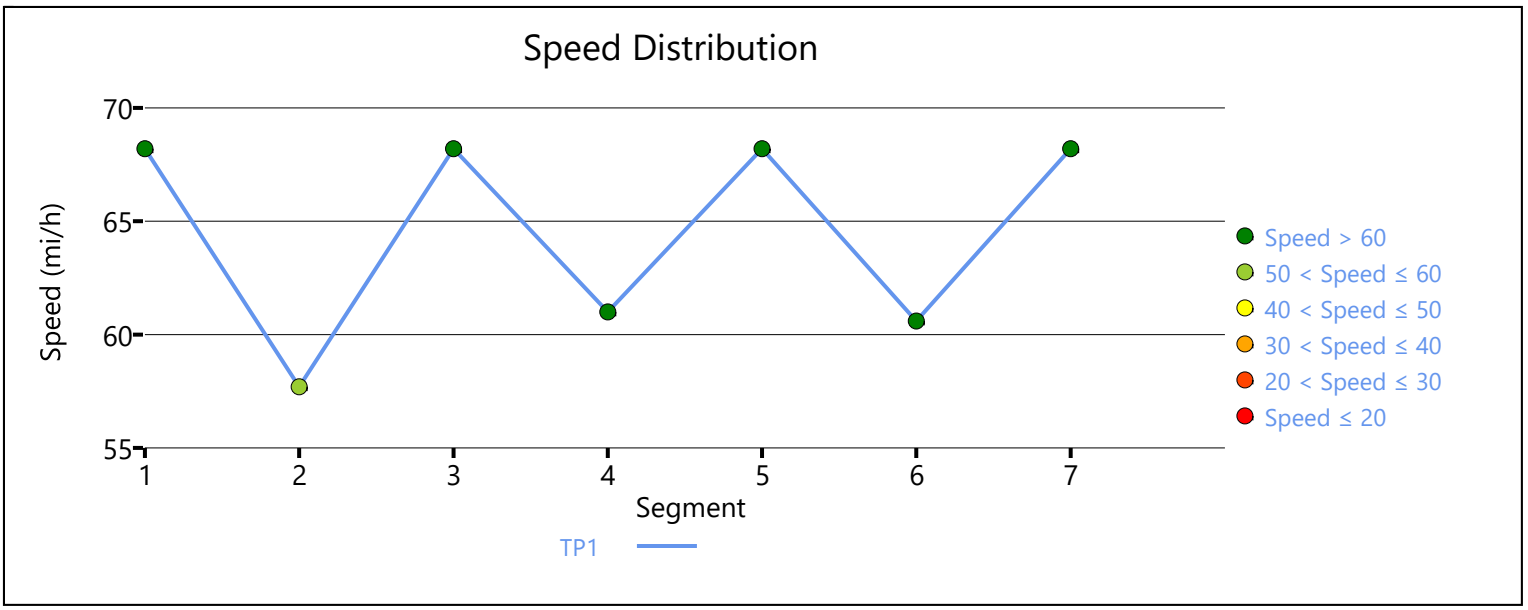
Facility Time Period Results

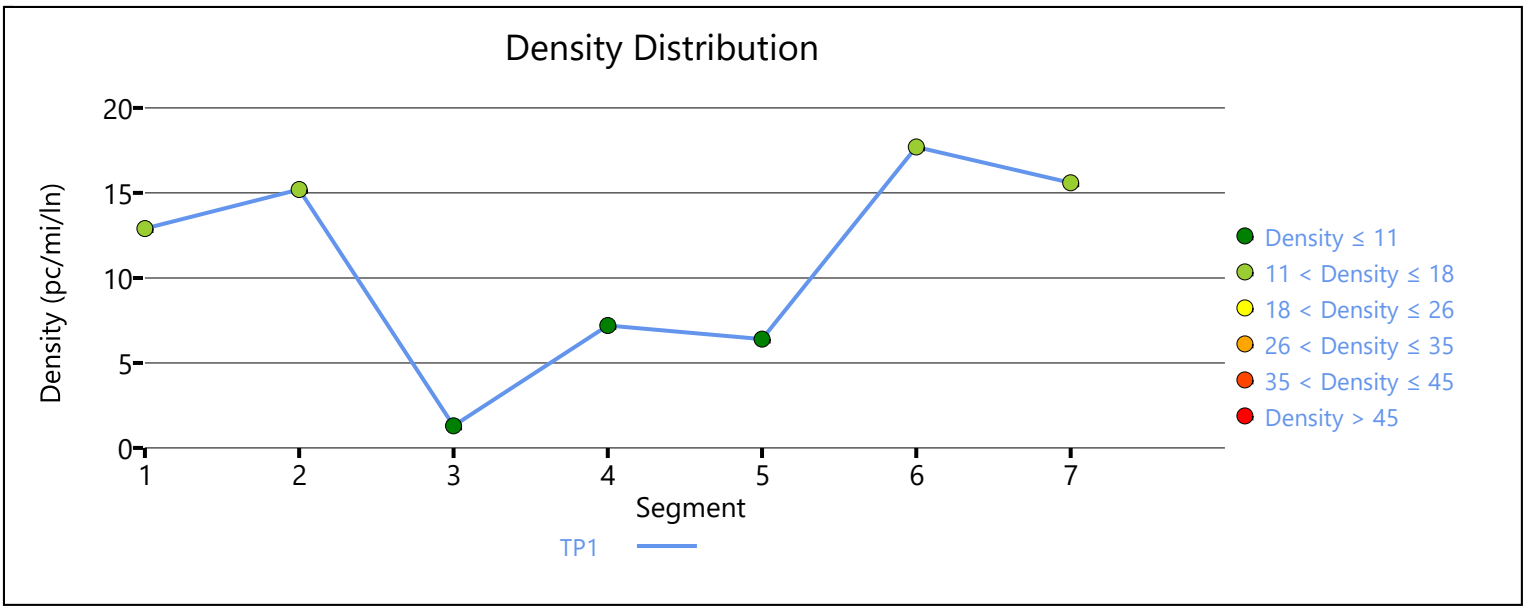
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	12.2	11.7	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	11.7
Average Travel Time, min	3.1	Density, pc/mi/ln	12.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3554	7161	0.50	68.7	17.2	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3554	1043	7200	2100	0.49	0.50	62.9	59.0	18.8	22.7	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2514	7161	0.35	68.7	12.2	B

Segment 4: Merge

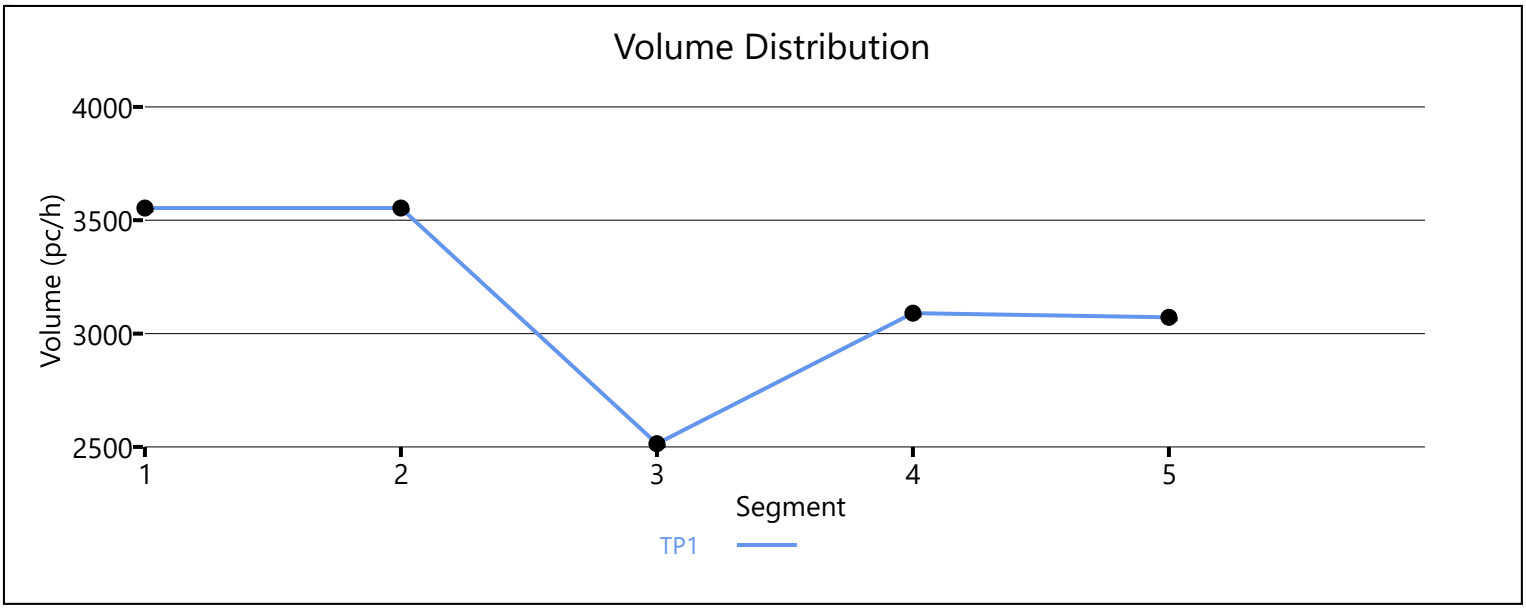
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	3090	576	7200	2100	0.43	0.27	64.1	62.3	16.1	16.2	B

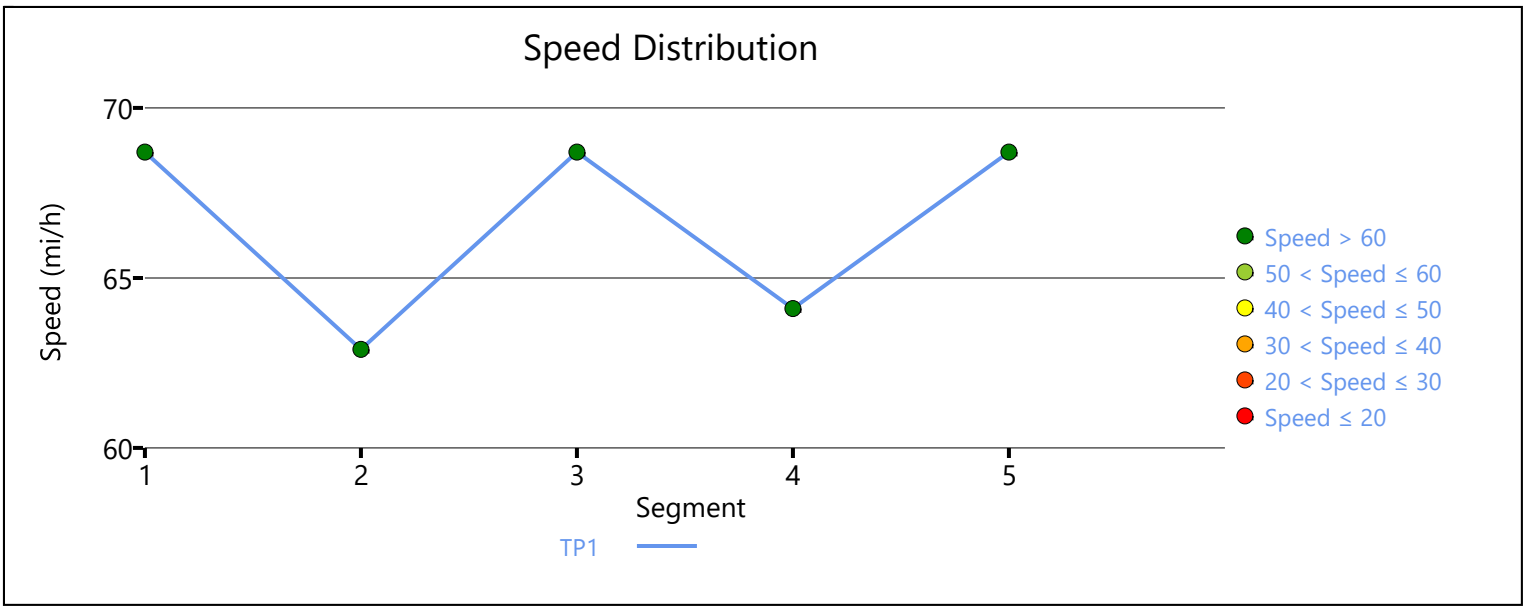
Segment 5: Basic

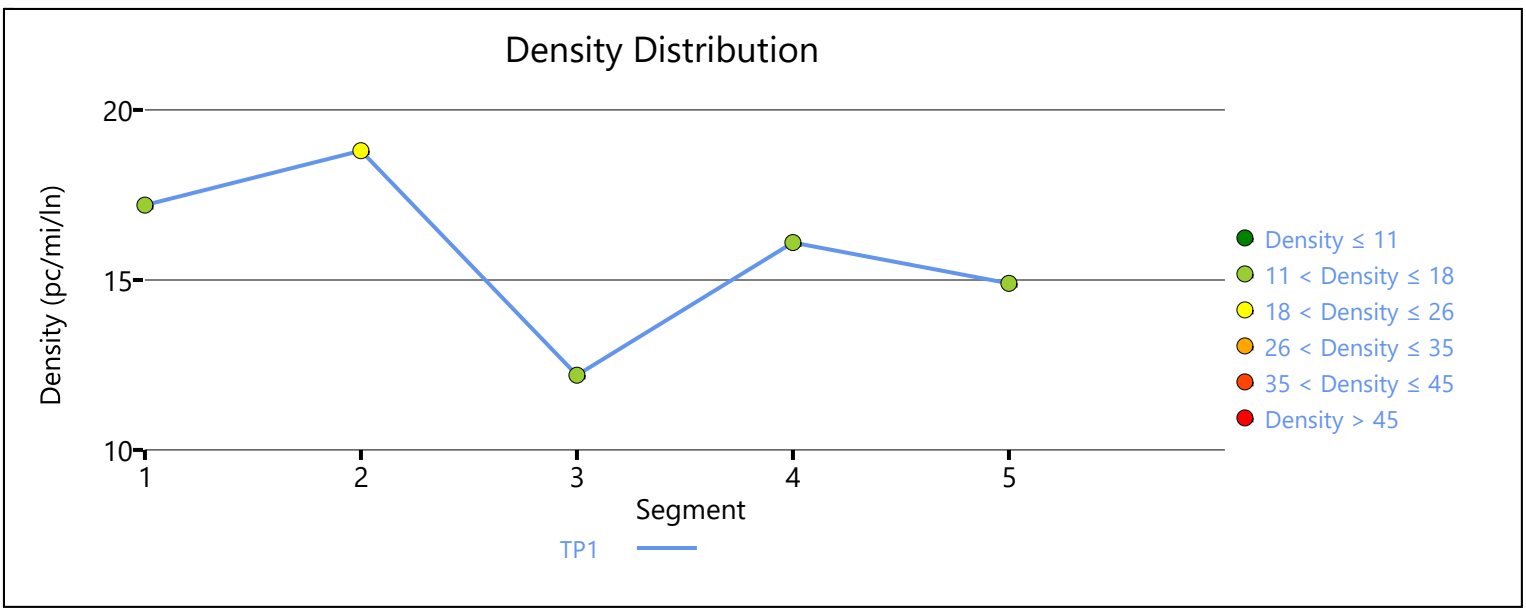
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3072	7161	0.43	68.7	14.9	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.3	16.1	15.6	2.1	B

Facility Overall Results			
Space Mean Speed, mi/h	67.3	Density, veh/mi/ln	15.6
Average Travel Time, min	2.1	Density, pc/mi/ln	16.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3663	7161	0.51	68.7	17.8	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3663	928	7200	2100	0.51	0.44	63.3	59.3	19.3	22.9	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2733	7161	0.38	68.7	13.3	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3477	744	7200	2100	0.48	0.35	63.9	62.2	18.1	17.9	B

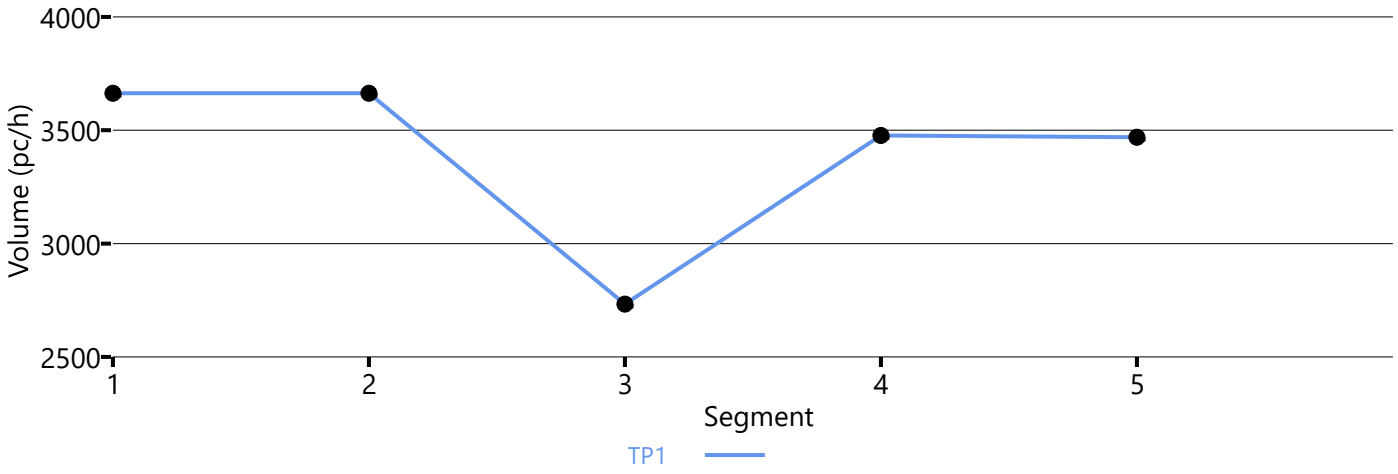
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3469	7161	0.48	68.7	16.8	B

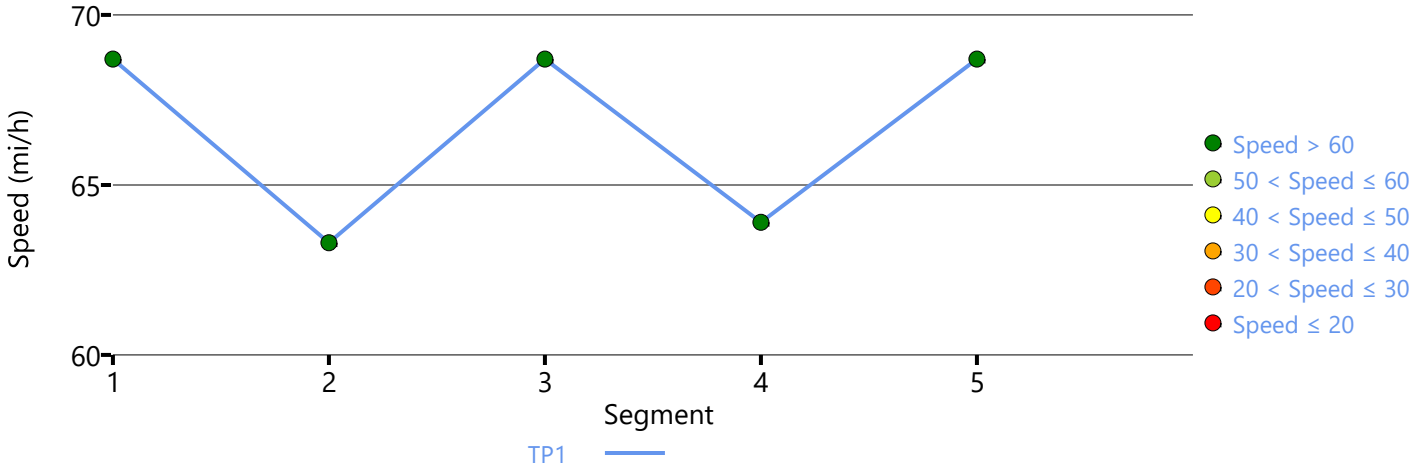
Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.4	17.1	15.9	2.2	B

Facility Overall Results			
Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	15.9
Average Travel Time, min	2.2	Density, pc/mi/ln	17.1

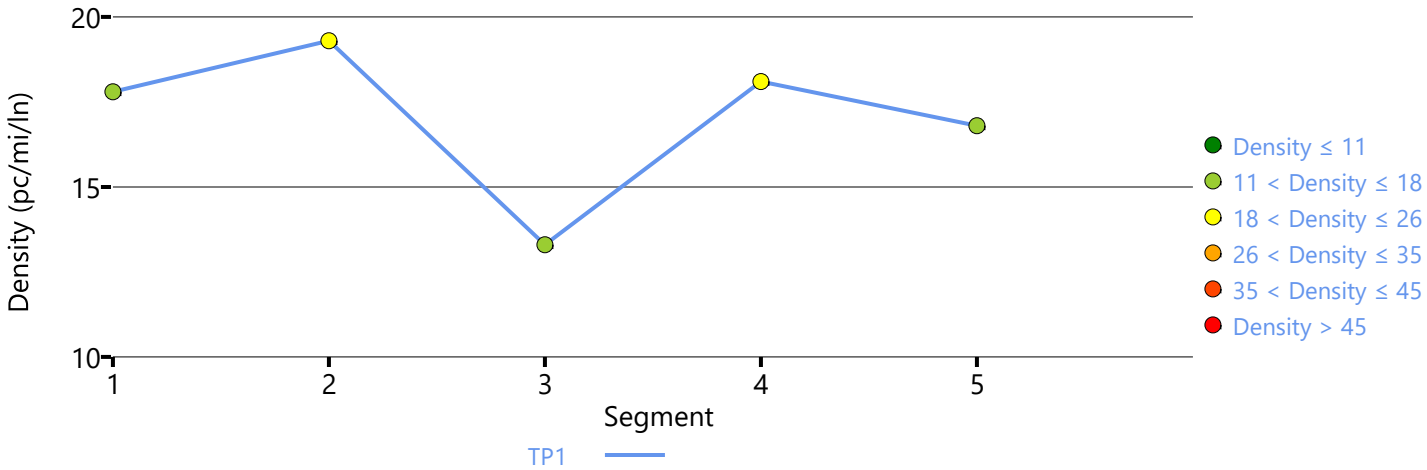
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3081	4764	0.65	67.3	22.9	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	3081	2809	4800	2100	0.64	1.34	53.3	54.6	45.0	28.9	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	272	4764	0.05	67.3	1.9	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	548	276	4800	1900	0.11	0.15	61.1	61.1	4.5	8.4	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		548		4764		0.11		67.3		3.9		A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	2178	1630	4800	2100	0.45	0.78	60.6	60.6	18.0	20.5	C

Segment 7: Basic

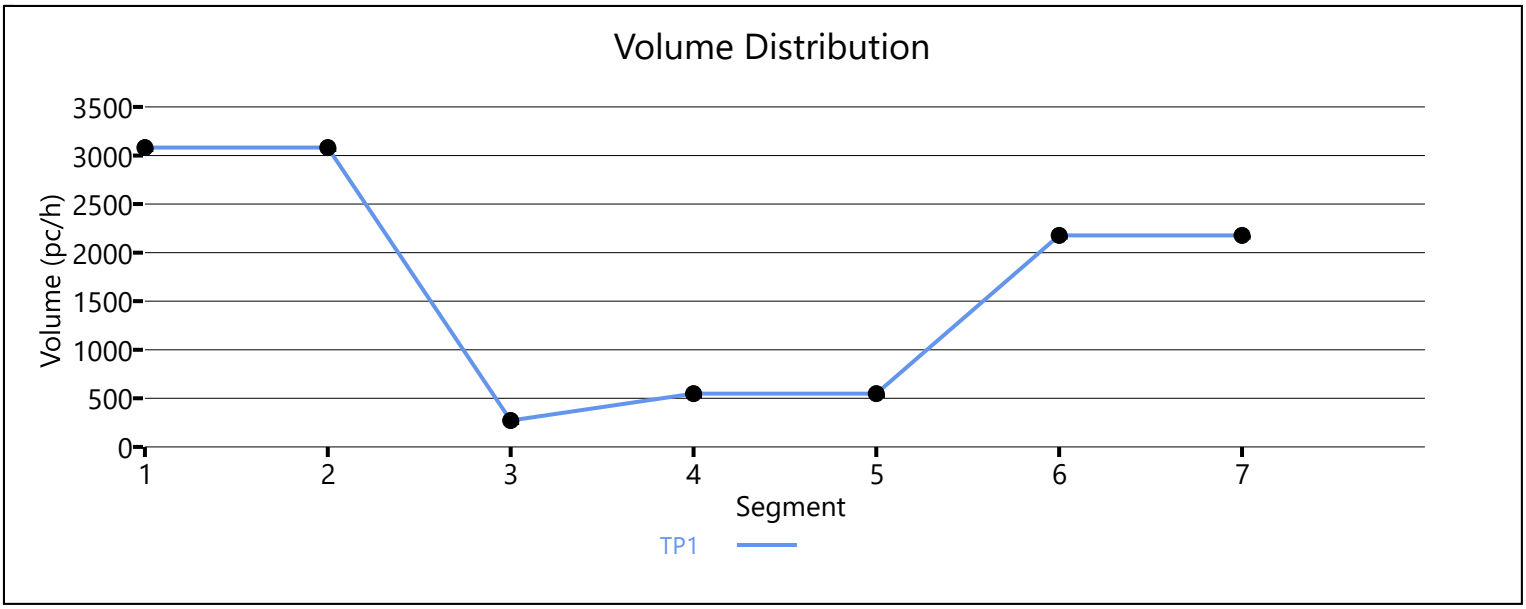
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2178		4764		0.45		68.2		15.6		B

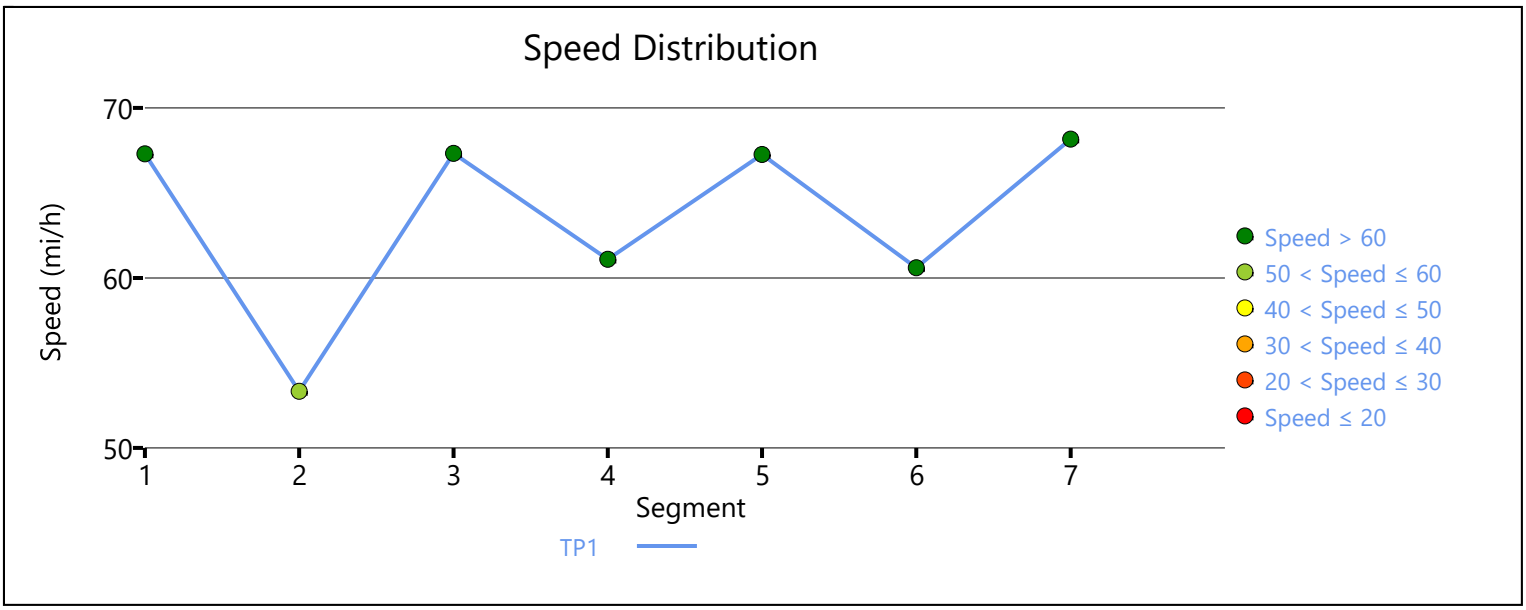
Facility Time Period Results

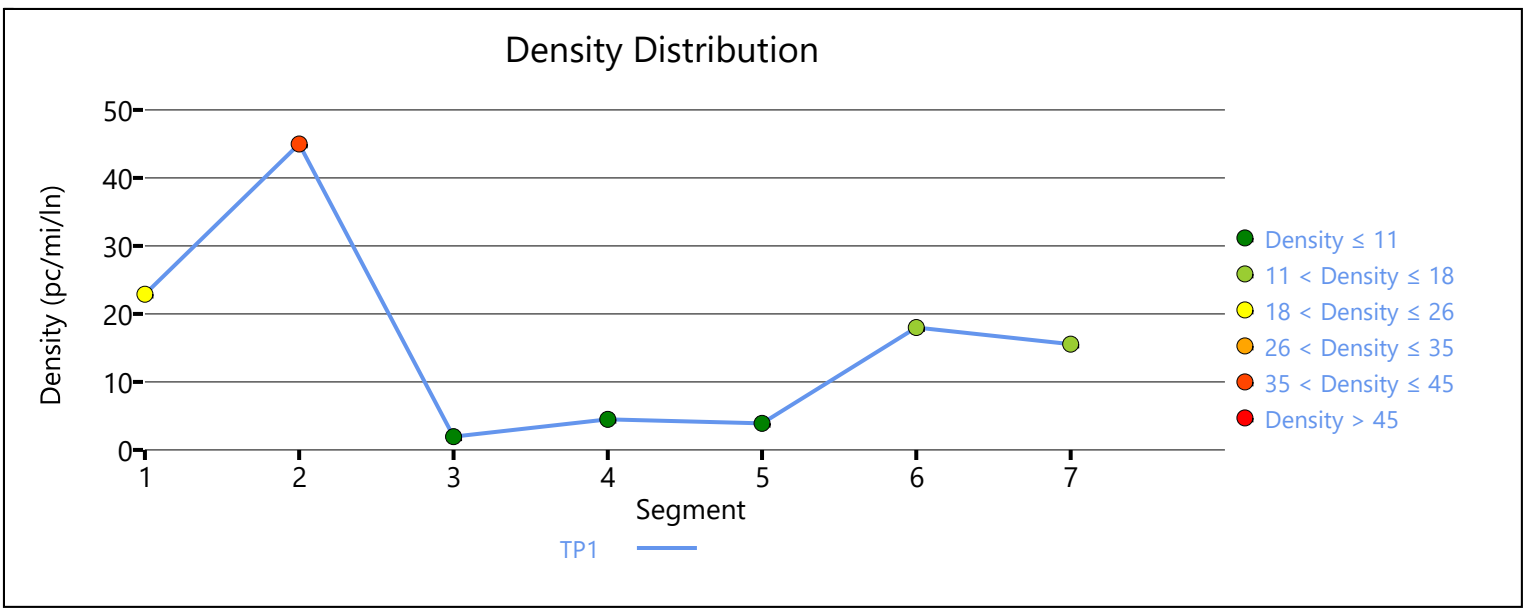
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.1	17.2	16.6	3.2	B

Facility Overall Results

Space Mean Speed, mi/h	65.1	Density, veh/mi/ln	16.6
Average Travel Time, min	3.2	Density, pc/mi/ln	17.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1825	4764	0.38	68.2	13.4	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1825	1739	4800	2100	0.38	0.83	57.3	57.3	15.9	18.1	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	101	4764	0.02	68.2	0.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.971	1414	1313	4800	1900	0.29	0.69	60.8	60.8	11.6	14.7	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	1416	4764	0.30	68.2	10.4	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	2767	1351	4800	2100	0.58	0.64	59.8	59.8	23.1	25.3	C

Segment 7: Basic

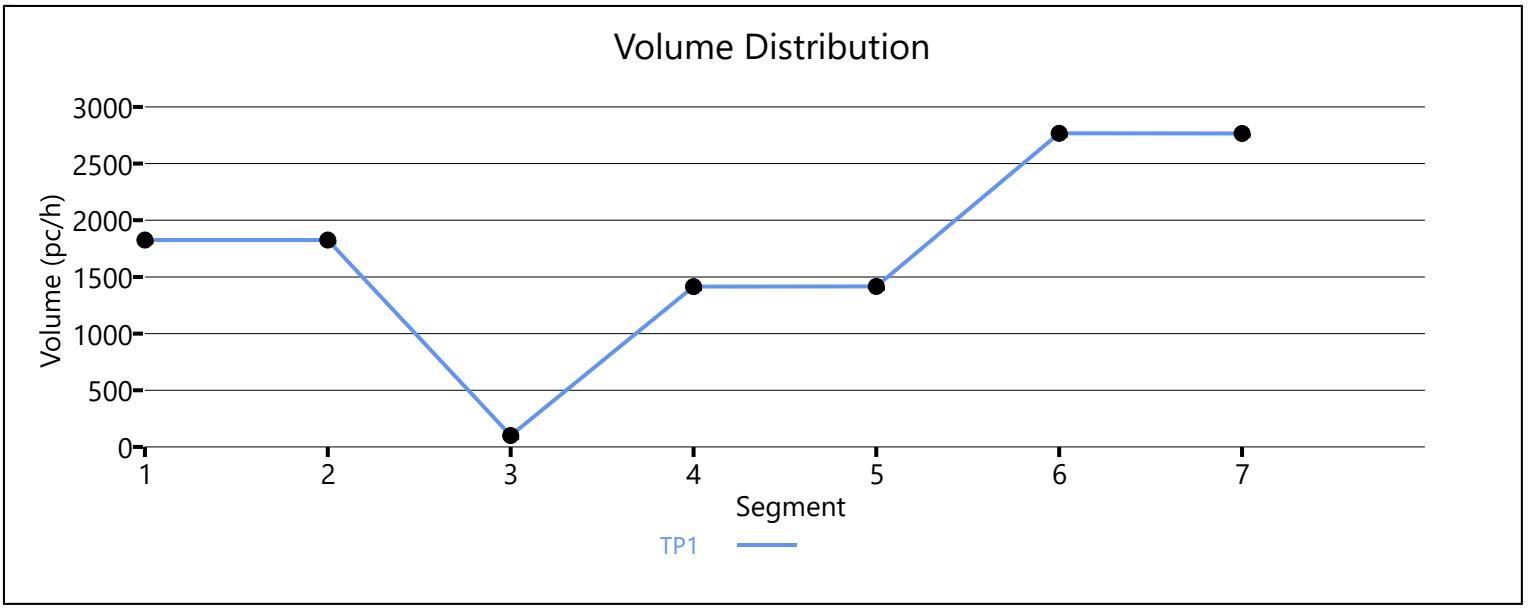
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2766	4764	0.58	68.0	20.3	C

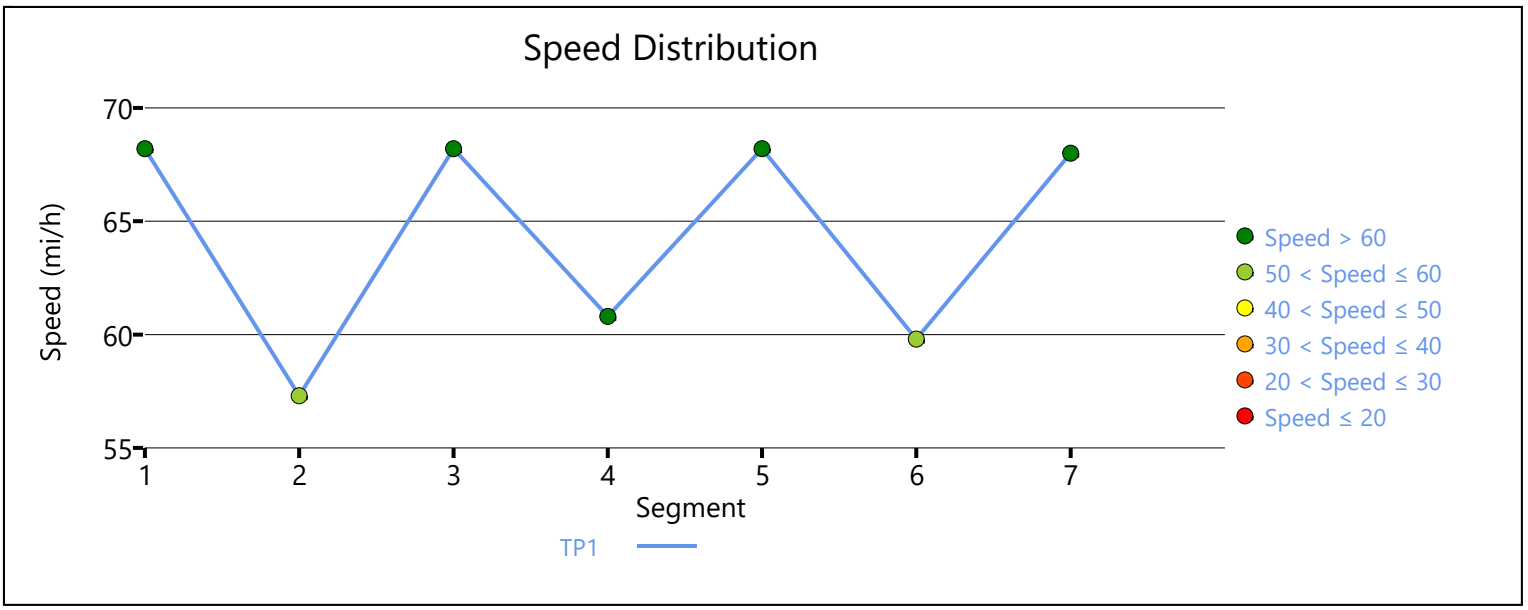
Facility Time Period Results

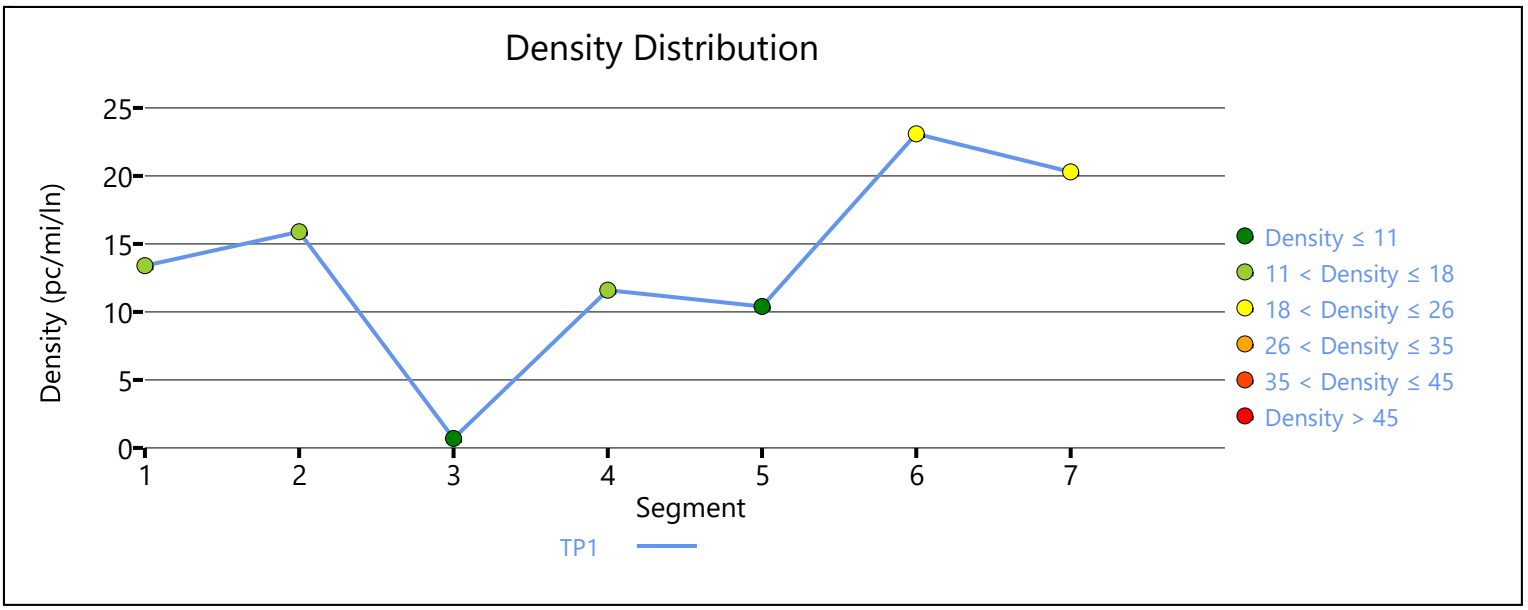
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.5	14.7	14.2	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.5	Density, veh/mi/ln	14.2
Average Travel Time, min	3.1	Density, pc/mi/ln	14.7







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APPENDIX 8.7:

OPENING YEAR CUMULATIVE (2027) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2719	7161	0.38	68.7	13.2	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2719	715	7200	2100	0.38	0.34	63.4	59.9	14.3	17.8	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1990	7161	0.28	68.7	9.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2935	945	7200	2100	0.41	0.45	63.9	62.2	15.3	16.5	B

Segment 5: Basic

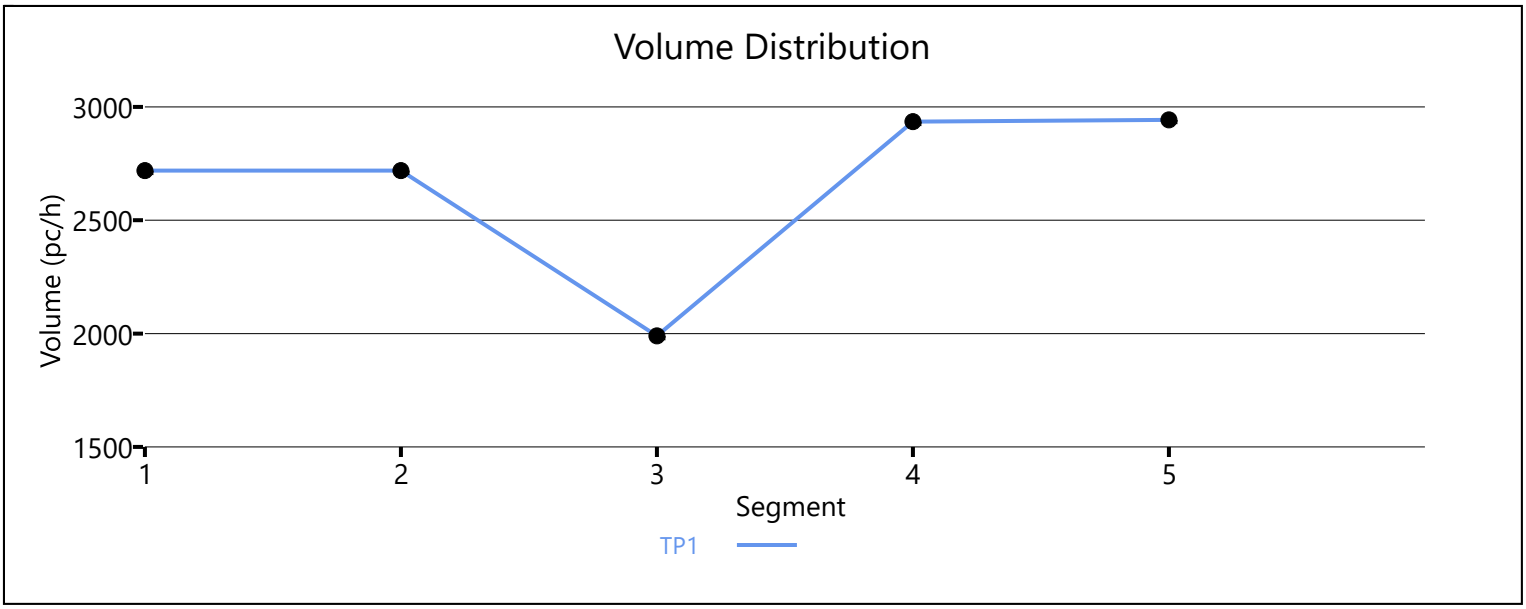
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2943	7161	0.41	68.7	14.3	B

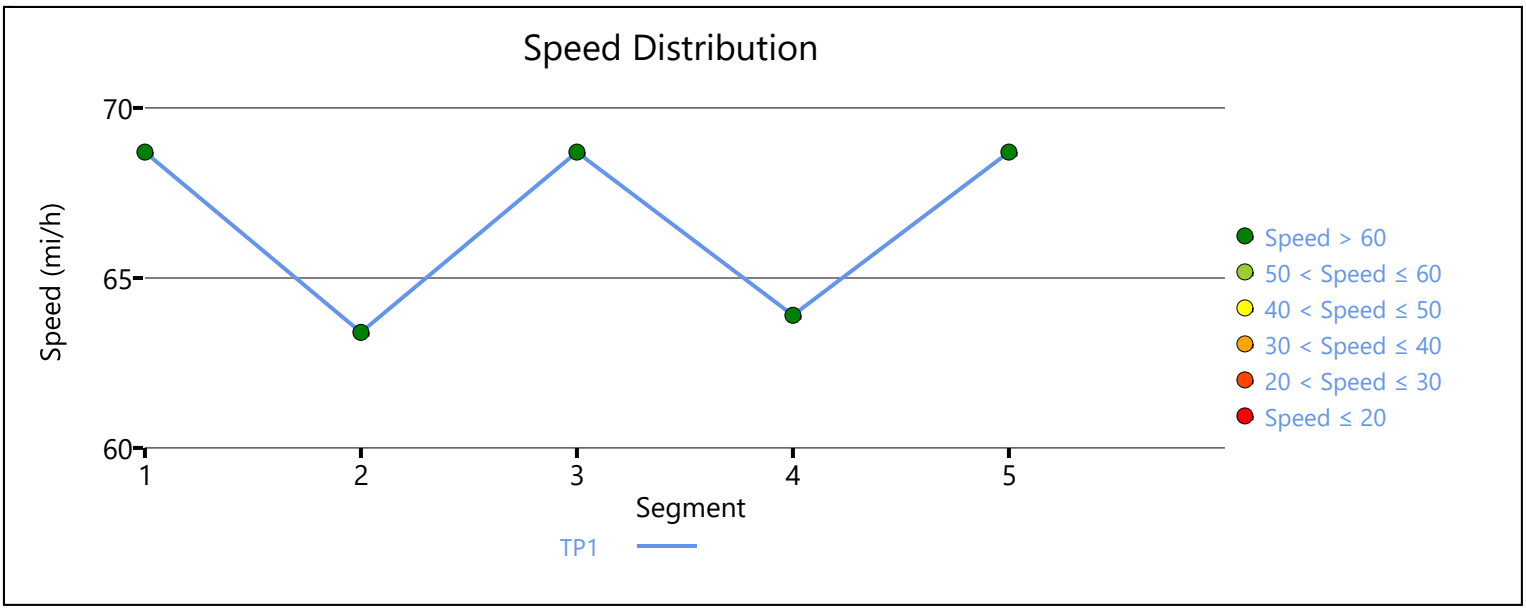
Facility Time Period Results

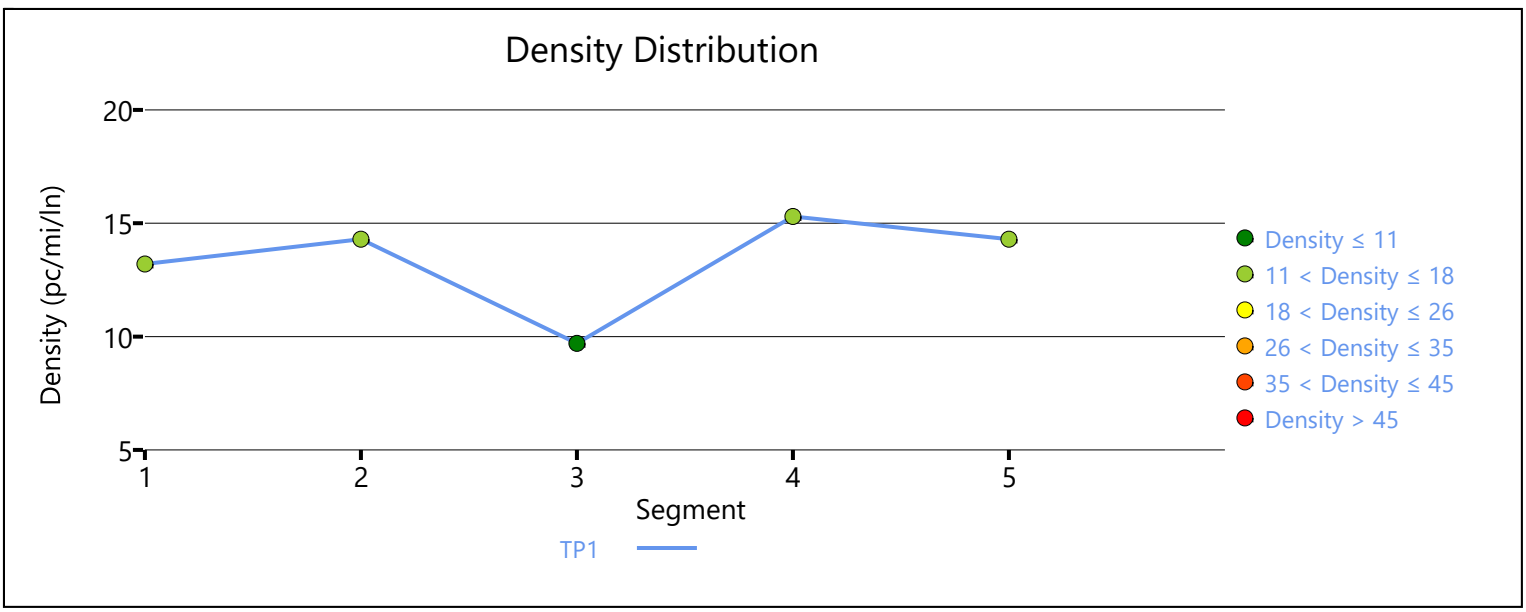
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.3	13.3	12.8	2.1	B

Facility Overall Results

Space Mean Speed, mi/h	67.3	Density, veh/mi/ln	12.8
Average Travel Time, min	2.1	Density, pc/mi/ln	13.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2966	7161	0.41	68.7	14.4	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2966	901	7200	2100	0.41	0.43	62.9	59.4	15.7	19.4	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.901	2077	7161	0.29	68.7	10.1	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.990	2970	893	7200	2100	0.41	0.43	64.1	62.5	15.4	15.9	B

Segment 5: Basic

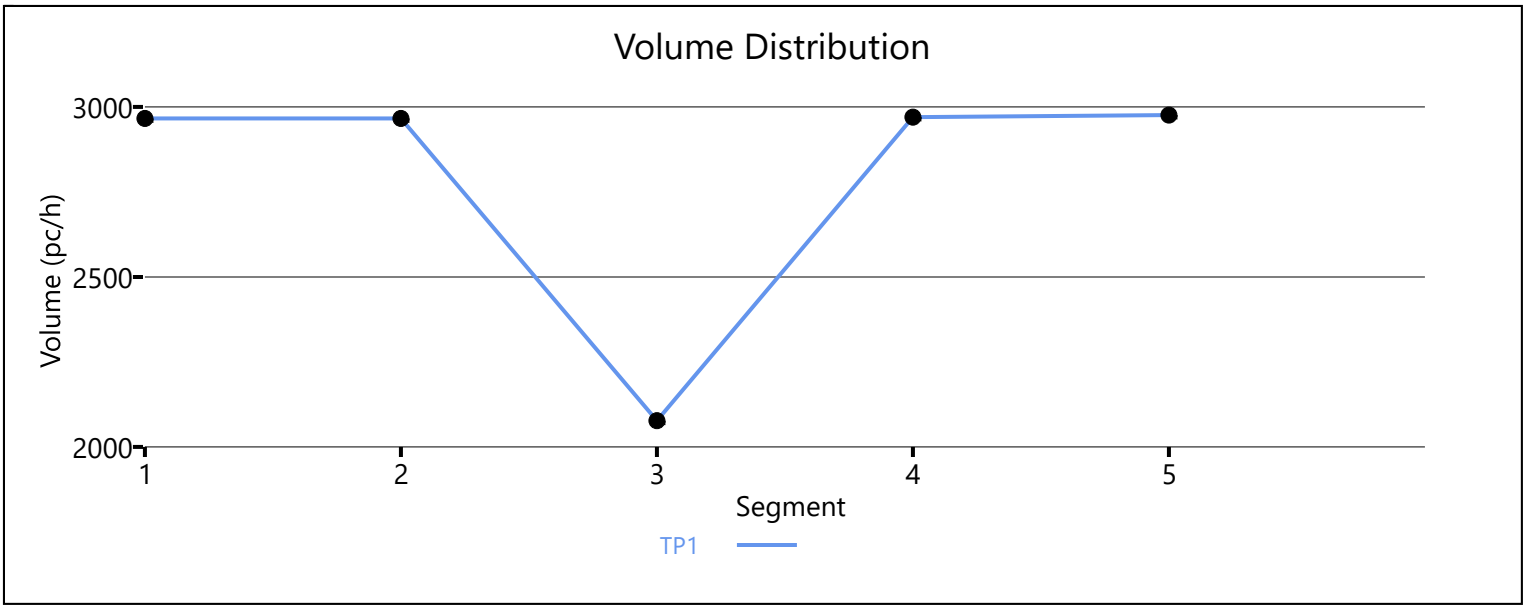
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	2976	7161	0.42	68.7	14.4	B

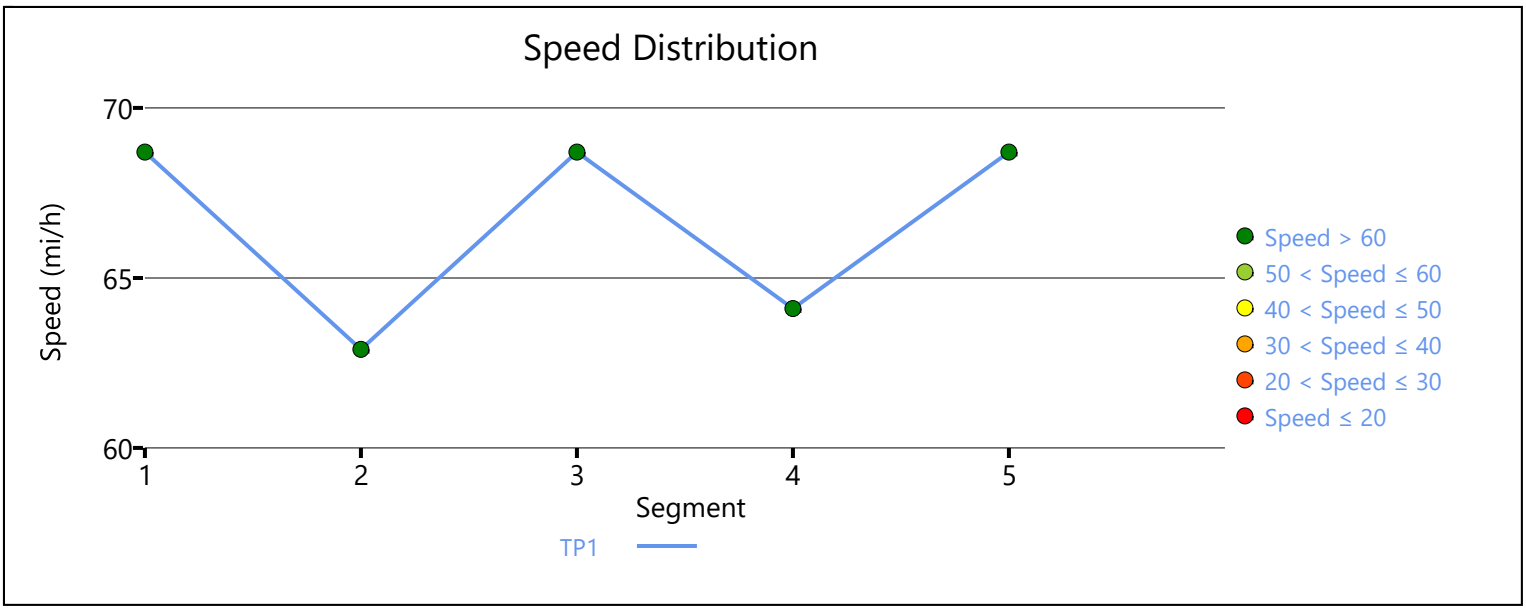
Facility Time Period Results

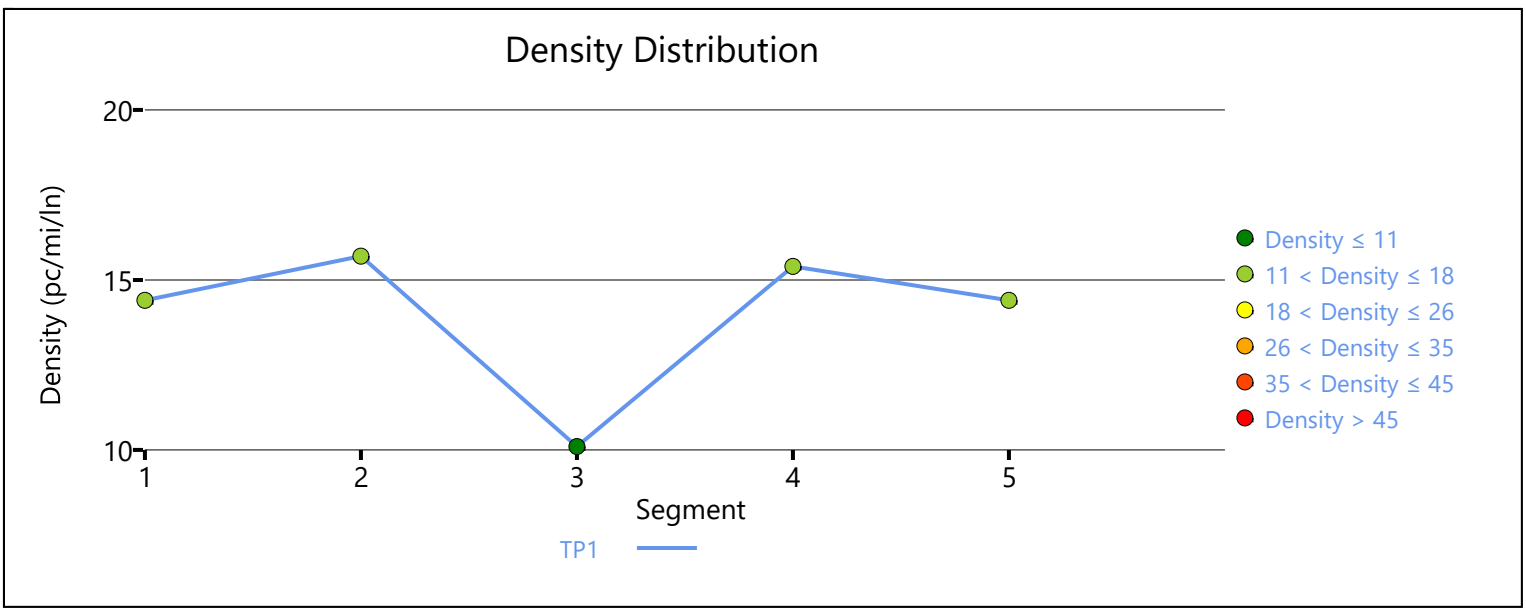
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	14.1	13.0	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	13.0
Average Travel Time, min	2.2	Density, pc/mi/ln	14.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	3094	4764	0.65	67.3	23.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.943	3094	2582	4800	2100	0.64	1.23	53.3	55.2	45.0	29.1	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	512	4764	0.10	67.3	3.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	777	265	4800	1900	0.16	0.14	61.1	61.1	6.4	10.2	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	777	4764	0.16	67.3	5.6	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.943	1640	863	4800	2100	0.34	0.41	61.0	61.0	13.4	16.7	B

Segment 7: Basic

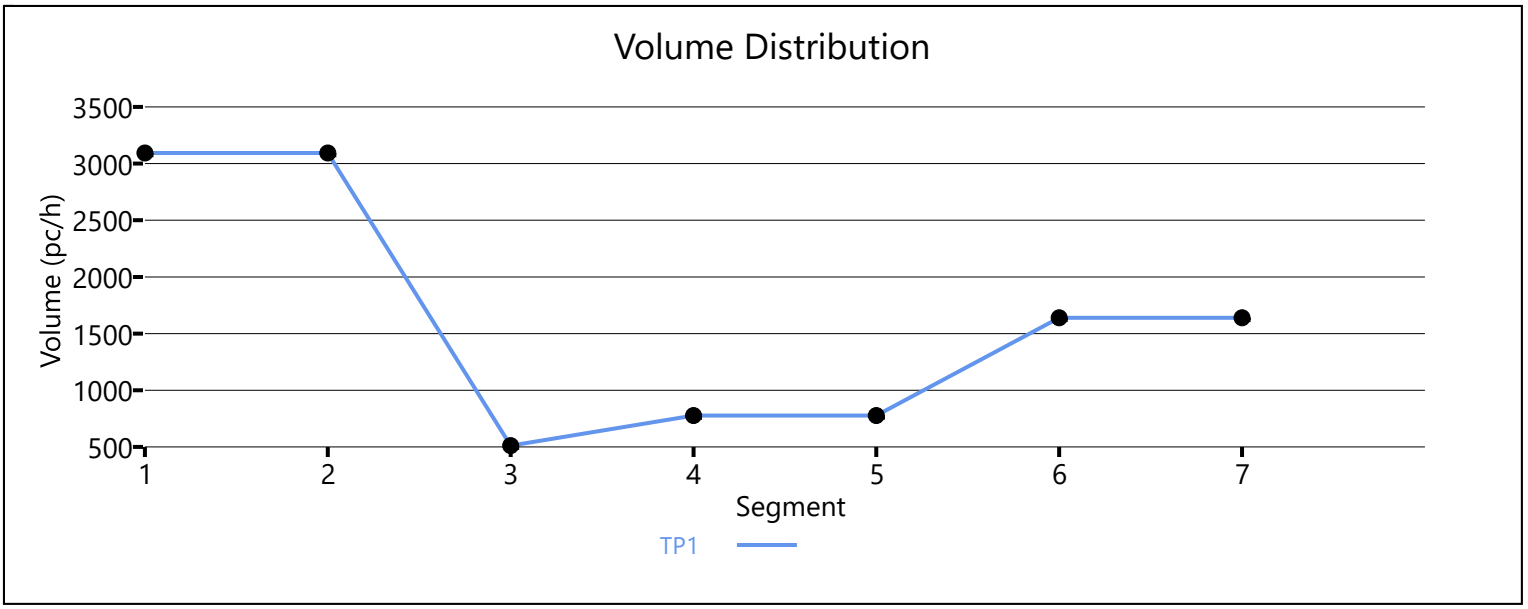
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1640	4764	0.34	68.2	11.7	B

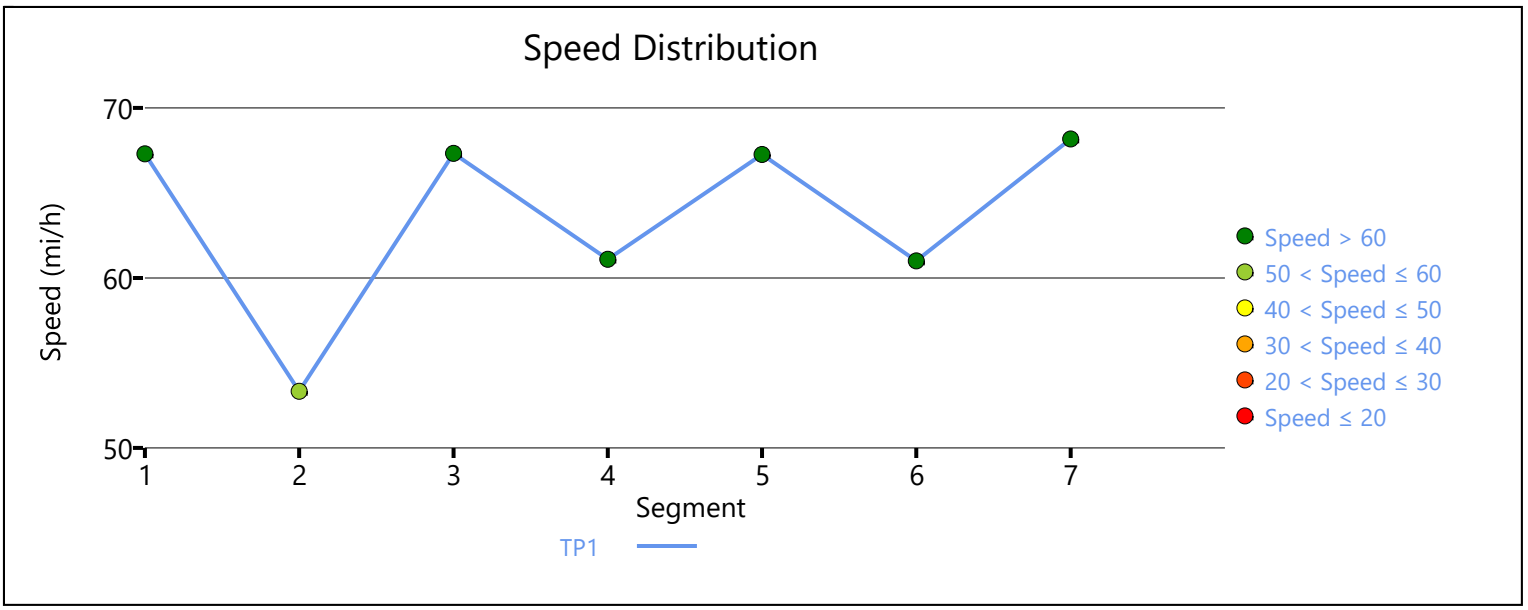
Facility Time Period Results

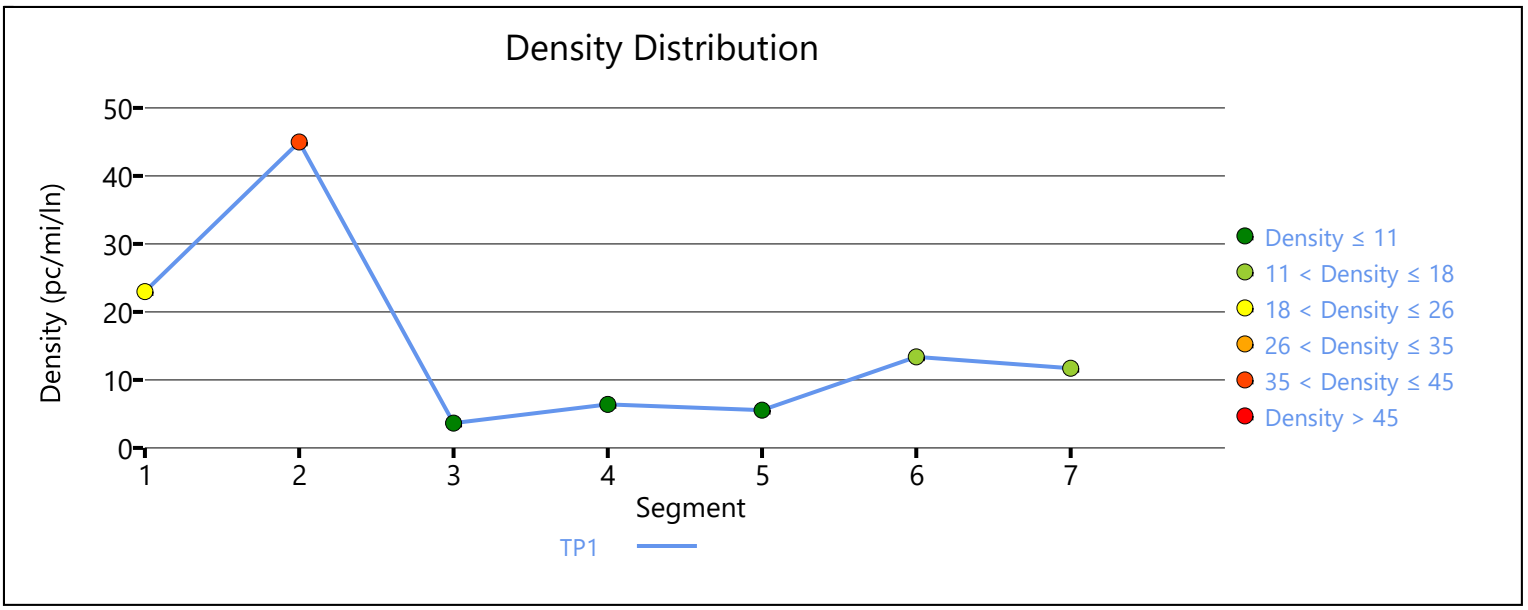
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.0	16.1	15.3	3.2	B

Facility Overall Results

Space Mean Speed, mi/h	65.0	Density, veh/mi/ln	15.3
Average Travel Time, min	3.2	Density, pc/mi/ln	16.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	2084	4764	0.44	68.2	15.3	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.926	2084	1914	4800	2100	0.43	0.91	56.8	56.8	18.3	20.4	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	176	4764	0.04	68.2	1.3	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.943	989	813	4800	1900	0.21	0.43	61.0	61.0	8.1	11.6	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	990	4764	0.21	68.2	7.3	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	2253	1263	4800	2100	0.47	0.60	60.5	60.5	18.6	21.3	C

Segment 7: Basic

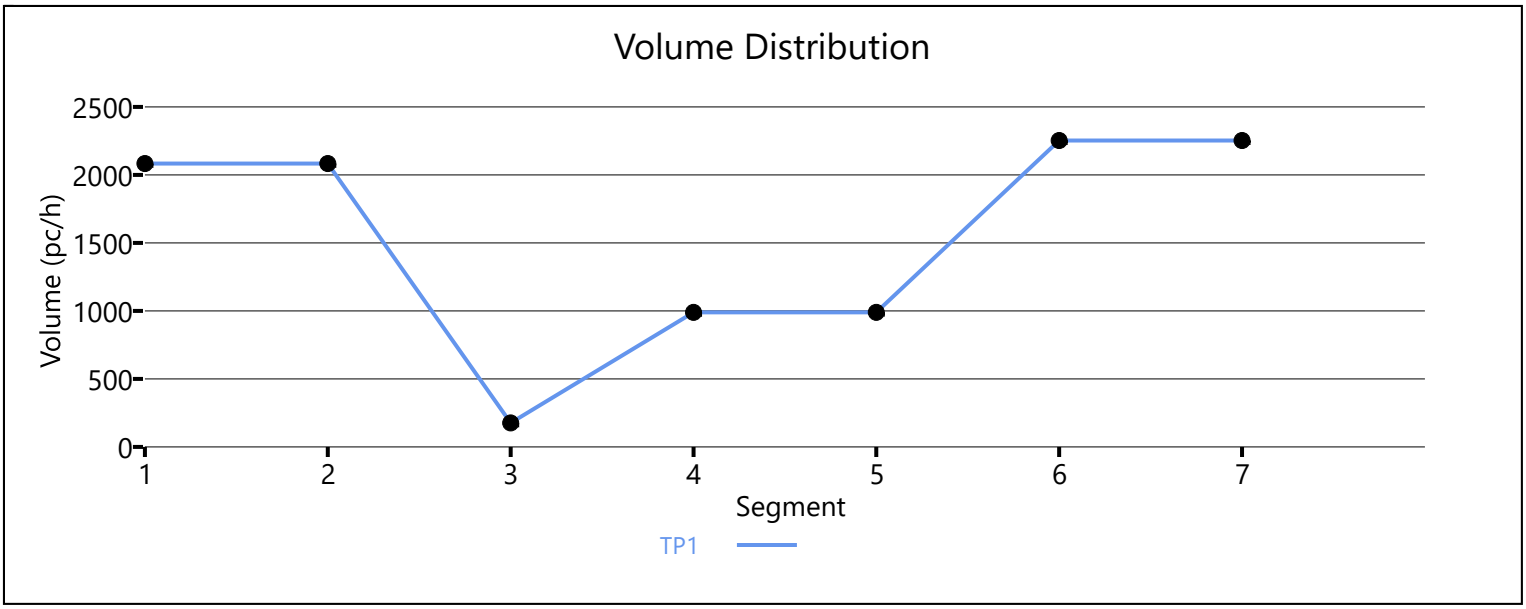
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	2253	4764	0.47	68.2	16.5	B

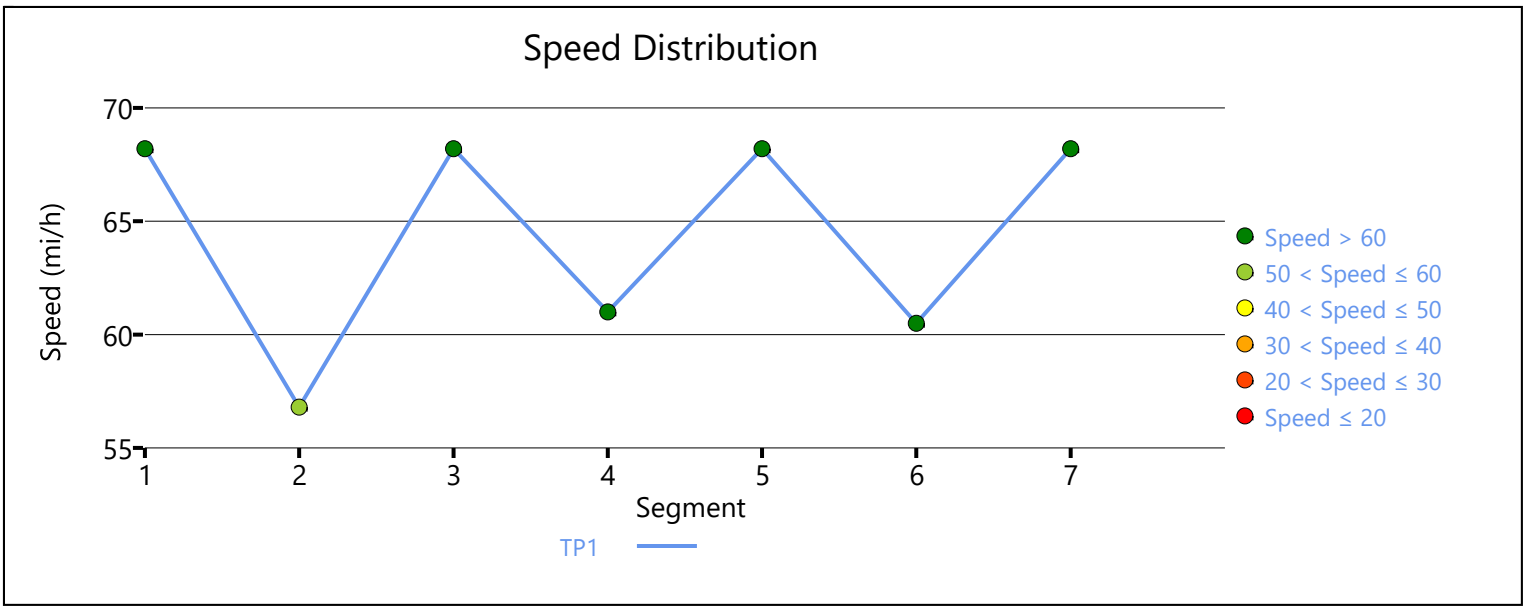
Facility Time Period Results

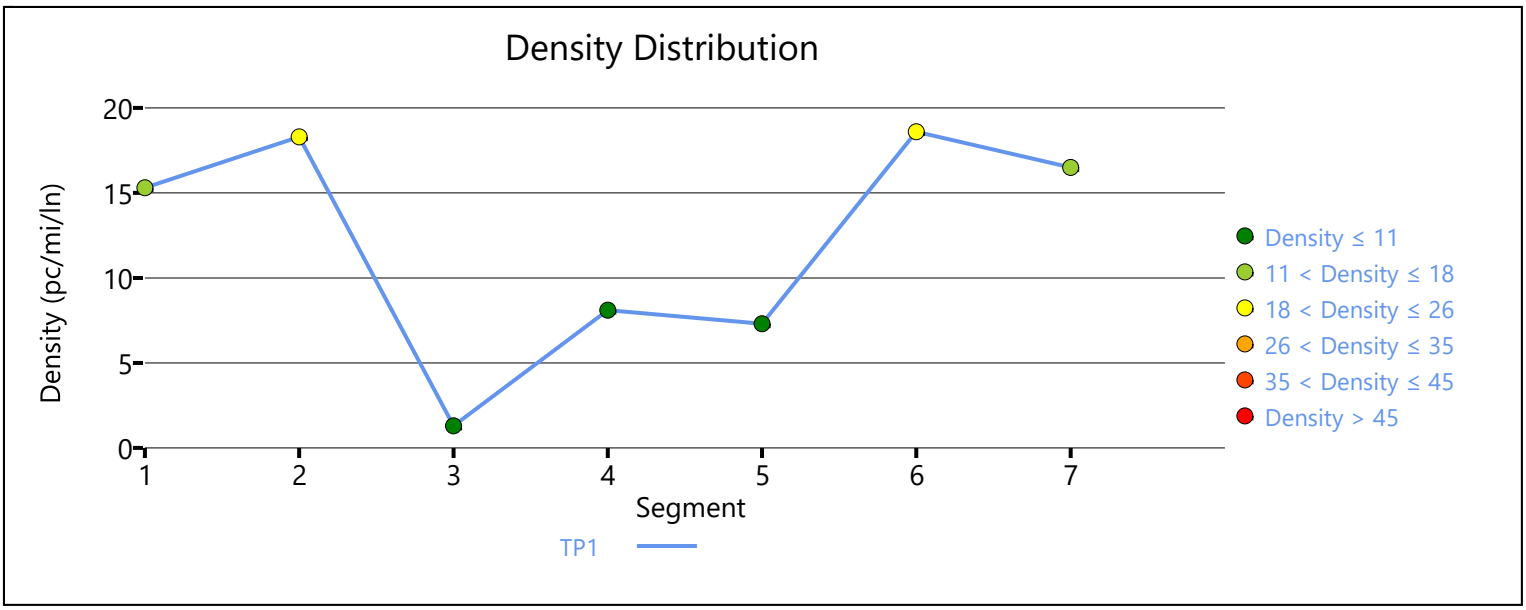
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.7	13.6	12.9	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.7	Density, veh/mi/ln	12.9
Average Travel Time, min	3.1	Density, pc/mi/ln	13.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3658	7161	0.51	68.7	17.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3658	1145	7200	2100	0.51	0.55	62.7	58.8	19.4	23.4	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	2514	7161	0.35	68.7	12.2	B

Segment 4: Merge

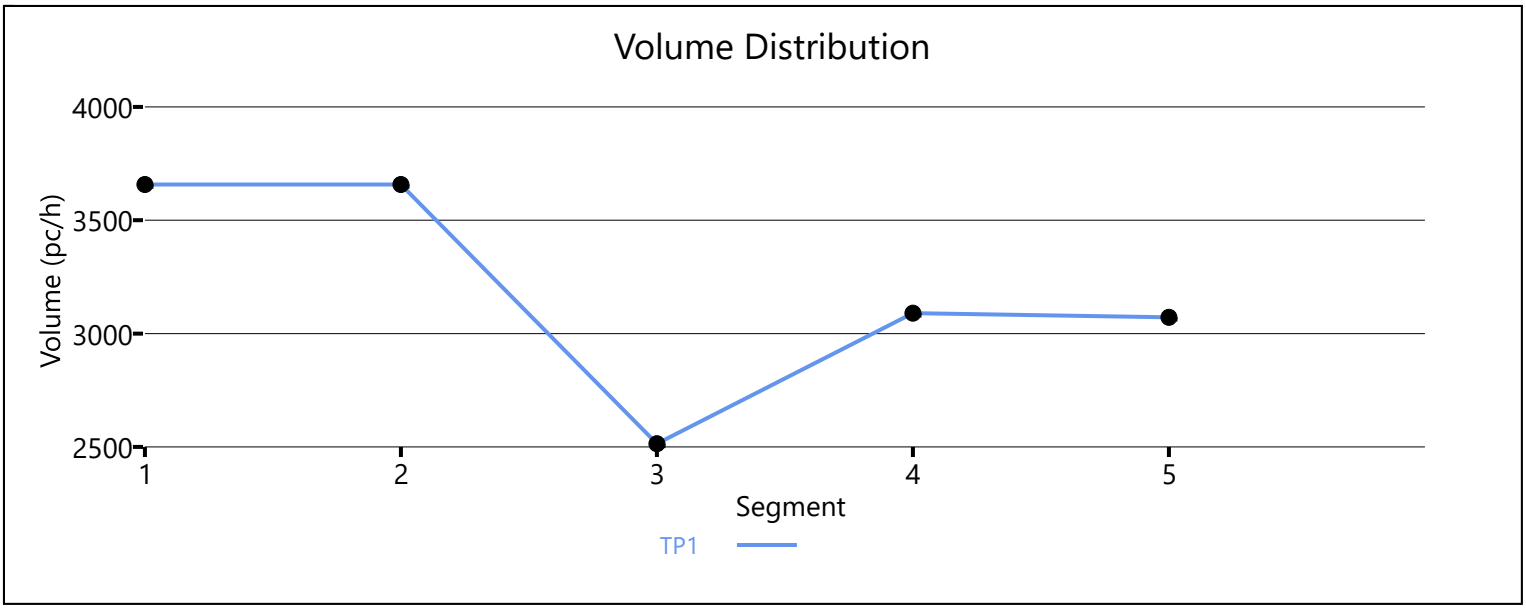
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	3090	576	7200	2100	0.43	0.27	64.1	62.3	16.1	16.2	B

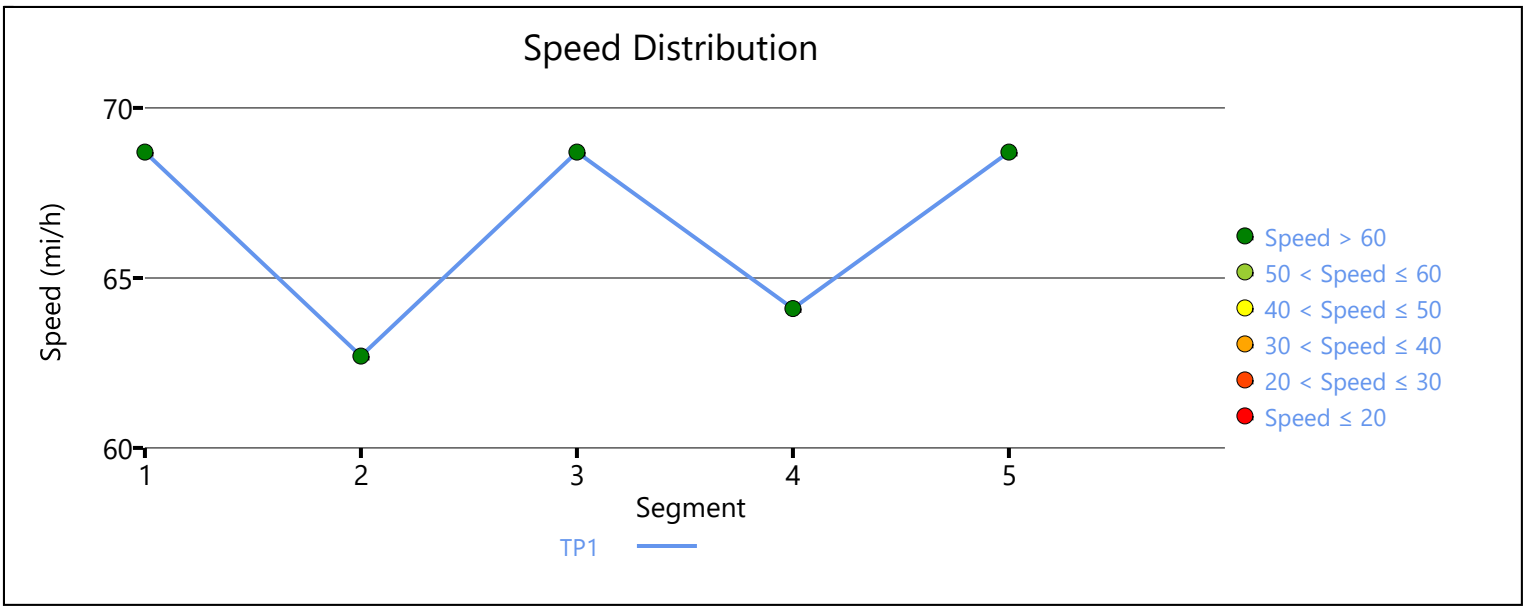
Segment 5: Basic

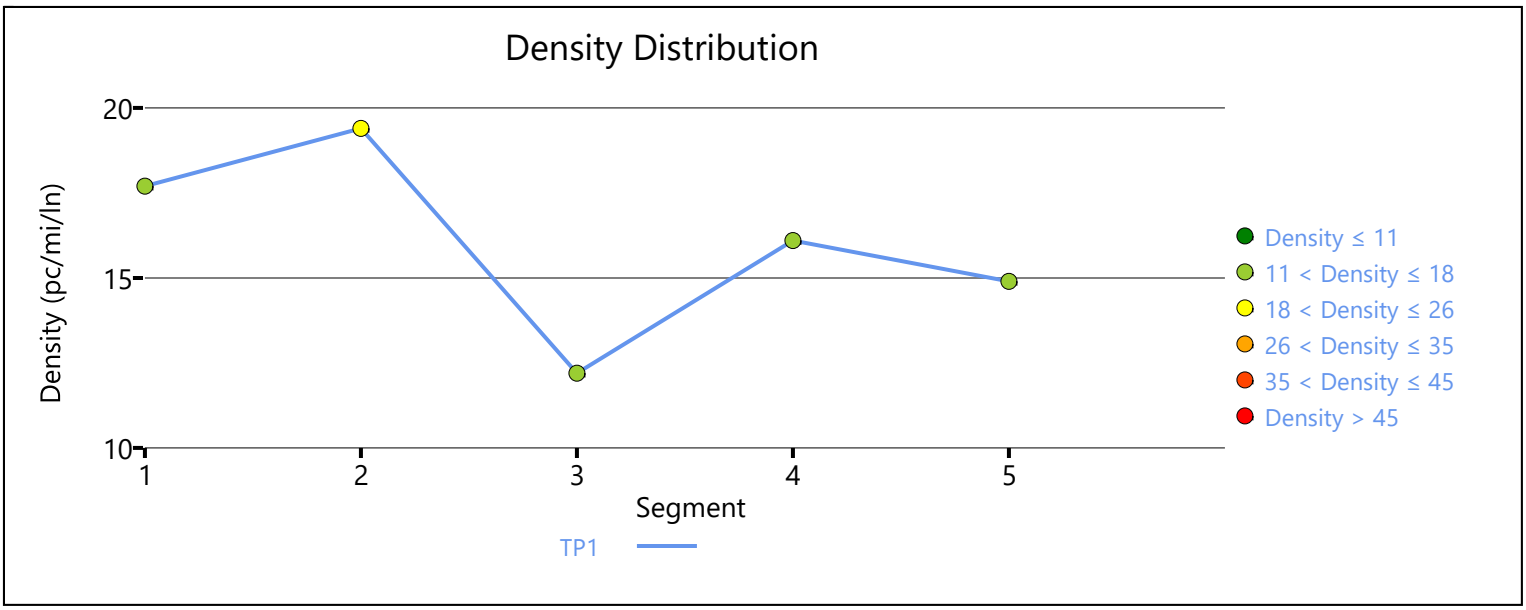
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3072	7161	0.43	68.7	14.9	B

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	67.3	16.4	15.9	2.1	B

Facility Overall Results			
Space Mean Speed, mi/h	67.3	Density, veh/mi/ln	15.9
Average Travel Time, min	2.1	Density, pc/mi/ln	16.4







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3663	7161	0.51	68.7	17.8	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3663	928	7200	2100	0.51	0.44	63.3	59.3	19.3	22.9	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.917	2733	7161	0.38	68.7	13.3	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3662	929	7200	2100	0.51	0.44	63.6	62.0	19.2	19.3	B

Segment 5: Basic

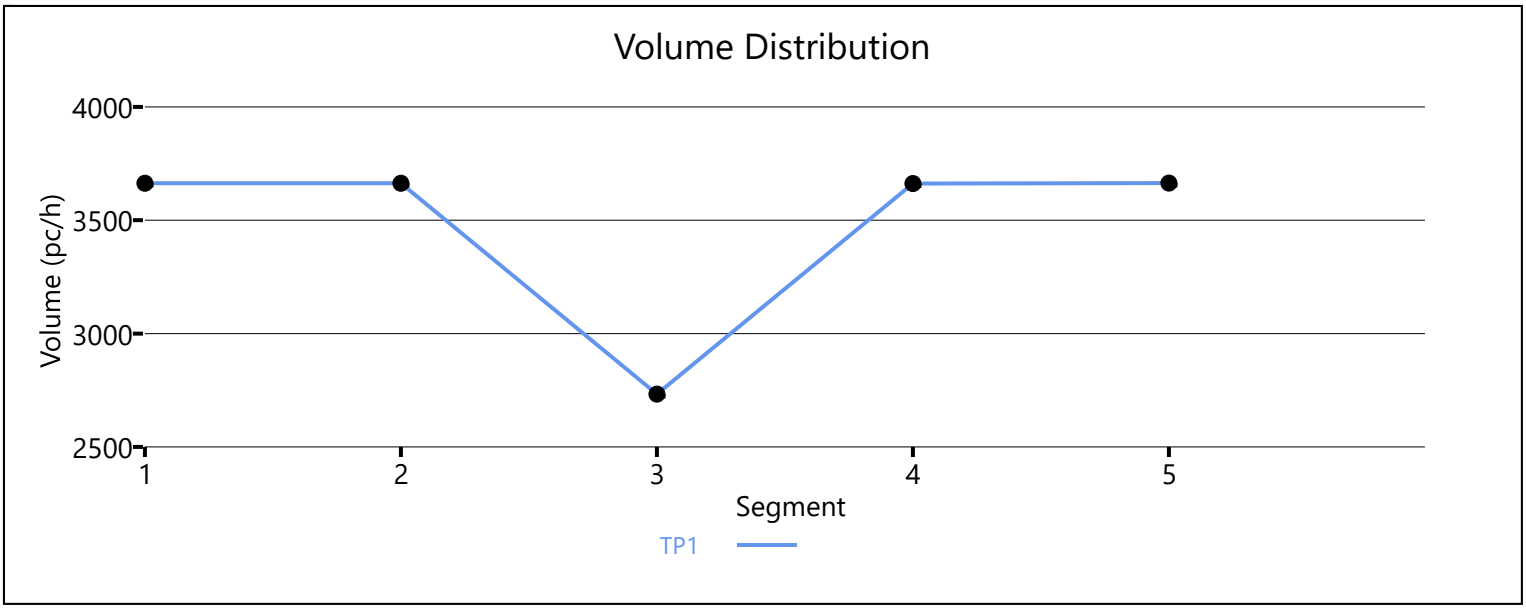
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3664	7161	0.51	68.7	17.8	B

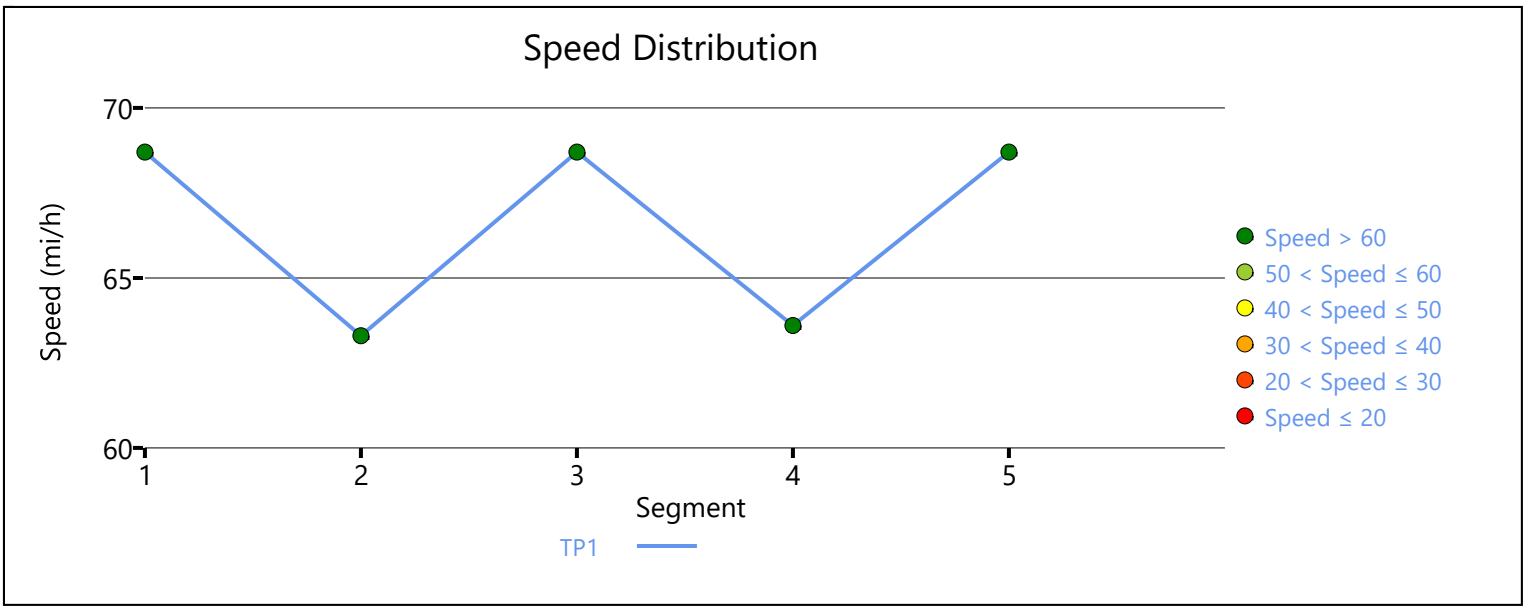
Facility Time Period Results

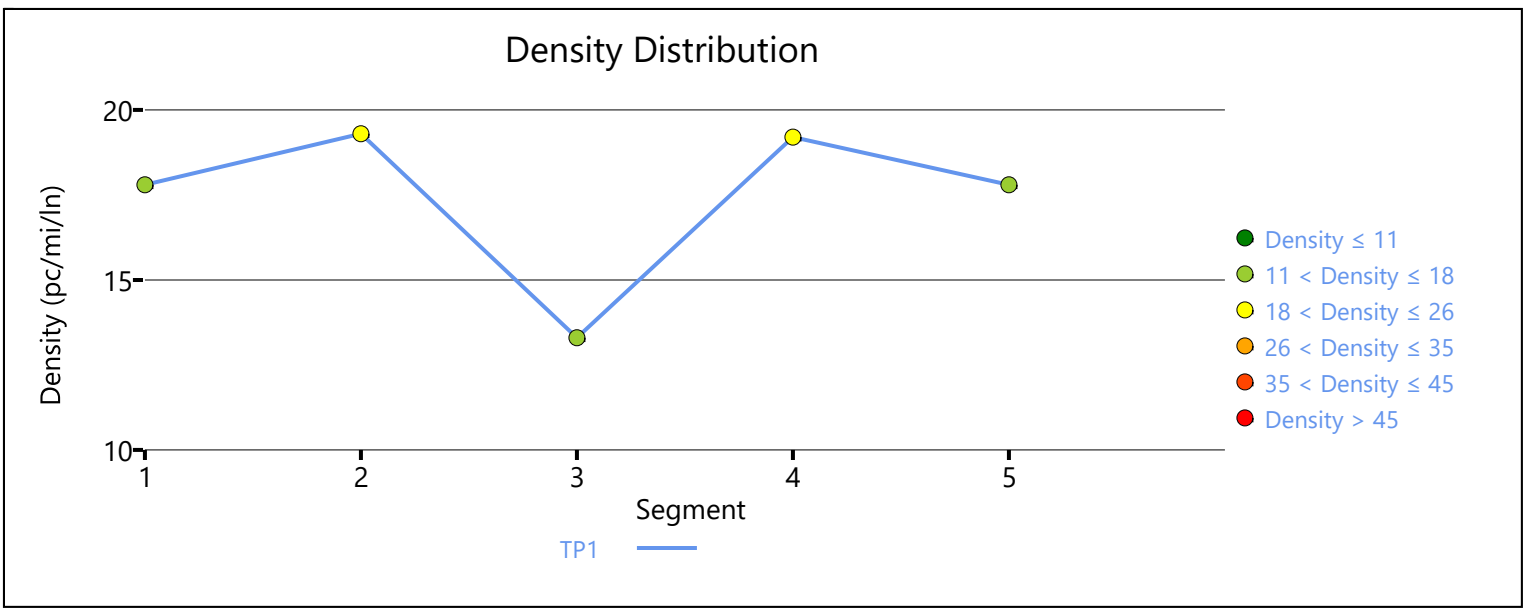
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	17.5	16.3	2.2	B

Facility Overall Results

Space Mean Speed, mi/h	67.4	Density, veh/mi/ln	16.3
Average Travel Time, min	2.2	Density, pc/mi/ln	17.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3286	4764	0.69	66.5	24.7	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	3286	3045	4800	2100	0.68	1.45	53.3	54.0	45.0	30.7	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	241	4764	0.05	67.3	1.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	517	276	4800	1900	0.11	0.15	61.1	61.1	4.2	8.2	A

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	517	4764	0.11	67.3	3.7	A

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.935	2512	1995	4800	2100	0.53	0.95	60.2	60.2	20.9	23.0	C

Segment 7: Basic

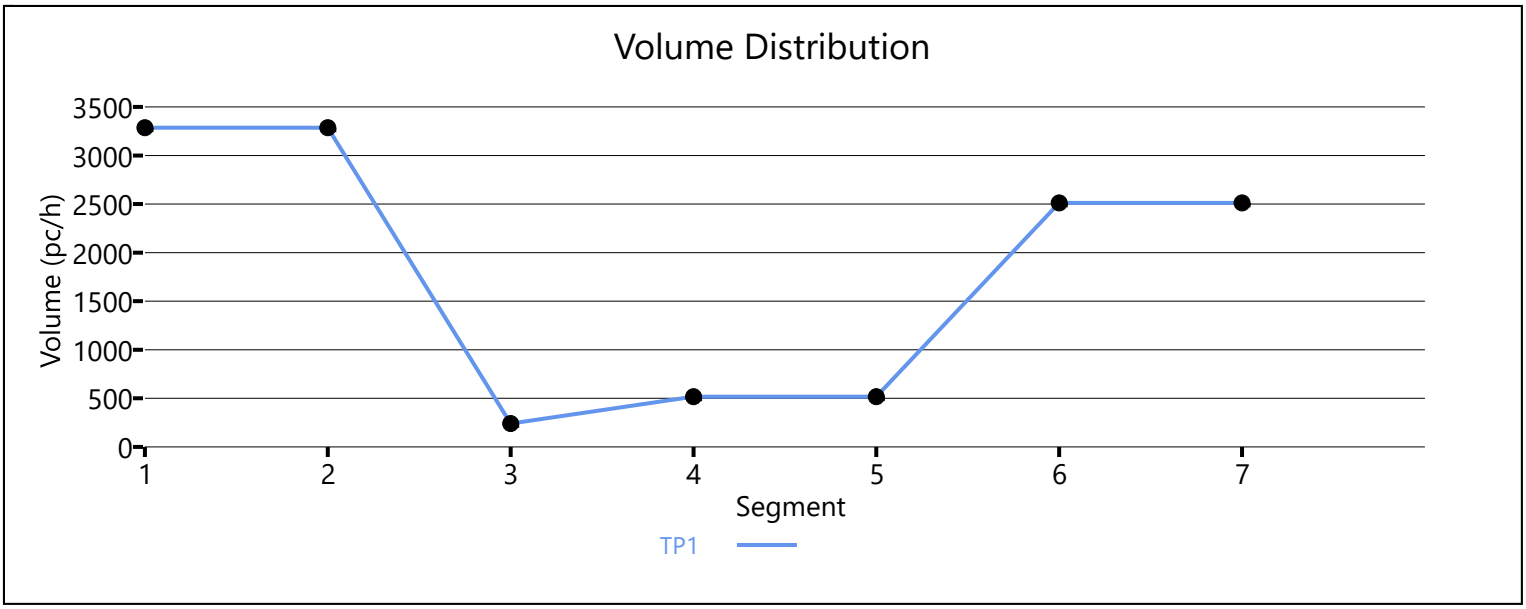
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	2512	4764	0.53	68.2	18.0	B

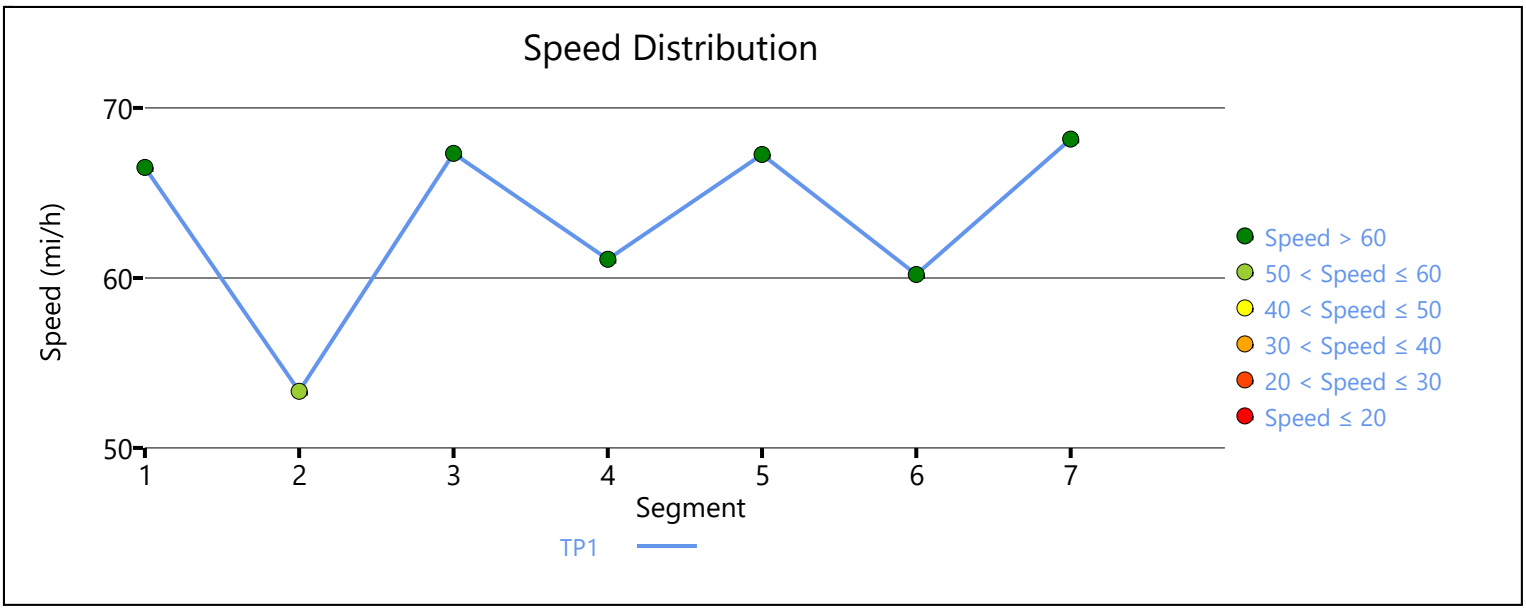
Facility Time Period Results

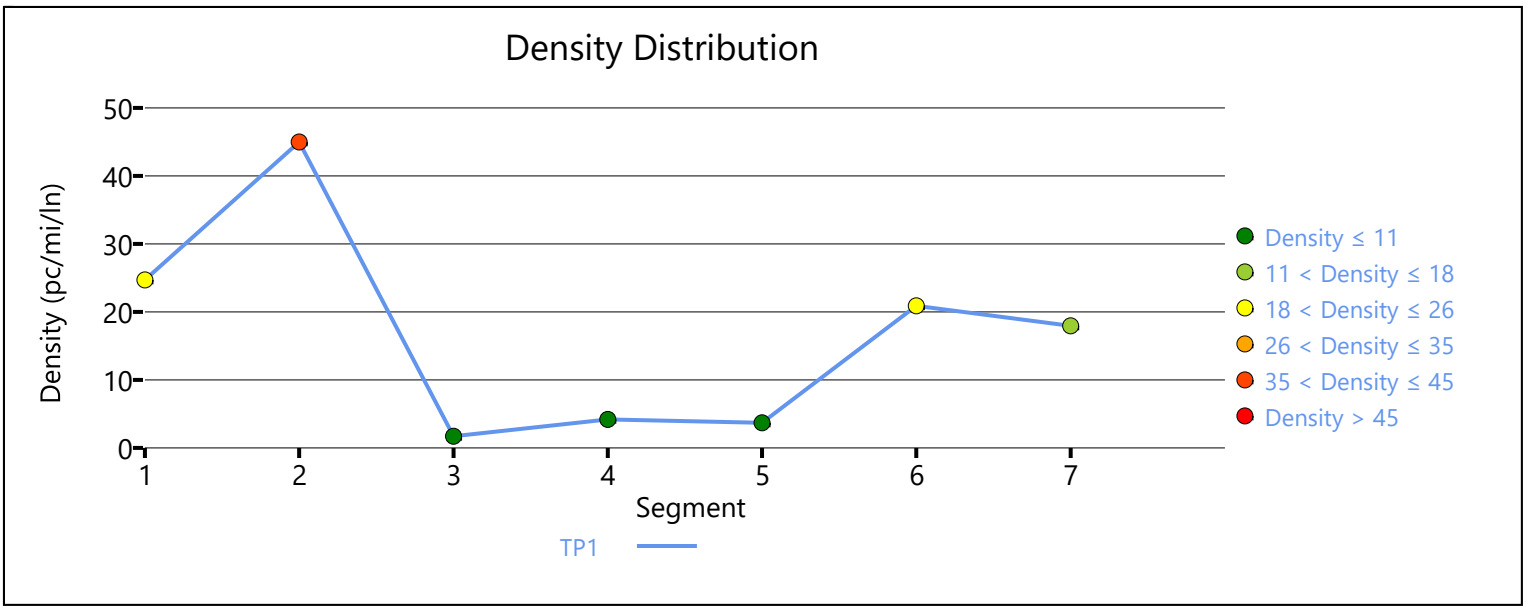
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.9	18.6	17.8	3.2	C

Facility Overall Results

Space Mean Speed, mi/h	64.9	Density, veh/mi/ln	17.8
Average Travel Time, min	3.2	Density, pc/mi/ln	18.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1997	4764	0.42	68.2	14.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	1997	1892	4800	2100	0.42	0.90	56.9	56.9	17.5	19.6	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	101	4764	0.02	68.2	0.7	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.935	1880	1779	4800	1900	0.39	0.94	60.6	60.6	15.5	18.1	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	1870	4764	0.39	68.2	13.7	B

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.952	3221	1351	4800	2100	0.67	0.64	58.8	58.8	27.4	28.8	D

Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	3233	4764	0.68	66.7	24.2	C

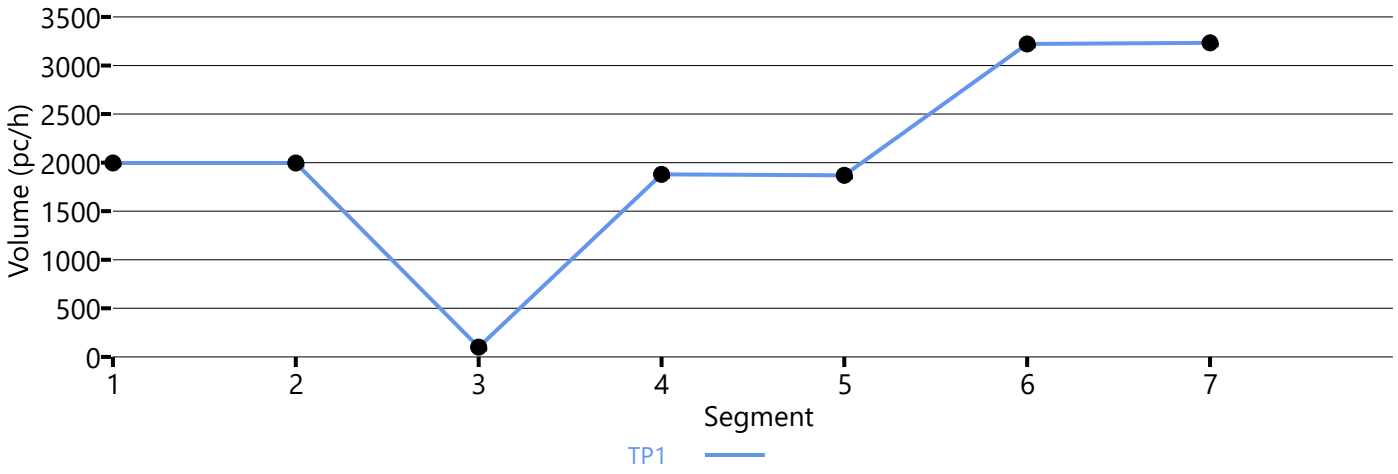
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.8	17.2	16.3	3.2	B

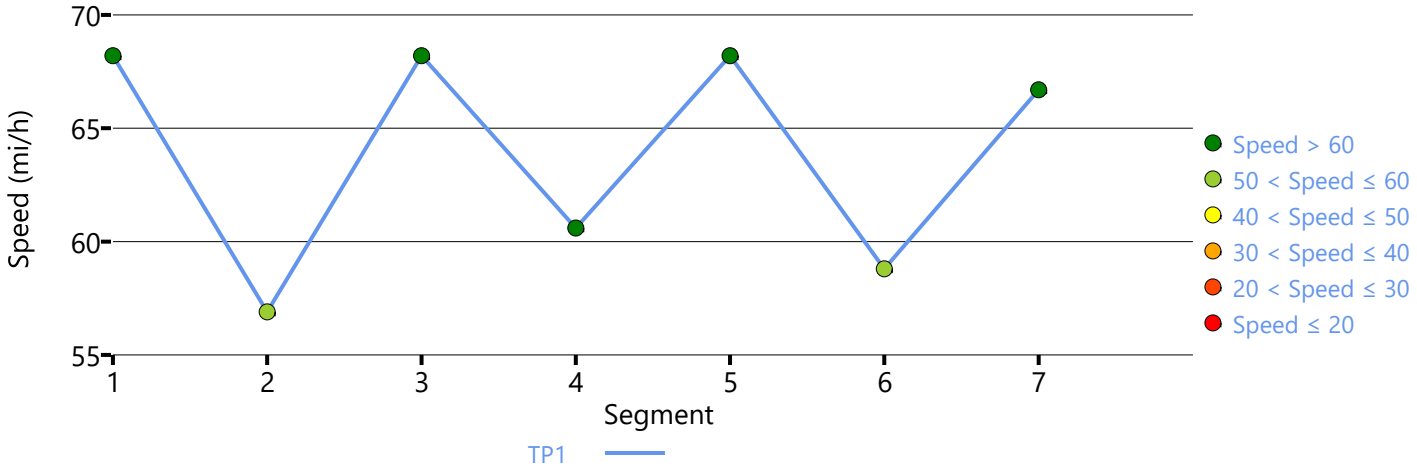
Facility Overall Results

Space Mean Speed, mi/h	64.8	Density, veh/mi/ln	16.3
Average Travel Time, min	3.2	Density, pc/mi/ln	17.2

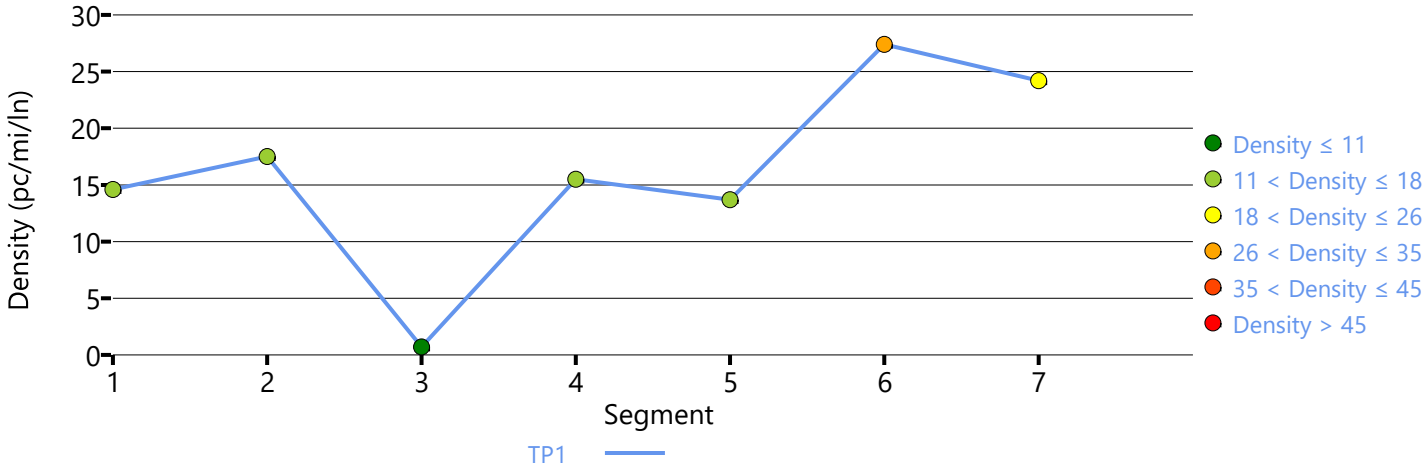
Volume Distribution



Speed Distribution



Density Distribution



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APPENDIX 8.8:

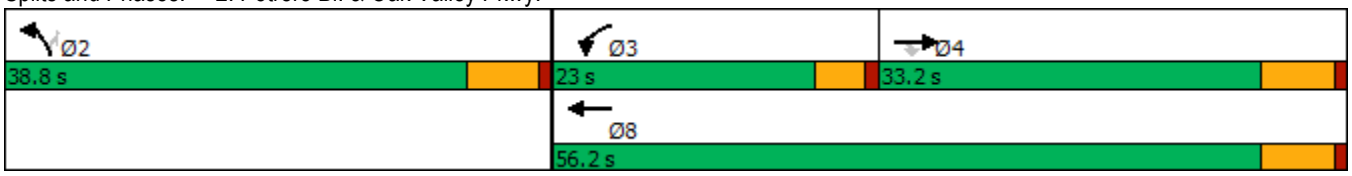
OPENING YEAR CUMULATIVE (2027) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	327	45	255	349	66	259
Future Volume (vph)	327	45	255	349	66	259
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	33.2	33.2	9.6	24.2	38.2	38.2
Total Split (s)	33.2	33.2	23.0	56.2	38.8	38.8
Total Split (%)	34.9%	34.9%	24.2%	59.2%	40.8%	40.8%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	6.2
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	13.6	13.6	14.9	33.3	13.4	13.4
Actuated g/C Ratio	0.23	0.23	0.25	0.56	0.22	0.22
v/c Ratio	0.47	0.13	0.66	0.20	0.19	0.51
Control Delay	23.0	8.0	31.8	7.6	21.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	8.0	31.8	7.6	21.3	6.2
LOS	C	A	C	A	C	A
Approach Delay	21.2			17.8	9.3	
Approach LOS	C			B	A	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 60	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 16.7	Intersection LOS: B
Intersection Capacity Utilization 45.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	327	45	255	349	66	259
Future Volume (veh/h)	327	45	255	349	66	259
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	380	52	297	406	77	301
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	748	334	363	1816	434	386
Arrive On Green	0.21	0.21	0.20	0.50	0.24	0.24
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	380	52	297	406	77	301
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	4.5	1.3	7.6	3.0	1.6	8.4
Cycle Q Clear(g_c), s	4.5	1.3	7.6	3.0	1.6	8.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	748	334	363	1816	434	386
V/C Ratio(X)	0.51	0.16	0.82	0.22	0.18	0.78
Avail Cap(c_a), veh/h	2021	901	690	3742	1223	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	15.7	18.4	6.7	14.6	17.1
Incr Delay (d2), s/veh	0.5	0.2	1.8	0.1	0.2	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.4	2.6	0.7	0.5	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.5	15.9	20.2	6.8	14.7	20.6
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	432			703	378	
Approach Delay, s/veh	17.3			12.5	19.4	
Approach LOS	B			B	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		17.8	14.3	16.2		30.5
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		32.6	18.4	27.0		50.0
Max Q Clear Time (g_c+I1), s		10.4	9.6	6.5		5.0
Green Ext Time (p_c), s		1.1	0.3	2.2		2.5

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	59	0	64	5	49	490	0
Future Vol, veh/h	0	0	0	10	0	59	0	64	5	49	490	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	91	0	98	8	75	754	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	629	1006	53	-	0	0	106	0	0
Stage 1	102	102	-	-	-	-	-	-	-
Stage 2	527	904	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	419	243	1010	0	-	-	1498	-	0
Stage 1	917	815	-	0	-	-	-	-	0
Stage 2	562	358	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	398	0	1010	-	-	-	1498	-	-
Mov Cap-2 Maneuver	462	0	-	-	-	-	-	-	-
Stage 1	917	0	-	-	-	-	-	-	-
Stage 2	534	0	-	-	-	-	-	-	-

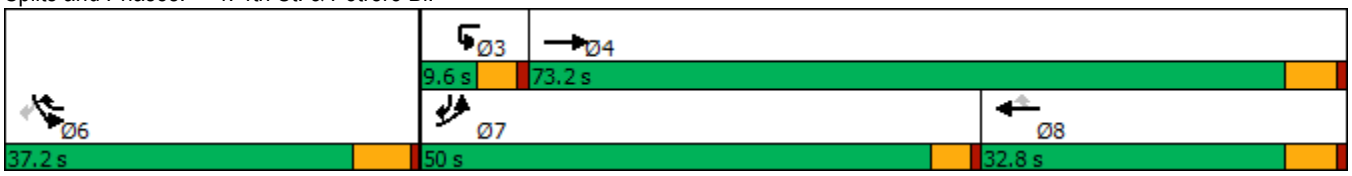
Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.7
HCM LOS	A		

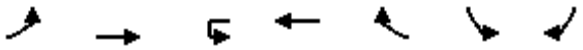
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	862	1498	-
HCM Lane V/C Ratio	-	-	0.123	0.05	-
HCM Control Delay (s)	-	-	9.8	7.5	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.4	0.2	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	105	25	71	45	375	428	
Future Volume (vph)	105	25	71	45	375	428	
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	7	4	8	6	6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	6	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	33.2	33.2	9.6	9.6
Total Split (s)	50.0	73.2	32.8	37.2	37.2	50.0	9.6
Total Split (%)	41.7%	61.0%	27.3%	31.0%	31.0%	41.7%	8%
Yellow Time (s)	3.6	4.8	4.8	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	6.2	6.2	4.6	
Lead/Lag	Lead	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effct Green (s)	8.5	19.3	10.5	24.8	12.7	28.9	
Actuated g/C Ratio	0.19	0.43	0.24	0.56	0.29	0.65	
v/c Ratio	0.22	0.04	0.22	0.07	0.52	0.48	
Control Delay	19.1	7.6	17.7	1.4	16.0	2.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.1	7.6	17.7	1.4	16.0	2.1	
LOS	B	A	B	A	B	A	
Approach Delay		16.9	11.4		8.6		
Approach LOS		B	B		A		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 44.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.52	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 43.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	105	25	0	71	45	375	428
Future Volume (veh/h)	105	25	0	71	45	375	428
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	157	37		106	52	560	490
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	341	771		391	920	1283	745
Arrive On Green	0.09	0.39		0.20	0.20	0.35	0.35
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	157	37		106	52	560	490
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	1.9	0.5		2.1	0.7	5.5	10.7
Cycle Q Clear(g_c), s	1.9	0.5		2.1	0.7	5.5	10.7
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	341	771		391	920	1283	745
V/C Ratio(X)	0.46	0.05		0.27	0.06	0.44	0.66
Avail Cap(c_a), veh/h	3567	2866		1148	1562	2436	1274
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	8.8		15.8	4.9	11.5	10.1
Incr Delay (d2), s/veh	0.4	0.0		0.4	0.0	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2		0.8	0.4	1.6	10.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.3	8.8		16.2	4.9	11.8	11.1
LnGrp LOS	C	A		B	A	B	B
Approach Vol, veh/h		194		158		1050	
Approach Delay, s/veh		18.1		12.5		11.5	
Approach LOS		B		B		B	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				23.9		22.5	8.9	15.0
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				67.4		31.0	45.4	27.0
Max Q Clear Time (g_c+I1), s				2.5		12.7	3.9	4.1
Green Ext Time (p_c), s				0.2		3.7	0.3	0.6

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

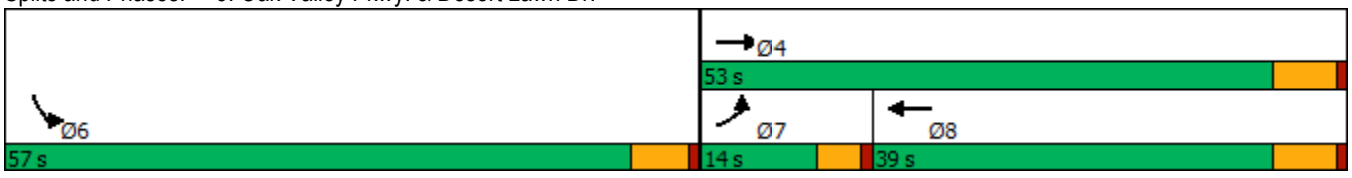
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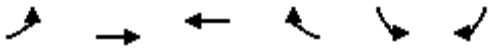
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	86	709	565	553
Future Volume (vph)	86	709	565	553
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	14.0	53.0	39.0	57.0
Total Split (%)	12.7%	48.2%	35.5%	51.8%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	8.6	36.6	26.6	42.6
Actuated g/C Ratio	0.09	0.40	0.29	0.46
v/c Ratio	0.59	0.57	0.70	0.88
Control Delay	61.2	23.4	29.0	37.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	61.2	23.4	29.0	37.0
LOS	E	C	C	D
Approach Delay		27.5	29.0	37.0
Approach LOS		C	C	D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 92	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 30.7	Intersection LOS: C
Intersection Capacity Utilization 73.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	86	709	565	365	553	81
Future Volume (veh/h)	86	709	565	365	553	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	815	649	420	636	93
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	126	1557	1075	501	679	99
Arrive On Green	0.07	0.43	0.31	0.31	0.44	0.44
Sat Flow, veh/h	1810	3705	3629	1610	1552	227
Grp Volume(v), veh/h	99	815	649	420	730	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1610	1782	0
Q Serve(g_s), s	4.9	15.1	14.5	22.2	35.7	0.0
Cycle Q Clear(g_c), s	4.9	15.1	14.5	22.2	35.7	0.0
Prop In Lane	1.00			1.00	0.87	0.13
Lane Grp Cap(c), veh/h	126	1557	1075	501	779	0
V/C Ratio(X)	0.78	0.52	0.60	0.84	0.94	0.00
Avail Cap(c_a), veh/h	186	1851	1243	579	999	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.8	19.1	26.7	29.3	24.5	0.0
Incr Delay (d2), s/veh	6.6	0.3	0.6	9.4	13.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.7	5.6	9.2	16.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.4	19.3	27.3	38.7	37.9	0.0
LnGrp LOS	D	B	C	D	D	A
Approach Vol, veh/h		914	1069		730	
Approach Delay, s/veh		22.5	31.8		37.9	
Approach LOS		C	C		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	45.6	45.7	11.0	34.6
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	46.8	51.2	9.4	32.8
Max Q Clear Time (g_c+I1), s	17.1	37.7	6.9	24.2
Green Ext Time (p_c), s	5.5	2.3	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

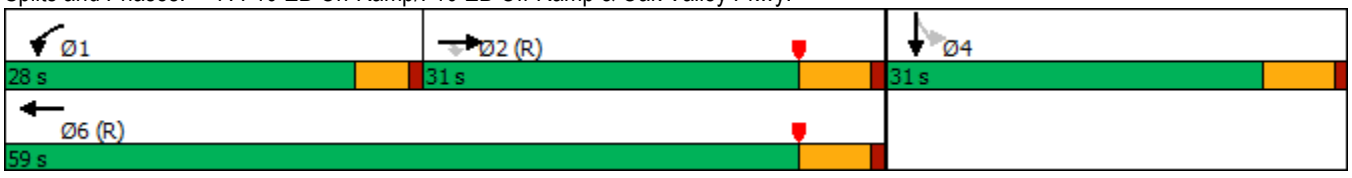
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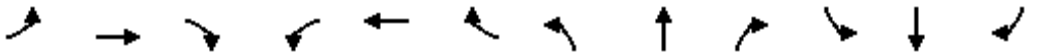
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	702	561	300	720	305	3
Future Volume (vph)	702	561	300	720	305	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	38.0	38.0	21.0	63.6	14.8	14.8
Actuated g/C Ratio	0.42	0.42	0.23	0.71	0.16	0.16
v/c Ratio	0.52	0.60	0.80	0.32	0.60	0.57
Control Delay	22.7	4.9	48.3	2.5	38.8	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	4.9	48.3	2.5	38.8	15.1
LOS	C	A	D	A	D	B
Approach Delay	14.8			16.0		29.1
Approach LOS	B			B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	702	561	300	720	0	0	0	0	305	3	209
Future Volume (veh/h)	0	702	561	300	720	0	0	0	0	305	3	209
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	789	543	337	809	0				343	3	216
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1583	706	376	2518	0				609	4	276
Arrive On Green	0.00	0.44	0.44	0.14	0.47	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3510	22	1591
Grp Volume(v), veh/h	0	789	543	337	809	0				343	0	219
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1755	0	1614
Q Serve(g_s), s	0.0	14.1	25.7	16.5	12.6	0.0				8.1	0.0	11.7
Cycle Q Clear(g_c), s	0.0	14.1	25.7	16.5	12.6	0.0				8.1	0.0	11.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1583	706	376	2518	0				609	0	280
V/C Ratio(X)	0.00	0.50	0.77	0.90	0.32	0.00				0.56	0.00	0.78
Avail Cap(c_a), veh/h	0	1583	706	470	2518	0				983	0	452
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.63	0.63	0.70	0.70	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.2	21.4	37.8	10.6	0.0				34.1	0.0	35.6
Incr Delay (d2), s/veh	0.0	0.7	5.1	11.1	0.2	0.0				0.8	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.4	9.6	8.5	4.8	0.0				3.3	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.9	26.5	48.9	10.9	0.0				34.9	0.0	40.3
LnGrp LOS	A	B	C	D	B	A				C	A	D
Approach Vol, veh/h		1332			1146						562	
Approach Delay, s/veh		22.0			22.0						37.0	
Approach LOS		C			C						D	

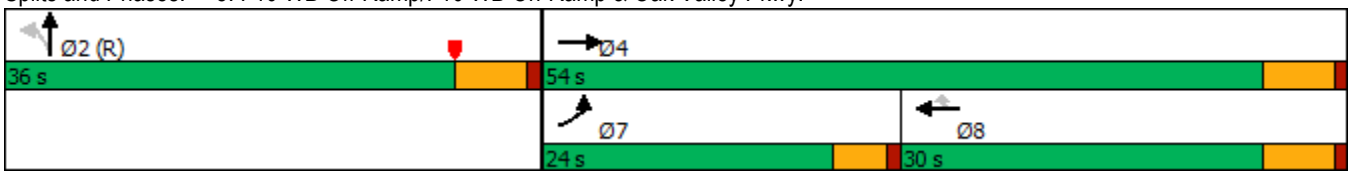
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.3	45.3		21.4		68.6						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	18.5	27.7		13.7		14.6						
Green Ext Time (p_c), s	0.2	0.0		1.9		5.9						

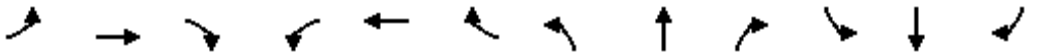
Intersection Summary												
HCM 6th Ctrl Delay			24.8									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	251	755	631	529	390	5
Future Volume (vph)	251	755	631	529	390	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	24.0	54.0	30.0	30.0	36.0	36.0
Total Split (%)	26.7%	60.0%	33.3%	33.3%	40.0%	40.0%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	16.2	43.2	22.4	22.4	35.2	35.2
Actuated g/C Ratio	0.18	0.48	0.25	0.25	0.39	0.39
v/c Ratio	0.79	0.44	0.72	0.67	0.56	0.60
Control Delay	43.7	17.6	35.6	7.1	26.9	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	17.6	35.6	7.1	26.9	18.6
LOS	D	B	D	A	C	B
Approach Delay		24.1	22.6			22.5
Approach LOS		C	C			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 86.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	755	0	0	631	529	390	5	427	0	0	0
Future Volume (veh/h)	251	755	0	0	631	529	390	5	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	256	770	0	0	644	424	398	5	314			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	295	1744	0	0	971	433	702	10	617			
Arrive On Green	0.11	0.32	0.00	0.00	0.27	0.27	0.39	0.39	0.39			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	1810	25	1589			
Grp Volume(v), veh/h	256	770	0	0	644	424	398	0	319			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1614			
Q Serve(g_s), s	12.5	15.1	0.0	0.0	14.3	23.5	15.5	0.0	13.6			
Cycle Q Clear(g_c), s	12.5	15.1	0.0	0.0	14.3	23.5	15.5	0.0	13.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.98			
Lane Grp Cap(c), veh/h	295	1744	0	0	971	433	702	0	626			
V/C Ratio(X)	0.87	0.44	0.00	0.00	0.66	0.98	0.57	0.00	0.51			
Avail Cap(c_a), veh/h	390	1933	0	0	971	433	702	0	626			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.1	20.9	0.0	0.0	29.3	32.7	21.6	0.0	21.0			
Incr Delay (d2), s/veh	10.3	0.1	0.0	0.0	1.7	37.7	3.3	0.0	2.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.4	6.6	0.0	0.0	6.0	13.0	6.6	0.0	5.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	21.0	0.0	0.0	31.0	70.4	24.9	0.0	23.9			
LnGrp LOS	D	C	A	A	C	E	C	A	C			
Approach Vol, veh/h		1026			1068			717				
Approach Delay, s/veh		28.1			46.6			24.5				
Approach LOS		C			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		40.7		49.3			19.3	30.0				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		30.2		48.2			19.4	24.2				
Max Q Clear Time (g_c+I1), s		17.5		17.1			14.5	25.5				
Green Ext Time (p_c), s		2.6		5.3			0.2	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			34.2									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	9	636	159	171	980	29	0	0	70	0	0	173	0	0
Future Vol, veh/h	9	636	159	171	980	29	0	0	70	0	0	173	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	699	175	188	1077	32	0	0	77	0	0	190	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1109	0	0	874	0	0	-	-	437	-	-	555
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	637	-	-	781	-	-	0	0	573	0	0	480
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	637	-	-	781	-	-	-	-	573	-	-	480
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

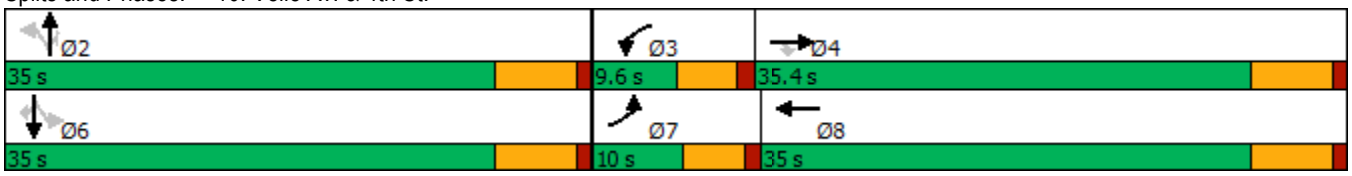
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.6	12.3	17.3
HCM LOS			B	C

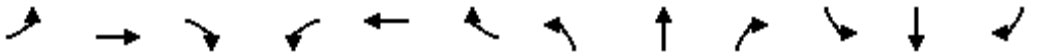
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	573	637	-	-	781	-	-	480
HCM Lane V/C Ratio	0.134	0.016	-	-	0.241	-	-	0.396
HCM Control Delay (s)	12.3	10.7	-	-	11.1	-	-	17.3
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0.9	-	-	1.9

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	38	65	26	3	510	79	31	6	24	33	130
Future Volume (vph)	38	65	26	3	510	79	31	6	24	33	130
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.4	33.9	33.9	5.1	30.0		13.9	13.9	13.9	13.9	13.9
Actuated g/C Ratio	0.09	0.55	0.55	0.08	0.49		0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.32	0.08	0.04	0.03	0.77		0.45	0.02	0.11	0.10	0.35
Control Delay	35.9	9.6	0.1	31.7	23.5		25.5	0.0	20.1	19.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	9.6	0.1	31.7	23.5		25.5	0.0	20.1	19.6	5.7
LOS	D	A	A	C	C		C	A	C	B	A
Approach Delay		15.4			23.5		24.2			10.0	
Approach LOS		B			C		C			B	

Intersection Summary		
Cycle Length: 80		
Actuated Cycle Length: 61.2		
Natural Cycle: 80		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.77		
Intersection Signal Delay: 19.9	Intersection LOS: B	
Intersection Capacity Utilization 59.3%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	65	26	3	510	22	79	31	6	24	33	130
Future Volume (veh/h)	38	65	26	3	510	22	79	31	6	24	33	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	87	35	4	680	29	105	41	8	32	44	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	919	778	10	793	34	310	103	314	290	371	
Arrive On Green	0.05	0.48	0.48	0.01	0.44	0.44	0.20	0.20	0.20	0.20	0.20	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1809	77	972	528	1610	1378	1900	1610
Grp Volume(v), veh/h	51	87	35	4	0	709	146	0	8	32	44	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1886	1500	0	1610	1378	1900	1610
Q Serve(g_s), s	1.4	1.3	0.6	0.1	0.0	17.3	3.5	0.0	0.2	1.1	1.0	0.0
Cycle Q Clear(g_c), s	1.4	1.3	0.6	0.1	0.0	17.3	4.4	0.0	0.2	5.5	1.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	919	778	10	0	827	413	0	314	290	371	
V/C Ratio(X)	0.56	0.09	0.04	0.41	0.00	0.86	0.35	0.00	0.03	0.11	0.12	
Avail Cap(c_a), veh/h	191	1097	930	177	0	1074	974	0	917	806	1082	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.8	7.2	7.0	25.4	0.0	12.9	18.4	0.0	16.7	20.9	17.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	9.9	0.0	5.6	0.5	0.0	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.1	0.1	0.0	6.3	1.3	0.0	0.1	0.3	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	7.2	7.0	35.3	0.0	18.6	18.9	0.0	16.7	21.0	17.1	0.0
LnGrp LOS	C	A	A	D	A	B	B	A	B	C	B	
Approach Vol, veh/h		173			713			154			76	A
Approach Delay, s/veh		12.6			18.6			18.8			18.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	4.9	30.6		15.8	7.2	28.3				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		29.2	5.0	29.6		29.2	5.4	29.2				
Max Q Clear Time (g_c+I1), s		6.4	2.1	3.3		7.5	3.4	19.3				
Green Ext Time (p_c), s		0.7	0.0	0.5		0.2	0.0	3.1				

Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

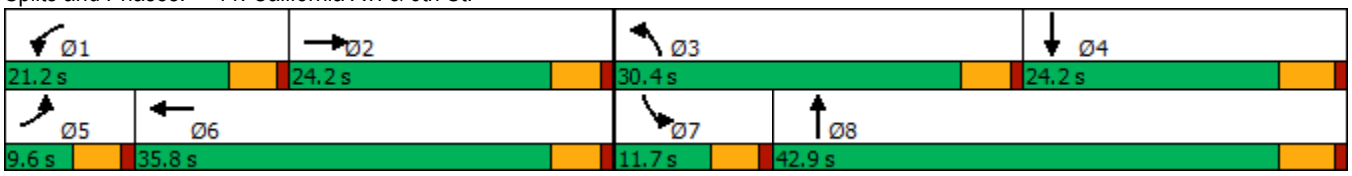
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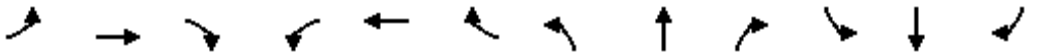
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	314	297	312	449	94	49	167
Future Volume (vph)	4	314	297	312	449	94	49	167
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	24.2	21.2	35.8	30.4	42.9	11.7	24.2
Total Split (%)	9.6%	24.2%	21.2%	35.8%	30.4%	42.9%	11.7%	24.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	16.9	16.6	36.2	25.8	40.4	6.4	19.0
Actuated g/C Ratio	0.05	0.17	0.17	0.37	0.26	0.41	0.07	0.19
v/c Ratio	0.04	0.75	1.05	0.27	1.02	0.22	0.45	0.51
Control Delay	46.2	41.7	107.0	22.2	84.3	16.7	56.5	41.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	41.7	107.0	22.2	84.3	16.7	56.5	41.0
LOS	D	D	F	C	F	B	E	D
Approach Delay		41.7		62.2		67.1		44.4
Approach LOS		D		E		E		D

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 97.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 56.9	Intersection LOS: E
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	314	129	297	312	22	449	94	60	49	167	5
Future Volume (veh/h)	4	314	129	297	312	22	449	94	60	49	167	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	341	58	323	339	15	488	102	43	53	182	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	442	74	319	1107	49	496	554	233	72	376	6
Arrive On Green	0.01	0.14	0.14	0.18	0.31	0.31	0.27	0.44	0.44	0.04	0.20	0.20
Sat Flow, veh/h	1810	3091	520	1810	3522	155	1810	1269	535	1810	1864	31
Grp Volume(v), veh/h	4	198	201	323	173	181	488	0	145	53	0	185
Grp Sat Flow(s),veh/h/ln	1810	1805	1806	1810	1805	1872	1810	0	1804	1810	0	1894
Q Serve(g_s), s	0.2	9.9	10.1	16.6	6.8	6.9	25.2	0.0	4.6	2.7	0.0	8.1
Cycle Q Clear(g_c), s	0.2	9.9	10.1	16.6	6.8	6.9	25.2	0.0	4.6	2.7	0.0	8.1
Prop In Lane	1.00		0.29	1.00		0.08	1.00		0.30	1.00		0.02
Lane Grp Cap(c), veh/h	10	258	258	319	567	588	496	0	787	72	0	383
V/C Ratio(X)	0.42	0.77	0.78	1.01	0.31	0.31	0.98	0.00	0.18	0.74	0.00	0.48
Avail Cap(c_a), veh/h	96	372	373	319	595	617	496	0	787	137	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.6	38.8	38.9	38.7	24.5	24.5	33.9	0.0	16.2	44.7	0.0	33.2
Incr Delay (d2), s/veh	10.5	5.7	6.4	53.3	0.3	0.3	35.8	0.0	0.5	5.3	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.7	4.9	11.9	2.9	3.1	15.2	0.0	1.9	1.3	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	44.5	45.3	92.0	24.8	24.8	69.7	0.0	16.8	50.0	0.0	37.5
LnGrp LOS	E	D	D	F	C	C	E	A	B	D	A	D
Approach Vol, veh/h		403			677			633			238	
Approach Delay, s/veh		45.0			56.8			57.6			40.3	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	18.3	30.4	24.2	5.1	34.4	8.3	46.3
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	16.6	* 19	25.8	19.0	5.0	* 31	7.1	37.7
Max Q Clear Time (g_c+I1), s	18.6	12.1	27.2	10.1	2.2	8.9	4.7	6.6
Green Ext Time (p_c), s	0.0	1.3	0.0	0.5	0.0	2.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

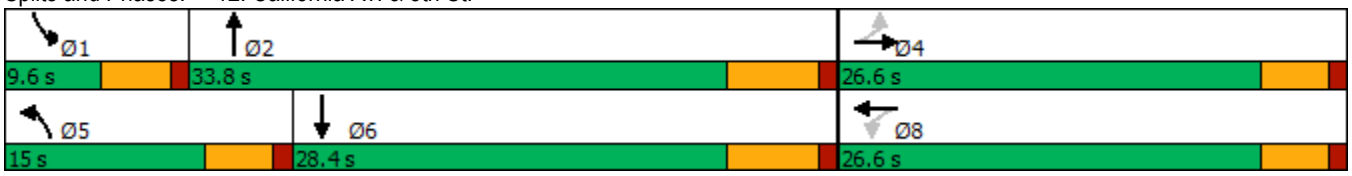
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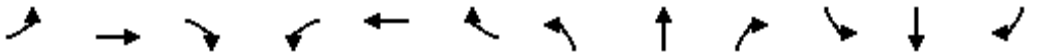
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	42	10	325	600	532	
Future Volume (vph)	2	3	42	10	325	600	532	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.2		12.2	10.7	40.0	23.1	
Actuated g/C Ratio		0.21		0.21	0.19	0.70	0.40	
v/c Ratio		0.26		0.31	1.23	0.60	40.82	
Control Delay		7.0		15.8	155.5	10.5	18475.1	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.0		15.8	155.5	10.5	18475.1	
LOS		A		B	F	B	F	
Approach Delay		7.0		15.8		60.2	18475.1	
Approach LOS		A		B		E	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 57.5	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 40.82	
Intersection Signal Delay: 6103.4	Intersection LOS: F
Intersection Capacity Utilization 87.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	82	42	10	33	325	600	24	14	532	2
Future Volume (veh/h)	2	3	82	42	10	33	325	600	24	14	532	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	104	53	13	42	411	759	30	18	673	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	67	15	258	196	63	105	330	1176	46	0	727	3
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.18	0.65	0.65	0.00	0.38	0.38
Sat Flow, veh/h	14	88	1519	601	371	619	1810	1815	72	0	1890	8
Grp Volume(v), veh/h	111	0	0	108	0	0	411	0	789	0	0	676
Grp Sat Flow(s),veh/h/ln	1621	0	0	1591	0	0	1810	0	1887	0	0	1898
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0	14.4	0.0	0.0	19.4
Cycle Q Clear(g_c), s	3.5	0.0	0.0	3.0	0.0	0.0	10.4	0.0	14.4	0.0	0.0	19.4
Prop In Lane	0.03		0.94	0.49		0.39	1.00		0.04	0.00		0.00
Lane Grp Cap(c), veh/h	340	0	0	364	0	0	330	0	1222	0	0	730
V/C Ratio(X)	0.33	0.00	0.00	0.30	0.00	0.00	1.25	0.00	0.65	0.00	0.00	0.93
Avail Cap(c_a), veh/h	688	0	0	682	0	0	330	0	1222	0	0	753
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	0.0	0.0	20.9	0.0	0.0	23.3	0.0	6.1	0.0	0.0	16.8
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.4	0.0	0.0	133.2	0.0	1.2	0.0	0.0	17.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.3	0.0	0.0	16.0	0.0	3.1	0.0	0.0	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	0.0	0.0	21.4	0.0	0.0	156.5	0.0	7.3	0.0	0.0	33.9
LnGrp LOS	C	A	A	C	A	A	F	A	A	A	A	C
Approach Vol, veh/h		111			108			1200			676	
Approach Delay, s/veh		21.6			21.4			58.4			33.9	
Approach LOS		C			C			E			C	

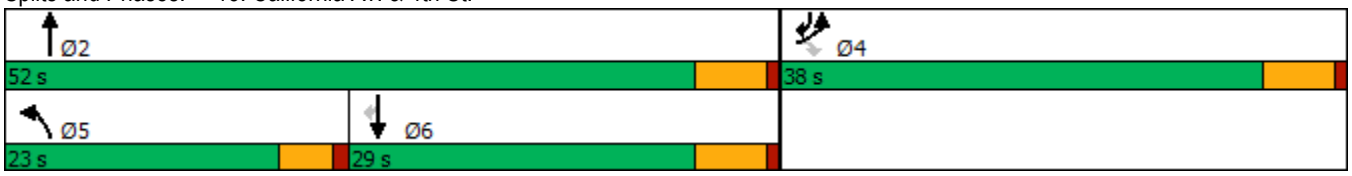
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	42.7		14.3	15.0	27.7		14.3				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	16.4		5.5	12.4	21.4		5.0				
Green Ext Time (p_c), s	0.0	4.0		0.5	0.0	0.5		0.5				

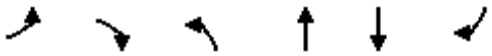
Intersection Summary			
HCM 6th Ctrl Delay		46.6	
HCM 6th LOS		D	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	91	27	156	887	197	418
Future Volume (vph)	91	27	156	887	197	418
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	38.0	38.0	23.0	52.0	29.0	38.0
Total Split (%)	42.2%	42.2%	25.6%	57.8%	32.2%	42.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effct Green (s)	12.3	12.3	10.5	27.5	12.1	30.5
Actuated g/C Ratio	0.24	0.24	0.20	0.53	0.23	0.59
v/c Ratio	0.28	0.09	0.55	0.60	0.30	0.51
Control Delay	19.7	8.1	26.3	10.1	18.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	8.1	26.3	10.1	18.7	4.6
LOS	B	A	C	B	B	A
Approach Delay	17.1			12.5	9.1	
Approach LOS	B			B	A	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 52	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 43.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	91	27	156	887	197	418
Future Volume (veh/h)	91	27	156	887	197	418
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	35	203	1152	256	543
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	327	291	260	2086	1223	837
Arrive On Green	0.18	0.18	0.14	0.58	0.34	0.34
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	118	35	203	1152	256	543
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	2.7	0.9	5.2	9.5	2.4	11.8
Cycle Q Clear(g_c), s	2.7	0.9	5.2	9.5	2.4	11.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	327	291	260	2086	1223	837
V/C Ratio(X)	0.36	0.12	0.78	0.55	0.21	0.65
Avail Cap(c_a), veh/h	1211	1078	692	3466	1741	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	16.5	19.9	6.3	11.3	8.4
Incr Delay (d2), s/veh	0.7	0.2	1.9	0.2	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.9	1.8	0.7	4.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.9	16.7	21.8	6.5	11.4	9.3
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	153			1355	799	
Approach Delay, s/veh	17.6			8.8	10.0	
Approach LOS	B			A	A	

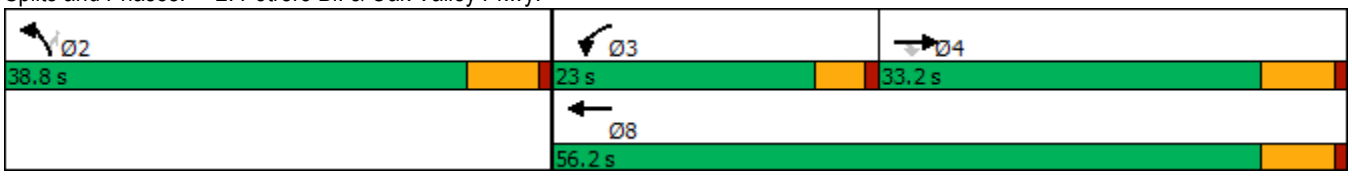
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		33.6		14.5	11.5	22.1
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		46.2		32.2	18.4	23.2
Max Q Clear Time (g_c+I1), s		11.5		4.7	7.2	13.8
Green Ext Time (p_c), s		9.3		0.4	0.2	2.5

Intersection Summary		
HCM 6th Ctrl Delay		9.8
HCM 6th LOS		A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	332	65	259	411	130	331
Future Volume (vph)	332	65	259	411	130	331
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	33.2	33.2	9.6	24.2	38.2	38.2
Total Split (s)	33.2	33.2	23.0	56.2	38.8	38.8
Total Split (%)	34.9%	34.9%	24.2%	59.2%	40.8%	40.8%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	6.2
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	13.5	13.5	14.2	32.7	13.8	13.8
Actuated g/C Ratio	0.23	0.23	0.24	0.55	0.23	0.23
v/c Ratio	0.45	0.17	0.66	0.23	0.34	0.56
Control Delay	22.8	7.5	32.3	7.9	22.8	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	7.5	32.3	7.9	22.8	6.3
LOS	C	A	C	A	C	A
Approach Delay	20.3			17.4	11.0	
Approach LOS	C			B	B	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 59.7	
Natural Cycle: 85	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 16.2	Intersection LOS: B
Intersection Capacity Utilization 46.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	332	65	259	411	130	331
Future Volume (veh/h)	332	65	259	411	130	331
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	365	71	285	452	143	364
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	707	315	347	1724	506	450
Arrive On Green	0.20	0.20	0.19	0.48	0.28	0.28
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	365	71	285	452	143	364
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	4.6	1.9	7.7	3.8	3.2	10.8
Cycle Q Clear(g_c), s	4.6	1.9	7.7	3.8	3.2	10.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	707	315	347	1724	506	450
V/C Ratio(X)	0.52	0.23	0.82	0.26	0.28	0.81
Avail Cap(c_a), veh/h	1908	851	652	3533	1155	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	17.3	19.8	8.0	14.4	17.1
Incr Delay (d2), s/veh	0.6	0.4	1.9	0.1	0.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.6	2.8	1.0	1.0	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.0	17.6	21.7	8.0	14.7	20.6
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	436			737	507	
Approach Delay, s/veh	18.8			13.3	19.0	
Approach LOS	B			B	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		20.5	14.4	16.2		30.6
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		32.6	18.4	27.0		50.0
Max Q Clear Time (g_c+I1), s		12.8	9.7	6.6		5.8
Green Ext Time (p_c), s		1.5	0.3	2.2		2.8

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Future Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	135	0	816	0	13	510	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1097	1352	408	-	0	0	816	0	0
Stage 1	816	816	-	-	-	-	-	-	-
Stage 2	281	536	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	211	151	598	0	-	-	820	-	0
Stage 1	400	393	-	0	-	-	-	-	0
Stage 2	747	527	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	208	0	598	-	-	-	820	-	-
Mov Cap-2 Maneuver	318	0	-	-	-	-	-	-	-
Stage 1	400	0	-	-	-	-	-	-	-
Stage 2	735	0	-	-	-	-	-	-	-

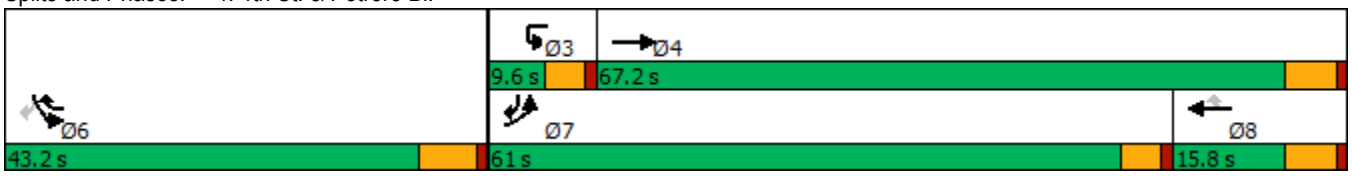
Approach	WB	NB	SB
HCM Control Delay, s	13	0	0.2
HCM LOS	B		

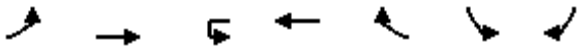
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	820	-
HCM Lane V/C Ratio	-	-	0.234	0.016	-
HCM Control Delay (s)	-	-	13	9.5	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.9	0	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	439	80	25	501	348	149	
Future Volume (vph)	439	80	25	501	348	149	
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	7	4	8	6	6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	6	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	15.8	16.2	16.2	9.6	9.6
Total Split (s)	61.0	67.2	15.8	43.2	43.2	61.0	9.6
Total Split (%)	50.8%	56.0%	13.2%	36.0%	36.0%	50.8%	8%
Yellow Time (s)	3.6	4.8	4.8	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	6.2	6.2	4.6	
Lead/Lag	Lead	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effct Green (s)	16.1	22.7	10.9	27.3	19.4	44.9	
Actuated g/C Ratio	0.29	0.41	0.20	0.49	0.35	0.81	
v/c Ratio	0.55	0.14	0.09	0.69	0.37	0.13	
Control Delay	20.3	10.2	26.6	11.3	16.3	0.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.3	10.2	26.6	11.3	16.3	0.7	
LOS	C	B	C	B	B	A	
Approach Delay		18.8	12.0		11.6		
Approach LOS		B	B		B		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 55.2	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 14.2	Intersection LOS: B
Intersection Capacity Utilization 52.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	439	80	0	25	501	348	149
Future Volume (veh/h)	439	80	0	25	501	348	149
Initial Q (Qb), veh	1	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	655	119		37	487	519	140
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	867	1226		304	458	732	988
Arrive On Green	0.23	0.53		0.21	0.21	0.22	0.22
Sat Flow, veh/h	3764	1976		1976	1675	3764	1675
Grp Volume(v), veh/h	655	119		37	487	519	140
Grp Sat Flow(s),veh/h/ln	1882	1976		1976	1675	1882	1675
Q Serve(g_s), s	7.8	1.4		0.7	10.0	6.0	2.4
Cycle Q Clear(g_c), s	7.8	1.4		0.7	10.0	6.0	2.4
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	867	1226		304	458	732	988
V/C Ratio(X)	0.76	0.10		0.12	1.06	0.71	0.14
Avail Cap(c_a), veh/h	4434	2534		413	710	2909	1678
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	5.1		28.4	30.1	28.5	5.9
Incr Delay (d2), s/veh	0.5	0.0		0.2	48.3	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.5		0.6	17.3	4.0	3.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.8	5.1		28.6	78.4	29.7	6.0
LnGrp LOS	B	A		C	F	C	A
Approach Vol, veh/h		774		524		659	
Approach Delay, s/veh		15.8		74.9		24.7	
Approach LOS		B		E		C	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				31.4		16.5	15.6	15.8
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				61.4		37.0	56.4	10.0
Max Q Clear Time (g_c+I1), s				3.4		8.0	9.8	12.0
Green Ext Time (p_c), s				0.6		2.3	1.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

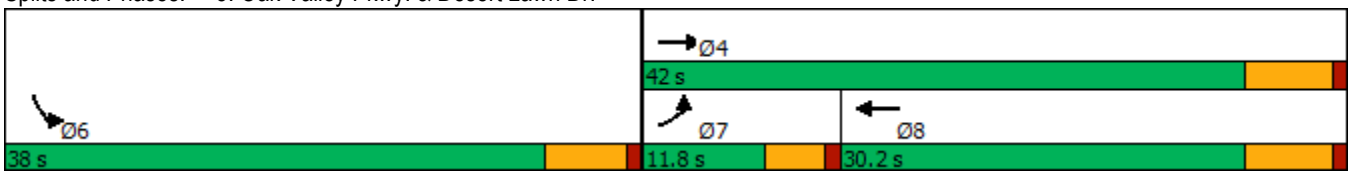
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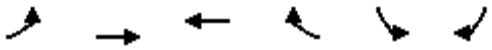
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	54	745	871	232
Future Volume (vph)	54	745	871	232
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	11.8	42.0	30.2	38.0
Total Split (%)	14.8%	52.5%	37.8%	47.5%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	6.5	26.6	20.9	16.5
Actuated g/C Ratio	0.12	0.47	0.37	0.29
v/c Ratio	0.27	0.45	0.67	0.55
Control Delay	32.6	11.3	17.0	21.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	32.6	11.3	17.0	21.4
LOS	C	B	B	C
Approach Delay		12.7	17.0	21.4
Approach LOS		B	B	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 56.3	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 16.1	Intersection LOS: B
Intersection Capacity Utilization 59.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	54	745	871	376	232	53
Future Volume (veh/h)	54	745	871	376	232	53
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	768	898	388	239	55
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	99	1924	1356	585	310	71
Arrive On Green	0.05	0.53	0.38	0.38	0.22	0.22
Sat Flow, veh/h	1810	3705	3722	1531	1433	330
Grp Volume(v), veh/h	56	768	874	412	295	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1624	1769	0
Q Serve(g_s), s	1.4	6.0	10.0	10.0	7.5	0.0
Cycle Q Clear(g_c), s	1.4	6.0	10.0	10.0	7.5	0.0
Prop In Lane	1.00			0.94	0.81	0.19
Lane Grp Cap(c), veh/h	99	1924	1320	620	382	0
V/C Ratio(X)	0.56	0.40	0.66	0.66	0.77	0.00
Avail Cap(c_a), veh/h	273	2704	1736	816	1192	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.0	6.6	12.2	12.2	17.6	0.0
Incr Delay (d2), s/veh	1.9	0.1	0.6	1.3	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.2	2.8	2.8	2.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.9	6.8	12.8	13.5	21.0	0.0
LnGrp LOS	C	A	B	B	C	A
Approach Vol, veh/h		824	1286		295	
Approach Delay, s/veh		7.9	13.0		21.0	
Approach LOS		A	B		C	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			31.7		16.1	7.2	24.5
Change Period (Y+Rc), s			6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s			35.8		32.2	7.2	24.0
Max Q Clear Time (g_c+I1), s			8.0		9.5	3.4	12.0
Green Ext Time (p_c), s			5.0		0.8	0.0	6.2

Intersection Summary	
HCM 6th Ctrl Delay	12.3
HCM 6th LOS	B

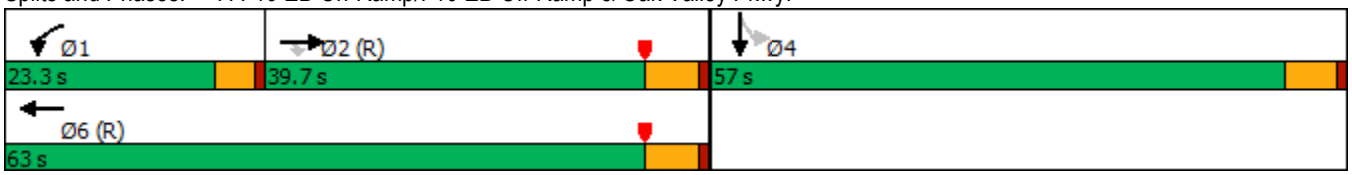
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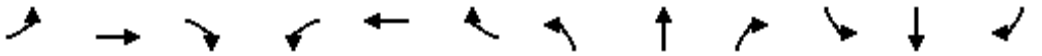
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	677	300	225	927	633	1
Future Volume (vph)	677	300	225	927	633	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	39.7	39.7	23.3	63.0	57.0	57.0
Total Split (%)	33.1%	33.1%	19.4%	52.5%	47.5%	47.5%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	38.5	38.5	25.4	68.5	39.9	39.9
Actuated g/C Ratio	0.32	0.32	0.21	0.57	0.33	0.33
v/c Ratio	0.77	0.51	0.77	0.59	0.72	0.76
Control Delay	43.1	6.2	51.7	11.4	38.1	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	6.2	51.7	11.4	38.1	40.9
LOS	D	A	D	B	D	D
Approach Delay	31.8			19.3		39.1
Approach LOS	C			B		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 79.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Future Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	891	337	296	1220	0				833	1	356
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1529	682	282	2230	0				1002	1	459
Arrive On Green	0.00	0.42	0.42	0.05	0.20	0.00				0.29	0.29	0.29
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3510	5	1606
Grp Volume(v), veh/h	0	891	337	296	1220	0				833	0	357
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1755	0	1611
Q Serve(g_s), s	0.0	22.7	18.3	18.7	36.3	0.0				26.7	0.0	24.4
Cycle Q Clear(g_c), s	0.0	22.7	18.3	18.7	36.3	0.0				26.7	0.0	24.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1529	682	282	2230	0				1002	0	460
V/C Ratio(X)	0.00	0.58	0.49	1.05	0.55	0.00				0.83	0.00	0.78
Avail Cap(c_a), veh/h	0	1529	682	282	2230	0				1498	0	687
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.87	0.87	0.61	0.61	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.5	25.2	56.9	32.7	0.0				40.2	0.0	39.3
Incr Delay (d2), s/veh	0.0	1.4	2.2	55.5	0.6	0.0				2.6	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	7.1	13.4	17.6	0.0				11.4	0.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.9	27.4	112.4	33.3	0.0				42.8	0.0	42.6
LnGrp LOS	A	C	C	F	C	A				D	A	D
Approach Vol, veh/h		1228			1516						1190	
Approach Delay, s/veh		27.8			48.8						42.7	
Approach LOS		C			D						D	

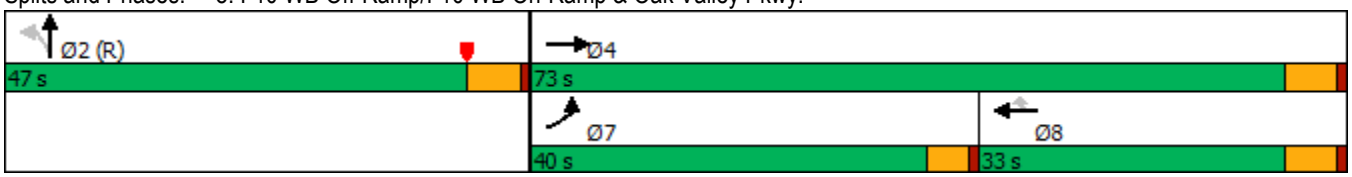
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.3	56.6		40.1		79.9
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	18.7	33.9		51.2		57.2
Max Q Clear Time (g_c+I1), s	20.7	24.7		28.7		38.3
Green Ext Time (p_c), s	0.0	4.6		5.6		8.0

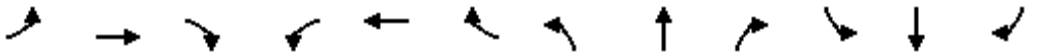
Intersection Summary			
HCM 6th Ctrl Delay		40.4	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	295	1014	678	383	473	5
Future Volume (vph)	295	1014	678	383	473	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	40.0	73.0	33.0	33.0	47.0	47.0
Total Split (%)	33.3%	60.8%	27.5%	27.5%	39.2%	39.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	24.7	59.1	29.8	29.8	49.3	49.3
Actuated g/C Ratio	0.21	0.49	0.25	0.25	0.41	0.41
v/c Ratio	0.82	0.59	0.78	0.57	0.66	0.54
Control Delay	51.3	14.6	48.7	6.9	36.0	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	14.6	48.7	6.9	36.0	25.4
LOS	D	B	D	A	D	C
Approach Delay		22.9	33.6			31.3
Approach LOS		C	C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 28.6	Intersection LOS: C
Intersection Capacity Utilization 79.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Future Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	304	1045	0	0	699	325	488	5	333			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	337	1609	0	0	798	356	828	11	727			
Arrive On Green	0.06	0.15	0.00	0.00	0.22	0.22	0.46	0.46	0.46			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	1810	24	1590			
Grp Volume(v), veh/h	304	1045	0	0	699	325	488	0	338			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1614			
Q Serve(g_s), s	20.0	32.8	0.0	0.0	22.4	23.6	24.0	0.0	17.2			
Cycle Q Clear(g_c), s	20.0	32.8	0.0	0.0	22.4	23.6	24.0	0.0	17.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	337	1609	0	0	798	356	828	0	738			
V/C Ratio(X)	0.90	0.65	0.00	0.00	0.88	0.91	0.59	0.00	0.46			
Avail Cap(c_a), veh/h	534	2022	0	0	818	365	828	0	738			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	55.2	42.3	0.0	0.0	45.2	45.6	24.2	0.0	22.3			
Incr Delay (d2), s/veh	5.3	0.3	0.0	0.0	10.4	26.4	3.1	0.0	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.2	15.8	0.0	0.0	10.9	11.7	10.4	0.0	6.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	42.6	0.0	0.0	55.5	72.0	27.2	0.0	24.4			
LnGrp LOS	E	D	A	A	E	E	C	A	C			
Approach Vol, veh/h		1349			1024			826				
Approach Delay, s/veh		46.7			60.8			26.1				
Approach LOS		D			E			C				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		60.7		59.3			27.0	32.3				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.2		67.2			35.4	27.2				
Max Q Clear Time (g_c+I1), s		26.0		34.8			22.0	25.6				
Green Ext Time (p_c), s		3.2		8.0			0.3	0.9				

Intersection Summary												
HCM 6th Ctrl Delay			45.9									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	27	930	139	119	735	61	0	0	130	0	0	72	0	0
Future Vol, veh/h	27	930	139	119	735	61	0	0	130	0	0	72	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	29	1000	149	128	790	66	0	0	140	0	0	77	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	856	0	0	1149	0	0	-	-	575	-	-	428
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	793	-	-	615	-	-	0	0	466	0	0	581
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	793	-	-	615	-	-	-	-	466	-	-	581
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

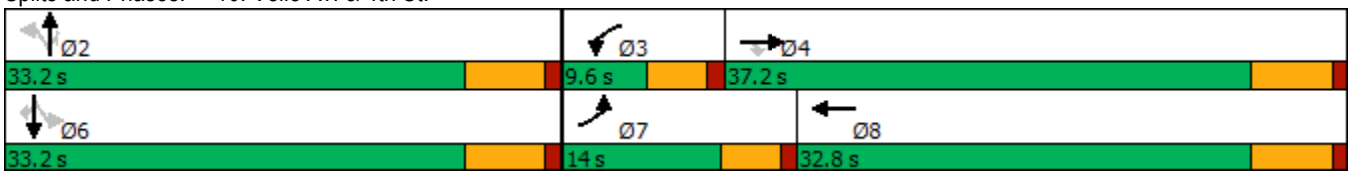
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.6	16	12.1
HCM LOS			C	B

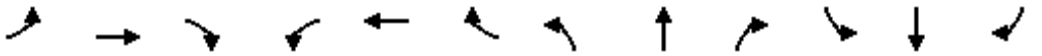
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	466	793	-	-	615	-	-	581
HCM Lane V/C Ratio	0.3	0.037	-	-	0.208	-	-	0.133
HCM Control Delay (s)	16	9.7	-	-	12.4	-	-	12.1
HCM Lane LOS	C	A	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.8	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	117	479	85	10	424	44	41	12	15	65	65
Future Volume (vph)	117	479	85	10	424	44	41	12	15	65	65
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	9.0	39.4	39.4	5.1	27.3		13.3	13.3	13.3	13.3	13.3
Actuated g/C Ratio	0.14	0.60	0.60	0.08	0.41		0.20	0.20	0.20	0.20	0.20
v/c Ratio	0.68	0.60	0.12	0.10	0.84		0.40	0.04	0.08	0.24	0.23
Control Delay	44.6	15.0	3.1	33.3	31.1		26.5	0.2	20.9	23.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	15.0	3.1	33.3	31.1		26.5	0.2	20.9	23.0	5.8
LOS	D	B	A	C	C		C	A	C	C	A
Approach Delay		18.6			31.2		23.3			15.0	
Approach LOS		B			C		C			B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 66	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 56.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	479	85	10	424	33	44	41	12	15	65	65
Future Volume (veh/h)	117	479	85	10	424	33	44	41	12	15	65	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	167	684	121	14	606	47	63	59	17	21	93	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	212	951	806	32	698	54	214	170	296	285	349	
Arrive On Green	0.12	0.50	0.50	0.02	0.40	0.40	0.18	0.18	0.18	0.18	0.18	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1741	135	618	925	1610	1344	1900	1610
Grp Volume(v), veh/h	167	684	121	14	0	653	122	0	17	21	93	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1876	1543	0	1610	1344	1900	1610
Q Serve(g_s), s	4.9	15.3	2.2	0.4	0.0	17.4	1.6	0.0	0.5	0.8	2.3	0.0
Cycle Q Clear(g_c), s	4.9	15.3	2.2	0.4	0.0	17.4	3.8	0.0	0.5	4.6	2.3	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.52		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	951	806	32	0	752	384	0	296	285	349	
V/C Ratio(X)	0.79	0.72	0.15	0.44	0.00	0.87	0.32	0.00	0.06	0.07	0.27	
Avail Cap(c_a), veh/h	313	1097	930	166	0	931	881	0	811	715	957	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.3	10.6	7.3	26.4	0.0	15.0	19.6	0.0	18.3	21.7	19.0	0.0
Incr Delay (d2), s/veh	4.3	2.0	0.1	3.5	0.0	7.5	0.5	0.0	0.1	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	4.8	0.5	0.2	0.0	7.0	1.2	0.0	0.2	0.2	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	12.5	7.4	30.0	0.0	22.4	20.0	0.0	18.4	21.8	19.4	0.0
LnGrp LOS	C	B	A	C	A	C	C	A	B	C	B	
Approach Vol, veh/h		972			667			139			114	A
Approach Delay, s/veh		14.5			22.6			19.8			19.9	
Approach LOS		B			C			B			B	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	5.6	33.0		15.8	11.0	27.6				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		27.4	5.0	31.4		27.4	9.4	27.0				
Max Q Clear Time (g_c+I1), s		5.8	2.4	17.3		6.6	6.9	19.4				
Green Ext Time (p_c), s		0.6	0.0	4.0		0.4	0.1	2.4				

Intersection Summary												
HCM 6th Ctrl Delay			18.1									
HCM 6th LOS			B									

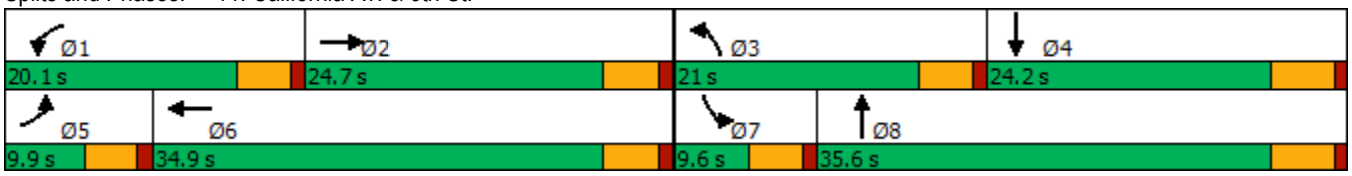
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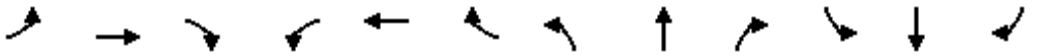
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	498	292	294	304	142	15	85
Future Volume (vph)	21	498	292	294	304	142	15	85
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.9	24.7	20.1	34.9	21.0	35.6	9.6	24.2
Total Split (%)	11.0%	27.4%	22.3%	38.8%	23.3%	39.6%	10.7%	26.9%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.2	19.7	15.5	35.8	16.4	38.1	5.0	19.0
Actuated g/C Ratio	0.06	0.22	0.17	0.40	0.18	0.42	0.06	0.21
v/c Ratio	0.21	0.90	0.99	0.22	0.97	0.51	0.16	0.26
Control Delay	45.5	47.4	87.5	19.1	82.1	17.4	44.3	29.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	45.5	47.4	87.5	19.1	82.1	17.7	44.3	29.5
LOS	D	D	F	B	F	B	D	C
Approach Delay		47.3		52.5		46.1		31.6
Approach LOS		D		D		D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 89.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 47.5	Intersection LOS: D
Intersection Capacity Utilization 71.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Future Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	524	145	307	309	7	320	149	226	16	89	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	595	164	315	1311	30	333	258	392	33	371	29
Arrive On Green	0.02	0.21	0.21	0.17	0.36	0.36	0.18	0.38	0.38	0.02	0.21	0.21
Sat Flow, veh/h	1810	2796	770	1810	3609	82	1810	681	1033	1810	1739	137
Grp Volume(v), veh/h	22	337	332	307	154	162	320	0	375	16	0	96
Grp Sat Flow(s),veh/h/ln	1810	1805	1761	1810	1805	1885	1810	0	1714	1810	0	1875
Q Serve(g_s), s	1.1	16.1	16.3	15.0	5.3	5.3	15.6	0.0	15.5	0.8	0.0	3.8
Cycle Q Clear(g_c), s	1.1	16.1	16.3	15.0	5.3	5.3	15.6	0.0	15.5	0.8	0.0	3.8
Prop In Lane	1.00		0.44	1.00		0.04	1.00		0.60	1.00		0.07
Lane Grp Cap(c), veh/h	43	384	375	315	656	685	333	0	650	33	0	400
V/C Ratio(X)	0.52	0.88	0.88	0.97	0.24	0.24	0.96	0.00	0.58	0.48	0.00	0.24
Avail Cap(c_a), veh/h	108	403	394	315	656	685	333	0	650	102	0	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.0	33.9	34.0	36.6	19.7	19.7	36.0	0.0	22.0	43.3	0.0	29.0
Incr Delay (d2), s/veh	3.6	18.7	20.0	43.6	0.2	0.2	38.5	0.0	3.7	4.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	8.9	8.9	10.3	2.2	2.3	10.0	0.0	6.3	0.4	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	52.6	53.9	80.2	19.9	19.9	74.5	0.0	25.7	47.3	0.0	30.5
LnGrp LOS	D	D	D	F	B	B	E	A	C	D	A	C
Approach Vol, veh/h		691			623			695			112	
Approach Delay, s/veh		53.1			49.6			48.1			32.9	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	23.8	21.0	24.2	6.7	37.2	6.2	39.0
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	15.5	* 20	16.4	19.0	5.3	* 30	5.0	30.4
Max Q Clear Time (g_c+I1), s	17.0	18.3	17.6	5.8	3.1	7.3	2.8	17.5
Green Ext Time (p_c), s	0.0	0.7	0.0	0.3	0.0	1.8	0.0	1.7

Intersection Summary	
HCM 6th Ctrl Delay	49.4
HCM 6th LOS	D

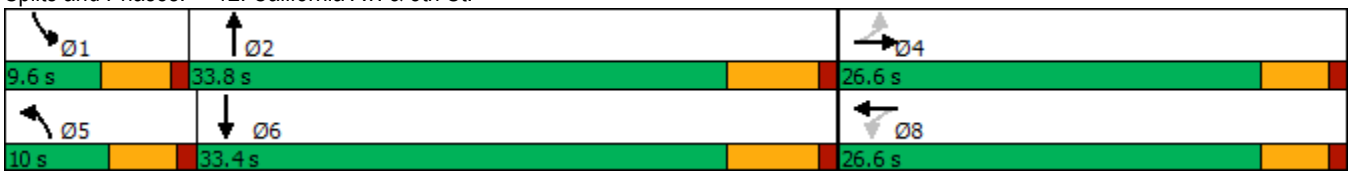
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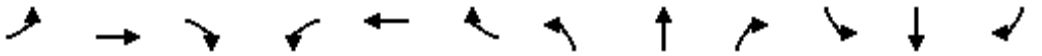
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	5	3	49	3	194	659	496	
Future Volume (vph)	5	3	49	3	194	659	496	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.1		12.1	5.4	41.9	30.6	
Actuated g/C Ratio		0.20		0.20	0.09	0.70	0.51	
v/c Ratio		0.26		0.25	1.25	0.56	13.40	
Control Delay		7.3		17.0	183.9	9.5	5572.3	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.3		17.0	183.9	9.5	5572.3	
LOS		A		B	F	A	F	
Approach Delay		7.3		17.0		47.5	5572.3	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 60.1	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 13.40	
Intersection Signal Delay: 1830.6	Intersection LOS: F
Intersection Capacity Utilization 88.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	3	94	49	3	22	194	659	36	7	496	7
Future Volume (veh/h)	5	3	94	49	3	22	194	659	36	7	496	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	3	99	52	3	23	204	694	38	7	522	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	19	298	308	38	89	215	1021	56	0	659	9
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.57	0.57	0.00	0.35	0.35
Sat Flow, veh/h	27	94	1499	884	191	450	1810	1785	98	0	1870	25
Grp Volume(v), veh/h	107	0	0	78	0	0	204	0	732	0	0	529
Grp Sat Flow(s),veh/h/ln	1621	0	0	1525	0	0	1810	0	1882	0	0	1895
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	12.4	0.0	0.0	11.4
Cycle Q Clear(g_c), s	2.6	0.0	0.0	1.6	0.0	0.0	5.1	0.0	12.4	0.0	0.0	11.4
Prop In Lane	0.05		0.93	0.67		0.29	1.00		0.05	0.00		0.01
Lane Grp Cap(c), veh/h	405	0	0	435	0	0	215	0	1077	0	0	668
V/C Ratio(X)	0.26	0.00	0.00	0.18	0.00	0.00	0.95	0.00	0.68	0.00	0.00	0.79
Avail Cap(c_a), veh/h	864	0	0	837	0	0	215	0	1160	0	0	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	15.6	0.0	0.0	15.2	0.0	0.0	19.9	0.0	6.8	0.0	0.0	13.2
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	46.4	0.0	1.5	0.0	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.6	0.0	0.0	4.5	0.0	2.6	0.0	0.0	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	0.0	0.0	15.4	0.0	0.0	66.3	0.0	8.3	0.0	0.0	15.4
LnGrp LOS	B	A	A	B	A	A	E	A	A	A	A	B
Approach Vol, veh/h		107			78			936			529	
Approach Delay, s/veh		16.0			15.4			20.9			15.4	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	31.8		13.6	10.0	21.8		13.6				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	14.4		4.6	7.1	13.4		3.6				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	2.6		0.3				

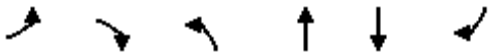
Intersection Summary			
HCM 6th Ctrl Delay		18.6	
HCM 6th LOS		B	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	363	182	126	546	1059	365
Future Volume (vph)	363	182	126	546	1059	365
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	47.0	47.0	21.0	73.0	52.0	47.0
Total Split (%)	39.2%	39.2%	17.5%	60.8%	43.3%	39.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effct Green (s)	27.6	27.6	11.7	53.3	36.7	70.5
Actuated g/C Ratio	0.30	0.30	0.13	0.57	0.39	0.76
v/c Ratio	0.74	0.32	0.61	0.29	0.81	0.31
Control Delay	40.1	5.5	54.9	11.3	31.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	5.5	54.9	11.3	31.7	1.5
LOS	D	A	D	B	C	A
Approach Delay	28.5			19.5	24.0	
Approach LOS	C			B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.2	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 23.8	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	363	182	126	546	1059	365
Future Volume (veh/h)	363	182	126	546	1059	365
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	395	198	137	593	1151	397
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	467	416	174	2119	1550	1107
Arrive On Green	0.26	0.26	0.10	0.59	0.43	0.43
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	395	198	137	593	1151	397
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	15.5	7.8	5.5	6.1	20.0	7.7
Cycle Q Clear(g_c), s	15.5	7.8	5.5	6.1	20.0	7.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	467	416	174	2119	1550	1107
V/C Ratio(X)	0.85	0.48	0.79	0.28	0.74	0.36
Avail Cap(c_a), veh/h	996	886	396	3240	2228	1409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	23.5	33.1	7.6	17.9	4.9
Incr Delay (d2), s/veh	4.3	0.8	3.0	0.1	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	7.3	2.4	1.8	7.2	4.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.7	24.3	36.1	7.7	18.7	5.0
LnGrp LOS	C	C	D	A	B	A
Approach Vol, veh/h	593			730	1548	
Approach Delay, s/veh	28.6			13.0	15.2	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		49.7		25.1	11.8	37.9
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		67.2		41.2	16.4	46.2
Max Q Clear Time (g_c+I1), s		8.1		17.5	7.5	22.0
Green Ext Time (p_c), s		4.1		1.8	0.1	10.2

Intersection Summary		
HCM 6th Ctrl Delay		17.4
HCM 6th LOS		B

APPENDIX 8.9:

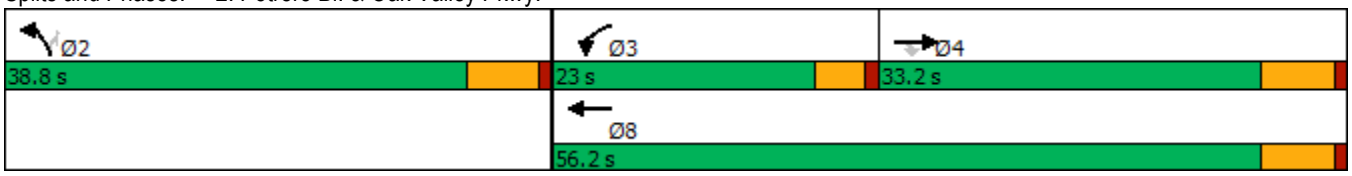
OPENING YEAR CUMULATIVE (2027) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	327	45	430	349	66	309
Future Volume (vph)	327	45	430	349	66	309
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	33.2	33.2	9.6	24.2	38.2	38.2
Total Split (s)	33.2	33.2	23.0	56.2	38.8	38.8
Total Split (%)	34.9%	34.9%	24.2%	59.2%	40.8%	40.8%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	6.2
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	13.5	13.5	19.2	37.5	13.4	13.4
Actuated g/C Ratio	0.21	0.21	0.30	0.59	0.21	0.21
v/c Ratio	0.50	0.14	0.92	0.19	0.20	0.58
Control Delay	24.9	8.2	49.9	7.3	22.3	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	8.2	49.9	7.3	22.3	6.8
LOS	C	A	D	A	C	A
Approach Delay	22.9			30.8	9.6	
Approach LOS	C			C	A	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 63.9	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 23.6	Intersection LOS: C
Intersection Capacity Utilization 55.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	327	45	430	349	66	309
Future Volume (veh/h)	327	45	430	349	66	309
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	380	52	500	406	77	359
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	597	266	537	1935	478	425
Arrive On Green	0.17	0.17	0.30	0.54	0.26	0.26
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	380	52	500	406	77	359
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	6.1	1.7	16.7	3.6	2.0	13.1
Cycle Q Clear(g_c), s	6.1	1.7	16.7	3.6	2.0	13.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	597	266	537	1935	478	425
V/C Ratio(X)	0.64	0.20	0.93	0.21	0.16	0.84
Avail Cap(c_a), veh/h	1571	701	537	2909	951	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	22.3	21.2	7.5	17.5	21.6
Incr Delay (d2), s/veh	1.1	0.4	22.9	0.1	0.2	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.6	9.2	1.0	0.7	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.3	22.7	44.1	7.6	17.7	26.3
LnGrp LOS	C	C	D	A	B	C
Approach Vol, veh/h	432			906	436	
Approach Delay, s/veh	25.0			27.8	24.7	
Approach LOS	C			C	C	

Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		22.6	23.0	16.5			39.5
Change Period (Y+Rc), s		6.2	4.6	6.2			6.2
Max Green Setting (Gmax), s		32.6	18.4	27.0			50.0
Max Q Clear Time (g_c+I1), s		15.1	18.7	8.1			5.6
Green Ext Time (p_c), s		1.3	0.0	2.2			2.5

Intersection Summary	
HCM 6th Ctrl Delay	26.3
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	59	0	114	5	49	665	0
Future Vol, veh/h	0	0	0	10	0	59	0	114	5	49	665	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	91	0	175	8	75	1023	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	841	1352	92	-	0	0	183	0	0
Stage 1	179	179	-	-	-	-	-	-	-
Stage 2	662	1173	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	308	151	954	0	-	-	1404	-	0
Stage 1	840	755	-	0	-	-	-	-	0
Stage 2	480	268	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	292	0	954	-	-	-	1404	-	-
Mov Cap-2 Maneuver	381	0	-	-	-	-	-	-	-
Stage 1	840	0	-	-	-	-	-	-	-
Stage 2	455	0	-	-	-	-	-	-	-

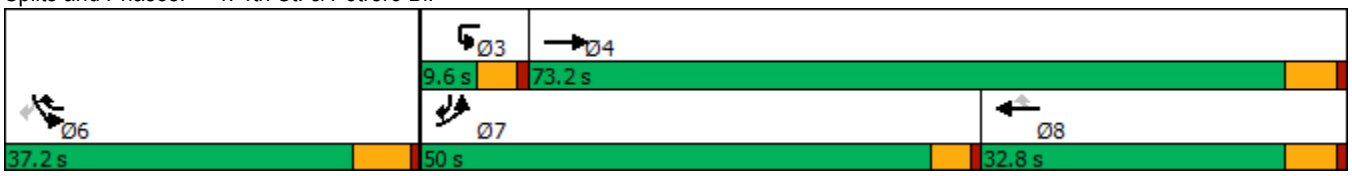
Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.5
HCM LOS	B		

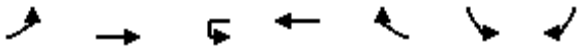
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	783	1404	-
HCM Lane V/C Ratio	-	-	0.136	0.054	-
HCM Control Delay (s)	-	-	10.3	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	679	106	134	651	463	1063	
Future Volume (vph)	679	106	134	651	463	1063	
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	7	4	8	6	6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	6	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	33.2	33.2	9.6	9.6
Total Split (s)	50.0	73.2	32.8	37.2	37.2	50.0	9.6
Total Split (%)	41.7%	61.0%	27.3%	31.0%	31.0%	41.7%	8%
Yellow Time (s)	3.6	4.8	4.8	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	6.2	6.2	4.6	
Lead/Lag	Lead	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effct Green (s)	45.5	66.0	15.9	52.8	31.1	82.7	
Actuated g/C Ratio	0.42	0.60	0.15	0.48	0.29	0.76	
v/c Ratio	0.65	0.13	0.68	1.15	0.65	1.14	
Control Delay	28.4	9.4	55.8	106.7	38.2	87.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	28.4	9.4	55.8	106.7	38.2	87.6	
LOS	C	A	E	F	D	F	
Approach Delay		25.8	98.0		72.6		
Approach LOS		C	F		E		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 109.1	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 67.2	Intersection LOS: E
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	679	106	0	134	651	463	1063
Future Volume (veh/h)	679	106	0	134	651	463	1063
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	1013	158		200	524	691	990
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1112	1162		473	898	1084	1007
Arrive On Green	0.30	0.59		0.24	0.24	0.30	0.30
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	1013	158		200	524	691	990
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	27.9	3.7		8.9	22.0	17.1	31.0
Cycle Q Clear(g_c), s	27.9	3.7		8.9	22.0	17.1	31.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1112	1162		473	898	1084	1007
V/C Ratio(X)	0.91	0.14		0.42	0.58	0.64	0.98
Avail Cap(c_a), veh/h	1588	1276		511	930	1084	1007
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	9.6		33.6	16.3	31.8	20.3
Incr Delay (d2), s/veh	4.9	0.1		0.6	0.9	1.3	24.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	1.5		4.2	13.5	7.3	6.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	39.9	9.7		34.2	17.2	33.1	44.4
LnGrp LOS	D	A		C	B	C	D
Approach Vol, veh/h		1171		724		1681	
Approach Delay, s/veh		35.8		21.9		39.8	
Approach LOS		D		C		D	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				67.2		37.2	36.4	30.8
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				67.4		31.0	45.4	27.0
Max Q Clear Time (g_c+I1), s				5.7		33.0	29.9	24.0
Green Ext Time (p_c), s				0.8		0.0	1.9	1.0

Intersection Summary		
HCM 6th Ctrl Delay	34.8	
HCM 6th LOS	C	

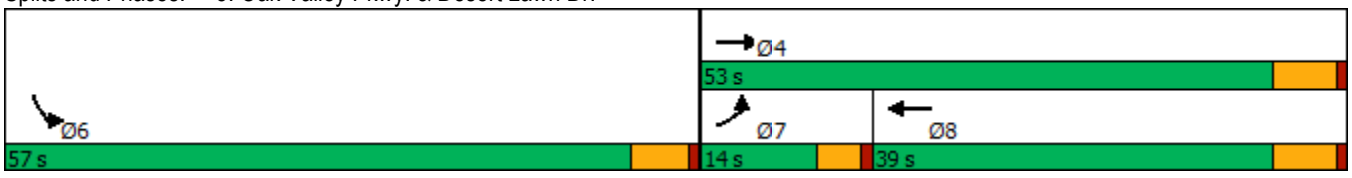
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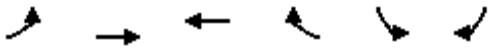
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	96	749	705	553
Future Volume (vph)	96	749	705	553
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	14.0	53.0	39.0	57.0
Total Split (%)	12.7%	48.2%	35.5%	51.8%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	8.8	43.5	30.0	46.6
Actuated g/C Ratio	0.09	0.43	0.29	0.46
v/c Ratio	0.71	0.56	0.80	0.94
Control Delay	73.0	24.4	35.3	47.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	73.0	24.4	35.3	47.1
LOS	E	C	D	D
Approach Delay		29.9	35.3	47.1
Approach LOS		C	D	D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 102.3	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 36.6	Intersection LOS: D
Intersection Capacity Utilization 78.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	96	749	705	365	553	116
Future Volume (veh/h)	96	749	705	365	553	116
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	861	810	420	636	133
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	138	1532	1046	487	667	140
Arrive On Green	0.08	0.42	0.30	0.30	0.46	0.46
Sat Flow, veh/h	1810	3705	3629	1610	1463	306
Grp Volume(v), veh/h	110	861	810	420	770	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1610	1772	0
Q Serve(g_s), s	6.0	18.1	21.4	24.7	42.0	0.0
Cycle Q Clear(g_c), s	6.0	18.1	21.4	24.7	42.0	0.0
Prop In Lane	1.00			1.00	0.83	0.17
Lane Grp Cap(c), veh/h	138	1532	1046	487	808	0
V/C Ratio(X)	0.80	0.56	0.77	0.86	0.95	0.00
Avail Cap(c_a), veh/h	169	1683	1130	526	904	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.6	21.8	31.9	33.0	26.3	0.0
Incr Delay (d2), s/veh	15.6	0.4	3.2	13.1	18.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	7.0	8.9	10.8	20.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.3	22.2	35.1	46.1	44.8	0.0
LnGrp LOS	E	C	D	D	D	A
Approach Vol, veh/h		971	1230		770	
Approach Delay, s/veh		26.6	38.9		44.8	
Approach LOS		C	D		D	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	48.8	51.6	12.2	36.6
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	46.8	51.2	9.4	32.8
Max Q Clear Time (g_c+I1), s	20.1	44.0	8.0	26.7
Green Ext Time (p_c), s	5.7	1.8	0.0	3.6

Intersection Summary	
HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

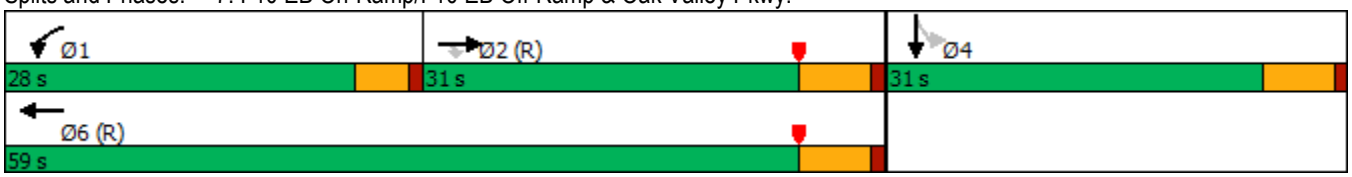
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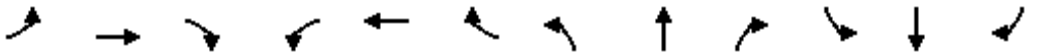
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	742	561	300	720	305	3
Future Volume (vph)	742	561	300	720	305	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	34.7	34.7	20.2	59.5	18.9	18.9
Actuated g/C Ratio	0.39	0.39	0.22	0.66	0.21	0.21
v/c Ratio	0.60	0.62	0.83	0.34	0.47	0.82
Control Delay	26.8	5.5	48.5	3.1	32.2	31.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	5.5	48.5	3.1	32.2	31.7
LOS	C	A	D	A	C	C
Approach Delay	17.6			16.5		31.9
Approach LOS	B			B		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 89.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	742	561	300	720	0	0	0	0	305	3	349
Future Volume (veh/h)	0	742	561	300	720	0	0	0	0	305	3	349
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	834	543	337	809	0				343	3	373
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1273	568	376	2208	0				911	3	415
Arrive On Green	0.00	0.35	0.35	0.14	0.41	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3510	13	1599
Grp Volume(v), veh/h	0	834	543	337	809	0				343	0	376
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1755	0	1612
Q Serve(g_s), s	0.0	17.5	29.6	16.5	14.0	0.0				7.2	0.0	20.3
Cycle Q Clear(g_c), s	0.0	17.5	29.6	16.5	14.0	0.0				7.2	0.0	20.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1273	568	376	2208	0				911	0	418
V/C Ratio(X)	0.00	0.66	0.96	0.90	0.37	0.00				0.38	0.00	0.90
Avail Cap(c_a), veh/h	0	1273	568	470	2208	0				983	0	451
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.59	0.59	0.69	0.69	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.5	28.5	37.8	14.4	0.0				27.4	0.0	32.2
Incr Delay (d2), s/veh	0.0	1.6	20.2	11.0	0.3	0.0				0.3	0.0	19.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.1	13.5	8.5	5.8	0.0				2.9	0.0	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.1	48.7	48.7	14.8	0.0				27.6	0.0	51.9
LnGrp LOS	A	C	D	D	B	A				C	A	D
Approach Vol, veh/h		1377			1146						719	
Approach Delay, s/veh		35.0			24.8						40.3	
Approach LOS		C			C						D	

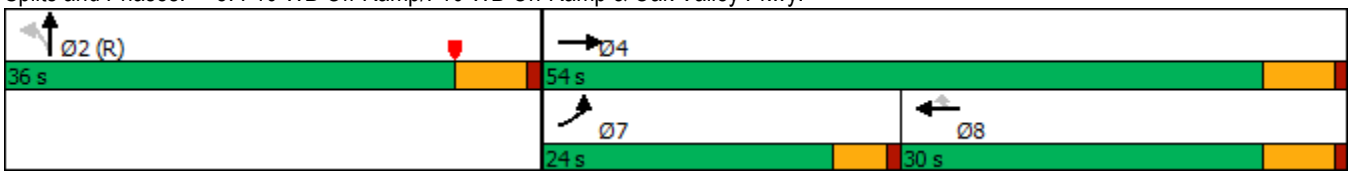
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.3	37.5		29.1		60.9						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	18.5	31.6		22.3		16.0						
Green Ext Time (p_c), s	0.2	0.0		1.1		5.8						

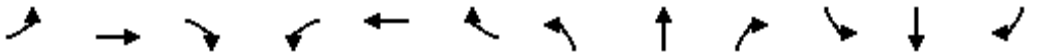
Intersection Summary			
HCM 6th Ctrl Delay		32.6	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	291	755	631	529	390	5
Future Volume (vph)	291	755	631	529	390	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	24.0	54.0	30.0	30.0	36.0	36.0
Total Split (%)	26.7%	60.0%	33.3%	33.3%	40.0%	40.0%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	17.6	44.6	22.4	22.4	33.8	33.8
Actuated g/C Ratio	0.20	0.50	0.25	0.25	0.38	0.38
v/c Ratio	0.84	0.43	0.72	0.67	0.59	0.62
Control Delay	43.0	15.6	35.7	7.1	28.2	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	15.6	35.7	7.1	28.2	19.4
LOS	D	B	D	A	C	B
Approach Delay		23.3	22.6			23.6
Approach LOS		C	C			C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 89.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	755	0	0	631	529	390	5	427	0	0	0
Future Volume (veh/h)	291	755	0	0	631	529	390	5	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	297	770	0	0	644	424	398	5	314			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	333	1819	0	0	971	433	664	9	583			
Arrive On Green	0.18	0.50	0.00	0.00	0.27	0.27	0.37	0.37	0.37			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	1810	25	1589			
Grp Volume(v), veh/h	297	770	0	0	644	424	398	0	319			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1614			
Q Serve(g_s), s	14.4	12.1	0.0	0.0	14.3	23.5	16.1	0.0	14.0			
Cycle Q Clear(g_c), s	14.4	12.1	0.0	0.0	14.3	23.5	16.1	0.0	14.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.98			
Lane Grp Cap(c), veh/h	333	1819	0	0	971	433	664	0	593			
V/C Ratio(X)	0.89	0.42	0.00	0.00	0.66	0.98	0.60	0.00	0.54			
Avail Cap(c_a), veh/h	390	1933	0	0	971	433	664	0	593			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.81	0.81	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.9	14.1	0.0	0.0	29.3	32.7	23.1	0.0	22.5			
Incr Delay (d2), s/veh	15.5	0.1	0.0	0.0	1.7	37.7	4.0	0.0	3.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.4	4.4	0.0	0.0	6.0	13.0	7.0	0.0	5.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	14.2	0.0	0.0	31.0	70.4	27.1	0.0	25.9			
LnGrp LOS	D	B	A	A	C	E	C	A	C			
Approach Vol, veh/h		1067			1068			717				
Approach Delay, s/veh		24.5			46.6			26.6				
Approach LOS		C			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		38.8		51.2			21.2	30.0				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		30.2		48.2			19.4	24.2				
Max Q Clear Time (g_c+I1), s		18.1		14.1			16.4	25.5				
Green Ext Time (p_c), s		2.6		5.4			0.1	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			33.3									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	27	636	159	171	980	29	0	0	70	0	0	173	0	0
Future Vol, veh/h	27	636	159	171	980	29	0	0	70	0	0	173	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	699	175	188	1077	32	0	0	77	0	0	190	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1109	0	0	874	0	0	-	-	437	-	-	555
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	637	-	-	781	-	-	0	0	573	0	0	480
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	637	-	-	781	-	-	-	-	573	-	-	480
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

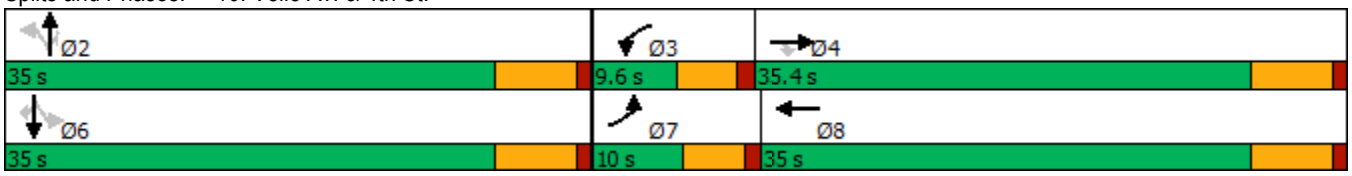
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	1.6	12.3	17.3
HCM LOS			B	C

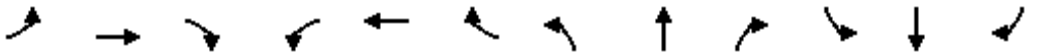
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	573	637	-	-	781	-	-	480
HCM Lane V/C Ratio	0.134	0.047	-	-	0.241	-	-	0.396
HCM Control Delay (s)	12.3	10.9	-	-	11.1	-	-	17.3
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.9	-	-	1.9

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	38	95	26	3	615	79	31	6	24	33	130
Future Volume (vph)	38	95	26	3	615	79	31	6	24	33	130
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	5.4	33.9	33.9	5.1	30.0		13.9	13.9	13.9	13.9	13.9
Actuated g/C Ratio	0.09	0.55	0.55	0.08	0.49		0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.32	0.12	0.04	0.03	0.92		0.45	0.02	0.11	0.10	0.35
Control Delay	35.9	9.6	0.1	31.7	35.3		25.5	0.0	20.1	19.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	9.6	0.1	31.7	35.3		25.5	0.0	20.1	19.6	5.7
LOS	D	A	A	C	D		C	A	C	B	A
Approach Delay		14.4			35.3		24.2			10.0	
Approach LOS		B			D		C			B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 61.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 64.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	95	26	3	615	22	79	31	6	24	33	130
Future Volume (veh/h)	38	95	26	3	615	22	79	31	6	24	33	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	127	35	4	820	29	105	41	8	32	44	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	1007	854	10	888	31	280	93	285	246	337	
Arrive On Green	0.05	0.53	0.53	0.01	0.49	0.49	0.18	0.18	0.18	0.18	0.18	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1824	65	959	523	1610	1378	1900	1610
Grp Volume(v), veh/h	51	127	35	4	0	849	146	0	8	32	44	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1888	1481	0	1610	1378	1900	1610
Q Serve(g_s), s	1.6	1.9	0.6	0.1	0.0	23.6	4.0	0.0	0.2	1.2	1.1	0.0
Cycle Q Clear(g_c), s	1.6	1.9	0.6	0.1	0.0	23.6	5.1	0.0	0.2	6.4	1.1	0.0
Prop In Lane	1.00		1.00	1.00		0.03	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	1007	854	10	0	919	372	0	285	246	337	
V/C Ratio(X)	0.58	0.13	0.04	0.41	0.00	0.92	0.39	0.00	0.03	0.13	0.13	
Avail Cap(c_a), veh/h	173	1007	854	160	0	978	882	0	834	715	984	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.3	6.7	6.4	28.0	0.0	13.5	21.2	0.0	19.2	24.1	19.5	0.0
Incr Delay (d2), s/veh	2.2	0.1	0.0	9.9	0.0	13.5	0.7	0.0	0.0	0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.5	0.1	0.1	0.0	10.4	1.6	0.0	0.1	0.4	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	6.7	6.4	37.9	0.0	27.0	21.9	0.0	19.2	24.3	19.7	0.0
LnGrp LOS	C	A	A	D	A	C	C	A	B	C	B	
Approach Vol, veh/h		213			853			154			76	A
Approach Delay, s/veh		11.9			27.0			21.7			21.7	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	4.9	35.7		15.8	7.4	33.3				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		29.2	5.0	29.6		29.2	5.4	29.2				
Max Q Clear Time (g_c+I1), s		7.1	2.1	3.9		8.4	3.6	25.6				
Green Ext Time (p_c), s		0.7	0.0	0.7		0.2	0.0	1.8				

Intersection Summary		
HCM 6th Ctrl Delay		23.6
HCM 6th LOS		C

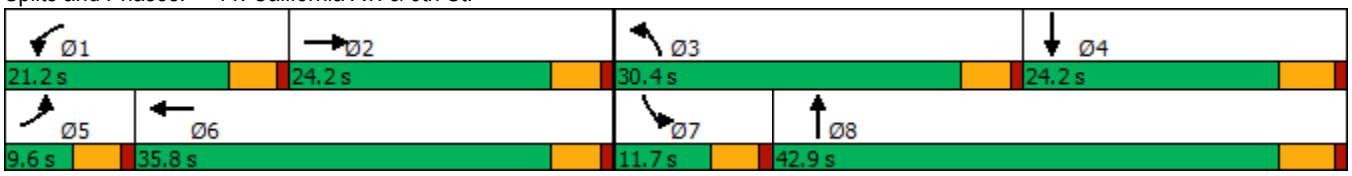
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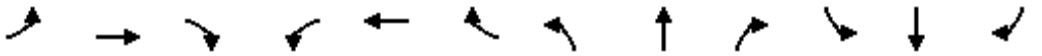
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	314	297	312	449	104	49	202
Future Volume (vph)	4	314	297	312	449	104	49	202
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	24.2	21.2	35.8	30.4	42.9	11.7	24.2
Total Split (%)	9.6%	24.2%	21.2%	35.8%	30.4%	42.9%	11.7%	24.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	16.9	16.6	36.2	25.8	40.4	6.4	19.0
Actuated g/C Ratio	0.05	0.17	0.17	0.37	0.26	0.41	0.07	0.19
v/c Ratio	0.04	0.75	1.05	0.27	1.02	0.23	0.45	0.61
Control Delay	46.2	41.7	107.0	22.2	84.3	17.5	56.5	44.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	41.7	107.0	22.2	84.3	17.5	56.5	44.2
LOS	D	D	F	C	F	B	E	D
Approach Delay		41.7		62.2		66.4		46.5
Approach LOS		D		E		E		D

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 97.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 56.8	Intersection LOS: E
Intersection Capacity Utilization 81.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	314	129	297	312	22	449	104	60	49	202	5
Future Volume (veh/h)	4	314	129	297	312	22	449	104	60	49	202	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	341	86	323	339	15	488	113	43	53	220	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	434	108	316	1130	50	491	566	216	72	374	5
Arrive On Green	0.01	0.15	0.15	0.17	0.32	0.32	0.27	0.43	0.43	0.04	0.20	0.20
Sat Flow, veh/h	1810	2864	713	1810	3522	155	1810	1311	499	1810	1870	25
Grp Volume(v), veh/h	4	213	214	323	173	181	488	0	156	53	0	223
Grp Sat Flow(s),veh/h/ln	1810	1805	1772	1810	1805	1872	1810	0	1810	1810	0	1895
Q Serve(g_s), s	0.2	10.8	11.1	16.6	6.8	6.9	25.6	0.0	5.1	2.8	0.0	10.1
Cycle Q Clear(g_c), s	0.2	10.8	11.1	16.6	6.8	6.9	25.6	0.0	5.1	2.8	0.0	10.1
Prop In Lane	1.00		0.40	1.00		0.08	1.00		0.28	1.00		0.01
Lane Grp Cap(c), veh/h	10	273	268	316	579	601	491	0	782	72	0	379
V/C Ratio(X)	0.42	0.78	0.80	1.02	0.30	0.30	0.99	0.00	0.20	0.74	0.00	0.59
Avail Cap(c_a), veh/h	95	369	362	316	589	611	491	0	782	135	0	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.1	38.8	38.9	39.2	24.2	24.2	34.5	0.0	16.8	45.1	0.0	34.4
Incr Delay (d2), s/veh	10.5	7.3	8.6	56.2	0.3	0.3	38.6	0.0	0.6	5.4	0.0	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.3	5.4	12.2	2.9	3.1	15.7	0.0	2.1	1.3	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	46.1	47.5	95.4	24.5	24.5	73.1	0.0	17.3	50.6	0.0	41.0
LnGrp LOS	E	D	D	F	C	C	E	A	B	D	A	D
Approach Vol, veh/h		431			677			644			276	
Approach Delay, s/veh		46.9			58.3			59.6			42.8	
Approach LOS		D			E			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.2	19.2	30.4	24.2	5.1	35.3	8.4	46.2
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	16.6	* 19	25.8	19.0	5.0	* 31	7.1	37.7
Max Q Clear Time (g_c+I1), s	18.6	13.1	27.6	12.1	2.2	8.9	4.8	7.1
Green Ext Time (p_c), s	0.0	1.3	0.0	0.6	0.0	2.0	0.0	0.8

Intersection Summary	
HCM 6th Ctrl Delay	54.2
HCM 6th LOS	D

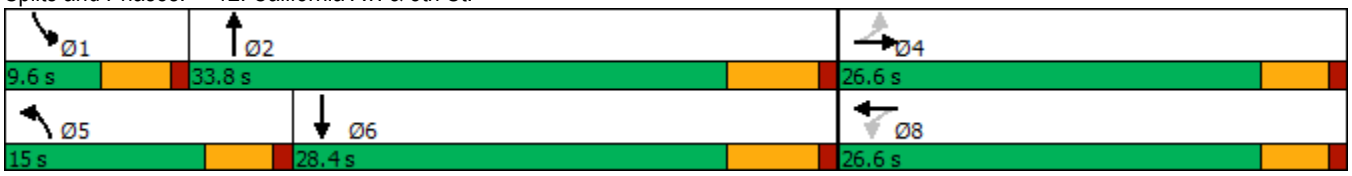
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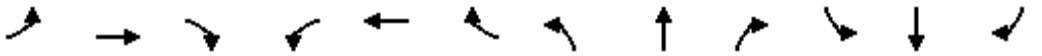
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	2	3	77	10	325	610	567	
Future Volume (vph)	2	3	77	10	325	610	567	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	15.0	33.8	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.8		12.8	10.7	40.1	23.2	
Actuated g/C Ratio		0.22		0.22	0.18	0.69	0.40	
v/c Ratio		0.25		0.44	1.25	0.63	43.47	
Control Delay		6.8		21.2	160.8	11.6	19694.8	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		6.8		21.2	160.8	11.6	19694.8	
LOS		A		C	F	B	F	
Approach Delay		6.8		21.3		61.6	19694.8	
Approach LOS		A		C		E	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 58.1	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 43.47	
Intersection Signal Delay: 6568.2	Intersection LOS: F
Intersection Capacity Utilization 91.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	82	77	10	33	325	610	34	14	567	2
Future Volume (veh/h)	2	3	82	77	10	33	325	610	34	14	567	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	104	97	13	42	411	772	43	18	718	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	66	15	259	250	45	74	325	1159	65	0	739	3
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.18	0.65	0.65	0.00	0.39	0.39
Sat Flow, veh/h	14	88	1519	867	266	433	1810	1783	99	0	1891	8
Grp Volume(v), veh/h	111	0	0	152	0	0	411	0	815	0	0	721
Grp Sat Flow(s),veh/h/ln	1621	0	0	1565	0	0	1810	0	1882	0	0	1899
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	10.4	0.0	15.5	0.0	0.0	21.6
Cycle Q Clear(g_c), s	3.5	0.0	0.0	4.6	0.0	0.0	10.4	0.0	15.5	0.0	0.0	21.6
Prop In Lane	0.03		0.94	0.64		0.28	1.00		0.05	0.00		0.00
Lane Grp Cap(c), veh/h	340	0	0	369	0	0	325	0	1223	0	0	742
V/C Ratio(X)	0.33	0.00	0.00	0.41	0.00	0.00	1.26	0.00	0.67	0.00	0.00	0.97
Avail Cap(c_a), veh/h	678	0	0	666	0	0	325	0	1223	0	0	742
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	0.0	21.7	0.0	0.0	23.7	0.0	6.3	0.0	0.0	17.3
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.7	0.0	0.0	140.9	0.0	1.4	0.0	0.0	26.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.8	0.0	0.0	16.5	0.0	3.4	0.0	0.0	12.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.9	0.0	0.0	22.5	0.0	0.0	164.6	0.0	7.6	0.0	0.0	43.5
LnGrp LOS	C	A	A	C	A	A	F	A	A	A	A	D
Approach Vol, veh/h		111			152			1226			721	
Approach Delay, s/veh		21.9			22.5			60.3			43.5	
Approach LOS		C			C			E			D	

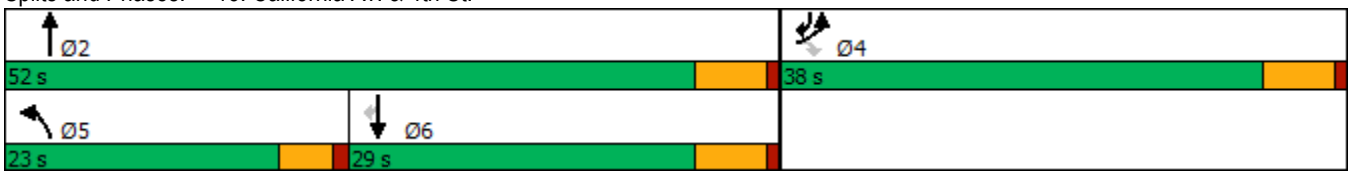
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	43.4		14.5	15.0	28.4		14.5				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	17.5		5.5	12.4	23.6		6.6				
Green Ext Time (p_c), s	0.0	3.9		0.5	0.0	0.0		0.7				

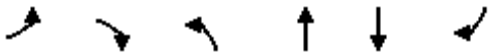
Intersection Summary			
HCM 6th Ctrl Delay		50.3	
HCM 6th LOS		D	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	111	37	191	887	197	488
Future Volume (vph)	111	37	191	887	197	488
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	38.0	38.0	23.0	52.0	29.0	38.0
Total Split (%)	42.2%	42.2%	25.6%	57.8%	32.2%	42.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effct Green (s)	14.0	14.0	11.7	28.7	12.2	32.2
Actuated g/C Ratio	0.26	0.26	0.21	0.52	0.22	0.59
v/c Ratio	0.31	0.11	0.65	0.61	0.32	0.61
Control Delay	20.1	7.2	29.8	11.0	20.4	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	7.2	29.8	11.0	20.4	7.5
LOS	C	A	C	B	C	A
Approach Delay	16.9			14.3	11.2	
Approach LOS	B			B	B	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 54.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 49.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	111	37	191	887	197	488
Future Volume (veh/h)	111	37	191	887	197	488
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	144	48	248	1152	256	634
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	310	276	305	2236	1327	868
Arrive On Green	0.17	0.17	0.17	0.62	0.37	0.37
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	144	48	248	1152	256	634
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	4.0	1.4	7.3	9.9	2.7	16.6
Cycle Q Clear(g_c), s	4.0	1.4	7.3	9.9	2.7	16.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	310	276	305	2236	1327	868
V/C Ratio(X)	0.46	0.17	0.81	0.52	0.19	0.73
Avail Cap(c_a), veh/h	1052	937	601	3013	1513	950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	19.6	22.2	5.9	11.9	9.7
Incr Delay (d2), s/veh	1.1	0.3	2.0	0.2	0.1	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.4	2.8	2.0	0.9	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.7	19.9	24.2	6.1	12.0	12.3
LnGrp LOS	C	B	C	A	B	B
Approach Vol, veh/h	192			1400	890	
Approach Delay, s/veh	21.3			9.3	12.2	
Approach LOS	C			A	B	

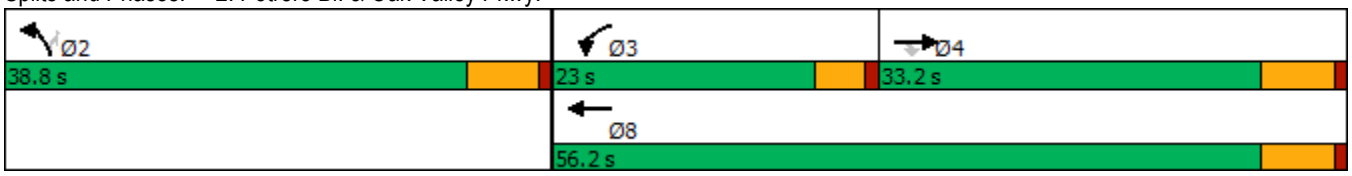
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		40.1		15.3	13.9	26.2
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		46.2		32.2	18.4	23.2
Max Q Clear Time (g_c+I1), s		11.9		6.0	9.3	18.6
Green Ext Time (p_c), s		9.3		0.5	0.2	1.8

Intersection Summary		
HCM 6th Ctrl Delay		11.3
HCM 6th LOS		B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	332	65	385	411	130	550
Future Volume (vph)	332	65	385	411	130	550
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	33.2	33.2	9.6	24.2	38.2	38.2
Total Split (s)	33.2	33.2	23.0	56.2	38.8	38.8
Total Split (%)	34.9%	34.9%	24.2%	59.2%	40.8%	40.8%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	6.2
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	13.5	13.5	19.2	37.5	14.1	14.1
Actuated g/C Ratio	0.21	0.21	0.30	0.58	0.22	0.22
v/c Ratio	0.48	0.18	0.79	0.22	0.36	0.76
Control Delay	25.1	7.8	37.0	7.7	24.2	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	7.8	37.0	7.7	24.2	10.3
LOS	C	A	D	A	C	B
Approach Delay	22.3			21.8	12.9	
Approach LOS	C			C	B	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 64.5	
Natural Cycle: 95	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 53.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	332	65	385	411	130	550
Future Volume (veh/h)	332	65	385	411	130	550
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	365	71	423	452	143	604
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	535	239	427	1601	719	640
Arrive On Green	0.15	0.15	0.24	0.44	0.40	0.40
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	365	71	423	452	143	604
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	7.5	3.1	18.1	6.2	4.0	28.2
Cycle Q Clear(g_c), s	7.5	3.1	18.1	6.2	4.0	28.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	535	239	427	1601	719	640
V/C Ratio(X)	0.68	0.30	0.99	0.28	0.20	0.94
Avail Cap(c_a), veh/h	1251	558	427	2317	757	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	29.6	29.6	13.8	15.4	22.6
Incr Delay (d2), s/veh	1.5	0.7	40.6	0.1	0.1	21.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.1	11.9	2.2	1.5	12.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.0	30.3	70.2	13.9	15.5	44.1
LnGrp LOS	C	C	E	B	B	D
Approach Vol, veh/h	436			875	747	
Approach Delay, s/veh	32.5			41.1	38.6	
Approach LOS	C			D	D	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		37.1	23.0	17.7		40.7
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		32.6	18.4	27.0		50.0
Max Q Clear Time (g_c+I1), s		30.2	20.1	9.5		8.2
Green Ext Time (p_c), s		0.8	0.0	2.1		2.8

Intersection Summary	
HCM 6th Ctrl Delay	38.4
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	104	0	847	0	10	519	0
Future Vol, veh/h	0	0	0	2	0	104	0	847	0	10	519	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	135	0	1100	0	13	674	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1463	1800	550	-	0	0	1100	0	0
Stage 1	1100	1100	-	-	-	-	-	-	-
Stage 2	363	700	-	-	-	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	122	81	484	0	-	-	642	-	0
Stage 1	285	290	-	0	-	-	-	-	0
Stage 2	680	444	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	120	0	484	-	-	-	642	-	-
Mov Cap-2 Maneuver	225	0	-	-	-	-	-	-	-
Stage 1	285	0	-	-	-	-	-	-	-
Stage 2	666	0	-	-	-	-	-	-	-

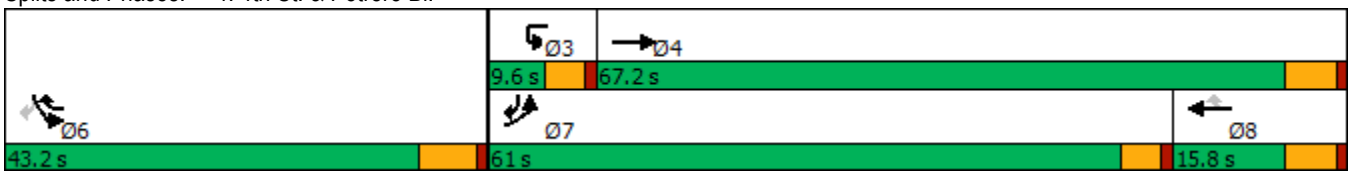
Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	0.2
HCM LOS	C		

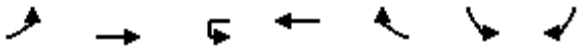
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	474	642	-
HCM Lane V/C Ratio	-	-	0.29	0.02	-
HCM Control Delay (s)	-	-	15.7	10.7	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1.2	0.1	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	1406	211	100	649	511	968	
Future Volume (vph)	1406	211	100	649	511	968	
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	7	4	8	6	6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	6	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	15.8	16.2	16.2	9.6	9.6
Total Split (s)	61.0	67.2	15.8	43.2	43.2	61.0	9.6
Total Split (%)	50.8%	56.0%	13.2%	36.0%	36.0%	50.8%	8%
Yellow Time (s)	3.6	4.8	4.8	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	6.2	6.2	4.6	
Lead/Lag	Lead	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effct Green (s)	56.4	71.0	10.0	52.8	37.0	99.6	
Actuated g/C Ratio	0.47	0.59	0.08	0.44	0.31	0.83	
v/c Ratio	1.10	0.26	0.89	1.09	0.61	0.85	
Control Delay	85.9	12.6	99.6	88.9	37.9	11.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	85.9	12.6	99.6	88.9	37.9	11.8	
LOS	F	B	F	F	D	B	
Approach Delay		76.3	90.3		20.8		
Approach LOS		E	F		C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 57.7	Intersection LOS: E
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	1406	211	0	100	649	511	968
Future Volume (veh/h)	1406	211	0	100	649	511	968
Initial Q (Qb), veh	1	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	2099	315		149	372	763	699
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1910	1262		178	575	953	1274
Arrive On Green	0.51	0.64		0.09	0.09	0.25	0.25
Sat Flow, veh/h	3764	1976		1976	1675	3764	1675
Grp Volume(v), veh/h	2099	315		149	372	763	699
Grp Sat Flow(s),veh/h/ln	1882	1976		1976	1675	1882	1675
Q Serve(g_s), s	56.4	7.6		8.2	10.0	21.1	19.1
Cycle Q Clear(g_c), s	56.4	7.6		8.2	10.0	21.1	19.1
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1910	1262		178	575	953	1274
V/C Ratio(X)	1.10	0.25		0.84	0.65	0.80	0.55
Avail Cap(c_a), veh/h	1910	1262		178	575	1253	1407
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	8.6		49.8	27.3	38.9	5.5
Incr Delay (d2), s/veh	53.2	0.1		28.2	2.5	2.8	0.4
Initial Q Delay(d3),s/veh	1.9	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	37.2	2.9		5.3	10.6	9.6	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	82.5	8.7		77.9	29.8	41.7	5.8
LnGrp LOS	F	A		E	C	D	A
Approach Vol, veh/h		2414		521		1462	
Approach Delay, s/veh		72.9		43.6		24.6	
Approach LOS		E		D		C	

Timer - Assigned Phs				4		6	7	8
Phs Duration (G+Y+Rc), s				76.8		34.3	61.0	15.8
Change Period (Y+Rc), s				5.8		6.2	4.6	5.8
Max Green Setting (Gmax), s				61.4		37.0	56.4	10.0
Max Q Clear Time (g_c+I1), s				9.6		23.1	58.4	12.0
Green Ext Time (p_c), s				1.8		5.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.3
HCM 6th LOS	D

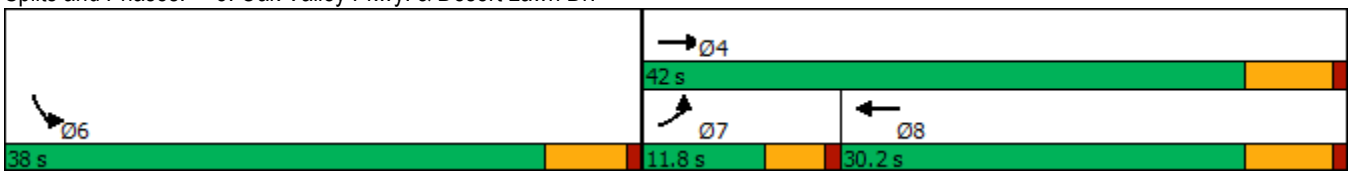
Notes

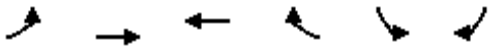
User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	98	920	971	232
Future Volume (vph)	98	920	971	232
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	11.8	42.0	30.2	38.0
Total Split (%)	14.8%	52.5%	37.8%	47.5%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effct Green (s)	6.9	31.4	22.7	17.3
Actuated g/C Ratio	0.11	0.51	0.37	0.28
v/c Ratio	0.50	0.51	0.72	0.62
Control Delay	40.3	11.9	19.8	24.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	40.3	11.9	19.8	24.0
LOS	D	B	B	C
Approach Delay		14.6	19.8	24.0
Approach LOS		B	B	C

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 61.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 64.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	98	920	971	376	232	78
Future Volume (veh/h)	98	920	971	376	232	78
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	101	948	1001	388	239	80
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	133	1960	1403	543	298	100
Arrive On Green	0.07	0.54	0.38	0.38	0.23	0.23
Sat Flow, veh/h	1810	3705	3848	1425	1311	439
Grp Volume(v), veh/h	101	948	941	448	320	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1644	1755	0
Q Serve(g_s), s	2.9	8.5	12.1	12.1	9.0	0.0
Cycle Q Clear(g_c), s	2.9	8.5	12.1	12.1	9.0	0.0
Prop In Lane	1.00			0.87	0.75	0.25
Lane Grp Cap(c), veh/h	133	1960	1319	627	400	0
V/C Ratio(X)	0.76	0.48	0.71	0.71	0.80	0.00
Avail Cap(c_a), veh/h	249	2471	1586	754	1081	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.8	7.4	13.8	13.8	19.1	0.0
Incr Delay (d2), s/veh	3.3	0.2	1.2	2.5	3.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.9	3.7	3.8	3.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.1	7.6	15.0	16.3	22.8	0.0
LnGrp LOS	C	A	B	B	C	A
Approach Vol, veh/h		1049	1389		320	
Approach Delay, s/veh		9.5	15.4		22.8	
Approach LOS		A	B		C	

Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	34.6	17.7	8.4	26.2
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	35.8	32.2	7.2	24.0
Max Q Clear Time (g_c+I1), s	10.5	11.0	4.9	14.1
Green Ext Time (p_c), s	6.4	0.9	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

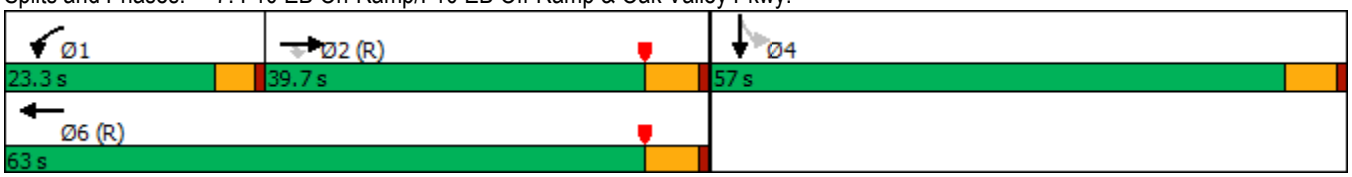
Notes

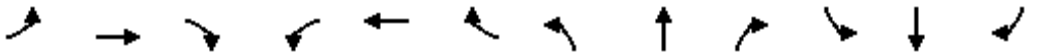
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	852	300	225	927	633	1
Future Volume (vph)	852	300	225	927	633	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	39.7	39.7	23.3	63.0	57.0	57.0
Total Split (%)	33.1%	33.1%	19.4%	52.5%	47.5%	47.5%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	35.2	35.2	22.4	62.1	46.3	46.3
Actuated g/C Ratio	0.29	0.29	0.19	0.52	0.39	0.39
v/c Ratio	1.06	0.57	0.88	0.65	0.62	0.86
Control Delay	86.4	12.2	63.9	12.0	31.4	45.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.4	12.2	63.9	12.0	31.4	45.9
LOS	F	B	E	B	C	D
Approach Delay	67.1			22.1		37.2
Approach LOS	E			C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 42.3	Intersection LOS: D
Intersection Capacity Utilization 89.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	852	300	225	927	0	0	0	0	633	1	421
Future Volume (veh/h)	0	852	300	225	927	0	0	0	0	633	1	421
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1121	337	296	1220	0				833	1	488
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1302	581	282	2003	0				1224	1	560
Arrive On Green	0.00	0.36	0.36	0.05	0.18	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3510	3	1607
Grp Volume(v), veh/h	0	1121	337	296	1220	0				833	0	489
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1755	0	1611
Q Serve(g_s), s	0.0	34.6	20.3	18.7	37.3	0.0				24.3	0.0	34.1
Cycle Q Clear(g_c), s	0.0	34.6	20.3	18.7	37.3	0.0				24.3	0.0	34.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1302	581	282	2003	0				1224	0	561
V/C Ratio(X)	0.00	0.86	0.58	1.05	0.61	0.00				0.68	0.00	0.87
Avail Cap(c_a), veh/h	0	1302	581	282	2003	0				1498	0	687
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.46	0.46	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.6	31.0	56.9	37.1	0.0				33.4	0.0	36.6
Incr Delay (d2), s/veh	0.0	6.4	3.5	50.1	0.6	0.0				0.9	0.0	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.6	8.1	13.0	18.1	0.0				10.1	0.0	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	42.0	34.5	107.0	37.7	0.0				34.3	0.0	46.7
LnGrp LOS	A	D	C	F	D	A				C	A	D
Approach Vol, veh/h		1458			1516						1322	
Approach Delay, s/veh		40.3			51.2						38.9	
Approach LOS		D			D						D	

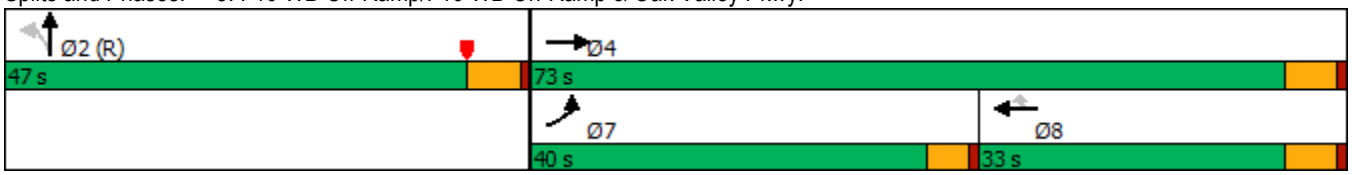
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.3	49.1		47.6		72.4
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	18.7	33.9		51.2		57.2
Max Q Clear Time (g_c+I1), s	20.7	36.6		36.1		39.3
Green Ext Time (p_c), s	0.0	0.0		5.7		7.8

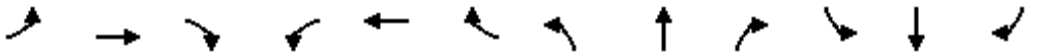
Intersection Summary			
HCM 6th Ctrl Delay		43.7	
HCM 6th LOS		D	

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	470	1014	678	383	473	5
Future Volume (vph)	470	1014	678	383	473	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	40.0	73.0	33.0	33.0	47.0	47.0
Total Split (%)	33.3%	60.8%	27.5%	27.5%	39.2%	39.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	34.0	65.4	26.7	26.7	43.0	43.0
Actuated g/C Ratio	0.28	0.54	0.22	0.22	0.36	0.36
v/c Ratio	0.95	0.53	0.87	0.59	0.76	0.61
Control Delay	43.4	13.9	57.5	7.8	43.3	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	13.9	57.5	7.8	43.3	29.2
LOS	D	B	E	A	D	C
Approach Delay		23.3	39.5			37.1
Approach LOS		C	D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 89.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	1014	0	0	678	383	473	5	373	0	0	0
Future Volume (veh/h)	470	1014	0	0	678	383	473	5	373	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	485	1045	0	0	699	325	488	5	333			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	515	1963	0	0	798	356	651	9	572			
Arrive On Green	0.09	0.18	0.00	0.00	0.22	0.22	0.36	0.36	0.36			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	1810	24	1590			
Grp Volume(v), veh/h	485	1045	0	0	699	325	488	0	338			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1614			
Q Serve(g_s), s	32.0	31.5	0.0	0.0	22.4	23.6	28.4	0.0	20.4			
Cycle Q Clear(g_c), s	32.0	31.5	0.0	0.0	22.4	23.6	28.4	0.0	20.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	515	1963	0	0	798	356	651	0	580			
V/C Ratio(X)	0.94	0.53	0.00	0.00	0.88	0.91	0.75	0.00	0.58			
Avail Cap(c_a), veh/h	534	2022	0	0	818	365	651	0	580			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.37	0.37	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.4	35.4	0.0	0.0	45.2	45.6	33.7	0.0	31.1			
Incr Delay (d2), s/veh	12.0	0.1	0.0	0.0	10.4	26.4	7.8	0.0	4.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	17.2	15.2	0.0	0.0	10.9	11.7	13.3	0.0	8.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	35.5	0.0	0.0	55.5	72.0	41.4	0.0	35.4			
LnGrp LOS	E	D	A	A	E	E	D	A	D			
Approach Vol, veh/h		1530			1024			826				
Approach Delay, s/veh		45.0			60.8			39.0				
Approach LOS		D			E			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		49.0		71.0			38.7	32.3				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.2		67.2			35.4	27.2				
Max Q Clear Time (g_c+I1), s		30.4		33.5			34.0	25.6				
Green Ext Time (p_c), s		2.8		8.1			0.2	0.9				
Intersection Summary												
HCM 6th Ctrl Delay			48.3									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	102	930	139	119	735	61	0	0	130	0	0	72	0	0
Future Vol, veh/h	102	930	139	119	735	61	0	0	130	0	0	72	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	110	1000	149	128	790	66	0	0	140	0	0	77	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	856	0	0	1149	0	0	-	-	575	-	-	428
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	793	-	-	615	-	-	0	0	466	0	0	581
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	793	-	-	615	-	-	-	-	466	-	-	581
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

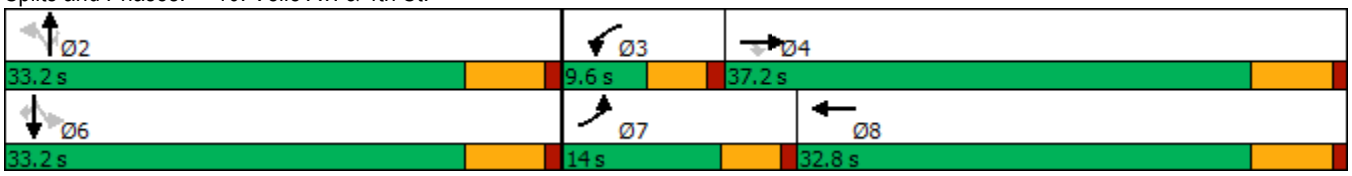
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	1.6	16	12.1
HCM LOS			C	B

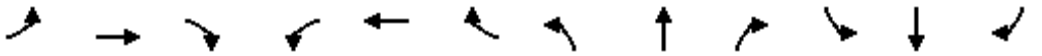
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	466	793	-	-	615	-	-	581
HCM Lane V/C Ratio	0.3	0.138	-	-	0.208	-	-	0.133
HCM Control Delay (s)	16	10.3	-	-	12.4	-	-	12.1
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.2	0.5	-	-	0.8	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	117	610	85	10	499	44	41	12	15	65	65
Future Volume (vph)	117	610	85	10	499	44	41	12	15	65	65
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	9.0	39.4	39.4	5.1	27.3		13.3	13.3	13.3	13.3	13.3
Actuated g/C Ratio	0.14	0.60	0.60	0.08	0.41		0.20	0.20	0.20	0.20	0.20
v/c Ratio	0.68	0.77	0.12	0.10	0.97		0.40	0.04	0.08	0.24	0.23
Control Delay	44.6	19.7	3.4	33.3	49.6		26.5	0.2	20.9	23.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	19.7	3.4	33.3	49.6		26.5	0.2	20.9	23.0	5.8
LOS	D	B	A	C	D		C	A	C	C	A
Approach Delay		21.6			49.3		23.3			15.0	
Approach LOS		C			D		C			B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 66	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 30.5	Intersection LOS: C
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	610	85	10	499	33	44	41	12	15	65	65
Future Volume (veh/h)	117	610	85	10	499	33	44	41	12	15	65	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	167	871	121	14	713	47	63	59	17	21	93	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	1019	863	31	770	51	195	155	274	250	324	
Arrive On Green	0.12	0.54	0.54	0.02	0.44	0.44	0.17	0.17	0.17	0.17	0.17	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1763	116	600	909	1610	1344	1900	1610
Grp Volume(v), veh/h	167	871	121	14	0	760	122	0	17	21	93	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1879	1509	0	1610	1344	1900	1610
Q Serve(g_s), s	5.3	23.0	2.2	0.4	0.0	22.4	1.9	0.0	0.5	0.8	2.5	0.0
Cycle Q Clear(g_c), s	5.3	23.0	2.2	0.4	0.0	22.4	4.4	0.0	0.5	5.3	2.5	0.0
Prop In Lane	1.00		1.00	1.00		0.06	0.52		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	1019	863	31	0	821	350	0	274	250	324	
V/C Ratio(X)	0.79	0.86	0.14	0.45	0.00	0.93	0.35	0.00	0.06	0.08	0.29	
Avail Cap(c_a), veh/h	290	1019	863	154	0	865	810	0	752	649	887	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.2	11.7	6.8	28.5	0.0	15.6	21.9	0.0	20.4	24.4	21.2	0.0
Incr Delay (d2), s/veh	6.7	7.3	0.1	3.6	0.0	15.2	0.6	0.0	0.1	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	8.5	0.5	0.2	0.0	10.6	1.4	0.0	0.2	0.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	18.9	6.9	32.2	0.0	30.8	22.5	0.0	20.5	24.6	21.7	0.0
LnGrp LOS	C	B	A	C	A	C	C	A	C	C	C	
Approach Vol, veh/h		1159			774			139			114	A
Approach Delay, s/veh		19.5			30.8			22.3			22.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	5.6	37.3		15.8	11.4	31.4				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		27.4	5.0	31.4		27.4	9.4	27.0				
Max Q Clear Time (g_c+I1), s		6.4	2.4	25.0		7.3	7.3	24.4				
Green Ext Time (p_c), s		0.6	0.0	3.2		0.4	0.0	1.2				

Intersection Summary	
HCM 6th Ctrl Delay	23.8
HCM 6th LOS	C

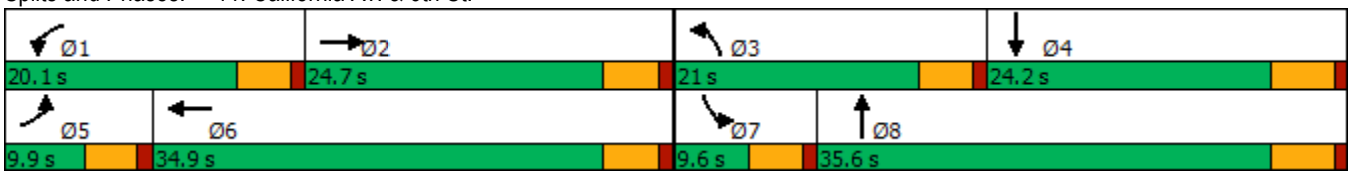
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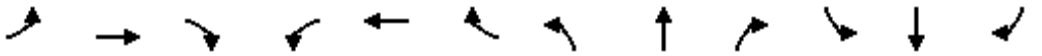
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	498	292	294	304	186	15	110
Future Volume (vph)	21	498	292	294	304	186	15	110
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.9	24.7	20.1	34.9	21.0	35.6	9.6	24.2
Total Split (%)	11.0%	27.4%	22.3%	38.8%	23.3%	39.6%	10.7%	26.9%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.2	19.7	15.5	35.8	16.4	38.1	5.0	19.0
Actuated g/C Ratio	0.06	0.22	0.17	0.40	0.18	0.42	0.06	0.21
v/c Ratio	0.21	0.90	0.99	0.22	0.97	0.58	0.16	0.32
Control Delay	45.5	47.4	87.5	19.1	82.1	20.5	44.3	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay	45.5	47.4	87.5	19.1	82.1	21.0	44.3	31.2
LOS	D	D	F	B	F	C	D	C
Approach Delay		47.3		52.5		46.3		32.7
Approach LOS		D		D		D		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 89.8	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 47.5	Intersection LOS: D
Intersection Capacity Utilization 80.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	498	188	292	294	11	304	186	244	15	110	12
Future Volume (veh/h)	21	498	188	292	294	11	304	186	244	15	110	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	524	194	307	309	7	320	196	226	16	116	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	571	210	312	1335	30	330	302	348	33	374	23
Arrive On Green	0.02	0.22	0.22	0.17	0.37	0.37	0.18	0.38	0.38	0.02	0.21	0.21
Sat Flow, veh/h	1810	2582	952	1810	3609	82	1810	805	928	1810	1774	107
Grp Volume(v), veh/h	22	366	352	307	154	162	320	0	422	16	0	123
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1885	1810	0	1733	1810	0	1881
Q Serve(g_s), s	1.1	17.8	17.9	15.2	5.3	5.3	15.8	0.0	18.1	0.8	0.0	5.0
Cycle Q Clear(g_c), s	1.1	17.8	17.9	15.2	5.3	5.3	15.8	0.0	18.1	0.8	0.0	5.0
Prop In Lane	1.00		0.55	1.00		0.04	1.00		0.54	1.00		0.06
Lane Grp Cap(c), veh/h	43	399	382	312	668	697	330	0	650	33	0	397
V/C Ratio(X)	0.52	0.92	0.92	0.99	0.23	0.23	0.97	0.00	0.65	0.48	0.00	0.31
Avail Cap(c_a), veh/h	107	399	382	312	668	697	330	0	650	101	0	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.4	34.2	34.3	37.1	19.5	19.5	36.6	0.0	23.2	43.8	0.0	30.0
Incr Delay (d2), s/veh	3.6	25.5	27.4	46.7	0.2	0.2	41.3	0.0	5.0	4.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.4	10.2	10.6	2.2	2.3	10.3	0.0	7.6	0.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	59.8	61.7	83.8	19.7	19.7	77.9	0.0	28.2	47.8	0.0	32.0
LnGrp LOS	D	E	E	F	B	B	E	A	C	D	A	C
Approach Vol, veh/h		740			623			742			139	
Approach Delay, s/veh		60.3			51.3			49.6			33.8	
Approach LOS		E			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.1	24.7	21.0	24.2	6.7	38.1	6.2	39.0
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	15.5	* 20	16.4	19.0	5.3	* 30	5.0	30.4
Max Q Clear Time (g_c+I1), s	17.2	19.9	17.8	7.0	3.1	7.3	2.8	20.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	1.8	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

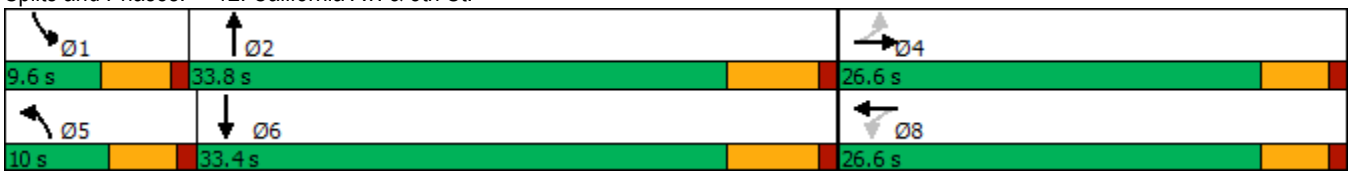
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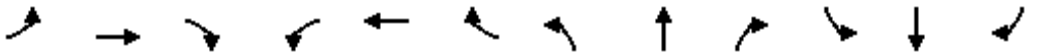
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBT	Ø1
Lane Configurations								
Traffic Volume (vph)	5	3	74	3	194	703	521	
Future Volume (vph)	5	3	74	3	194	703	521	
Turn Type	Perm	NA	Perm	NA	Prot	NA	NA	
Protected Phases		4		8	5	2	6	1
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	6	
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	9.6	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	10.0	33.8	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	
Lead/Lag					Lead	Lag	Lag	Lead
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None
Act Effct Green (s)		12.2		12.2	5.4	41.3	29.9	
Actuated g/C Ratio		0.21		0.21	0.09	0.70	0.50	
v/c Ratio		0.26		0.33	1.24	0.63	14.41	
Control Delay		7.3		19.8	178.2	11.4	6121.4	
Queue Delay		0.0		0.0	0.0	0.0	0.0	
Total Delay		7.3		19.8	178.2	11.4	6121.4	
LOS		A		B	F	B	F	
Approach Delay		7.3		19.8		44.5	6121.4	
Approach LOS		A		B		D	F	

Intersection Summary	
Cycle Length: 70	
Actuated Cycle Length: 59.4	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 14.41	
Intersection Signal Delay: 1937.1	Intersection LOS: F
Intersection Capacity Utilization 95.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	3	94	74	3	22	194	703	80	7	521	7
Future Volume (veh/h)	5	3	94	74	3	22	194	703	80	7	521	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	3	99	78	3	23	204	740	84	7	548	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	86	19	300	341	28	67	209	968	110	0	681	9
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.12	0.58	0.58	0.00	0.36	0.36
Sat Flow, veh/h	27	94	1500	1033	141	333	1810	1676	190	0	1872	24
Grp Volume(v), veh/h	107	0	0	104	0	0	204	0	824	0	0	555
Grp Sat Flow(s),veh/h/ln	1621	0	0	1508	0	0	1810	0	1866	0	0	1896
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	15.6	0.0	0.0	12.3
Cycle Q Clear(g_c), s	2.6	0.0	0.0	2.3	0.0	0.0	5.3	0.0	15.6	0.0	0.0	12.3
Prop In Lane	0.05		0.93	0.75		0.22	1.00		0.10	0.00		0.01
Lane Grp Cap(c), veh/h	405	0	0	436	0	0	209	0	1078	0	0	689
V/C Ratio(X)	0.26	0.00	0.00	0.24	0.00	0.00	0.98	0.00	0.76	0.00	0.00	0.81
Avail Cap(c_a), veh/h	839	0	0	810	0	0	209	0	1117	0	0	1119
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	0.0	15.9	0.0	0.0	20.6	0.0	7.5	0.0	0.0	13.4
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.0	55.0	0.0	3.1	0.0	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.9	0.0	0.0	5.0	0.0	3.8	0.0	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	0.0	0.0	16.1	0.0	0.0	75.6	0.0	10.6	0.0	0.0	15.7
LnGrp LOS	B	A	A	B	A	A	E	A	B	A	A	B
Approach Vol, veh/h		107			104			1028			555	
Approach Delay, s/veh		16.4			16.1			23.5			15.7	
Approach LOS		B			B			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	32.8		14.0	10.0	22.8		14.0				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	17.6		4.6	7.3	14.3		4.3				
Green Ext Time (p_c), s	0.0	4.0		0.5	0.0	2.7		0.5				

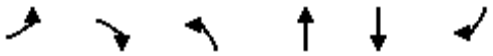
Intersection Summary			
HCM 6th Ctrl Delay		20.2	
HCM 6th LOS		C	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	451	226	151	546	1059	415
Future Volume (vph)	451	226	151	546	1059	415
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	47.0	47.0	21.0	73.0	52.0	47.0
Total Split (%)	39.2%	39.2%	17.5%	60.8%	43.3%	39.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effct Green (s)	33.6	33.6	13.2	57.0	39.0	78.6
Actuated g/C Ratio	0.33	0.33	0.13	0.56	0.38	0.77
v/c Ratio	0.83	0.35	0.71	0.30	0.84	0.35
Control Delay	46.5	5.0	63.3	13.1	36.6	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	5.0	63.3	13.1	36.6	2.5
LOS	D	A	E	B	D	A
Approach Delay	32.6			23.9	27.0	
Approach LOS	C			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.7	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 27.6	Intersection LOS: C
Intersection Capacity Utilization 76.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	451	226	151	546	1059	415
Future Volume (veh/h)	451	226	151	546	1059	415
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	490	246	164	593	1151	451
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	551	491	199	2044	1461	1142
Arrive On Green	0.30	0.30	0.11	0.57	0.40	0.40
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	490	246	164	593	1151	451
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	23.2	11.3	8.0	7.7	25.0	10.2
Cycle Q Clear(g_c), s	23.2	11.3	8.0	7.7	25.0	10.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	551	491	199	2044	1461	1142
V/C Ratio(X)	0.89	0.50	0.82	0.29	0.79	0.39
Avail Cap(c_a), veh/h	830	739	330	2701	1857	1319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	25.6	39.1	10.1	23.4	5.3
Incr Delay (d2), s/veh	8.0	0.8	3.2	0.1	1.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	0.1	3.5	2.6	9.9	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.8	26.4	42.3	10.2	25.2	5.5
LnGrp LOS	D	C	D	B	C	A
Approach Vol, veh/h	736			757	1602	
Approach Delay, s/veh	34.0			17.2	19.6	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		56.6		33.2	14.5	42.1
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		67.2		41.2	16.4	46.2
Max Q Clear Time (g_c+I1), s		9.7		25.2	10.0	27.0
Green Ext Time (p_c), s		4.1		2.2	0.1	9.3

Intersection Summary		
HCM 6th Ctrl Delay	22.4	
HCM 6th LOS	C	

APPENDIX 9.1:

HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	687.3
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	360	906	1074	384	454	1054
Future Vol, veh/h	360	906	1074	384	454	1054
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	391	985	1167	417	493	1146
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	414	857.3	752.3
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	454	1054	180	180	906	1074	192	192
LT Vol	454	0	0	0	0	1074	0	0
Through Vol	0	0	180	180	0	0	192	192
RT Vol	0	1054	0	0	906	0	0	0
Lane Flow Rate	493	1146	196	196	985	1167	209	209
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	1.471	3.034	0.55	0.55	2.114	3.456	0.589	0.49
Departure Headway (Hd)	17.266	16.01	22.223	22.223	19.817	17.893	17.392	15.689
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	217	241	164	164	197	222	211	232
Service Time	14.966	13.71	19.923	19.923	17.517	15.593	15.092	13.389
HCM Lane V/C Ratio	2.272	4.755	1.195	1.195	5	5.257	0.991	0.901
HCM Control Delay	276.5	957.3	49.2	49.2	559	1150.4	42.3	32.6
HCM Lane LOS	F	F	E	E	F	F	E	D
HCM 95th-tile Q	18.5	61.3	2.8	2.8	30.1	65.7	3.3	2.5

Intersection	
Intersection Delay, s/veh	432.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	11	0	64	0	989	6	54	1413	0
Future Vol, veh/h	0	0	0	11	0	64	0	989	6	54	1413	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	70	0	1075	7	59	1536	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	12.8	256.2	573.3
HCM LOS	B	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	4%
Vol Thru, %	99%	0%	96%
Vol Right, %	1%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	995	75	1467
LT Vol	0	11	54
Through Vol	989	0	1413
RT Vol	6	64	0
Lane Flow Rate	1082	82	1595
Geometry Grp	1	1	1
Degree of Util (X)	1.511	0.147	2.233
Departure Headway (Hd)	6.185	8.395	5.55
Convergence, Y/N	Yes	Yes	Yes
Cap	595	430	670
Service Time	4.185	6.395	3.55
HCM Lane V/C Ratio	1.818	0.191	2.381
HCM Control Delay	256.2	12.8	573.3
HCM Lane LOS	F	B	F
HCM 95th-tile Q	44.6	0.5	105.1

Intersection	
Intersection Delay, s/veh	218.9
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	245	440	0	78	480	413	471
Future Vol, veh/h	245	440	0	78	480	413	471
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	266	478	0	85	522	449	512
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	404.4	67.3	170.8
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	36%	0%	0%	0%	100%	23%
Vol Thru, %	64%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	77%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	685	0	78	480	275	609
LT Vol	245	0	0	0	275	138
Through Vol	440	0	78	0	0	0
RT Vol	0	0	0	480	0	471
Lane Flow Rate	745	0	85	522	299	662
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	1.827	0	0.182	1.017	0.723	1.429
Departure Headway (Hd)	9.531	8.921	8.921	8.184	10.214	9.24
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	387	0	404	449	356	397
Service Time	7.231	6.621	6.621	5.884	7.914	6.94
HCM Lane V/C Ratio	1.925	0	0.21	1.163	0.84	1.668
HCM Control Delay	404.4	11.6	13.6	76	35.5	232
HCM Lane LOS	F	N	B	F	E	F
HCM 95th-tile Q	44.8	0	0.7	13.4	5.4	28.3

Intersection	
Intersection Delay, s/veh	514.1
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	207	1079	1244	401	608	343
Future Vol, veh/h	207	1079	1244	401	608	343
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	225	1173	1352	436	661	373
Number of Lanes	1	1	3	0	1	0

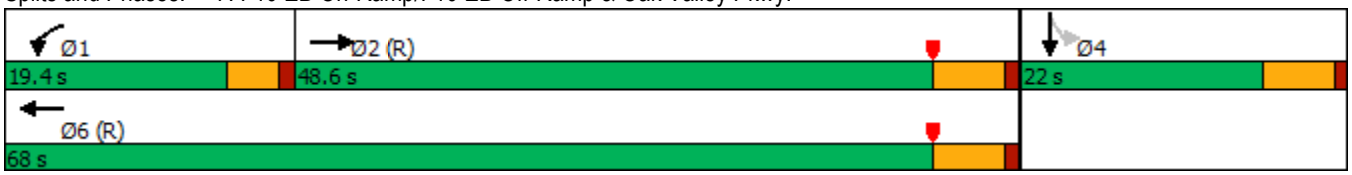
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	841	121.9	750.4
HCM LOS	F	F	F

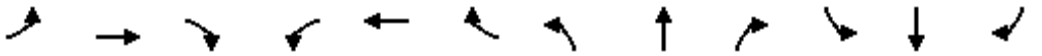
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	64%
Vol Thru, %	0%	100%	100%	100%	38%	0%
Vol Right, %	0%	0%	0%	0%	62%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	207	1079	498	498	650	951
LT Vol	207	0	0	0	0	608
Through Vol	0	1079	498	498	249	0
RT Vol	0	0	0	0	401	343
Lane Flow Rate	225	1173	541	541	706	1034
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.631	3.126	1.158	1.158	1.094	2.601
Departure Headway (Hd)	14.99	14.427	11.373	11.373	8.996	10.524
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	243	270	325	325	410	362
Service Time	12.69	12.127	9.073	9.073	6.696	8.224
HCM Lane V/C Ratio	0.926	4.344	1.665	1.665	1.722	2.856
HCM Control Delay	40.3	994.6	134.4	134.4	102.7	750.4
HCM Lane LOS	E	F	F	F	F	F
HCM 95th-tile Q	3.8	70.5	15.3	15.3	15.4	73

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	1023	345	2006	4
Future Volume (vph)	1023	345	2006	4
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	2.08	1.27	1.66	3.35
Control Delay	511.3	156.4	317.1	1079.4
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	511.3	156.4	317.3	1079.4
LOS	F	F	F	F
Approach Delay	511.3		293.7	1079.4
Approach LOS	F		F	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.35	
Intersection Signal Delay: 520.2	Intersection LOS: F
Intersection Capacity Utilization 185.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1023	665	345	2006	0	0	0	0	336	4	639
Future Volume (veh/h)	0	1023	665	345	2006	0	0	0	0	336	4	639
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1112	639	375	2180	0				365	4	677
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	538	309	298	1313	0				105	1	195
Arrive On Green	0.00	0.48	0.48	0.22	0.92	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1132	651	1810	1900	0				585	6	1084
Grp Volume(v), veh/h	0	0	1751	375	2180	0				1046	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1783	1810	1900	0				1676	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	62.2	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	62.2	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.36	1.00		0.00				0.35		0.65
Lane Grp Cap(c), veh/h	0	0	848	298	1313	0				302	0	0
V/C Ratio(X)	0.00	0.00	2.07	1.26	1.66	0.00				3.47	0.00	0.00
Avail Cap(c_a), veh/h	0	0	848	298	1313	0				302	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	35.2	3.6	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	483.4	119.7	297.4	0.0				1119.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	129.3	15.6	110.2	0.0				100.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	507.0	154.8	301.0	0.0				1155.9	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1751			2555						1046	
Approach Delay, s/veh		507.0			279.6						1155.9	
Approach LOS		F			F						F	

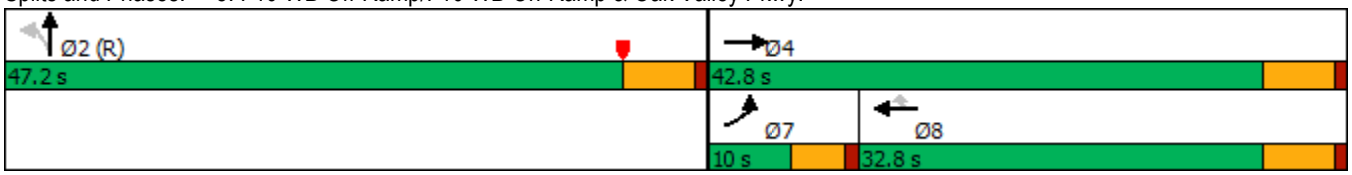
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		64.2						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						

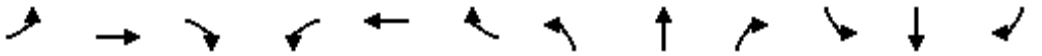
Intersection Summary			
HCM 6th Ctrl Delay		525.3	
HCM 6th LOS		F	

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	301	1058	1922	756	5
Future Volume (vph)	301	1058	1922	756	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	2.84	1.38	3.44	1.17	1.14
Control Delay	849.3	197.9	1117.6	115.9	102.0
Queue Delay	0.0	0.0	5.6	0.0	5.6
Total Delay	849.3	197.9	1123.2	115.9	107.6
LOS	F	F	F	F	F
Approach Delay		342.1	838.9		107.6
Approach LOS		F	F		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.44	
Intersection Signal Delay: 568.4	Intersection LOS: F
Intersection Capacity Utilization 185.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	1058	0	0	1922	756	429	5	469	0	0	0
Future Volume (veh/h)	301	1058	0	0	1922	756	429	5	469	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	307	1080	0	0	1961	655	438	5	357			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	432	5	352			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	939	11	765			
Grp Volume(v), veh/h	307	1080	0	0	1961	655	800	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1715	0	0			
Q Serve(g_s), s	5.4	37.0	0.0	0.0	27.0	27.0	41.4	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	37.0	0.0	0.0	27.0	27.0	41.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.55		0.45			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	789	0	0			
V/C Ratio(X)	2.83	1.38	0.00	0.00	3.44	1.36	1.01	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	789	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	32.6	0.0	0.0	31.5	31.5	24.3	0.0	0.0			
Incr Delay (d2), s/veh	824.7	172.9	0.0	0.0	1102.6	173.3	35.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	27.2	54.5	0.0	0.0	185.9	32.9	22.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	867.9	205.5	0.0	0.0	1134.1	204.8	59.8	0.0	0.0			
LnGrp LOS	F	F	A	A	F	F	F	A	A			
Approach Vol, veh/h		1387			2616			800				
Approach Delay, s/veh		352.2			901.4			59.8				
Approach LOS		F			F			E				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		47.2		42.8			10.0	32.8				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		41.4		37.0			5.4	27.0				
Max Q Clear Time (g_c+I1), s		43.4		39.0			7.4	29.0				
Green Ext Time (p_c), s		0.0		0.0			0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			602.6									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Future Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	157	761	189	204	1172	35	0	0	84	0	0	208

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1207	0	0	950	0	0	-	-	475	-	-	1190
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	585	-	-	731	-	-	0	0	541	0	0	231
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	585	-	-	731	-	-	-	-	541	-	-	231
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	1.7	12.9	80.4
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	541	585	-	-	731	-	-	231
HCM Lane V/C Ratio	0.155	0.268	-	-	0.28	-	-	0.899
HCM Control Delay (s)	12.9	13.4	-	-	11.8	-	-	80.4
HCM Lane LOS	B	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.5	1.1	-	-	1.1	-	-	7.5

Intersection	
Intersection Delay, s/veh	490.9
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	316	428	29	4	667	47	86	34	7	100	37	1039
Future Vol, veh/h	316	428	29	4	667	47	86	34	7	100	37	1039
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	343	465	32	4	725	51	93	37	8	109	40	1129
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

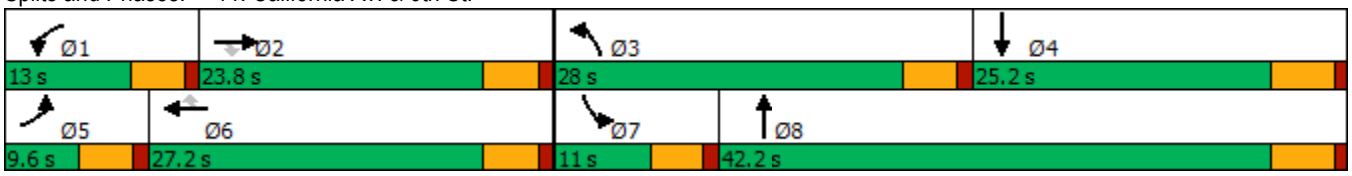
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	122	546.6	32.7	748.9
HCM LOS	F	F	D	F

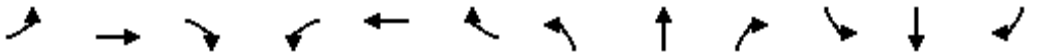
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	72%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	28%	0%	0%	100%	0%	0%	93%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	7%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	7	316	428	29	4	714	100	37	1039
LT Vol	86	0	316	0	0	4	0	100	0	0
Through Vol	34	0	0	428	0	0	667	0	37	0
RT Vol	0	7	0	0	29	0	47	0	0	1039
Lane Flow Rate	130	8	343	465	32	4	776	109	40	1129
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.417	0.022	0.925	1.188	0.074	0.013	2.133	0.306	0.108	2.808
Departure Headway (Hd)	18.224	17.028	15.287	14.735	13.963	13.81	13.232	12.716	12.184	11.439
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	200	212	240	251	258	261	287	285	296	328
Service Time	15.924	14.728	12.987	12.435	11.663	11.51	10.932	10.416	9.884	9.139
HCM Lane V/C Ratio	0.65	0.038	1.429	1.853	0.124	0.015	2.704	0.382	0.135	3.442
HCM Control Delay	33.4	20.1	82.6	158.1	17.8	16.7	549.6	20.9	16.4	845.1
HCM Lane LOS	D	C	F	F	C	C	F	C	C	F
HCM 95th-tile Q	1.9	0.1	8	13.7	0.2	0	43.5	1.3	0.4	75.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	468	260	327	670	35	494	104	54	184
Future Volume (vph)	4	468	260	327	670	35	494	104	54	184
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	19.0	19.0	8.4	30.1	30.1	23.4	39.3	6.1	20.0
Actuated g/C Ratio	0.06	0.21	0.21	0.09	0.33	0.33	0.26	0.44	0.07	0.22
v/c Ratio	0.04	1.27	0.50	2.11	1.15	0.06	1.14	0.35	0.49	0.49
Control Delay	41.2	172.0	7.3	544.6	114.1	0.2	120.6	12.6	54.2	35.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	172.0	7.3	544.6	114.1	0.2	120.6	12.6	54.2	35.0
LOS	D	F	A	F	F	A	F	B	D	C
Approach Delay		112.8			246.5			83.0		39.3
Approach LOS		F			F			F		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.11	
Intersection Signal Delay: 148.1	Intersection LOS: F
Intersection Capacity Utilization 96.1%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	468	260	327	670	35	494	104	159	54	184	5
Future Volume (veh/h)	4	468	260	327	670	35	494	104	159	54	184	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	509	282	355	728	29	537	113	151	59	200	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	401	340	169	568	482	470	324	433	78	415	6
Arrive On Green	0.01	0.21	0.21	0.09	0.30	0.30	0.26	0.44	0.44	0.04	0.22	0.22
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	737	985	1810	1867	28
Grp Volume(v), veh/h	4	509	282	355	728	29	537	0	264	59	0	203
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1723	1810	0	1895
Q Serve(g_s), s	0.2	19.0	15.1	8.4	26.9	1.2	23.4	0.0	9.1	2.9	0.0	8.4
Cycle Q Clear(g_c), s	0.2	19.0	15.1	8.4	26.9	1.2	23.4	0.0	9.1	2.9	0.0	8.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.57	1.00		0.01
Lane Grp Cap(c), veh/h	10	401	340	169	568	482	470	0	757	78	0	421
V/C Ratio(X)	0.42	1.27	0.83	2.10	1.28	0.06	1.14	0.00	0.35	0.76	0.00	0.48
Avail Cap(c_a), veh/h	101	401	340	169	568	482	470	0	757	129	0	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.6	35.5	34.0	40.8	31.5	22.5	33.3	0.0	16.7	42.6	0.0	30.5
Incr Delay (d2), s/veh	10.4	139.4	15.7	515.4	139.4	0.1	86.4	0.0	1.3	5.6	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	24.1	7.0	27.9	33.9	0.4	20.8	0.0	3.5	1.4	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	174.9	49.6	556.2	171.0	22.6	119.7	0.0	18.0	48.3	0.0	34.4
LnGrp LOS	E	F	D	F	F	C	F	A	B	D	A	C
Approach Vol, veh/h		795			1112			801			262	
Approach Delay, s/veh		129.9			290.1			86.2			37.5	
Approach LOS		F			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	23.8	28.0	25.2	5.1	31.7	8.5	44.7
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0
Max Q Clear Time (g_c+I1), s	10.4	21.0	25.4	10.4	2.2	28.9	4.9	11.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	169.9
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↰	↱		↰	↱	
Traffic Vol, veh/h	2	4	90	46	11	36	358	660	26	15	585	3
Future Vol, veh/h	2	4	90	46	11	36	358	660	26	15	585	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	4	98	50	12	39	389	717	28	16	636	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2205	2193	638	2230	2180	731	639	0	0	745	0	0
Stage 1	670	670	-	1509	1509	-	-	-	-	-	-	-
Stage 2	1535	1523	-	721	671	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	32	46	480	~ 31	47	425	955	-	-	872	-	-
Stage 1	450	459	-	152	185	-	-	-	-	-	-	-
Stage 2	147	182	-	422	458	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	16	27	480	~ 16	27	425	955	-	-	872	-	-
Mov Cap-2 Maneuver	45	76	-	1332	47	-	-	-	-	-	-	-
Stage 1	267	451	-	90	110	-	-	-	-	-	-	-
Stage 2	71	108	-	327	450	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.4	27	3.9	0.2
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	955	-	-	337	263	872	-	-
HCM Lane V/C Ratio	0.407	-	-	0.31	0.384	0.019	-	-
HCM Control Delay (s)	11.3	-	-	20.4	27	9.2	-	-
HCM Lane LOS	B	-	-	C	D	A	-	-
HCM 95th %tile Q(veh)	2	-	-	1.3	1.7	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	106.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	134	211	204	1061	403	460
Future Vol, veh/h	134	211	204	1061	403	460
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	146	229	222	1153	438	500

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2285	688	938	0	-	0
Stage 1	688	-	-	-	-	-
Stage 2	1597	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 44	450	739	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 31	450	739	-	-	-
Mov Cap-2 Maneuver	~ 31	-	-	-	-	-
Stage 1	352	-	-	-	-	-
Stage 2	185	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s$	759.3	1.9	0
HCM LOS	F		

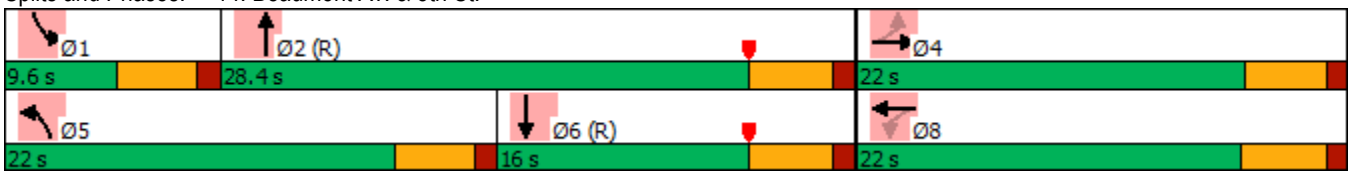
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	739	-	31	450	-	-
HCM Lane V/C Ratio	0.3	-	4.698	0.51	-	-
HCM Control Delay (s)	11.9	-	$ 1921.8	21	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.3	-	17.5	2.8	-	-

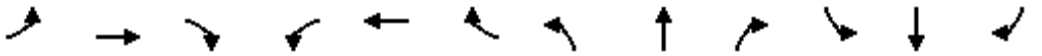
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	100	19	23	6	71	959	81	968
Future Volume (vph)	100	19	23	6	71	959	81	968
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		12.4		12.2	7.1	32.8	6.6	34.4
Actuated g/C Ratio		0.21		0.20	0.12	0.55	0.11	0.57
v/c Ratio		0.56		0.33	0.36	0.54	0.44	0.68
Control Delay		24.7		9.2	26.7	13.0	32.9	17.8
Queue Delay		1.7		0.5	0.2	0.8	0.0	5.7
Total Delay		26.4		9.8	26.9	13.8	32.9	23.5
LOS		C		A	C	B	C	C
Approach Delay		26.4		9.8		14.7		24.1
Approach LOS		C		A		B		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 19.9	Intersection LOS: B
Intersection Capacity Utilization 67.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	19	37	23	6	95	71	959	16	81	968	288
Future Volume (veh/h)	100	19	37	23	6	95	71	959	16	81	968	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	109	21	40	25	7	103	77	1042	17	88	1052	313
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	49	63	101	35	209	109	1940	32	116	1477	436
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.12	1.00	1.00	0.06	0.54	0.54
Sat Flow, veh/h	930	297	378	180	212	1260	1810	3635	59	1810	2748	811
Grp Volume(v), veh/h	170	0	0	135	0	0	77	517	542	88	688	677
Grp Sat Flow(s),veh/h/ln	1604	0	0	1652	0	0	1810	1805	1889	1810	1805	1754
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.9	17.1	17.4
Cycle Q Clear(g_c), s	5.4	0.0	0.0	4.4	0.0	0.0	2.5	0.0	0.0	2.9	17.1	17.4
Prop In Lane	0.64		0.24	0.19		0.76	1.00		0.03	1.00		0.46
Lane Grp Cap(c), veh/h	364	0	0	345	0	0	109	963	1008	116	970	943
V/C Ratio(X)	0.47	0.00	0.00	0.39	0.00	0.00	0.71	0.54	0.54	0.76	0.71	0.72
Avail Cap(c_a), veh/h	541	0	0	535	0	0	525	963	1008	151	970	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	0.0	22.7	0.0	0.0	25.9	0.0	0.0	27.6	10.4	10.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.7	0.0	0.0	3.0	2.1	2.0	10.4	4.4	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	1.7	0.0	0.0	1.1	0.6	0.6	1.5	6.5	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	0.0	0.0	23.4	0.0	0.0	28.9	2.1	2.0	38.0	14.7	15.1
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	B	B
Approach Vol, veh/h		170			135			1136			1453	
Approach Delay, s/veh		24.0			23.4			3.9			16.3	
Approach LOS		C			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	36.8		14.7	8.2	37.0		14.7				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	4.9	2.0		7.4	4.5	19.4		6.4				
Green Ext Time (p_c), s	0.0	7.4		0.7	0.1	0.0		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

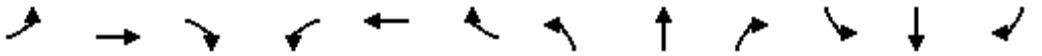
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	178	233	1274	514	928	1052
Future Volume (vph)	178	233	1274	514	928	1052
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	12.5	11.2	32.9	32.9	32.9	32.9
Actuated g/C Ratio	0.22	0.20	0.58	0.58	0.58	0.58
v/c Ratio	0.25	0.41	0.47	0.48	0.34	0.54
Control Delay	22.2	18.3	6.8	2.0	6.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	18.3	6.8	2.0	6.0	1.4
LOS	C	B	A	A	A	A
Approach Delay			5.4		3.6	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 56.3	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 6.0	Intersection LOS: A
Intersection Capacity Utilization 42.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	178	0	233	0	1274	514	0	928	1052
Future Volume (veh/h)	0	0	0	178	0	233	0	1274	514	0	928	1052
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				193	0	226	0	1385	0	0	1009	1061
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				469	0	378	0	3287		0	3287	1796
Arrive On Green				0.14	0.00	0.14	0.00	0.64	0.00	0.00	0.64	0.64
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				193	0	226	0	1385	0	0	1009	1061
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.4	0.0	3.6	0.0	6.3	0.0	0.0	4.1	10.3
Cycle Q Clear(g_c), s				2.4	0.0	3.6	0.0	6.3	0.0	0.0	4.1	10.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				469	0	378	0	3287		0	3287	1796
V/C Ratio(X)				0.41	0.00	0.60	0.00	0.42		0.00	0.31	0.59
Avail Cap(c_a), veh/h				2962	0	2391	0	7496		0	7496	4095
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				18.7	0.0	19.2	0.0	4.1	0.0	0.0	3.7	4.8
Incr Delay (d2), s/veh				0.2	0.0	0.6	0.0	0.1	0.0	0.0	0.1	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	1.0	0.0	0.7	0.0	0.0	0.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.9	0.0	19.7	0.0	4.2	0.0	0.0	3.8	5.1
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					419			1385	A		2070	
Approach Delay, s/veh					19.3			4.2			4.5	
Approach LOS					B			A			A	

Timer - Assigned Phs	2		6		8							
Phs Duration (G+Y+Rc), s	36.1		36.1		11.0							
Change Period (Y+Rc), s	5.8		5.8		4.6							
Max Green Setting (Gmax), s	69.2		69.2		40.4							
Max Q Clear Time (g_c+I1), s	8.3		12.3		5.6							
Green Ext Time (p_c), s	13.1		18.0		0.8							

Intersection Summary		
HCM 6th Ctrl Delay	6.0	
HCM 6th LOS	A	

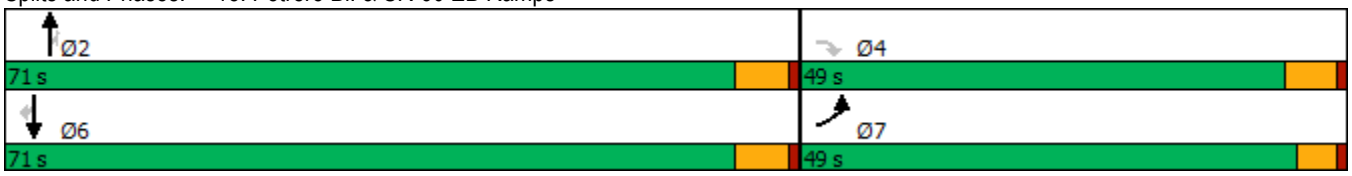
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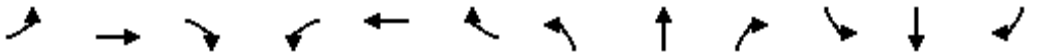
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	779	358	1009	365	860	245
Future Volume (vph)	779	358	1009	365	860	245
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	18.7	17.5	25.7	25.7	25.7	25.7
Actuated g/C Ratio	0.34	0.32	0.46	0.46	0.46	0.46
v/c Ratio	0.73	0.38	0.46	0.26	0.40	0.30
Control Delay	21.0	9.0	11.0	1.7	10.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	9.0	11.0	1.7	10.5	2.6
LOS	C	A	B	A	B	A
Approach Delay			8.6		8.7	
Approach LOS			A		A	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 55.3			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 11.3		Intersection LOS: B	
Intersection Capacity Utilization 49.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	779	0	358	0	0	0	0	1009	365	0	860	245
Future Volume (veh/h)	779	0	358	0	0	0	0	1009	365	0	860	245
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	847	0	307				0	1097	354	0	935	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1099	0	887				0	2306	1260	0	2306	
Arrive On Green	0.32	0.00	0.32				0.00	0.45	0.45	0.00	0.45	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	847	0	307				0	1097	354	0	935	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	10.0	0.0	3.8				0.0	6.8	3.6	0.0	5.6	0.0
Cycle Q Clear(g_c), s	10.0	0.0	3.8				0.0	6.8	3.6	0.0	5.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1099	0	887				0	2306	1260	0	2306	
V/C Ratio(X)	0.77	0.00	0.35				0.00	0.48	0.28	0.00	0.41	
Avail Cap(c_a), veh/h	3396	0	2742				0	7370	4026	0	7370	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	13.9	0.0	11.8				0.0	8.6	7.8	0.0	8.3	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.1				0.0	0.2	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.9				0.0	1.6	0.7	0.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	11.9				0.0	8.8	7.9	0.0	8.4	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h		1154						1451			935	A
Approach Delay, s/veh		13.7						8.6			8.4	
Approach LOS		B						A			A	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		26.2		19.0		26.2						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		65.2		44.4		65.2						
Max Q Clear Time (g_c+I1), s		8.8		12.0		7.6						
Green Ext Time (p_c), s		11.6		2.4		7.3						

Intersection Summary		
HCM 6th Ctrl Delay		10.2
HCM 6th LOS		B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	1089.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	365	898	1072	652	761	1486
Future Vol, veh/h	365	898	1072	652	761	1486
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	397	976	1165	709	827	1615
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	706.9	840.2	1495.8
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	761	1486	183	183	898	1072	326	326
LT Vol	761	0	0	0	0	1072	0	0
Through Vol	0	0	183	183	0	0	326	326
RT Vol	0	1486	0	0	898	0	0	0
Lane Flow Rate	827	1615	198	198	976	1165	354	354
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	2.814	4.958	0.657	0.657	2.582	3.596	1.044	0.877
Departure Headway (Hd)	17.423	16.193	86.256	86.256	84.498	36.742	36.388	35.185
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	215	242	46	46	59	117	103	106
Service Time	15.123	13.893	83.956	83.956	82.198	34.442	34.088	32.885
HCM Lane V/C Ratio	3.847	6.674	4.304	4.304	16.542	9.957	3.437	3.34
HCM Control Delay	862.6	1820.1	189.1	189.1	917.4	1256.5	180.1	131.3
HCM Lane LOS	F	F	F	F	F	F	F	F
HCM 95th-tile Q	51.1	113.6	2.4	2.4	11.9	35.5	6.5	5.1

Intersection	
Intersection Delay, s/veh	504.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	114	0	1316	0	11	1623	0
Future Vol, veh/h	0	0	0	2	0	114	0	1316	0	11	1623	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	124	0	1430	0	12	1764	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	14.2	504.8	727.2
HCM LOS	B	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	1%
Vol Thru, %	100%	0%	99%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1316	116	1634
LT Vol	0	2	11
Through Vol	1316	0	1623
RT Vol	0	114	0
Lane Flow Rate	1430	126	1776
Geometry Grp	1	1	1
Degree of Util (X)	2.072	0.225	2.573
Departure Headway (Hd)	6.733	8.699	6.269
Convergence, Y/N	Yes	Yes	Yes
Cap	558	416	604
Service Time	4.733	6.699	4.269
HCM Lane V/C Ratio	2.563	0.303	2.94
HCM Control Delay	504.8	14.2	727.2
HCM Lane LOS	F	B	F
HCM 95th-tile Q	77	0.9	117.6

Intersection	
Intersection Delay, s/veh	311.3
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	696	88	0	28	551	383	583
Future Vol, veh/h	696	88	0	28	551	383	583
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	757	96	0	30	599	416	634
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	531.9	120.5	246.6
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	89%	0%	0%	0%	100%	18%
Vol Thru, %	11%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	82%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	784	0	28	551	255	711
LT Vol	696	0	0	0	255	128
Through Vol	88	0	28	0	0	0
RT Vol	0	0	0	551	0	583
Lane Flow Rate	852	0	30	599	278	772
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	2.112	0	0.065	1.166	0.665	1.64
Departure Headway (Hd)	10.175	9.454	9.454	8.71	10.764	9.722
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	366	0	381	425	339	379
Service Time	7.875	7.154	7.154	6.41	8.464	7.422
HCM Lane V/C Ratio	2.328	0	0.079	1.409	0.82	2.037
HCM Control Delay	531.9	12.2	12.8	126	32.4	323.5
HCM Lane LOS	F	N	B	F	D	F
HCM 95th-tile Q	54.3	0	0.2	18.4	4.5	36

Intersection	
Intersection Delay, s/veh	455.5
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	517	919	909	510	256	916
Future Vol, veh/h	517	919	909	510	256	916
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	533	947	937	526	264	944
Number of Lanes	1	1	3	0	1	0

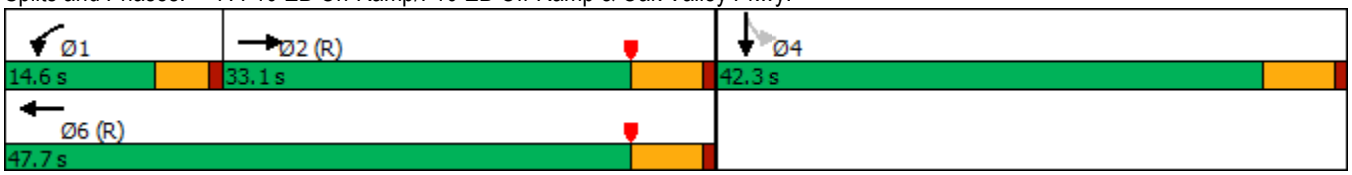
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	527.8	50.7	856.9
HCM LOS	F	F	F

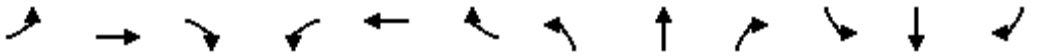
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	22%
Vol Thru, %	0%	100%	100%	100%	26%	0%
Vol Right, %	0%	0%	0%	0%	74%	78%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	517	919	364	364	692	1172
LT Vol	517	0	0	0	0	256
Through Vol	0	919	364	364	182	0
RT Vol	0	0	0	0	510	916
Lane Flow Rate	533	947	375	375	713	1208
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	1.439	2.426	0.812	0.812	1.106	2.851
Departure Headway (Hd)	14.592	14.024	5.437	5.437	3.052	8.495
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	256	275	667	667	1191	447
Service Time	12.292	11.724	3.137	3.137	0.752	6.138
HCM Lane V/C Ratio	2.082	3.444	0.562	0.562	0.599	2.702
HCM Control Delay	254.7	681.5	27.3	27.3	75.3	856.9
HCM Lane LOS	F	F	D	D	F	F
HCM 95th-tile Q	20.1	50.4	8.4	8.4	31.3	103.1

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	2183	247	1905	1
Future Volume (vph)	2183	247	1905	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	4.60	1.26	2.25	4.10
Control Delay	1636.3	147.4	580.3	1411.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1636.3	147.4	580.3	1411.2
LOS	F	F	F	F
Approach Delay	1636.3		530.7	1411.2
Approach LOS	F		F	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.60	
Intersection Signal Delay: 1235.7	Intersection LOS: F
Intersection Capacity Utilization 449.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2183	391	247	1905	0	0	0	0	1254	1	1514
Future Volume (veh/h)	0	2183	391	247	1905	0	0	0	0	1254	1	1514
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2373	365	268	2071	0				1363	1	1592
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	520	80	213	923	0				333	0	389
Arrive On Green	0.00	0.32	0.30	0.12	0.49	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1608	247	1810	1900	0				782	1	914
Grp Volume(v), veh/h	0	0	2738	268	2071	0				2956	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1855	1810	1900	0				1696	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.13	1.00		0.00				0.46		0.54
Lane Grp Cap(c), veh/h	0	0	600	213	923	0				722	0	0
V/C Ratio(X)	0.00	0.00	4.56	1.26	2.24	0.00				4.09	0.00	0.00
Avail Cap(c_a), veh/h	0	0	600	213	923	0				722	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.6	39.7	23.1	0.0				26.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1607.5	119.5	560.5	0.0				1395.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	279.8	11.5	160.3	0.0				293.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	1638.1	159.2	583.6	0.0				1422.2	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		2738			2339						2956	
Approach Delay, s/veh		1638.1			535.0						1422.2	
Approach LOS		F			F						F	

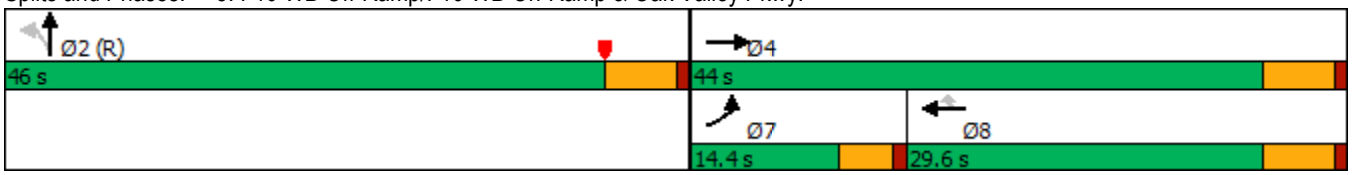
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0

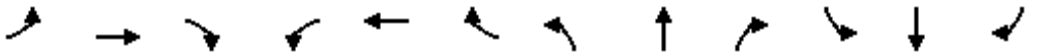
Intersection Summary		
HCM 6th Ctrl Delay		1237.5
HCM 6th LOS		F

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	365	3072	1633	422	5
Future Volume (vph)	365	3072	1633	422	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	1.81	3.75	3.12	0.76	1.54
Control Delay	389.4	1252.1	974.6	28.3	272.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	389.4	1252.1	974.6	28.3	272.4
LOS	F	F	F	C	F
Approach Delay		1160.5	780.3		272.4
Approach LOS		F	F		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.75	
Intersection Signal Delay: 884.8	Intersection LOS: F
Intersection Capacity Utilization 449.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	3072	0	0	1633	422	520	5	672	0	0	0
Future Volume (veh/h)	365	3072	0	0	1633	422	520	5	672	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	376	3167	0	0	1684	365	536	5	641			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	359	3	429			
Arrive On Green	0.08	0.30	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	769	7	920			
Grp Volume(v), veh/h	376	3167	0	0	1684	365	1182	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1696	0	0			
Q Serve(g_s), s	10.4	40.0	0.0	0.0	25.6	18.9	42.0	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	40.0	0.0	0.0	25.6	18.9	42.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.45		0.54			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	791	0	0			
V/C Ratio(X)	1.80	3.75	0.00	0.00	3.12	0.80	1.49	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	791	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.5	31.6	0.0	0.0	32.2	29.8	24.5	0.0	0.0			
Incr Delay (d2), s/veh	360.9	1237.9	0.0	0.0	957.1	9.5	228.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	25.6	308.6	0.0	0.0	154.5	8.0	65.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	402.4	1269.5	0.0	0.0	989.3	39.3	253.2	0.0	0.0			
LnGrp LOS	F	F	A	A	F	D	F	A	A			
Approach Vol, veh/h		3543			2049			1182				
Approach Delay, s/veh		1177.5			820.0			253.2				
Approach LOS		F			F			F				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.0		44.0			14.4	29.6				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			9.8	23.8				
Max Q Clear Time (g_c+I1), s		44.0		42.0			12.4	27.6				
Green Ext Time (p_c), s		0.0		0.0			0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			908.1									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Future Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	352	1100	165	141	869	72	0	0	154	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1265	0	0	-	-	633	-	-	905
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	737	-	-	556	-	-	0	0	427	0	0	338
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	737	-	-	556	-	-	-	-	427	-	-	338
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	1.8	18.1	19.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	737	-	-	556	-	-	338
HCM Lane V/C Ratio	0.36	0.477	-	-	0.253	-	-	0.251
HCM Control Delay (s)	18.1	14.3	-	-	13.7	-	-	19.2
HCM Lane LOS	C	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.6	2.6	-	-	1	-	-	1

Intersection	
Intersection Delay, s/veh	163.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	129	526	94	11	467	182	48	45	13	155	72	71
Future Vol, veh/h	129	526	94	11	467	182	48	45	13	155	72	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	140	572	102	12	508	198	52	49	14	168	78	77
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

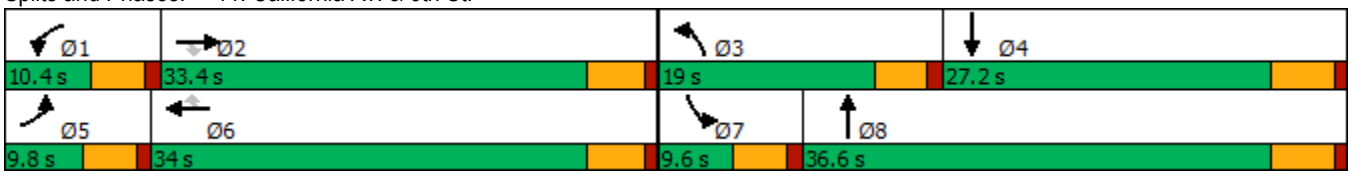
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	122.5	297.4	18.3	19
HCM LOS	F	F	C	C

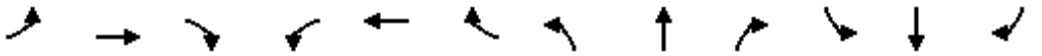
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	52%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	48%	0%	0%	100%	0%	0%	72%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	28%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	93	13	129	526	94	11	649	155	72	71
LT Vol	48	0	129	0	0	11	0	155	0	0
Through Vol	45	0	0	526	0	0	467	0	72	0
RT Vol	0	13	0	0	94	0	182	0	0	71
Lane Flow Rate	101	14	140	572	102	12	705	168	78	77
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.282	0.036	0.331	1.272	0.208	0.029	1.599	0.446	0.196	0.179
Departure Headway (Hd)	11.705	10.696	9.686	9.167	8.442	9.346	8.635	11.108	10.582	9.846
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	309	337	374	400	428	385	430	327	341	367
Service Time	9.405	8.396	7.386	6.867	6.142	7.046	6.335	8.808	8.282	7.546
HCM Lane V/C Ratio	0.327	0.042	0.374	1.43	0.238	0.031	1.64	0.514	0.229	0.21
HCM Control Delay	18.9	13.8	17.1	167.9	13.3	12.3	302.2	22.5	15.8	14.7
HCM Lane LOS	C	B	C	F	B	B	F	C	C	B
HCM 95th-tile Q	1.1	0.1	1.4	21.9	0.8	0.1	37.8	2.2	0.7	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	686	207	322	521	13	454	156	24	94
Future Volume (vph)	23	686	207	322	521	13	454	156	24	94
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.7	29.4	29.4	6.4	35.9	35.9	15.0	38.4	5.6	23.2
Actuated g/C Ratio	0.06	0.33	0.33	0.07	0.40	0.40	0.17	0.43	0.06	0.26
v/c Ratio	0.21	1.16	0.33	2.65	0.72	0.02	1.59	0.80	0.22	0.23
Control Delay	44.6	120.9	6.0	783.8	31.3	0.1	311.0	25.8	45.2	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	120.9	6.0	783.8	31.3	0.1	311.0	25.8	45.2	26.0
LOS	D	F	A	F	C	A	F	C	D	C
Approach Delay		93.0			314.0			145.9		29.5
Approach LOS		F			F			F		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.65	
Intersection Signal Delay: 172.8	Intersection LOS: F
Intersection Capacity Utilization 100.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	686	207	322	521	13	454	156	468	24	94	13
Future Volume (veh/h)	23	686	207	322	521	13	454	156	468	24	94	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	722	214	339	548	9	478	164	462	25	99	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	621	526	129	695	589	302	172	485	59	447	36
Arrive On Green	0.03	0.33	0.33	0.07	0.37	0.37	0.17	0.39	0.38	0.03	0.26	0.24
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	439	1238	1810	1735	140
Grp Volume(v), veh/h	24	722	214	339	548	9	478	0	626	25	0	107
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1677	1810	0	1875
Q Serve(g_s), s	1.2	29.4	9.3	6.4	23.1	0.3	15.0	0.0	32.6	1.2	0.0	4.0
Cycle Q Clear(g_c), s	1.2	29.4	9.3	6.4	23.1	0.3	15.0	0.0	32.6	1.2	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.74	1.00		0.07
Lane Grp Cap(c), veh/h	57	621	526	129	695	589	302	0	657	59	0	483
V/C Ratio(X)	0.42	1.16	0.41	2.63	0.79	0.02	1.58	0.00	0.95	0.43	0.00	0.22
Avail Cap(c_a), veh/h	117	621	526	129	695	589	302	0	657	113	0	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.8	30.3	23.5	41.8	25.4	18.2	37.5	0.0	27.0	42.7	0.0	26.3
Incr Delay (d2), s/veh	1.8	90.3	0.5	757.4	6.0	0.0	278.5	0.0	25.2	1.8	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	28.4	3.3	29.9	11.2	0.1	29.6	0.0	16.4	0.6	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	120.6	24.0	799.2	31.5	18.2	316.0	0.0	52.1	44.5	0.0	27.4
LnGrp LOS	D	F	C	F	C	B	F	A	D	D	A	C
Approach Vol, veh/h		960			896			1104			132	
Approach Delay, s/veh		97.2			321.8			166.4			30.6	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	33.4	19.0	27.2	6.9	36.9	6.9	39.3
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	8.4	31.4	17.0	6.0	3.2	25.1	3.2	34.6
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	1.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	184.1
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	5	4	103	54	4	25	213	725	40	8	546	8
Future Vol, veh/h	5	4	103	54	4	25	213	725	40	8	546	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	4	108	57	4	26	224	763	42	8	575	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1842	1848	579	1883	1831	784	583	0	0	805	0	0
Stage 1	595	595	-	1232	1232	-	-	-	-	-	-	-
Stage 2	1247	1253	-	651	599	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	58	75	519	~ 55	77	396	1001	-	-	828	-	-
Stage 1	494	496	-	219	252	-	-	-	-	-	-	-
Stage 2	215	246	-	461	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	43	58	519	~ 35	59	396	1001	-	-	828	-	-
Mov Cap-2 Maneuver	110	141	-	84	129	-	-	-	-	-	-	-
Stage 1	383	491	-	170	196	-	-	-	-	-	-	-
Stage 2	152	191	-	358	489	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.2	102.8	2.1	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1001	-	-	411	113	828	-	-
HCM Lane V/C Ratio	0.224	-	-	0.287	0.773	0.01	-	-
HCM Control Delay (s)	9.6	-	-	17.2	102.8	9.4	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.9	-	-	1.2	4.3	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6125.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	478	590	230	1005	1165	401
Future Vol, veh/h	478	590	230	1005	1165	401
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	520	641	250	1092	1266	436

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3076	1484	1702	0	-	0
Stage 1	1484	-	-	-	-	-
Stage 2	1592	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 14	~ 155	379	-	-	-
Stage 1	~ 210	-	-	-	-	-
Stage 2	~ 186	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 5	~ 155	379	-	-	-
Mov Cap-2 Maneuver	~ 5	-	-	-	-	-
Stage 1	~ 71	-	-	-	-	-
Stage 2	~ 186	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 22184.2	5.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	379	-	5	155	-	-
HCM Lane V/C Ratio	0.66	-	103.913	4.137	-	-
HCM Control Delay (s)	31.1	-	$ 47751.8	$ 1470.1	-	-
HCM Lane LOS	D	-	F	F	-	-
HCM 95th %tile Q(veh)	4.5	-	67.2	64.5	-	-

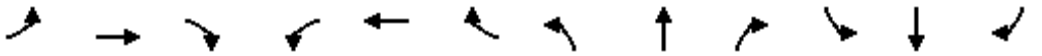
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	253	19	87	5	28	1816	177	850
Future Volume (vph)	253	19	87	5	28	1816	177	850
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		15.0		15.0	6.3	25.1	7.9	32.5
Actuated g/C Ratio		0.25		0.25	0.10	0.42	0.13	0.54
v/c Ratio		1.35		0.60	0.15	1.27	0.77	0.51
Control Delay		208.4		14.2	31.4	143.9	49.4	10.8
Queue Delay		3.2		4.7	1.6	0.0	0.0	51.6
Total Delay		211.5		18.9	33.0	143.9	49.4	62.4
LOS		F		B	C	F	D	E
Approach Delay		211.5		18.9		142.2		60.4
Approach LOS		F		B		F		E

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.35	
Intersection Signal Delay: 112.8	Intersection LOS: F
Intersection Capacity Utilization 110.0%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	253	19	47	87	5	203	28	1816	37	177	850	101
Future Volume (veh/h)	253	19	47	87	5	203	28	1816	37	177	850	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	261	20	48	90	5	209	29	1872	38	182	876	104
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	330	17	41	186	30	305	76	1906	39	241	2009	238
Arrive On Green	0.25	0.25	0.24	0.25	0.25	0.24	0.06	0.70	0.68	0.13	0.62	0.60
Sat Flow, veh/h	891	68	164	428	119	1203	1810	3619	73	1810	3250	386
Grp Volume(v), veh/h	329	0	0	304	0	0	29	931	979	182	487	493
Grp Sat Flow(s),veh/h/ln	1123	0	0	1750	0	0	1810	1805	1887	1810	1805	1831
Q Serve(g_s), s	5.5	0.0	0.0	0.0	0.0	0.0	0.9	29.5	30.1	5.8	8.5	8.5
Cycle Q Clear(g_c), s	15.0	0.0	0.0	9.5	0.0	0.0	0.9	29.5	30.1	5.8	8.5	8.5
Prop In Lane	0.79		0.15	0.30		0.69	1.00		0.04	1.00		0.21
Lane Grp Cap(c), veh/h	388	0	0	521	0	0	76	951	994	241	1116	1131
V/C Ratio(X)	0.85	0.00	0.00	0.58	0.00	0.00	0.38	0.98	0.99	0.75	0.44	0.44
Avail Cap(c_a), veh/h	388	0	0	521	0	0	241	951	994	241	1116	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	0.0	20.6	0.0	0.0	27.6	8.7	8.8	25.1	6.0	6.0
Incr Delay (d2), s/veh	15.9	0.0	0.0	1.7	0.0	0.0	1.0	22.3	23.1	11.4	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	0.0	3.9	0.0	0.0	0.4	10.3	11.0	3.1	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	0.0	22.2	0.0	0.0	28.6	31.0	31.8	36.4	7.2	7.3
LnGrp LOS	D	A	A	C	A	A	C	C	C	D	A	A
Approach Vol, veh/h		329			304			1939			1162	
Approach Delay, s/veh		39.8			22.2			31.4			11.8	
Approach LOS		D			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	35.8		19.2	6.5	41.3		19.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	7.8	32.1		17.0	2.9	10.5		11.5				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.4		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		25.3	
HCM 6th LOS		C	

Notes

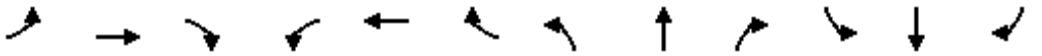
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	530	283	2716	417	1585	1107
Future Volume (vph)	530	283	2716	417	1585	1107
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	42.0	42.0	78.0	78.0	78.0	78.0
Total Split (%)	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	21.6	20.4	72.3	72.3	72.3	72.3
Actuated g/C Ratio	0.21	0.20	0.69	0.69	0.69	0.69
v/c Ratio	0.81	0.55	0.84	0.38	0.49	0.52
Control Delay	49.0	38.1	15.4	3.9	8.4	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	38.1	15.4	3.9	8.4	1.3
LOS	D	D	B	A	A	A
Approach Delay			13.8		5.5	
Approach LOS			B		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.4	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	530	0	283	0	2716	417	0	1585	1107
Future Volume (veh/h)	0	0	0	530	0	283	0	2716	417	0	1585	1107
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				576	0	281	0	2952	0	0	1723	1121
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				682	0	550	0	3562		0	3562	1946
Arrive On Green				0.20	0.00	0.20	0.00	0.70	0.00	0.00	0.70	0.70
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				576	0	281	0	2952	0	0	1723	1121
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				15.9	0.0	8.9	0.0	41.0	0.0	0.0	15.2	20.1
Cycle Q Clear(g_c), s				15.9	0.0	8.9	0.0	41.0	0.0	0.0	15.2	20.1
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				682	0	550	0	3562		0	3562	1946
V/C Ratio(X)				0.84	0.00	0.51	0.00	0.83		0.00	0.48	0.58
Avail Cap(c_a), veh/h				1307	0	1055	0	3728		0	3728	2037
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.2	0.0	35.4	0.0	10.7	0.0	0.0	6.8	7.6
Incr Delay (d2), s/veh				1.1	0.0	0.3	0.0	1.6	0.0	0.0	0.1	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.5	0.0	2.9	0.0	11.7	0.0	0.0	4.2	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.4	0.0	35.7	0.0	12.3	0.0	0.0	6.9	7.9
LnGrp LOS				D	A	D	A	B		A	A	A
Approach Vol, veh/h					857			2952	A		2844	
Approach Delay, s/veh					38.2			12.3			7.3	
Approach LOS					D			B			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	74.8		74.8		24.1			
Change Period (Y+Rc), s	5.8		5.8		4.6			
Max Green Setting (Gmax), s	72.2		72.2		37.4			
Max Q Clear Time (g_c+I1), s	43.0		22.1		17.9			
Green Ext Time (p_c), s	26.0		31.1		1.6			

Intersection Summary		
HCM 6th Ctrl Delay	13.5	
HCM 6th LOS	B	

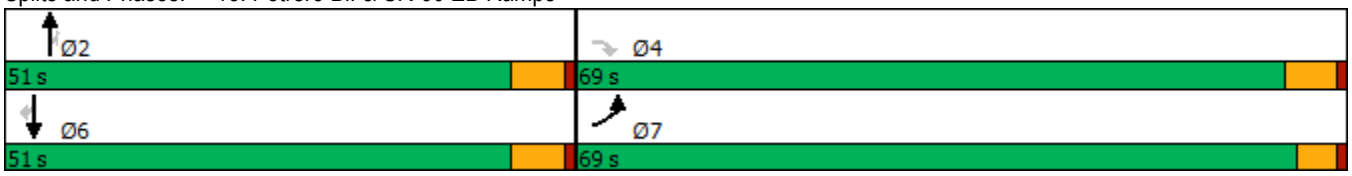
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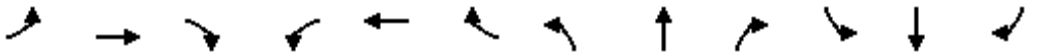
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1702	413	1431	365	1806	309
Future Volume (vph)	1702	413	1431	365	1806	309
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	69.0	69.0	51.0	51.0	51.0	51.0
Total Split (%)	57.5%	57.5%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	64.4	63.2	45.2	45.2	45.2	45.2
Actuated g/C Ratio	0.54	0.53	0.38	0.38	0.38	0.38
v/c Ratio	1.00	0.30	0.81	0.31	1.03	0.47
Control Delay	50.2	15.7	37.8	3.0	64.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	15.7	37.8	3.0	64.3	14.2
LOS	D	B	D	A	E	B
Approach Delay			30.7		57.0	
Approach LOS			C		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 44.4	Intersection LOS: D
Intersection Capacity Utilization 91.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1702	0	413	0	0	0	0	1431	365	0	1806	309
Future Volume (veh/h)	1702	0	413	0	0	0	0	1431	365	0	1806	309
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1850	0	313				0	1555	288	0	1963	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1855	0	1497				0	1923	1051	0	1923	
Arrive On Green	0.54	0.00	0.54				0.00	0.38	0.38	0.00	0.38	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	1850	0	313				0	1555	288	0	1963	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	64.1	0.0	7.0				0.0	32.8	8.6	0.0	45.2	0.0
Cycle Q Clear(g_c), s	64.1	0.0	7.0				0.0	32.8	8.6	0.0	45.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1855	0	1497				0	1923	1051	0	1923	
V/C Ratio(X)	1.00	0.00	0.21				0.00	0.81	0.27	0.00	1.02	
Avail Cap(c_a), veh/h	1855	0	1497				0	1923	1051	0	1923	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	27.7	0.0	14.5				0.0	33.5	26.0	0.0	37.4	0.0
Incr Delay (d2), s/veh	20.3	0.0	0.0				0.0	2.7	0.1	0.0	25.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.9	0.0	2.1				0.0	13.3	2.8	0.0	22.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	0.0	14.5				0.0	36.2	26.1	0.0	63.3	0.0
LnGrp LOS	D	A	B				A	D	C	A	F	
Approach Vol, veh/h		2163						1843			1963	A
Approach Delay, s/veh		43.2						34.6			63.3	
Approach LOS		D						C			E	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		51.0		69.0		51.0						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		45.2		64.4		45.2						
Max Q Clear Time (g_c+I1), s		34.8		66.1		47.2						
Green Ext Time (p_c), s		7.4		0.0		0.0						

Intersection Summary		
HCM 6th Ctrl Delay		47.1
HCM 6th LOS		D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 9.2:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

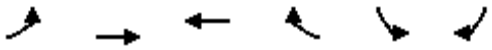
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Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	170	785	234	100
Future Volume (vph)	170	785	234	100
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	33.4	33.4	33.4	13.7
Actuated g/C Ratio	0.68	0.68	0.68	0.28
v/c Ratio	0.14	0.66	0.22	0.22
Control Delay	5.2	10.7	1.2	23.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	10.7	1.2	23.4
LOS	A	B	A	C
Approach Delay	5.2	8.5		23.4
Approach LOS	A	A		C

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 49.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 9.2		Intersection LOS: A	
Intersection Capacity Utilization 59.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	170	785	234	100	0
Future Volume (veh/h)	0	170	785	234	100	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	185	853	254	109	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	1087	1087	921	301	268
Arrive On Green	0.00	0.57	0.57	0.57	0.17	0.00
Sat Flow, veh/h	517	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	185	853	254	109	0
Grp Sat Flow(s),veh/h/ln	517	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	2.0	15.5	3.6	2.4	0.0
Cycle Q Clear(g_c), s	0.0	2.0	15.5	3.6	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	162	1087	1087	921	301	268
V/C Ratio(X)	0.00	0.17	0.78	0.28	0.36	0.00
Avail Cap(c_a), veh/h	498	2321	2321	1967	987	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.5	7.4	4.8	16.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.3	0.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	3.0	0.5	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.6	8.7	5.0	17.1	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		185	1107		109	
Approach Delay, s/veh		4.6	7.8		17.1	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			31.2		13.2	31.2
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			4.0		4.4	17.5
Green Ext Time (p_c), s			1.0		0.2	7.9

Intersection Summary		
HCM 6th Ctrl Delay	8.1	
HCM 6th LOS	A	

Intersection	
Intersection Delay, s/veh	798.2
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	360	906	1249	384	454	1104
Future Vol, veh/h	360	906	1249	384	454	1104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	391	985	1358	417	493	1200
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	420.6	1082.2	807.3
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	454	1104	180	180	906	1249	192	192
LT Vol	454	0	0	0	0	1249	0	0
Through Vol	0	0	180	180	0	0	192	192
RT Vol	0	1104	0	0	906	0	0	0
Lane Flow Rate	493	1200	196	196	985	1358	209	209
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	1.471	3.178	0.55	0.55	2.114	4.019	0.589	0.49
Departure Headway (Hd)	18.345	17.083	24.9	24.9	22.503	18.189	17.69	15.992
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	202	228	147	147	177	217	207	227
Service Time	16.045	14.783	22.6	22.6	20.203	15.889	15.39	13.692
HCM Lane V/C Ratio	2.441	5.263	1.333	1.333	5.565	6.258	1.01	0.921
HCM Control Delay	279.9	1024.2	54.5	54.5	566.1	1403.2	43	33.1
HCM Lane LOS	F	F	F	F	F	F	E	D
HCM 95th-tile Q	17.7	61.5	2.7	2.7	27	78.5	3.3	2.5

Intersection	
Intersection Delay, s/veh	522.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	11	0	64	0	1039	6	54	1588	0
Future Vol, veh/h	0	0	0	11	0	64	0	1039	6	54	1588	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	70	0	1129	7	59	1726	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	13.2	290.4	692.9
HCM LOS	B	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	3%
Vol Thru, %	99%	0%	97%
Vol Right, %	1%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1045	75	1642
LT Vol	0	11	54
Through Vol	1039	0	1588
RT Vol	6	64	0
Lane Flow Rate	1136	82	1785
Geometry Grp	1	1	1
Degree of Util (X)	1.588	0.148	2.5
Departure Headway (Hd)	6.427	8.657	5.621
Convergence, Y/N	Yes	Yes	Yes
Cap	579	417	660
Service Time	4.427	6.657	3.621
HCM Lane V/C Ratio	1.962	0.197	2.705
HCM Control Delay	290.4	13.2	692.9
HCM Lane LOS	F	B	F
HCM 95th-tile Q	48.1	0.5	124.9

Intersection	
Intersection Delay, s/veh	755.2
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	485	470	0	183	480	413	1385
Future Vol, veh/h	485	470	0	183	480	413	1385
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	527	511	0	199	522	449	1505
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	760.9	66.2	1006.2
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	51%	0%	0%	0%	100%	9%
Vol Thru, %	49%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	91%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	955	0	183	480	275	1523
LT Vol	485	0	0	0	275	138
Through Vol	470	0	183	0	0	0
RT Vol	0	0	0	480	0	1385
Lane Flow Rate	1038	0	199	522	299	1655
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	2.615	0	0.427	1.018	0.735	3.563
Departure Headway (Hd)	12.201	10.52	10.52	9.756	11.579	10.417
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	311	0	346	376	314	364
Service Time	9.901	8.22	8.22	7.456	9.279	8.117
HCM Lane V/C Ratio	3.338	0	0.575	1.388	0.952	4.547
HCM Control Delay	760.9	13.2	20.8	83.5	40.6	1180.8
HCM Lane LOS	F	N	C	F	E	F
HCM 95th-tile Q	64.1	0	2.1	12.3	5.4	114.7

Intersection	
Intersection Delay, s/veh	442.4
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	217	919	938	401	608	378
Future Vol, veh/h	217	919	938	401	608	378
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	236	999	1020	436	661	411
Number of Lanes	1	1	3	0	1	0

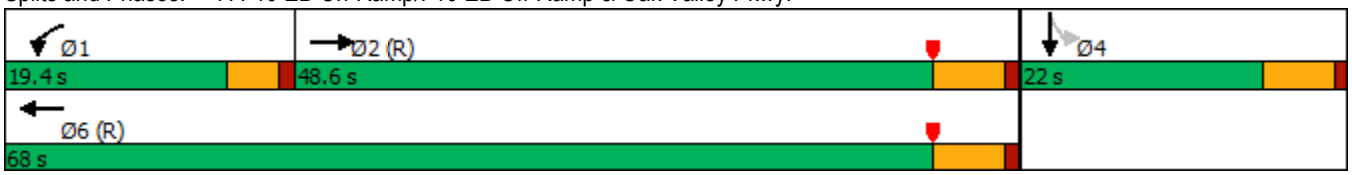
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	612	63.6	761.3
HCM LOS	F	F	F

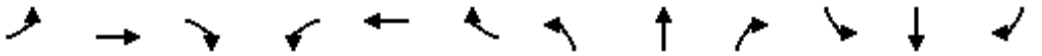
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	62%
Vol Thru, %	0%	100%	100%	100%	32%	0%
Vol Right, %	0%	0%	0%	0%	68%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	217	919	375	375	589	986
LT Vol	217	0	0	0	0	608
Through Vol	0	919	375	375	188	0
RT Vol	0	0	0	0	401	378
Lane Flow Rate	236	999	408	408	640	1072
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.641	2.577	0.873	0.873	0.983	2.627
Departure Headway (Hd)	14.068	13.505	11.32	11.32	8.905	10.267
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	259	280	322	322	416	364
Service Time	11.768	11.205	9.02	9.02	6.605	7.967
HCM Lane V/C Ratio	0.911	3.568	1.267	1.267	1.538	2.945
HCM Control Delay	38.9	747.3	58	58	70.7	761.3
HCM Lane LOS	E	F	F	F	F	F
HCM 95th-tile Q	4	57.1	8	8	11.8	75.9

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	1063	345	2006	4
Future Volume (vph)	1063	345	2006	4
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	2.13	1.27	1.66	3.84
Control Delay	532.9	156.4	317.1	1297.8
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	532.9	156.4	317.3	1297.8
LOS	F	F	F	F
Approach Delay	532.9		293.7	1297.8
Approach LOS	F		F	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.84	
Intersection Signal Delay: 589.4	Intersection LOS: F
Intersection Capacity Utilization 195.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1063	665	345	2006	0	0	0	0	336	4	779
Future Volume (veh/h)	0	1063	665	345	2006	0	0	0	0	336	4	779
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1155	639	375	2180	0				365	4	829
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	547	302	298	1313	0				91	1	208
Arrive On Green	0.00	0.48	0.48	0.22	0.92	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1150	636	1810	1900	0				508	6	1154
Grp Volume(v), veh/h	0	0	1794	375	2180	0				1198	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1786	1810	1900	0				1667	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	62.2	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	62.2	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.36	1.00		0.00				0.30		0.69
Lane Grp Cap(c), veh/h	0	0	849	298	1313	0				300	0	0
V/C Ratio(X)	0.00	0.00	2.11	1.26	1.66	0.00				3.99	0.00	0.00
Avail Cap(c_a), veh/h	0	0	849	298	1313	0				300	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	35.2	3.6	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	504.7	119.7	297.4	0.0				1354.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	134.5	15.6	110.2	0.0				119.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	528.3	154.8	301.0	0.0				1391.5	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1794			2555						1198	
Approach Delay, s/veh		528.3			279.6						1391.5	
Approach LOS		F			F						F	

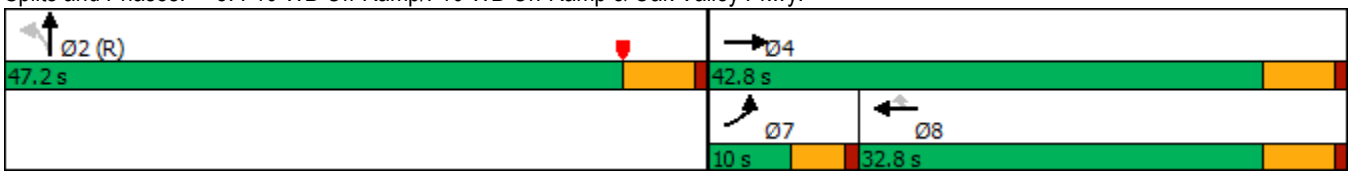
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		64.2						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						

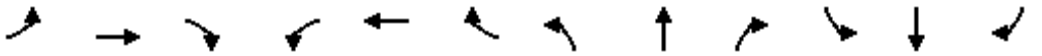
Intersection Summary												
HCM 6th Ctrl Delay			600.2									
HCM 6th LOS			F									

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	341	1058	1922	756	5
Future Volume (vph)	341	1058	1922	756	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	3.22	1.38	3.44	1.17	1.14
Control Delay	1018.2	198.0	1117.6	115.9	102.0
Queue Delay	0.0	0.0	5.6	0.0	5.6
Total Delay	1018.2	198.0	1123.2	115.9	107.6
LOS	F	F	F	F	F
Approach Delay		397.9	838.9		107.6
Approach LOS		F	F		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.44	
Intersection Signal Delay: 582.3	Intersection LOS: F
Intersection Capacity Utilization 195.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	341	1058	0	0	1922	756	429	5	469	0	0	0
Future Volume (veh/h)	341	1058	0	0	1922	756	429	5	469	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	348	1080	0	0	1961	655	438	5	357			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	432	5	352			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	939	11	765			
Grp Volume(v), veh/h	348	1080	0	0	1961	655	800	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1715	0	0			
Q Serve(g_s), s	5.4	37.0	0.0	0.0	27.0	27.0	41.4	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	37.0	0.0	0.0	27.0	27.0	41.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.55		0.45			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	789	0	0			
V/C Ratio(X)	3.21	1.38	0.00	0.00	3.44	1.36	1.01	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	789	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	32.6	0.0	0.0	31.5	31.5	24.3	0.0	0.0			
Incr Delay (d2), s/veh	994.5	172.9	0.0	0.0	1102.6	173.3	35.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	32.3	54.5	0.0	0.0	185.9	32.9	22.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1037.7	205.5	0.0	0.0	1134.1	204.8	59.8	0.0	0.0			
LnGrp LOS	F	F	A	A	F	F	F	A	A			
Approach Vol, veh/h		1428			2616			800				
Approach Delay, s/veh		408.3			901.4			59.8				
Approach LOS		F			F			E				

Timer - Assigned Phs	2	4	7	8
Phs Duration (G+Y+Rc), s	47.2	42.8	10.0	32.8
Change Period (Y+Rc), s	5.8	5.8	4.6	5.8
Max Green Setting (Gmax), s	41.4	37.0	5.4	27.0
Max Q Clear Time (g_c+I1), s	43.4	39.0	7.4	29.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	617.1
HCM 6th LOS	F

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	162	700	174	188	1078	32	0	0	77	0	0	191
Future Vol, veh/h	162	700	174	188	1078	32	0	0	77	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	176	761	189	204	1172	35	0	0	84	0	0	208

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1207	0	0	950	0	0	-	-	475	-	-	1190
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	585	-	-	731	-	-	0	0	541	0	0	231
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	585	-	-	731	-	-	-	-	541	-	-	231
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	1.7	12.9	80.4
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	541	585	-	-	731	-	-	231
HCM Lane V/C Ratio	0.155	0.301	-	-	0.28	-	-	0.899
HCM Control Delay (s)	12.9	13.8	-	-	11.8	-	-	80.4
HCM Lane LOS	B	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	0.5	1.3	-	-	1.1	-	-	7.5

Intersection	
Intersection Delay, s/veh	535.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	316	458	29	4	772	47	86	34	7	100	37	1039
Future Vol, veh/h	316	458	29	4	772	47	86	34	7	100	37	1039
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	343	498	32	4	839	51	93	37	8	109	40	1129
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

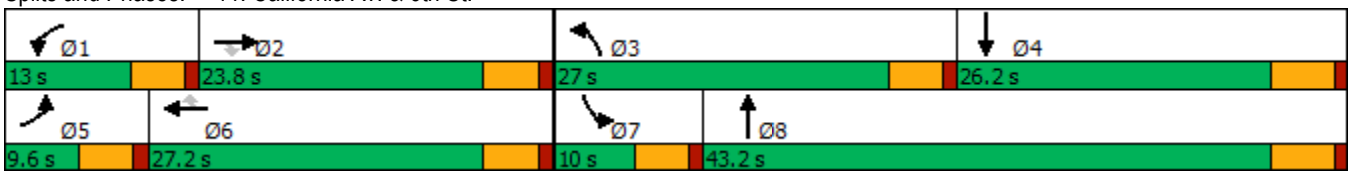
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	143.4	687	34.2	751.3
HCM LOS	F	F	D	F

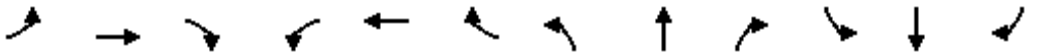
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	72%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	28%	0%	0%	100%	0%	0%	94%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	6%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	7	316	458	29	4	819	100	37	1039
LT Vol	86	0	316	0	0	4	0	100	0	0
Through Vol	34	0	0	458	0	0	772	0	37	0
RT Vol	0	7	0	0	29	0	47	0	0	1039
Lane Flow Rate	130	8	343	498	32	4	890	109	40	1129
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.417	0.022	0.925	1.272	0.074	0.013	2.45	0.307	0.108	2.81
Departure Headway (Hd)	19.221	18.009	15.985	15.427	14.646	13.902	13.331	13.415	12.879	12.128
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	189	200	230	239	246	259	285	270	280	316
Service Time	16.921	15.709	13.685	13.127	12.346	11.602	11.031	11.115	10.579	9.828
HCM Lane V/C Ratio	0.688	0.04	1.491	2.084	0.13	0.015	3.123	0.404	0.143	3.573
HCM Control Delay	35	21.1	85.1	191.5	18.5	16.8	690.3	21.9	17.1	847.7
HCM Lane LOS	D	C	F	F	C	C	F	C	C	F
HCM 95th-tile Q	1.9	0.1	7.8	15.2	0.2	0	53.6	1.3	0.4	71.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	468	260	327	670	35	494	114	54	219
Future Volume (vph)	4	468	260	327	670	35	494	114	54	219
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	27.0	43.2	10.0	26.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	30.0%	48.0%	11.1%	29.1%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.0	19.0	19.0	8.4	30.1	30.1	22.4	40.0	5.3	21.0
Actuated g/C Ratio	0.06	0.21	0.21	0.09	0.33	0.33	0.25	0.44	0.06	0.23
v/c Ratio	0.04	1.27	0.50	2.11	1.15	0.06	1.20	0.36	0.56	0.55
Control Delay	41.2	172.0	7.3	544.6	114.1	0.2	140.5	12.9	61.6	35.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	172.0	7.3	544.6	114.1	0.2	140.5	12.9	61.6	35.7
LOS	D	F	A	F	F	A	F	B	E	D
Approach Delay		112.8			246.5			95.1		40.8
Approach LOS		F			F			F		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.11	
Intersection Signal Delay: 149.9	Intersection LOS: F
Intersection Capacity Utilization 97.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	468	260	327	670	35	494	114	159	54	219	5
Future Volume (veh/h)	4	468	260	327	670	35	494	114	159	54	219	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	509	282	355	728	29	537	124	151	59	238	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	401	340	169	568	482	450	343	417	78	437	6
Arrive On Green	0.01	0.21	0.21	0.09	0.30	0.30	0.25	0.44	0.44	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	780	949	1810	1872	24
Grp Volume(v), veh/h	4	509	282	355	728	29	537	0	275	59	0	241
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1729	1810	0	1896
Q Serve(g_s), s	0.2	19.0	15.1	8.4	26.9	1.2	22.4	0.0	9.5	2.9	0.0	10.0
Cycle Q Clear(g_c), s	0.2	19.0	15.1	8.4	26.9	1.2	22.4	0.0	9.5	2.9	0.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		0.01
Lane Grp Cap(c), veh/h	10	401	340	169	568	482	450	0	760	78	0	442
V/C Ratio(X)	0.42	1.27	0.83	2.10	1.28	0.06	1.19	0.00	0.36	0.76	0.00	0.54
Avail Cap(c_a), veh/h	101	401	340	169	568	482	450	0	760	109	0	442
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.6	35.5	34.0	40.8	31.5	22.5	33.8	0.0	16.8	42.6	0.0	30.3
Incr Delay (d2), s/veh	10.4	139.4	15.7	515.4	139.4	0.1	106.7	0.0	1.3	10.8	0.0	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	24.1	7.0	27.9	33.9	0.4	22.5	0.0	3.7	1.5	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	174.9	49.6	556.2	171.0	22.6	140.5	0.0	18.2	53.4	0.0	35.1
LnGrp LOS	E	F	D	F	F	C	F	A	B	D	A	D
Approach Vol, veh/h		795			1112			812			300	
Approach Delay, s/veh		129.9			290.1			99.0			38.7	
Approach LOS		F			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	23.8	27.0	26.2	5.1	31.7	8.5	44.7
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	8.4	* 19	22.4	21.0	5.0	* 22	5.4	38.0
Max Q Clear Time (g_c+I1), s	10.4	21.0	24.4	12.0	2.2	28.9	4.9	11.5
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	171.5
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	2	4	90	81	11	36	358	670	36	15	620	3
Future Vol, veh/h	2	4	90	81	11	36	358	670	36	15	620	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	4	98	88	12	39	389	728	39	16	674	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2259	2253	676	2285	2235	748	677	0	0	767	0	0
Stage 1	708	708	-	1526	1526	-	-	-	-	-	-	-
Stage 2	1551	1545	-	759	709	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	30	42	457	~ 28	43	416	924	-	-	856	-	-
Stage 1	429	441	-	149	182	-	-	-	-	-	-	-
Stage 2	144	178	-	402	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	14	24	457	~ 14	24	416	924	-	-	856	-	-
Mov Cap-2 Maneuver	42	72	-	276	36	-	-	-	-	-	-	-
Stage 1	248	433	-	~ 86	105	-	-	-	-	-	-	-
Stage 2	67	103	-	307	432	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.6	65.5	3.9	0.2
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	924	-	-	320	187	856	-	-
HCM Lane V/C Ratio	0.421	-	-	0.326	0.744	0.019	-	-
HCM Control Delay (s)	11.7	-	-	21.6	65.5	9.3	-	-
HCM Lane LOS	B	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	2.1	-	-	1.4	4.8	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	189.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	154	221	239	1061	403	530
Future Vol, veh/h	154	221	239	1061	403	530
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	167	240	260	1153	438	576

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2399	726	1014	0	-	0
Stage 1	726	-	-	-	-	-
Stage 2	1673	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 37	428	692	-	-	-
Stage 1	483	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 23	428	692	-	-	-
Mov Cap-2 Maneuver	~ 23	-	-	-	-	-
Stage 1	301	-	-	-	-	-
Stage 2	169	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, $	1310.7	2.4	0
HCM LOS	F		

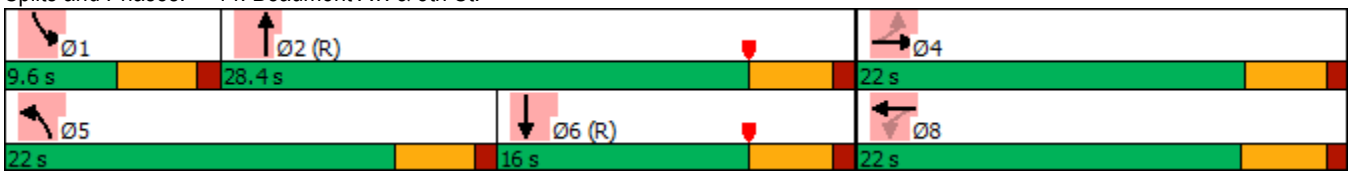
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	692	-	23	428	-	-
HCM Lane V/C Ratio	0.375	-	7.278	0.561	-	-
HCM Control Delay (s)	13.3	-	$ 3157.7	23.6	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.7	-	21	3.4	-	-

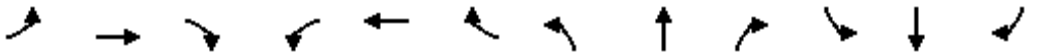
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	110	19	23	6	71	959	81	968
Future Volume (vph)	110	19	23	6	71	959	81	968
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		12.8		12.7	7.1	32.6	6.4	33.9
Actuated g/C Ratio		0.21		0.21	0.12	0.54	0.11	0.56
v/c Ratio		0.58		0.33	0.36	0.54	0.46	0.70
Control Delay		25.3		8.9	26.1	13.2	35.7	19.2
Queue Delay		2.1		0.5	0.2	0.8	0.0	7.8
Total Delay		27.4		9.4	26.3	13.9	35.7	27.0
LOS		C		A	C	B	D	C
Approach Delay		27.4		9.4		14.8		27.5
Approach LOS		C		A		B		C

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 68.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	19	37	23	6	95	71	959	16	81	968	323
Future Volume (veh/h)	110	19	37	23	6	95	71	959	16	81	968	323
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	120	21	40	25	7	103	77	1042	17	88	1052	351
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	44	59	101	35	211	109	1939	32	116	1433	473
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.12	1.00	1.00	0.06	0.54	0.54
Sat Flow, veh/h	984	262	354	183	213	1272	1810	3635	59	1810	2667	880
Grp Volume(v), veh/h	181	0	0	135	0	0	77	517	542	88	708	695
Grp Sat Flow(s),veh/h/ln	1600	0	0	1667	0	0	1810	1805	1889	1810	1805	1742
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.9	17.9	18.4
Cycle Q Clear(g_c), s	5.9	0.0	0.0	4.4	0.0	0.0	2.5	0.0	0.0	2.9	17.9	18.4
Prop In Lane	0.66		0.22	0.19		0.76	1.00		0.03	1.00		0.51
Lane Grp Cap(c), veh/h	365	0	0	348	0	0	109	963	1008	116	970	936
V/C Ratio(X)	0.50	0.00	0.00	0.39	0.00	0.00	0.71	0.54	0.54	0.76	0.73	0.74
Avail Cap(c_a), veh/h	541	0	0	537	0	0	525	963	1008	151	970	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.7	0.0	0.0	25.9	0.0	0.0	27.6	10.6	10.7
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.7	0.0	0.0	3.0	2.1	2.0	10.4	4.8	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	1.7	0.0	0.0	1.1	0.6	0.6	1.5	6.9	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.2	0.0	0.0	23.4	0.0	0.0	28.9	2.1	2.0	38.0	15.4	16.0
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	B	B
Approach Vol, veh/h		181			135			1136			1491	
Approach Delay, s/veh		24.2			23.4			3.9			17.0	
Approach LOS		C			C			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	36.8		14.7	8.2	37.0		14.7				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	4.9	2.0		7.9	4.5	20.4		6.4				
Green Ext Time (p_c), s	0.0	7.4		0.7	0.1	0.0		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

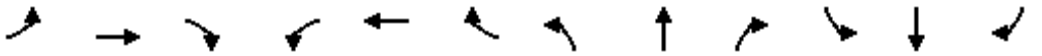
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	512	233	1324	619	1103	1052
Future Volume (vph)	512	233	1324	619	1103	1052
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	17.4	16.1	43.6	43.6	43.6	43.6
Actuated g/C Ratio	0.24	0.22	0.60	0.60	0.60	0.60
v/c Ratio	0.67	0.38	0.47	0.55	0.39	0.54
Control Delay	31.5	21.4	8.3	2.5	7.7	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	21.4	8.3	2.5	7.7	1.4
LOS	C	C	A	A	A	A
Approach Delay			6.4		4.6	
Approach LOS			A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 72.2	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 48.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	512	0	233	0	1324	619	0	1103	1052
Future Volume (veh/h)	0	0	0	512	0	233	0	1324	619	0	1103	1052
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				557	0	226	0	1439	0	0	1199	1061
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				725	0	585	0	3155		0	3155	1724
Arrive On Green				0.21	0.00	0.21	0.00	0.62	0.00	0.00	0.62	0.62
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				557	0	226	0	1439	0	0	1199	1061
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				9.2	0.0	4.2	0.0	9.1	0.0	0.0	7.1	14.2
Cycle Q Clear(g_c), s				9.2	0.0	4.2	0.0	9.1	0.0	0.0	7.1	14.2
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				725	0	585	0	3155		0	3155	1724
V/C Ratio(X)				0.77	0.00	0.39	0.00	0.46		0.00	0.38	0.62
Avail Cap(c_a), veh/h				2313	0	1867	0	5853		0	5853	3198
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.5	0.0	20.5	0.0	6.1	0.0	0.0	5.8	7.1
Incr Delay (d2), s/veh				0.7	0.0	0.2	0.0	0.1	0.0	0.0	0.1	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.3	0.0	1.2	0.0	1.9	0.0	0.0	1.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.1	0.0	20.7	0.0	6.2	0.0	0.0	5.8	7.5
LnGrp LOS				C	A	C	A	A		A	A	A
Approach Vol, veh/h					783			1439	A		2260	
Approach Delay, s/veh					22.4			6.2			6.6	
Approach LOS					C			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	43.1		43.1		17.3			
Change Period (Y+Rc), s	5.8		5.8		4.6			
Max Green Setting (Gmax), s	69.2		69.2		40.4			
Max Q Clear Time (g_c+I1), s	11.1		16.2		11.2			
Green Ext Time (p_c), s	13.9		21.1		1.5			

Intersection Summary		
HCM 6th Ctrl Delay	9.2	
HCM 6th LOS	A	

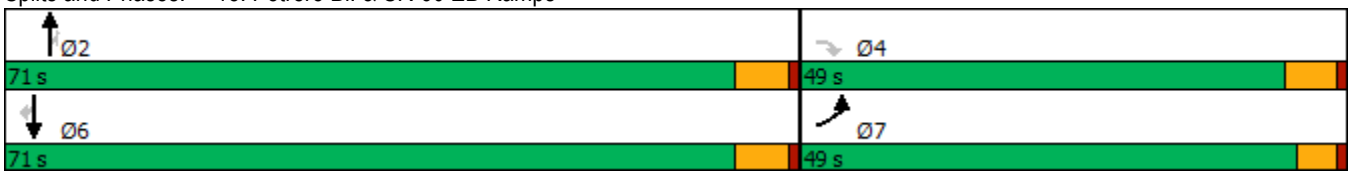
Notes

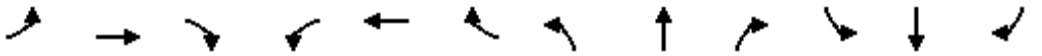
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	779	762	1164	450	1370	245
Future Volume (vph)	779	762	1164	450	1370	245
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	29.8	28.5	38.8	38.8	38.8	38.8
Actuated g/C Ratio	0.37	0.36	0.49	0.49	0.49	0.49
v/c Ratio	0.66	0.81	0.51	0.30	0.60	0.29
Control Delay	24.4	29.6	15.2	1.9	16.4	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	29.6	15.2	1.9	16.4	2.7
LOS	C	C	B	A	B	A
Approach Delay			11.5		14.3	
Approach LOS			B		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 79.7	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	779	0	762	0	0	0	0	1164	450	0	1370	245
Future Volume (veh/h)	779	0	762	0	0	0	0	1164	450	0	1370	245
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	847	0	746				0	1265	446	0	1489	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1165	0	940				0	2489	1360	0	2489	
Arrive On Green	0.34	0.00	0.34				0.00	0.49	0.49	0.00	0.49	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	847	0	746				0	1265	446	0	1489	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	12.8	0.0	14.3				0.0	10.0	5.8	0.0	12.5	0.0
Cycle Q Clear(g_c), s	12.8	0.0	14.3				0.0	10.0	5.8	0.0	12.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1165	0	940				0	2489	1360	0	2489	
V/C Ratio(X)	0.73	0.00	0.79				0.00	0.51	0.33	0.00	0.60	
Avail Cap(c_a), veh/h	2589	0	2090				0	5617	3069	0	5617	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.3	0.0	17.8				0.0	10.3	9.3	0.0	11.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.6				0.0	0.2	0.1	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	3.8				0.0	2.8	1.3	0.0	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	0.0	18.4				0.0	10.5	9.4	0.0	11.2	0.0
LnGrp LOS	B	A	B				A	B	A	A	B	
Approach Vol, veh/h		1593						1711			1489	A
Approach Delay, s/veh		18.0						10.2			11.2	
Approach LOS		B						B			B	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		34.7		24.6		34.7						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		65.2		44.4		65.2						
Max Q Clear Time (g_c+I1), s		12.0		16.3		14.5						
Green Ext Time (p_c), s		14.9		3.6		14.4						

Intersection Summary												
HCM 6th Ctrl Delay			13.1									
HCM 6th LOS			B									

Notes

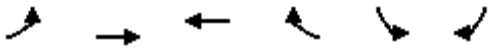
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	WBR	SBL
Lane Configurations				
Traffic Volume (vph)	881	266	322	297
Future Volume (vph)	881	266	322	297
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effct Green (s)	41.7	41.7	41.7	18.2
Actuated g/C Ratio	0.58	0.58	0.58	0.25
v/c Ratio	0.87	0.26	0.32	0.71
Control Delay	23.9	8.5	1.8	36.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.9	8.5	1.8	36.5
LOS	C	A	A	D
Approach Delay	23.9	4.8		36.5
Approach LOS	C	A		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 72.3	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: 4th St. & Jack Rabbit Trail





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	881	266	322	297	0
Future Volume (veh/h)	0	881	266	322	297	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	958	289	350	323	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	122	1115	1115	945	391	348
Arrive On Green	0.00	0.59	0.59	0.59	0.22	0.00
Sat Flow, veh/h	802	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	958	289	350	323	0
Grp Sat Flow(s),veh/h/ln	802	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	24.7	4.4	6.7	10.0	0.0
Cycle Q Clear(g_c), s	0.0	24.7	4.4	6.7	10.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	122	1115	1115	945	391	348
V/C Ratio(X)	0.00	0.86	0.26	0.37	0.83	0.00
Avail Cap(c_a), veh/h	391	1752	1752	1485	745	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.1	5.9	6.4	22.0	0.0
Incr Delay (d2), s/veh	0.0	2.7	0.1	0.2	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.0	1.1	1.5	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.9	6.0	6.7	26.5	0.0
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h		958	639		323	
Approach Delay, s/veh		12.9	6.4		26.5	
Approach LOS		B	A		C	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		40.3		18.5	40.3
Change Period (Y+Rc), s		5.8		5.8	5.8
Max Green Setting (Gmax), s		54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s		26.7		12.0	8.7
Green Ext Time (p_c), s		7.8		0.7	2.9

Intersection Summary	
HCM 6th Ctrl Delay	13.0
HCM 6th LOS	B

Intersection	
Intersection Delay, s/veh	1275.6
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	365	898	1198	652	761	1705
Future Vol, veh/h	365	898	1198	652	761	1705
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	397	976	1302	709	827	1853
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	750.6	998.1	1752.6
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	761	1705	183	183	898	1198	326	326
LT Vol	761	0	0	0	0	1198	0	0
Through Vol	0	0	183	183	0	0	326	326
RT Vol	0	1705	0	0	898	0	0	0
Lane Flow Rate	827	1853	198	198	976	1302	354	354
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	2.814	5.689	0.657	0.657	2.582	4.018	1.044	0.877
Departure Headway (Hd)	17.858	16.629	107.154	107.154	105.533	39.888	39.565	38.468
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	215	241	36	36	49	104	96	99
Service Time	15.558	14.329	104.854	104.854	103.233	37.588	37.265	36.168
HCM Lane V/C Ratio	3.847	7.689	5.5	5.5	19.918	12.519	3.688	3.576
HCM Control Delay	863.7	2149.4	226.7	226.7	963.5	1451.9	188.9	139.8
HCM Lane LOS	F	F	F	F	F	F	F	F
HCM 95th-tile Q	50	130.4	2.2	2.2	10	37.7	6.2	4.9

Intersection	
Intersection Delay, s/veh	718.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	114	0	1535	0	11	1749	0
Future Vol, veh/h	0	0	0	2	0	114	0	1535	0	11	1749	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	124	0	1668	0	12	1901	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	14.4	659.2	817.2
HCM LOS	B	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	1%
Vol Thru, %	100%	0%	99%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1535	116	1760
LT Vol	0	2	11
Through Vol	1535	0	1749
RT Vol	0	114	0
Lane Flow Rate	1668	126	1913
Geometry Grp	1	1	1
Degree of Util (X)	2.417	0.225	2.772
Departure Headway (Hd)	6.917	8.821	6.589
Convergence, Y/N	Yes	Yes	Yes
Cap	551	410	574
Service Time	4.917	6.821	4.589
HCM Lane V/C Ratio	3.027	0.307	3.333
HCM Control Delay	659.2	14.4	817.2
HCM Lane LOS	F	B	F
HCM 95th-tile Q	97	0.9	125.5

Intersection	
Intersection Delay, s/veh	1235.6
Intersection LOS	F

Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Vol, veh/h	1740	219	0	103	551	383	1096
Future Vol, veh/h	1740	219	0	103	551	383	1096
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	1891	238	0	112	599	416	1191
Number of Lanes	0	1	1	1	1	2	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	1997	116.2	722.2
HCM LOS	F	F	F

Lane	EBLn1	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	89%	0%	0%	0%	100%	10%
Vol Thru, %	11%	100%	100%	0%	0%	0%
Vol Right, %	0%	0%	0%	100%	0%	90%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1959	0	103	551	255	1224
LT Vol	1740	0	0	0	255	128
Through Vol	219	0	103	0	0	0
RT Vol	0	0	0	551	0	1096
Lane Flow Rate	2129	0	112	599	278	1330
Geometry Grp	8	7	7	7	8	8
Degree of Util (X)	5.374	0	0.238	1.155	0.673	2.831
Departure Headway (Hd)	11.696	12.443	12.443	11.632	15.826	14.615
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	341	0	291	317	230	266
Service Time	9.396	10.143	10.143	9.332	13.526	12.315
HCM Lane V/C Ratio	6.243	0	0.385	1.89	1.209	5
HCM Control Delay	1997	15.1	19	134.4	46	863.3
HCM Lane LOS	F	N	C	F	E	F
HCM 95th-tile Q	171.9	0	0.9	15	4.2	60.7

Intersection	
Intersection Delay, s/veh	477.8
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	561	949	909	510	256	941
Future Vol, veh/h	561	949	909	510	256	941
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	578	978	937	526	264	970
Number of Lanes	1	1	3	0	1	0

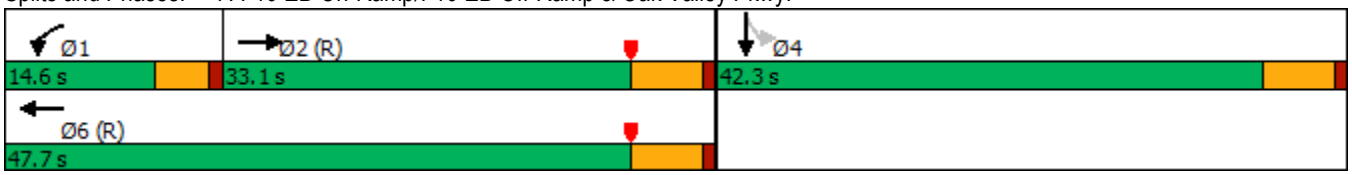
Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	564.9	43.1	883.2
HCM LOS	F	E	F

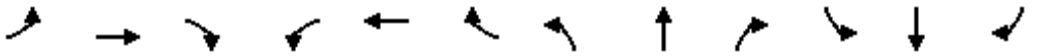
Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	21%
Vol Thru, %	0%	100%	100%	100%	26%	0%
Vol Right, %	0%	0%	0%	0%	74%	79%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	561	949	364	364	692	1197
LT Vol	561	0	0	0	0	256
Through Vol	0	949	364	364	182	0
RT Vol	0	0	0	0	510	941
Lane Flow Rate	578	978	375	375	713	1234
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	1.562	2.507	0.812	0.812	1.106	2.911
Departure Headway (Hd)	14.737	14.167	4.037	4.037	1.666	8.208
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	254	264	896	896	2168	457
Service Time	12.437	11.867	1.737	1.737	-0.634	5.908
HCM Lane V/C Ratio	2.276	3.705	0.419	0.419	0.329	2.7
HCM Control Delay	306.2	717.8	21.6	21.6	65.6	883.2
HCM Lane LOS	F	F	C	C	F	F
HCM 95th-tile Q	23.3	52.4	9	9	47.5	109.2

Lane Group	EBT	WBL	WBT	SBT
Lane Configurations				
Traffic Volume (vph)	2358	247	1905	1
Future Volume (vph)	2358	247	1905	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effct Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	4.91	1.26	2.25	4.25
Control Delay	1772.6	147.4	580.3	1479.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1772.6	147.4	580.3	1479.6
LOS	F	F	F	F
Approach Delay	1772.6		530.7	1479.6
Approach LOS	F		F	F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 4.91	
Intersection Signal Delay: 1320.4	Intersection LOS: F
Intersection Capacity Utilization 465.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2358	391	247	1905	0	0	0	0	1254	1	1614
Future Volume (veh/h)	0	2358	391	247	1905	0	0	0	0	1254	1	1614
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2563	365	268	2071	0				1363	1	1700
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	526	75	213	923	0				321	0	400
Arrive On Green	0.00	0.32	0.30	0.12	0.49	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1627	232	1810	1900	0				753	1	939
Grp Volume(v), veh/h	0	0	2928	268	2071	0				3064	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1858	1810	1900	0				1693	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.12	1.00		0.00				0.44		0.55
Lane Grp Cap(c), veh/h	0	0	601	213	923	0				721	0	0
V/C Ratio(X)	0.00	0.00	4.87	1.26	2.24	0.00				4.25	0.00	0.00
Avail Cap(c_a), veh/h	0	0	601	213	923	0				721	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.6	39.7	23.1	0.0				26.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1746.7	119.5	560.5	0.0				1466.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	303.4	11.5	160.3	0.0				307.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	1777.2	159.2	583.6	0.0				1493.1	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		2928			2339						3064	
Approach Delay, s/veh		1777.2			535.0						1493.1	
Approach LOS		F			F						F	

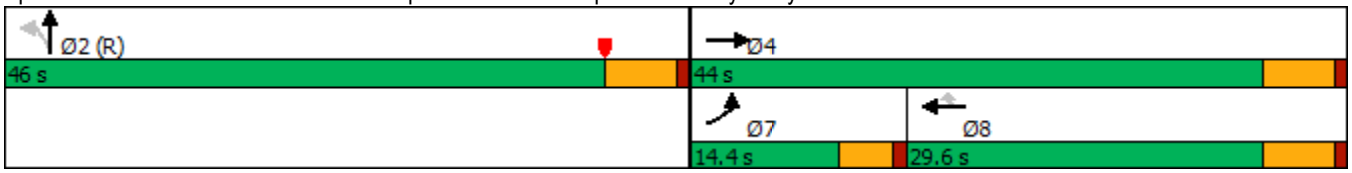
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0

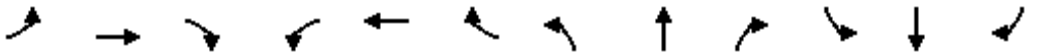
Intersection Summary		
HCM 6th Ctrl Delay		1324.0
HCM 6th LOS		F

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	540	3072	1633	422	5
Future Volume (vph)	540	3072	1633	422	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effct Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	2.68	3.75	3.12	0.76	1.54
Control Delay	774.5	1252.1	974.6	28.3	272.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	774.5	1252.1	974.6	28.3	272.4
LOS	F	F	F	C	F
Approach Delay		1180.7	780.3		272.4
Approach LOS		F	F		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.75	
Intersection Signal Delay: 902.4	Intersection LOS: F
Intersection Capacity Utilization 465.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	540	3072	0	0	1633	422	520	5	672	0	0	0
Future Volume (veh/h)	540	3072	0	0	1633	422	520	5	672	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	557	3167	0	0	1684	365	536	5	641			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	359	3	429			
Arrive On Green	0.08	0.30	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	769	7	920			
Grp Volume(v), veh/h	557	3167	0	0	1684	365	1182	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1696	0	0			
Q Serve(g_s), s	10.4	40.0	0.0	0.0	25.6	18.9	42.0	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	40.0	0.0	0.0	25.6	18.9	42.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.45		0.54			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	791	0	0			
V/C Ratio(X)	2.66	3.75	0.00	0.00	3.12	0.80	1.49	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	791	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.5	31.6	0.0	0.0	32.2	29.8	24.5	0.0	0.0			
Incr Delay (d2), s/veh	749.9	1237.9	0.0	0.0	957.1	9.5	228.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	48.2	308.6	0.0	0.0	154.5	8.0	65.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	791.5	1269.5	0.0	0.0	989.3	39.3	253.2	0.0	0.0			
LnGrp LOS	F	F	A	A	F	D	F	A	A			
Approach Vol, veh/h		3724			2049			1182				
Approach Delay, s/veh		1198.0			820.0			253.2				
Approach LOS		F			F			F				

Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.0		44.0			14.4	29.6				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		38.2			9.8	23.8				
Max Q Clear Time (g_c+I1), s		44.0		42.0			12.4	27.6				
Green Ext Time (p_c), s		0.0		0.0			0.0	0.0				

Intersection Summary												
HCM 6th Ctrl Delay			926.1									
HCM 6th LOS			F									

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	402	1023	153	131	808	67	0	0	143	0	0	79
Future Vol, veh/h	402	1023	153	131	808	67	0	0	143	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	432	1100	165	141	869	72	0	0	154	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1265	0	0	-	-	633	-	-	905
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	737	-	-	556	-	-	0	0	427	0	0	338
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	737	-	-	556	-	-	-	-	427	-	-	338
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.2	1.8	18.1	19.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	737	-	-	556	-	-	338
HCM Lane V/C Ratio	0.36	0.587	-	-	0.253	-	-	0.251
HCM Control Delay (s)	18.1	16.6	-	-	13.7	-	-	19.2
HCM Lane LOS	C	C	-	-	B	-	-	C
HCM 95th %tile Q(veh)	1.6	3.9	-	-	1	-	-	1

Intersection	
Intersection Delay, s/veh	243.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	129	657	94	11	542	182	48	45	13	155	72	71
Future Vol, veh/h	129	657	94	11	542	182	48	45	13	155	72	71
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	140	714	102	12	589	198	52	49	14	168	78	77
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

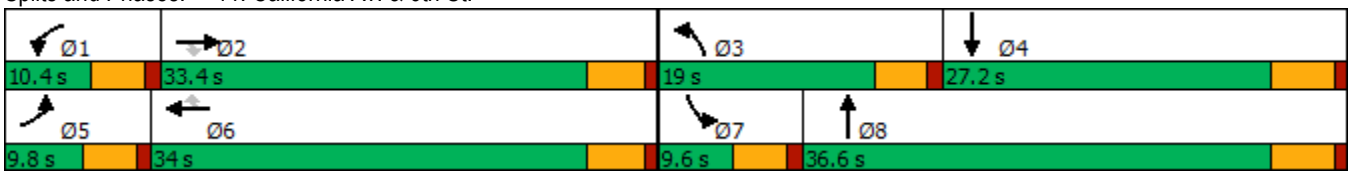
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	229.9	382.4	19.3	20.1
HCM LOS	F	F	C	C

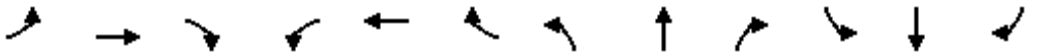
Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	52%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	48%	0%	0%	100%	0%	0%	75%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	25%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	93	13	129	657	94	11	724	155	72	71
LT Vol	48	0	129	0	0	11	0	155	0	0
Through Vol	45	0	0	657	0	0	542	0	72	0
RT Vol	0	13	0	0	94	0	182	0	0	71
Lane Flow Rate	101	14	140	714	102	12	787	168	78	77
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.282	0.036	0.332	1.593	0.208	0.029	1.793	0.447	0.197	0.179
Departure Headway (Hd)	12.482	11.464	10.01	9.49	8.762	9.741	9.049	11.816	11.284	10.54
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	290	314	362	393	413	370	409	307	320	343
Service Time	10.182	9.164	7.71	7.19	6.462	7.441	6.749	9.516	8.984	8.24
HCM Lane V/C Ratio	0.348	0.045	0.387	1.817	0.247	0.032	1.924	0.547	0.244	0.224
HCM Control Delay	20	14.6	17.6	302.5	13.7	12.7	388	23.7	16.7	15.5
HCM Lane LOS	C	B	C	F	B	B	F	C	C	C
HCM 95th-tile Q	1.1	0.1	1.4	34.7	0.8	0.1	45.3	2.2	0.7	0.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	686	207	322	521	13	454	200	24	119
Future Volume (vph)	23	686	207	322	521	13	454	200	24	119
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	5.7	29.4	29.4	6.4	35.9	35.9	15.0	38.4	5.6	23.2
Actuated g/C Ratio	0.06	0.33	0.33	0.07	0.40	0.40	0.17	0.43	0.06	0.26
v/c Ratio	0.21	1.16	0.33	2.65	0.72	0.02	1.59	0.87	0.22	0.29
Control Delay	44.6	120.9	6.0	783.8	31.3	0.1	311.0	33.6	45.2	27.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	120.9	6.0	783.8	31.3	0.1	311.0	33.6	45.2	27.5
LOS	D	F	A	F	C	A	F	C	D	C
Approach Delay		93.0			314.0			145.8		30.2
Approach LOS		F			F			F		C

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.65	
Intersection Signal Delay: 171.2	Intersection LOS: F
Intersection Capacity Utilization 110.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	686	207	322	521	13	454	200	468	24	119	13
Future Volume (veh/h)	23	686	207	322	521	13	454	200	468	24	119	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	722	214	339	548	9	478	211	465	25	125	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	621	526	129	695	589	302	207	456	59	455	29
Arrive On Green	0.03	0.33	0.33	0.07	0.37	0.37	0.17	0.39	0.38	0.03	0.26	0.24
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	528	1163	1810	1767	113
Grp Volume(v), veh/h	24	722	214	339	548	9	478	0	676	25	0	133
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1691	1810	0	1880
Q Serve(g_s), s	1.2	29.4	9.3	6.4	23.1	0.3	15.0	0.0	35.3	1.2	0.0	5.1
Cycle Q Clear(g_c), s	1.2	29.4	9.3	6.4	23.1	0.3	15.0	0.0	35.3	1.2	0.0	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.06
Lane Grp Cap(c), veh/h	57	621	526	129	695	589	302	0	663	59	0	485
V/C Ratio(X)	0.42	1.16	0.41	2.63	0.79	0.02	1.58	0.00	1.02	0.43	0.00	0.27
Avail Cap(c_a), veh/h	117	621	526	129	695	589	302	0	663	113	0	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.8	30.3	23.5	41.8	25.4	18.2	37.5	0.0	27.8	42.7	0.0	26.7
Incr Delay (d2), s/veh	1.8	90.3	0.5	757.4	6.0	0.0	278.5	0.0	40.1	1.8	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	28.4	3.3	29.9	11.2	0.1	29.6	0.0	20.2	0.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	120.6	24.0	799.2	31.5	18.2	316.0	0.0	67.9	44.5	0.0	28.1
LnGrp LOS	D	F	C	F	C	B	F	A	F	D	A	C
Approach Vol, veh/h		960			896			1154			158	
Approach Delay, s/veh		97.2			321.8			170.7			30.7	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	33.4	19.0	27.2	6.9	36.9	6.9	39.3
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4
Max Q Clear Time (g_c+I1), s	8.4	31.4	17.0	7.1	3.2	25.1	3.2	37.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	1.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	184.2
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	16.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	
Traffic Vol, veh/h	5	4	103	79	4	25	213	769	84	8	571	8
Future Vol, veh/h	5	4	103	79	4	25	213	769	84	8	571	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	120	-	-	50	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	4	108	83	4	26	224	809	88	8	601	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1937	1966	605	1978	1926	853	609	0	0	897	0	0
Stage 1	621	621	-	1301	1301	-	-	-	-	-	-	-
Stage 2	1316	1345	-	677	625	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	50	64	501	~ 47	67	362	979	-	-	765	-	-
Stage 1	478	482	-	200	233	-	-	-	-	-	-	-
Stage 2	196	222	-	446	480	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	37	49	501	~ 29	51	362	979	-	-	765	-	-
Mov Cap-2 Maneuver	100	127	-	~ 74	118	-	-	-	-	-	-	-
Stage 1	369	477	-	154	180	-	-	-	-	-	-	-
Stage 2	137	171	-	343	475	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.2	253.9	2	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	979	-	-	390	92	765	-	-
HCM Lane V/C Ratio	0.229	-	-	0.302	1.236	0.011	-	-
HCM Control Delay (s)	9.8	-	-	18.2	253.9	9.8	-	-
HCM Lane LOS	A	-	-	C	F	A	-	-
HCM 95th %tile Q(veh)	0.9	-	-	1.3	8	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	13350.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	566	634	255	1005	1165	451
Future Vol, veh/h	566	634	255	1005	1165	451
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	615	689	277	1092	1266	490

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	3157	1511	1756	0	-	0
Stage 1	1511	-	-	-	-	-
Stage 2	1646	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 12	~ 149	361	-	-	-
Stage 1	~ 203	-	-	-	-	-
Stage 2	~ 175	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 3	~ 149	361	-	-	-
Mov Cap-2 Maneuver	~ 3	-	-	-	-	-
Stage 1	~ 47	-	-	-	-	-
Stage 2	~ 175	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 45337.5	8.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	361	-	3	149	-	-
HCM Lane V/C Ratio	0.768	-	205.072	4.625	-	-
HCM Control Delay (s)	41.3	-	$ 94228.3	$ 1690.7	-	-
HCM Lane LOS	E	-	F	F	-	-
HCM 95th %tile Q(veh)	6.2	-	79.4	71.1	-	-

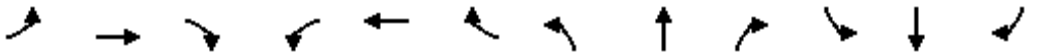
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	297	19	87	5	28	1816	177	850
Future Volume (vph)	297	19	87	5	28	1816	177	850
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		15.0		15.0	6.3	25.1	7.9	32.5
Actuated g/C Ratio		0.25		0.25	0.10	0.42	0.13	0.54
v/c Ratio		1.56		0.59	0.15	1.27	0.77	0.52
Control Delay		296.8		14.0	31.4	143.9	49.4	10.9
Queue Delay		3.7		5.3	1.6	0.0	0.0	51.5
Total Delay		300.4		19.2	33.0	143.9	49.4	62.5
LOS		F		B	C	F	D	E
Approach Delay		300.4		19.2		142.2		60.5
Approach LOS		F		B		F		E

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.56	
Intersection Signal Delay: 122.4	Intersection LOS: F
Intersection Capacity Utilization 112.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 14: Beaumont Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	19	47	87	5	203	28	1816	37	177	850	126
Future Volume (veh/h)	297	19	47	87	5	203	28	1816	37	177	850	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	306	20	48	90	5	209	29	1872	38	182	876	130
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	15	36	187	30	307	76	1906	39	241	1949	289
Arrive On Green	0.25	0.25	0.24	0.25	0.25	0.24	0.06	0.70	0.68	0.13	0.62	0.60
Sat Flow, veh/h	912	60	143	432	119	1213	1810	3619	73	1810	3153	468
Grp Volume(v), veh/h	374	0	0	304	0	0	29	931	979	182	501	505
Grp Sat Flow(s),veh/h/ln	1114	0	0	1764	0	0	1810	1805	1887	1810	1805	1816
Q Serve(g_s), s	5.6	0.0	0.0	0.0	0.0	0.0	0.9	29.5	30.1	5.8	8.8	8.9
Cycle Q Clear(g_c), s	15.0	0.0	0.0	9.4	0.0	0.0	0.9	29.5	30.1	5.8	8.8	8.9
Prop In Lane	0.82		0.13	0.30		0.69	1.00		0.04	1.00		0.26
Lane Grp Cap(c), veh/h	388	0	0	525	0	0	76	951	994	241	1116	1122
V/C Ratio(X)	0.96	0.00	0.00	0.58	0.00	0.00	0.38	0.98	0.99	0.75	0.45	0.45
Avail Cap(c_a), veh/h	388	0	0	525	0	0	241	951	994	241	1116	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	0.0	20.5	0.0	0.0	27.6	8.7	8.8	25.1	6.1	6.1
Incr Delay (d2), s/veh	36.5	0.0	0.0	1.6	0.0	0.0	1.0	22.3	23.1	11.4	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	0.0	3.9	0.0	0.0	0.4	10.3	11.0	3.1	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.2	0.0	0.0	22.1	0.0	0.0	28.6	31.0	31.8	36.4	7.4	7.4
LnGrp LOS	E	A	A	C	A	A	C	C	C	D	A	A
Approach Vol, veh/h		374			304			1939			1188	
Approach Delay, s/veh		61.2			22.1			31.4			11.8	
Approach LOS		E			C			C			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	35.8		19.2	6.5	41.3		19.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	7.8	32.1		17.0	2.9	10.9		11.4				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.5		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		27.5	
HCM 6th LOS		C	

Notes

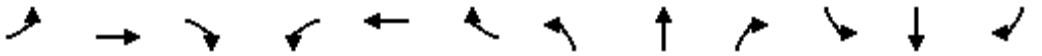
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	699	283	2935	873	1711	1107
Future Volume (vph)	699	283	2935	873	1711	1107
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	28.8	27.6	74.4	74.4	74.4	74.4
Actuated g/C Ratio	0.25	0.24	0.65	0.65	0.65	0.65
v/c Ratio	0.87	0.44	0.96	0.78	0.56	0.54
Control Delay	52.4	35.1	27.9	11.2	12.0	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	35.1	27.9	11.2	12.0	1.5
LOS	D	D	C	B	B	A
Approach Delay			24.1		7.9	
Approach LOS			C		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 84.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	699	0	283	0	2935	873	0	1711	1107
Future Volume (veh/h)	0	0	0	699	0	283	0	2935	873	0	1711	1107
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				760	0	281	0	3190	0	0	1860	1121
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				850	0	686	0	3375		0	3375	1844
Arrive On Green				0.25	0.00	0.25	0.00	0.66	0.00	0.00	0.66	0.66
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				760	0	281	0	3190	0	0	1860	1121
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				23.8	0.0	9.4	0.0	63.1	0.0	0.0	21.7	25.5
Cycle Q Clear(g_c), s				23.8	0.0	9.4	0.0	63.1	0.0	0.0	21.7	25.5
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				850	0	686	0	3375		0	3375	1844
V/C Ratio(X)				0.89	0.00	0.41	0.00	0.95		0.00	0.55	0.61
Avail Cap(c_a), veh/h				1094	0	883	0	3387		0	3387	1851
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.8	0.0	35.4	0.0	17.1	0.0	0.0	10.1	10.7
Incr Delay (d2), s/veh				6.9	0.0	0.1	0.0	6.6	0.0	0.0	0.2	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.5	0.0	3.1	0.0	21.8	0.0	0.0	6.9	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.6	0.0	35.5	0.0	23.7	0.0	0.0	10.3	11.3
LnGrp LOS				D	A	D	A	C		A	B	B
Approach Vol, veh/h					1041			3190	A		2981	
Approach Delay, s/veh					44.4			23.7			10.7	
Approach LOS					D			C			B	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	79.7			79.7		32.1						
Change Period (Y+Rc), s	5.8			5.8		4.6						
Max Green Setting (Gmax), s	74.2			74.2		35.4						
Max Q Clear Time (g_c+I1), s	65.1			27.5		25.8						
Green Ext Time (p_c), s	8.8			32.0		1.7						

Intersection Summary		
HCM 6th Ctrl Delay	21.3	
HCM 6th LOS	C	

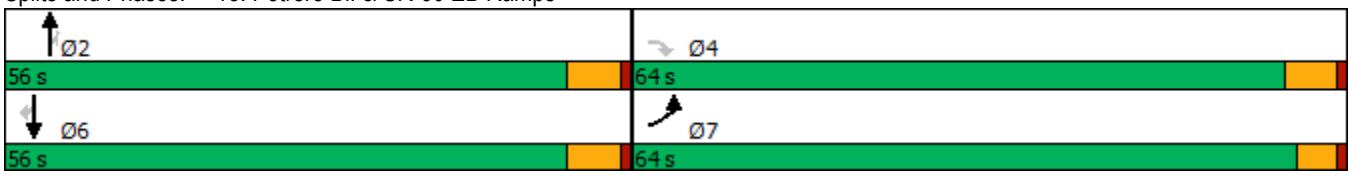
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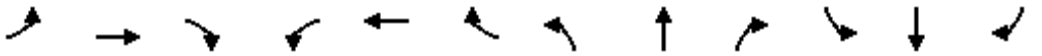
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1702	632	2106	734	2100	309
Future Volume (vph)	1702	632	2106	734	2100	309
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	64.0	64.0	56.0	56.0	56.0	56.0
Total Split (%)	53.3%	53.3%	46.7%	46.7%	46.7%	46.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	59.4	58.2	50.2	50.2	50.2	50.2
Actuated g/C Ratio	0.50	0.48	0.42	0.42	0.42	0.42
v/c Ratio	1.06	0.44	0.98	0.45	0.98	0.43
Control Delay	68.5	20.6	49.0	2.3	48.5	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.5	20.6	49.0	2.3	48.5	12.0
LOS	E	C	D	A	D	B
Approach Delay			36.9		43.8	
Approach LOS			D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 44.8	Intersection LOS: D
Intersection Capacity Utilization 97.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1702	0	632	0	0	0	0	2106	734	0	2100	309
Future Volume (veh/h)	1702	0	632	0	0	0	0	2106	734	0	2100	309
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1850	0	519				0	2289	581	0	2283	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1764	0	1569				0	2347	1326	0	2347	
Arrive On Green	0.50	0.00	0.50				0.00	0.42	0.42	0.00	0.42	0.00
Sat Flow, veh/h	3563	0	3170				0	5611	3170	0	5611	1585
Grp Volume(v), veh/h	1850	0	519				0	2289	581	0	2283	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1870	1585	0	1870	1585
Q Serve(g_s), s	59.4	0.0	11.9				0.0	48.1	15.7	0.0	47.9	0.0
Cycle Q Clear(g_c), s	59.4	0.0	11.9				0.0	48.1	15.7	0.0	47.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1764	0	1569				0	2347	1326	0	2347	
V/C Ratio(X)	1.05	0.00	0.33				0.00	0.98	0.44	0.00	0.97	
Avail Cap(c_a), veh/h	1764	0	1569				0	2347	1326	0	2347	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	30.3	0.0	18.3				0.0	34.3	24.9	0.0	34.2	0.0
Incr Delay (d2), s/veh	35.6	0.0	0.0				0.0	13.2	0.2	0.0	12.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.9	0.0	4.1				0.0	23.3	5.7	0.0	23.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.9	0.0	18.3				0.0	47.5	25.1	0.0	47.0	0.0
LnGrp LOS	F	A	B				A	D	C	A	D	
Approach Vol, veh/h		2369						2870			2283	A
Approach Delay, s/veh		55.5						43.0			47.0	
Approach LOS		E						D			D	

Timer - Assigned Phs		2		4		6						
Phs Duration (G+Y+Rc), s		56.0		64.0		56.0						
Change Period (Y+Rc), s		5.8		4.6		5.8						
Max Green Setting (Gmax), s		50.2		59.4		50.2						
Max Q Clear Time (g_c+I1), s		50.1		61.4		49.9						
Green Ext Time (p_c), s		0.1		0.0		0.3						

Intersection Summary		
HCM 6th Ctrl Delay		48.1
HCM 6th LOS		D

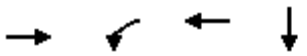
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 9.3:

HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1835	375	2180	1064
v/c Ratio	2.08	1.27	1.66	3.35
Control Delay	511.3	156.4	317.1	1079.4
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	511.3	156.4	317.3	1079.4
Queue Length 50th (ft)	~1676	~256	~1879	~1094
Queue Length 95th (ft)	#1943	m63	m519	#1337
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	318
Starvation Cap Reductn	0	0	87	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.08	1.27	1.78	3.35

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	307	1080	1961	771	922
v/c Ratio	2.84	1.38	3.44	1.17	1.14
Control Delay	849.3	197.9	1117.6	115.9	102.0
Queue Delay	0.0	0.0	5.6	0.0	5.6
Total Delay	849.3	197.9	1123.2	115.9	107.6
Queue Length 50th (ft)	~304	~862	~2003	~424	~610
Queue Length 95th (ft)	m#95	m220	#2265	#647	#845
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	657	810
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	255	0	420
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.84	1.38	6.23	1.17	2.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



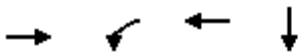
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	193	253	1385	559	1009	1895
v/c Ratio	0.35	0.54	0.38	0.44	0.28	0.75
Control Delay	35.4	29.2	5.0	1.5	4.5	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	29.2	5.0	1.5	4.5	2.4
Queue Length 50th (ft)	52	53	82	0	54	0
Queue Length 95th (ft)	86	98	123	26	83	18
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	1745	1413	4244	1413	4244	2639
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.18	0.33	0.40	0.24	0.72

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	847	389	1097	397	935	266
v/c Ratio	0.73	0.38	0.46	0.26	0.40	0.30
Control Delay	21.0	9.0	11.0	1.7	10.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	9.0	11.0	1.7	10.5	2.6
Queue Length 50th (ft)	119	25	80	0	65	0
Queue Length 95th (ft)	227	68	144	22	120	34
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	2805	2270	4959	2728	4959	1550
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.17	0.22	0.15	0.19	0.17

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	2798	268	2071	3010
v/c Ratio	4.60	1.26	2.25	4.10
Control Delay	1636.3	147.4	580.3	1411.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1636.3	147.4	580.3	1411.2
Queue Length 50th (ft)	~3036	~186	~1984	~3220
Queue Length 95th (ft)	#3298	m50	m534	#3480
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	608	212	922	734
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	4.60	1.26	2.25	4.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	376	3167	1684	435	1234
v/c Ratio	1.81	3.75	3.12	0.76	1.54
Control Delay	389.4	1252.1	974.6	28.3	272.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	389.4	1252.1	974.6	28.3	272.4
Queue Length 50th (ft)	~330	~3359	~1690	144	~996
Queue Length 95th (ft)	m40	m374	#1948	#288	#1240
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	573	802
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.81	3.75	3.12	0.76	1.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	576	308	2952	453	1723	1747
v/c Ratio	0.81	0.55	0.83	0.38	0.49	0.71
Control Delay	50.2	39.0	15.3	3.7	8.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	39.0	15.3	3.7	8.4	2.2
Queue Length 50th (ft)	194	99	473	36	175	0
Queue Length 95th (ft)	256	147	672	94	254	24
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	1139	911	3539	1186	3539	2470
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.34	0.83	0.38	0.49	0.71

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1850	449	1555	397	1963	336
v/c Ratio	1.02	0.31	0.79	0.30	1.00	0.46
Control Delay	55.0	16.3	36.4	3.0	58.1	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	16.3	36.4	3.0	58.1	13.6
Queue Length 50th (ft)	~783	102	386	0	~553	77
Queue Length 95th (ft)	#919	141	447	34	#677	160
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	1813	1456	1957	1317	1957	726
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.31	0.79	0.30	1.00	0.46

Intersection Summary

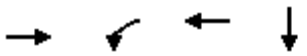
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 9.4:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1878	375	2180	1216
v/c Ratio	2.13	1.27	1.66	3.84
Control Delay	532.9	156.4	317.1	1297.8
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	532.9	156.4	317.3	1297.8
Queue Length 50th (ft)	~1729	~256	~1879	~1280
Queue Length 95th (ft)	#1996	m63	m519	#1531
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	317
Starvation Cap Reductn	0	0	87	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.13	1.27	1.78	3.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	348	1080	1961	771	922
v/c Ratio	3.22	1.38	3.44	1.17	1.14
Control Delay	1018.2	198.0	1117.6	115.9	102.0
Queue Delay	0.0	0.0	5.6	0.0	5.6
Total Delay	1018.2	198.0	1123.2	115.9	107.6
Queue Length 50th (ft)	~353	~862	~2003	~424	~610
Queue Length 95th (ft)	m#109	m214	#2265	#647	#845
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	657	810
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	255	0	420
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	3.22	1.38	6.23	1.17	2.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	557	253	1439	673	1199	1895
v/c Ratio	0.77	0.42	0.42	0.52	0.35	0.76
Control Delay	44.0	27.3	7.5	2.1	7.0	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	27.3	7.5	2.1	7.0	2.7
Queue Length 50th (ft)	175	59	126	0	99	0
Queue Length 95th (ft)	234	100	186	37	147	24
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	1502	1221	3809	1354	3809	2563
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.21	0.38	0.50	0.31	0.74

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	847	828	1265	489	1489	266
v/c Ratio	0.66	0.81	0.51	0.30	0.60	0.29
Control Delay	24.4	29.6	15.2	1.9	16.4	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	29.6	15.2	1.9	16.4	2.7
Queue Length 50th (ft)	171	190	144	0	180	0
Queue Length 95th (ft)	307	351	249	27	308	41
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	2039	1630	4201	2387	4201	1354
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.51	0.30	0.20	0.35	0.20

Intersection Summary



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	2988	268	2071	3118
v/c Ratio	4.91	1.26	2.25	4.25
Control Delay	1772.6	147.4	580.3	1479.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1772.6	147.4	580.3	1479.6
Queue Length 50th (ft)	~3268	~186	~1984	~3353
Queue Length 95th (ft)	#3528	m50	m534	#3611
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	609	212	922	733
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	4.91	1.26	2.25	4.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	557	3167	1684	435	1234
v/c Ratio	2.68	3.75	3.12	0.76	1.54
Control Delay	774.5	1252.1	974.6	28.3	272.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	774.5	1252.1	974.6	28.3	272.4
Queue Length 50th (ft)	~551	~3360	~1690	144	~996
Queue Length 95th (ft)	m58	m348	#1948	#288	#1240
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	573	802
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.68	3.75	3.12	0.76	1.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	576	308	2952	453	1723	1203
v/c Ratio	0.81	0.55	0.84	0.38	0.49	0.52
Control Delay	49.0	38.1	15.4	3.9	8.4	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	38.1	15.4	3.9	8.4	1.3
Queue Length 50th (ft)	189	97	465	39	172	0
Queue Length 95th (ft)	250	144	663	98	250	23
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	1232	984	3523	1178	3523	2300
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.31	0.84	0.38	0.49	0.52

Intersection Summary



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1850	449	1555	397	1963	336
v/c Ratio	1.00	0.30	0.81	0.31	1.03	0.47
Control Delay	50.2	15.7	37.8	3.0	64.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	15.7	37.8	3.0	64.3	14.2
Queue Length 50th (ft)	~719	100	392	0	~593	79
Queue Length 95th (ft)	#907	138	454	34	#689	164
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	1842	1479	1915	1297	1915	714
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.30	0.81	0.31	1.03	0.47

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX 9.5:

HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4084	7161	0.57	68.6	19.8	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4084	1086	7200	2100	0.57	0.52	63.0	58.9	21.6	25.3	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2988	7161	0.42	68.7	14.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4113	1125	7200	2100	0.57	0.54	62.8	61.1	21.8	22.5	C

Segment 5: Basic

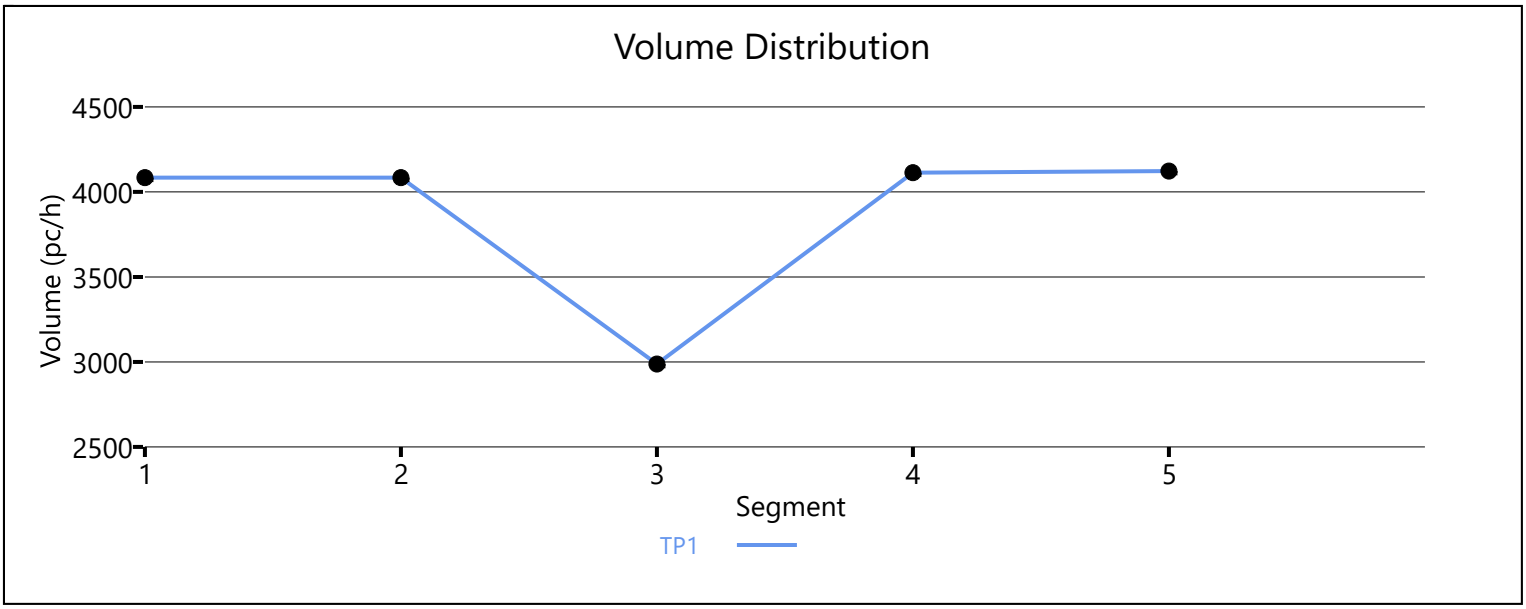
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4123	7161	0.58	68.5	20.1	C

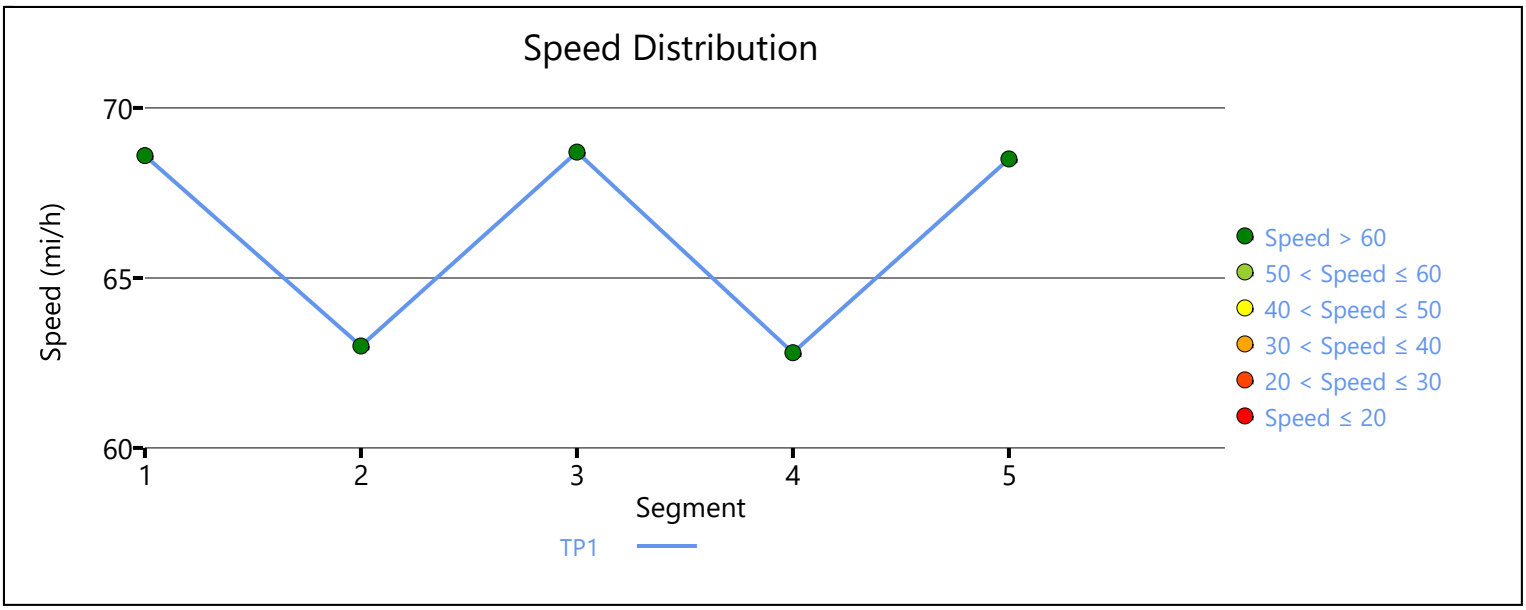
Facility Time Period Results

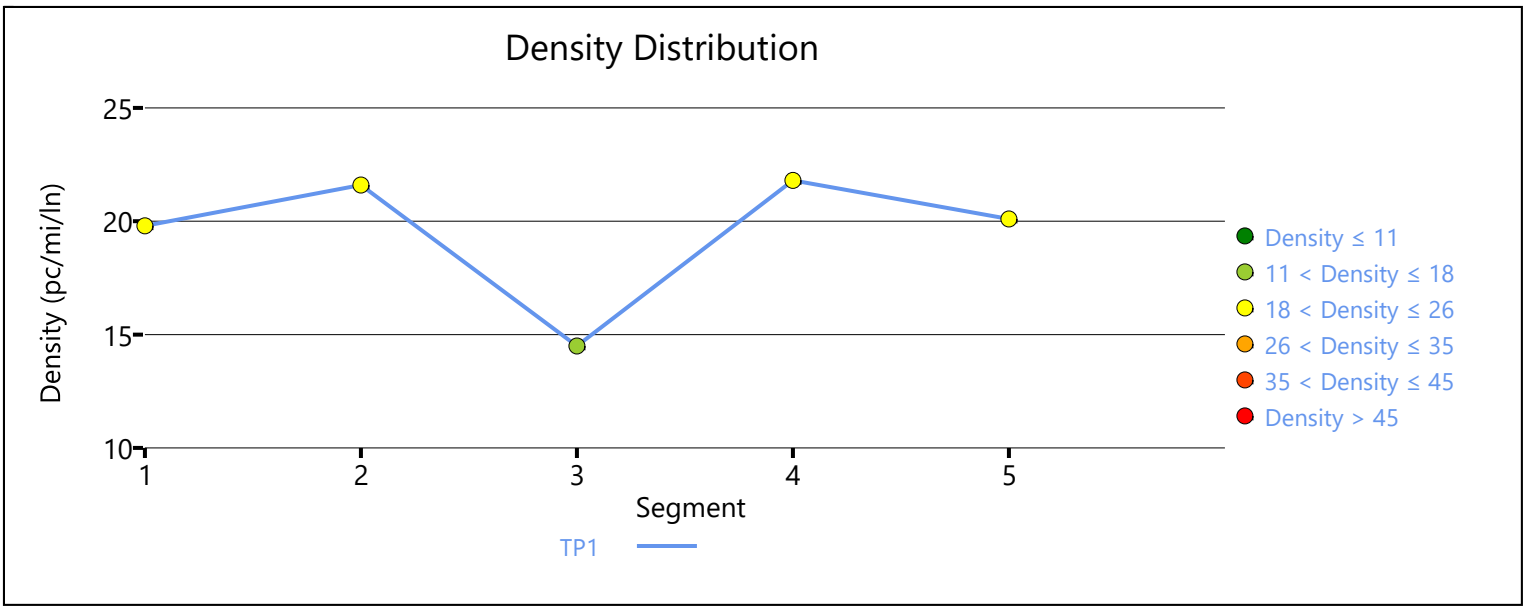
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	19.6	19.0	2.1	C

Facility Overall Results

Space Mean Speed, mi/h	67.1	Density, veh/mi/ln	19.0
Average Travel Time, min	2.1	Density, pc/mi/ln	19.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	4116	7161	0.57	68.5	20.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.971	4116	1011	7200	2100	0.57	0.48	63.2	59.1	21.7	25.2	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	3132	7161	0.44	68.7	15.2	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.990	4298	1166	7200	2100	0.60	0.56	62.8	61.1	22.8	22.9	C

Segment 5: Basic

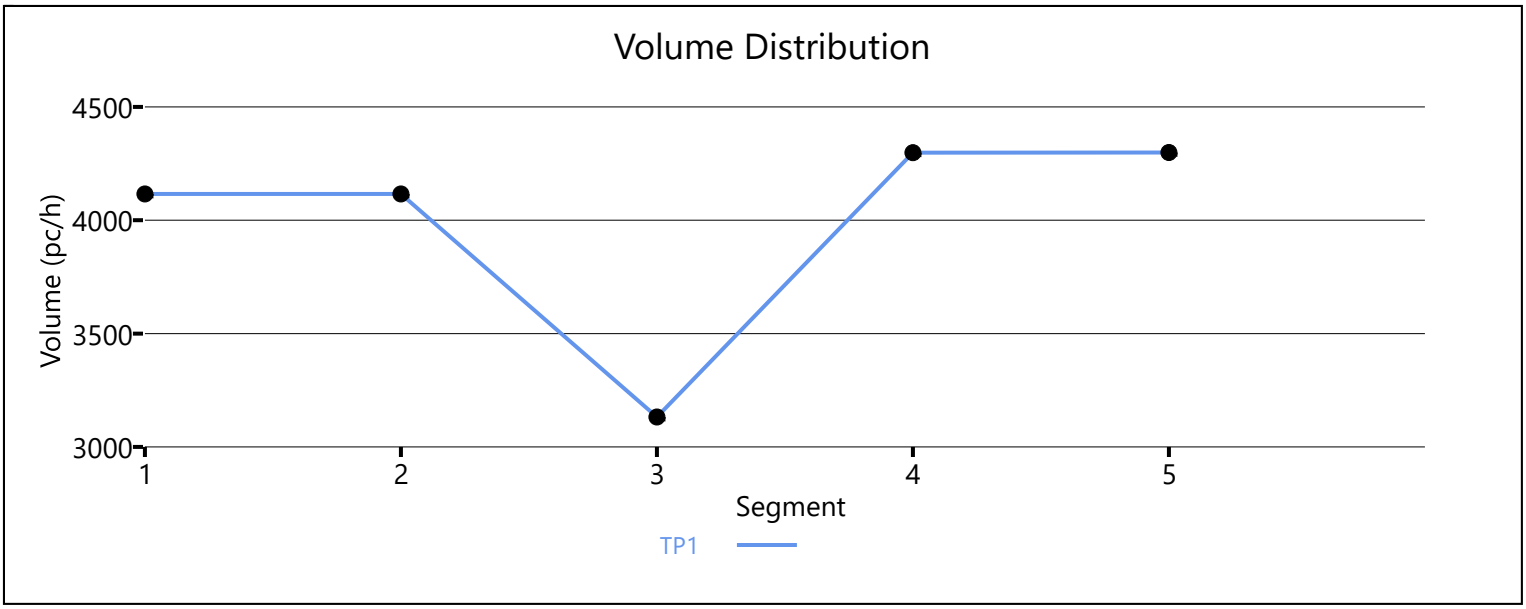
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	4299	7161	0.60	68.3	21.0	C

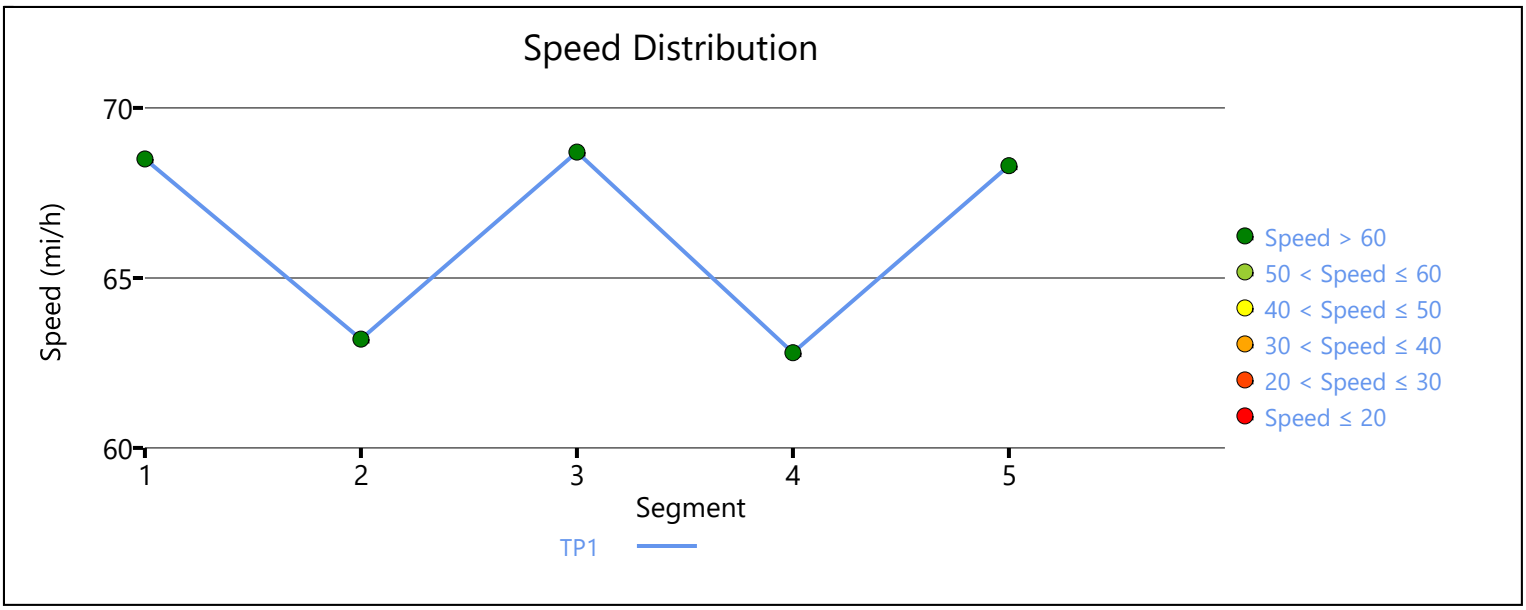
Facility Time Period Results

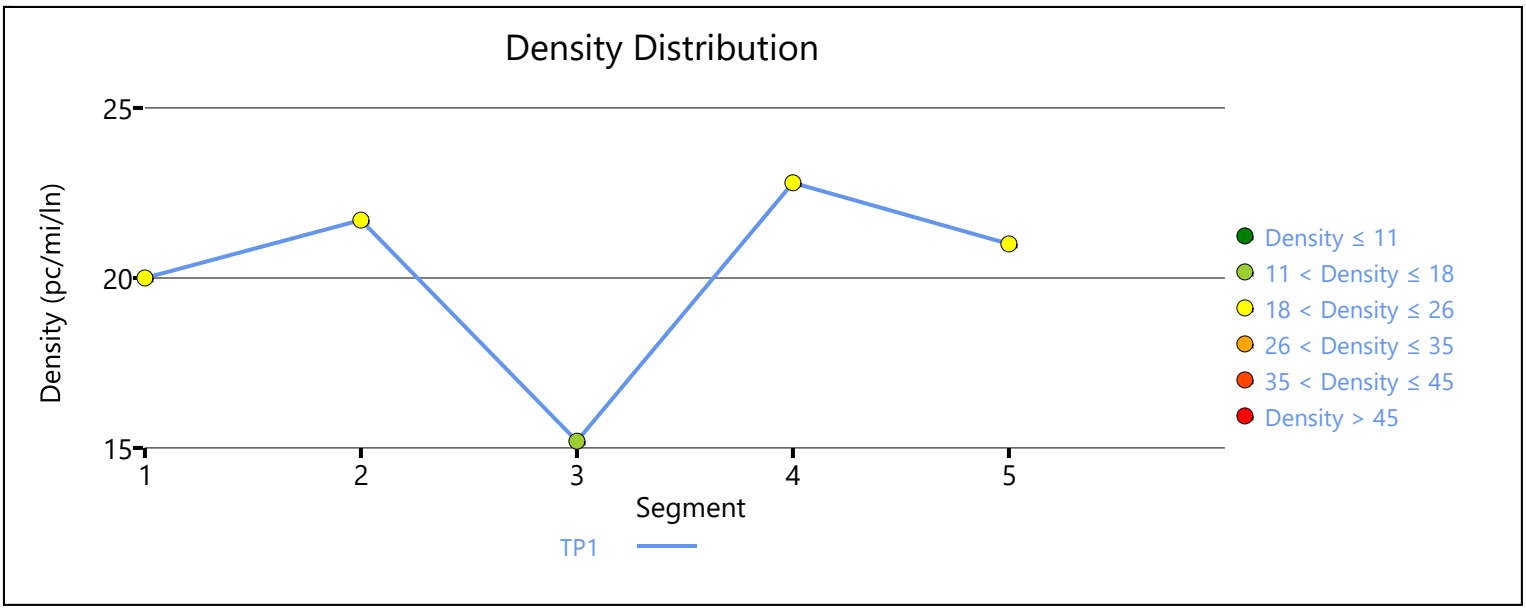
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	20.2	19.0	2.2	C

Facility Overall Results

Space Mean Speed, mi/h	67.1	Density, veh/mi/ln	19.0
Average Travel Time, min	2.2	Density, pc/mi/ln	20.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	4999	4764	1.05	52.9	45.0	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	4764	1322	4800	2100	1.04	0.63	58.3	58.3	40.9	43.4	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	3442	4764	0.77	66.9	25.7	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	3722	280	4800	1900	0.82	0.15	56.8	56.8	32.8	33.2	D

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	3722	4764	0.83	64.9	28.7	D

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.909	4158	436	4800	2100	0.92	0.21	54.5	54.5	38.1	36.5	E

Segment 7: Basic

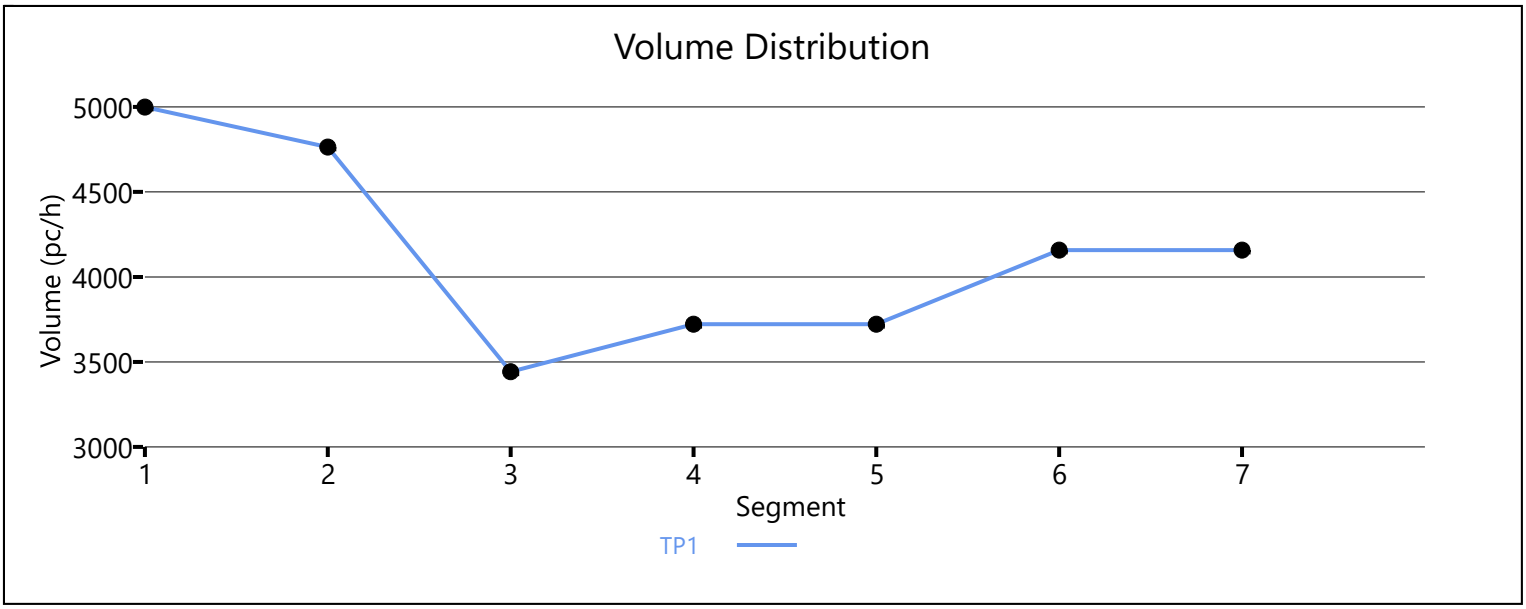
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	4158	4764	0.92	61.1	34.0	D

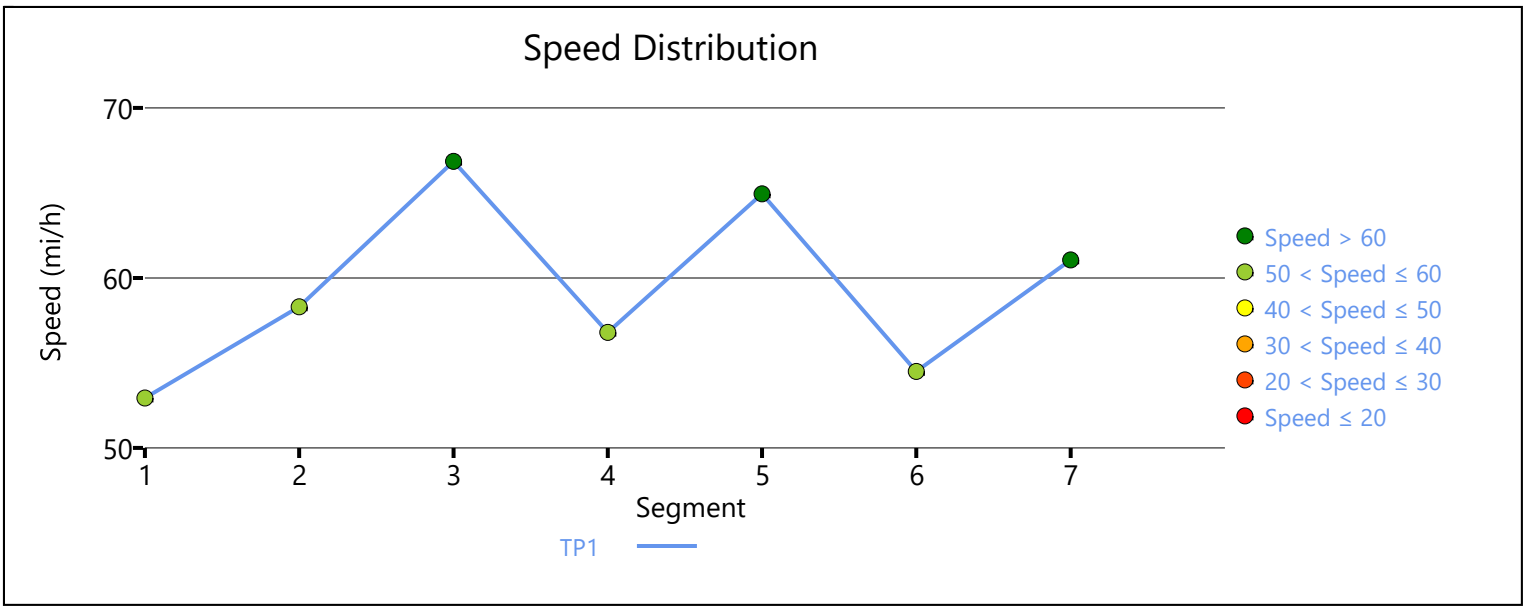
Facility Time Period Results

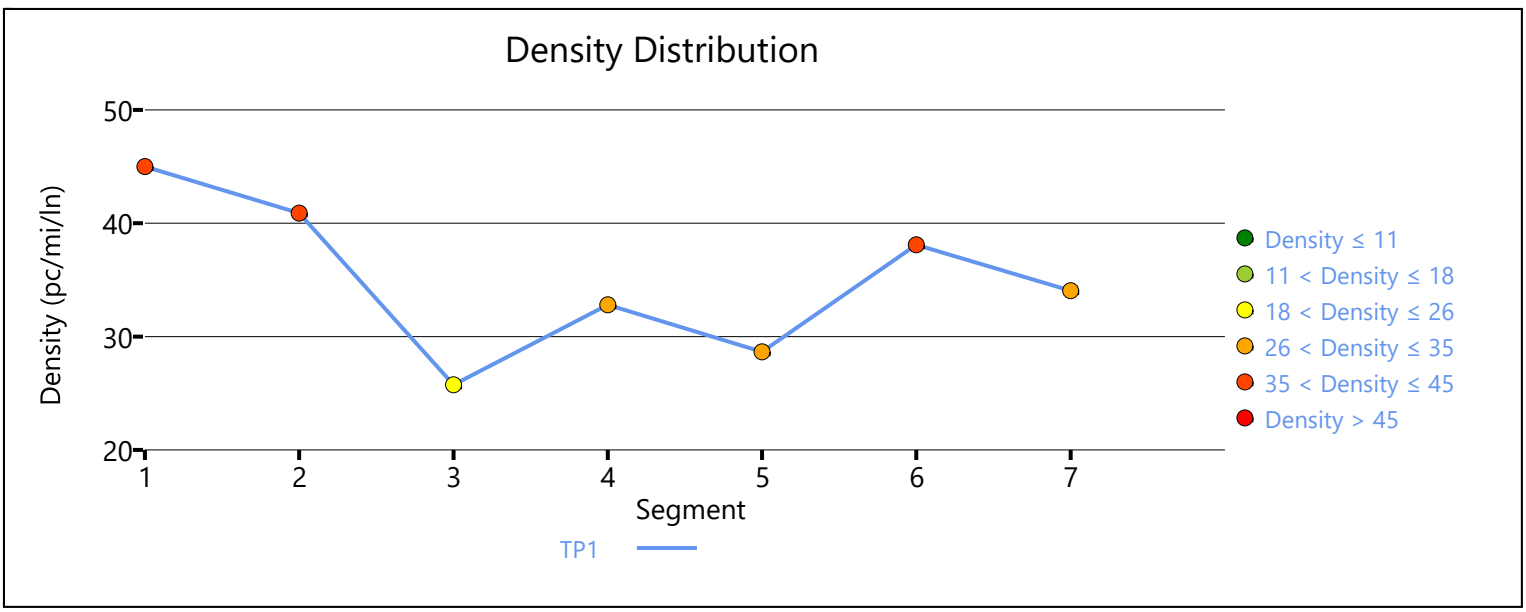
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	58.0	36.6	36.1	3.5	F

Facility Overall Results

Space Mean Speed, mi/h	58.0	Density, veh/mi/ln	36.1
Average Travel Time, min	3.5	Density, pc/mi/ln	36.6







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1720	4764	0.36	68.2	12.6	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.870	1720	513	4800	2100	0.36	0.24	60.4	60.4	14.2	17.2	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1208	4764	0.25	68.2	8.9	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.943	1800	592	4800	1900	0.38	0.31	60.6	60.6	14.9	18.1	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	1802	4764	0.38	68.2	13.2	B

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	3007	1205	4800	2100	0.63	0.57	59.3	59.3	25.4	27.2	C

Segment 7: Basic

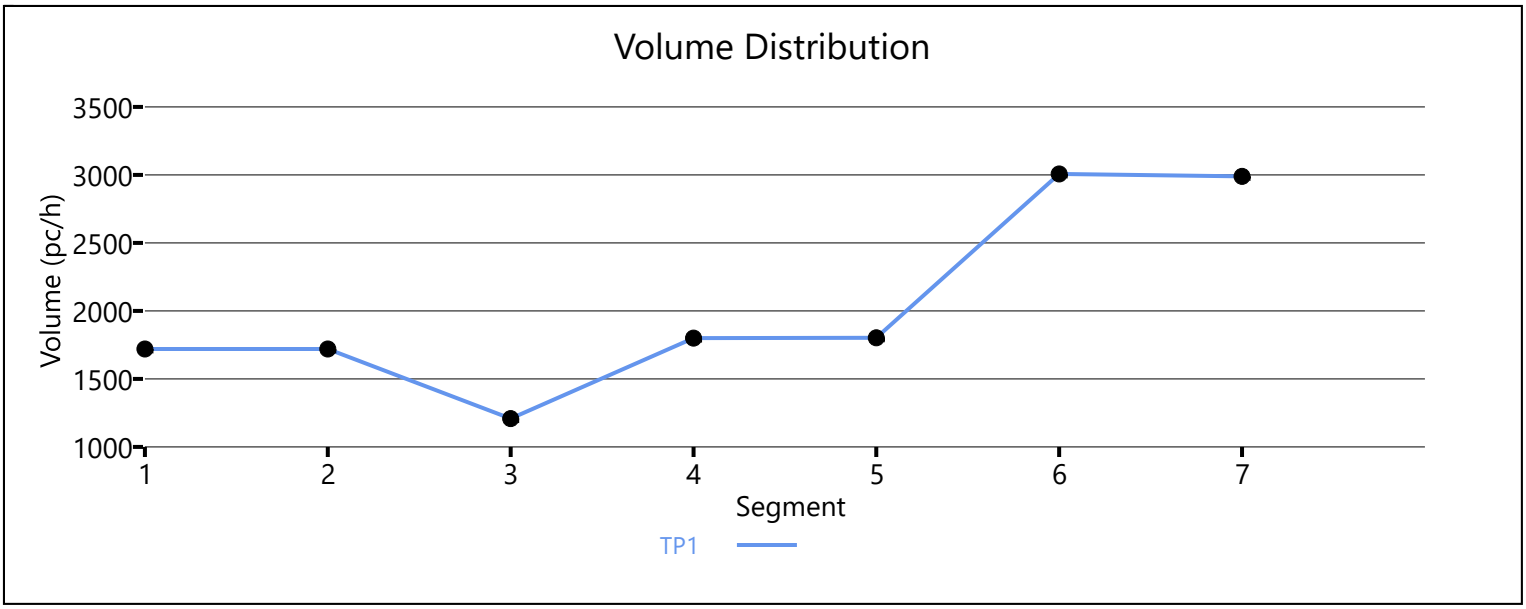
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2989	4764	0.63	67.6	22.1	C

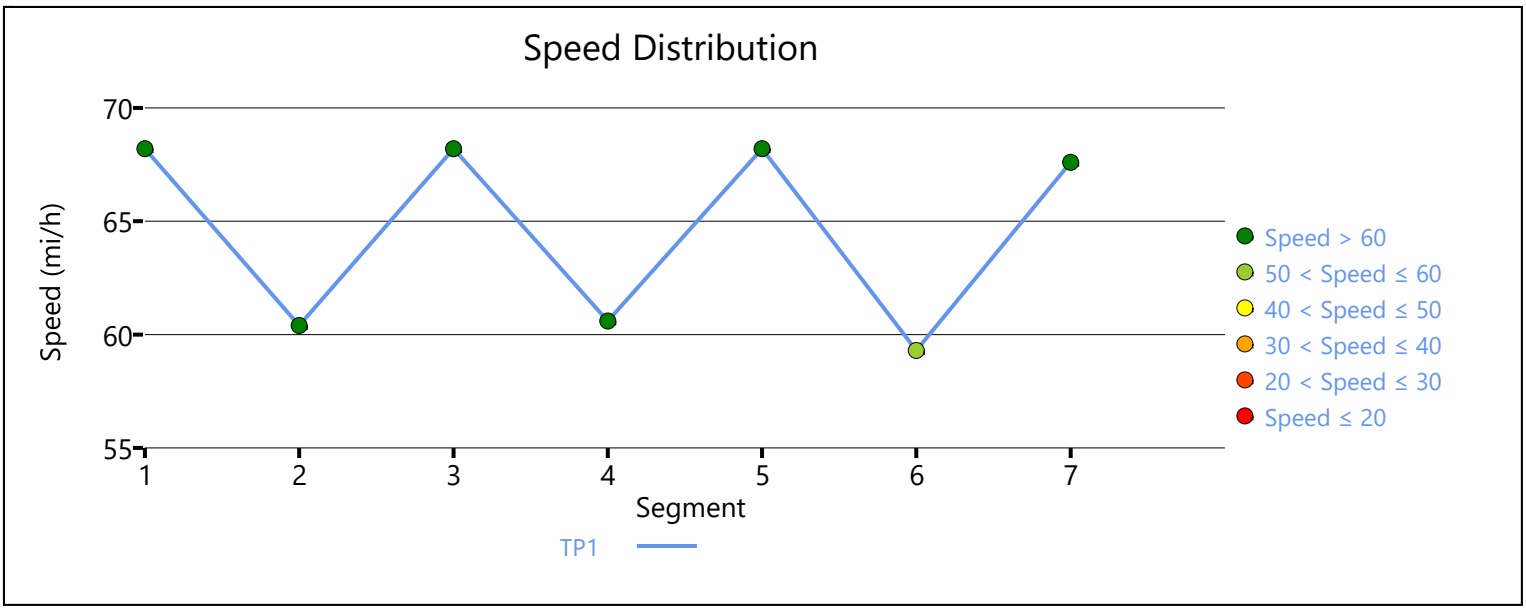
Facility Time Period Results

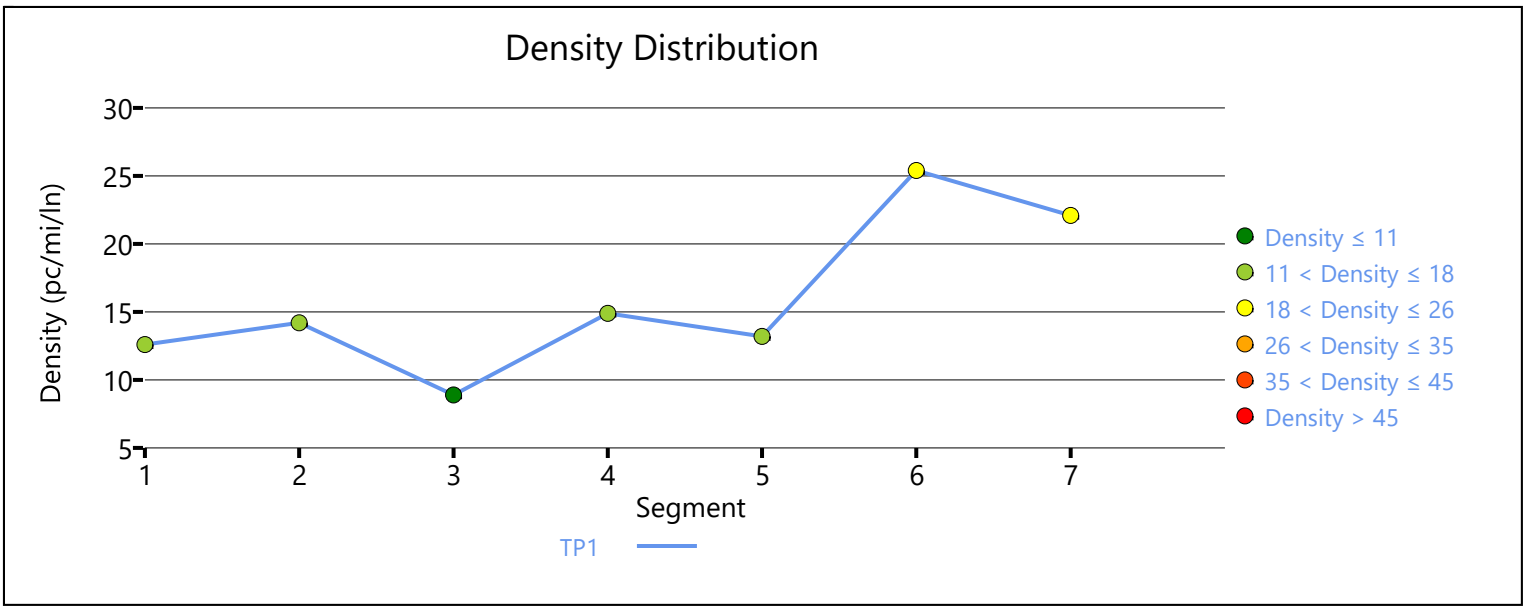
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.7	16.4	16.0	3.1	B

Facility Overall Results

Space Mean Speed, mi/h	65.7	Density, veh/mi/ln	16.0
Average Travel Time, min	3.1	Density, pc/mi/ln	16.4







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6665	7161	0.93	57.3	38.8	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	1.000	6665	3010	7200	2100	0.93	1.43	53.3	54.1	45.0	40.4	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3655	7161	0.51	67.6	17.4	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4364	709	7200	2100	0.60	0.34	62.9	61.2	23.1	22.6	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	4364	7161	0.60	68.4	21.0	C

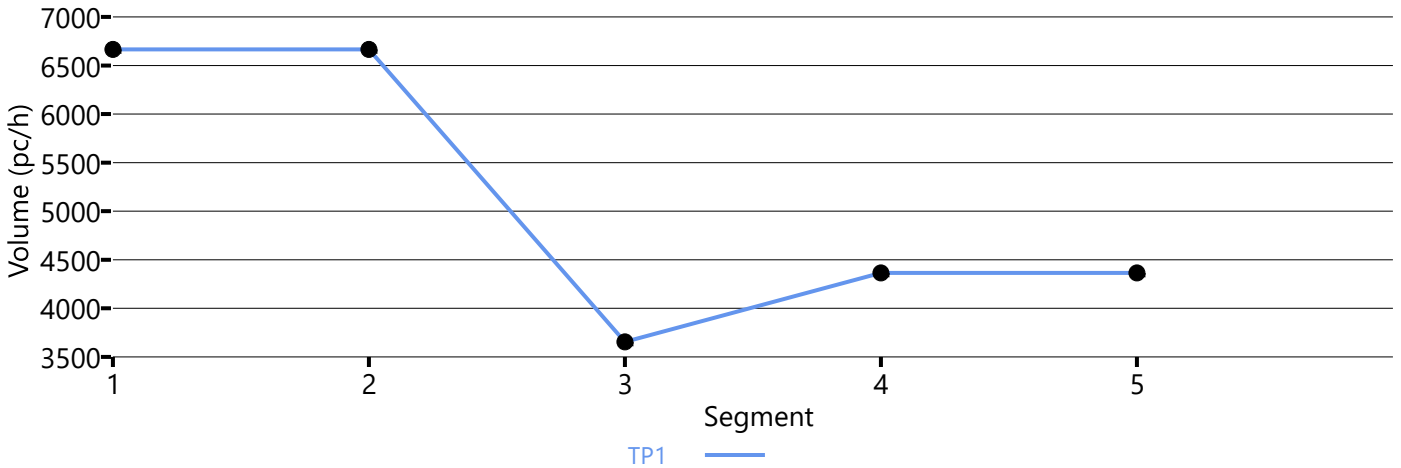
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	59.8	31.1	30.5	2.3	D

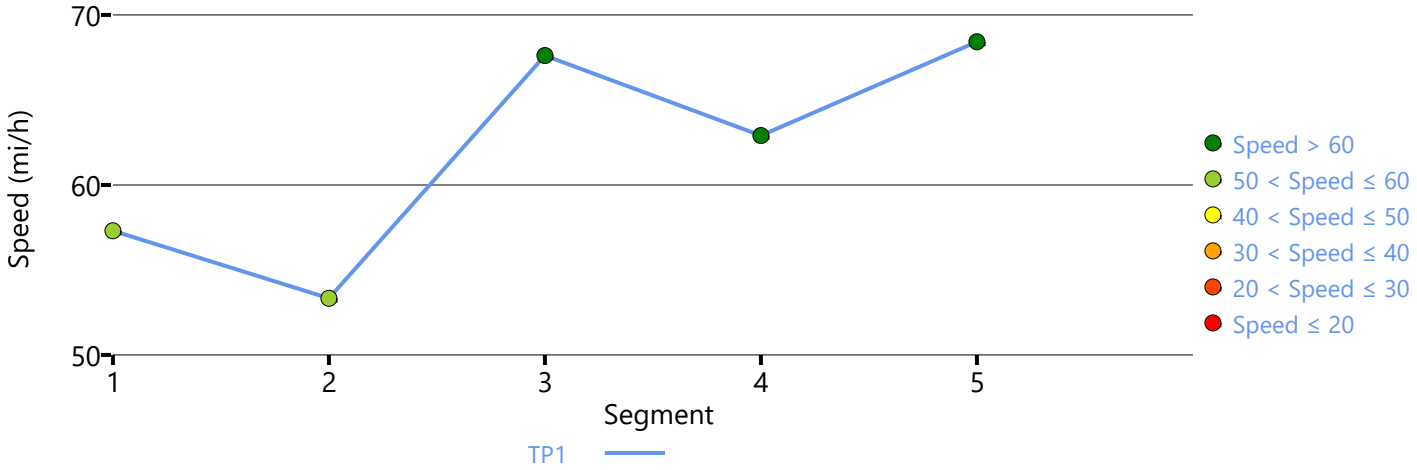
Facility Overall Results

Space Mean Speed, mi/h	59.8	Density, veh/mi/ln	30.5
Average Travel Time, min	2.3	Density, pc/mi/ln	31.1

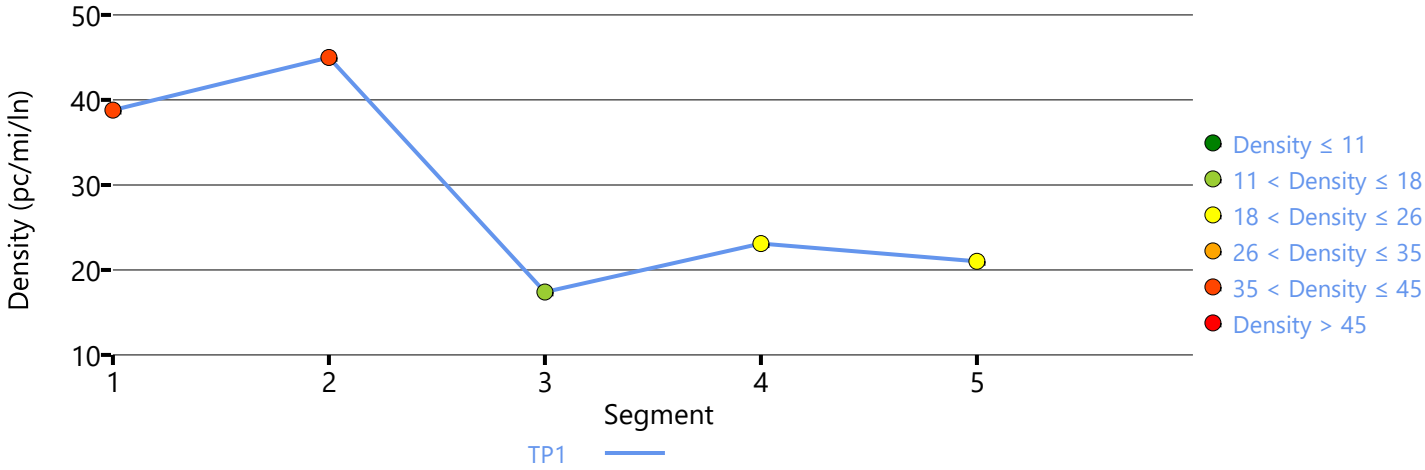
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	5087	7161	0.71	66.3	25.6	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.990	5087	1314	7200	2100	0.71	0.63	62.7	58.4	27.0	30.1	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3787	7161	0.53	68.7	18.4	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	4657	870	7200	2100	0.65	0.41	62.5	60.8	24.8	23.8	C

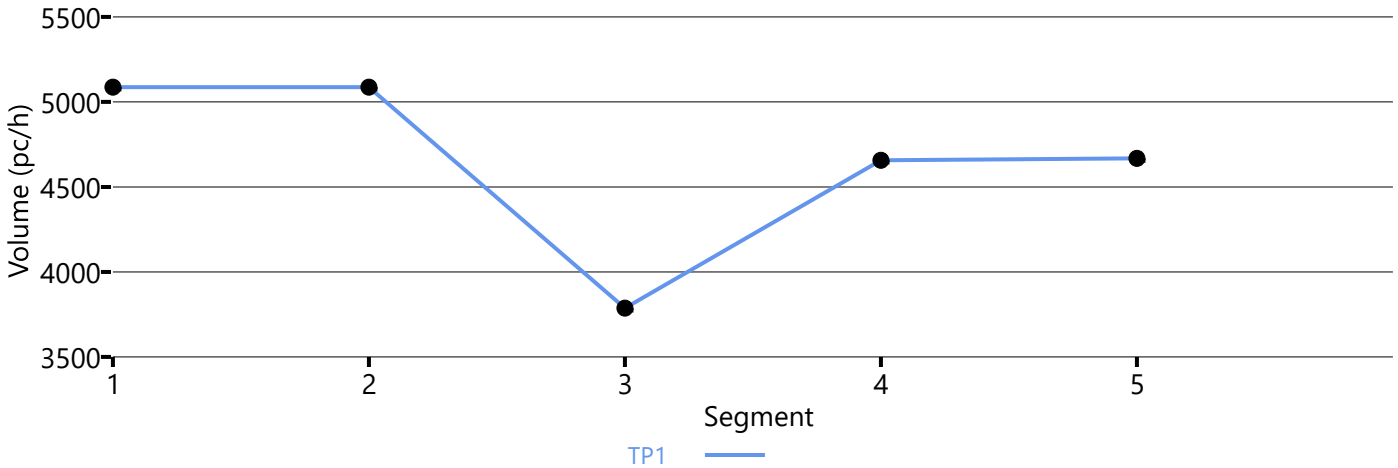
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	4668	7161	0.65	67.6	23.0	C

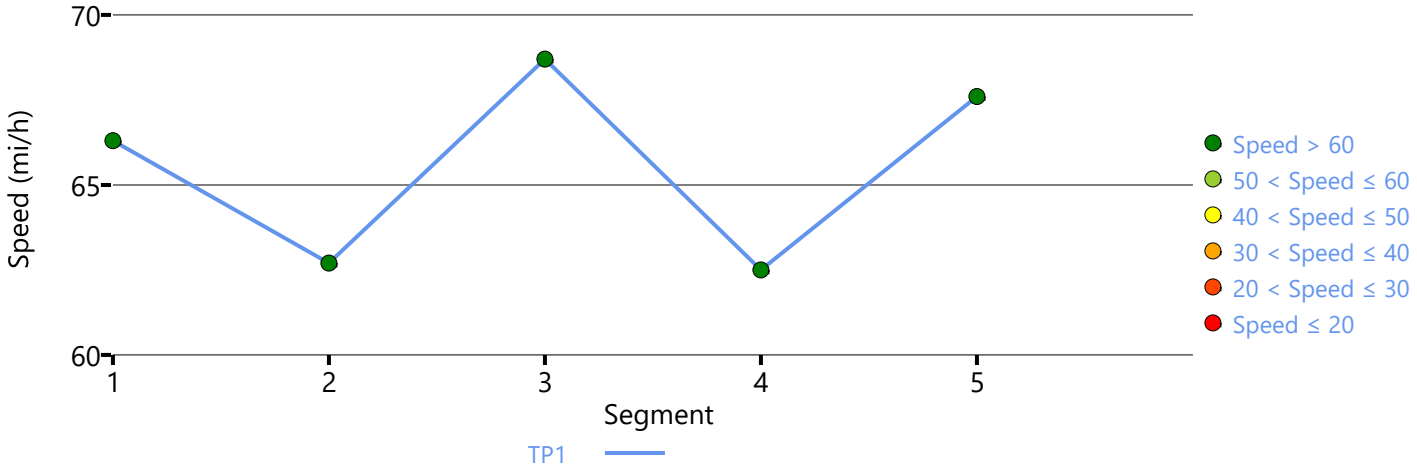
Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	66.0	23.9	22.6	2.2	C

Facility Overall Results			
Space Mean Speed, mi/h	66.0	Density, veh/mi/ln	22.6
Average Travel Time, min	2.2	Density, pc/mi/ln	23.9

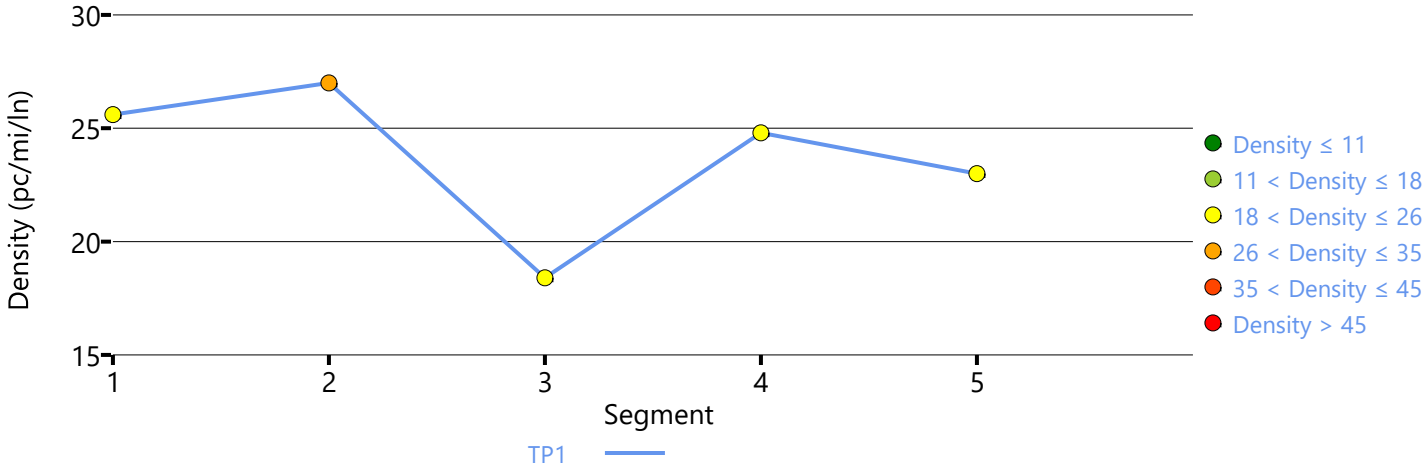
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6186	4764	1.30	52.9	45.0	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	4764	2438	4800	2100	1.29	1.16	53.3	55.5	45.0	43.4	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	2326	4764	0.79	67.3	16.6	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.962	2675	349	4800	1900	0.86	0.18	59.7	59.7	22.4	25.0	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	2675	4764	0.86	67.1	19.2	C

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.862	3135	460	4800	2100	0.95	0.22	59.0	59.0	26.6	28.5	D

Segment 7: Basic

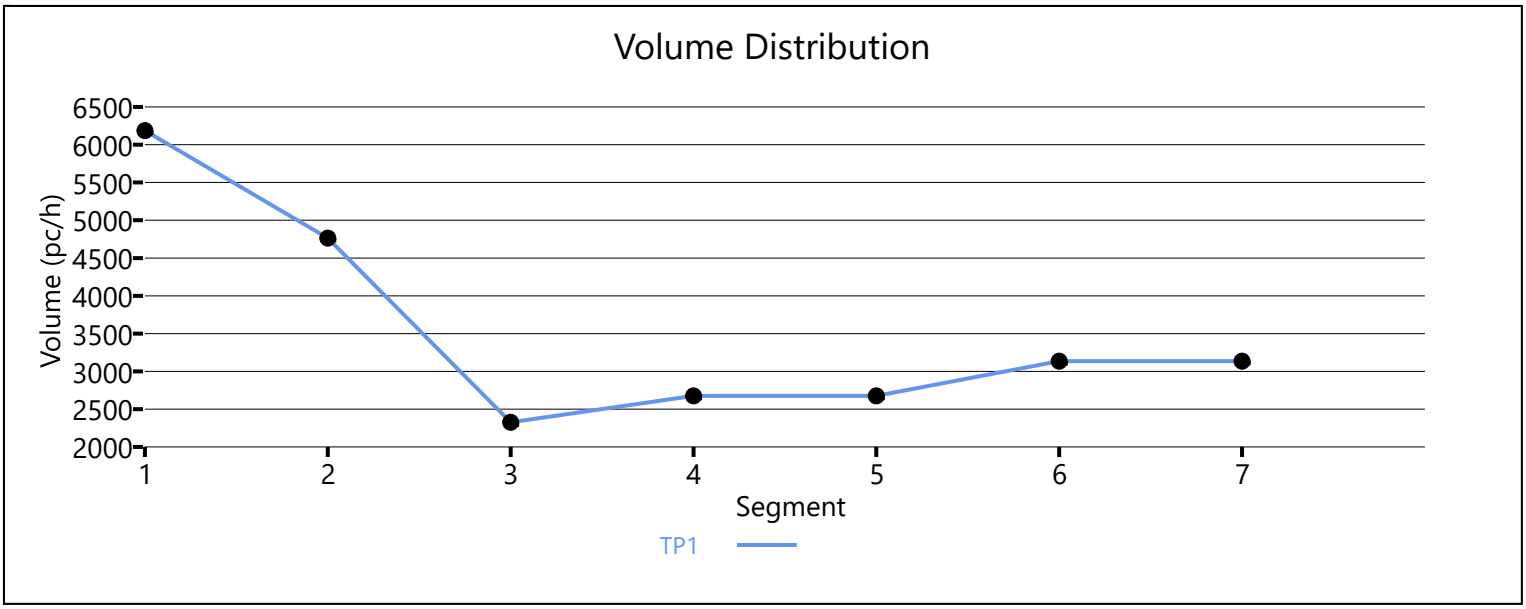
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3135	4764	0.96	68.2	22.9	C

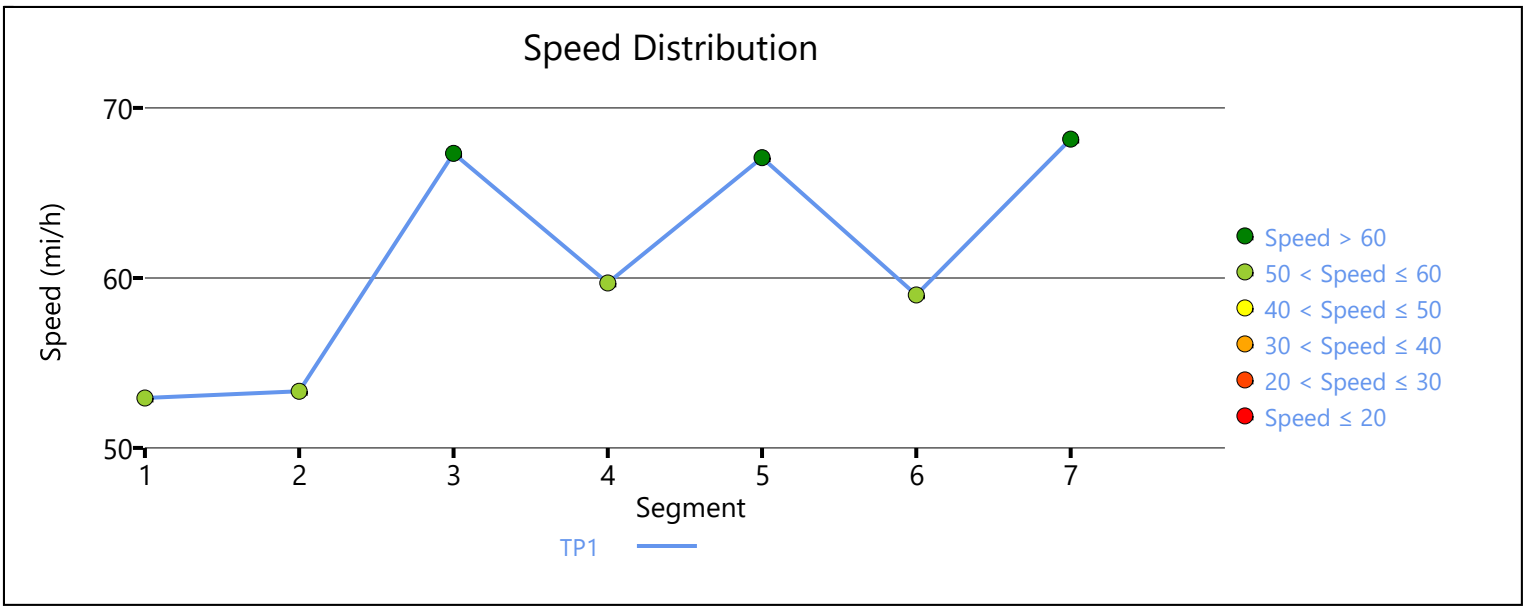
Facility Time Period Results

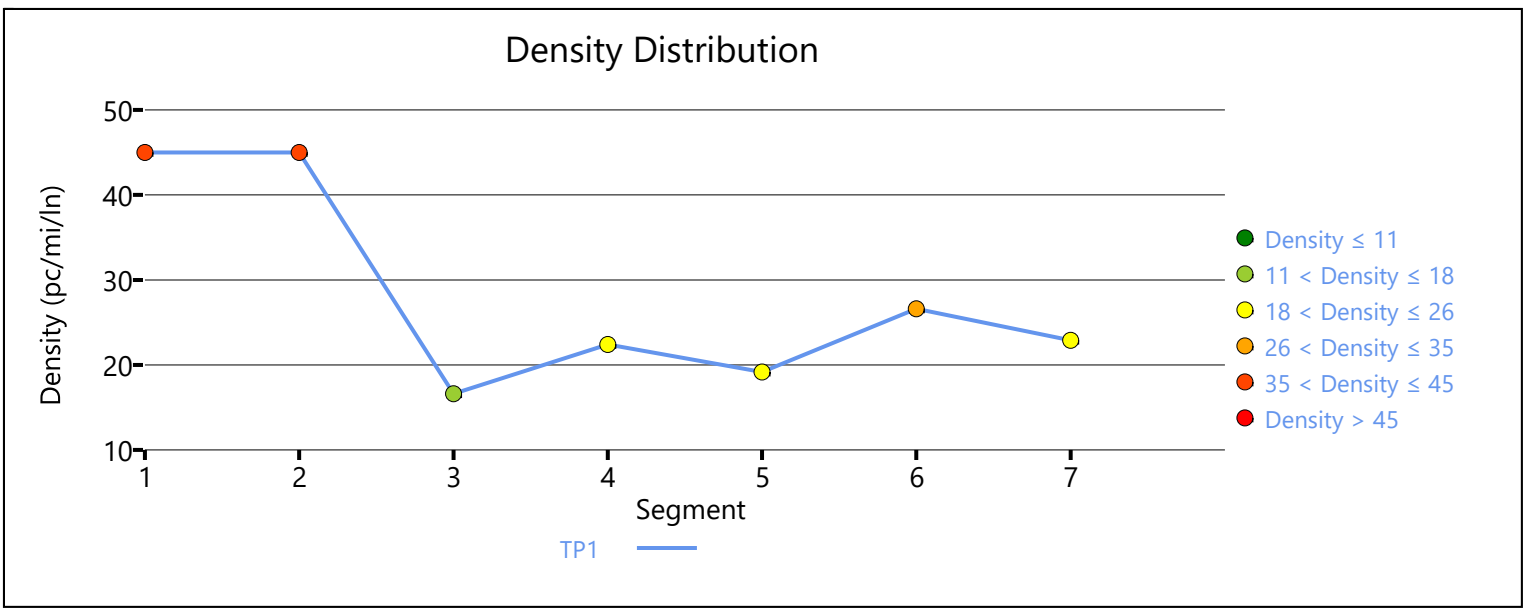
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	59.0	30.3	29.9	3.5	F

Facility Overall Results

Space Mean Speed, mi/h	59.0	Density, veh/mi/ln	29.9
Average Travel Time, min	3.5	Density, pc/mi/ln	30.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3078	4764	0.65	67.3	22.9	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	3078	964	4800	2100	0.64	0.46	59.2	59.2	26.0	28.9	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	2105	4764	0.44	68.2	15.4	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.909	2604	499	4800	1900	0.54	0.26	59.8	59.8	21.8	24.4	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	2611	4764	0.55	68.2	19.1	C

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	3887	1276	4800	2100	0.81	0.61	56.2	56.2	34.6	34.0	D

Segment 7: Basic

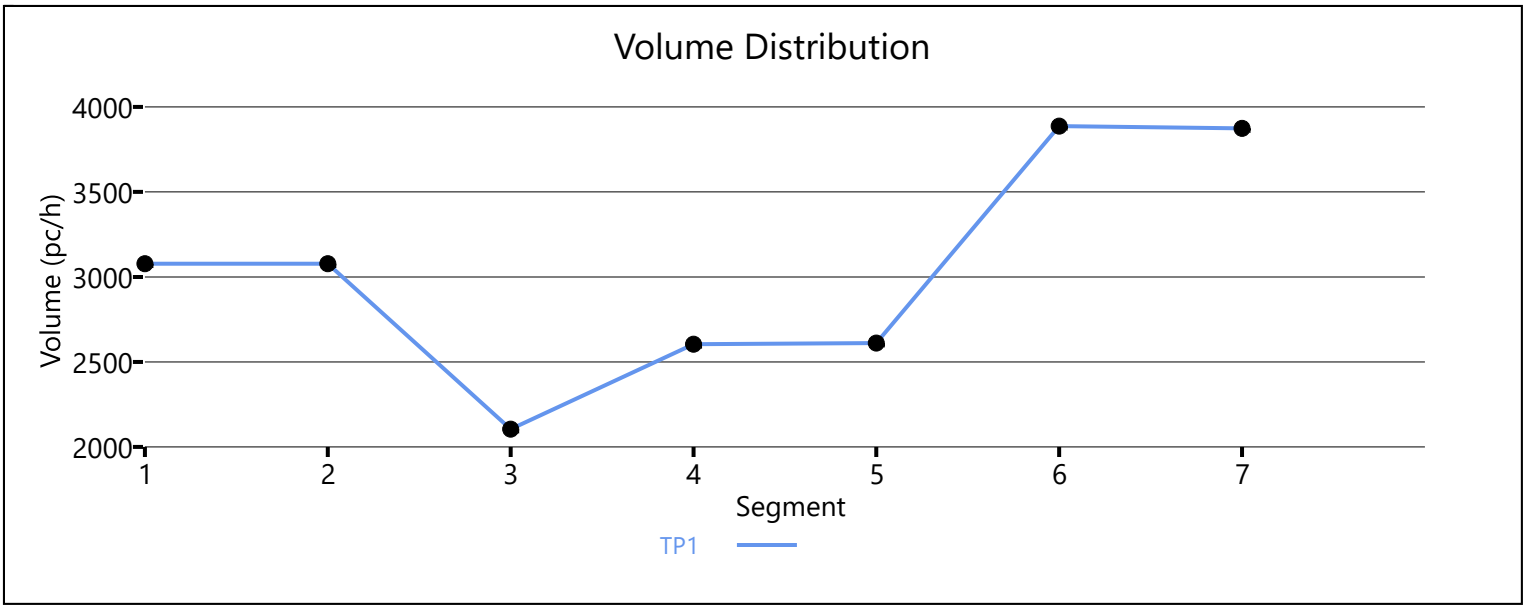
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3874	4764	0.81	62.7	30.9	D

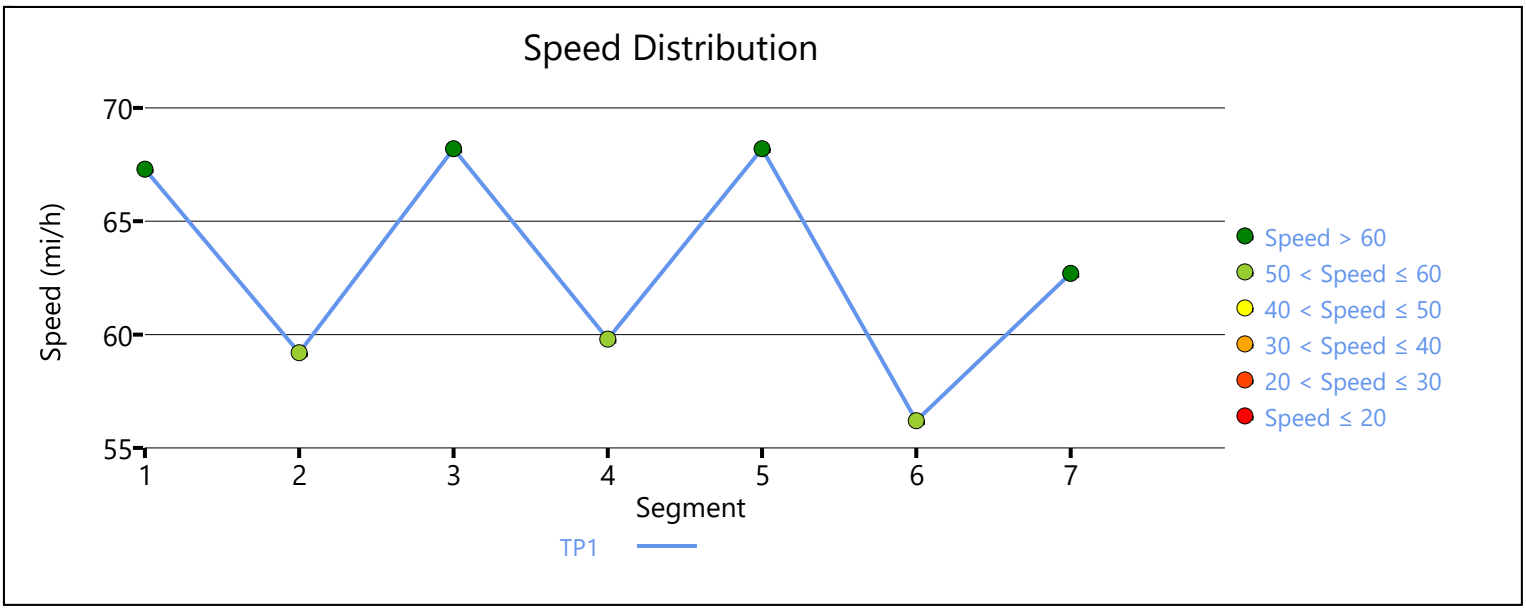
Facility Time Period Results

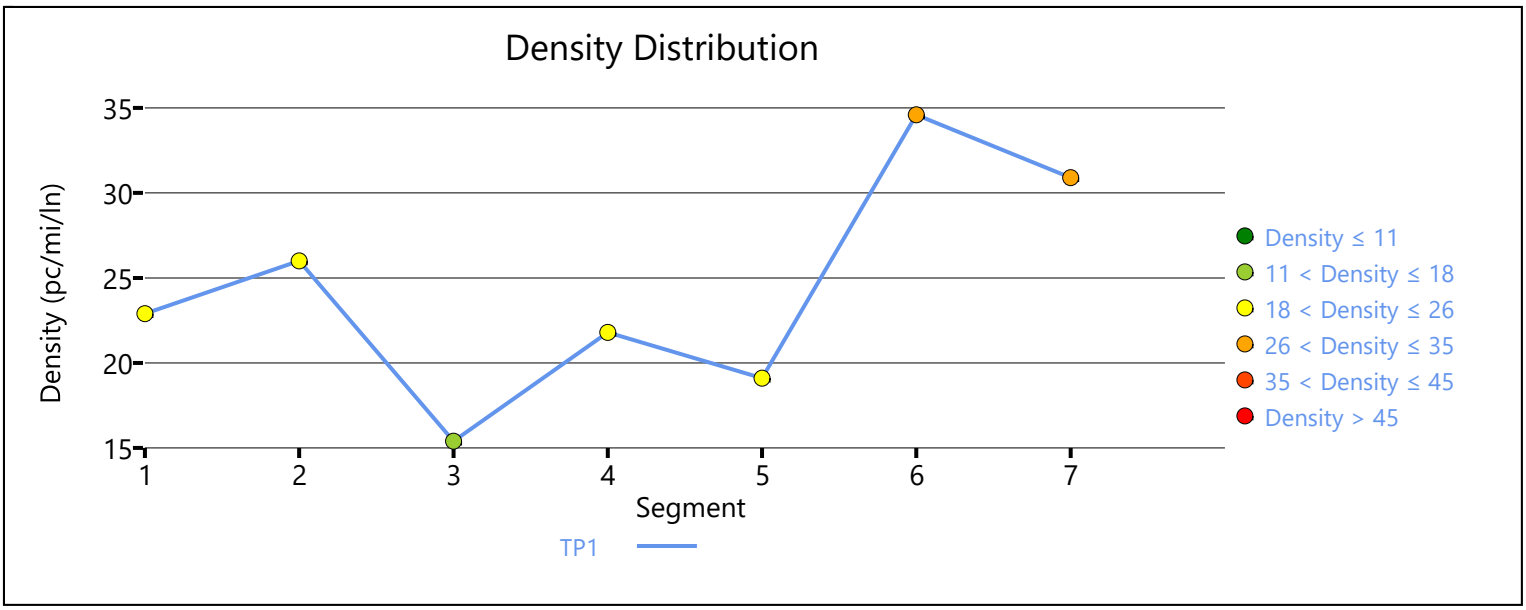
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	63.3	25.3	24.7	3.2	C

Facility Overall Results

Space Mean Speed, mi/h	63.3	Density, veh/mi/ln	24.7
Average Travel Time, min	3.2	Density, pc/mi/ln	25.3







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APPENDIX 9.6:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4240	7161	0.59	68.4	20.7	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4240	1229	7200	2100	0.59	0.59	62.6	58.5	22.6	26.3	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	2988	7161	0.42	68.7	14.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4113	1125	7200	2100	0.57	0.54	62.8	61.1	21.8	22.5	C

Segment 5: Basic

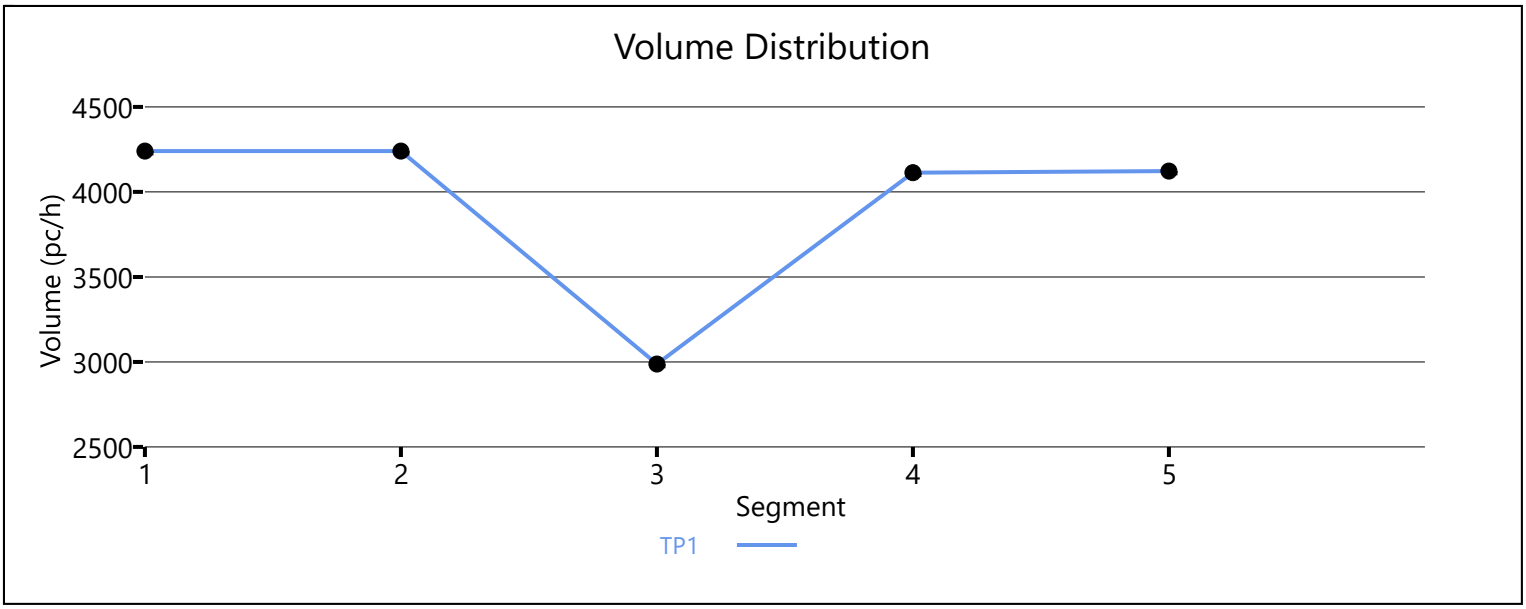
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	4123	7161	0.58	68.5	20.1	C

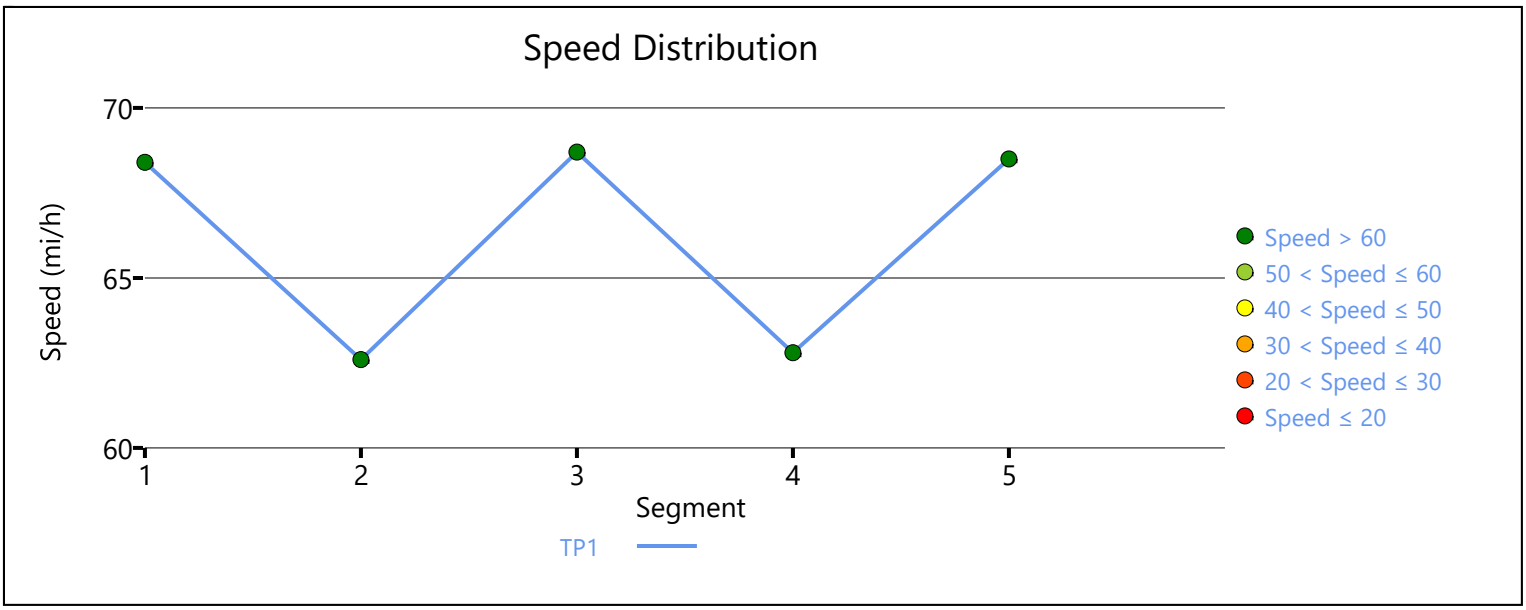
Facility Time Period Results

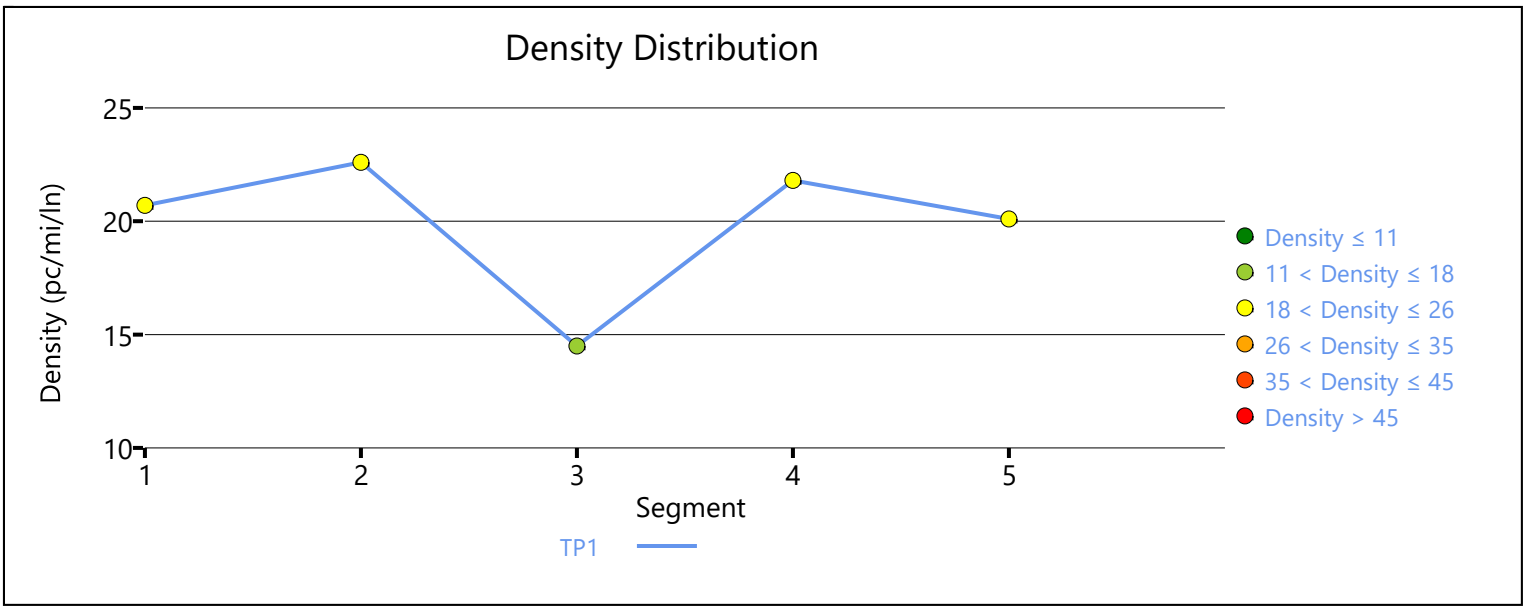
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.9	20.1	19.5	2.1	C

Facility Overall Results

Space Mean Speed, mi/h	66.9	Density, veh/mi/ln	19.5
Average Travel Time, min	2.1	Density, pc/mi/ln	20.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	4116	7161	0.57	68.5	20.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.971	4116	1011	7200	2100	0.57	0.48	63.2	59.1	21.7	25.2	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	3132	7161	0.44	68.7	15.2	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.990	4342	1210	7200	2100	0.60	0.58	62.7	61.0	23.1	23.2	C

Segment 5: Basic

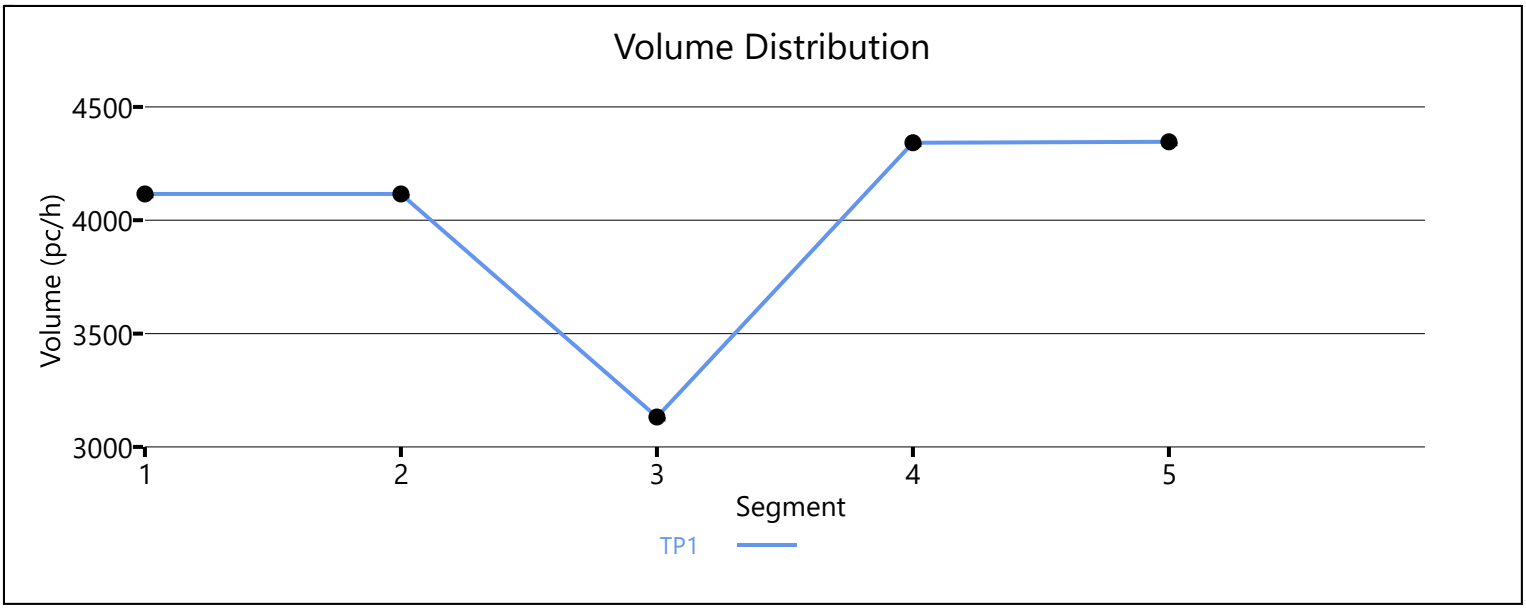
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	4346	7161	0.61	68.2	21.2	C

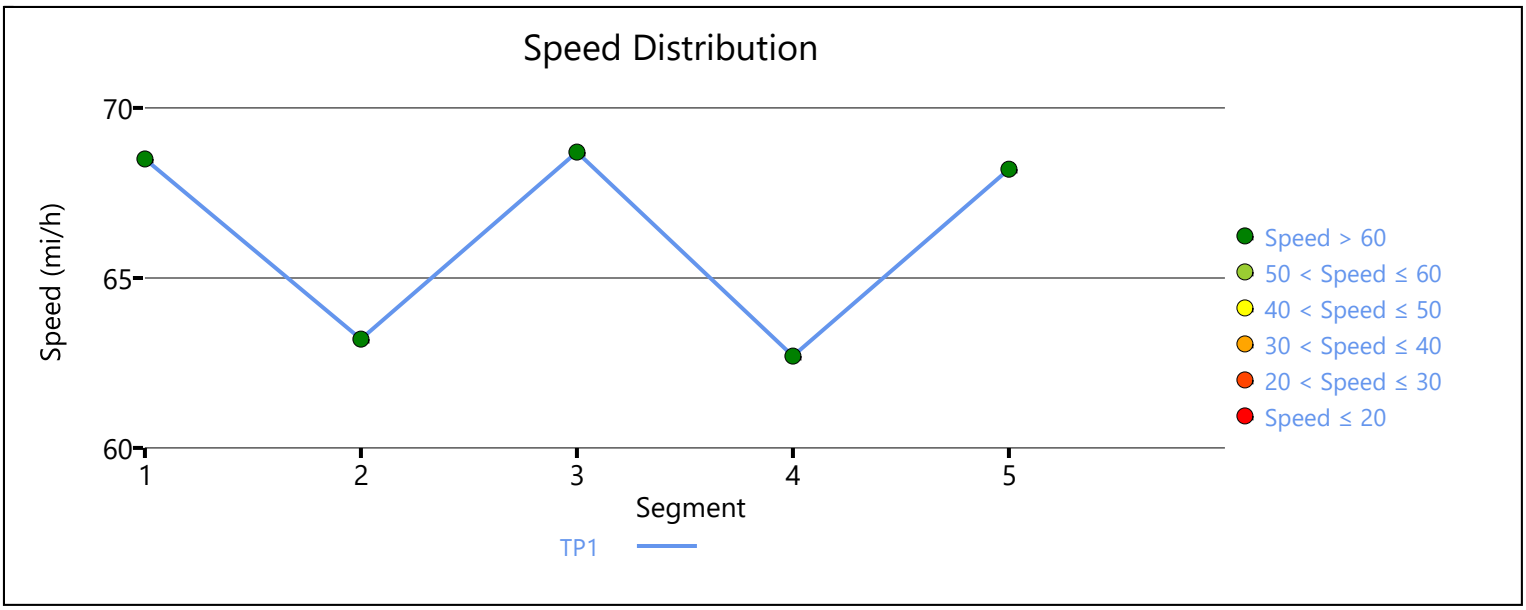
Facility Time Period Results

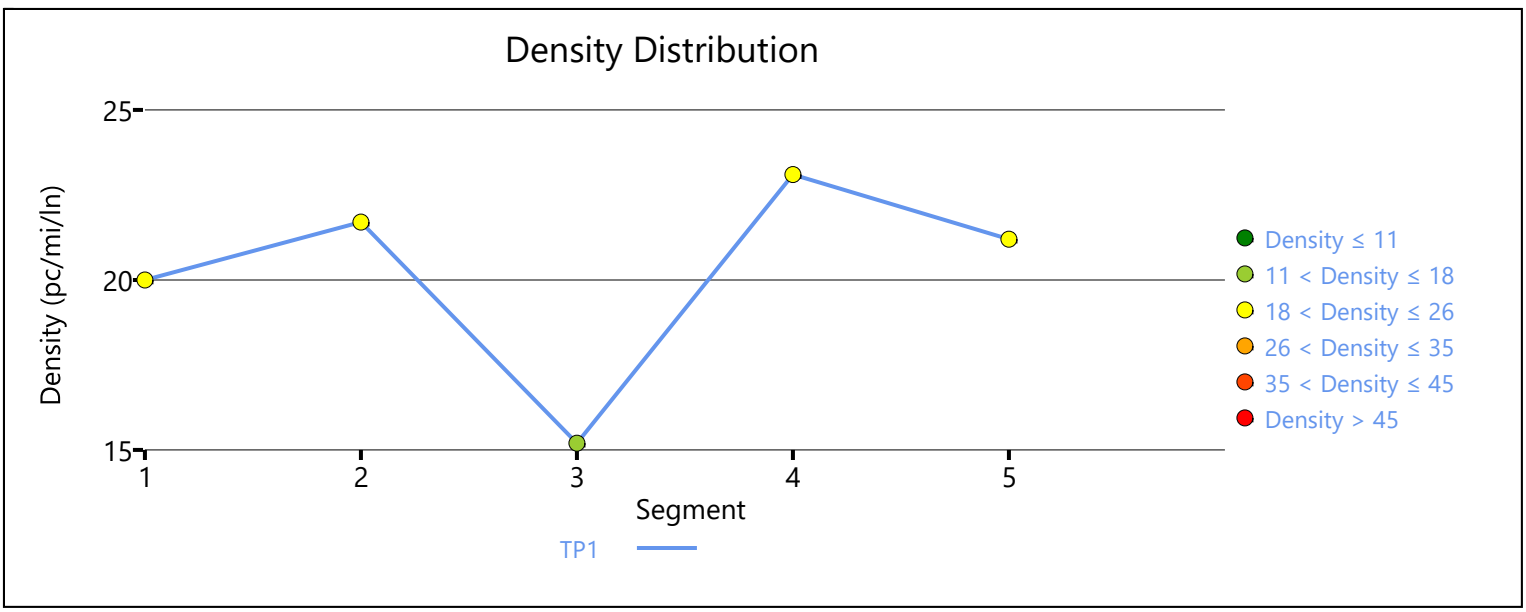
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	20.3	19.1	2.2	C

Facility Overall Results

Space Mean Speed, mi/h	67.0	Density, veh/mi/ln	19.1
Average Travel Time, min	2.2	Density, pc/mi/ln	20.3







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	5393	4764	1.13	52.9	45.0	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	4764	1731	4800	2100	1.12	0.82	57.3	57.3	41.6	43.4	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	3033	4764	0.77	67.6	22.0	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	3313	280	4800	1900	0.82	0.15	58.3	58.3	28.4	30.0	D

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	3313	4764	0.83	66.9	24.5	C

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.901	3831	518	4800	2100	0.93	0.25	56.5	56.5	33.9	33.9	D

Segment 7: Basic

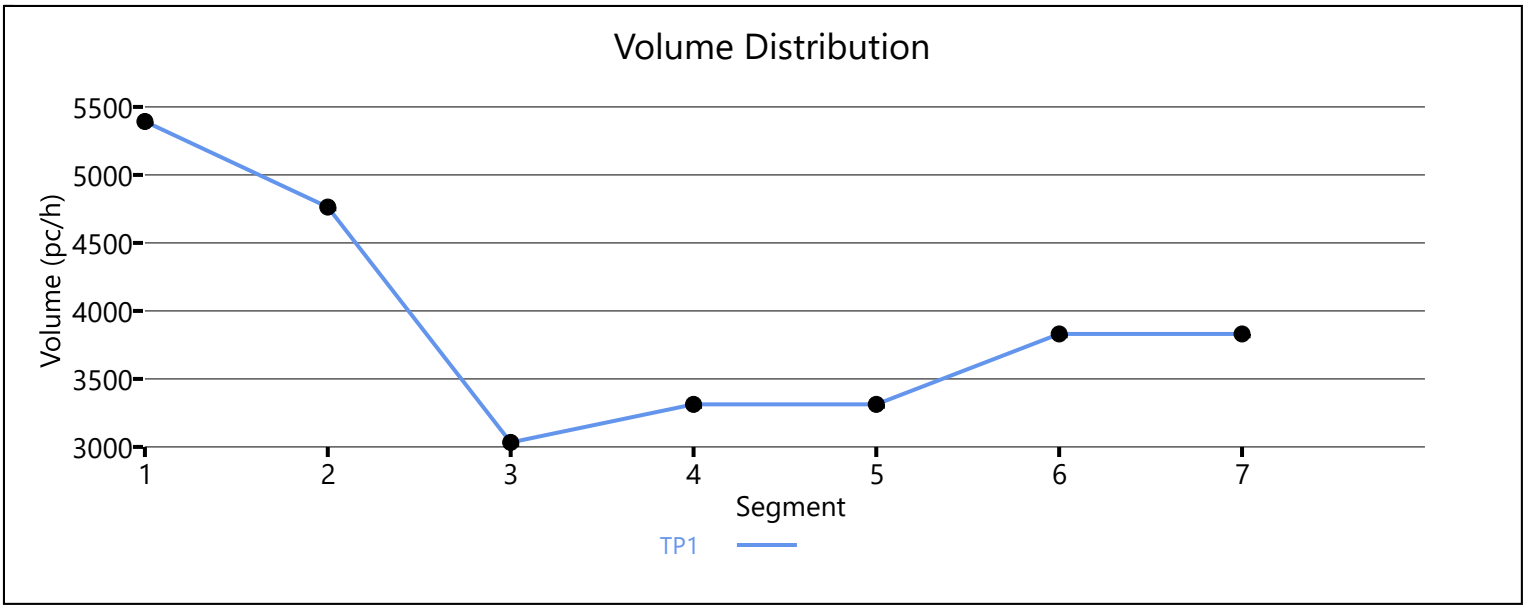
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3831	4764	0.94	64.1	29.9	D

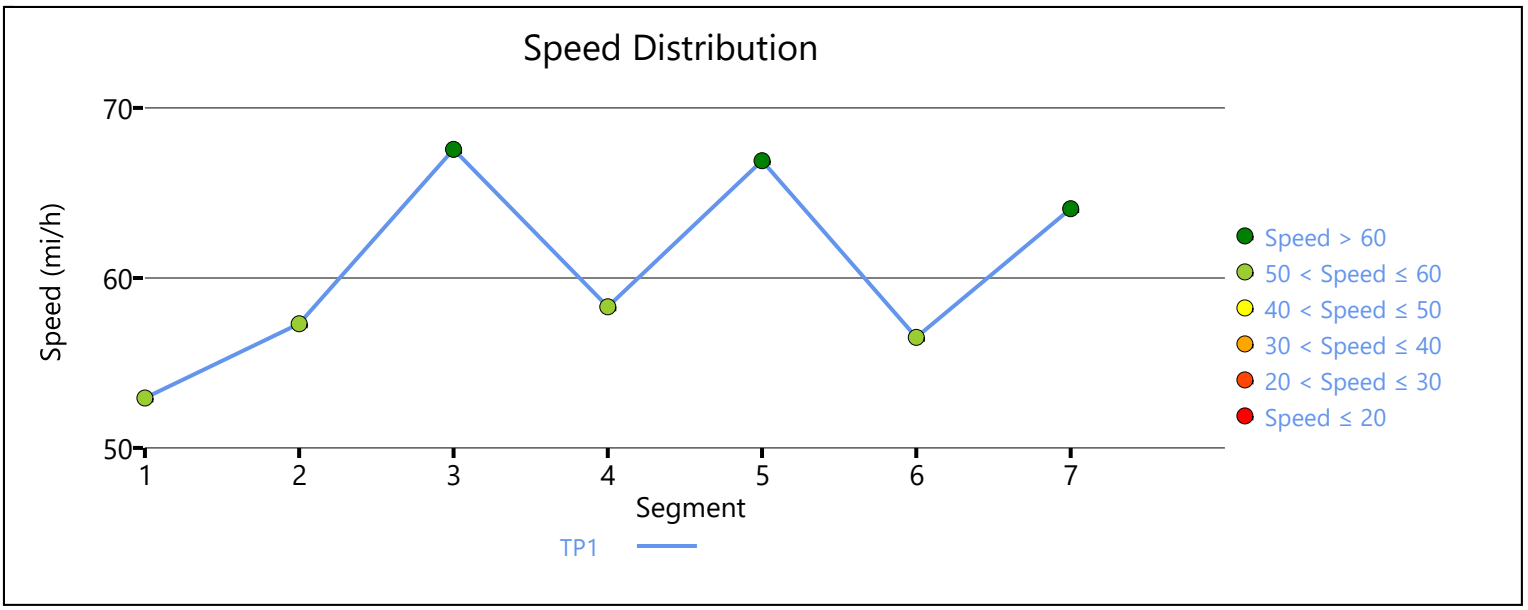
Facility Time Period Results

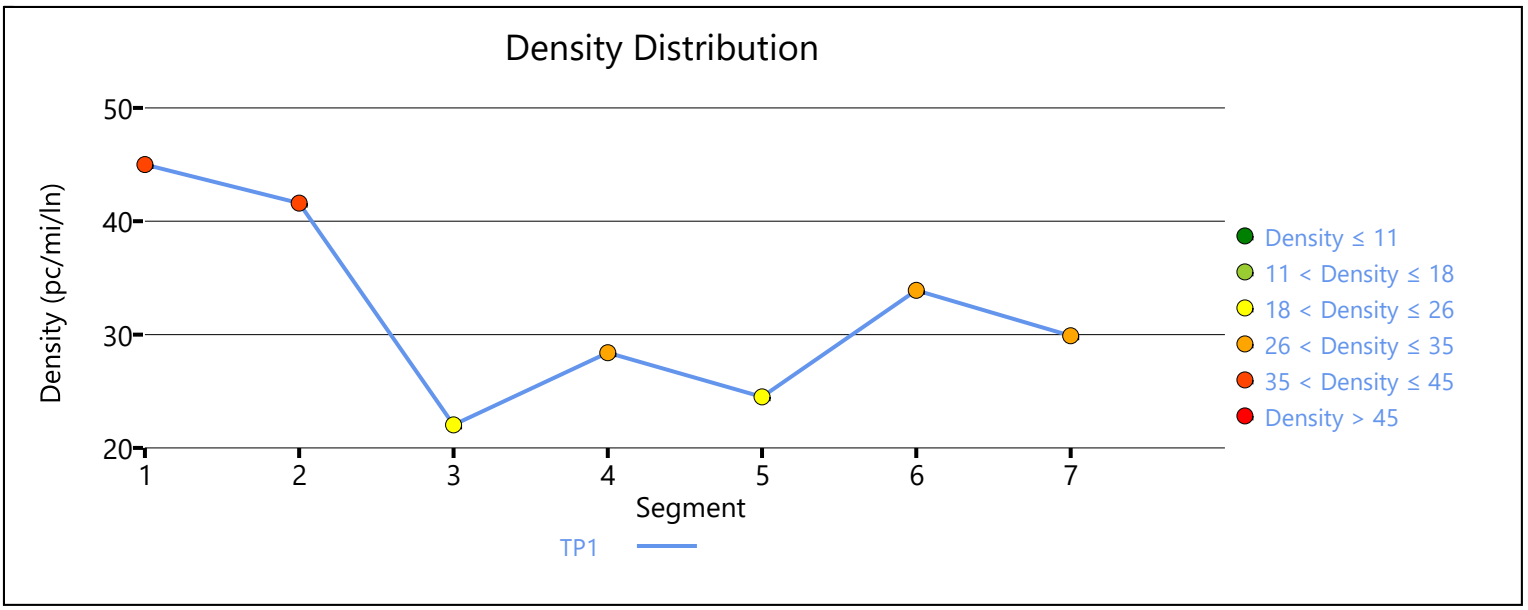
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	58.9	34.1	33.4	3.5	F

Facility Overall Results

Space Mean Speed, mi/h	58.9	Density, veh/mi/ln	33.4
Average Travel Time, min	3.5	Density, pc/mi/ln	34.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	2050	4764	0.43	68.2	15.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.833	2050	851	4800	2100	0.43	0.41	59.5	59.5	17.2	20.1	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	1208	4764	0.25	68.2	8.9	A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.935	1903	695	4800	1900	0.40	0.37	60.6	60.6	15.7	18.8	B

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	1913	4764	0.40	68.2	14.0	B

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	3101	1205	4800	2100	0.65	0.57	59.1	59.1	26.2	27.9	C

Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3112	4764	0.65	67.2	23.2	C

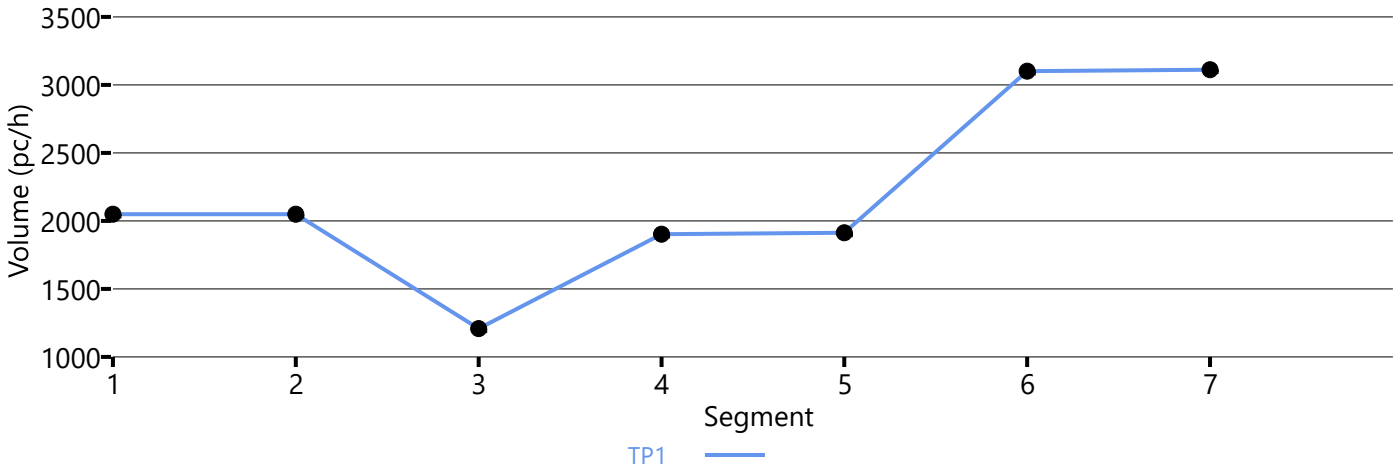
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.4	17.8	17.1	3.1	B

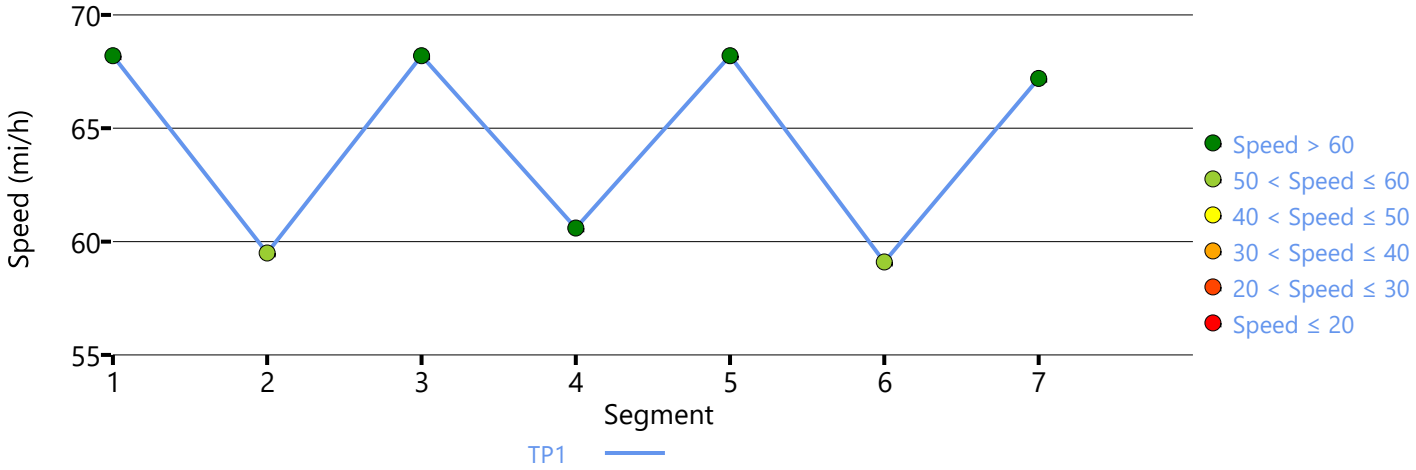
Facility Overall Results

Space Mean Speed, mi/h	65.4	Density, veh/mi/ln	17.1
Average Travel Time, min	3.1	Density, pc/mi/ln	17.8

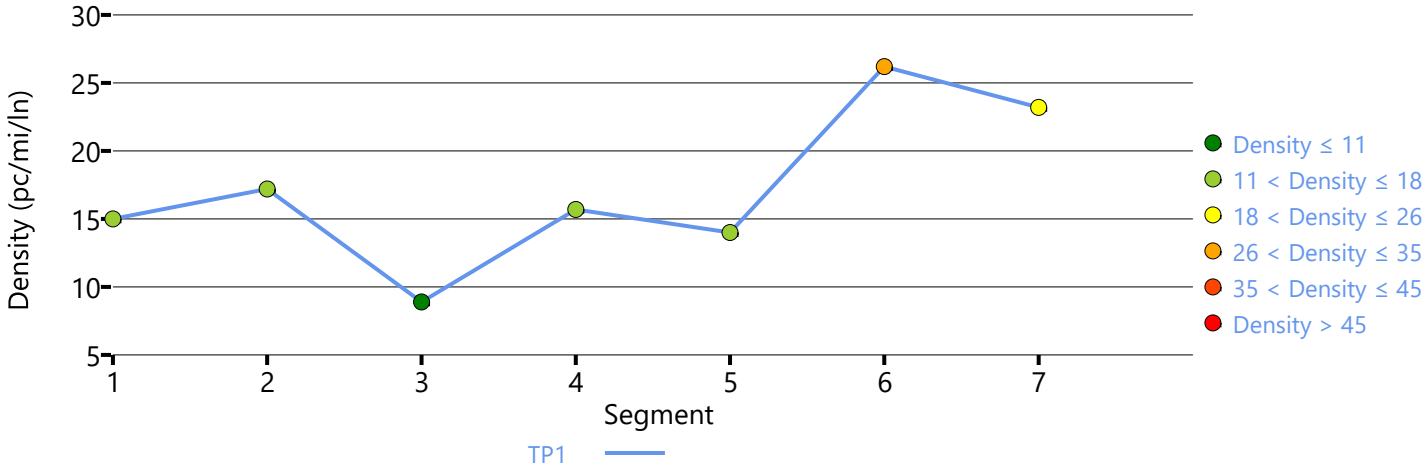
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6768	7161	0.95	56.4	40.0	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	1.000	6768	3111	7200	2100	0.94	1.48	53.3	53.8	45.0	41.1	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3657	7161	0.51	67.6	17.4	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4366	709	7200	2100	0.60	0.34	62.9	61.2	23.1	22.6	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	4366	7161	0.60	68.4	21.0	C

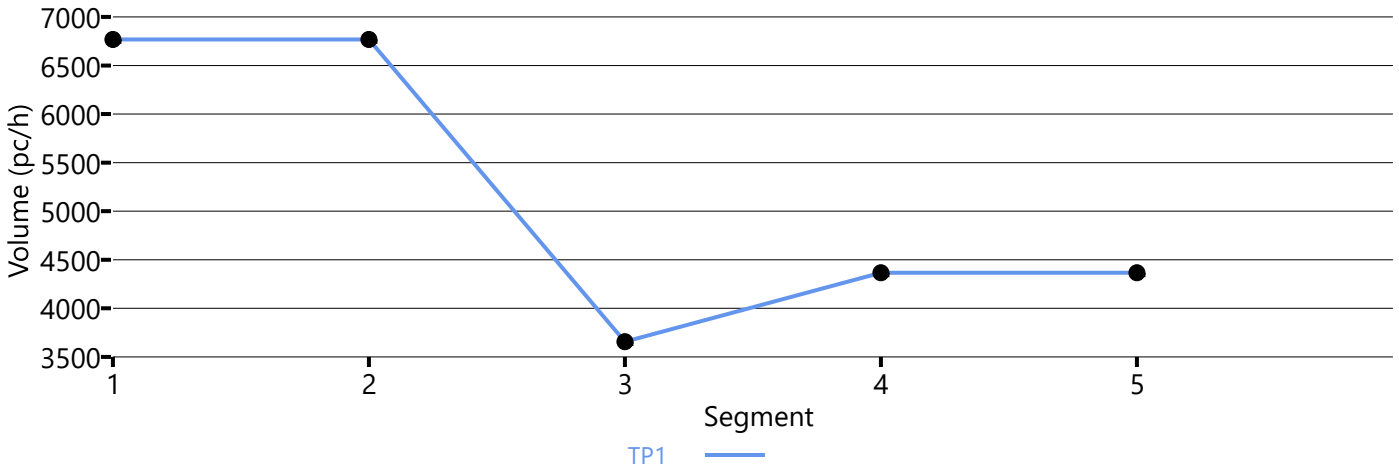
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	59.3	31.6	30.9	2.4	D

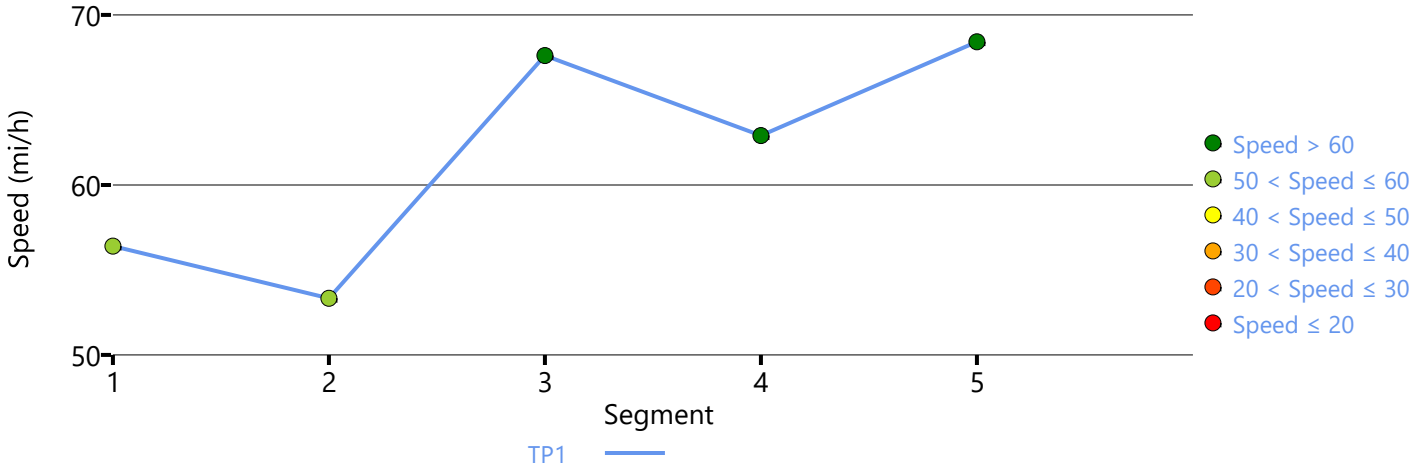
Facility Overall Results

Space Mean Speed, mi/h	59.3	Density, veh/mi/ln	30.9
Average Travel Time, min	2.4	Density, pc/mi/ln	31.6

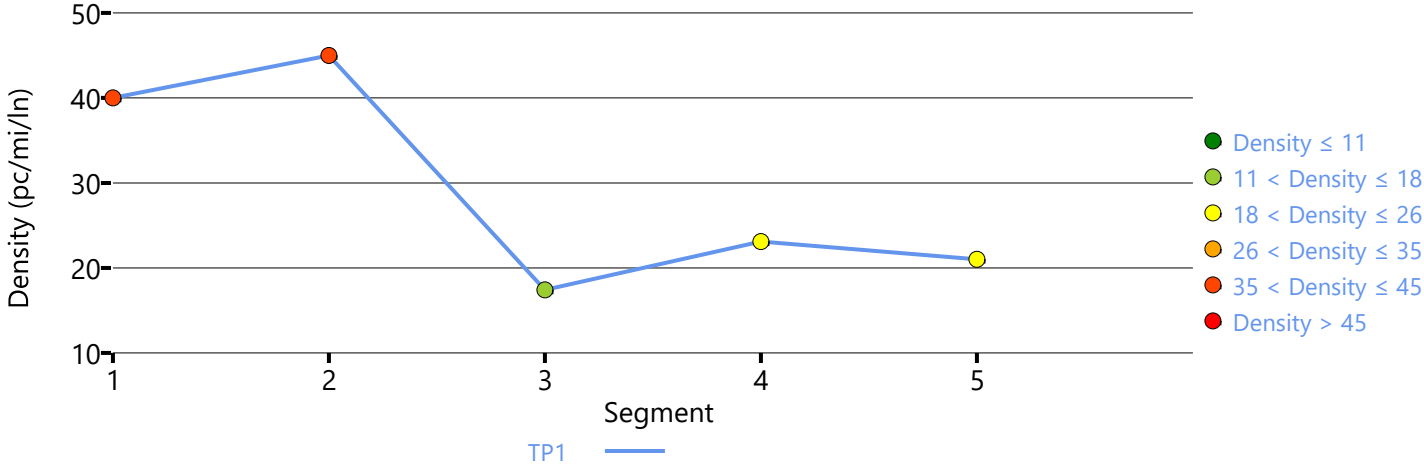
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	5087	7161	0.71	66.3	25.6	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.990	5087	1314	7200	2100	0.71	0.63	62.7	58.4	27.0	30.1	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.935	3787	7161	0.53	68.7	18.4	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	4841	1054	7200	2100	0.67	0.50	62.1	60.3	26.0	25.2	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	4862	7161	0.68	67.0	24.2	C

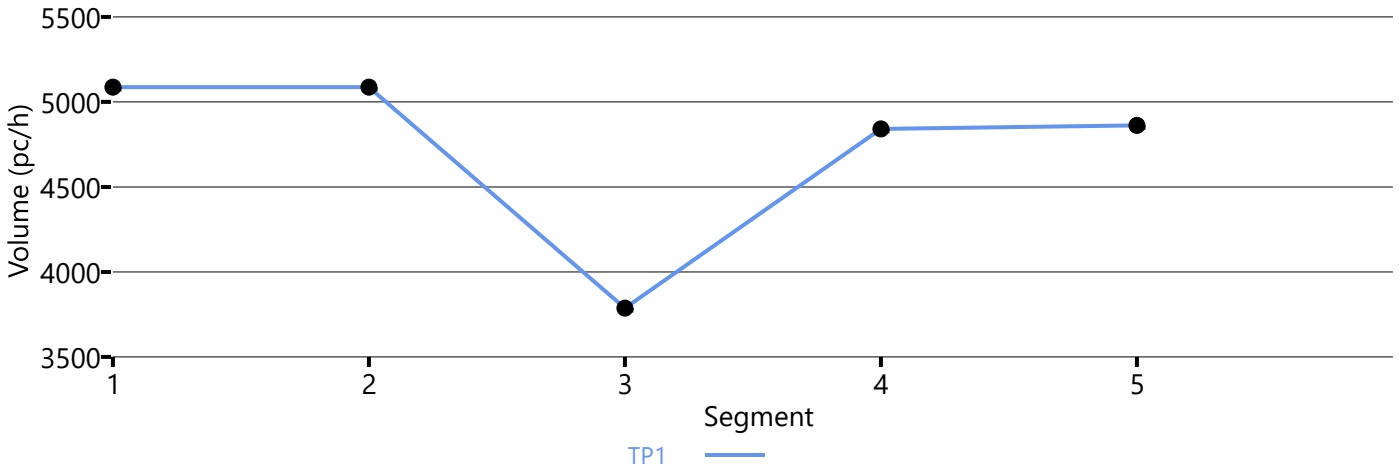
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	24.4	23.1	2.2	C

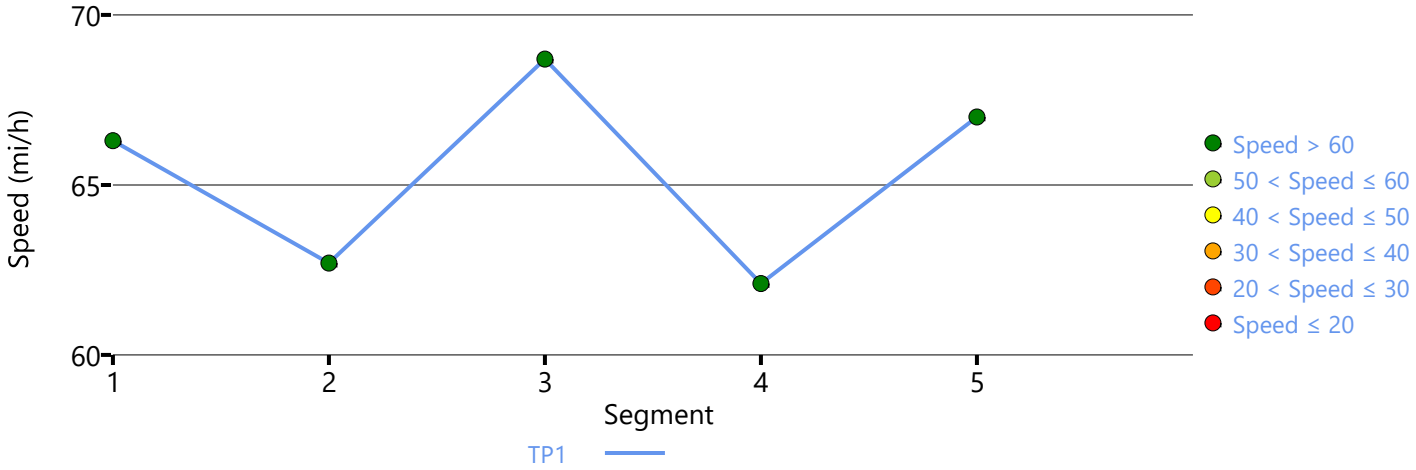
Facility Overall Results

Space Mean Speed, mi/h	65.8	Density, veh/mi/ln	23.1
Average Travel Time, min	2.2	Density, pc/mi/ln	24.4

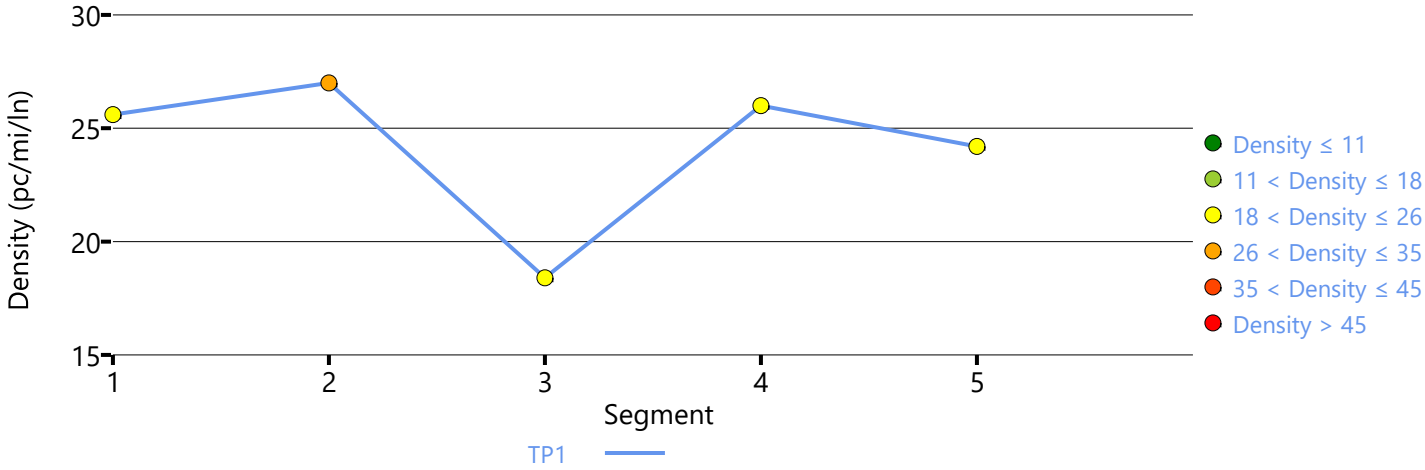
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6386	4764	1.34	52.9	45.0	F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	4764	2647	4800	2100	1.33	1.26	53.3	55.0	45.0	43.4	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	2117	4764	0.79	67.3	15.1	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.962	2466	349	4800	1900	0.86	0.18	60.0	60.0	20.6	23.4	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	2466	4764	0.86	67.1	17.6	B

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.840	3292	826	4800	2100	1.03	0.39	58.6	58.6	28.1	29.6	F

Segment 7: Basic

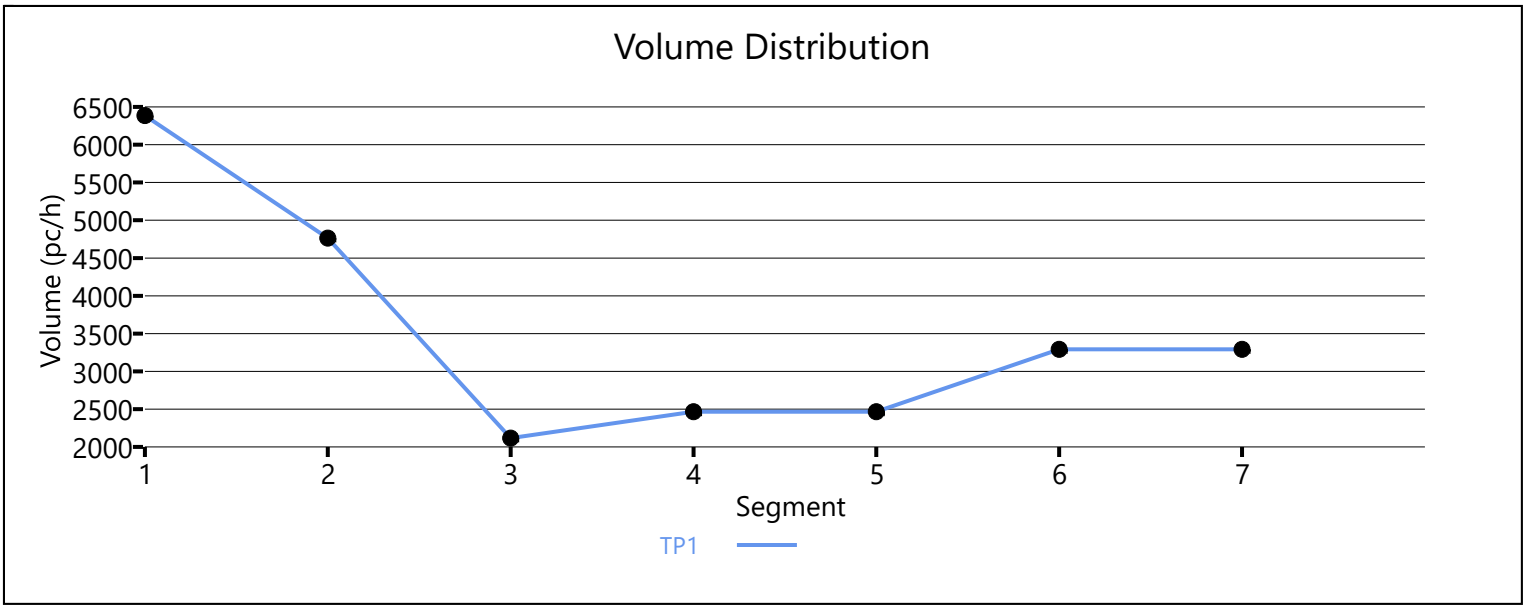
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3292	4764	1.04	67.7	24.3	F

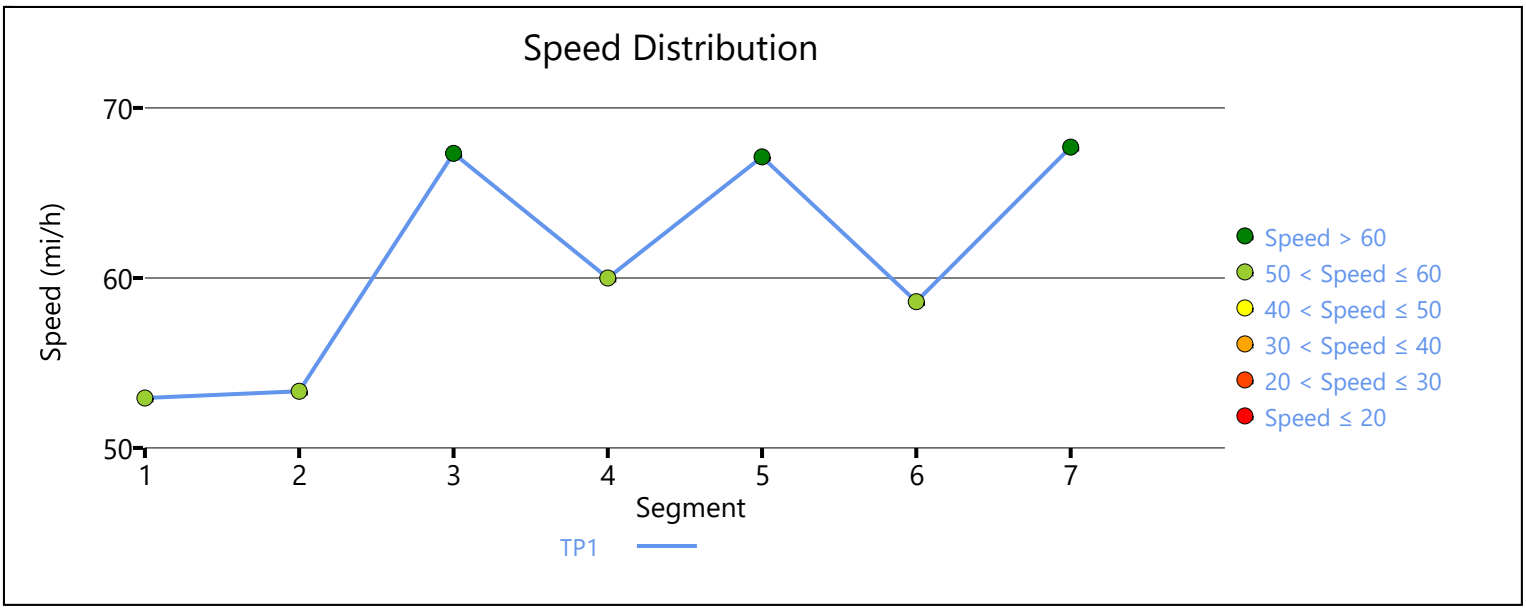
Facility Time Period Results

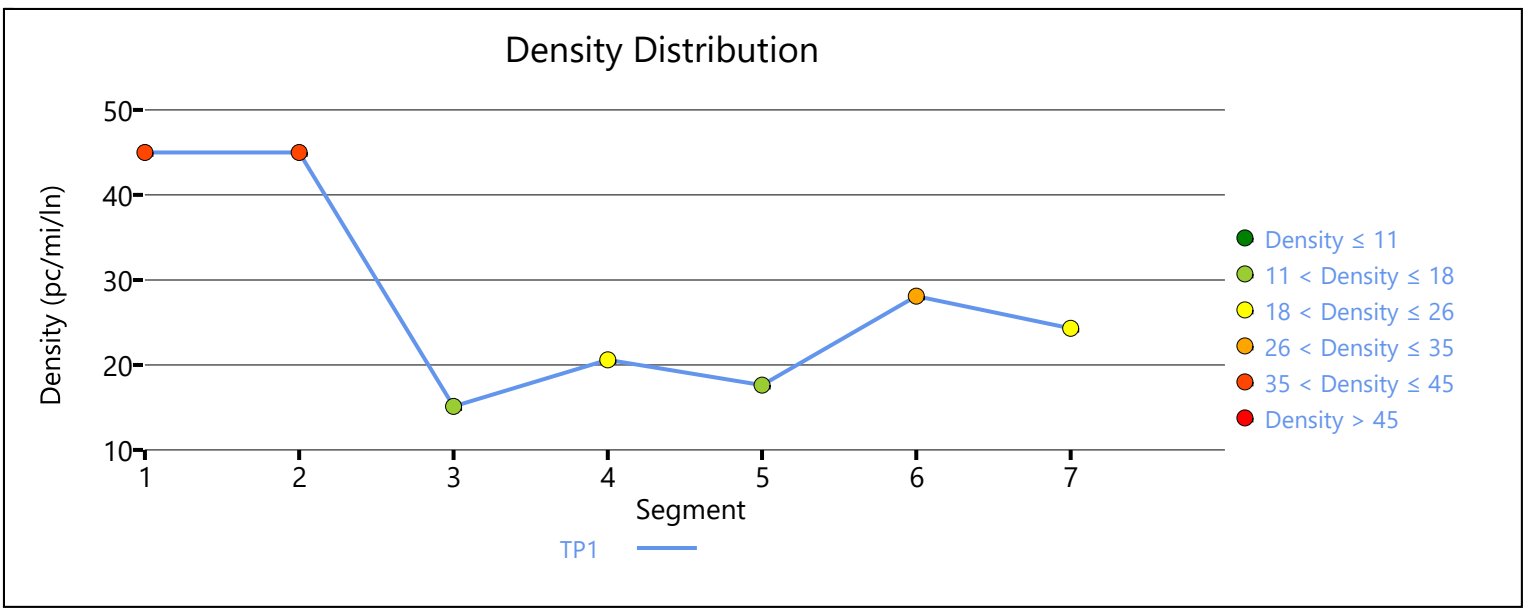
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	58.9	30.5	29.9	3.5	F

Facility Overall Results

Space Mean Speed, mi/h	58.9	Density, veh/mi/ln	29.9
Average Travel Time, min	3.5	Density, pc/mi/ln	30.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	3228	4764	0.68	66.8	24.2	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	3228	1132	4800	2100	0.67	0.54	58.8	58.8	27.4	30.2	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	2105	4764	0.44	68.2	15.4	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.885	3056	951	4800	1900	0.64	0.50	59.0	59.0	25.9	27.7	C

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3063	4764	0.64	67.4	22.7	C

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.943	4339	1276	4800	2100	0.90	0.61	53.1	53.1	40.9	37.6	E

Segment 7: Basic

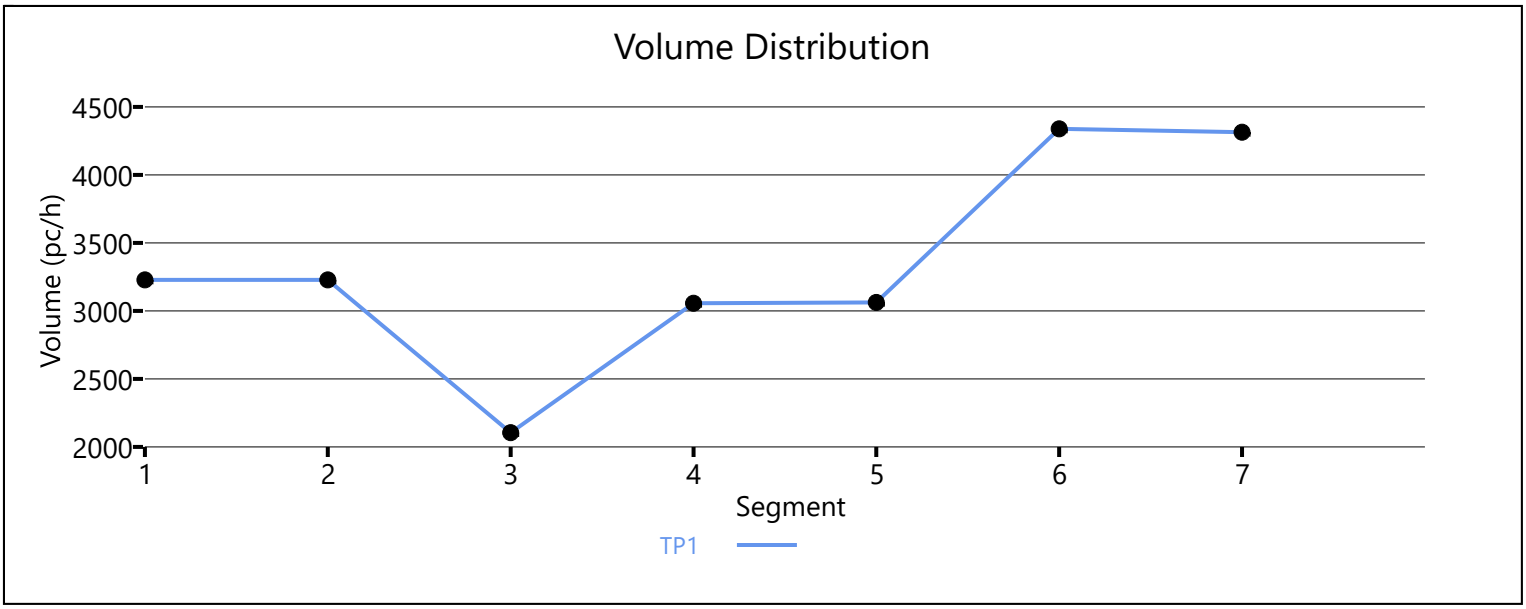
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	4314	4764	0.91	58.5	36.9	E

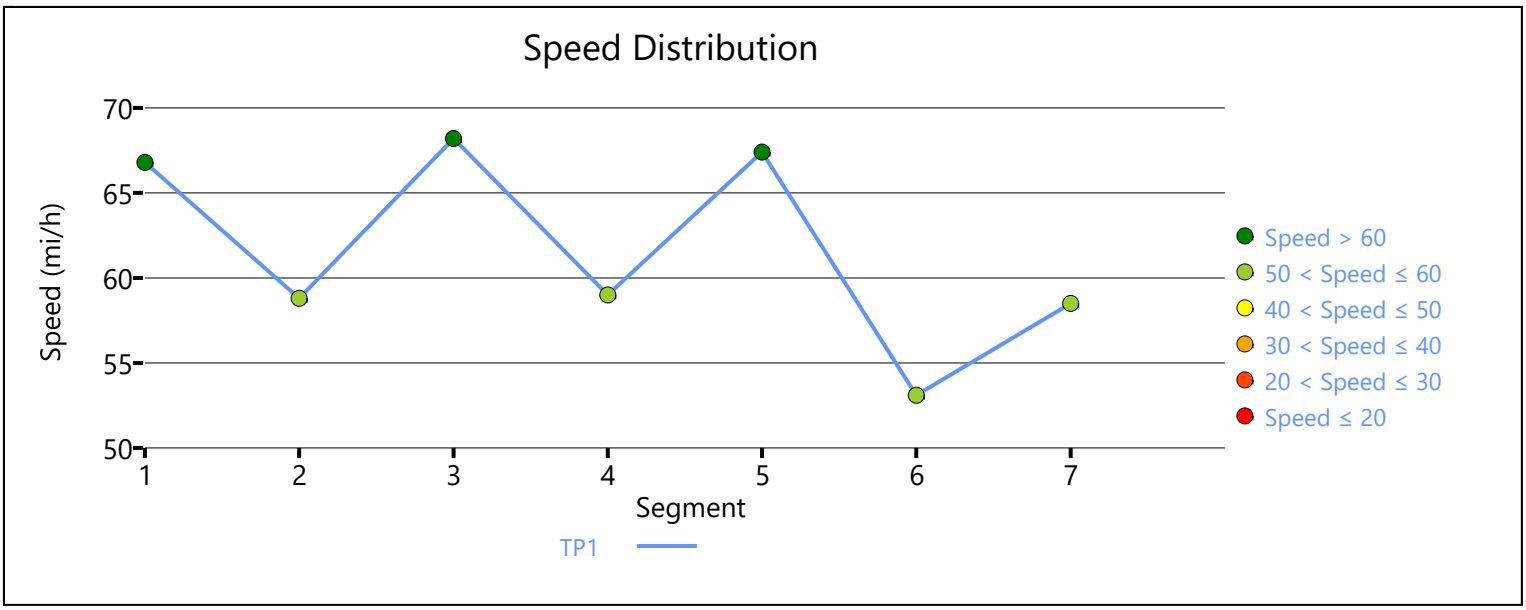
Facility Time Period Results

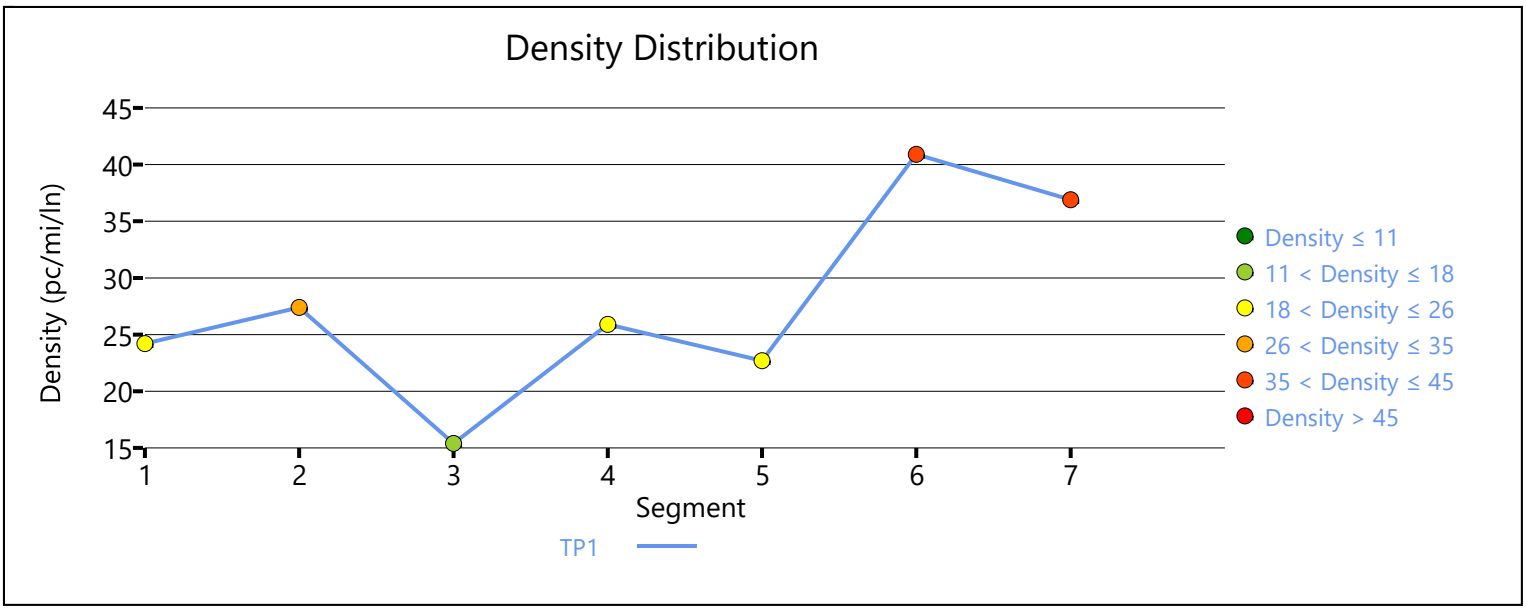
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.0	28.7	27.8	3.4	D

Facility Overall Results

Space Mean Speed, mi/h	61.0	Density, veh/mi/ln	27.8
Average Travel Time, min	3.4	Density, pc/mi/ln	28.7







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APPENDIX 9.7:

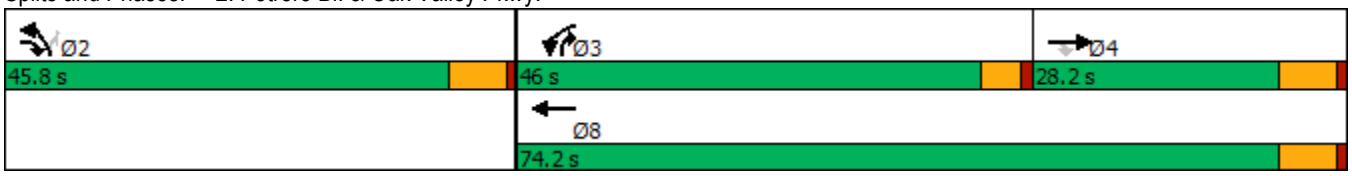
HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	360	906	1074	384	454	1054
Future Volume (vph)	360	906	1074	384	454	1054
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4				2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	28.2	9.6	16.2	28.2	9.6
Total Split (s)	28.2	45.8	46.0	74.2	45.8	46.0
Total Split (%)	23.5%	38.2%	38.3%	61.8%	38.2%	38.3%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	4.6
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.5	63.4	40.6	62.7	39.7	86.5
Actuated g/C Ratio	0.15	0.55	0.35	0.55	0.35	0.75
v/c Ratio	0.71	1.10	0.94	0.21	0.41	0.93
Control Delay	54.0	87.4	51.7	13.5	30.5	26.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	87.4	51.7	13.5	30.5	26.8
LOS	D	F	D	B	C	C
Approach Delay	77.9			41.6	27.9	
Approach LOS	E			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.8	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay: 47.6	Intersection LOS: D
Intersection Capacity Utilization 95.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	360	906	1074	384	454	1054
Future Volume (veh/h)	360	906	1074	384	454	1054
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	391	713	1167	417	493	820
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	663	828	1208	2044	1160	1086
Arrive On Green	0.18	0.18	0.34	0.57	0.33	0.33
Sat Flow, veh/h	3705	1610	3510	3705	3510	1610
Grp Volume(v), veh/h	391	713	1167	417	493	820
Grp Sat Flow(s),veh/h/ln	1805	1610	1755	1805	1755	1610
Q Serve(g_s), s	11.9	22.0	39.1	6.8	13.1	39.6
Cycle Q Clear(g_c), s	11.9	22.0	39.1	6.8	13.1	39.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	663	828	1208	2044	1160	1086
V/C Ratio(X)	0.59	0.86	0.97	0.20	0.43	0.75
Avail Cap(c_a), veh/h	663	828	1213	2048	1160	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	19.5	38.6	12.8	31.3	12.9
Incr Delay (d2), s/veh	1.4	9.2	18.0	0.0	0.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	2.1	3.0	0.0	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.2	28.7	56.7	12.8	31.5	16.0
LnGrp LOS	D	C	E	B	C	B
Approach Vol, veh/h	1104			1584	1313	
Approach Delay, s/veh	34.9			45.1	21.8	
Approach LOS	C			D	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		45.8	45.8	28.2		74.0
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		39.6	41.4	22.0		68.0
Max Q Clear Time (g_c+I1), s		41.6	41.1	24.0		8.8
Green Ext Time (p_c), s		0.0	0.1	0.0		2.6

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	11	0	64	0	989	6	54	1413	0
Future Vol, veh/h	0	0	0	11	0	64	0	989	6	54	1413	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	70	0	1075	7	59	1536	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1811	2733	541	-	0	0	1082	0	0
Stage 1	1079	1079	-	-	-	-	-	-	-
Stage 2	732	1654	-	-	-	-	-	-	-
Critical Hdwy	5.7	6.5	7.1	-	-	-	5.3	-	-
Critical Hdwy Stg 1	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.8	4	3.9	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	121	21	420	0	-	-	363	-	0
Stage 1	220	297	-	0	-	-	-	-	0
Stage 2	402	157	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	101	0	420	-	-	-	363	-	-
Mov Cap-2 Maneuver	101	0	-	-	-	-	-	-	-
Stage 1	220	0	-	-	-	-	-	-	-
Stage 2	336	0	-	-	-	-	-	-	-

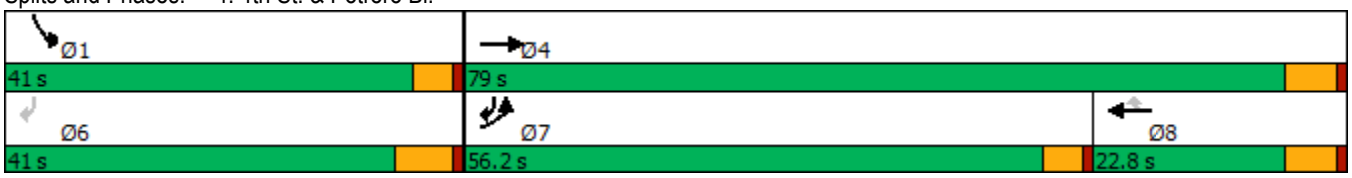
Approach	WB	NB	SB
HCM Control Delay, s	22.4	0	0.6
HCM LOS	C		

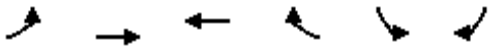
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	287	363	-
HCM Lane V/C Ratio	-	-	0.284	0.162	-
HCM Control Delay (s)	-	-	22.4	16.8	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	1.1	0.6	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø6
Lane Configurations							
Traffic Volume (vph)	245	440	78	480	413	471	
Future Volume (vph)	245	440	78	480	413	471	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		1	7	6
Permitted Phases				8		6	
Detector Phase	7	4	8	8	1	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	22.8	22.8	22.8	9.6	9.6	23.2
Total Split (s)	56.2	79.0	22.8	22.8	41.0	56.2	41.0
Total Split (%)	46.8%	65.8%	19.0%	19.0%	34.2%	46.8%	34%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	
Lead/Lag	Lead		Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	Yes		Yes	
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	8.3	24.0	11.1	11.1	12.1	25.0	
Actuated g/C Ratio	0.18	0.52	0.24	0.24	0.26	0.54	
v/c Ratio	0.42	0.49	0.19	0.67	0.48	0.47	
Control Delay	19.6	9.2	15.8	6.7	17.4	2.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.6	9.2	15.8	6.7	17.4	2.4	
LOS	B	A	B	A	B	A	
Approach Delay		12.9	8.0		9.4		
Approach LOS		B	A		A		

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 46.6			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 46.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	245	440	78	480	413	471
Future Volume (veh/h)	245	440	78	480	413	471
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	478	85	305	449	132
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	460	994	516	437	704	518
Arrive On Green	0.13	0.52	0.27	0.27	0.19	0.19
Sat Flow, veh/h	3619	1900	1900	1610	3619	1610
Grp Volume(v), veh/h	266	478	85	305	449	132
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610
Q Serve(g_s), s	2.6	5.9	1.3	6.3	4.2	2.2
Cycle Q Clear(g_c), s	2.6	5.9	1.3	6.3	4.2	2.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	460	994	516	437	704	518
V/C Ratio(X)	0.58	0.48	0.16	0.70	0.64	0.25
Avail Cap(c_a), veh/h	5068	3775	877	743	3575	1795
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	5.6	10.2	12.1	13.6	9.2
Incr Delay (d2), s/veh	0.4	0.4	0.1	2.0	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	0.1	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.6	6.0	10.4	14.1	14.0	9.3
LnGrp LOS	B	A	B	B	B	A
Approach Vol, veh/h		744	390		581	
Approach Delay, s/veh		9.4	13.3		12.9	
Approach LOS		A	B		B	

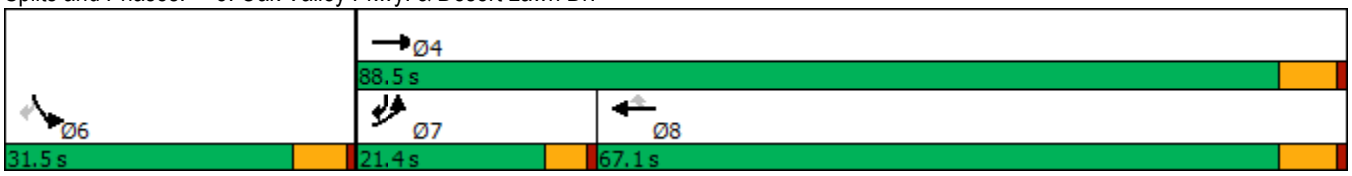
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			25.1		11.8	9.3	15.8
Change Period (Y+Rc), s			5.8		4.6	4.6	5.8
Max Green Setting (Gmax), s			73.2		36.4	51.6	17.0
Max Q Clear Time (g_c+I1), s			7.9		6.2	4.6	8.3
Green Ext Time (p_c), s			3.0		1.0	0.5	1.0

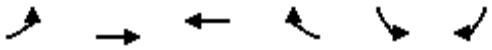
Intersection Summary	
HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	207	1079	2244	401	608	343
Future Volume (vph)	207	1079	2244	401	608	343
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	16.2	28.2	28.2	27.8	9.6
Total Split (s)	21.4	88.5	67.1	67.1	31.5	21.4
Total Split (%)	17.8%	73.8%	55.9%	55.9%	26.3%	17.8%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	4.6
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	11.6	77.3	61.0	61.0	24.4	41.9
Actuated g/C Ratio	0.10	0.68	0.54	0.54	0.21	0.37
v/c Ratio	0.63	0.33	0.88	0.43	0.88	0.63
Control Delay	57.2	7.9	28.3	5.5	57.6	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	7.9	28.3	5.5	57.6	34.6
LOS	E	A	C	A	E	C
Approach Delay		15.9	24.8		49.3	
Approach LOS		B	C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 27.2	Intersection LOS: C
Intersection Capacity Utilization 80.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	207	1079	2244	401	608	343
Future Volume (veh/h)	207	1079	2244	401	608	343
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	225	1173	2439	327	661	264
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	293	3496	2842	882	753	480
Arrive On Green	0.08	0.67	0.55	0.55	0.21	0.21
Sat Flow, veh/h	3510	5358	5358	1610	3510	1610
Grp Volume(v), veh/h	225	1173	2439	327	661	264
Grp Sat Flow(s),veh/h/ln	1755	1729	1729	1610	1755	1610
Q Serve(g_s), s	6.8	10.2	43.2	12.4	19.6	14.8
Cycle Q Clear(g_c), s	6.8	10.2	43.2	12.4	19.6	14.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	293	3496	2842	882	753	480
V/C Ratio(X)	0.77	0.34	0.86	0.37	0.88	0.55
Avail Cap(c_a), veh/h	548	3969	2937	912	839	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	7.4	20.8	13.8	40.9	31.7
Incr Delay (d2), s/veh	1.6	0.1	2.7	0.3	9.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	3.4	11.7	25.0	9.8	10.9	13.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.9	7.4	23.5	14.1	50.7	32.8
LnGrp LOS	D	A	C	B	D	C
Approach Vol, veh/h		1398	2766		925	
Approach Delay, s/veh		14.3	22.3		45.6	
Approach LOS		B	C		D	

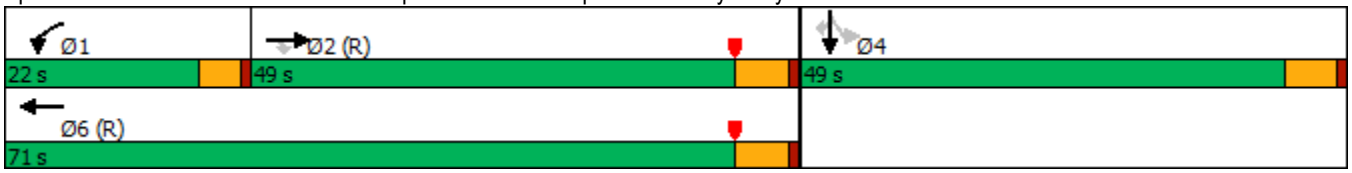
Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	78.7	28.9	13.6	65.1
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	82.3	25.7	16.8	60.9
Max Q Clear Time (g_c+I1), s	12.2	21.6	8.8	45.2
Green Ext Time (p_c), s	9.6	1.5	0.2	13.8

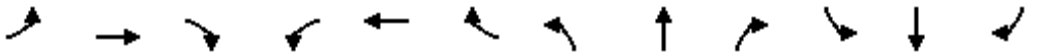
Intersection Summary	
HCM 6th Ctrl Delay	24.3
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1023	665	345	2006	336	4	639
Future Volume (vph)	1023	665	345	2006	336	4	639
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8	15.8
Total Split (s)	49.0	49.0	22.0	71.0	49.0	49.0	49.0
Total Split (%)	40.8%	40.8%	18.3%	59.2%	40.8%	40.8%	40.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	53.1	53.1	16.3	74.0	34.4	34.4	34.4
Actuated g/C Ratio	0.44	0.44	0.14	0.62	0.29	0.29	0.29
v/c Ratio	0.48	0.65	0.79	0.68	0.36	0.79	0.71
Control Delay	26.2	5.1	55.3	10.6	34.0	51.8	38.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	5.1	55.3	10.6	34.0	51.8	38.1
LOS	C	A	E	B	C	D	D
Approach Delay	17.9			17.2		41.2	
Approach LOS	B			B		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 22.1	Intersection LOS: C
Intersection Capacity Utilization 98.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1023	665	345	2006	0	0	0	0	336	4	639
Future Volume (veh/h)	0	1023	665	345	2006	0	0	0	0	336	4	639
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1112	560	375	2180	0				365	0	480
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2880	894	433	3719	0				674	0	600
Arrive On Green	0.00	0.56	0.56	0.12	0.72	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	5358	1610	3510	5358	0				3619	0	3220
Grp Volume(v), veh/h	0	1112	560	375	2180	0				365	0	480
Grp Sat Flow(s),veh/h/ln	0	1729	1610	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	14.6	28.5	12.6	24.6	0.0				11.0	0.0	17.1
Cycle Q Clear(g_c), s	0.0	14.6	28.5	12.6	24.6	0.0				11.0	0.0	17.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2880	894	433	3719	0				674	0	600
V/C Ratio(X)	0.00	0.39	0.63	0.87	0.59	0.00				0.54	0.00	0.80
Avail Cap(c_a), veh/h	0	2880	894	509	3719	0				1303	0	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.39	0.39	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.1	18.2	51.6	8.3	0.0				44.2	0.0	46.7
Incr Delay (d2), s/veh	0.0	0.3	2.8	5.0	0.3	0.0				0.7	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	12.4	19.3	6.5	24.3	0.0				6.1	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.4	20.9	56.6	8.6	0.0				44.9	0.0	49.2
LnGrp LOS	A	B	C	E	A	A				D	A	D
Approach Vol, veh/h		1672			2555						845	
Approach Delay, s/veh		17.3			15.6						47.3	
Approach LOS		B			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.4	72.4		28.2		91.8
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	17.4	43.2		43.2		65.2
Max Q Clear Time (g_c+I1), s	14.6	30.5		19.1		26.6
Green Ext Time (p_c), s	0.2	7.3		3.2		23.6

Intersection Summary		
HCM 6th Ctrl Delay		21.4
HCM 6th LOS		C

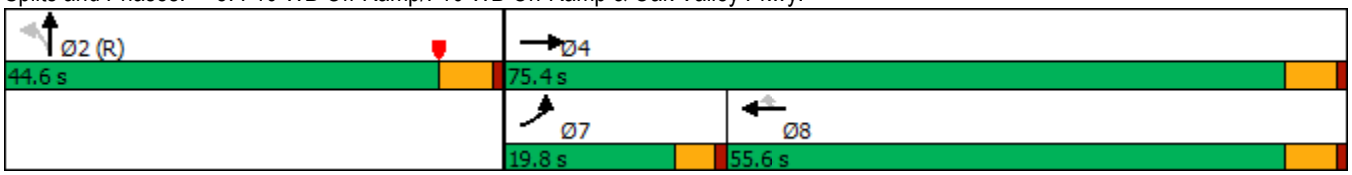
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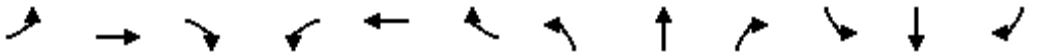
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	301	1058	1922	756	429	5
Future Volume (vph)	301	1058	1922	756	429	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	19.8	75.4	55.6	55.6	44.6	44.6
Total Split (%)	16.5%	62.8%	46.3%	46.3%	37.2%	37.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	13.8	69.6	51.2	51.2	38.8	38.8
Actuated g/C Ratio	0.12	0.58	0.43	0.43	0.32	0.32
v/c Ratio	0.76	0.36	0.89	0.74	0.75	0.83
Control Delay	58.2	24.6	38.0	11.1	45.7	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	24.6	38.0	11.1	45.7	43.5
LOS	E	C	D	B	D	D
Approach Delay		32.1	30.4			44.6
Approach LOS		C	C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 33.5	Intersection LOS: C
Intersection Capacity Utilization 98.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	1058	0	0	1922	756	429	5	469	0	0	0
Future Volume (veh/h)	301	1058	0	0	1922	756	429	5	469	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	307	1080	0	0	1961	592	438	5	357			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	363	2868	0	0	2132	662	634	8	558			
Arrive On Green	0.14	0.74	0.00	0.00	0.41	0.41	0.35	0.35	0.35			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	22	1591			
Grp Volume(v), veh/h	307	1080	0	0	1961	592	438	0	362			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1614			
Q Serve(g_s), s	10.2	9.1	0.0	0.0	43.0	41.1	24.9	0.0	22.5			
Cycle Q Clear(g_c), s	10.2	9.1	0.0	0.0	43.0	41.1	24.9	0.0	22.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	363	2868	0	0	2132	662	634	0	565			
V/C Ratio(X)	0.84	0.38	0.00	0.00	0.92	0.89	0.69	0.00	0.64			
Avail Cap(c_a), veh/h	445	3008	0	0	2153	668	634	0	565			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.8	8.3	0.0	0.0	33.5	32.9	33.4	0.0	32.6			
Incr Delay (d2), s/veh	9.1	0.1	0.0	0.0	7.0	14.5	6.1	0.0	5.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(0%),veh/ln	5.6	12.0	0.0	0.0	23.1	22.4	15.7	0.0	12.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	8.4	0.0	0.0	40.4	47.4	39.5	0.0	38.1			
LnGrp LOS	E	A	A	A	D	D	D	A	D			
Approach Vol, veh/h		1387			2553			800				
Approach Delay, s/veh		19.8			42.0			38.9				
Approach LOS		B			D			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		47.8		72.2			17.0	55.1				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		38.8		69.6			15.2	49.8				
Max Q Clear Time (g_c+I1), s		26.9		11.1			12.2	45.0				
Green Ext Time (p_c), s		2.9		8.9			0.2	4.4				
Intersection Summary												
HCM 6th Ctrl Delay			35.0									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Future Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	157	761	189	204	1172	35	0	0	84	0	0	208

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1207	0	0	950	0	0	-	-	475	-	-	604
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	585	-	-	731	-	-	0	0	541	0	0	446
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	585	-	-	731	-	-	-	-	541	-	-	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

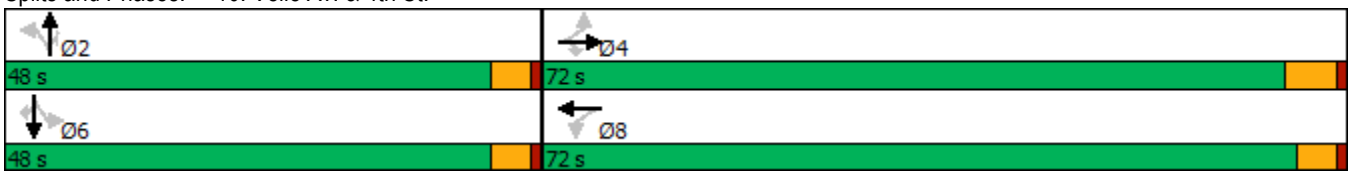
Approach	EB	WB	NB	SB
HCM Control Delay, s	1.9	1.7	12.9	19.9
HCM LOS			B	C

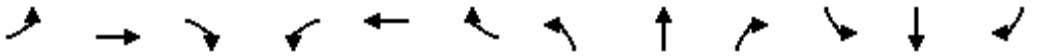
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	541	585	-	-	731	-	-	446
HCM Lane V/C Ratio	0.155	0.268	-	-	0.28	-	-	0.465
HCM Control Delay (s)	12.9	13.4	-	-	11.8	-	-	19.9
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.5	1.1	-	-	1.1	-	-	2.4

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	316	428	29	4	667	86	34	7	100	37	1039
Future Volume (vph)	316	428	29	4	667	86	34	7	100	37	1039
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		2			6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	27.8	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	72.0	72.0	72.0	72.0	72.0	48.0	48.0	48.0	48.0	48.0	48.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.8	4.8	4.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	4.6		4.6	4.6	4.6	4.6	4.6
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	66.2	66.2	66.2	67.4	67.4		43.4	43.4	43.4	43.4	43.4
Actuated g/C Ratio	0.55	0.55	0.55	0.56	0.56		0.36	0.36	0.36	0.36	0.36
v/c Ratio	1.88	0.44	0.04	0.01	0.73		0.24	0.01	0.24	0.06	1.59
Control Delay	440.6	17.7	4.2	11.8	24.7		28.4	1.4	28.7	25.4	295.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	440.6	17.7	4.2	11.8	24.7		28.4	1.4	28.7	25.4	295.1
LOS	F	B	A	B	C		C	A	C	C	F
Approach Delay		189.9			24.6		26.8			264.0	
Approach LOS		F			C		C			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.88	
Intersection Signal Delay: 171.2	Intersection LOS: F
Intersection Capacity Utilization 122.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	428	29	4	667	47	86	34	7	100	37	1039
Future Volume (veh/h)	316	428	29	4	667	47	86	34	7	100	37	1039
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	343	465	32	4	725	51	93	37	8	109	40	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	424	1335	1131	631	1233	87	248	89	301	219	355	
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.19	0.19	0.19	0.19	0.19	0.00
Sat Flow, veh/h	706	1900	1610	915	1754	123	976	474	1610	1383	1900	1610
Grp Volume(v), veh/h	343	465	32	4	0	776	130	0	8	109	40	0
Grp Sat Flow(s),veh/h/ln	706	1900	1610	915	0	1878	1451	0	1610	1383	1900	1610
Q Serve(g_s), s	45.1	9.1	0.6	0.2	0.0	19.7	6.3	0.0	0.4	7.2	1.6	0.0
Cycle Q Clear(g_c), s	64.9	9.1	0.6	9.3	0.0	19.7	7.9	0.0	0.4	15.2	1.6	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	424	1335	1131	631	0	1319	337	0	301	219	355	
V/C Ratio(X)	0.81	0.35	0.03	0.01	0.00	0.59	0.39	0.00	0.03	0.50	0.11	
Avail Cap(c_a), veh/h	424	1335	1131	643	0	1343	748	0	742	597	875	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.6	5.5	4.3	7.3	0.0	7.1	34.5	0.0	31.3	41.2	31.8	0.0
Incr Delay (d2), s/veh	11.1	0.2	0.0	0.0	0.0	0.7	0.7	0.0	0.0	1.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	1.3	0.1	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	5.7	4.3	7.3	0.0	7.8	35.3	0.0	31.3	42.9	31.9	0.0
LnGrp LOS	C	A	A	A	A	A	D	A	C	D	C	
Approach Vol, veh/h		840			780			138			149	A
Approach Delay, s/veh		17.4			7.8			35.0			40.0	
Approach LOS		B			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.2		72.0		22.2		72.0				
Change Period (Y+Rc), s		4.6		5.8		4.6		* 5.8				
Max Green Setting (Gmax), s		43.4		66.2		43.4		* 67				
Max Q Clear Time (g_c+I1), s		9.9		66.9		17.2		21.7				
Green Ext Time (p_c), s		0.7		0.0		0.4		6.0				

Intersection Summary		
HCM 6th Ctrl Delay		16.5
HCM 6th LOS		B

Notes

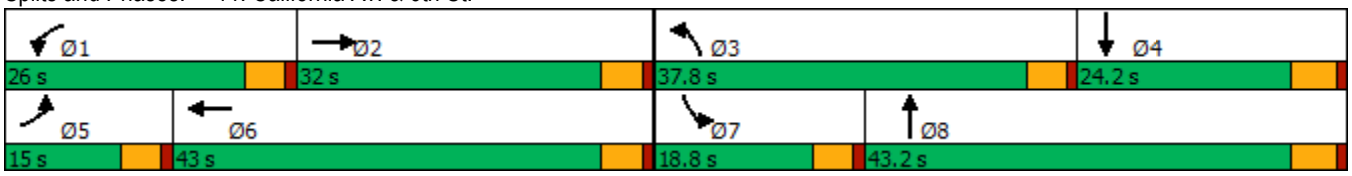
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

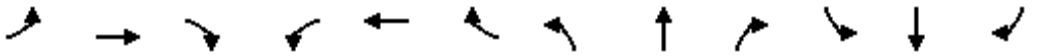
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	468	327	670	494	104	54	184
Future Volume (vph)	4	468	327	670	494	104	54	184
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	15.0	32.0	26.0	43.0	37.8	43.2	18.8	24.2
Total Split (%)	12.5%	26.7%	21.7%	35.8%	31.5%	36.0%	15.7%	20.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.1	26.1	21.4	50.2	33.3	43.5	8.3	16.4
Actuated g/C Ratio	0.04	0.22	0.18	0.43	0.29	0.37	0.07	0.14
v/c Ratio	0.05	0.90	1.07	0.47	1.04	0.42	0.46	0.77
Control Delay	56.2	52.8	115.4	25.6	92.7	23.9	64.1	67.2
Queue Delay	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0
Total Delay	56.2	52.8	115.4	25.6	114.0	23.9	64.1	67.2
LOS	E	D	F	C	F	C	E	E
Approach Delay		52.8		54.0		82.7		66.5
Approach LOS		D		D		F		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.5	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 62.7	Intersection LOS: E
Intersection Capacity Utilization 92.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	468	260	327	670	35	494	104	159	54	184	5
Future Volume (veh/h)	4	468	260	327	670	35	494	104	159	54	184	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	509	109	355	728	22	537	113	108	59	200	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	9	610	130	353	1434	43	548	345	330	77	237	2
Arrive On Green	0.01	0.20	0.20	0.23	0.47	0.39	0.36	0.46	0.39	0.04	0.13	0.13
Sat Flow, veh/h	1810	3037	647	1810	3669	111	1810	893	853	1810	1878	19
Grp Volume(v), veh/h	4	318	300	355	377	373	537	0	221	59	0	202
Grp Sat Flow(s),veh/h/ln	1810	1900	1784	1810	1900	1880	1810	0	1746	1810	0	1897
Q Serve(g_s), s	0.2	17.6	17.8	21.4	15.2	15.3	32.2	0.0	9.3	3.5	0.0	11.4
Cycle Q Clear(g_c), s	0.2	17.6	17.8	21.4	15.2	15.3	32.2	0.0	9.3	3.5	0.0	11.4
Prop In Lane	1.00		0.36	1.00		0.06	1.00		0.49	1.00		0.01
Lane Grp Cap(c), veh/h	9	382	358	353	742	735	548	0	675	77	0	239
V/C Ratio(X)	0.42	0.83	0.84	1.01	0.51	0.51	0.98	0.00	0.33	0.77	0.00	0.84
Avail Cap(c_a), veh/h	172	471	442	353	742	735	548	0	675	234	0	329
HCM Platoon Ratio	1.00	1.00	1.00	1.20	1.20	1.00	1.20	1.20	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.4	42.0	42.1	42.0	21.8	22.0	34.6	0.0	22.0	52.0	0.0	46.9
Incr Delay (d2), s/veh	10.7	10.1	11.3	49.2	0.6	0.6	33.2	0.0	0.3	6.0	0.0	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	10.7	10.3	15.6	11.6	11.5	21.4	0.0	6.8	1.9	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	52.1	53.4	91.2	22.3	22.6	67.8	0.0	22.2	57.9	0.0	60.4
LnGrp LOS	E	D	D	F	C	C	E	A	C	E	A	E
Approach Vol, veh/h		622			1105			758			261	
Approach Delay, s/veh		52.8			44.5			54.5			59.8	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	26.8	37.8	19.0	5.2	47.6	9.2	47.6
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	21.4	* 27	33.2	19.0	10.4	* 38	14.2	38.0
Max Q Clear Time (g_c+I1), s	23.4	19.8	34.2	13.4	2.2	17.3	5.5	11.3
Green Ext Time (p_c), s	0.0	2.3	0.0	0.4	0.0	4.7	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	50.6
HCM 6th LOS	D

Notes

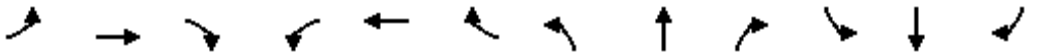
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	4	46	11	358	660	15	585
Future Volume (vph)	2	4	46	11	358	660	15	585
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.6	21.6	21.6	21.6	22.8	22.8	22.8	22.8
Total Split (s)	21.6	21.6	21.6	21.6	68.4	68.4	68.4	68.4
Total Split (%)	24.0%	24.0%	24.0%	24.0%	76.0%	76.0%	76.0%	76.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	5.8	5.8	5.8	5.8
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)		13.0		13.0	52.5	52.5	52.5	52.5
Actuated g/C Ratio		0.19		0.19	0.78	0.78	0.78	0.78
v/c Ratio		0.26		0.33	0.68	0.51	0.03	0.43
Control Delay		10.6		27.1	14.8	6.0	3.4	5.3
Queue Delay		0.0		0.0	0.0	0.1	0.0	0.3
Total Delay		10.6		27.1	14.8	6.2	3.4	5.6
LOS		B		C	B	A	A	A
Approach Delay		10.6		27.1		9.1		5.6
Approach LOS		B		C		A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 67.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	90	46	11	36	358	660	26	15	585	3
Future Volume (veh/h)	2	4	90	46	11	36	358	660	26	15	585	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	4	98	50	12	39	389	717	28	16	636	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	12	217	166	52	88	553	1285	50	480	1337	6
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.71	0.71	0.71	0.71	0.71	0.71
Sat Flow, veh/h	10	84	1528	623	368	623	802	1816	71	727	1889	9
Grp Volume(v), veh/h	104	0	0	101	0	0	389	0	745	16	0	639
Grp Sat Flow(s),veh/h/ln	1621	0	0	1614	0	0	802	0	1887	727	0	1898
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	28.7	0.0	13.2	0.8	0.0	10.3
Cycle Q Clear(g_c), s	4.1	0.0	0.0	3.5	0.0	0.0	38.9	0.0	13.2	13.9	0.0	10.3
Prop In Lane	0.02		0.94	0.50		0.39	1.00		0.04	1.00		0.00
Lane Grp Cap(c), veh/h	283	0	0	307	0	0	553	0	1335	480	0	1343
V/C Ratio(X)	0.37	0.00	0.00	0.33	0.00	0.00	0.70	0.00	0.56	0.03	0.00	0.48
Avail Cap(c_a), veh/h	451	0	0	460	0	0	712	0	1710	624	0	1720
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	0.0	27.0	0.0	0.0	13.0	0.0	4.9	8.2	0.0	4.5
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.6	0.0	0.0	2.2	0.0	0.4	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	2.1	0.0	0.0	2.0	0.0	0.0	7.8	0.0	14.4	0.3	0.0	12.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	0.0	0.0	27.6	0.0	0.0	15.2	0.0	5.2	8.3	0.0	4.7
LnGrp LOS	C	A	A	C	A	A	B	A	A	A	A	A
Approach Vol, veh/h		104			101			1134			655	
Approach Delay, s/veh		28.0			27.6			8.7			4.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		54.7		14.4		54.7		14.4				
Change Period (Y+Rc), s		5.8		4.6		5.8		4.6				
Max Green Setting (Gmax), s		62.6		17.0		62.6		17.0				
Max Q Clear Time (g_c+I1), s		40.9		6.1		15.9		5.5				
Green Ext Time (p_c), s		8.0		0.4		4.5		0.3				

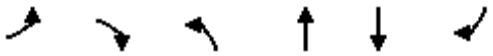
Intersection Summary												
HCM 6th Ctrl Delay			9.4									
HCM 6th LOS			A									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	134	211	204	1061	403	460
Future Volume (vph)	134	211	204	1061	403	460
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	22.8	22.8	9.5	9.6	22.8	22.8
Total Split (s)	46.0	46.0	39.0	74.0	35.0	46.0
Total Split (%)	38.3%	38.3%	32.5%	61.7%	29.2%	38.3%
Yellow Time (s)	4.8	4.8	3.5	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.5	4.6	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	12.2	12.2	11.8	30.6	12.9	31.1
Actuated g/C Ratio	0.23	0.23	0.22	0.57	0.24	0.58
v/c Ratio	0.36	0.42	0.56	0.56	0.50	0.45
Control Delay	21.9	6.2	25.3	8.5	20.7	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	6.2	25.3	8.5	20.7	3.0
LOS	C	A	C	A	C	A
Approach Delay	12.3			11.2	11.3	
Approach LOS	B			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 53.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 11.4	Intersection LOS: B
Intersection Capacity Utilization 48.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	211	204	1061	403	460
Future Volume (veh/h)	134	211	204	1061	403	460
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	169	222	1153	438	364
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	388	346	285	1920	996	790
Arrive On Green	0.21	0.21	0.16	0.53	0.28	0.28
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	146	169	222	1153	438	364
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	3.2	4.2	5.4	10.1	4.6	6.8
Cycle Q Clear(g_c), s	3.2	4.2	5.4	10.1	4.6	6.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	388	346	285	1920	996	790
V/C Ratio(X)	0.38	0.49	0.78	0.60	0.44	0.46
Avail Cap(c_a), veh/h	1590	1415	1365	5476	2304	1373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	15.8	18.5	7.4	13.6	7.7
Incr Delay (d2), s/veh	0.6	1.1	1.8	0.3	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	0.1	0.1	0.1	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.0	16.8	20.3	7.7	14.0	8.1
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	315			1375	802	
Approach Delay, s/veh	16.4			9.7	11.3	
Approach LOS	B			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.1		15.6	11.7	18.4
Change Period (Y+Rc), s		* 5.8		5.8	4.5	5.8
Max Green Setting (Gmax), s		* 69		40.2	34.5	29.2
Max Q Clear Time (g_c+I1), s		12.1		6.2	7.4	8.8
Green Ext Time (p_c), s		10.1		0.9	0.3	3.8

Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	365	898	1072	652	761	1486
Future Volume (vph)	365	898	1072	652	761	1486
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4				2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	28.2	9.6	16.2	28.2	9.6
Total Split (s)	28.2	39.8	52.0	80.2	39.8	52.0
Total Split (%)	23.5%	33.2%	43.3%	66.8%	33.2%	43.3%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	4.6
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.7	57.5	47.4	69.8	33.6	87.3
Actuated g/C Ratio	0.15	0.50	0.41	0.60	0.29	0.75
v/c Ratio	0.72	1.20	0.81	0.33	0.81	1.31
Control Delay	54.5	130.5	36.2	11.8	46.1	164.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	130.5	36.2	11.8	46.1	164.8
LOS	D	F	D	B	D	F
Approach Delay	108.5			27.0	124.6	
Approach LOS	F			C	F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.8	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.31	
Intersection Signal Delay: 88.6	Intersection LOS: F
Intersection Capacity Utilization 111.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	365	898	1072	652	761	1486
Future Volume (veh/h)	365	898	1072	652	761	1486
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	397	731	1165	709	827	745
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	705	795	1247	2135	1048	1052
Arrive On Green	0.20	0.20	0.36	0.59	0.30	0.30
Sat Flow, veh/h	3705	1610	3510	3705	3510	1610
Grp Volume(v), veh/h	397	731	1165	709	827	745
Grp Sat Flow(s),veh/h/ln	1805	1610	1755	1805	1755	1610
Q Serve(g_s), s	11.2	22.0	36.1	11.2	24.3	33.6
Cycle Q Clear(g_c), s	11.2	22.0	36.1	11.2	24.3	33.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	705	795	1247	2135	1048	1052
V/C Ratio(X)	0.56	0.92	0.93	0.33	0.79	0.71
Avail Cap(c_a), veh/h	705	795	1478	2372	1048	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	20.0	35.0	11.7	36.3	12.6
Incr Delay (d2), s/veh	1.0	15.7	9.5	0.1	4.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	23.6	15.9	4.0	10.4	10.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.0	35.7	44.5	11.8	40.4	14.8
LnGrp LOS	D	D	D	B	D	B
Approach Vol, veh/h	1128			1874	1572	
Approach Delay, s/veh	37.9			32.1	28.3	
Approach LOS	D			C	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		39.8	44.6	28.2		72.8
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		33.6	47.4	22.0		74.0
Max Q Clear Time (g_c+I1), s		35.6	38.1	24.0		13.2
Green Ext Time (p_c), s		0.0	1.9	0.0		4.9

Intersection Summary	
HCM 6th Ctrl Delay	32.2
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	114	0	1316	0	11	1623	0
Future Vol, veh/h	0	0	0	2	0	114	0	1316	0	11	1623	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	124	0	1430	0	12	1764	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	2160	3218	715	-	0	0	1430	0	0
Stage 1	1430	1430	-	-	-	-	-	-	-
Stage 2	730	1788	-	-	-	-	-	-	-
Critical Hdwy	5.7	6.5	7.1	-	-	-	5.3	-	-
Critical Hdwy Stg 1	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.8	4	3.9	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	79	10	324	0	-	-	246	-	0
Stage 1	133	202	-	0	-	-	-	-	0
Stage 2	402	135	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	75	0	324	-	-	-	246	-	-
Mov Cap-2 Maneuver	75	0	-	-	-	-	-	-	-
Stage 1	133	0	-	-	-	-	-	-	-
Stage 2	382	0	-	-	-	-	-	-	-

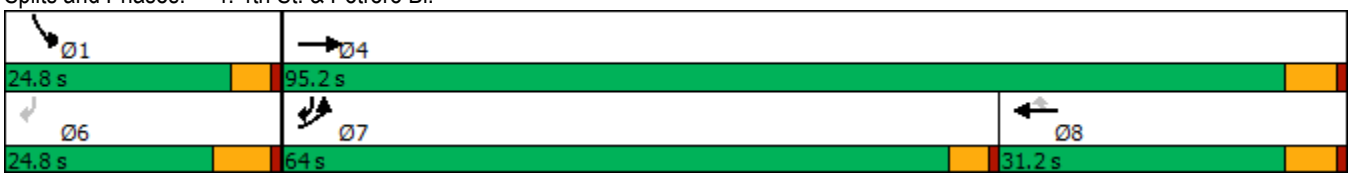
Approach	WB	NB	SB
HCM Control Delay, s	24.8	0	0.1
HCM LOS	C		

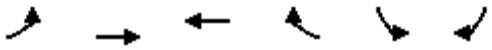
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	306	246	-
HCM Lane V/C Ratio	-	-	0.412	0.049	-
HCM Control Delay (s)	-	-	24.8	20.4	-
HCM Lane LOS	-	-	C	C	-
HCM 95th %tile Q(veh)	-	-	1.9	0.2	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø6
Lane Configurations							
Traffic Volume (vph)	696	88	28	551	383	583	
Future Volume (vph)	696	88	28	551	383	583	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		1	7	6
Permitted Phases				8		6	
Detector Phase	7	4	8	8	1	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	22.8	22.8	22.8	9.6	9.6	23.2
Total Split (s)	64.0	95.2	31.2	31.2	24.8	64.0	24.8
Total Split (%)	53.3%	79.3%	26.0%	26.0%	20.7%	53.3%	21%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	
Lead/Lag	Lead		Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	Yes		Yes	
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	21.1	48.0	22.2	22.2	13.7	39.5	
Actuated g/C Ratio	0.29	0.66	0.31	0.31	0.19	0.55	
v/c Ratio	0.72	0.08	0.05	0.80	0.61	0.54	
Control Delay	27.8	4.5	20.2	18.8	32.7	2.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	27.8	4.5	20.2	18.8	32.7	2.7	
LOS	C	A	C	B	C	A	
Approach Delay		25.2	18.8		14.6		
Approach LOS		C	B		B		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 72.4	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	696	88	28	551	383	583
Future Volume (veh/h)	696	88	28	551	383	583
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	757	96	30	327	416	362
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	941	1128	471	399	767	760
Arrive On Green	0.26	0.59	0.25	0.25	0.21	0.21
Sat Flow, veh/h	3619	1900	1900	1610	3619	1610
Grp Volume(v), veh/h	757	96	30	327	416	362
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610
Q Serve(g_s), s	10.5	1.2	0.6	10.3	5.5	8.2
Cycle Q Clear(g_c), s	10.5	1.2	0.6	10.3	5.5	8.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	941	1128	471	399	767	760
V/C Ratio(X)	0.80	0.09	0.06	0.82	0.54	0.48
Avail Cap(c_a), veh/h	4020	3176	902	765	1367	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	4.6	15.4	19.0	18.8	9.6
Incr Delay (d2), s/veh	0.6	0.0	0.1	4.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.3	0.2	9.0	1.9	8.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.1	4.7	15.4	23.2	19.0	9.8
LnGrp LOS	B	A	B	C	B	A
Approach Vol, veh/h		853	357		778	
Approach Delay, s/veh		17.5	22.5		14.7	
Approach LOS		B	C		B	

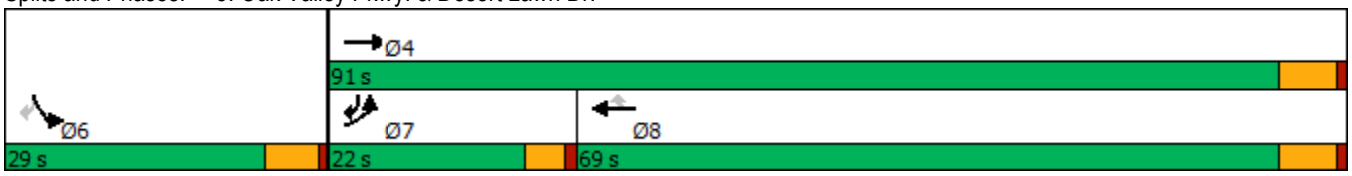
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			37.5		15.9	18.5	19.1
Change Period (Y+Rc), s			5.8		4.6	4.6	5.8
Max Green Setting (Gmax), s			89.4		20.2	59.4	25.4
Max Q Clear Time (g_c+I1), s			3.2		10.2	12.5	12.3
Green Ext Time (p_c), s			0.5		1.1	1.4	1.0

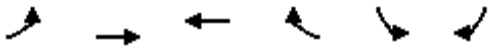
Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	517	2319	2909	510	256	916
Future Volume (vph)	517	2319	2909	510	256	916
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	16.2	28.2	28.2	27.8	9.6
Total Split (s)	22.0	91.0	69.0	69.0	29.0	22.0
Total Split (%)	18.3%	75.8%	57.5%	57.5%	24.2%	18.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	4.6
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.4	84.8	62.8	62.8	13.4	36.6
Actuated g/C Ratio	0.16	0.77	0.57	0.57	0.12	0.33
v/c Ratio	0.94	0.54	0.92	0.49	0.60	1.76
Control Delay	71.4	5.8	27.9	5.8	52.0	377.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	5.8	27.9	5.8	52.0	377.6
LOS	E	A	C	A	D	F
Approach Delay		17.7	24.6		306.4	
Approach LOS		B	C		F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.2	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.76	
Intersection Signal Delay: 66.4	Intersection LOS: E
Intersection Capacity Utilization 121.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	517	2319	2909	510	256	916
Future Volume (veh/h)	517	2319	2909	510	256	916
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	533	2391	2999	397	264	635
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	525	4028	2983	843	700	545
Arrive On Green	0.14	0.71	0.52	0.52	0.19	0.19
Sat Flow, veh/h	3619	5700	5700	1610	3619	1610
Grp Volume(v), veh/h	533	2391	2999	397	264	635
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610
Q Serve(g_s), s	17.4	25.4	62.8	18.7	7.6	23.2
Cycle Q Clear(g_c), s	17.4	25.4	62.8	18.7	7.6	23.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	525	4028	2983	843	700	545
V/C Ratio(X)	1.02	0.59	1.01	0.47	0.38	1.17
Avail Cap(c_a), veh/h	525	4028	2983	843	700	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	8.9	28.6	18.1	42.1	39.7
Incr Delay (d2), s/veh	43.3	0.2	17.8	0.4	0.3	93.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	8.3	30.6	6.6	3.4	44.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	94.6	9.1	46.4	18.5	42.5	132.8
LnGrp LOS	F	A	F	B	D	F
Approach Vol, veh/h		2924	3396		899	
Approach Delay, s/veh		24.7	43.1		106.3	
Approach LOS		C	D		F	

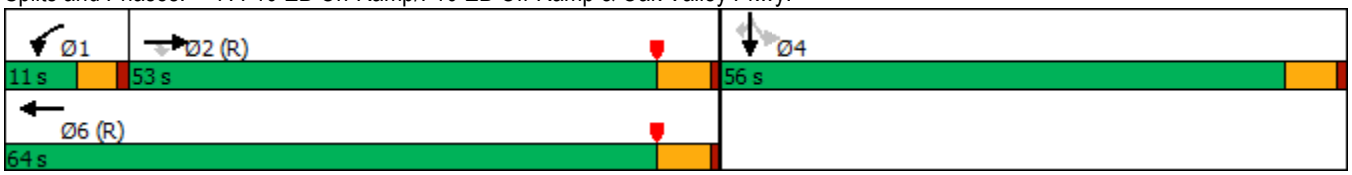
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			91.0		29.0	22.0	69.0
Change Period (Y+Rc), s			6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s			84.8		23.2	17.4	62.8
Max Q Clear Time (g_c+I1), s			27.4		25.2	19.4	64.8
Green Ext Time (p_c), s			33.1		0.0	0.0	0.0

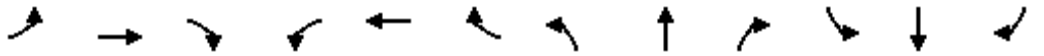
Intersection Summary	
HCM 6th Ctrl Delay	43.5
HCM 6th LOS	D

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	2183	391	247	1905	1254	1	1514
Future Volume (vph)	2183	391	247	1905	1254	1	1514
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8	15.8
Total Split (s)	53.0	53.0	11.0	64.0	56.0	56.0	56.0
Total Split (%)	44.2%	44.2%	9.2%	53.3%	46.7%	46.7%	46.7%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	0.0	-0.6	-1.8	-1.8	-1.8	0.0
Total Lost Time (s)	4.0	5.8	4.0	4.0	4.0	4.0	5.8
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	49.0	47.2	7.0	60.0	52.0	52.0	50.2
Actuated g/C Ratio	0.41	0.39	0.06	0.50	0.43	0.43	0.42
v/c Ratio	1.02	0.54	1.28	0.73	0.83	1.05	0.99
Control Delay	59.2	14.5	184.9	19.3	35.4	80.5	60.8
Queue Delay	0.0	0.0	0.0	0.0	50.4	0.0	0.0
Total Delay	59.2	14.5	184.9	19.3	85.8	80.5	60.8
LOS	E	B	F	B	F	F	E
Approach Delay	52.4			38.3		77.5	
Approach LOS	D			D		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.28	
Intersection Signal Delay: 57.6	Intersection LOS: E
Intersection Capacity Utilization 107.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰↰	↑↑↑					↰↰	↳	↱
Traffic Volume (veh/h)	0	2183	391	247	1905	0	0	0	0	1254	1	1514
Future Volume (veh/h)	0	2183	391	247	1905	0	0	0	0	1254	1	1514
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2373	289	268	2071	0				1363	0	1103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2394	652	211	2917	0				1526	0	1309
Arrive On Green	0.00	0.42	0.41	0.06	0.51	0.00				0.42	0.00	0.41
Sat Flow, veh/h	0	5700	1610	3619	5700	0				3619	0	3220
Grp Volume(v), veh/h	0	2373	289	268	2071	0				1363	0	1103
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1610
Q Serve(g_s), s	0.0	49.6	15.6	7.0	33.4	0.0				41.9	0.0	37.1
Cycle Q Clear(g_c), s	0.0	49.6	15.6	7.0	33.4	0.0				41.9	0.0	37.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2394	652	211	2917	0				1526	0	1309
V/C Ratio(X)	0.00	0.99	0.44	1.27	0.71	0.00				0.89	0.00	0.84
Avail Cap(c_a), veh/h	0	2394	652	211	2917	0				1568	0	1347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.82	0.47	0.47	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.6	25.9	56.5	22.5	0.0				32.2	0.0	32.1
Incr Delay (d2), s/veh	0.0	14.7	1.8	137.9	0.7	0.0				6.9	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	24.6	6.0	7.2	14.0	0.0				18.6	0.0	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	49.3	27.7	194.4	23.2	0.0				39.1	0.0	37.1
LnGrp LOS	A	D	C	F	C	A				D	A	D
Approach Vol, veh/h		2662			2339						2466	
Approach Delay, s/veh		46.9			42.8						38.2	
Approach LOS		D			D						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	11.0	54.4		54.6		65.4						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	6.4	47.2		50.2		58.2						
Max Q Clear Time (g_c+I1), s	9.0	51.6		43.9		35.4						
Green Ext Time (p_c), s	0.0	0.0		4.9		15.7						

Intersection Summary			
HCM 6th Ctrl Delay		42.7	
HCM 6th LOS		D	

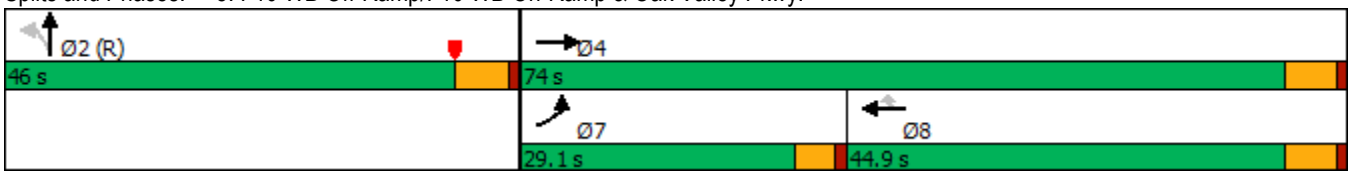
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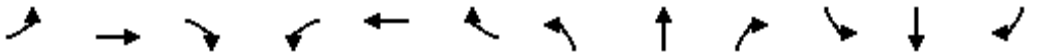
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	365	3072	1633	422	520	5
Future Volume (vph)	365	3072	1633	422	520	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	29.1	74.0	44.9	44.9	46.0	46.0
Total Split (%)	24.3%	61.7%	37.4%	37.4%	38.3%	38.3%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	17.8	70.0	48.2	48.2	42.0	42.0
Actuated g/C Ratio	0.15	0.58	0.40	0.40	0.35	0.35
v/c Ratio	0.72	1.05	0.81	0.51	0.85	1.24
Control Delay	45.6	57.3	36.1	8.0	50.3	155.4
Queue Delay	0.0	22.5	0.0	0.0	0.0	0.0
Total Delay	45.6	79.9	36.1	8.0	50.3	155.4
LOS	D	E	D	A	D	F
Approach Delay		76.2	30.4			109.8
Approach LOS		E	C			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 68.1	Intersection LOS: E
Intersection Capacity Utilization 107.9%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	3072	0	0	1633	422	520	5	672	0	0	0
Future Volume (veh/h)	365	3072	0	0	1633	422	520	5	672	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	376	3167	0	0	1684	322	536	5	513			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	457	3026	0	0	2177	676	633	5	559			
Arrive On Green	0.13	0.58	0.00	0.00	0.42	0.42	0.35	0.35	0.34			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	16	1597			
Grp Volume(v), veh/h	376	3167	0	0	1684	322	536	0	518			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1613			
Q Serve(g_s), s	12.5	70.0	0.0	0.0	33.5	17.4	32.8	0.0	37.0			
Cycle Q Clear(g_c), s	12.5	70.0	0.0	0.0	33.5	17.4	32.8	0.0	37.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	457	3026	0	0	2177	676	633	0	564			
V/C Ratio(X)	0.82	1.05	0.00	0.00	0.77	0.48	0.85	0.00	0.92			
Avail Cap(c_a), veh/h	734	3026	0	0	2177	676	633	0	564			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.21	0.21	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.8	25.0	0.0	0.0	29.9	25.3	36.0	0.0	38.2			
Incr Delay (d2), s/veh	0.4	23.5	0.0	0.0	1.8	0.5	13.2	0.0	22.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.4	31.6	0.0	0.0	13.5	6.5	16.1	0.0	17.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	48.5	0.0	0.0	31.7	25.8	49.2	0.0	60.5			
LnGrp LOS	D	F	A	A	C	C	D	A	E			
Approach Vol, veh/h		3543			2006			1054				
Approach Delay, s/veh		48.8			30.8			54.7				
Approach LOS		D			C			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.0		74.0			19.6	54.4				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		68.2			24.5	39.1				
Max Q Clear Time (g_c+I1), s		39.0		72.0			14.5	35.5				
Green Ext Time (p_c), s		0.7		0.0			0.5	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			44.3									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Future Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	352	1100	165	141	869	72	0	0	154	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1265	0	0	-	-	633	-	-	471
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	737	-	-	556	-	-	0	0	427	0	0	545
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	737	-	-	556	-	-	-	-	427	-	-	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	1.8	18.1	12.8
HCM LOS			C	B

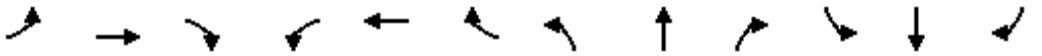
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	737	-	-	556	-	-	545
HCM Lane V/C Ratio	0.36	0.477	-	-	0.253	-	-	0.156
HCM Control Delay (s)	18.1	14.3	-	-	13.7	-	-	12.8
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.6	2.6	-	-	1	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	129	526	94	11	467	48	45	13	155	72	71
Future Volume (vph)	129	526	94	11	467	48	45	13	155	72	71
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		2			6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	83.0	83.0	83.0	83.0	83.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	69.2%	69.2%	69.2%	69.2%	69.2%	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6	4.6	4.6	4.6
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	26.9	26.9	26.9	26.9	26.9		13.8	13.8	13.8	13.8	13.8
Actuated g/C Ratio	0.53	0.53	0.53	0.53	0.53		0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.57	0.57	0.11	0.03	0.72		0.24	0.03	0.47	0.15	0.16
Control Delay	18.5	10.3	1.9	6.1	13.2		19.4	10.0	23.7	18.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	10.3	1.9	6.1	13.2		19.4	10.0	23.7	18.3	6.6
LOS	B	B	A	A	B		B	A	C	B	A
Approach Delay		10.7			13.1		18.3			18.3	
Approach LOS		B			B		B			B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 50.8	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	526	94	11	467	182	48	45	13	155	72	71
Future Volume (veh/h)	129	526	94	11	467	182	48	45	13	155	72	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	572	102	12	508	198	52	49	14	168	78	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	393	1108	939	468	759	296	262	211	353	392	416	
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.22	0.22	0.22	0.22	0.22	0.00
Sat Flow, veh/h	754	1900	1610	777	1301	507	661	965	1610	1360	1900	1610
Grp Volume(v), veh/h	140	572	102	12	0	706	101	0	14	168	78	0
Grp Sat Flow(s),veh/h/ln	754	1900	1610	777	0	1809	1625	0	1610	1360	1900	1610
Q Serve(g_s), s	7.3	8.4	1.3	0.4	0.0	12.4	0.2	0.0	0.3	5.4	1.6	0.0
Cycle Q Clear(g_c), s	19.7	8.4	1.3	8.8	0.0	12.4	2.1	0.0	0.3	7.5	1.6	0.0
Prop In Lane	1.00		1.00	1.00		0.28	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	1108	939	468	0	1055	473	0	353	392	416	
V/C Ratio(X)	0.36	0.52	0.11	0.03	0.00	0.67	0.21	0.00	0.04	0.43	0.19	
Avail Cap(c_a), veh/h	1223	3201	2713	1324	0	3047	1220	0	1121	1041	1323	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.4	5.8	4.3	8.4	0.0	6.6	15.0	0.0	14.3	18.1	14.8	0.0
Incr Delay (d2), s/veh	0.5	0.4	0.1	0.0	0.0	0.7	0.2	0.0	0.0	0.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.6	0.2	0.1	0.0	2.3	0.7	0.0	0.1	1.4	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	6.2	4.4	8.4	0.0	7.4	15.2	0.0	14.4	18.8	15.0	0.0
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	B	
Approach Vol, veh/h		814			718			115			246	A
Approach Delay, s/veh		7.3			7.4			15.1			17.6	
Approach LOS		A			A			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.8		31.7		14.8		31.7				
Change Period (Y+Rc), s		4.6		4.6		4.6		4.6				
Max Green Setting (Gmax), s		32.4		78.4		32.4		78.4				
Max Q Clear Time (g_c+I1), s		4.1		21.7		9.5		14.4				
Green Ext Time (p_c), s		0.5		5.5		0.8		5.5				

Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

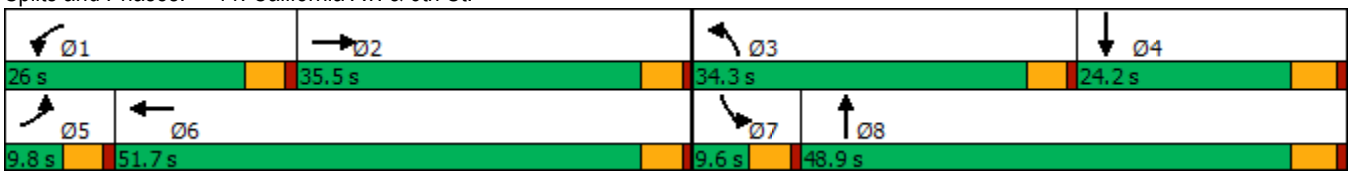
Notes

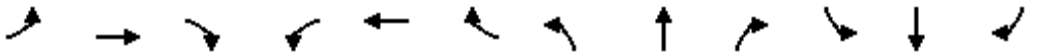
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	686	322	521	454	156	24	94
Future Volume (vph)	23	686	322	521	454	156	24	94
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	35.5	26.0	51.7	34.3	48.9	9.6	24.2
Total Split (%)	8.2%	29.6%	21.7%	43.1%	28.6%	40.8%	8.0%	20.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.6	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.7	31.5	22.0	51.9	30.3	45.2	5.6	16.5
Actuated g/C Ratio	0.05	0.27	0.19	0.45	0.26	0.39	0.05	0.14
v/c Ratio	0.27	0.97	0.99	0.35	1.02	0.89	0.29	0.42
Control Delay	62.7	64.2	95.6	23.4	89.5	41.7	63.7	48.2
Queue Delay	0.0	0.0	0.0	0.0	2.6	22.5	0.0	0.0
Total Delay	62.7	64.2	95.6	23.4	92.0	64.2	63.7	48.2
LOS	E	E	F	C	F	E	E	D
Approach Delay		64.1		50.5		75.9		51.0
Approach LOS		E		D		E		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.4	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 63.9	Intersection LOS: E
Intersection Capacity Utilization 90.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	686	207	322	521	13	454	156	468	24	94	13
Future Volume (veh/h)	23	686	207	322	521	13	454	156	468	24	94	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	722	107	339	548	9	478	164	361	25	99	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	53	837	124	368	1597	26	507	187	411	54	179	15
Arrive On Green	0.03	0.27	0.27	0.20	0.44	0.44	0.28	0.35	0.34	0.03	0.10	0.09
Sat Flow, veh/h	1810	3154	467	1810	3635	60	1810	528	1163	1810	1735	140
Grp Volume(v), veh/h	24	413	416	339	272	285	478	0	525	25	0	107
Grp Sat Flow(s),veh/h/ln	1810	1805	1816	1810	1805	1889	1810	0	1691	1810	0	1875
Q Serve(g_s), s	1.4	23.6	23.6	19.9	10.8	10.8	28.0	0.0	31.6	1.5	0.0	5.9
Cycle Q Clear(g_c), s	1.4	23.6	23.6	19.9	10.8	10.8	28.0	0.0	31.6	1.5	0.0	5.9
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.69	1.00		0.07
Lane Grp Cap(c), veh/h	53	479	482	368	793	830	507	0	598	54	0	194
V/C Ratio(X)	0.45	0.86	0.86	0.92	0.34	0.34	0.94	0.00	0.88	0.46	0.00	0.55
Avail Cap(c_a), veh/h	97	525	529	368	795	833	507	0	701	94	0	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.7	37.9	37.9	42.3	20.0	20.0	38.1	0.0	33.2	51.6	0.0	46.2
Incr Delay (d2), s/veh	2.2	12.9	12.9	27.6	0.3	0.2	26.2	0.0	11.0	2.3	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	12.0	12.1	11.6	4.5	4.7	15.4	0.0	14.0	0.7	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	50.8	50.8	69.9	20.3	20.3	64.3	0.0	44.2	53.9	0.0	48.6
LnGrp LOS	D	D	D	E	C	C	E	A	D	D	A	D
Approach Vol, veh/h		853			896			1003			132	
Approach Delay, s/veh		50.9			39.0			53.8			49.6	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	32.7	34.3	15.2	7.2	51.6	7.2	42.3
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	21.4	* 31	29.7	19.0	5.2	* 47	5.0	43.7
Max Q Clear Time (g_c+I1), s	21.9	25.6	30.0	7.9	3.4	12.8	3.5	33.6
Green Ext Time (p_c), s	0.0	2.3	0.0	0.3	0.0	3.7	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	48.2
HCM 6th LOS	D

Notes

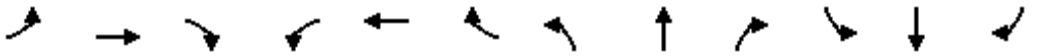
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	4	54	4	213	725	8	546
Future Volume (vph)	5	4	54	4	213	725	8	546
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.6	21.6	21.6	21.6	22.8	22.8	22.8	22.8
Total Split (s)	22.0	22.0	22.0	22.0	68.0	68.0	68.0	68.0
Total Split (%)	24.4%	24.4%	24.4%	24.4%	75.6%	75.6%	75.6%	75.6%
Yellow Time (s)	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	5.8	5.8	5.8	5.8
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)		12.9		12.9	29.6	29.6	29.6	29.6
Actuated g/C Ratio		0.29		0.29	0.67	0.67	0.67	0.67
v/c Ratio		0.21		0.19	0.45	0.64	0.03	0.46
Control Delay		7.5		17.1	9.4	9.7	4.5	7.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		7.5		17.1	9.4	9.7	4.5	7.1
LOS		A		B	A	A	A	A
Approach Delay		7.5		17.1		9.6		7.1
Approach LOS		A		B		A		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 44.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 73.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	4	103	54	4	25	213	725	40	8	546	8
Future Volume (veh/h)	5	4	103	54	4	25	213	725	40	8	546	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	4	108	57	4	26	224	763	42	8	575	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	19	286	289	39	88	501	1067	59	351	1118	16
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.60	0.60	0.60	0.60	0.60	0.60
Sat Flow, veh/h	25	100	1497	878	202	461	845	1784	98	687	1869	26
Grp Volume(v), veh/h	117	0	0	87	0	0	224	0	805	8	0	583
Grp Sat Flow(s),veh/h/ln	1622	0	0	1542	0	0	845	0	1882	687	0	1895
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	10.3	0.0	14.8	0.4	0.0	8.8
Cycle Q Clear(g_c), s	3.1	0.0	0.0	2.0	0.0	0.0	19.1	0.0	14.8	15.2	0.0	8.8
Prop In Lane	0.04		0.92	0.66		0.30	1.00		0.05	1.00		0.01
Lane Grp Cap(c), veh/h	386	0	0	415	0	0	501	0	1125	351	0	1133
V/C Ratio(X)	0.30	0.00	0.00	0.21	0.00	0.00	0.45	0.00	0.72	0.02	0.00	0.51
Avail Cap(c_a), veh/h	648	0	0	643	0	0	1063	0	2379	809	0	2396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	0.0	0.0	16.9	0.0	0.0	11.3	0.0	6.9	12.3	0.0	5.7
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	0.6	0.0	0.9	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	0.8	0.0	0.0	1.4	0.0	3.0	0.1	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.8	0.0	0.0	17.2	0.0	0.0	11.9	0.0	7.8	12.3	0.0	6.1
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		117			87			1029			591	
Approach Delay, s/veh		17.8			17.2			8.7			6.2	
Approach LOS		B			B			A			A	

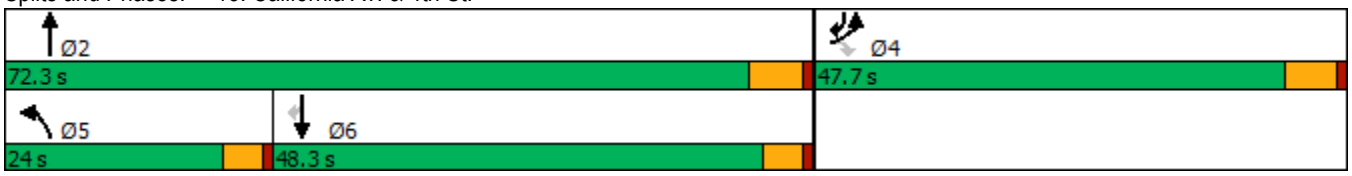
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		35.2		14.0		35.2		14.0				
Change Period (Y+Rc), s		5.8		4.6		5.8		4.6				
Max Green Setting (Gmax), s		62.2		17.4		62.2		17.4				
Max Q Clear Time (g_c+I1), s		21.1		5.1		17.2		4.0				
Green Ext Time (p_c), s		8.3		0.5		3.9		0.3				

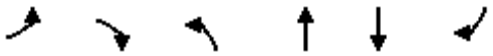
Intersection Summary												
HCM 6th Ctrl Delay			8.9									
HCM 6th LOS			A									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	478	590	230	1005	1165	401
Future Volume (vph)	478	590	230	1005	1165	401
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.8	22.8	9.5	15.8	21.6	22.8
Total Split (s)	47.7	47.7	24.0	72.3	48.3	47.7
Total Split (%)	39.8%	39.8%	20.0%	60.3%	40.3%	39.8%
Yellow Time (s)	4.8	4.8	3.5	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.5	5.8	4.6	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	37.7	37.7	18.1	63.9	42.5	84.9
Actuated g/C Ratio	0.33	0.33	0.16	0.56	0.37	0.75
v/c Ratio	0.87	0.83	0.87	0.54	0.94	0.35
Control Delay	51.8	26.2	76.2	17.1	48.6	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	26.2	76.2	17.1	48.6	3.9
LOS	D	C	E	B	D	A
Approach Delay	37.6			28.1	37.2	
Approach LOS	D			C	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 83.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	478	590	230	1005	1165	401
Future Volume (veh/h)	478	590	230	1005	1165	401
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	520	478	250	1092	1266	306
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	586	522	279	2069	1368	1132
Arrive On Green	0.32	0.32	0.15	0.57	0.38	0.38
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	520	478	250	1092	1266	306
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	30.7	32.1	15.3	20.8	37.8	7.8
Cycle Q Clear(g_c), s	30.7	32.1	15.3	20.8	37.8	7.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	586	522	279	2069	1368	1132
V/C Ratio(X)	0.89	0.92	0.90	0.53	0.93	0.27
Avail Cap(c_a), veh/h	674	599	313	2133	1401	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	36.6	46.7	14.7	33.4	6.1
Incr Delay (d2), s/veh	12.5	17.6	23.4	0.2	10.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	27.6	8.5	7.7	17.5	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.6	54.2	70.1	14.9	44.0	6.3
LnGrp LOS	D	D	E	B	D	A
Approach Vol, veh/h	998			1342	1572	
Approach Delay, s/veh	51.3			25.2	36.6	
Approach LOS	D			C	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		70.3		42.3	21.8	48.5
Change Period (Y+Rc), s		5.8		5.8	4.5	* 5.8
Max Green Setting (Gmax), s		66.5		41.9	19.5	* 44
Max Q Clear Time (g_c+I1), s		22.8		34.1	17.3	39.8
Green Ext Time (p_c), s		9.0		2.3	0.1	2.9

Intersection Summary		
HCM 6th Ctrl Delay		36.4
HCM 6th LOS		D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 9.8:

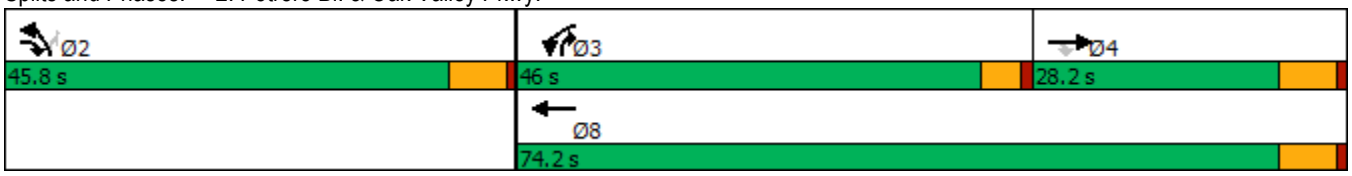
HORIZON YEAR (2045) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	360	906	1249	384	454	1104
Future Volume (vph)	360	906	1249	384	454	1104
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4				2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	28.2	9.6	16.2	28.2	9.6
Total Split (s)	28.2	45.8	46.0	74.2	45.8	46.0
Total Split (%)	23.5%	38.2%	38.3%	61.8%	38.2%	38.3%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	4.6
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.5	63.4	41.4	63.6	39.6	87.2
Actuated g/C Ratio	0.15	0.55	0.36	0.55	0.34	0.75
v/c Ratio	0.71	1.11	1.08	0.21	0.41	0.97
Control Delay	54.4	91.9	86.9	13.5	30.8	34.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	91.9	86.9	13.5	30.8	34.2
LOS	D	F	F	B	C	C
Approach Delay	81.2			69.7	33.2	
Approach LOS	F			E	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.6	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 60.2	Intersection LOS: E
Intersection Capacity Utilization 100.7%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	360	906	1249	384	454	1104
Future Volume (veh/h)	360	906	1249	384	454	1104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	391	713	1358	417	493	874
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	662	827	1211	2046	1158	1087
Arrive On Green	0.18	0.18	0.34	0.57	0.33	0.33
Sat Flow, veh/h	3705	1610	3510	3705	3510	1610
Grp Volume(v), veh/h	391	713	1358	417	493	874
Grp Sat Flow(s),veh/h/ln	1805	1610	1755	1805	1755	1610
Q Serve(g_s), s	11.9	22.0	41.4	6.8	13.1	39.6
Cycle Q Clear(g_c), s	11.9	22.0	41.4	6.8	13.1	39.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	662	827	1211	2046	1158	1087
V/C Ratio(X)	0.59	0.86	1.12	0.20	0.43	0.80
Avail Cap(c_a), veh/h	662	827	1211	2046	1158	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	19.6	39.3	12.7	31.3	13.9
Incr Delay (d2), s/veh	1.4	9.3	65.9	0.0	0.2	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	6.6	25.9	31.3	7.0	8.2	39.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.3	28.9	105.2	12.8	31.6	18.3
LnGrp LOS	D	C	F	B	C	B
Approach Vol, veh/h	1104			1775	1367	
Approach Delay, s/veh	35.0			83.5	23.1	
Approach LOS	D			F	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		45.8	46.0	28.2		74.2
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		39.6	41.4	22.0		68.0
Max Q Clear Time (g_c+I1), s		41.6	43.4	24.0		8.8
Green Ext Time (p_c), s		0.0	0.0	0.0		2.6

Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	11	0	64	0	1039	6	54	1588	0
Future Vol, veh/h	0	0	0	11	0	64	0	1039	6	54	1588	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	70	0	1129	7	59	1726	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1941	2977	568	-	0	0	1136	0	0
Stage 1	1133	1133	-	-	-	-	-	-	-
Stage 2	808	1844	-	-	-	-	-	-	-
Critical Hdwy	5.7	6.5	7.1	-	-	-	5.3	-	-
Critical Hdwy Stg 1	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.8	4	3.9	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	103	14	403	0	-	-	342	-	0
Stage 1	203	280	-	0	-	-	-	-	0
Stage 2	366	127	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	85	0	403	-	-	-	342	-	-
Mov Cap-2 Maneuver	85	0	-	-	-	-	-	-	-
Stage 1	203	0	-	-	-	-	-	-	-
Stage 2	303	0	-	-	-	-	-	-	-

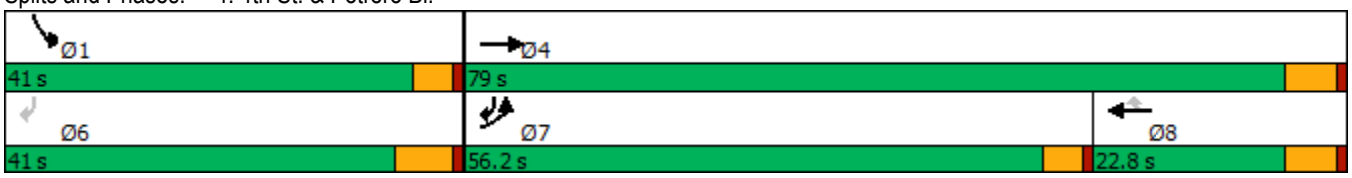
Approach	WB	NB	SB
HCM Control Delay, s	25	0	0.6
HCM LOS	D		

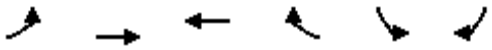
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	260	342	-
HCM Lane V/C Ratio	-	-	0.314	0.172	-
HCM Control Delay (s)	-	-	25	17.7	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.3	0.6	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø6
Lane Configurations							
Traffic Volume (vph)	485	470	183	480	413	1385	
Future Volume (vph)	485	470	183	480	413	1385	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		1	7	6
Permitted Phases				8		6	
Detector Phase	7	4	8	8	1	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	22.8	22.8	22.8	9.6	9.6	23.2
Total Split (s)	56.2	79.0	22.8	22.8	41.0	56.2	41.0
Total Split (%)	46.8%	65.8%	19.0%	19.0%	34.2%	46.8%	34%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	
Lead/Lag	Lead		Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	Yes		Yes	
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	51.8	71.5	15.1	15.1	16.5	72.9	
Actuated g/C Ratio	0.53	0.73	0.15	0.15	0.17	0.74	
v/c Ratio	0.28	0.37	0.68	0.76	0.74	1.21	
Control Delay	14.2	6.3	52.7	11.5	47.1	120.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	14.2	6.3	52.7	11.5	47.1	120.1	
LOS	B	A	D	B	D	F	
Approach Delay		10.3	22.9		103.3		
Approach LOS		B	C		F		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 98.5	
Natural Cycle: 140	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 61.7	Intersection LOS: E
Intersection Capacity Utilization 104.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	485	470	183	480	413	1385
Future Volume (veh/h)	485	470	183	480	413	1385
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	527	511	199	305	449	1125
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	637	829	389	330	1587	989
Arrive On Green	0.18	0.44	0.20	0.20	0.44	0.44
Sat Flow, veh/h	3619	1900	1900	1610	3619	1610
Grp Volume(v), veh/h	527	511	199	305	449	1125
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610
Q Serve(g_s), s	11.7	17.2	7.7	15.4	6.6	36.4
Cycle Q Clear(g_c), s	11.7	17.2	7.7	15.4	6.6	36.4
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	637	829	389	330	1587	989
V/C Ratio(X)	0.83	0.62	0.51	0.92	0.28	1.14
Avail Cap(c_a), veh/h	2250	1676	389	330	1587	989
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.0	18.0	29.3	32.4	14.9	16.0
Incr Delay (d2), s/veh	1.1	0.8	1.1	31.0	0.0	74.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	0.2	0.1	2.8	0.0	20.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.1	18.8	30.4	63.3	15.0	90.2
LnGrp LOS	C	B	C	E	B	F
Approach Vol, veh/h		1038	504		1574	
Approach Delay, s/veh		26.5	50.3		68.7	
Approach LOS		C	D		E	

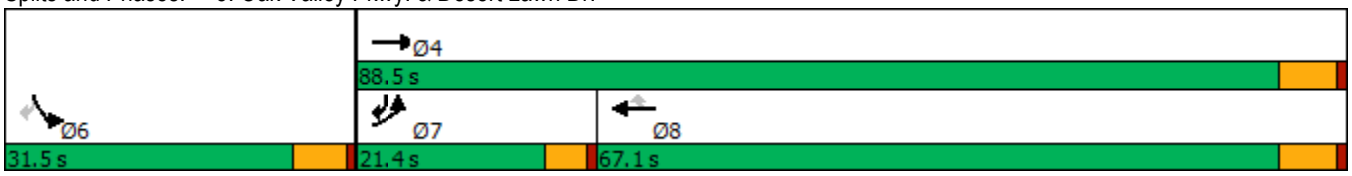
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			42.0		41.0	19.2	22.8
Change Period (Y+Rc), s			5.8		4.6	4.6	5.8
Max Green Setting (Gmax), s			73.2		36.4	51.6	17.0
Max Q Clear Time (g_c+I1), s			19.2		38.4	13.7	17.4
Green Ext Time (p_c), s			3.2		0.0	0.9	0.0

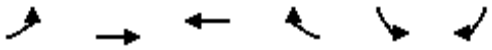
Intersection Summary	
HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	217	1119	2384	401	608	378
Future Volume (vph)	217	1119	2384	401	608	378
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	16.2	28.2	28.2	27.8	9.6
Total Split (s)	21.4	88.5	67.1	67.1	31.5	21.4
Total Split (%)	17.8%	73.8%	55.9%	55.9%	26.3%	17.8%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	4.6
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	12.2	77.8	61.0	61.0	24.5	42.5
Actuated g/C Ratio	0.11	0.68	0.53	0.53	0.21	0.37
v/c Ratio	0.63	0.34	0.94	0.43	0.88	0.69
Control Delay	57.0	8.0	33.3	6.3	58.3	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	8.0	33.3	6.3	58.3	36.8
LOS	E	A	C	A	E	D
Approach Delay		16.0	29.4		50.1	
Approach LOS		B	C		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 114.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	217	1119	2384	401	608	378
Future Volume (veh/h)	217	1119	2384	401	608	378
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	236	1216	2591	327	661	302
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	303	3513	2848	884	749	483
Arrive On Green	0.09	0.68	0.55	0.55	0.21	0.21
Sat Flow, veh/h	3510	5358	5358	1610	3510	1610
Grp Volume(v), veh/h	236	1216	2591	327	661	302
Grp Sat Flow(s),veh/h/ln	1755	1729	1729	1610	1755	1610
Q Serve(g_s), s	7.2	10.8	49.4	12.6	20.0	17.7
Cycle Q Clear(g_c), s	7.2	10.8	49.4	12.6	20.0	17.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	303	3513	2848	884	749	483
V/C Ratio(X)	0.78	0.35	0.91	0.37	0.88	0.63
Avail Cap(c_a), veh/h	538	3891	2879	894	822	516
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	7.5	22.3	14.0	41.8	33.1
Incr Delay (d2), s/veh	1.7	0.1	4.8	0.3	10.4	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	0.0	1.3	0.1	1.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.8	7.5	27.1	14.3	52.2	35.3
LnGrp LOS	D	A	C	B	D	D
Approach Vol, veh/h		1452	2918		963	
Approach Delay, s/veh		14.6	25.7		46.9	
Approach LOS		B	C		D	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			80.5		29.2	14.1	66.4
Change Period (Y+Rc), s			6.2		5.8	4.6	6.2
Max Green Setting (Gmax), s			82.3		25.7	16.8	60.9
Max Q Clear Time (g_c+I1), s			12.8		22.0	9.2	51.4
Green Ext Time (p_c), s			10.2		1.4	0.2	8.9

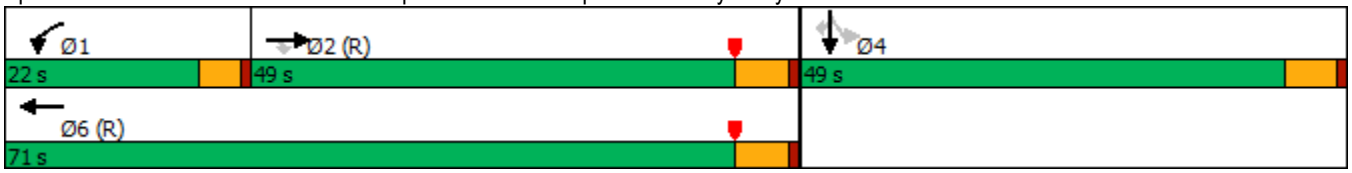
Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

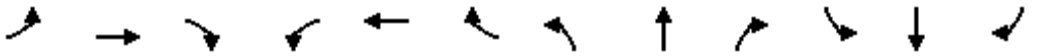
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	1063	665	345	2006	336	4	779
Future Volume (vph)	1063	665	345	2006	336	4	779
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8	15.8
Total Split (s)	49.0	49.0	22.0	71.0	49.0	49.0	49.0
Total Split (%)	40.8%	40.8%	18.3%	59.2%	40.8%	40.8%	40.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None
Act Effct Green (s)	48.9	48.9	16.0	69.5	38.9	38.9	38.9
Actuated g/C Ratio	0.41	0.41	0.13	0.58	0.32	0.32	0.32
v/c Ratio	0.55	0.67	0.81	0.73	0.32	0.86	0.78
Control Delay	29.4	5.5	52.8	13.8	30.7	54.2	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	5.5	52.8	13.8	30.7	54.2	40.9
LOS	C	A	D	B	C	D	D
Approach Delay	20.2			19.5		42.5	
Approach LOS	C			B		D	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 24.7 — Intersection LOS: C
Intersection Capacity Utilization 99.3% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↱	↰↰	↑↑↑					↰↰	↳	↱
Traffic Volume (veh/h)	0	1063	665	345	2006	0	0	0	0	336	4	779
Future Volume (veh/h)	0	1063	665	345	2006	0	0	0	0	336	4	779
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1155	560	375	2180	0				365	0	632
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2627	816	433	3466	0				851	0	757
Arrive On Green	0.00	0.51	0.51	0.12	0.67	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	5358	1610	3510	5358	0				3619	0	3220
Grp Volume(v), veh/h	0	1155	560	375	2180	0				365	0	632
Grp Sat Flow(s),veh/h/ln	0	1729	1610	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	17.0	31.6	12.6	28.9	0.0				10.3	0.0	22.4
Cycle Q Clear(g_c), s	0.0	17.0	31.6	12.6	28.9	0.0				10.3	0.0	22.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2627	816	433	3466	0				851	0	757
V/C Ratio(X)	0.00	0.44	0.69	0.87	0.63	0.00				0.43	0.00	0.83
Avail Cap(c_a), veh/h	0	2627	816	509	3466	0				1303	0	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.37	0.37	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.8	22.4	51.6	11.4	0.0				39.0	0.0	43.7
Incr Delay (d2), s/veh	0.0	0.4	3.9	4.7	0.3	0.0				0.3	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	12.9	19.5	6.5	24.3	0.0				6.1	0.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.2	26.3	56.3	11.7	0.0				39.4	0.0	47.0
LnGrp LOS	A	B	C	E	B	A				D	A	D
Approach Vol, veh/h		1715			2555						997	
Approach Delay, s/veh		21.6			18.3						44.2	
Approach LOS		C			B						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.4	66.6		34.0		86.0
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	17.4	43.2		43.2		65.2
Max Q Clear Time (g_c+I1), s	14.6	33.6		24.4		30.9
Green Ext Time (p_c), s	0.2	6.2		3.8		22.0

Intersection Summary		
HCM 6th Ctrl Delay		24.2
HCM 6th LOS		C

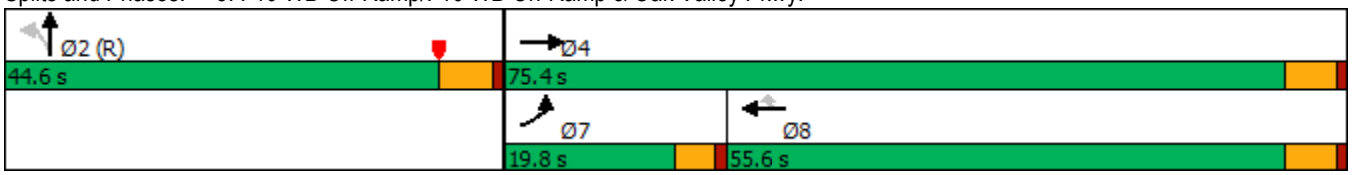
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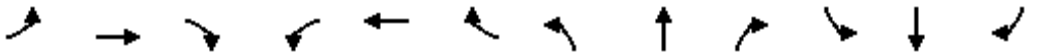
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	341	1058	1922	756	429	5
Future Volume (vph)	341	1058	1922	756	429	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	19.8	75.4	55.6	55.6	44.6	44.6
Total Split (%)	16.5%	62.8%	46.3%	46.3%	37.2%	37.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	14.5	69.6	50.5	50.5	38.8	38.8
Actuated g/C Ratio	0.12	0.58	0.42	0.42	0.32	0.32
v/c Ratio	0.82	0.36	0.90	0.75	0.75	0.83
Control Delay	58.7	25.6	39.2	11.2	45.7	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	25.6	39.2	11.2	45.7	43.5
LOS	E	C	D	B	D	D
Approach Delay		33.7	31.3			44.6
Approach LOS		C	C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 99.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	341	1058	0	0	1922	756	429	5	469	0	0	0
Future Volume (veh/h)	341	1058	0	0	1922	756	429	5	469	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	348	1080	0	0	1961	592	438	5	357			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	402	2925	0	0	2132	662	614	8	540			
Arrive On Green	0.15	0.75	0.00	0.00	0.41	0.41	0.34	0.34	0.34			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	22	1591			
Grp Volume(v), veh/h	348	1080	0	0	1961	592	438	0	362			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1614			
Q Serve(g_s), s	11.6	8.6	0.0	0.0	43.0	41.1	25.3	0.0	22.9			
Cycle Q Clear(g_c), s	11.6	8.6	0.0	0.0	43.0	41.1	25.3	0.0	22.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	402	2925	0	0	2132	662	614	0	548			
V/C Ratio(X)	0.87	0.37	0.00	0.00	0.92	0.89	0.71	0.00	0.66			
Avail Cap(c_a), veh/h	445	3008	0	0	2153	668	614	0	548			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.0	7.6	0.0	0.0	33.5	32.9	34.5	0.0	33.8			
Incr Delay (d2), s/veh	12.4	0.1	0.0	0.0	7.0	14.5	6.9	0.0	6.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(0%),veh/ln	6.5	12.0	0.0	0.0	23.1	22.4	15.8	0.0	13.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	7.7	0.0	0.0	40.4	47.4	41.5	0.0	39.9			
LnGrp LOS	E	A	A	A	D	D	D	A	D			
Approach Vol, veh/h		1428			2553			800				
Approach Delay, s/veh		21.0			42.0			40.8				
Approach LOS		C			D			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.5		73.5			18.3	55.1				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		38.8		69.6			15.2	49.8				
Max Q Clear Time (g_c+I1), s		27.3		10.6			13.6	45.0				
Green Ext Time (p_c), s		2.9		8.9			0.1	4.4				
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	162	700	174	188	1078	32	0	0	77	0	0	191
Future Vol, veh/h	162	700	174	188	1078	32	0	0	77	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	176	761	189	204	1172	35	0	0	84	0	0	208

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1207	0	0	950	0	0	-	-	475	-	-	604
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	585	-	-	731	-	-	0	0	541	0	0	446
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	585	-	-	731	-	-	-	-	541	-	-	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

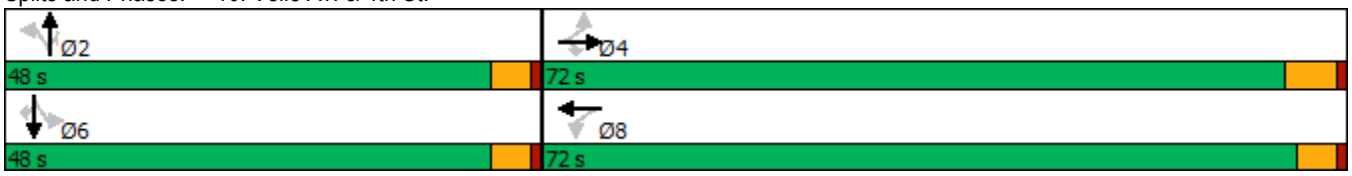
Approach	EB	WB	NB	SB
HCM Control Delay, s	2.2	1.7	12.9	19.9
HCM LOS			B	C

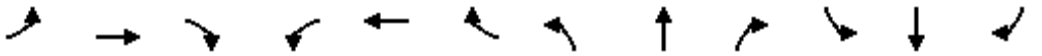
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	541	585	-	-	731	-	-	446
HCM Lane V/C Ratio	0.155	0.301	-	-	0.28	-	-	0.465
HCM Control Delay (s)	12.9	13.8	-	-	11.8	-	-	19.9
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.5	1.3	-	-	1.1	-	-	2.4

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	316	458	29	4	772	86	34	7	100	37	1039
Future Volume (vph)	316	458	29	4	772	86	34	7	100	37	1039
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		2			6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	27.8	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	72.0	72.0	72.0	72.0	72.0	48.0	48.0	48.0	48.0	48.0	48.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.8	4.8	4.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	4.6		4.6	4.6	4.6	4.6	4.6
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	66.2	66.2	66.2	67.4	67.4		43.4	43.4	43.4	43.4	43.4
Actuated g/C Ratio	0.55	0.55	0.55	0.56	0.56		0.36	0.36	0.36	0.36	0.36
v/c Ratio	3.36	0.48	0.04	0.01	0.84		0.24	0.01	0.24	0.06	1.66
Control Delay	1102.7	18.2	4.2	11.8	30.7		28.4	1.4	28.7	25.4	327.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	1102.7	18.2	4.2	11.8	30.7		28.4	1.4	28.7	25.4	327.7
LOS	F	B	A	B	C		C	A	C	C	F
Approach Delay		443.8			30.6		26.8			292.7	
Approach LOS		F			C		C			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.36	
Intersection Signal Delay: 249.0	Intersection LOS: F
Intersection Capacity Utilization 127.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	458	29	4	772	47	86	34	7	100	37	1039
Future Volume (veh/h)	316	458	29	4	772	47	86	34	7	100	37	1039
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	343	498	32	4	839	51	93	37	8	109	40	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	352	1335	1131	606	1246	76	248	89	301	219	355	
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.19	0.19	0.19	0.19	0.19	0.00
Sat Flow, veh/h	635	1900	1610	887	1773	108	978	475	1610	1383	1900	1610
Grp Volume(v), veh/h	343	498	32	4	0	890	130	0	8	109	40	0
Grp Sat Flow(s),veh/h/ln	635	1900	1610	887	0	1881	1453	0	1610	1383	1900	1610
Q Serve(g_s), s	40.9	10.0	0.6	0.2	0.0	25.2	6.3	0.0	0.4	7.2	1.6	0.0
Cycle Q Clear(g_c), s	66.2	10.0	0.6	10.2	0.0	25.2	7.9	0.0	0.4	15.1	1.6	0.0
Prop In Lane	1.00		1.00	1.00		0.06	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	1335	1131	606	0	1321	337	0	301	219	355	
V/C Ratio(X)	0.97	0.37	0.03	0.01	0.00	0.67	0.39	0.00	0.03	0.50	0.11	
Avail Cap(c_a), veh/h	352	1335	1131	617	0	1345	749	0	742	598	875	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.6	5.6	4.2	7.7	0.0	7.9	34.5	0.0	31.3	41.1	31.8	0.0
Incr Delay (d2), s/veh	40.8	0.2	0.0	0.0	0.0	1.3	0.7	0.0	0.0	1.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	4.0	0.1	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	5.8	4.3	7.7	0.0	9.2	35.3	0.0	31.3	42.9	31.9	0.0
LnGrp LOS	E	A	A	A	A	A	D	A	C	D	C	
Approach Vol, veh/h		873			894			138			149	A
Approach Delay, s/veh		31.5			9.2			35.0			39.9	
Approach LOS		C			A			D			D	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.2		72.0		22.2		72.0				
Change Period (Y+Rc), s		4.6		5.8		4.6		* 5.8				
Max Green Setting (Gmax), s		43.4		66.2		43.4		* 67				
Max Q Clear Time (g_c+I1), s		9.9		68.2		17.1		27.2				
Green Ext Time (p_c), s		0.7		0.0		0.4		7.5				

Intersection Summary		
HCM 6th Ctrl Delay		22.7
HCM 6th LOS		C

Notes

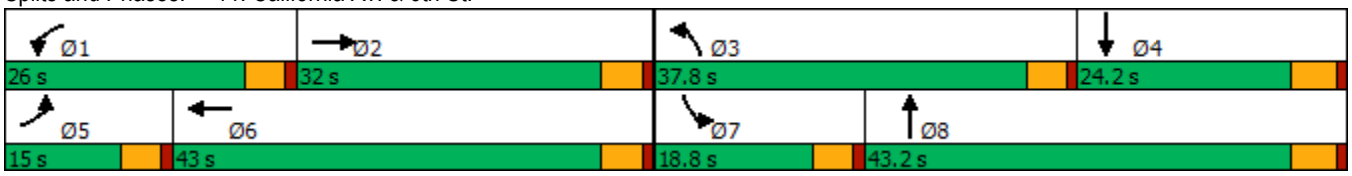
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	468	327	670	494	114	54	219
Future Volume (vph)	4	468	327	670	494	114	54	219
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	15.0	32.0	26.0	43.0	37.8	43.2	18.8	24.2
Total Split (%)	12.5%	26.7%	21.7%	35.8%	31.5%	36.0%	15.7%	20.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.1	26.2	21.4	50.3	33.2	44.8	8.3	17.8
Actuated g/C Ratio	0.04	0.22	0.18	0.43	0.28	0.38	0.07	0.15
v/c Ratio	0.05	0.91	1.09	0.48	1.06	0.43	0.46	0.85
Control Delay	56.5	54.1	120.2	26.1	97.3	24.9	64.7	74.9
Queue Delay	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0
Total Delay	56.5	54.1	120.2	26.1	113.8	24.9	64.7	74.9
LOS	E	D	F	C	F	C	E	E
Approach Delay		54.1		55.9		82.1		72.9
Approach LOS		D		E		F		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.9	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 64.3	Intersection LOS: E
Intersection Capacity Utilization 94.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	468	260	327	670	35	494	114	159	54	219	5
Future Volume (veh/h)	4	468	260	327	670	35	494	114	159	54	219	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	509	109	355	728	22	537	124	108	59	238	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	9	605	129	344	1410	43	534	372	324	77	272	2
Arrive On Green	0.01	0.20	0.20	0.23	0.46	0.38	0.35	0.48	0.40	0.04	0.14	0.14
Sat Flow, veh/h	1810	3037	647	1810	3669	111	1810	937	816	1810	1881	16
Grp Volume(v), veh/h	4	318	300	355	377	373	537	0	232	59	0	240
Grp Sat Flow(s),veh/h/ln	1810	1900	1784	1810	1900	1880	1810	0	1753	1810	0	1897
Q Serve(g_s), s	0.2	18.1	18.2	21.4	15.8	15.9	33.2	0.0	9.8	3.6	0.0	13.9
Cycle Q Clear(g_c), s	0.2	18.1	18.2	21.4	15.8	15.9	33.2	0.0	9.8	3.6	0.0	13.9
Prop In Lane	1.00		0.36	1.00		0.06	1.00		0.47	1.00		0.01
Lane Grp Cap(c), veh/h	9	379	355	344	730	722	534	0	697	77	0	274
V/C Ratio(X)	0.42	0.84	0.85	1.03	0.52	0.52	1.01	0.00	0.33	0.77	0.00	0.88
Avail Cap(c_a), veh/h	167	460	431	344	730	722	534	0	697	228	0	321
HCM Platoon Ratio	1.00	1.00	1.00	1.20	1.20	1.00	1.20	1.20	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.8	43.3	43.4	43.4	22.9	23.1	36.3	0.0	21.7	53.3	0.0	47.1
Incr Delay (d2), s/veh	10.8	11.1	12.4	56.7	0.6	0.6	40.2	0.0	0.3	6.0	0.0	20.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.2	11.1	10.6	16.2	11.9	11.8	22.6	0.0	7.3	2.0	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.5	54.4	55.7	100.1	23.5	23.8	76.6	0.0	22.0	59.3	0.0	67.6
LnGrp LOS	E	D	E	F	C	C	F	A	C	E	A	E
Approach Vol, veh/h		622			1105			769			299	
Approach Delay, s/veh		55.1			48.2			60.1			65.9	
Approach LOS		E			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	27.2	37.8	21.5	5.2	48.0	9.4	49.9
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	21.4	* 27	33.2	19.0	10.4	* 38	14.2	38.0
Max Q Clear Time (g_c+I1), s	23.4	20.2	35.2	15.9	2.2	17.9	5.6	11.8
Green Ext Time (p_c), s	0.0	2.2	0.0	0.3	0.0	4.7	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	54.9
HCM 6th LOS	D

Notes

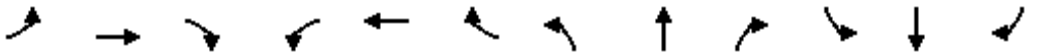
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	4	81	11	358	670	15	620
Future Volume (vph)	2	4	81	11	358	670	15	620
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.6	21.6	21.6	21.6	22.8	22.8	22.8	22.8
Total Split (s)	21.6	21.6	21.6	21.6	68.4	68.4	68.4	68.4
Total Split (%)	24.0%	24.0%	24.0%	24.0%	76.0%	76.0%	76.0%	76.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	5.8	5.8	5.8	5.8
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)		14.0		14.0	55.0	55.0	55.0	55.0
Actuated g/C Ratio		0.19		0.19	0.76	0.76	0.76	0.76
v/c Ratio		0.26		0.49	0.75	0.53	0.04	0.47
Control Delay		10.1		35.1	21.1	7.4	4.3	6.6
Queue Delay		0.0		0.0	0.0	0.2	0.0	0.5
Total Delay		10.1		35.1	21.1	7.6	4.3	7.1
LOS		B		D	C	A	A	A
Approach Delay		10.1		35.1		12.1		7.0
Approach LOS		B		D		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 72.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 11.9	Intersection LOS: B
Intersection Capacity Utilization 80.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	90	81	11	36	358	670	36	15	620	3
Future Volume (veh/h)	2	4	90	81	11	36	358	670	36	15	620	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	4	98	88	12	39	389	728	39	16	674	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	52	11	208	205	33	61	538	1289	69	476	1364	6
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.72	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	10	84	1528	913	240	450	774	1787	96	712	1890	8
Grp Volume(v), veh/h	104	0	0	139	0	0	389	0	767	16	0	677
Grp Sat Flow(s),veh/h/ln	1621	0	0	1603	0	0	774	0	1883	712	0	1898
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	31.9	0.0	14.0	0.8	0.0	11.3
Cycle Q Clear(g_c), s	4.3	0.0	0.0	5.4	0.0	0.0	43.2	0.0	14.0	14.8	0.0	11.3
Prop In Lane	0.02		0.94	0.63		0.28	1.00		0.05	1.00		0.00
Lane Grp Cap(c), veh/h	271	0	0	299	0	0	538	0	1358	476	0	1370
V/C Ratio(X)	0.38	0.00	0.00	0.47	0.00	0.00	0.72	0.00	0.56	0.03	0.00	0.49
Avail Cap(c_a), veh/h	427	0	0	437	0	0	643	0	1615	573	0	1628
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.1	0.0	0.0	29.5	0.0	0.0	13.7	0.0	4.8	8.2	0.0	4.4
Incr Delay (d2), s/veh	0.9	0.0	0.0	1.1	0.0	0.0	3.2	0.0	0.4	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	2.2	0.0	0.0	2.9	0.0	0.0	8.4	0.0	15.7	0.3	0.0	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	0.0	30.6	0.0	0.0	17.0	0.0	5.1	8.3	0.0	4.7
LnGrp LOS	C	A	A	C	A	A	B	A	A	A	A	A
Approach Vol, veh/h		104			139			1156			693	
Approach Delay, s/veh		30.0			30.6			9.1			4.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		58.5		14.5		58.5		14.5				
Change Period (Y+Rc), s		5.8		4.6		5.8		4.6				
Max Green Setting (Gmax), s		62.6		17.0		62.6		17.0				
Max Q Clear Time (g_c+I1), s		45.2		6.3		16.8		7.4				
Green Ext Time (p_c), s		7.5		0.4		4.9		0.5				

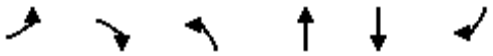
Intersection Summary												
HCM 6th Ctrl Delay			10.1									
HCM 6th LOS			B									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	154	221	239	1061	403	530
Future Volume (vph)	154	221	239	1061	403	530
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	22.8	22.8	9.5	9.6	22.8	22.8
Total Split (s)	46.0	46.0	39.0	74.0	35.0	46.0
Total Split (%)	38.3%	38.3%	32.5%	61.7%	29.2%	38.3%
Yellow Time (s)	4.8	4.8	3.5	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.5	4.6	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	13.4	13.4	13.7	33.2	13.6	33.0
Actuated g/C Ratio	0.23	0.23	0.24	0.58	0.24	0.57
v/c Ratio	0.40	0.43	0.60	0.55	0.51	0.54
Control Delay	23.5	6.1	27.1	8.8	22.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	6.1	27.1	8.8	22.7	5.2
LOS	C	A	C	A	C	A
Approach Delay	13.2			12.2	12.8	
Approach LOS	B			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 57.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 54.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	154	221	239	1061	403	530
Future Volume (veh/h)	154	221	239	1061	403	530
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	167	180	260	1153	438	440
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	356	316	324	2071	1103	808
Arrive On Green	0.20	0.20	0.18	0.57	0.31	0.31
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	167	180	260	1153	438	440
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	4.1	5.1	7.0	10.1	4.8	9.5
Cycle Q Clear(g_c), s	4.1	5.1	7.0	10.1	4.8	9.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	356	316	324	2071	1103	808
V/C Ratio(X)	0.47	0.57	0.80	0.56	0.40	0.54
Avail Cap(c_a), veh/h	1441	1282	1236	4962	2088	1248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	18.4	19.9	6.7	13.9	8.6
Incr Delay (d2), s/veh	1.0	1.6	1.8	0.2	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	2.4	4.7	3.8	8.1	3.1	6.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	20.0	21.6	7.0	14.1	9.2
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	347			1413	878	
Approach Delay, s/veh	19.5			9.7	11.6	
Approach LOS	B			A	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.8		15.7	13.5	21.2
Change Period (Y+Rc), s		* 5.8		5.8	4.5	5.8
Max Green Setting (Gmax), s		* 69		40.2	34.5	29.2
Max Q Clear Time (g_c+I1), s		12.1		7.1	9.0	11.5
Green Ext Time (p_c), s		10.1		1.0	0.3	4.0

Intersection Summary	
HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	365	898	1198	652	761	1705
Future Volume (vph)	365	898	1198	652	761	1705
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4				2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	28.2	9.6	16.2	28.2	9.6
Total Split (s)	28.2	39.8	52.0	80.2	39.8	52.0
Total Split (%)	23.5%	33.2%	43.3%	66.8%	33.2%	43.3%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	4.6
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.7	57.5	47.4	69.8	33.6	87.3
Actuated g/C Ratio	0.15	0.50	0.41	0.60	0.29	0.75
v/c Ratio	0.72	1.21	0.91	0.33	0.81	1.51
Control Delay	54.5	133.1	42.9	11.8	46.1	250.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	133.1	42.9	11.8	46.1	250.8
LOS	D	F	D	B	D	F
Approach Delay	110.4			32.0	187.6	
Approach LOS	F			C	F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.8	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.51	
Intersection Signal Delay: 118.5	Intersection LOS: F
Intersection Capacity Utilization 124.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	365	898	1198	652	761	1705
Future Volume (veh/h)	365	898	1198	652	761	1705
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	397	731	1302	709	827	983
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	671	756	1358	2208	996	1080
Arrive On Green	0.19	0.19	0.39	0.61	0.28	0.28
Sat Flow, veh/h	3705	1610	3510	3705	3510	1610
Grp Volume(v), veh/h	397	731	1302	709	827	983
Grp Sat Flow(s),veh/h/ln	1805	1610	1755	1805	1755	1610
Q Serve(g_s), s	11.9	22.0	42.8	11.2	26.1	33.6
Cycle Q Clear(g_c), s	11.9	22.0	42.8	11.2	26.1	33.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	671	756	1358	2208	996	1080
V/C Ratio(X)	0.59	0.97	0.96	0.32	0.83	0.91
Avail Cap(c_a), veh/h	671	756	1405	2256	996	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	22.5	35.4	11.1	39.7	16.5
Incr Delay (d2), s/veh	1.4	24.8	14.8	0.1	6.0	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	26.4	19.8	4.0	11.5	21.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.5	47.2	50.2	11.2	45.7	27.8
LnGrp LOS	D	D	D	B	D	C
Approach Vol, veh/h	1128			2011	1810	
Approach Delay, s/veh	46.6			36.4	36.0	
Approach LOS	D			D	D	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		39.8	50.4	28.2		78.6
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		33.6	47.4	22.0		74.0
Max Q Clear Time (g_c+I1), s		35.6	44.8	24.0		13.2
Green Ext Time (p_c), s		0.0	1.0	0.0		4.9

Intersection Summary	
HCM 6th Ctrl Delay	38.6
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	114	0	1535	0	11	1749	0
Future Vol, veh/h	0	0	0	2	0	114	0	1535	0	11	1749	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	124	0	1668	0	12	1901	0

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	2452	3593	834	-	0	0	1668	0	0
Stage 1	1668	1668	-	-	-	-	-	-	-
Stage 2	784	1925	-	-	-	-	-	-	-
Critical Hdwy	5.7	6.5	7.1	-	-	-	5.3	-	-
Critical Hdwy Stg 1	6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.8	4	3.9	-	-	-	3.1	-	-
Pot Cap-1 Maneuver	55	6	271	0	-	-	188	-	0
Stage 1	95	155	-	0	-	-	-	-	0
Stage 2	377	115	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	51	0	271	-	-	-	188	-	-
Mov Cap-2 Maneuver	51	0	-	-	-	-	-	-	-
Stage 1	95	0	-	-	-	-	-	-	-
Stage 2	353	0	-	-	-	-	-	-	-

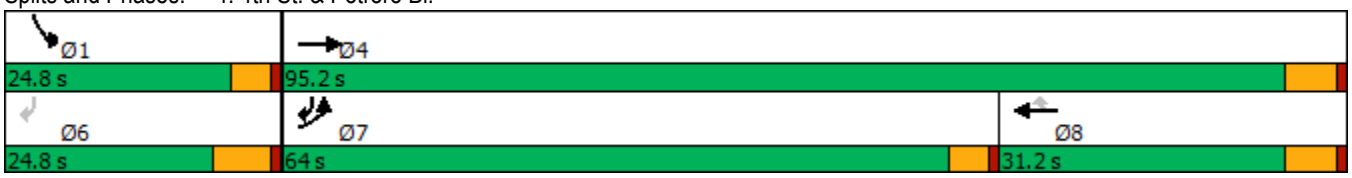
Approach	WB	NB	SB
HCM Control Delay, s	32.8	0	0.2
HCM LOS	D		

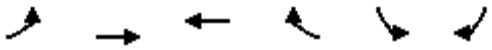
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	252	188	-
HCM Lane V/C Ratio	-	-	0.5	0.064	-
HCM Control Delay (s)	-	-	32.8	25.4	-
HCM Lane LOS	-	-	D	D	-
HCM 95th %tile Q(veh)	-	-	2.6	0.2	-

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø6
Lane Configurations							
Traffic Volume (vph)	1740	219	103	551	383	1096	
Future Volume (vph)	1740	219	103	551	383	1096	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		1	7	6
Permitted Phases				8		6	
Detector Phase	7	4	8	8	1	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	22.8	22.8	22.8	9.6	9.6	23.2
Total Split (s)	64.0	95.2	31.2	31.2	24.8	64.0	24.8
Total Split (%)	53.3%	79.3%	26.0%	26.0%	20.7%	53.3%	21%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	
Lead/Lag	Lead		Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	Yes		Yes	
Recall Mode	None	None	None	None	None	None	None
Act Effct Green (s)	59.4	89.5	25.4	25.4	17.2	81.3	
Actuated g/C Ratio	0.51	0.76	0.22	0.22	0.15	0.69	
v/c Ratio	1.03	0.16	0.27	1.08	0.78	0.92	
Control Delay	59.2	4.3	41.0	85.4	59.2	21.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.2	4.3	41.0	85.4	59.2	21.2	
LOS	E	A	D	F	E	C	
Approach Delay		53.0	78.4		31.0		
Approach LOS		D	E		C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 117.1	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 49.1	Intersection LOS: D
Intersection Capacity Utilization 92.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	1740	219	103	551	383	1096
Future Volume (veh/h)	1740	219	103	551	383	1096
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1891	238	112	327	416	919
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1791	1415	402	341	609	1068
Arrive On Green	0.50	0.74	0.21	0.21	0.17	0.17
Sat Flow, veh/h	3619	1900	1900	1610	3619	1610
Grp Volume(v), veh/h	1891	238	112	327	416	919
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610
Q Serve(g_s), s	59.4	4.4	5.9	24.1	13.0	20.2
Cycle Q Clear(g_c), s	59.4	4.4	5.9	24.1	13.0	20.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1791	1415	402	341	609	1068
V/C Ratio(X)	1.06	0.17	0.28	0.96	0.68	0.86
Avail Cap(c_a), veh/h	1791	1416	402	341	609	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	4.5	39.6	46.8	46.9	15.8
Incr Delay (d2), s/veh	37.7	0.1	0.4	38.0	2.6	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.9	1.4	2.7	23.1	5.8	43.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	68.0	4.5	40.0	84.8	49.5	22.8
LnGrp LOS	F	A	D	F	D	C
Approach Vol, veh/h		2129	439		1335	
Approach Delay, s/veh		60.9	73.3		31.1	
Approach LOS		E	E		C	

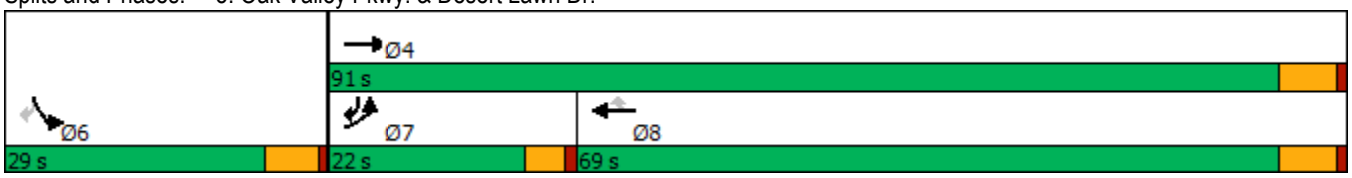
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			95.2		24.8	64.0	31.2
Change Period (Y+Rc), s			5.8		4.6	4.6	5.8
Max Green Setting (Gmax), s			89.4		20.2	59.4	25.4
Max Q Clear Time (g_c+I1), s			6.4		22.2	61.4	26.1
Green Ext Time (p_c), s			1.3		0.0	0.0	0.0

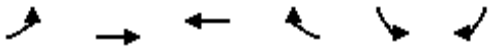
Intersection Summary	
HCM 6th Ctrl Delay	52.1
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	561	2494	3009	510	256	941
Future Volume (vph)	561	2494	3009	510	256	941
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	16.2	28.2	28.2	27.8	9.6
Total Split (s)	22.0	91.0	69.0	69.0	29.0	22.0
Total Split (%)	18.3%	75.8%	57.5%	57.5%	24.2%	18.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	4.6
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	17.4	84.8	62.8	62.8	13.4	36.6
Actuated g/C Ratio	0.16	0.77	0.57	0.57	0.12	0.33
v/c Ratio	1.01	0.59	0.95	0.49	0.60	1.81
Control Delay	88.0	6.2	31.3	6.1	52.0	398.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.0	6.2	31.3	6.1	52.0	398.7
LOS	F	A	C	A	D	F
Approach Delay		21.2	27.7		324.5	
Approach LOS		C	C		F	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 110.2		
Natural Cycle: 150		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 1.81		
Intersection Signal Delay: 70.8	Intersection LOS: E	
Intersection Capacity Utilization 125.4%	ICU Level of Service H	
Analysis Period (min) 15		

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	561	2494	3009	510	256	941
Future Volume (veh/h)	561	2494	3009	510	256	941
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	578	2571	3102	397	264	661
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	525	4028	2983	843	700	545
Arrive On Green	0.14	0.71	0.52	0.52	0.19	0.19
Sat Flow, veh/h	3619	5700	5700	1610	3619	1610
Grp Volume(v), veh/h	578	2571	3102	397	264	661
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610
Q Serve(g_s), s	17.4	28.9	62.8	18.7	7.6	23.2
Cycle Q Clear(g_c), s	17.4	28.9	62.8	18.7	7.6	23.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	525	4028	2983	843	700	545
V/C Ratio(X)	1.10	0.64	1.04	0.47	0.38	1.21
Avail Cap(c_a), veh/h	525	4028	2983	843	700	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	9.4	28.6	18.1	42.1	39.7
Incr Delay (d2), s/veh	70.0	0.3	28.0	0.4	0.3	112.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	9.5	33.5	6.6	3.4	47.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	121.3	9.7	56.6	18.5	42.5	151.8
LnGrp LOS	F	A	F	B	D	F
Approach Vol, veh/h		3149	3499		925	
Approach Delay, s/veh		30.2	52.3		120.6	
Approach LOS		C	D		F	

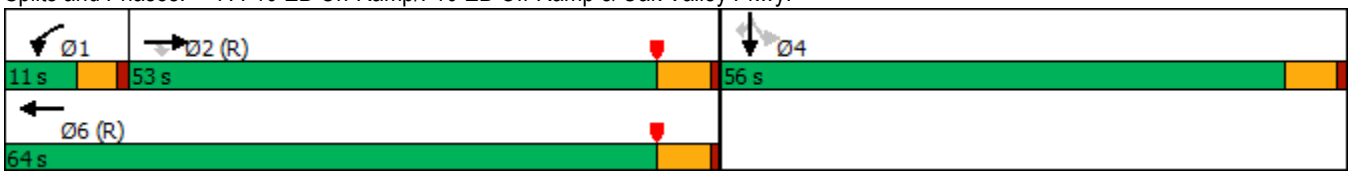
Timer - Assigned Phs	4	6	7	8
Phs Duration (G+Y+Rc), s	91.0	29.0	22.0	69.0
Change Period (Y+Rc), s	6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s	84.8	23.2	17.4	62.8
Max Q Clear Time (g_c+I1), s	30.9	25.2	19.4	64.8
Green Ext Time (p_c), s	35.9	0.0	0.0	0.0

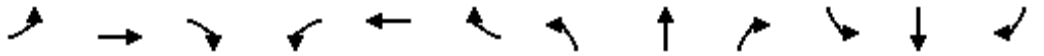
Intersection Summary	
HCM 6th Ctrl Delay	51.5
HCM 6th LOS	D

Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2358	391	247	1905	1254	1
Future Volume (vph)	2358	391	247	1905	1254	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	53.0	53.0	11.0	64.0	56.0	56.0
Total Split (%)	44.2%	44.2%	9.2%	53.3%	46.7%	46.7%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	0.0	-0.6	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	5.8	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	49.0	47.2	7.0	60.0	52.0	52.0
Actuated g/C Ratio	0.41	0.39	0.06	0.50	0.43	0.43
v/c Ratio	1.10	0.55	1.28	0.73	0.87	2.64
Control Delay	87.2	15.9	185.0	16.2	38.4	759.1
Queue Delay	0.0	0.0	0.0	0.0	50.1	0.0
Total Delay	87.2	15.9	185.0	16.2	88.5	759.1
LOS	F	B	F	B	F	F
Approach Delay	77.0			35.6		466.0
Approach LOS	E			D		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.64	
Intersection Signal Delay: 209.2	Intersection LOS: F
Intersection Capacity Utilization 111.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2358	391	247	1905	0	0	0	0	1254	1	1614
Future Volume (veh/h)	0	2358	391	247	1905	0	0	0	0	1254	1	1614
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2563	289	268	2071	0				1363	0	1211
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2377	647	211	2900	0				1537	0	1319
Arrive On Green	0.00	0.42	0.40	0.06	0.51	0.00				0.42	0.00	0.41
Sat Flow, veh/h	0	5700	1610	3619	5700	0				3619	0	3220
Grp Volume(v), veh/h	0	2563	289	268	2071	0				1363	0	1211
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1610
Q Serve(g_s), s	0.0	50.0	15.7	7.0	33.6	0.0				41.7	0.0	42.7
Cycle Q Clear(g_c), s	0.0	50.0	15.7	7.0	33.6	0.0				41.7	0.0	42.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2377	647	211	2900	0				1537	0	1319
V/C Ratio(X)	0.00	1.08	0.45	1.27	0.71	0.00				0.89	0.00	0.92
Avail Cap(c_a), veh/h	0	2377	647	211	2900	0				1568	0	1347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.78	0.34	0.34	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.0	26.1	56.5	22.7	0.0				31.9	0.0	33.5
Incr Delay (d2), s/veh	0.0	42.0	1.7	133.7	0.5	0.0				6.5	0.0	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	30.8	6.1	7.0	14.0	0.0				18.5	0.0	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	76.9	27.9	190.2	23.3	0.0				38.4	0.0	43.6
LnGrp LOS	A	F	C	F	C	A				D	A	D
Approach Vol, veh/h		2852			2339						2574	
Approach Delay, s/veh		72.0			42.4						40.8	
Approach LOS		E			D						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.0	54.0		55.0		65.0
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8
Max Green Setting (Gmax), s	6.4	47.2		50.2		58.2
Max Q Clear Time (g_c+I1), s	9.0	52.0		44.7		35.6
Green Ext Time (p_c), s	0.0	0.0		4.4		15.6

Intersection Summary		
HCM 6th Ctrl Delay		52.7
HCM 6th LOS		D

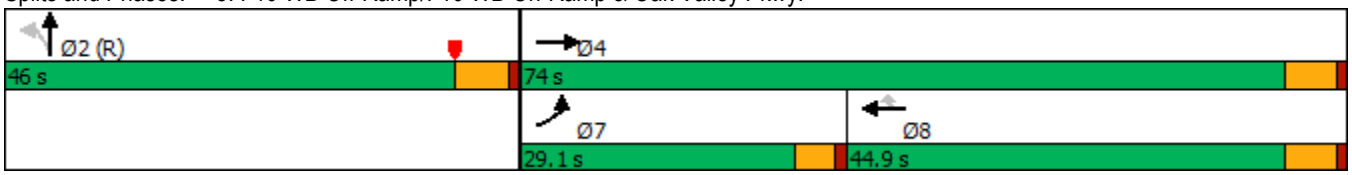
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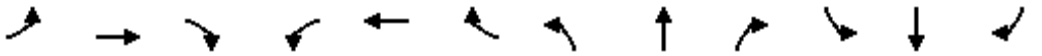
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	540	3072	1633	422	520	5
Future Volume (vph)	540	3072	1633	422	520	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	29.1	74.0	44.9	44.9	46.0	46.0
Total Split (%)	24.3%	61.7%	37.4%	37.4%	38.3%	38.3%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	22.8	70.0	43.2	43.2	42.0	42.0
Actuated g/C Ratio	0.19	0.58	0.36	0.36	0.35	0.35
v/c Ratio	0.84	1.05	0.90	0.54	0.85	1.24
Control Delay	41.4	55.1	44.6	9.1	50.3	155.4
Queue Delay	0.0	22.5	0.0	0.0	0.0	0.0
Total Delay	41.4	77.6	44.6	9.1	50.3	155.4
LOS	D	E	D	A	D	F
Approach Delay		72.2	37.3			109.8
Approach LOS		E	D			F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay: 68.3	Intersection LOS: E
Intersection Capacity Utilization 111.6%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	540	3072	0	0	1633	422	520	5	672	0	0	0
Future Volume (veh/h)	540	3072	0	0	1633	422	520	5	672	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	557	3167	0	0	1684	322	536	5	513			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	633	3026	0	0	1917	595	633	5	559			
Arrive On Green	0.18	0.58	0.00	0.00	0.37	0.37	0.35	0.35	0.34			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	16	1597			
Grp Volume(v), veh/h	557	3167	0	0	1684	322	536	0	518			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1613			
Q Serve(g_s), s	18.5	70.0	0.0	0.0	36.4	18.9	32.8	0.0	37.0			
Cycle Q Clear(g_c), s	18.5	70.0	0.0	0.0	36.4	18.9	32.8	0.0	37.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	633	3026	0	0	1917	595	633	0	564			
V/C Ratio(X)	0.88	1.05	0.00	0.00	0.88	0.54	0.85	0.00	0.92			
Avail Cap(c_a), veh/h	734	3026	0	0	1917	595	633	0	564			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.9	25.0	0.0	0.0	35.3	29.8	36.0	0.0	38.2			
Incr Delay (d2), s/veh	1.0	22.1	0.0	0.0	5.0	1.0	13.2	0.0	22.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.0	31.2	0.0	0.0	15.4	7.2	16.1	0.0	17.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	47.1	0.0	0.0	40.3	30.8	49.2	0.0	60.5			
LnGrp LOS	D	F	A	A	D	C	D	A	E			
Approach Vol, veh/h		3724			2006			1054				
Approach Delay, s/veh		47.4			38.8			54.7				
Approach LOS		D			D			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		46.0		74.0			25.6	48.4				
Change Period (Y+Rc), s		5.8		5.8			4.6	5.8				
Max Green Setting (Gmax), s		40.2		68.2			24.5	39.1				
Max Q Clear Time (g_c+I1), s		39.0		72.0			20.5	38.4				
Green Ext Time (p_c), s		0.7		0.0			0.5	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			46.0									
HCM 6th LOS			D									

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	402	1023	153	131	808	67	0	0	143	0	0	79
Future Vol, veh/h	402	1023	153	131	808	67	0	0	143	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	432	1100	165	141	869	72	0	0	154	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1265	0	0	-	-	633	-	-	471
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	737	-	-	556	-	-	0	0	427	0	0	545
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	737	-	-	556	-	-	-	-	427	-	-	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.2	1.8	18.1	12.8
HCM LOS			C	B

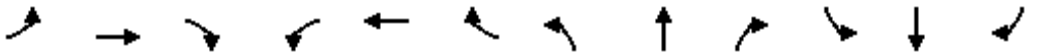
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	737	-	-	556	-	-	545
HCM Lane V/C Ratio	0.36	0.587	-	-	0.253	-	-	0.156
HCM Control Delay (s)	18.1	16.6	-	-	13.7	-	-	12.8
HCM Lane LOS	C	C	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.6	3.9	-	-	1	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	129	657	94	11	542	48	45	13	155	72	71
Future Volume (vph)	129	657	94	11	542	48	45	13	155	72	71
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		2			6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	83.0	83.0	83.0	83.0	83.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	69.2%	69.2%	69.2%	69.2%	69.2%	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6	4.6	4.6	4.6
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	31.2	31.2	31.2	31.2	31.2		14.6	14.6	14.6	14.6	14.6
Actuated g/C Ratio	0.56	0.56	0.56	0.56	0.56		0.26	0.26	0.26	0.26	0.26
v/c Ratio	0.65	0.67	0.11	0.04	0.76		0.25	0.03	0.49	0.16	0.16
Control Delay	25.0	12.3	1.8	6.3	14.6		21.6	10.8	26.5	20.4	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	12.3	1.8	6.3	14.6		21.6	10.8	26.5	20.4	7.1
LOS	C	B	A	A	B		C	B	C	C	A
Approach Delay		13.0			14.5		20.3			20.4	
Approach LOS		B			B		C			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 55.8	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Veile Av. & 4th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	657	94	11	542	182	48	45	13	155	72	71
Future Volume (veh/h)	129	657	94	11	542	182	48	45	13	155	72	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	714	102	12	589	198	52	49	14	168	78	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	362	1181	1001	397	846	284	243	200	344	356	406	
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.21	0.21	0.21	0.21	0.21	0.00
Sat Flow, veh/h	699	1900	1610	680	1360	457	679	936	1610	1360	1900	1610
Grp Volume(v), veh/h	140	714	102	12	0	787	101	0	14	168	78	0
Grp Sat Flow(s),veh/h/ln	699	1900	1610	680	0	1818	1615	0	1610	1360	1900	1610
Q Serve(g_s), s	9.3	12.7	1.4	0.6	0.0	16.1	0.7	0.0	0.4	6.5	1.9	0.0
Cycle Q Clear(g_c), s	25.4	12.7	1.4	13.3	0.0	16.1	2.6	0.0	0.4	9.2	1.9	0.0
Prop In Lane	1.00		1.00	1.00		0.25	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	1181	1001	397	0	1130	443	0	344	356	406	
V/C Ratio(X)	0.39	0.60	0.10	0.03	0.00	0.70	0.23	0.00	0.04	0.47	0.19	
Avail Cap(c_a), veh/h	910	2672	2264	931	0	2556	1018	0	936	856	1104	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.5	6.4	4.3	10.4	0.0	7.0	18.2	0.0	17.4	22.1	18.0	0.0
Incr Delay (d2), s/veh	0.7	0.5	0.0	0.0	0.0	0.8	0.3	0.0	0.0	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.8	0.3	0.1	0.0	3.5	0.9	0.0	0.1	1.9	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	6.9	4.3	10.5	0.0	7.8	18.5	0.0	17.4	23.1	18.2	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	C	B	
Approach Vol, veh/h		956			799			115			246	A
Approach Delay, s/veh		8.0			7.9			18.4			21.5	
Approach LOS		A			A			B			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.5		39.3		16.5		39.3				
Change Period (Y+Rc), s		4.6		4.6		4.6		4.6				
Max Green Setting (Gmax), s		32.4		78.4		32.4		78.4				
Max Q Clear Time (g_c+I1), s		4.6		27.4		11.2		18.1				
Green Ext Time (p_c), s		0.5		7.2		0.8		6.6				

Intersection Summary												
HCM 6th Ctrl Delay			10.1									
HCM 6th LOS			B									

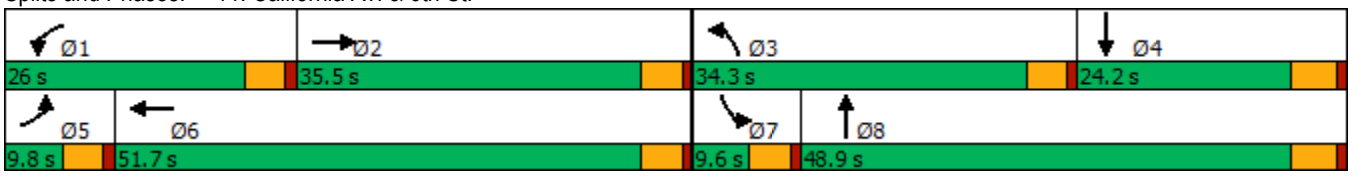
Notes

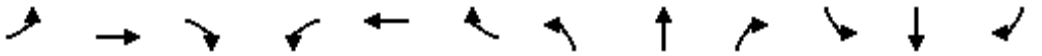
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	686	322	521	454	200	24	119
Future Volume (vph)	23	686	322	521	454	200	24	119
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	35.5	26.0	51.7	34.3	48.9	9.6	24.2
Total Split (%)	8.2%	29.6%	21.7%	43.1%	28.6%	40.8%	8.0%	20.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.6	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)	5.7	31.5	22.0	51.9	30.3	45.5	5.6	16.8
Actuated g/C Ratio	0.05	0.27	0.19	0.44	0.26	0.39	0.05	0.14
v/c Ratio	0.27	0.97	1.00	0.35	1.02	0.96	0.29	0.51
Control Delay	62.7	64.8	96.4	23.5	90.2	55.9	63.8	51.5
Queue Delay	0.0	0.0	0.0	0.0	2.6	41.6	0.0	0.0
Total Delay	62.7	64.8	96.4	23.5	92.9	97.5	63.8	51.5
LOS	E	E	F	C	F	F	E	D
Approach Delay		64.8		50.9		95.6		53.3
Approach LOS		E		D		F		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.7	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 71.6	Intersection LOS: E
Intersection Capacity Utilization 100.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 11: California Av. & 6th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	686	207	322	521	13	454	200	468	24	119	13
Future Volume (veh/h)	23	686	207	322	521	13	454	200	468	24	119	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	722	107	339	548	9	478	211	361	25	125	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	52	828	123	358	1569	26	493	230	394	54	217	14
Arrive On Green	0.03	0.26	0.26	0.20	0.43	0.43	0.27	0.37	0.35	0.03	0.12	0.11
Sat Flow, veh/h	1810	3154	467	1810	3635	60	1810	629	1077	1810	1767	113
Grp Volume(v), veh/h	24	413	416	339	272	285	478	0	572	25	0	133
Grp Sat Flow(s),veh/h/ln	1810	1805	1816	1810	1805	1889	1810	0	1706	1810	0	1880
Q Serve(g_s), s	1.5	24.3	24.3	20.5	11.2	11.2	29.0	0.0	35.6	1.5	0.0	7.4
Cycle Q Clear(g_c), s	1.5	24.3	24.3	20.5	11.2	11.2	29.0	0.0	35.6	1.5	0.0	7.4
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.63	1.00		0.06
Lane Grp Cap(c), veh/h	52	474	477	358	779	816	493	0	624	54	0	231
V/C Ratio(X)	0.46	0.87	0.87	0.95	0.35	0.35	0.97	0.00	0.92	0.47	0.00	0.58
Avail Cap(c_a), veh/h	94	512	515	358	779	816	493	0	689	91	0	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.1	39.2	39.2	44.0	21.1	21.1	39.9	0.0	34.0	53.1	0.0	46.1
Incr Delay (d2), s/veh	2.3	14.4	14.4	33.4	0.3	0.3	32.3	0.0	16.2	2.3	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	12.5	12.6	12.5	4.7	5.0	16.7	0.0	16.7	0.7	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	53.5	53.6	77.4	21.4	21.4	72.3	0.0	50.2	55.4	0.0	48.3
LnGrp LOS	E	D	D	E	C	C	E	A	D	E	A	D
Approach Vol, veh/h		853			896			1050			158	
Approach Delay, s/veh		53.6			42.6			60.3			49.4	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	33.2	34.3	17.6	7.2	52.0	7.3	44.6
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2
Max Green Setting (Gmax), s	21.4	* 31	29.7	19.0	5.2	* 47	5.0	43.7
Max Q Clear Time (g_c+I1), s	22.5	26.3	31.0	9.4	3.5	13.2	3.5	37.6
Green Ext Time (p_c), s	0.0	2.0	0.0	0.4	0.0	3.7	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	52.4
HCM 6th LOS	D

Notes

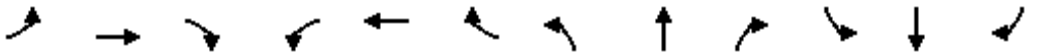
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	5	4	79	4	213	769	8	571
Future Volume (vph)	5	4	79	4	213	769	8	571
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.6	21.6	21.6	21.6	22.8	22.8	22.8	22.8
Total Split (s)	22.0	22.0	22.0	22.0	68.0	68.0	68.0	68.0
Total Split (%)	24.4%	24.4%	24.4%	24.4%	75.6%	75.6%	75.6%	75.6%
Yellow Time (s)	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	5.8	5.8	5.8	5.8
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effct Green (s)		14.5		14.5	37.4	37.4	37.4	37.4
Actuated g/C Ratio		0.27		0.27	0.70	0.70	0.70	0.70
v/c Ratio		0.22		0.28	0.44	0.68	0.03	0.46
Control Delay		8.7		23.7	9.4	10.7	4.8	7.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.1
Total Delay		8.7		23.7	9.4	10.7	4.8	7.1
LOS		A		C	A	B	A	A
Approach Delay		8.7		23.7		10.5		7.1
Approach LOS		A		C		B		A

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 53.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 10.1	Intersection LOS: B
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 12: California Av. & 5th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	4	103	79	4	25	213	769	84	8	571	8
Future Volume (veh/h)	5	4	103	79	4	25	213	769	84	8	571	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	4	108	83	4	26	224	809	88	8	601	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	76	18	276	308	28	65	497	1040	113	304	1155	15
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	25	100	1497	1026	154	353	825	1684	183	630	1871	25
Grp Volume(v), veh/h	117	0	0	113	0	0	224	0	897	8	0	609
Grp Sat Flow(s),veh/h/ln	1622	0	0	1533	0	0	825	0	1867	630	0	1896
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	18.5	0.5	0.0	9.5
Cycle Q Clear(g_c), s	3.3	0.0	0.0	2.8	0.0	0.0	20.5	0.0	18.5	19.0	0.0	9.5
Prop In Lane	0.04		0.92	0.73		0.23	1.00		0.10	1.00		0.01
Lane Grp Cap(c), veh/h	370	0	0	401	0	0	497	0	1153	304	0	1170
V/C Ratio(X)	0.32	0.00	0.00	0.28	0.00	0.00	0.45	0.00	0.78	0.03	0.00	0.52
Avail Cap(c_a), veh/h	608	0	0	605	0	0	967	0	2216	663	0	2250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	0.0	0.0	18.6	0.0	0.0	11.4	0.0	7.4	14.4	0.0	5.7
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.4	0.0	0.0	0.6	0.0	1.2	0.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	0.0	1.2	0.0	0.0	1.5	0.0	3.8	0.1	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	0.0	19.0	0.0	0.0	12.1	0.0	8.6	14.4	0.0	6.0
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		117			113			1121			617	
Approach Delay, s/veh		19.3			19.0			9.3			6.1	
Approach LOS		B			B			A			A	

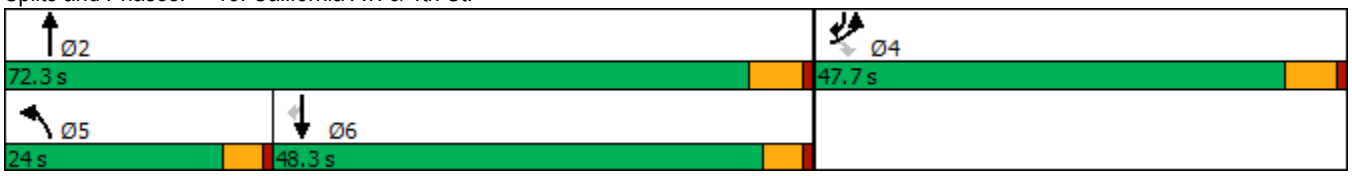
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		38.2		14.2		38.2		14.2				
Change Period (Y+Rc), s		5.8		4.6		5.8		4.6				
Max Green Setting (Gmax), s		62.2		17.4		62.2		17.4				
Max Q Clear Time (g_c+I1), s		22.5		5.3		21.0		4.8				
Green Ext Time (p_c), s		9.9		0.5		4.2		0.4				

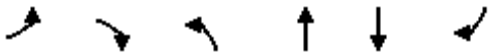
Intersection Summary												
HCM 6th Ctrl Delay			9.4									
HCM 6th LOS			A									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	566	634	255	1005	1165	451
Future Volume (vph)	566	634	255	1005	1165	451
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.8	22.8	9.5	15.8	21.6	22.8
Total Split (s)	47.7	47.7	24.0	72.3	48.3	47.7
Total Split (%)	39.8%	39.8%	20.0%	60.3%	40.3%	39.8%
Yellow Time (s)	4.8	4.8	3.5	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.5	5.8	4.6	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	None	None	None
Act Effct Green (s)	41.9	41.9	19.3	66.3	43.7	90.2
Actuated g/C Ratio	0.35	0.35	0.16	0.55	0.36	0.75
v/c Ratio	0.97	0.87	0.95	0.55	0.96	0.39
Control Delay	69.3	30.7	92.1	18.4	54.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.3	30.7	92.1	18.4	54.9	4.8
LOS	E	C	F	B	D	A
Approach Delay	48.9			33.3	40.9	
Approach LOS	D			C	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.8	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 40.9	Intersection LOS: D
Intersection Capacity Utilization 90.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	566	634	255	1005	1165	451
Future Volume (veh/h)	566	634	255	1005	1165	451
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	615	526	277	1092	1266	360
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	626	557	291	2016	1302	1137
Arrive On Green	0.35	0.35	0.16	0.56	0.36	0.36
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	615	526	277	1092	1266	360
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	40.8	38.5	18.4	23.2	41.9	10.3
Cycle Q Clear(g_c), s	40.8	38.5	18.4	23.2	41.9	10.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	626	557	291	2016	1302	1137
V/C Ratio(X)	0.98	0.94	0.95	0.54	0.97	0.32
Avail Cap(c_a), veh/h	626	557	291	2016	1302	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	38.5	50.4	16.9	38.2	6.7
Incr Delay (d2), s/veh	31.6	25.2	39.4	0.3	18.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.7	33.2	11.2	8.9	20.9	8.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	70.9	63.7	89.8	17.2	56.8	6.9
LnGrp LOS	E	E	F	B	E	A
Approach Vol, veh/h	1141			1369	1626	
Approach Delay, s/veh	67.6			31.9	45.8	
Approach LOS	E			C	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		73.5		47.7	24.0	49.5
Change Period (Y+Rc), s		5.8		5.8	4.5	* 5.8
Max Green Setting (Gmax), s		66.5		41.9	19.5	* 44
Max Q Clear Time (g_c+I1), s		25.2		42.8	20.4	43.9
Green Ext Time (p_c), s		8.9		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	47.2
HCM 6th LOS	D

Notes

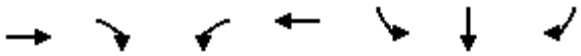
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 9.9:

HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR
Lane Group Flow (vph)	1112	723	375	2180	365	352	347
v/c Ratio	0.48	0.65	0.79	0.68	0.36	0.79	0.71
Control Delay	26.2	5.1	55.3	10.6	34.0	51.8	38.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	5.1	55.3	10.6	34.0	51.8	38.1
Queue Length 50th (ft)	224	0	124	492	114	260	205
Queue Length 95th (ft)	303	91	m156	632	141	346	290
Internal Link Dist (ft)	1308			748		928	
Turn Bay Length (ft)		200	70				
Base Capacity (vph)	2295	1117	516	3197	1260	556	595
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.65	0.73	0.68	0.29	0.63	0.58

Intersection Summary

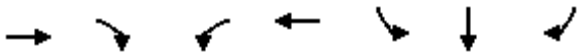
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	307	1080	1961	771	438	484
v/c Ratio	0.76	0.36	0.89	0.74	0.75	0.83
Control Delay	58.2	24.6	38.0	11.1	45.7	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	24.6	38.0	11.1	45.7	43.5
Queue Length 50th (ft)	123	252	512	92	302	287
Queue Length 95th (ft)	173	313	587	266	429	#467
Internal Link Dist (ft)		748	697			778
Turn Bay Length (ft)	125					
Base Capacity (vph)	443	3008	2213	1036	583	585
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.36	0.89	0.74	0.75	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	2373	425	268	2071	1363	824	823
v/c Ratio	1.02	0.54	1.28	0.73	0.83	1.05	0.99
Control Delay	59.2	14.5	184.9	19.3	35.4	80.5	60.8
Queue Delay	0.0	0.0	0.0	0.0	50.4	0.0	0.0
Total Delay	59.2	14.5	184.9	19.3	85.8	80.5	60.8
Queue Length 50th (ft)	~649	104	~127	458	458	~732	586
Queue Length 95th (ft)	#734	204	m#178	525	549	#993	#868
Internal Link Dist (ft)	1308			748		928	
Turn Bay Length (ft)		200	70				
Base Capacity (vph)	2327	780	210	2850	1646	783	833
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	901	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.54	1.28	0.73	1.83	1.05	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	376	3167	1684	435	536	698
v/c Ratio	0.72	1.05	0.81	0.51	0.85	1.24
Control Delay	45.6	57.3	36.1	8.0	50.3	155.4
Queue Delay	0.0	22.5	0.0	0.0	0.0	0.0
Total Delay	45.6	79.9	36.1	8.0	50.3	155.4
Queue Length 50th (ft)	148	~1010	417	40	381	~669
Queue Length 95th (ft)	m154	m#1017	514	134	#572	#901
Internal Link Dist (ft)		748	697			778
Turn Bay Length (ft)	125					
Base Capacity (vph)	732	3025	2083	859	631	565
Starvation Cap Reductn	0	306	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	1.16	0.81	0.51	0.85	1.24

Intersection Summary

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Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

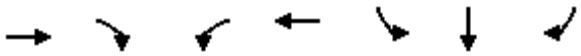
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 9.10:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBR	SBR
Lane Group Flow (vph)	1155	723	375	2180	365	428	423
v/c Ratio	0.55	0.67	0.81	0.73	0.32	0.86	0.78
Control Delay	29.4	5.5	52.8	13.8	30.7	54.2	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	5.5	52.8	13.8	30.7	54.2	40.9
Queue Length 50th (ft)	261	1	124	553	105	309	254
Queue Length 95th (ft)	317	93	m154	632	141	444	382
Internal Link Dist (ft)	1308			748		928	
Turn Bay Length (ft)		200	70				
Base Capacity (vph)	2114	1085	507	3003	1260	555	595
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.67	0.74	0.73	0.29	0.77	0.71

Intersection Summary

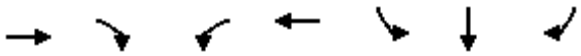
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	348	1080	1961	771	438	484
v/c Ratio	0.82	0.36	0.90	0.75	0.75	0.83
Control Delay	58.7	25.6	39.2	11.2	45.7	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	25.6	39.2	11.2	45.7	43.5
Queue Length 50th (ft)	140	257	515	93	302	287
Queue Length 95th (ft)	#200	316	587	266	429	#467
Internal Link Dist (ft)		748	697			778
Turn Bay Length (ft)	125					
Base Capacity (vph)	443	3008	2183	1030	583	585
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.36	0.90	0.75	0.75	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	2563	425	268	2071	1363	878	877
v/c Ratio	1.10	0.55	1.28	0.73	0.83	1.12	1.05
Control Delay	87.2	15.9	185.0	16.2	35.4	103.8	78.1
Queue Delay	0.0	0.0	0.0	0.0	50.7	0.0	0.0
Total Delay	87.2	15.9	185.0	16.2	86.2	103.8	78.1
Queue Length 50th (ft)	~751	116	~127	458	458	~826	~710
Queue Length 95th (ft)	#834	217	m#158	525	549	#1089	#961
Internal Link Dist (ft)	1308			748		928	
Turn Bay Length (ft)		200	70				
Base Capacity (vph)	2327	769	210	2850	1646	783	833
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	944	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.55	1.28	0.73	1.94	1.12	1.05

Intersection Summary

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Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	557	3167	1684	435	536	698
v/c Ratio	0.84	1.05	0.90	0.54	0.85	1.24
Control Delay	41.4	55.1	44.6	9.1	50.3	155.4
Queue Delay	0.0	22.5	0.0	0.0	0.0	0.0
Total Delay	41.4	77.6	44.6	9.1	50.3	155.4
Queue Length 50th (ft)	218	~1009	456	43	381	~669
Queue Length 95th (ft)	m217	m#924	#569	139	#572	#901
Internal Link Dist (ft)		748	697			778
Turn Bay Length (ft)	125					
Base Capacity (vph)	732	3025	1867	807	631	565
Starvation Cap Reductn	0	316	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	1.17	0.90	0.54	0.85	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

July 28, 2021

Mr. Mike Masterson
JRT BP 1 LLC
1800 Century Park E. Suite 600
Los Angeles, CA 90067

SUBJECT: BEAUMONT POINTE SPECIFIC PLAN VEHICLE MILES TRAVELED (VMT) ANALYSIS

Dear Mr. Mike Masterson:

The following vehicle miles traveled (VMT) analysis has been prepared for the proposed Beaumont Pointe Specific Plan (**Project**), which is located south of the SR-60 Freeway and west of Jack Rabbit Trail in the City of Beaumont.

PROJECT OVERVIEW

The Project is proposed to consist of approximately 246,000 square feet (sf) of recreational/entertainment commercial use, a 125-room hotel (90,000 sf) and approximately 5,000,000 square feet of industrial warehouse use.

BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. This statewide mandate went effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (**Technical Advisory**). (1) Based on OPR's Technical Advisory, the Western Riverside Council of Governments (WRCOG) prepared a WRCOG SB 743 Implementation Pathway Document Package (March 2019) to assist its member agencies with implementation tools necessary to adopt analysis methodology, impact thresholds and mitigation approaches for VMT. To add to the previous work effort, WRCOG in February 2020 released its Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (**WRCOG Guidelines**), which provides its member agencies specific procedures for complying with the new CEQA requirements for VMT analysis. (2)

On June 16, 2020 the City of Beaumont adopted agency specific VMT analysis methods and impact thresholds, which utilized the research conducted by OPR and WRCOG (**City Guidelines**). (3)

PROJECT SCREENING

The City Guidelines provides details on appropriate "screening thresholds" that can be used to identify when a proposed land use project is anticipated to result in a less-than-significant impact without conducting a more detailed analysis. Screening thresholds are broken into three types:

- Project Type Screening
- Map Based Screening based on Low VMT Area
- Transit Priority Area (TPA) Screening

A land use project need only to meet one of the above screening thresholds to result in a less-than-significant impact.

For the purposes of this analysis, the initial VMT screening process has been conducted with using the WRCOG VMT Screening Tool (**Screening Tool**), which uses screening criteria consistent with the screening thresholds recommended in the Technical Advisory.

PROJECT TYPE SCREENING

The City Guidelines identifies projects that are consistent with the current Sustainable Communities Strategy (SCS) or general plan, and that generate fewer than 110 daily vehicle trips be presumed to have a less-than-significant impact on VMT. Based on the Project's trip generation (see Attachment A), the Project is not consistent with the City's general plan and would generate more than 110 daily vehicle trips, therefore, the Project would not be eligible to screen out based on project type screening.

The Project Type screening threshold is not met.

LOW VMT AREA SCREENING

The City Guidelines also states that, "residential and office projects that locate in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT." The Screening Tool uses the sub-regional Riverside County Transportation Analysis Model (RIVTAM) to measure VMT performance within individual traffic analysis zones (TAZ's) within the WRCOG region. The Project's physical location based on parcel number was selected within the Screening Tool to determine the relevant TAZ's VMT as compared to the jurisdictional average (see Attachment B). The Project boundary is located in TAZ 4120 and would not appear to be within a low VMT generating TAZ based on daily total VMT per service population.

The Low VMT Area screening threshold is not met.

TPA SCREENING

Consistent with guidance identified in the Technical Advisory and the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"[1] or an existing stop along a "high-quality transit corridor"[2]) may be presumed to have a less than significant impact absent substantial evidence to the contrary.

However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

The Project site is not located within ½ mile of an existing major transit stop or along a high-quality transit corridor.

The TPA screening threshold is not met.

As none of the VMT screening criteria are met a project-level VMT analysis has been prepared.

VMT METHODOLOGY

As described in the City Guidelines, "it is recommended to utilize the Riverside County Travel Demand Model (RIVTAM / RIVCOM) and the VMT per service population data, as noted in the WRCOG analysis." The analysis presented in this report has utilized the most current version of the RIVTAM travel forecasting model and the City's adopted VMT calculation methodology of VMT per service population.

VMT ANALYSIS

RIVTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. As the RIVTAM model is based on socio-economic data, the first step in preparing the analysis is to convert Project land use information (e.g., building square footage) into socio-economic data inputs (e.g., Project employment) that can be used to represent the Project within RIVTAM. Because specific tenants have not been identified for the Project, this analysis estimates employment based on future building tenants utilizing

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

standard employment factors consistent with the City's recently adopted General Plan Update (November 2020) to estimate employment for both the industrial and commercial land uses. Table 1 summarizes the conversion of building square footage to employment estimates for the proposed Project.

TABLE 1: EMPLOYMENT ESTIMATES

Land Use	Building Area	Building Area per Employee	Estimated Employees
Industrial Warehouse	4,500,000 sf	1,000 sf/emp	4,500
General Light Industrial	500,000 sf	750 sf/emp	667
Commercial	246,000 sf	NA[3]	212
Hotel	90,000 sf	NA	77
Total:	5,277,500 sf	--	5,456

Adjustments to employment within the Project's TAZ were made to both the RIVTAM base year and cumulative year traffic models. Each model was then run with the updated employment factors included for the Project TAZ.

Consistent with City Guidelines, Project generated VMT includes all vehicle trips that are traced to the project zone or zones. This includes internal to internal (II), internal to external (IX) and external to internal (XI) trips. Project generated VMT is extracted from the RIVTAM model using the origin-destination (OD) trip matrix and that matrix is then multiplied by the final assignment (distance) skims. Project generated VMT was calculated from the base year travel forecasting model used to establish the City's baseline VMT threshold. Project VMT was then normalized by dividing by the Project's service population (SP) (i.e., population plus employment). This calculation changes the raw VMT value into an efficiency metric for ease of comparison. As the Project does not contain residential land uses the service population consists entirely of the Project's employment. As shown in Table 2, the Project's Baseline VMT per SP is 39.19.

TABLE 2: PROJECT VMT PER SP

	Project
Service Population	5,456
VMT	213,809
VMT / SP	39.19

In addition, since the proposed Project also contains a significant amount of industrial land use, a calculation of Project VMT related to heavy-trucks has also been provided for informational purposes. Consistent with modeling assumptions used for greenhouse gas calculations performed for the Project, the average trip length for heavy trucks has been based on the South Coast Air Quality Management

[3] Commercial: 336,000 sf / 9,499,918 City Total Retail/Service sf * 8,170 City Total Retail/Service employment = 289 employees; Beaumont General Plan Update (Beaumont 2040 Plan).

District (SCAQMD) documents for the implementation of the Facility-Based Mobile Source Measures (FBMSMs) adopted in the 2016 Air Quality Management Plan (AQMP). SCAQMD's "Preliminary Warehouse Emission Calculations" cites 39.9-mile trip length for heavy-heavy trucks, and 15.5-mile trip length for light-heavy trucks based on SCAG 2016 RTP. As a conservative measure, a trip length of 40 miles has been utilized for all trucks for the purposes of this analysis. Using the trip generation rates and estimates obtained from the Project's traffic study, the number of heavy-truck trips is estimated at 2,276 trip-ends per day. Table 3 presents the estimated heavy-truck VMT for the Project.

TABLE 3: PROJECT HEAVY TRUCK VMT

	Project
Heavy-Truck Trips	2,276
Average Heavy-Truck Trip Length	40.0
Total Heavy-Truck VMT	91,040

IMPACT ASSESSMENT

As noted in the City Guidelines, the Project results in a significant project generated VMT impact if the following condition is met:

- Baseline project generated VMT per service population exceeds 3% below the City of Beaumont current average VMT per service population.

Table 4 illustrates the comparison between Project Baseline VMT per SP to the City's adopted impact threshold. As shown, the Project would exceed the City's adopted impact threshold by 45% percent. As such, the Project's VMT impact is significant.

TABLE 4: PROJECT VMT PER SP COMPARISON

	Project	City of Beaumont Current Average
VMT per SP	39.19	27.87
Less 3%		27.03
Difference		+12.16
Percent Change		+45%

POTENTIAL VMT REDUCTION STRATEGIES

Transportation demand management (TDM) strategies have been evaluated for the purpose of reducing VMT impacts determined to be potentially significant. The effectiveness of TDM strategies to reduce VMT has been determined based on the SB 743 Implementation TDM Strategy Assessment (February 26, 2019, Fehr & Peers) (**WRCOG Report**) prepared for WRCOG and the Quantifying Greenhouse Gas Mitigation Measures (CAPCOA, 2010) (**CAPCOA**). In addition to specific tenancy considerations, which

may affect the effectiveness of TDM measures, land use context is a major factor relevant to the potential application and effectiveness of TDM measures. More specifically, the land use context of the Project is characteristically suburban. Of itself, the Project's suburban context acts to reduce the range of feasible TDM measures and moderates their potential effectiveness. Relevant discussion in this regard is presented in the WRCOG Report*,* excerpted in pertinent part below:

> The Technical Advisory relies on the Quantifying Greenhouse Gas Mitigation Measures, (CAPCOA) 2010 resource document to help justify the 15 percent reduction in VMT threshold stating, " . . . fifteen percent reduction in VMT are achievable at the project level in a variety of place types . . . ". A more accurate reading of the CAPCOA document is that a fifteen percent is the maximum reduction when combining multiple mitigation strategies for the *suburban center*[4] place type. For *suburban*[5] place types 10 percent is the maximum and requires a project to contain a diverse land use mix, workforce housing, and project-specific transit. It is also important to note that the maximum percent reductions were not based on data or research comparing the actual performance of VMT reduction strategies in these place types. Instead, the percentages were derived from a limited comparison of aggregate citywide VMT performance for Sebastopol, San Rafael, and San Mateo where VMT performance ranged from 0 to 17 percent below the statewide VMT/capita average based on data collected prior to 2002. Little evidence exists about the long-term performance of similar TDM strategies in different land use contexts. As such, VMT reductions from TDM strategies cannot be guaranteed in most cases (*WRCOG SB 743 Implementation Pathway Document Package*, pp. 65 – 66).

As indicated in the preceding discussion, even under the most favorable circumstances, projects located within a suburban context, such as the proposed Project evaluated here, can realize a maximum 10 percent reduction in VMT through implementation of feasible TDM measures. This could result in reduction from 39.19 to 35.27 VMT per SP which would still exceed of the jurisdiction's current average VMT per SP threshold of 27.03 by 30.5%.

Consistent with VMT reduction measures described within CAPCOA and further evaluated within the WRCOG Report and the City Guidelines, reductions to VMT should include the following strategies that can be applied to the Project:

- Provide pedestrian and bicycle network improvements within the development connecting to existing off-site facilities to the east along 4th Street.

[4] ***Suburban Center:*** A project typically involving a cluster of multi-use development within dispersed, low-density, automobile dependent land use patterns (a suburb). The center may be an historic downtown of a smaller community that has become surrounded by its region's suburban growth pattern in the latter half of the 20th Century. The suburban center serves the population of the suburb with office, retail and housing which is denser than the surrounding suburb (*Quantifying Greenhouse Gas Mitigation Measures,* p. 60).

[5] ***Suburban:*** A project characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside.

- Where applicable ensure design of key intersections and roadways encourage the use of walking, biking and where applicable transit.
- Collaborate with the Riverside Transit Authority (RTA) to determine the feasibility of providing new or re-route existing transit services to the site.
- Commute trip reduction (CTR) programs offered to encourage the use of vanpools, carpooling, public transit, and biking.
- CTR programs may also provide for alternative work or compressed work schedules to reduce the number of days an employee commutes to work.
- Provision of on-site facilities to provide end of trip services for bicycling such as secure bike parking and storage lockers.
- Provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles.

It is also recognized that as the Project area and surrounding communities develop as envisioned under the City of Beaumont General Plan (Beaumont 2040 Plan), new residential, retail, and industrial development would be implemented. These actions could collectively alter transportation patterns, improve the region's jobs/housing ratio, reduce VMT, and support implementation of new or alternative TDM measures. There is no means, however, to quantify any VMT reductions that could result. Additionally, the effectiveness of some of the TDM strategies that have potential to reduce the Project VMT are dependent on as yet unknown Project building tenant(s); and as noted above, "VMT reductions from TDM strategies cannot be guaranteed in most cases."

CUMULATIVE ASSESSMENT

OPR's Technical Advisory states that "a project that falls below an efficiency-based threshold (e.g., VMT per service population) that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less than significant project impact would imply a less than significant cumulative impact and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impacts that utilize plan compliance as a threshold of significance."[6] Since the Project was found to have a significant and unavoidable impact at the project level, it is considered to be cumulatively considerable and therefore to have a significant cumulative impact as well.

CONCLUSION

In summary, the Project's VMT per SP exceeds the City's threshold of 3% below City of Beaumont current average VMT per SP. Even with implementation of the limited feasible TDM measures discussed above, Project VMT cannot be reduced to levels that would be less than significant. Additionally, the efficacy of TDM measures and reduction of VMT impacts below thresholds cannot be assured. The Project VMT impact is therefore considered ***significant and unavoidable.***

[6] Technical Advisory; Page 6.

If you have any questions, please contact me directly at aso@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.



Alex So
Senior Associate

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Attachment A

Project Trip Generation

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Phase 1									
High-Cube Fulfillment Center (Building 1)	1,379.191	TSF							
Passenger Cars:			109	33	142	56	143	199	2,414
Truck Trips:									
2-4-axle:			8	3	11	4	11	15	224
5+-axle:			12	3	15	4	10	14	300
- Truck Trips (Actual Vehicles)			20	6	26	8	21	29	524
Phase 1 Total:			**129**	**39**	**168**	**64**	**164**	**228**	**2,938**
Phase 2									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+-axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Subtotal			423	126	549	208	535	743	9,584
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Subtotal			308	42	350	41	274	315	2,482
Phase 2 Passenger Cars:			*599*	*140*	*739*	*213*	*682*	*895*	*9,826*
Phase 2 Trucks:			*132*	*28*	*160*	*36*	*127*	*163*	*2,240*
Phase 2 Total:			**731**	**168**	**899**	**249**	**809**	**1,058**	**12,066**
Project Buildout									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+-axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Internal Trip Reduction (Office - Employees only)			-10	-5	-15	-1	-1	-2	-20
Subtotal			413	121	534	207	534	742	9,564

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Internal Trip Reduction (Office - Employees only)			-30	-15	-45	-2	-2	-5	-36
Subtotal			278	27	305	39	272	311	2,446
Hotel	125	RM	35	24	59	38	37	75	1,046
Internal Trip Reduction (Hotel)			-1	-20	-21	-7	-8	-15	-210
Go Kart	77.000	TSF	0	0	0	28	21	49	522
Rock Climbing	26.000	TSF	12	24	36	24	18	42	426
Trampoline Park	24.000	TSF	0	0	0	17	19	36	360
Bowling Alley	40.000	TSF	31	2	33	30	16	46	464
Miniature Golf	36	Holes	0	0	0	4	8	12	120
Quality Restaurant	15.000	TSF	5	5	10	78	39	117	1,258
Internal Trip Reduction (Restaurant)			-9	-9	-18	-4	-4	-8	-92
Pass-by Reductions (PM/Daily = 44%)[3]			0	0	0	-15	-15	-31	-514
High Turnover Sit-Down Restaurant	15.000	TSF	82	67	149	91	56	147	1,684
Internal Trip Reduction (Restaurant)			-13	-14	-27	-7	-6	-13	-146
Pass-by Reductions (PM/Daily = 43%)[3]			0	0	0	-22	-22	-43	-662
Total Industrial Passenger Cars:			*559*	*120*	*679*	*210*	*679*	*889*	*9,770*
Total Trucks:			*132*	*28*	*160*	*36*	*127*	*163*	*2,240*
Total Commercial Passenger Cars:			*142*	*79*	*221*	*255*	*159*	*414*	*4,256*
TOTAL TRIPS (Actual Vehicles)[2]			**833**	**227**	**1,060**	**501**	**965**	**1,466**	**16,266**

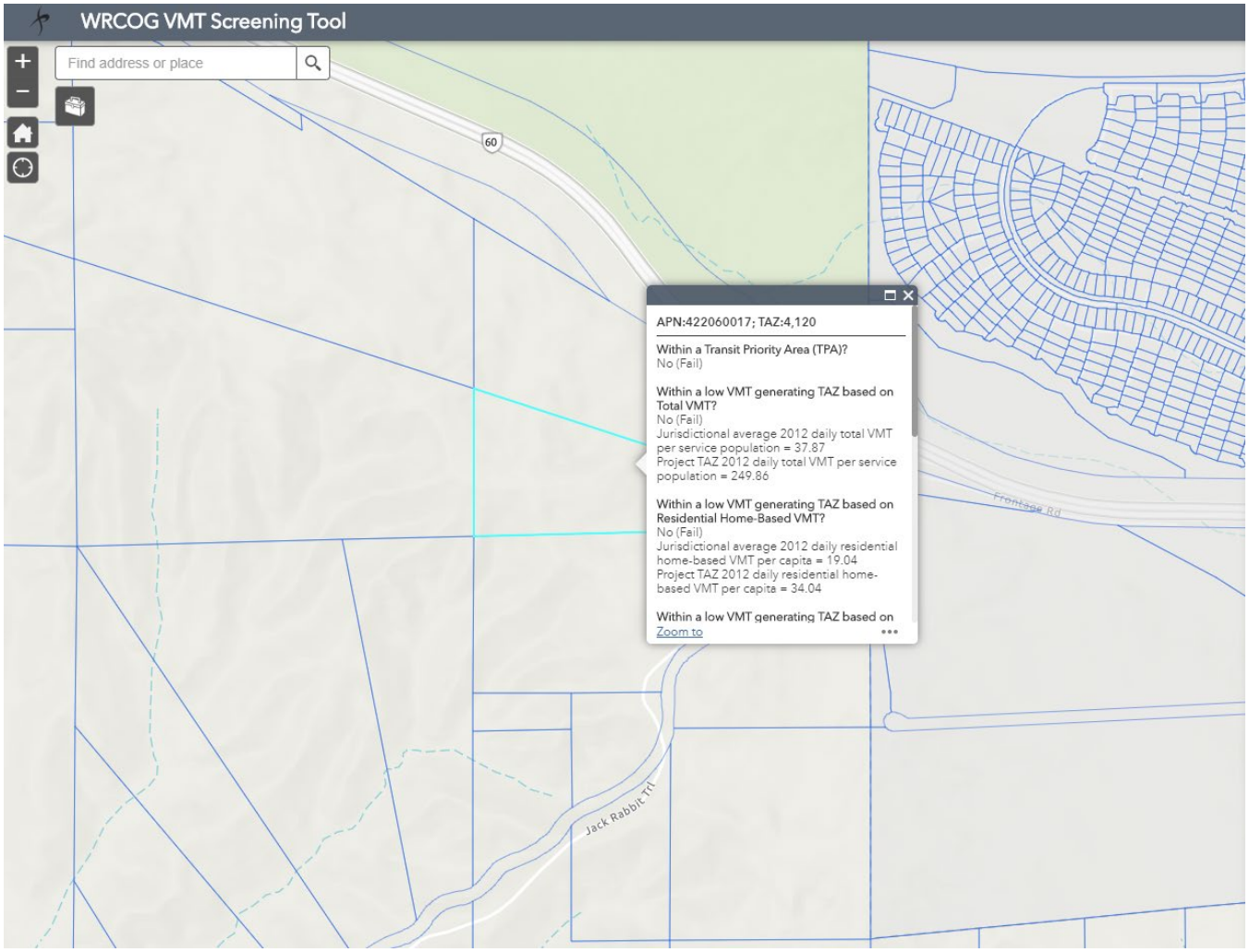
[1] RM = Room; TSF = Thousand Square Feet

[2] TOTAL TRIPS = Passenger Cars + Truck Trips.

[3] Source: ITE Trip Generation Handbook, 3rd Edition, 2017.

Attachment B

WRCOG VMT Screening Tool


WRCOG VMT Screening Tool
Find address or place
60
APN:422060017; TAZ:4,120
Within a Transit Priority Area (TPA)?
No (Fail)
Within a low VMT generating TAZ based on Total VMT?
No (Fail)
Jurisdictional average 2012 daily total VMT per service population = 37.87
Project TAZ 2012 daily total VMT per service population = 249.86
Within a low VMT generating TAZ based on Residential Home-Based VMT?
No (Fail)
Jurisdictional average 2012 daily residential home-based VMT per capita = 19.04
Project TAZ 2012 daily residential home-based VMT per capita = 34.04
Within a low VMT generating TAZ based on
Zoom to
Frontage Rd
Jack Rabbit Trl

BEAUMONT-CHERRY VALLEY WATER DISTRICT

560 MAGNOLIA AVENUE

BEAUMONT, CALIFORNIA 92223

www.bcvwd.org

WATER SUPPLY ASSESSMENT

for

Beaumont Pointe

City of Beaumont, CA

June 28, 2020
Revised October 29, 2020
Revised March 9, 2021
Revised April 2, 2021
Revised April 13, 2021

Prepared by
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1. INTRODUCTION

The Beaumont Pointe development project (BP or "Project") (formerly known as and referred to in some exhibits herein as "Jack Rabbit Trail") is proposed to be constructed in the City of Beaumont, CA on a site with gross area of approximately 540 acres south of Highway 60 and northwest of the proposed Hidden Canyon Industrial site. Project development limits will result in a graded net area of approximately 276.4 net acres. The project will consist of (1) general commercial/retail land uses on approximately 30.2 acres, and (2) five large graded building pads with one building on each pad totaling approximately 5.0 million square feet of warehouse/office structures. Existing 4th Street is proposed to be extended from the proposed alignment in Hidden Canyon to the BP site. The Riverside County Fire Department has identified a fire flow requirement for the Project of 4,000 gpm for 4 hours. The Project site will be annexed into the Beaumont Cherry Valley Water District (BCVWD) service area.

The Project site was previously planned with a land use density of 2,000 equivalent dwelling units (EDUs) and was included in the BCVWD's 2015 Urban Water Management Plan (UWMP) with 2,000 EDUs (previously identified as Jack Rabbit Trail). Based on the District's adopted EDU usage factor of 0.546 AFY/EDU, this equates to an estimated water demand of 1,092 AFY. The new BP land use plan estimates a density of 360 EDUs, representing a reduced site density by 82 percent. The water demand estimate using specific factors developed for each of the land uses currently proposed for BP, provides an updated demand estimate of 197 AFY. As a result of the changed land use plan, the Water Supply Assessment (WSA) accounts for a vastly reduced water demand estimate from what the UWMP assumes for the site.

2. WATER SUPPLY ASSESSMENT (WSA) LEGISLATIVE REQUIREMENTS

Two Senate Bills passed in 2001 to advance water supply planning efforts in California and provide for developing comprehensive water policies to meet future water needs by integrating water supply and land use planning. These were Senate Bill 221 and Senate Bill 610, (SB 221 and SB 610, respectively). The intent was to provide additional assurance that new projects, as defined by the legislation, will have reliable water supply both now and 20 years into the future considering existing and other new development projects also under consideration. The legislation provides for evaluation of those common water sources in order to confirm their ability to continue supplying existing water users while concurrent projects come on line, as well as keep decisionmakers adequately informed of the proposed projects, and all concurrent development projects' water demands as a measure against current water supply entitlements.

2.1 Senate Bill 221 (SB 221)

SB 221 applies to residential subdivisions and chaptered in Government Code §65867.5 *et seq* which states:

> *(c) A development agreement that includes a subdivision, as defined in Government Code §666473.7, shall not be approved unless the agreement provides that any tentative map prepared for the subdivision will comply with the provisions of §666473.7.*

Government Code §666473.7 states:

> *(a) For purposes of this section, the following definitions apply:*

(1) "Subdivision" means a proposed residential development of more than 500 dwelling units, except that for a public water agency that has fewer than 5,000 service connections, "subdivision" means any proposed residential development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections.

(b)(1) The legislative body of a city or county or the advisory agency, to the extent that it is authorized by local ordinance to approve, conditionally approve, or disapprove the tentative map, shall include as a condition in any tentative map that includes a subdivision, a requirement that a sufficient water supply shall be available. Proof of the availability of a sufficient water supply shall be requested by the subdivision applicant or local agency, and shall be based on written verification from the applicable water supply system within 90 days of a request.

(i) Government Code §666473.7 shall not apply to any residential project proposed for a site that is within an urbanized area and has previously been developed for urban uses, or where the immediate contiguous properties surrounding the residential project site area, or previously have been, developed for urban uses, or housing projects that are exclusively for very low and low-income households.

(a)(2) "Sufficient water supply" means the total water supplies available during normal, single-dry and multiple-dry years within a 20-year projection that will meet the projected demand associated with the proposed subdivision, in addition to existing and planned future uses, including but not limited to agricultural and industrial uses.

This does not mean that 100 percent of the development's unrestricted water demand must be met 100 percent of the time, nor does it mean the new development may not have an impact on the service level of existing customers. A "sufficient water supply" may be found to exist for a proposed subdivision and for existing customers, even where a drought-induced shortage will be known to occur, as long as a minimum water supply can be estimated and planned for during a record drought.

2.2 Senate Bill 610 (SB 610)

SB 610, chaptered in Water Code §10910 *et seq*, requires a city or county that determines a "Project," as defined in Water Code §10912, is subject to the California Environmental Quality Act (CEQA), the city or county must identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water supply assessment (WSA), except as otherwise specified. Water Code §10912 defines a "Project" as any of the following:

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (sf) of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 sq. ft. of floor space.

(4) A proposed hotel or motel, or both having more than 500 rooms.

(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 sq. ft. of floor area.

(6) A mixed-use project that includes one or more of the projects specified in this subdivision.

(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.[1]

The basic question to be answered in the WSA is:

Will the water supplier's total projected water supplies during normal, dry, and multiple dry years during a 20-year projection meet the projected water demand of the proposed project, in addition the water supplier's existing and planned future uses, including agricultural and manufacturing uses?

The WSA, under SB 610, is to include the following, if applicable to the supply conditions:

1. Discussion regarding whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses.
2. Identification of existing water supply entitlements, water rights, or water service contracts secured by the purveying agency and water received in prior years pursuant to those entitlements, rights, and contracts.
3. Description of the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights or water service contracts.
4. Water supply entitlements, water rights or water service contracts shall be demonstrated by supporting documentation such as the following:
    a. Written contracts or other proof of entitlement to an identified water supply.
    b. Copies of capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
    c. Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
    d. Any necessary regulatory approvals that are required to be able to convey or deliver the water supply.
5. Identification of other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system.
6. If groundwater is included for the supply of a proposed project, the following additional information is required:
    a. Description of groundwater basin(s) from which the proposed project will be supplied. Adjudicated basins must have a copy of the court order or decree adopted and a description of the amount of groundwater the public water system

[1] The water use for one dwelling unit depends on regional climate and varies from agency to agency

has the legal right to pump. For non-adjudicated basins, information on whether the California Department of Water Resources has identified the basin as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the Department of Water Resources that characterizes the condition of the basin, and a detailed description of the efforts being undertaken in the basin to eliminate the long-term overdraft.

b. Description and analysis of the amount and location of groundwater pumped by the public water system for the past five (5) years from any groundwater basin from which the proposed project will be supplied. Analysis should be based on information that is reasonably available, including, but not limited to, historic use records.
c. Description and analysis of the amount and location of groundwater projected to be pumped by the public water system from any groundwater basin from which the proposed project will be supplied. Analysis should be based on information that is reasonably available, including, but not limited to, historic use records.
d. Analysis of sufficiency of the groundwater from the basin(s) from which the proposed project will be supplied.

7. The water supply assessment shall be included in any environmental document prepared for the project.

SB 610 prescribes a timeframe within which a public water system is required to submit the assessment to the city or county and authorizes the city or county to seek a writ of mandamus to compel the public water system to comply with requirements relating to the submission of the assessment.

SB 610 requires the public water system, or the city or county, as applicable, if that entity concludes that water supplies are, or will be, insufficient, to submit the plans for acquiring additional water supplies.

SB 610 requires the city or county to include the water supply assessment and certain other information in any environmental document prepared for the project pursuant to the act.

2.3 Summary

The Senate bills are quite similar; SB 221 applies to proposed residential subdivisions over 500 dwelling units or a subdivision project that proposes 10 percent of the number of existing agency water connections, whichever is smaller; SB 610 to other types of large projects or mixed use projects. Both require documentation of water supply and demand under normal, dry and multiple dry year scenarios to accommodate the project plus existing and known planned projects. Both rely on the agency's UWMP for support.

Based on the description in the introduction, the proposed **Beaumont Pointe development project requires a water supply assessment pursuant to SB 610 under Section 10912 (a) (2)**. The Project includes a proposed business establishment having more than 500,000 square feet of floor space. The Project proposes over 5,000,000 square feet of floor space.
For the Project, the water purveyor is the Beaumont-Cherry Valley Water District (BCVWD).

3. URBAN WATER MANAGEMENT PLANNING ACT

3.1 Background

The California Water Code requires that all urban water suppliers within the state, serving over 3,000 acre-feet (AF) of water (1 AF = 325,829 gallons) or having at least 3,000 service connections, to prepare Urban Water Management plans (UWMPs) on a five-year, ongoing basis demonstrating their continued ability to provide water supplies for current and future expected development under normal, single dry and multiple dry year scenarios. The Urban Water Management Planning Act was enacted in 1983 and amendments were made periodically since then. The Act also requires imported water suppliers to prepare UWMPs. Water Code sections §10610 through §10656 detail the information that must be included in the plans. These plans also require the assessment of urban water conservation measures and wastewater recycling as well as a water shortage contingency plan outlining how the municipal water provider will manage water shortages of up to 50 percent of their normal supplies in a given year.

An UWMP is a planning tool that provides general guidance to water management agencies. It provides managers and the public with past and current water supply issues facing the agency. It is not a substitute for project-specific planning documents, nor was it intended to be, when mandated by the State Legislature. When specific projects are chosen to be implemented, detailed project plans are prepared, environmental analysis (if required) is prepared, and financial and operational plans are developed.

"The UWMP is intended to function as a planning tool to guide broad-perspective decision-making" by water agency managers and directors.[2] It should not be viewed as an exact blueprint for supply and demand management. Water management in California is not a matter of certainty and planning projections and may change in response to a number of factors. "[L]ong-term water planning involves expectations and not certainties. The State Supreme Court has recognized the uncertainties inherent in long-term land use and water planning and observed that the generalized information required …in the early stages of the planning process are replaced by firm assurances of water supplies at later stages."[3] It is appropriate to look at the UWMP as a general planning framework, not a specific action plan. It is an effort to generally answer a series of planning questions including:

- What are the potential sources of supply and what is the reasonable probable yield from them?
- What is the probable demand, given a reasonable set of assumptions about growth and implementation of good water management practices?
- How well do supply and demand figures match up, assuming that the various probable supplies will be pursued by the implementing agency?

Based on the answers to these questions, the implementing agency will pursue feasible and cost-

[2] Sonoma County Water *Coalition v. Sonoma County Water Agency* (2010) 189 Cal. App. 4th 33, 39, taken from SGPWA 2015 UWMP.
[3] Ibid.

effective options and opportunities to meet demands.

The UWMP Act requires the supplier to document water supplies available during normal, single dry, and multiple dry water years over a 20-year projection and the existing and projected future water demand during the same 20-year period. The Act requires that the projected supplies and demands be presented in 5-year increments for the 20-year projection period.

Like SB 221 and SB 610, specific levels of supply reliability are not mandated (i.e., whether a specific level of demand can be met over a designated frequency); rather, the law provides that it is a local policy decision of the water provider as part of the planning process. As provided for in the law, the WSA can rely on the data in the latest UWMP in assessing the water demand of the proposed project relative to the overall increase in demands expected by BCVWD. The Beaumont Pointe development project site was included in Table 3-6 of BCVWD's 2015 UWMP (previously identified as Jack Rabbit Trail). The Project site was previously planned with a land use density of, and corresponding water demand for, 2,000 equivalent dwelling units (EDUs). The new BP land use plan estimates a significantly reduced density of 360 EDUs, representing a reduced site density by 82 percent and corresponding water demand estimate.

In late 2017 and 2018, BCVWD prepared a set of "White Papers" that evaluated the growth in demand within the SGPWA and the current and future water supply from the SGPWA on a regional basis. The White Papers determined that the rate of growth has reduced and refines the imported water supply accordingly. This is discussed later in this WSA.

3.2 San Gorgonio Pass Water Agency 2015 UWMP

The Beaumont Pointe project is located within the service area of the San Gorgonio Pass Water Agency (SGPWA or Pass Agency). BCVWD provided data to SGPWA on BCVWD's projected demands so the SGPWA could prepare their UWMP. Because the California Department of Water Resources (DWR) required the imported water suppliers to submit their UWMPs earlier than the retail agencies, BCVWD made some preliminary estimates of their demand over the 20-year projection period and provided the projections to SGPWA. These preliminary estimates deviated slightly from the actual demands in BCVWD's 2015 UWMP. Table 3-1 is taken from SGPWA 2015 UWMP (Table 2-4):

Table 3-1 - Projected Water Demands on SGPWA (AF)

Agency	2020	2025	2030	2035	2040
BCVWD	10,860	12,476	14,087	15,886	17,334
City of Banning	-	501	1,344	2,237	2,718
YVWD	1,809	1,967	2,162	2,391	2,644
Other	500	1,600	2,800	3,900	5,000
Total Water Demands	**13,169**	**16,544**	**20,393**	**24,414**	**27,696**

Note: San Gorgonio Pass Water Agency 2015 UWMP, Table 2-4.

SGPWA's 2015 UWMP states the "retail purveyor demands reflect reasonably anticipated supplies through the planning periods" and take into account non-SGPWA supplies available to the retail purveyors, such as local groundwater, recycled water, etc.

Since the Beaumont Pointe project site was included in the demands in BCVWD's 2015 UWMP,

it is considered to be included in the 2015 SGPWA UWMP, adopted by SGPWA Board of Directors as Resolution No. 2017-03, on March 20, 2017. "Other" demands in Table 3-1 reflect the demand from other agencies in SGPWA service area not currently receiving imported water from SGPWA.

In the introductory section of the SGPWA's 2015 UWMP, the SGPWA reviewed the water supply and demand requirements on a regional basis and did not focus on specific conditions within the service area of the retail water agencies.

"It is the stated goal of SGPWA to import supplemental water and to protect and enhance local water supplies for use by present and future water users and to sell imported water at wholesale to local retail water purveyors within its service area. Based on conservative water supply and demand assumptions over the next 25 years in combination with conservation of non-essential demand during certain dry years, the [Urban Water Management] Plan successfully achieves this goal. It is important to note that this document has been completed to address regional resource management and does not address the particular conditions of any specific retail water agency or entity within the SGPWA service area. The retail urban water suppliers within SGPWA service area are preparing separate UWMPs, but SGPWA has coordinated with the retailers during development of this Plan to ensure a level of consistency with the retailers to the extent possible.[4]

BCVWD recognizes and acknowledges the disclaimer statement within the 2015 Urban Water Management Plan prepared by the SGPWA related to regional planning. While the UWMP prepared by the SGPWA "…does not address the particular conditions of any specific retail water agency…" BCVWD relies upon the policies and practices of the SGPWA as a foundation for regional water supply solutions. In other words, while the SGPWA's regional planning document does not address local water conditions, BCVWD does rely upon the policies of the SGPWA to provide comprehensive regional solutions related to the use of imported water in the Pass area. As example of the policies and practices adopted by the SGPWA and relied upon by BCVWD include, but are not limited, to the following:

- San Gorgonio Pass Water Agency, Ordinance No. 8, An Ordinance Establishing Rules and Regulations for SGPWA Water Service, February 7, 2005;
- San Gorgonio Pass Water Agency Strategic Plan, May 2012;
- San Gorgonio Pass Water Agency, Resolution No. 2014-02, A Resolution of the San Gorgonio Pass Water Agency Establishing a Policy for Meeting Future Water Demands, February 18, 2014;
- San Gorgonio Pass Water Agency, Ordinance No. 10, Ordinance Establishing Water Shortage Plan, July 21, 2014;
- San Gorgonio Pass Water Agency, Resolution No. 2015-05, Resolution of the Board of Directors of the San Gorgonio Pass Water Agency to Adopt Facility Capacity Fees for Facilities and Water, July 27, 2015;
- San Gorgonio Pass Water Agency, State of the Supply PowerPoint Presentation, September 30, 2016;
- San Gorgonio Pass Water Agency, Ordinance No. 13, An Ordinance Amending Rules and Regulations Regarding Authorization for Service, June 5, 2017.

[4] SGPWA 2015 UWMP

3.3 BCVWD's 2015 UWMP

There were some minor differences between the projections in BCVWD's 2015 UWMP and the projections provided to SGPWA for their 2015 UWMP. These differences stemmed from the need for BCVWD to provide preliminary demand projections early on so the SGPWA could meet their prescribed deadline.

BCVWD's demands for imported water are presented in BCVWD's 2015 UWMP (Table 6-26) and are repeated in Table 3-2 below. Table 3-2 shows the actual imported water demand to meet the potable water demand plus the banking water demand to ensure drought-proofing of future development. If imported water is not available in a given year, no banking will occur. But when imported water is available, any deficiencies from previous years would be "carried over" and "made up." As can be seen, there is a slight difference between the demands in Table 3-2 versus those shown above in Table 3-1.

Table 3-2 - BCVWD Imported Water Needs from BCVWD 2015 UWMP

	2020	2025	2030	2035	2040
BCVWD Drinking Water Demand, AFY	10,313*	11,407*	12,503	13,843	15,362
Banking Demands, AFY	1,000	1,500	2,000	2,500	2,500
Total BCVWD Imported Water Demand	11,313	12,907	14,503	16,343	17,862

Note: Taken from BCVWD 2015 UWMP, Table 6-26. Equal to purchased imported water system for recharge plus make-up for non-potable system and water for banking.

*Includes imported water for non-potable water system since non-potable water system is supplied with potable groundwater.

4. BEAUMONT POINTE PROJECT DESCRIPTION

The Beaumont Pointe development project site is currently located outside of the District's service area, but within its sphere-of-influence adjacent to the District's southwest boundary. The Project consists of a gross area of approximately 540 acres (276.4 net acres). It is located within portions of Sections 1 and 2 of T3S, R2W, which is proposed to be incorporated into the City and annexed into the BCVWD service area as part of the entitlement process. The Project is located south of State Highway 60, and northwest of Jack Rabbit Trail Road and the proposed Hidden Canyon Industrial Park, as shown in Figure 1.

4.1 Project Description

The Beaumont Pointe project is proposed to include general commercial (GC), industrial distribution land uses, and open space. The GC land use will consist of a hotel and retail shopping center. The industrial uses are proposed to include a small self-storage facility and five (5) separate large warehouse 'big-box' structures totaling approximately 5.0 million square feet. Existing 4th Street will be extended northwesterly from its proposed west end within the adjacent Hidden Canyon project. Figure 1 shows the Project vicinity, and Figure 2 illustrates the Land Use Plan.

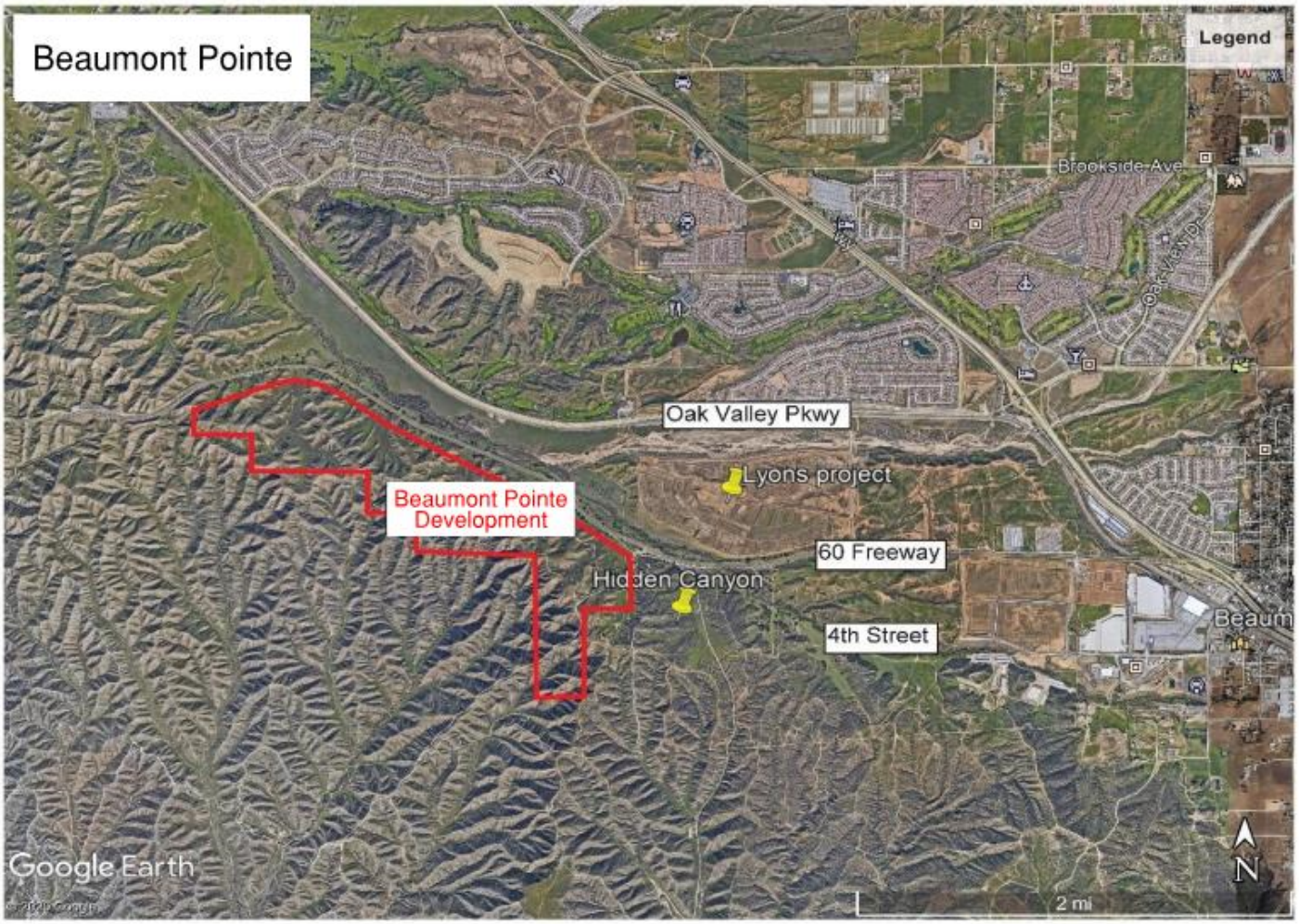


Figure 1 – Beaumont Pointe General Location

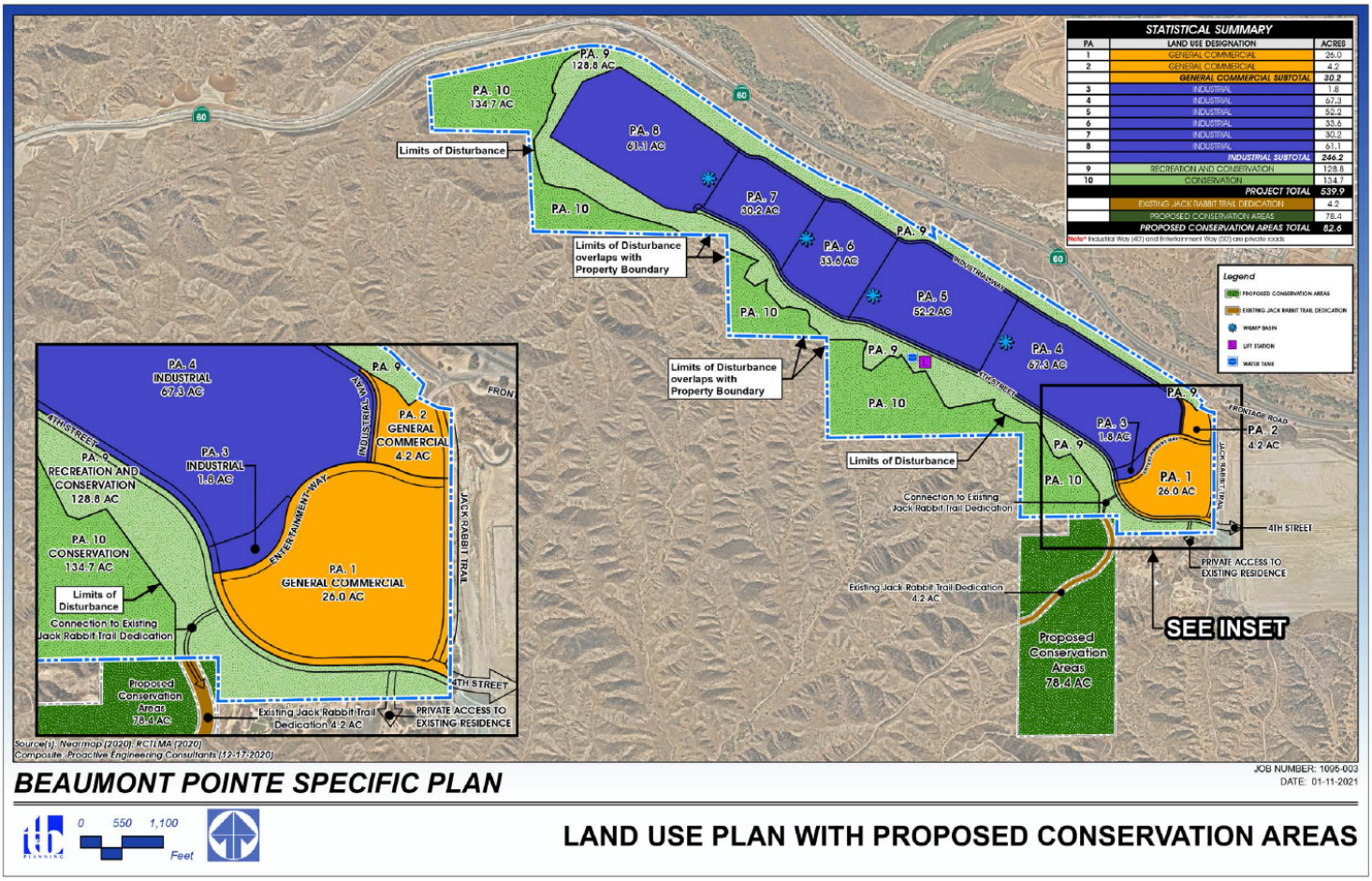


Figure 2 – Beaumont Pointe Land Use Plan

A summary of the land uses is included in Table 4-1:

Table 4-1 - Beaumont Pointe Land Uses [1]

Planning Area	Land Use	Acreage
1 thru 2	Hotel	30.2
	Restaurant	
	Entertainment	
	Landscape	
3 thru 8	Warehouse	246.2
	Office	
	Landscape	
9 and 10	Open Space	263.5
Total		**539.9**

[1] Based on proposed site plan, Alternative 11.

The project is required to adhere to the landscaping standards in "Guide to California Friendly Landscaping" and the City of Beaumont's Landscaping Ordinance which requires water efficient landscaping. Pursuant to BCVWD requirements, landscaping in non-turf areas shall be drought tolerant and irrigated with drip or bubbler type heads.

4.2 Estimated Water Demand

The estimated water demand for the Project is based on recent dialogue with District and the City of Beaumont staff. The total Project consists of approximately 30.2 acres of general commercial land uses and 5.0 million square feet (sf) of industrial distribution warehouse.

For Planning Areas 1 and 2 typical water usage factors used in the industry can range from 1,500 to 3,000 gallons per day (gpd) per acre. Major area water agencies that have published usage factors by land use category includes East Valley Water District (2014) and Eastern Municipal Water District. These agencies have adopted usage factors for general commercial developments at 2,050 and 2,000 gpd per acre to estimate general commercial water demands. Beaumont Pointe includes hotel uses which are typically grouped within the general commercial classification; however, usually exhibit much higher unit water demands. For the purpose of estimating water demands for the WSA, hotel uses are deemed similar to residential uses with a single occupant estimated at 100 gpd per room.

For Planning Areas 3 through 8, BCVWD recently reviewed the total water use for a nearby existing 720,000 sf industrial distribution center east of the Project site (Wolverine), and determined that the maximum water use for "big-box" warehouse distribution developments should be estimated using an employee density factor of one employee per 1,500 sf of warehouse/office space and 15 gpd per employee. This is supported by recent studies prepared by NAIOP [5] as described in the Hidden Canyon Water Supply Assessment. Therefore, because BP Planning Areas 3 through 8 development is virtually identical to the Wolverine "big-box" product this factor is appropriate for the WSA for BP. Thus, the total number of employees contributing to water demand at full buildout of Planning Areas 3 through 8 at BP is estimated to be 3,306h. These usage factors are consistent with the existing Wolverine project and completed planning studies for Hidden Canyon. Planning Areas 9 and 10 will remain open space. Tables 4-2 and 4-3 summarize the estimated BP Project indoor (potable) and outdoor (non-potable) water demands:

[5] NAIOP Research Foundation (2010). Logistics Trends and Specific Industries that Will Drive Warehouse and Distribution Growth and Demand for Space, L. Nicolas Ronderos, Director, Urban Development Programs Regional Plan Association, March

Table 4-2 - Planning Areas 1 and 2 - Beaumont Pointe General Commercial Water Demand Estimate

Planning Area	Land Use	Type [1] Quantity	units	Indoor Water Demand Factor [3]		Outdoor Water Demand Factor [4]		[5] Indoor Water Demand		[5] Outdoor Irrigation Demand [6]	
1	Restaurant	30,000	sf	1,000	gpd/ksf	670,000	gal/Ac/Yr	30,000	gpd		
	Entertainment	5.0	Ac[2]	1,500	gpd/Ac			7,438	gpd		
	Irrigation	3.9	Ac	-				-			
	Total Acres	26.0	Ac	-				-		7,159	gpd
2	Hotel	125	keys	100	gpd/key	670,000	gal/Ac/Yr	12,500	gpd		
	Irrigation	0.6	Ac	-				-			
	Total Acres	4.2	Ac	-				-		1,101	gpd
Total	-	**30.2**	**Acres**	**-**		**-**		**49,938**	**gpd**	**8,260**	**gpd**
	-										
Total								**55.9**	**AFY**	**9.3**	**AFY**

[1] Based on proposed site plan, Alt. 11; uses required 15% landscape irrigation.
[2] Total entertainment area = go-cart, rock climbing, trampoline park, bowling alley, and miniature golf = 216,000 sf = 4.96 acres.
[3] Based on typical water usage used by water agencies throughout southern California.
[4] Based on outdoor water demand factor used for Amazon Distribution Center.
[5] Represents demand on BCVWD potable (domestic) water sources until non-domestic water becomes available.
[6] Represents demand that could be served by non-domestic water sources.

Table 4-3 - Planning Areas 3 thru 8 - Beaumont Pointe Industrial Water Demand Estimate

Planning Area	Land Use	[1] Warehouse /Office Bldg Area	Employee count [2]	Project Site Acreage [1] total	Bldg	Irrig.	Indoor Water Demand Factor [2]		Outdoor Water Demand Factor [3]		[4] Indoor Water Demand		[4] Outdoor Irrigation Demand [5]	
3	Self-Storage	25,000	17	1.8	1.5	0.3	15	gpd/emp	670,000	gal/Ac/Yr	260	gpd	496	gpd
	office	1,000												
4	Ware-house	1,369,880	920	67.3	57.2	10.1	15	gpd/emp	670,000	gal/Ac/Yr	13,799	gpd	18,531	gpd
	office	10,000												
5	Ware-house	984,340	663	52.2	44.4	7.8	15	gpd/emp	670,000	gal/Ac/Yr	9,943	gpd	14,373	gpd
	office	10,000												
6	Ware-house	669,400	450	33.6	28.6	5.0	15	gpd/emp	670,000	gal/Ac/Yr	6,754	gpd	9,252	gpd
	office	6,000												
7	Ware-house	583,240	393	30.2	25.7	4.5	15	gpd/emp	670,000	gal/Ac/Yr	5,892	gpd	8,315	gpd
	office	6,000												
8	Ware-house	1,284,800	863	61.1	51.9	9.2	15	gpd/emp	670,000	AF/Ac/Yr	12,948	gpd	16,823	gpd
	office	10,000												
Total	**Ware-house**	**4,916,660**	**3,306**	**246.2**	**209.3**	**36.9**	**15**	**gpd/emp**	**670,000**	**AF/Ac/Yr**	**49,597**	**gpd**	**67,789**	**gpd**
	office	**43,000**												
Total		**4,959,660**									**55.6**	**AFY**	**75.9**	**AFY**

[1] Based on approved site plan and tabulation of proposed land uses, and landscape area required at 15% of total.
[2] Based on recent water demand prepared by BCVWD for similar warehouse development project (Hidden Canyon), which estimated 1 employee per 1500 sf of warehouse/office space.
[3] Based on outdoor water demand factor used for Amazon Distribution Center.
[4] Represents demand on BCVWD potable (domestic) water sources until non-domestic water becomes available.
[5] Represents demand that could be served by non-domestic water sources.

Table 4-2 and 4-3 calculate to a total estimated water demand at BP buildout of 175,584 gpd, or 197 AFY. Based on BCVWD equivalent dwelling unit usage of 0.546 AFY per equivalent dwelling unit, this equates to 360 EDUs. Of the total water demand, candidate non-potable water demand for outdoor irrigation is estimated to be 85.2 AFY, or approximately 43 percent of the total demands of the Project.

5. BCVWD WATER SYSTEM

BCVWD owns and operates the water system which would serve the Beaumont Pointe development project. BCVWD was first formed in April 1919, to provide domestic and irrigation water to the developing community of Beaumont and the surrounding area. BCVWD was originally named the Beaumont Irrigation District. In 1973, the name was changed to the Beaumont-Cherry Valley Water District. Sometime after that the hyphen was dropped from the name. However, even though the name has changed, the BCVWD's authority comes from the Irrigation District Law of the State of California.

BCVWD owns approximately 1,524 acres of watershed land north of Cherry Valley along the Little San Gorgonio Creek (also known as Edgar Canyon) and Noble Creek. There are two stream diversion locations within Little San Gorgonio Creek that are in the Department of Water Resources, Division of Water Rights, database. The diversions have pre-1914 recorded water rights amounting to 3,000 miners inch hours (MIH) or approximately 45,000 acre-feet per year (AFY) of right for diversion of water for domestic and irrigation uses. However, BCVWD has never had a demand that requires such large quantities of water supply; and the watersheds may not be capable of supplying such quantities during an average year. The creeks/canyons have been used for water development via diversions for irrigation and domestic service since the latter part of the 1800s. Currently, BCVWD diverts water from Little San Gorgonio Canyon Creek into a series of ponds adjacent to the creek where it percolates and recharges the shallow aquifers in the Canyon. BCVWD's wells located in Edgar Canyon provide a significant portion of BCVWD's water supply.

Figure 3 shows BCVWD's present Service Boundary and Sphere of Influence (SOI). BCVWD's present service area covers approximately 28 square miles, virtually all of which is in Riverside County and includes the City of Beaumont and the community of Cherry Valley. BCVWD-owned watershed land extends across Riverside County line into San Bernardino County where BCVWD operates a number of wells and several reservoirs.

BCVWD's SOI, or ultimate service planning area, encompasses an area of approximately 37.5 square miles (14.3 sq. mi. are in the City of Beaumont). This SOI was established by the Riverside and San Bernardino County Local Agency Formation Commissions (LAFCOs). SOIs are established as a planning tool and help establish agency boundaries and avoid problems in service, unnecessary duplication of costs, and inefficiencies associated with overlapping service.

BCVWD's SOI is bounded on the west and north by the Yucaipa Valley Water District (YVWD) and on the east by the City of Banning. The northerly boundary of Eastern Municipal Water District (EMWD) is one mile south of the BCVWD's southerly SOI boundary. The area between EMWD and the BCVWD's SOI is not within any SOI and could be annexed to either BCVWD or EMWD. BCVWD's SOI in Little San Gorgonio Canyon follows Oak Glen Road. The area west of Oak Glen

Road is within YVWD's SOI, and the area east of Oak Glen Road is within BCVWD's SOI.

The service area ranges in elevation from 2,300 feet above mean sea level in Fairway Canyon area of Beaumont on the southwestern boundary, to 2,900 feet in Cherry Valley, and to over 4,000 feet in the upper reaches of the SOI.

The area serves primarily as a "bedroom" community for the Riverside/San Bernardino Area and the communities east of Los Angeles County along the I-10 corridor.

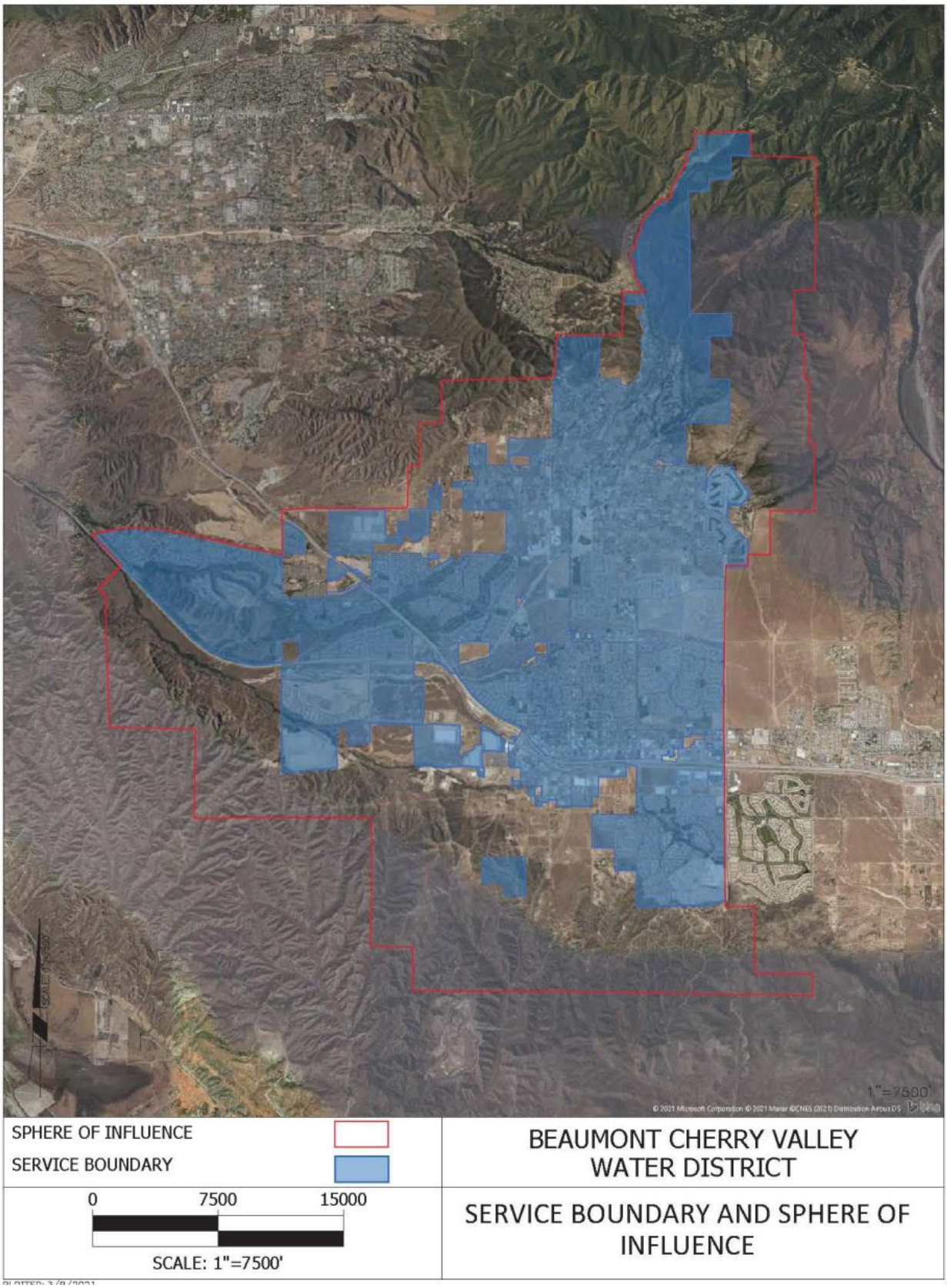


Figure 3 – BCVWD Boundary and Sphere of Influence

5.1 Overview of BCVWD's Water System and Operation

BCVWD owns and operates both a potable and a non-potable water distribution system. BCVWD provides potable water and scheduled irrigation water to users through the potable water system. BCVWD provides non-potable water for landscape irrigation of parks, playgrounds, school yards, street medians and common areas through its non-potable (recycled) water system.

Table 5-1 presents BCVWD 2019 potable and non-potable water connections and pumping amounts. The number of connections was 5,600 in year 2000, before the housing boom that encompassed Western Riverside County and particularly Beaumont.

Table 5-1 - BCVWD Potable and Non-potable Water Connections and Deliveries 2019

	Potable Water	Non-potable Water (Landscape)	Total
Number of Connections	19,339[(a)]	309	19,648
Water Pumped, AFY	11,447 [(b)]	1,547	12,994
Average Annual, mgd	10.2	1.4	11.6
Maximum Day, mgd	19.2[(c)]	4.3	NA

a) 45 of these connections are agricultural water connections on potable water system.
b) 260 AF was transferred into Non-potable System for make-up.
c) Historic maximum day demand was 22.1 mgd in 2009.

5.2 Potable Water System

BCVWD's potable water system is supplied by wells in Little San Gorgonio Creek (Edgar Canyon) and the Beaumont Groundwater Basin (sometimes called the Beaumont Storage Unit or the Beaumont Management Zone). BCVWD has a total of 24 wells; 1 well is a standby. Only 20 of the wells are used to any great extent. Twelve of the wells have auxiliary engine drives, a portable generator connection, or an in-place standby generator. BCVWD has three portable generators capable of operating 50, 350 and 500 horsepower (HP) motors. The Beaumont Groundwater Basin is adjudicated and managed by the Beaumont Basin Watermaster[6]. BCVWD augments its groundwater supply with imported State Project Water (SPW) from the SGPWA which is recharged at BCVWD's recharge facility at the intersection of Brookside Avenue and Beaumont Avenue. Overall, the water quality from BCVWD's wells is excellent. Total Dissolved Solids (TDS) is usually below 250 mg/L. Nitrates are only a sporadic problem in a few wells at present. BCVWD continues to monitor these wells per State Water Resources Control Board, (SWRCB) Division of Drinking Water (CDDW) requirements. No wells have had to be taken out of service because of water quality concerns.

[6] San Timoteo Watershed Management Authority vs. City of Banning et al, Superior Court of the State of California, for the County of Riverside, Riverside Court, Stipulation for Entry of Judgement Adjudicating Groundwater Rights in the Beaumont Basin, RIC 389197, February 4, 2004.

Wells in Edgar Canyon have limited yield, particularly in dry years, and take water from shallow alluvial and bedrock aquifers; wells in the Beaumont Basin are large capacity and pump from deep aquifers – some as deep as 1,500 feet below the ground surface. The Edgar Canyon wells are very inexpensive to operate and are the preferred source; however, those wells are not able to meet the average day demand and need to be supplemented with the Beaumont Basin wells. The Edgar Canyon wells pump to a gravity transmission main that extends the full length of the BCVWD-owned properties in Edgar Canyon. The transmission main connects to the distribution system in Cherry Valley. Water from the Edgar Canyon Wells, which is not used in the developed areas adjacent to Edgar Canyon or Cherry Valley, can be released to lower pressure zones, if needed.

During 2019, the Edgar Canyon Wells provided about 10.5 percent of BCVWD's total annual potable water supply; the rest is pumped from wells in the Beaumont Basin. BCVWD's total well capacity (Edgar Canyon and Beaumont Basin) is about 33 million gallons per day (mgd). BCVWD is easily able to meet the maximum day demand (historic maximum about 22 mgd) with the largest well out of service. Wells with auxiliary power can supply up to 21.4 mgd.

Because of the range of topographic elevations in the BCVWD's service area, 11 pressure zones are needed to provide reasonable operating pressures for customers.

BCVWD has 14 reservoirs ranging in size from 0.5 million gallons (MG) to 5 MG. Total storage is approximately 22 MG, slightly more than two (2) average days or one (1) maximum day. The reservoirs provide gravity supply to its respective pressure zones. BCVWD's system is constructed such that higher zone reservoirs can supply water on an emergency basis to lower zone reservoirs. Booster pumps in the system pump water from lower pressure zones to higher pressure zones. This provides flexibility in system operations. Sufficient reservoir redundancy exists permitting reservoirs to be taken out of service for maintenance.

The backbone transmission system in the main pressure zones is primarily 24-inch diameter though there are some 30-inch diameter pipelines leading to some reservoirs. The bulk of the backbone transmission and distribution pipe is ductile iron with cement mortar lining, that was installed in the last 10 to 15 years. A number of small, older, distribution lines in the system are gradually being replaced over time with minimum 8-inch diameter ductile iron pipe. The system is capable of providing over 4,000 gpm fire flow in the industrial/commercial areas of the service area.

5.3 Imported Water and Recharge Facilities

BCVWD imported and storm water recharge facility consists of a 78-acre site on the east side of Beaumont Avenue, between Brookside Avenue and Cherry Valley Boulevard, where imported water is currently recharged. The recharge project site was selected after extensive hydrogeologic studies and pilot testing over a multi-year period. Phase 1 of the recharge facility, located on the westerly half of the site, went on-line in late summer 2006. Phase 2 of the recharge facility was completed in 2014. To date, only imported water has been recharged at the site. Since its operation in 2006 through the end of 2018, 84,242 acre-feet (27.4 billion gallons) of imported water have been recharged. The capacity of the recharge site is conservatively estimated at 25,000 to 30,000 AFY, based on short term studies. With more aggressive

maintenance, the capacity may be as much as 35,000 AFY.

BCVWD and Riverside County Flood and Water Conservation District (RCFWCD) are jointly in design of Beaumont MDP-Line16, a large diameter storm drain in Grand Avenue, which drains a watershed area of 505 acres to BCVWD's recharge site. This project is planned to be operational by 2022. BCVWD also envisions recharging recycled water, not needed for irrigation, at the recharge site in the future, with appropriate treatment and permits.

The SGPWA imports State Project Water (SPW) through the East Branch Extension (EBX) of the California State Water Project (Governor Edmund G. Brown California Aqueduct). EBX Phase I was completed in 2003; EBX Phase II was completed in 2018. The completion of EBX Phase II improvements brings SGPWA's imported water delivery capacity to the Pass Area to 48 cubic feet per second (cfs) or 34,750 AFY if it was operational all year continuously.

BCVWD takes water from a 20-inch diameter turnout and metering station at the current end of the EBX at Orchard Avenue and Noble Creek in Cherry Valley. Design of an expansion of the turnout was recently completed and began the increased capacity recharge in 2019. Water from the turnout is metered by the Department of Water Resources (DWR) and then enters a 3,500-ft long, 24-inch diameter gravity pipeline, constructed by BCVWD, which conveys the water to BCVWD's groundwater recharge site.

The 24-inch diameter pipeline was constructed in 2006 and at 34 cfs would have a velocity of 10.8 feet per second – a reasonable velocity for a mortar-lined pipeline. If operated eleven months out of the year at that rate, the pipeline could convey 22,500 acre-feet per year. Higher velocities could be tolerated for short periods which would result in increased short-term delivery capacity.

5.4 Non-potable (Recycled) Water System

As of 2018, BCVWD has over 44 miles of non-potable water transmission and distribution system in place. The backbone transmission system forms a loop around the City of Beaumont and is comprised of primarily 24-in diameter cement mortar lined, ductile iron pipe, all installed after year 2000. The system includes a two (2) million-gallon recycled (non-potable) water reservoir which provides gravity storage for the system. As shown in Table 5-1, at the end of year 2019 approximately 309 connections delivered 1,547 AFY of non-potable water. The BCVWD system includes three major non-potable water pressure zones (2800 Zone, 2600 Zone and 2520 Zone) with plans to expand service to areas requiring two additional pressure zones (3040 Zone, 2370 Zone).

The 2 MG non-potable reservoir, (2800 Zone Non-potable Water Tank) constructed at the BCVWD Groundwater Recharge Site can directly receive potable water or untreated SPW through air-gap connections. The reservoir and non-potable water system can serve a blend of recycled water, imported, untreated SPW, and potable water.

The 2800 Non-potable Water Zone is currently separated from the 2600 and lower pressure zones. The 2800 Non-potable Water Zone is supplied with water from Well 26, supplemented with potable groundwater via air-gap at the 2800 Zone Non-potable water reservoir. The 2600 and lower non-potable water pressure zones can also be supplied with potable water through air-

gapped interconnections between the potable and non-potable water system. BCVWD has a capital project approved to provide fine screening to the SPW prior to entering the 2800 Zone Non-potable Water Reservoir. This project will be implemented when demands increase and/or the non-potable water system is tested and approved for recycled water use.

BCVWD is working with the City of Beaumont to secure recycled water for use in the non-potable water system. The City is currently constructing an expansion and upgrade to its existing wastewater treatment facility, which involves installing new membrane bioreactor (MBR) treatment units and additional reverse osmosis membrane treatment. Upon completion, the facility will have a capacity to deliver six (6) million gallons per day (mgd). A brine line from the treatment plant to the Inland Empire Brine Line (IEBL) in San Bernardino is also under construction. A memorandum of understanding (MOU) between BCVWD and the City for recycled water purchase and use was signed in July 2019 and the City and BCVWD are in the process of finalizing and agreement for purchase of recycled water through an ad-hoc committee of City Council members and BCVWD Board Members.

In order to have the ability to use recycled water for recharging when supply exceeds landscape irrigation demand, BCVWD plans to obtain recharge permits. Recycled water for this beneficial reuse could be supplied to BCVWD's groundwater recharge or other area facility. Recycled water use and recharge is permitted by the Adjudication.

6. UPDATED WATER DEMANDS IN SAN GORGONIO PASS AREA

In 2018, BCVWD developed a series of White Papers (White Papers No. 1 through 7) that evaluated water supply, water demands, current and future water supply costs, funding requirements and funding strategies considering both BCVWD's service area and the SGPWA as a whole. These White Papers were presented at BCVWD Board Meetings and elsewhere. The purpose of the White Papers was to assess the water supply situation vis-à-vis the growth in demand. The results of this series of White Papers indicated that the regional imported water demands in BCVWD's 2015 UWMP and the SGPWA 2015 UWMP may be overstated, primarily because of over-aggressive growth in demand, and limited consideration of recent state-mandated conservation and indoor water use requirements.

6.1 Regional Water Supply and Demand Spreadsheet Models

BCVWD, in cooperation with the other major retailers, developed a Regional Water Demand Spreadsheet or Workbook which included a separate worksheet for each of the three major retailers in the SGPWA service area: BCVWD, City of Banning, and Yucaipa Valley Water District (YVWD)/City of Calimesa. The other water supply agencies, e.g., Cabazon Water District, High Valleys Water District, etc. that are not currently receiving imported water from SGPWA were also included, based on data in SGPWA's 2015 UWMP.

The spreadsheet model allows the water agency to input (and adjust):

- New EDU Water Demand, AFY/EDU
- Existing EDU Water Demand, AFY/EDU
- Infill EDUs/year
- Commercial & Institutional EDUs/yr, %Residential EDUs
- Commercial & Institutional EDUs, Minimum EDUs/yr
- Water Conservation, % Reduction on Existing Demands
- Water Conservation, % Reduction on New Demands
- 2017 Year Ending Potable Water Demand, AF
- Beaumont Basin Groundwater Storage Account Maximum, AF
- Beaumont Basin Groundwater Storage Account 2017 Ending Balance, AF

The demand worksheets included the major development projects in each of the retailer's service areas, based on data in specific plans, water supply assessments, regional water resource planning studies, and other sources. The spreadsheets allow the water supply agencies to input their own development rates, on a year by year basis, to adjust anticipated housing startups, build-out years for large developments, and the amount of in-fill development and commercial/institution development; adjust unit water demands for new and existing housing, and account for any anticipated conservation for new and existing demands, among other items. Each water supplier could adjust their imported water banking requirements and evaluate the impact of their strategies on their own Beaumont Basin storage accounts over time.

The spreadsheet provides a graph of the agency's annual groundwater storage account balance which is automatically updated with any input change. The purpose is to allow the agencies to model, on a year by year basis, various imported water purchase and banking strategies vis-à-vis available imported water from SGPWA. Adjustments can be made to water demands using conservation factors on new and existing (older) housing units; water supply sources can include groundwater, recharged recycled water (indirect potable reuse), and captured storm water. Beaumont Basin Watermaster's redistribution of unused overlier rights and forbearance water are included in the model.

The worksheets were reviewed by the retail water agency managers for reasonableness of growth taking into account the housing market and absorption capacity of the SGPWA service area. These spreadsheets, and their criteria are described in detail in White Paper No. 6, and summarized below:

Separate spreadsheet models have been developed for:

- BCVWD
- City of Banning, including Banning Heights Mutual Water Company, High Valleys Water District
- YVWD (Summerwind Ranch and Mesa Verde Area)
- All combined

6.1.1 City of Banning

Major development projects in the City of Banning which are included in the Regional Spreadsheet Model are shown in Table 6-1.

Table 6-1 - Major Development Projects in City of Banning

Project Name	Projected EDUs	Estimated Start-up Year	Build-out Years
Butterfield Ranch (Atwell)	4,862	2020	30
Rancho San Gorgonio	3,385	2019	17
Diversified Pacific	98	2021	5
St. Boniface	171	2023	10

The data in Table 6-1 is taken from the water supply spreadsheets; these and other projects have been delayed. As a result, the water supply spreadsheets most likely overestimate the near-term water demands.

Butterfield Ranch (Atwell by Pardee) was projected to start in 2015 and extend for 30 years to buildout in 2045 per the Project's Water Supply Assessment (WSA). The project recently started grading operations and currently is selling homes to be occupied in 2020. Butterfield Ranch proposes 4,862 EDUs, calculating to an average of 160 EDUs per year over the 30-year build-out period. Rancho San Gorgonio is planned for 3,385 EDUs and was initially projected to start in 2017 and be fully built out by 2034 (17 years) per the Project's WSA (about 200 EDUs per year average over the build-out period). This project has not yet started and probably will not start until 2022 or later.

The spreadsheet for Banning included two other projects:

- Diversified Pacific (98 EDUs)
- St. Boniface (171 EDUs)

The developers have not yet published construction schedules for these. The spreadsheet assumes 2021 and 2023 for starting, and build out of 5 and 10 years, respectively, which may overestimate District demands over the next few years.

In the development of the spreadsheet model for the City of Banning, the San Gorgonio Integrated Regional Water Management Plan (SGIRWMP), May 2, 2018 (Revised August 1, 2018) was analyzed in addition to the City's 2015 UWMP. The SGIRWMP covered the SGPWA service area generally east of Highland Springs Avenue. The SGIRWMP integrated three separate studies:

- Water Supply Reliability Study
- San Gorgonio Region Recycled Water Study
- San Gorgonio Integrated Watershed and Groundwater Model Technical Memorandum

The City of Banning has firm groundwater supplies from the Banning Storage Unit, Banning Bench Storage Unit, Cabazon Storage Unit, and Banning Canyon Storage Unit totaling 9,675 AFY[7] .

In addition, in accordance with the Adjudication, the City of Banning is entitled to 31.43% of the unused overlier pumping rights in the Beaumont Storage Unit. Watermaster developed estimates for years 2018 through 2022 and are included in the spreadsheet. The amount of unused pumping rights varies from year to year, depending on hydrologic conditions and other factors, and is evaluated by Watermaster annually. The 2018 Annual Watermaster Report indicates that Banning's reallocated unused overlier pumping amount for 2021 is 1,497 AFY, slightly more than that reported in the City's 2015 UWMP. As some of the overlying parties develop their properties, the overlier rights will be used by the potable water and recycled water supplying agency and will no longer be available for reallocation. As a result, the total amount subject to reallocation will decrease over time. BCVWD made an estimate of the unused overlier pumping rights under a "developed" or "build-out" condition and estimated the total unused overlier amount would be 1,800 AFY under full buildout. The City of Banning's share (31.43%) would be 560 AFY (rounded) at buildout. The spreadsheet allows for the gradual reduction of the unused overlier pumping rights over time. It is projected by BCVWD to decrease to 560 AFY by 2030 or so as the overlying properties develop.

The City of Banning has 52,320 AF banked in their Beaumont Basin Storage account at the end of 2018 per Watermaster. For the period 2008 through 2017, the City of Banning has recharged an average of 1,294 AFY of SPW in BCVWD's recharge facility. The City can store up to 80,000 AF.

Table 6-2 presents a summary on the Supply-Demand Spreadsheet Model for the City of Banning. The year 2040 data was projected from previous years since the model currently only extends to 2035.

Table 6-2 was based on the following criteria:

- 2017 Ending Potable Water Demand: 7,500 AFY
- New EDU water demand: 0.52 AFY/EDU
- Existing EDU water demand: 0.62 AFY/EDU
- No demand reduction due to conservation on either existing or new EDUs

This was reviewed by the City of Banning. Table 6-2 indicates that the City of Banning has adequate local supply until 2035. Note that Banning's Beaumont Basin Groundwater Storage Account is full in 2030 (Per the spreadsheet model it actually fills in 2027). This indicates that the City of Banning has minimal imported water needs from SGPWA until 2040.

[7] Table 5-4 in Banning 2015 UWMP.

Table 6-2 - Summary of Spreadsheet Supply-Demand Model for City of Banning

Demand or Supply	Year				
	2020	2025	2030	2035	2040
Total New EDUs/year	218	388	706	220	220
Potable Water Demand, AFY	7,678	8,406	9,902	10,832	11,400
Banning/Cabazon Groundwater, AFY	9,675	9,675	9,675	9,675	9,675
Beaumont Reallocated Overlier Rights, AFY	1,450	1,100	600	560	560
Total Local Supply, AFY	11,125	10,775	10,275	10,235	10,235
Surplus/(Deficiency)	3,447	2,369	373	-597	-1,165
Imported Water, AFY					1,000
Groundwater Storage Account, AF	63,100	77,573	80,000	78,415	76,510

6.1.2 YVWD/City of Calimesa

Major development projects in the YVWD service area within SGPWA (principally the City of Calimesa) which are included in the Regional Spreadsheet Model are shown in Table 6-3.

Table 6-3 - Major Development Projects in YVWD in SGPWA (City of Calimesa)

Project Name	Projected EDUs	Estimated Start-up Year	Build-out Years
Summerwind Ranch	3,841	2019	20
Mesa Verde	3,650	2022	20
JP Ranch (a)	500	2025	10

(a) Per discussions with BCVWD.

To develop the spreadsheet for YVWD, several references were reviewed for YVWD's water supply and projected demands within their service area lying within the SGPWA boundaries:

- 2015 SGPWA UWMP
- 2015 San Bernardino Valley Regional UWMP
- Mesa Verde Water Supply Assessment (WSA) – Draft August 11, 2017
- YVWD Strategic Plan for Sustainable Future (Adopted August 20, 2008)

The EDUs for Summerwind Ranch and Mesa Verde were taken from the Specific Plans for these projects. First move-ins are scheduled to occur by 2019. Mesa Verde is estimated to start in 2022. An estimated 20-year build-out time for Summerwind Ranch and Mesa Verde was assumed, resulting in an average of 192 and 183 EDUs per year, respectively. Per YVWD, future phases of JP Ranch will likely not start until 2025 with a 10-year build-out period (about 50 EDUs

per year). It should be noted there will be additional EDUs associated with the developments for related commercial and retail developments, schools, parks, restaurants, etc.

Water supply sources for these projects are:

- Reallocated unused overlier pumping rights in the Beaumont Basin
- Oak Valley Partners' earmarked transfer right
- Banked groundwater from storage
- Imported Water from SGPWA
- Treated potable water from the YVWD's Regional Water Treatment Plant

In accordance with the Adjudication, YVWD's share (13.58%) of the reallocated unused overlier pumping right was determined by Watermaster for 2018 through 2022 and reported in the 2018 Watermaster annual report. To project the amount available under more long-term conditions, BCVWD made an evaluation of a fully developed condition of the developable overlier parcels as shown on the worksheet in the spreadsheet. BCVWD believes the total unused overlier right at build-out will be about 1,800 AFY; YVWD's share will be about 240 AFY (rounded).

Both Mesa Verde and Summerwind Ranch are part of the original Oak Valley Development that started with the Landmark Land Company of California in the 1980s. The original Landmark Project was a master planned golf/recreational development. Oak Valley Partners (OVP) took over the project and were involved in the Beaumont Basin Adjudication. OVP has overlying groundwater rights in the Beaumont Basin [originally 1,806 AFY but reduced to 1,398.9 AFY, (round to 1,399 AFY), after the safe yield was reduced in 2014]. These overlier groundwater rights will be transferred to YVWD to serve the Summerwind Ranch development only per YVWD.

YVWD uses 700 gal/day/EDU (0.78 AFY/EDU) for total water demand for existing EDUs; but requires all new development to be dual-plumbed and requires the use of recycled water outside. Potable water demands are estimated by YVWD to be 40% of the total water demand, i.e. 280 gal/day/EDU (0.37 AFY/EDU) with the remainder, i.e., 420 gal/day/EDU to be recycled water. It is BCVWD's opinion that the Adjudication requires OVP to forebear the pumping of their 1,399 AFY overlier pumping right, on an acre-ft by acre-ft basis, for both potable and recycled water.

YVWD has groundwater banked in the Beaumont Basin; at the end of 2018, per Watermaster, the amount in storage was 16,633 AF. YVWD has a 50,000 AF storage account.

The Mesa Verde WSA indicates 1,200 AFY is proposed to be recharged (banked) by YVWD from 2020 through 2040. YVWD developed a strategic plan entitled *The Integration and Preservation of Resources for a Sustainable Future* (adopted August 2008) which identified a groundwater banking program for future reliability for droughts and disruption in the SPW supply. The Plan indicates a Board policy of banking 15 percent of the total water supply used by the YVWD's customers. Data was not available to confirm the 1,200 AFY in Table 6-4, but 1,200 AFY is used in the spreadsheet model.

Table 6-4 - YVWD - SGPWA Imported Water Demands

Agency	2015	2020	2025	2030	2035	2040
Drinking Water Demands: Yucaipa Valley Water Filtration Facility	454	609	767	962	1,191	1,444
Conjunctive Use Demands - Local Water Banking	0	1,200	1,200	1,200	1,200	1,200
New Development Long-Term Supply - Sustainability Program	0	2,504	3,040	3,596	4,344	3,407
Purchase from SGPWA	**454**	**4,313**	**5,007**	**5,758**	**6,735**	**6,051**

Source: Mesa Verde Project WSA Draft August 11, 2017, page 25

The total of the drinking water demands for the Water Filtration Facility plus the Conjunctive Use Demands match with the projected imported water demands in the SGPWA 2015 UWMP as shown in Table 3-1.

Table 6-4 also identifies “New Development Long-Term Supply - Sustainability Program” which relates to YVWD’s Strategic Plan for a Sustainable Future. YVWD requires all new developments to provide funding to secure 7.0 AF of supplemental imported water per EDU. This amount of water is sufficient to meet the drinking water demands generated by each new EDU for a period of 20 years. YVWD also offers a Crystal Status Development Program whereby the developer provides funding for 15.68 AF of supplemental imported water per EDU which is sufficient to meet the potable and non-potable (recycled) water demands of the new EDU for 20 years. The difference between the two programs is that under the standard (7.0 AF/EDU) program, development will be restricted, (i.e., no grading or building permits will be issued), when a Stage 2 water shortage is declared (10% cutback). However, Crystal Status Development can continue through a Stage 4 Shortage (35% cutback). The 7.0 AF/EDU will not need to be replenished for 20 years. For this spreadsheet, the Standard 7.0 AF/EDU imported water purchase and storage is used, since it is difficult to determine how many new developments will purchase Crystal status. This is conservative.

The spreadsheet assumes that 7.0 AF/EDU will be applied to all new developments (Mesa Verde and JP Ranch) in YVWD, except for Summerwind Ranch, which has overlier pumping rights available to meet its projected demands.

Table 6-5 presents a summary on the Supply-Demand Spreadsheet Model for YVWD in the SGPWA service area, i.e., principally the City of Calimesa. Year 2040 data was projected from previous years since the model currently only extends to 2035.

Table 6-5 was based on the following criteria:

- 2017 Ending Potable Water Demand: 500 AFY
- New EDU water demand: 0.37 AFY/EDU
- Existing EDU water demand: 0.78 AFY/EDU
- Water demand reduction from conservation on new EDUs: 10%
- Water demand reduction from conservation on existing EDUs: none

Table 6-5 indicates that YVWD, in SGPWA service area has sufficient local supply to meet demands until 2025, at which time imported water will be needed unless YVWD plans on withdrawing water from their storage account. The YVWD Beaumont Basin Groundwater Storage Account is full in 2030 primarily because of the "Sustainability Water" which is banked.

Table 6-5 - Summary of Spreadsheet Supply-Demand Model for YVWD (City of Calimesa)

Demand or Supply	Year					
	2018	2020	2025	2030	2035	2040
Total New EDUs/year		83	464	551	551	500
Potable Water Demand, AFY	503	544	1,065	2,054	3,058	4,062
Oak Valley Partners Earmark Transfer, AFY	3	50	586	1,399	1,399	1,399
Beaumont Reallocated Overlier Rights, AFY	864	627	400	240	240	240
Total Local Supply, AFY	867	677	986	1,639	1,639	1,639
Surplus/(Deficiency)	364	133	(79)	(415)	(1,419)	(2,423)
Imported Water for Regional Filtration Facility, AFY (a)	500	609	767	962	1,191	1,444
Imported Water for Banking, AFY (a)		1,200	1,200	1,200	1,200	1,200
Imported Water for Sustainability, AFY	49	51	1,655	2,260	2,260	2,260
Total Imported Water, AFY	549	1,860	3,622	4,422	4,651	4,904
To (From) Storage, AFY	913	1,993	3,542	4,007	3,232	2,481
Groundwater Storage Account, AF	16,689	19,397	32,825	50,000	50,000	50,000

(a) Source: YVWD's Mesa Verde WSA, pg. 25, SGPWA SPW or equivalent used at Filtration Plant

6.1.3 BCVWD

6.1.3.1 City of Beaumont Development

Major development projects in the BCVWD service area, which are included in the Regional Spreadsheet Model, are shown in Table 6-6. The projected EDUs planned or yet to be built are estimated and may vary slightly from City of Beaumont Project Status Report estimates.

Table 6-6 - Major BCVWD Development Projects in Planning or Construction Stages

Project Name	Projected EDUs (Planned or Yet to be Built)	Estimated Start-up Year	Build-out Years
Tournament Hills Ph 4	281	2020	4
Sundance[(a)]	1,262	2018	5
Fairway Canyon[(a)]	1,810	2019	20
Heartland Olivewood[(a)]	1,081	2018	20
Four Seasons[(a)]	203	2018	3
Kirkwood Ranch	391	2022	12
Potrero Creek Estates	700	2025	10
Noble Creek Meadows	648	2021	15
Hidden Canyon Industrial[(a)]	82	2019	5
Sunny Cal Egg Ranch	529	2019	10
Beaumont Pointe (current proposed)	360	2022	2
The Preserve/Legacy Highlands	3,218	2025	25
Taurek	244	2022	20
TR 32950 Manzanita	95	2022	10
Other Projects on City of Beaumont's Project Status List (10/18/2018)			
Sundance Corporate Center[(b)]	---	2018	2019
Rolling Hills Ranch Industrial Ph 2	---	2020	2021
Centerpointe Commercial[(b)]	---	2018	2019
San Gorgonio Village Ph 2[(a)]	---	2020	2021
Total EDUs	***10,904***		

(a) Under construction
(b) Recently completed

Prior "proposed" projects equivalent dwelling units within the BCVWD service area were estimated at 12,544 (Legacy Highlands WSA, June 2020). The BP Project site was previously planned with a land use density of 2,000 equivalent dwelling units (EDUs). The new BP land use plan estimates a significantly reduced density of 360 EDUs, representing a reduced site density by 82 percent. The update presented in Table 6-6, as calculated in Section 4.2, is updated with this lower density for BP contributing to total EDU count of 10,904, and a reduction by 1,640 EDUs. Figure 4 shows the number of single-family home building permits issued in the City of Beaumont since year 2002. (Year 2018 was estimated based on data through September 2018.) Although not shown in the figure, the permit applications started to increase in 1999- 2000 and reached their peak in 2005 with 2,300 new home permits issued for that year. The number of

permits for new homes declined to a low of 169 in 2011. Over the last 10 years, permits averaged 396 per year, and 508 over the last 5 years. The 16-year average was 747 per year. Future growth will likely be in the range of 450 to 650 permits per year, although some developers have projected slightly higher amounts in their build-out forecasts.

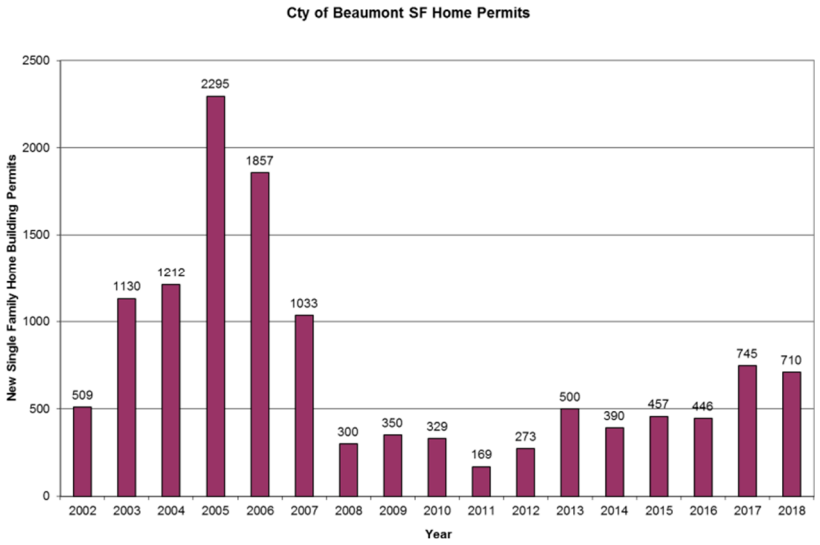


Figure 4
City of Beaumont Single Family Home Permits

6.1.3.2 Cherry Valley Growth and Development

The ultimate build-out population for that portion of Cherry Valley served by BCVWD, based on the Pass Area Land Use Plan[8,9] densities, was estimated to add a population of approximately 21,700, or about 7,750 EDUs. This was BCVWD's estimate in 2009 using GIS land use data from Riverside County and typical development densities for the various land uses in the General Plan. This estimate included a population growth of 6,736 in the City of Calimesa. BCVWD will not be serving the City of Calimesa as this is within YVWD's service area. Cherry Valley population is being reviewed as part of the 2020 UWMP update work in conjunction with the City of Beaumont's General Plan Update (2020). As a result, the increased population estimate to be served by BCVWD may be overestimated. BCVWD now believes it to be closer to 15,000 people at build-out, or about 5,350 EDUs. The build-out population is based on an increase from the current 2.43 persons per EDU to 2.8 persons per EDU projected at build-out.

The housing unit count within Cherry Valley was 2,874 in 2010 per the census data, but 26.6 percent of those are mobile homes. Adjusting for the reduced water use in mobile homes, the 2,874 housing units are equivalent to about 2,485 EDUs. The Sunny Cal Egg Ranch Development (529 EDUs from Table 6-6), is included with the City of Beaumont's development projects, but is actually within the current Cherry Valley census area. The Sunny Cal EDUs would have been included in the projected 2,865 EDU increase for Cherry Valley, (5,350 EDUs – 2,485 EDUs). To avoid "double counting EDUs," the Sunny Cal Egg Ranch EDUs were deducted from the 2,865 EDUs, resulting in a net projected 2,336 EDU increase for Cherry Valley to build-out.

[8] Pass Area Land Use Plan, October 7, 2003, Part of Riverside County General Plan.
[9] The Pass Area Plan, County of Riverside General Plan Amendment 960, Draft March 2014.

The buildout population and EDUs will be revised in future updates of the BCVWD Potable Water Master Plan and UWMP.

BCVWD believes Cherry Valley will be growing at a low rate keeping with its character of residential rural community, which is estimated to be less than 10 EDUs/year until the City of Beaumont's currently planned projects are developed. Once the City of Beaumont has developed, Cherry Valley will begin to be developed at a gradually increasing rate, perhaps increasing to 30 to 50 EDUs/year, but this is not expected to occur until after 2040.

6.1.3.3 Supply Demand Model for BCVWD

Table 6-7 presents a summary of the spreadsheet model for BCVWD's demand which was based on the following criteria:

- 2019 Ending Potable and Non-potable Water Demand: 13,337 AFY
- New EDU water demand: 0.546 AFY/EDU
- Existing EDU water demand: 0.62 AFY/EDU
- Water demand reduction from conservation on new EDUs: 5%
- Water demand reduction from conservation on existing EDUs: 5%

Table 6-7 - Summary of Spreadsheet Supply-Demand Model for BCVWD[12]

Demand or Supply	Year						
	2019	2020	2022	2025	2030	2035	2040
Total New EDUs/year	381	580	940 [1]	460	502 [1]	378 [1]	207 [1]
Potable and Non-potable Water Demand, AFY	13,337 [2]	13,668	14,498 [3]	15,188 [4]	16,584 [5]	17,772 [6]	18,337 [13]
Edgar Canyon, AFY	1,700	2,100	2,100	2,100	2,100	2,100	2,100
Beaumont Reallocated Overlier Rights, AFY	1,905 [11]	1,962 [11]	1,826 [11]	1,200	760	760	760
Forbearance Water (Sunny Cal Egg Ranch), AFY	0	50	100 [7]	200	340	340	340
Recycled Water City of Beaumont, AFY	0	1,556	1,808 [8]	2,188	2,840	3,487	3,930
Stormwater Capture, AFY	0	0	0	250	250	250	250
Other Local Water Resource Projects, AFY	0	0	0	250	250	250	250
Total Local Supply, AFY	3,605	5,668	5,834	6,188	6,540	7,187	7,630
Surplus/(Deficiency), AFY	-9,732	-8,000	-8,664 [9]	-9,000	-10,044	-10,585	-10,707
Imported Water for Replenishment, AFY	9,732	8,000	8,664 [9]	9,000	10,044	10,585	10,707
Imported Water for Drought proofing, AFY	1,000	1,000	1,000 [9]	2,000	2,500	2,500	2,500
Total Imported Water, AFY	10,732	9,000	9,664 [9]	11,000	12,544	13,085	13,207
To (From) Storage, AFY	1,000	1,000	0	2,000	2,500	2,500	2,500
Groundwater Storage Account, AF	34,794 [10]	35,794	35,794	41,794	52,294	64,794	77,294

[1] Previous BCVWD planning identified Years 2020 - 2024 with 580 EDU/yr, and old JRT starting in 2030 at 80 EDU/yr for 25 years (Hidden Canyon WSA, Table 8). BP (JRT) update proposes 360 EDUs and buildout in 2022; therefore, 2022 EDUs/yr = 580 + 360 = 940. As such, EDUs/year for 2030, 2035 and 2040 decrease by 50 EDUs/yr, 80 EDUs/yr, and 90 EDUs/yr, respectively. NOTE - 360 EDUs is the Project's Total Potable and Non-Potable Demands

[2] Adjusted for Year 2019, which was 13,129 AFY for 2018 (Legacy Highlands WSA, Table 12); 381 EDU/yr*0.546AFY/EDU = 208 AFY.

[3] Year 2022 adds 2 years at Year 2020 EDU rate at 0.546AFY/EDU plus 197 AFY for BP (updated demand estimate) = 14,498 AFY.

[4] Accounts for 423 EDU's in 2023, 381 EDU's in 2024, and 460 EDU's in 2025. The Project's 197 AF demand is accounted for in the 2022 column.

[5] Accounts for 500 EDUs in 2026, 525 EDUs in 2027, 519 EDUs in 2028, 510 EDUs in 2029, and 502 EDUs in 2030. The District's previous projection accounted for 50 EDUs in the first of year of construction (2030) of the orginal (residential) BP Project. The current Project's 197 AF demand is accounted for in the 2022 column.

[6] Accounts for 474 EDUs in 2031, 467 EDUs in 2032, 456 EDUs in 2033, 402 EDUs in 2034, and 368 EDUs in 2035. The District's previous demand projection accounted for 80 EDUs/yr from 2031-2033, and 90 EDUs/yr in 2034 and 2035 for the original (residential) BP Project. The current Project's 197 AF demand is accounted for in the 2022 column.

[7] Assumes forbearance water credit for Sunny Cal Egg Ranch will be 100 AFY by Year 2022.

[8] Based on proportionate deliveries of recycled water from Year 2020 (1,556 AFY) to 2025 (2,188 AFY), or 126.4 AFY x 2 yrs increase.

[9] For conservative analysis, assumes no increase from Year 2020.

[10] Per Beaumont Basin Watermaster 2018 Annual Report, Section 3.5.

[11] Per Beaumont Basin Watermaster 2018 Annual Report, Table 3-7.

[12] Demand data presented in Table 6-7 represents the most reasonable and accurate demand projections to date. It should be noted that the District is currently analyzing current and future projected demands to be included in its 2020 Urban Water Management Plan Update, which will be submitted to the Department of Water Resources around July 2021. Demands presented herein may be subject to change at the discretion of the District. Demand values currently presented are considered to be conservative.

[13] Assumes uniform 207 EDU/yr increase from 2036-2040; The District's previous demand projections did not extend to 2040. This is considered to be conservative. It is assumed that the 90 EDU/yr trend would continue from 2036-2040 for the original (residential) JRT Project. The current Project's 197 AF demand is accounted for in the 2022 column.

BCVWD's source of supply consists of:

- **Edgar Canyon (Little San Gorgonio Creek) Groundwater** – The annual yield for Edgar Canyon is based on 37 years of pumping records. The average annual production for the period 1983 – 2019 was 2,094 AFY, which was rounded to 2,100 AFY in the spreadsheet. However, for 2018, the production was reduced to 1,700 AFY to account for the reduced production in some wells due to reduced pump efficiency. These pumps have been refurbished and will be refurbished on a regular basis.

- **Beaumont Basin**
    - **Reallocated Unused Overlier Pumping Rights** – Watermaster provided the amount of reallocated overlier rights in the 2018 Annual Report for each year up to 2023. BCVWD was allocated 1,905 AF in 2019 and 1,962 AF in 2020. Thereafter, BCVWD made an estimate based on production and development of the overlier's property. BCVWD estimated the long-term, fully developed, unused overlying party pumping rights would be about 1,800 AFY. BCVWD gets 42.51% of the unused overlier pool each year. At full development, BCVWD estimates its share is 760 AFY.
    - **Forbearance Water** is credited to a water supplier by Watermaster for any potable and/or recycled water provided to an overlier when the overlier's property develops. The overlier forbears pumping the equivalent amount of water supplied. BCVWD will supply the Sunny Cal Egg Ranch Development with both potable and recycled water. Sunny Cal Egg Ranch and associated partners are overlying parties and have pumping rights. BCVWD estimates that fully developed demand from recycled and potable water is about 340 AFY. The amount of forbearance water will increase over time from zero (0) AFY to 340 AFY as the project develops to anticipated buildout in 2030.
    - **Water from Groundwater Storage** – BCVWD has an 80,000 AF storage account in the Beaumont Basin. As of the end of 2018, there were 34,794 AF in storage per Watermaster's 2018 Annual Report. BCVWD's plan, which is shown in BCVWD's 2015 UWMP, envisions banking from 1,000 AFY to 2,500 AFY to drought proof BCVWD. This is accounted for in the spreadsheet each year. Should there be a year when the projected amount cannot be delivered by SGPWA, any deficiency will be made up in successive years when adequate supply is available. Table 6-7 shows that for average water supply conditions, banking is anticipated every year and no water will be withdrawn from storage.
- **Recycled Water from the City of Beaumont** – The City of Beaumont is required by Regional Water Quality Control Board (RWQCB) Order No. R8 -2015-0026 to have recycled water put to beneficial reuse by March 1, 2020. The City started construction of the new wastewater treatment plant, reverse osmosis desalting unit, and the required brine line from the wastewater treatment plant to the Inland Empire Brine Line (IEBL), in San Bernardino. The City has completed and has an approved Title 22 Engineering Report for the Treatment Facilities. The City and BCVWD signed a Memorandum of Understanding (MOU) in 2019 which began the process of an agreement for purchase of recycled water by BCVWD from the new treatment plant. BCVWD and the City are working jointly on defining the pumping and storage requirements at the treatment plant. The City will be the recycled water producer; BCVWD the distributor. BCVWD is in process of completing their Title 22 Engineering Report for the Distribution and Reuse Applications. BCVWD has developed draft rules and regulation for recycled water use and developed a cross-connection testing and control plan which has been approved by the SWRCB Division of Drinking Water. In the future, as more recycled water becomes available during the late fall, winter, and early spring, BCVWD and the City will develop

an advanced treatment facility and secure permits for groundwater recharge of the surplus effluent. BCVWD and City will discuss providing recycled water to the Oak Valley Greens and/or Tukwet Canyon Golf Courses in exchange for forbearance water which will increase BCVWD's potable water supply.
The BCVWD spreadsheet model is based on 0.25 AFY/EDU (225 gallons/day/EDU) connected to the City's wastewater system. The City is obligated to maintain a 1.8 mgd discharge to Cooper's Creek for habitat maintenance; the available recycled water accounts for this 1.8 mgd "loss." A capacity factor of 75 percent is applied to the available wastewater to account for brine discharge, recycled water used on the plant site for maintenance, and water contained in the biosolids, hauled off-site.

- **Storm Water Capture** – BCVWD and Riverside County Flood and Water Conservation District (RCFWCD) are jointly working on a Santa Ana Watershed Project Authority (SAWPA) Grant Project to design and construct Beaumont MDP-Line 16 storm water capture project, also known as the Grand Avenue Storm Drain in Cherry Valley. The project is partially funded under the Integrated Regional Water Management Implementation Grant Program under Proposition 84. A detailed analysis of the runoff potential was performed using 77 years of daily rainfall records from the Beaumont Rain Gage with the runoff determined for each storm using the Natural Resources Conservation Service (NRCS) curve number method. An estimated 200 to 230 AFY can be captured with MDP-Line 16 project. Other projects, in and around the BCVWD recharge facility, will capture excess flow in both Brookside Ave and Beaumont Ave to increase the annual capture (long term average) to 250 AFY.
- **Other Local Water Resource Projects** – BCVWD has several other local water resource projects which can be implemented including:
    - High nitrate groundwater at the mouth of Edgar Canyon. This groundwater can supplement the recycled water/non-potable water system flow in the summer, high demand months, making well water available for potable water use. BCVWD believes as much as 300 AFY can be captured and reused.
    - San Timoteo Canyon Extraction Wells to capture groundwater from the Beaumont Basin flowing into San Timoteo Canyon and also to capture City of Beaumont wastewater flow discharged to Cooper's Creek once the water has percolated and is no longer available for habitat maintenance. It is estimated that 400 to 800 AFY can be captured and put into the recycled water/non-potable water system to meet summertime demands.
    - For purposes of this WSA, 250 AFY are assumed to be available with the initial phases of these projects.
- **Imported Water from SGPWA** -- The amount of imported water which BCVWD is able to purchase and recharge is only the amount left over after YVWD, the City of Banning, and others have purchased the amount each needs to meet their demands and banking. The amount available from the SGPWA collectively is discussed later in this WSA. BCVWD has entered into an agreement, and participated financially, with the SGPWA for a share of the yield from the Sites Reservoir Project. This is discussed later in this WSA.

6.2 Summary of Member Agency Imported Water Demands on SGPWA

Table 6-8 presents a summary of the spreadsheet model demands for the City of Banning, YVWD/Calimesa, and BCVWD from Tables 6-2, 6-5, and 6-7 presented previously. The imported water demands include from 3,816 to 7,912 AFY for banking and drought proofing. Table 6-8 also includes a projected amount of imported water for member agencies in SGPWA that are not currently taking SPW. These amounts were taken from SGPWA's 2015 UWMP. BCVWD believes these amounts are conservative considering the growth rates in the SGPWA Area.

Table 6-8 - Regional Summary of Spreadsheet Supply-Demand Model for SGPWA

Demand or Supply	Year					
	2018	2020	2025	2030	2035	2040
Potable Water Demand, Banning YVWD/Calimesa, BCVWD (Potable and Non-potable), AFY	21,135	21,890	24,659	28,540	31,662	33,799
Local Supply, Banning YVWD/Calimesa, BCVWD, AFY	16,949	17,470	17,949	18,454	19,061	19,504
Imported Water Demand, incl. drought proofing, etc., AFY	10,272	10,860	14,622	16,966	17,736	19,111
Total Imported and Local Supply, AFY	27,221	28,330	32,571	35,420	36,797	38,615
Total to (from) Regional Groundwater Storage, AF	6,085	6,440	7,912	6,880	5,135	3,816
Regional Groundwater Storage, not incl. SGPWA, AF	106,118	117,791	150,592	179,494	189,309	198,804
SGPWA Imported Water Demands for those agencies not currently taking imported water, from SGPWA 2015 UWMP, AFY		500	1,600	2,800	3,900	5,000
Total Imported Water Demand, AFY	10,272	11,360	16,222	19,766	21,636	24,087
Total Imported Water Demand, without banking or drought proofing, AFY	9,223	9,109	11,367	13,806	15,676	17,151

7. SGPWA AVAILABLE IMPORTED WATER

At the present time the "firm" supplies of imported water available to SGPWA, or in the final stages of being finalized, by Year 2040 are:

- Table A
- Yuba Accord Water
- SBVMWD (agreement is in final stages of development)
- AVEK (Nickel Water)
- Ventura/Casitas Water Lease/Purchase
- Delta Conveyance Project (DCP)
- Sites Reservoir (Sites)
- Purchase of State Water Project Contractors Incremental DCP Reliability Benefits
- Purchase or Leasing of Metropolitan's DCP Phase 2 Water
- Other Sources Available through SWP

These are discussed in White Paper No. 6, and reiterated in Table 6-8:

7.1 State Water Project (SWP) Table A

SGPWA's contract with the Department of Water Resources (DWR) states a Table A amount of 17,300 AFY. Table A is the maximum amount of water the SGPWA can convey through the SWP facilities. This amount of water is not available consistently every year. In fall of each year, DWR provides an initial delivery allocation as a percent of Table A depending on amount of water in reservoir storage and anticipated hydrologic conditions. The allocation can be increased or decreased depending on the precipitation during the winter; a final allocation is usually issued in spring and sets the amount of water available, as a percentage of Table A, from the SWP. Since 1992, the allocation has averaged about 65%. DWR has prepared a reliability study[10] which indicated the SWP can deliver only about 62% of Table A (10,726 AF to SGPWA) in any one year. Table B-5B, in DWR's Bulletin 132-17, forecasts the amount of SPW delivered to SGPWA in future years at 10,380 AFY.

In the discussions over the DCP, experts believe the current SWP reliability will decrease over time to 48%, or possibly even lower, due to anticipated additional regulatory constraints to protect threatened and endangered fish within the Delta. The length of time over which this decline in reliability will occur is not certain, but to be conservative, it is assumed that by 2035, the SWP reliability will decrease to 48%. Implementation of DCP by 2030 to 2035 is expected to restore reliability to above 60%.

For planning purposes in the WSA, the SWP delivery reliability is assumed to decline at a linear rate from 2020 to 2035. Therefore, by the Year 2035, with a delivery reliability of 48%, the SGPWA can expect only about 8,300 AFY from the SWP. Once the DCP is in place, the reliability will be restored, and possibly improved, over its current 62% reliability.

[10] DWR (2012). State Water Project Delivery Reliability Report 2011. State of California Dept. of Water Resources, June.

7.2 Yuba Accord Water

Through the Yuba Dry Year Transfer Program, the official name for Yuba Accord Water, SGPWA can purchase additional supplemental water from Yuba County Water District under an agreement.[11] The amount of water available from the Yuba Accord varies year to year depending on hydrologic conditions. Yuba Accord Water has only been available, for purchase by SWCs since about 2009. Delivery "loss" (termed "carriage cost" in DWR's Bulletin 132 series), in the Delta is typically assumed by DWR to be 20% of the delivered amount, adjusted as needed based on water quality considerations, plus an additional 2 to 3% Delta Conveyance "loss." Records in the Bulletin 132 series indicate that SGPWA purchased Yuba Accord Water in four years since 2009 although Yuba Accord Water was available every year from 2009 through 2015 except 2011. Purchases by SGPWA averaged 374 AFY, with deliveries averaging 280 AFY (25% loss).

The amount of Yuba Accord Water available depends on the calculated Sacramento Valley Water Year Index. Between 75,000 AFY (Dry Years) and 140,000 AFY may be available depending on the Water Year Index. If all 22 SWCs decide to participate in a given year, SGPWA's share of the Accord Water is 0.21%, based on the proportion of SGPWA's Table A and the Total Table A of all 22 participants. If some SWCs do not want to participate in a given year, the allocation to each SWC is adjusted upward. SGPWA would normally get 158 AFY during a dry year and a maximum of about 294 AFY.

The SGPWA estimates that about 300 AFY, on the average, of Yuba Accord Water can be obtained.[12] For purposes of this WSA, a conservative 30% total loss is assumed, which will reduce the amount that can be actually delivered to the Pass Area to 200 AFY. This is reasonable considering the past experience.

7.3 San Bernardino Valley Municipal Water District (SBVMWD Water)

The SGPWA Board of Directors authorized the General Manager to sign the Surplus Water Sale agreement with SBVMWD to purchase up to 5,000 AFY of SBVMWD's Table A water in years that SBVMWD's Board of Directors declares a surplus[13]. The availability of SBVMWD surplus water depends on hydrologic and groundwater conditions within SBVMWD's service area per SBVMWD Ordinance 79. SGPWA has the right of first refusal on the first 5,000 AFY of surplus water. Assuming SGPWA exercises the right, the agreement states that SBVMWD must first offer 50% of the available supply to one or both agencies that are in both SBVMWD and SGPWA, i.e. Yucaipa Valley WD and South Mesa Water Company. Fifty percent of the water and any additional water "left over," can be offered to other SGPWA retailers. The agreement is for a term of 15 years from the date of execution (terminates in 2033), but SGPWA intends to renegotiate the terms and extend to some point in the future. Execution of the agreement is anticipated soon.

SGPWA estimates, based on past hydrologic conditions, this is likely to occur about two years out of every five, or 40% of the time. This is equivalent to 2,000 AFY in any one year. The term

[11] DWR (2008). Agreement for the Supply and Conveyance of Water by the Department of Water Resources for the state of California to the Participating State Water Contractors under the Dry Year Water Purchase Program, March 31.
[12] Refer to Table 3-1 of SGPWA 2015 UWMP
[13] SGPWA Regular Board Meeting Minutes, October 16, 2017, page 4.

of this agreement will be at least 15 years from now or until about 2032.[14] For purposes of this WSA, the amount of water available from SBVMWD is 2,000 AFY until 2032.

7.4 AVEK-Nickel Water

In June 2017, SGPWA Board of Directors approved an agreement with the Antelope Valley-East Kern Water Agency (AVEK) for 1,700 AFY for 20 years (to 2037) with the right of first refusal to extend it for another 20 years. The water rights on the Kern River originally belonged to the Nickel Family, LLC that were sold to Kern County Water Agency (KCWA) and subsequently leased to other parties in various amounts. One portion (1,700 AFY) is under the control of AVEK, which offered the water to SGPWA. This water is not subject to the reliability issues of the SWP. Per the take-or-pay agreement, SGPWA must take all of the 1,700 AF each year or pay for 1,700 AF even if the SGPWA does not take all, or any portion, of it in any one year.

7.5 City of Ventura and Casitas Municipal Water District (Ventura Water)

The Ventura County Watershed Protection District is one of 29 State Water Contractors, but the agency lacks the infrastructure at present to be able to take its 20,000 AFY of Table A water. The County's Table A is allocated to three entities: City of Ventura (10,000 AFY), United Water Conservation District (5,000 AFY), and Casitas Municipal Water District (5,000 AFY). Up until 2018, these agencies sold their Table A water back to the "Turn-back Pool" (discussed later in this WSA). In 2018, the City of Ventura (Ventura) and Casitas Municipal Water District (Casitas MWD) entered into an agreement to exchange Table A water with SGPWA. BCVWD understands the SGPWA is also negotiating to enact an exchange of Table A water with Ventura (and possibly Casitas MWD) for year 2020.

The SGPWA may be considering extending it to a more long-term arrangement. The SGPWA Board of Directors, at the May 4, 2020 meeting, authorized the General Manager to sign the draft agreement presented at the board meeting and authorized staff to complete any and all actions required to document the CEQA exemption, including the filing of the Notice of Exemption, and develop and execute any agreements or documentation with DWR for the one-year deal.

Under the terms of the 2018 agreement, SGPWA received all of Ventura's and Casitas MWD's Table A water allocation for year 2018, or 5,250 AF considering the Department of Water Resources' 2018 final allocation at 35% (up from the original 30% in the draft agreement). SGPWA paid all of the Transportation Capital, Transportation Minimum, Conservation Capital and Conservation Minimum charges. Finally, each party to the agreement would be responsible for paying the variable costs for pumping the water to their respective service areas.

The SGPWA is obligated to return 40% of the Table A water taken from Ventura and Casitas MWD within 10-years, no later than the end of calendar year 2028. This amount would be from SGPWA's future Table A allocation, presumably during a "wet year". Ventura and Casitas MWD must initiate the request for return of the 40%, except they may not request return in any year that DWR has a Table A allocation of 30% or less. If the Table A allocation is between 30 and 50%, the two agencies will negotiate the delivery amount for that year. If there is any "balance"

[14] SGPWA 2015 UWMP

remaining after the 10-year period, the two agencies and SGPWA will negotiate alternative delivery methods which could include extension of the 10-year period by five years rolling the balance into a long-term exchange, should that develop.

The SGPWA is also considering a more long-term water transfer with a State Water Contractor for a portion of their unused SWP Table A allocation. Based on recent information published by SGPWA, it appears that supply would potentially start at approximately 6,000 AF on an average year in 2020 and might decline to 3,500 AF in 2040 as that potential partner agency utilizes more of their Table A supplies.

Currently, a one-year deal is in process, and it is believed that the SGPWA is pursuing a longer-term arrangement. For the purposes of this WSA, a conservative approach will be taken and no long-term arrangement will be in place.

7.6 Delta Conveyance Project (DCP), formerly California Water Fix (CWF)

The SWP was authorized in the Burns-Porter Act, also known as the California Water Resources Development Bond Act, passed by vote of the people in November 1960 (Proposition 1). Construction on most of the basic facilities of the SWP was completed by 1975. Due to cost considerations, and the fact that initial project water demands are lower than design capacity, a number of the originally planned facilities were "scaled down" or deferred. Many have not been constructed to date for various reasons. One of those projects was the Cross-delta Facility known as the Peripheral Canal. As a result of the scaling down and facility deferments/cancelations, the SWP is not able to live up to its original delivery capacity. A number of other facilities were scaled down, deferred, or not constructed.

The Sacramento-San Joaquin Delta levees are vulnerable to seismic shaking; the Delta ecosystem continues to decline; flooding and saline water intrusion into the Delta impacts the water quality delivered to municipal and agricultural users during dry years; climate change, whether short-term (50 or 100 years) or long term 500 or more years, will cause increased water levels in the Delta further stressing vulnerable levees. The SWP dams and reservoirs were designed about 50 years ago with the hydrology of the times. Climate change will impact the operation of the SWP. Precipitation, which used to fall as snow and be stored in snowpack, will be in the form of rain which the reservoirs were not designed to accommodate. More and more water will be lost to the ocean in future years because of increased runoff and less storage.

The Delta Conveyance Project (DCP), intended to address some of these issues, proposes a dual, gravity tunnel conveyance system from north of the Delta extending south to the Clifton Court Forebay. At the southerly end of the tunnels, a new Clifton Court Pumping Facility would lift water from the tunnels into Clifton Court Forebay. The water would be pumped from Clifton Court Forebay by the State and Federal Central Valley Project pumps as they now do. About 9,000 cfs would be diverted from the Sacramento River into the tunnels and around the Delta improving water supply reliability and export water quality TDS. The cost for the DCP was anticipated to be shared 55% by the State Water Contractors and 45% by federal Central Valley Project Contractors. This allocation share may change depending on the number of Central Valley Project Contractor participants.

Governor Newsom has stated his support for a "one-tunnel" DCP in his "State of the State"

address February 12, 2019. Originally planned as Phase 1 of the CWF.

The Delta Conveyance Project (DCP) is moving forward. On January 15, 2020 DWR issued a Notice of Preparation (NOP) for the environmental work on the reduced-size project which started the scoping comment phase. The scoping comment period ended April 17, 2020. DWR will be considering the comments when the Environmental Impact Report is prepared. The draft EIR is expected to be out for review and comment in early 2021.

The Delta Conveyance Project Authority has been established for the design and construction of the DCP. A Delta Conveyance Financing Authority has been established to develop the financing. The DCP is anticipated to be funded by revenue bonds issued by the State or a Jojnt Powers Financing Agency with payment by State Water Contractors south of the Delta through their existing contracts with the DWR – extended as needed into the future. In addition to other federal, State and local permits, DCP requires changes to the water rights permits for the State Water Project (SWP) Debt Service taxes. White Papers No. 3 and 6 provide more details on the funding, etc. The DCP is not expected to be operational until Year 2035. Until then, the reliability of the SWP would gradually degrade over time to 48% without the DCP due to a variety of reasons.

The original CWF with its two-tunnel approach was projected to increase the future reliability of the SWP by 14% (DWR study) to 17.62% (Metropolitan study) resulting in an increase of the overall reliability to 62% or, in the best case, 65.62%. This is at or slightly above the current reliability. It is not known to what amount of reliability increase will result from the new DCP but, to be conservative, it is assumed the reliability will be restored to 60 to 62%.

Without DCP, SGPWA's reliable Table A would be 8,300 AFY (rounded, based on 48% of 17,300 AFY). The reliable Table A supply for SGPWA would increase from 10,380 AFY to 10,726 AFY at 60% and 62% reliability, respectively.

7.7 Sites Reservoir

Sites Reservoir is a proposed reservoir that would be located at the site of a cattle ranch in the eastern foothills of the Central Valley about 78 miles northwest of Sacramento and north of the Sacramento-San Joaquin Delta near the Town of Maxwell, CA. Sites Reservoir is not on any major stream; all water must be pumped into the reservoir. Sites Reservoir was part of the original California Water Project, but was deferred. The reservoir in the original project proposal would have had a surface area of about 14,000 acres and store between 1.27 and 1.81 million acre-feet depending on final project. The estimated water yield would be between 470,000 to 640,000 acre-feet per year, depending on yearly rainfall and environmental regulations, according to DWR. The original project cost estimate was over $5 billion.

The Sites Project Authority, a Joint Powers Agency, was formed in 2010 to be a proponent and facilitator, to design and potentially acquire, construct, manage, govern, and operate Sites Reservoir and related facilities. Flood flows in the Sacramento River, over and above that needed to meet the demands of existing water rights holders, would be captured and pumped into Sites Reservoir. The Authority prepared a Value Planning Study in October 2019 to identify alternatives which would make the project more affordable. The Report was completed in April 2020 which scaled down the original project.

A preliminary analysis indicated that reservoir sizes of 1.3 to 1.5 million acre-feet (MAF) with assumed diversion criteria would be able to provide enough water to meet current participant demands. The Tehama-Colusa Canal and the Colusa Basin Drain would be used as the conveyance systems. The recommended project includes 1.5 MAF and 1,000 cfs of release capacity into the Sacramento River or to the Colusa Basin Drain at Dunnigan, and 243,000 AFY long term yield, was estimated at a cost of $3.0 billion.

The project Authority stated the 21 agencies put up $27 million for planning and studies with another $19 million due October 2020 to continue the process. Sites reservoir was approved by the California Water Commission (CWC) for $816 million of Proposition 1 funding on July 24, 2018. The CWC also agreed to provide $40.8 million in early funding to assist in completing the needed environmental analyses and obtain permits.

SGPWA has made a financial commitment of 10,000 AF and BCVWD has committed to 4,000 AF (total 14,000 AF) to the Sites Project Authority to fund Phase 1 of the Sites Reservoir Study. Reliability is between 65% (worst-case) and 100%[15]. The result is 9,100 AFY at 65% reliability.

Sites Reservoir will not produce water until about Year 2030; however, costs will be incurred by project participants moving forward. For the purposes of the WSA analysis it is assumed that water will not be available until 2035. The Authority's current plan will finance Phase 2 costs on a year-by-year basis.

The Sites Reservoir Project Authority is working closely with the federal Bureau of Reclamation to secure Bureau participation and funding which will reduce the cost to the participants. It is believed that the Authority would be responsible for 60% of the project cost, and the remainder from the State and federal agencies. This may change since the Authority anticipated slightly more Proposition 1 funding than the $816 million.

Although the Sites Reservoir is not expected to deliver water for another 15 years, currently the project is moving forward and is named in the Governor's Water Resiliency Plan. The project has been awarded a substantial CWC Proposition grant. The Sites Project Authority is continuing to refine its financing plan to fund the study phases. The reservoir is an "off-stream" reservoir giving it a reduced environmental footprint. Although there is some risk in the implementation, with each study phase completed the risk becomes less and the project is more certain.

7.8 Sale of State Water Project Contractors Restoration of DCP Reliability Benefits

All 'South of the Delta' SWP Contractors pay their proportionate share of the DCP costs. With the implementation of the DCP, there will be an increase in SWP reliability. Although all of the "South of the Delta" SWP Contractors will be paying their proportionate share of the DCP, for various reasons, a few SWP Contractors may not need the benefits of the increased yield and may be interested in transferring (selling) their incremental yield to other interested SWP Contractors, such as SGPWA. Currently, not enough is known about the sale of incremental yield and, therefore, will not be considered until it is better defined.

[15] See White Paper No. 1, Table 3

7.9 Purchase or Leasing of Metropolitan's Original CWF Phase 2 Water

With original CWF 2-tunnel, 2-phase concept, Metropolitan Water District of Southern California (Metropolitan) board of Directors voted to fund their share of the original CWF plus agreeing to fund the second phase of the CWF (second tunnel), i.e. the Central Valley Project share. This would have made water available for Metropolitan to sell/lease to other interested parties, e.g. SGPWA. With the DCP scaled down to one tunnel, this does not appear to be an option any longer.

7.10 Other Sources of Imported Water

There are other sources of water available through the SWP which include:

7.10.1 Article 21 Water

Article 21 Water is water that is offered for purchase by DWR resulting from reservoir releases needed to accommodate impending storm or snowmelt runoff when water is still available after operational requirements for SWP water deliveries, water quality and Sacramento-San Joaquin Delta requirements are met. This water is available only on short notice and must be taken immediately. BCVWD has capacity in its groundwater recharge facility to accommodate Article 21 Water. SGPWA is constructing their own Fiesta Recharge Facility which can be used for Article 21 Water. Article 21 Water is in addition to the State Water Contractor's Table A amount.

An analysis of Article 21 Water availability indicated the amount available is highly variable and there is competition for the water. If the requests for purchase are greater than the available amount, it is typically allocated on the basis of the requestors' Table A. A review of recent purchases from 2002 to 2015, with up to 17 "buyers," indicated that if SGPWA were a purchaser, their share would be about 0.5% of the total available. (The large agencies tend to dominate the purchases.) Table 7-2 presents an analysis of Article 21 Water availability to SGPWA based on DWR records from 1969 – 2015. Two periods of time were analyzed: total record and recent record.

Table 7-1 - Estimated Amount of Article 21 Water Available to SGPWA Based on 0.5% of Total Available AF

	1969-2015	2001- 2015
Average, AFY	939	824
Median, AFY	362	216
Maximum, AFY	4,542	3,655
75th Percentile, AFY	1,544	1,550

Article 21 water was available during the heavy snowfall year 2018-19 although the SGPWA was not able to take advantage of this since the BCVWD connection was out of service due to construction of the expanded turnout and the SGPWA's Fiesta Recharge Facility was not operational.

7.10.2 Turn-back Pool Water

Turn-back Pool Water is water that other State Water Contractors have ordered from DWR as part of their Table A entitlement, but decided they did not need the water that particular year and sold it back to DWR. DWR in-turn offers it for purchase at a relatively low set price to other State Water Contractors. Turn-back Pool Water has only been available since about 1996 following the Monterey Amendments to the State Water Contracts. Analysis of the data from 1997 through 2015, shows SWCs sold an average of 59,000 AFY of water back to the "pool" for purchase by other interested SWCs. (The median value was 29,770 AFY). Purchase of Turn-back pool water is also competitive, depending on hydrologic conditions. Assuming SGPWA's share is 0.5% based on the analysis of Article 21 Water, 295 AFY on the average could be purchased (149 AFY median). It would be reasonable that SGPWA could rely on about 200 AFY of Turn-back pool water.

7.10.3 Short-term or Long-term Water Transfers or Exchanges

Short-term or Long-term Water Transfers or Exchanges is water that can be obtained through exchanges and transfers from other State Water Contractors who do not need all of their Table A water in a given year or years. There are opportunities almost every year.

7.10.4 Recommendations for SGPWA

There is considerable competition for the Turn-back Pool and Article 21 Water and its availability is uncertain from year to year. SGPWA can take advantage of this water whenever it is available, and can consider short term transfers whenever available. Transfers of SWC Table A is subject to the SWP delivery reliability.

7.11 Summary of Available Imported Water Supplies

Table 7-2 summarizes the range of imported water supplies available to SGPWA based on the current and potential sources presented above. Agreements are in place for Ventura- Casitas, AVEK-Nickel Water, and SBVMWD Surplus Water. SGPWA is one of the 22 SWCs that has signed on to the Yuba Accord. Their share of the Yuba Accord Water is 0.21% of the available

water. In addition, through their State Water Contract, SGPWA can purchase Article 21 Water and Turn-back Pool Water.

The SGPWA has agreed to support the original CWF and participate in its funding, and it is assumed the SGPWA will support the DCP. BCVWD and SGPWA have made financial commitments to Sites Reservoir, and currently plan to contribute to future phases of the Sites Reservoir project.

Table 7-3 presents a summary of current and projected SGPWA imported water supplies, through 2040 in 5-year increments based on the yields in Table 7-2. Figure 5 shows the sources of imported water supply and the regional imported water demand with and without banking and drought proofing.

Table 7-2 - SGPWA Current and Projected Available Imported Water Supply through 2040

Source	Low Yield Case, Annual Amount, AFY	High Yield Case, Annual Amount, AFY	Comment
Existing Table A	8,300	10,380	17,300 AFY but only 60% reliable (10,380 AFY) per Bulletin 132; to degrade to approximately 48% (8,300 AFY) without Delta Conveyance Project (DCP) by 2035
Yuba Accord	200	200	When available, represents average per year
San Bernardino Valley MWD Surplus Table A Water (SBVMWD Water)	2,000	2,000	Up to 5,000 AFY available estimated 2 out of every 5 years (40%) of time = 2,000 AFY; agreement terminates in 2032, but can be extended.
Antelope Valley East Kern Water Agency (AVEK) Nickel Water, (AVEK Nickel Water)	1,700	1,700	20-year agreement terminates in 2037 with option for a 20-year extension
Additional Table A SGPWA Partner Agency	500	3,000	Looking at extended exchange agreement with Additional Table A SGPWA Partner Agency to utilize unused Table A. Estimated to be net 3,000 AFY initially to 500 AFY by 2040.
Article 21 Water Purchase	800	800	Variable, represents average per year
Turn-back Pool Purchases	200	200	Variable, represents average per year
Delta Conveyance Project (DCP)	0	0	Will increase reliability of State Water Project (SWP) back to 60 to 62%
Sites Reservoir	9,100	14,000	Worst case with 65% assumed reliability. (BCVWD has committed to 4,000 AFY of the 14,000 AFY)
Total Imported Water Potentially Available	22,800	32,280	

Table 7-3 - Regional Summary of SGPWA Imported Water Supply, AFY

Source	Year					
	2018	**2020**	**2025**	**2030**	**2035**	**2040**
Imported Water Demand Table 6-8	10,272	11,360	16,222	19,766	21,636	24,087
Imported Water Demand, Table 6-8, without banking or drought proofing	9,223	9,109	11,367	13,806	15,676	17,151
Table A	10,380	10,135	9,524	8,912	8,300	8,300
Yuba Accord	200	200	200	200	200	200
AVEK Nickel	1,700	1,700	1,700	1,700	1,700	
SBVMWD	2,000	2,000	2,000	2,000		
Ventura-Casitas	5,250		(2,100)			
Subtotal	19,530	14,035	11,324	12,812	10,200	8,500
Extension of SBVMWD Agreement (potential)					2,000	2,000
Extension of AVEK Nickel agreement						1,700
Article 21 Water Purchases		800	800	800	800	800
Turn-back Pool Water Purchases		200	200	200	200	200
Additional Table A SGPWA Partner Agency Side Deal		3,000	2,500	2,000	1,500	500
Subtotal	19,530	18,035	14,824	15,812	14,700	13,700
DCP Reliability Recovery to 60% (worst case)					2,080	2,080
Sites Reservoir (worst case)					9,100	9,100
Total Imported Water Supply	19,530	18,035	14,824	15,812	25,880	24,880

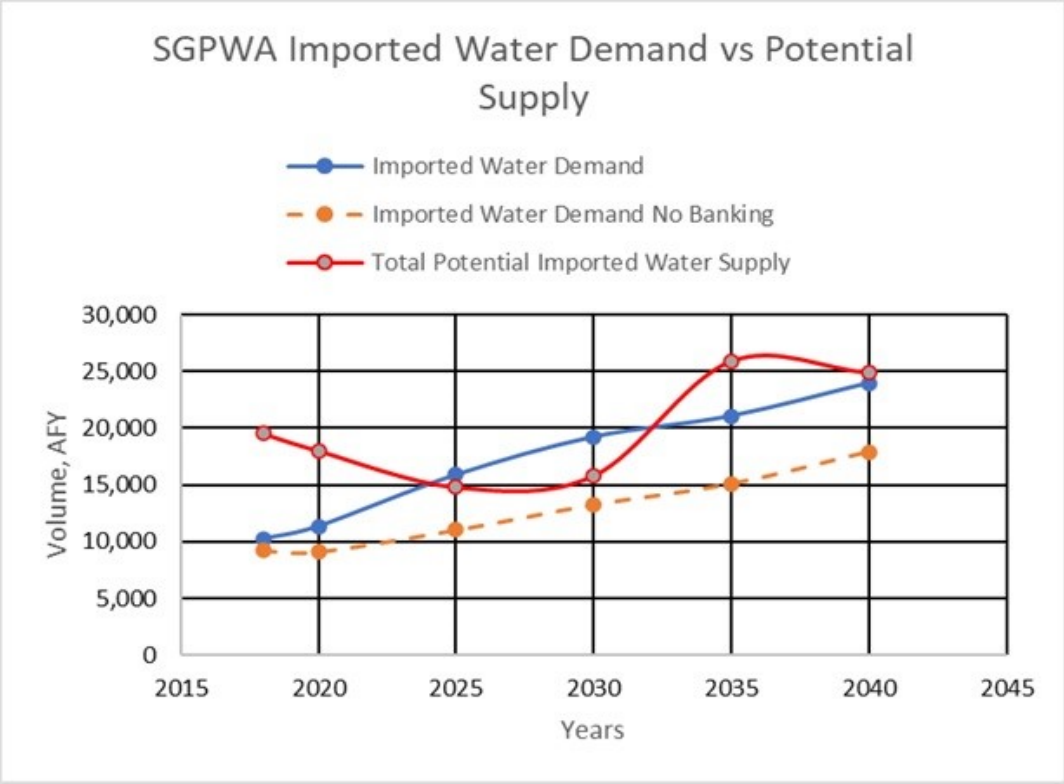


Figure 5
SGPWA Imported Water Sources and Demand to 2040 (Worst Case Conditions)

Until 2025, SGPWA has sufficient imported water to meet the demands of the City of Banning, BCVWD, YVWD/Calimesa as well as the demands from those SGPWA members currently not taking imported water. (Those agency total demands are shown in Table 6-8.) BCVWD has determined these are very conservative and it is unlikely that these areas will be developing to require those demands within the timeframe shown. It would be reasonable to believe that the Yucaipa/Calimesa to Banning area will develop more fully before moving into these outlying areas. Nevertheless, Table 6-8 shows that about 6,000 AFY will be banked regionally by the water suppliers between now (2020) and 2025, which is about 30,000 AF of additional water in storage for a total of 150,592 AF in storage by year 2025.

From 2025 to 2035 (when DCP and Sites Reservoir become operational), adequate imported water supply will be available to meet the imported water demands but with reduced amounts available for banking. The region's member agencies would still have nearly 145,000 AF in banked storage which could be used if needed. In a normal year, banking would continue in 2030, but at slightly reduced annual amounts until DCP and Sites Reservoir come on-line.

7.12 Contingency Plan

It is recognized that DCP and Sites could be delayed or perhaps reduced in size and capacity. But, as these projects go through the design and permitting process over the next few years, these risks will be assessed. SGPWA can take action to supplement its existing supply with short-term exchanges and transfers from other agencies. If it is evident that DCP and/or Sites

Reservoir will be delayed indefinitely, the short-term exchanges and transfers can be converted to long-term transfers. An option is to extend the AVEK-Nickel Water Agreement for another 20 years to 2057 as allowed in the existing agreement. Another option is participating with other local agencies in other water resource projects such as groundwater, brackish water, or sea water desalination projects with water exchanges.

8. WATER SUPPLY AND DEMAND FOR BCVWD

Section 6.1.3 presented the water demand and water supply requirements, including imported water, under average hydrologic conditions for BCVWD. Section 7 quantified the imported water demands on the SGPWA from BCVWD and the other member agencies of the SGPWA. As presented in Section 7 and Figure 5, SGPWA will have enough, or has made commitments for or taken steps to acquire, imported water supply to meet its needs to year 2040 and beyond. Since BCVWD's demands and imported water requirements are included in SGPWA's demands, including imported water, it can be concluded that BCVWD has sufficient supply and imported water to meet demands beyond 2040 under average demand and supply conditions.

It should be pointed out that 28.6% of the Sites Reservoir Project yield, (4,000 AFY/14,000 AFY) shown in Figure 5 above, is committed to BCVWD by virtue of BCVWD's financial commitment to the Sites Reservoir Project Phase 1 and Phase 2 - 2019. Figure 6 shows BCVWD's demand is less than the available supply. Figure 6 is based on the data in Table 6-7. Figure 7 shows the accumulated volume in BCVWD's Beaumont Basin groundwater storage account. By 2040, the storage account is almost full (77,294 AF in storage). Table 6-7 indicates that BCVWD's imported water demand will be 10,707 AFY in 2040; this means that BCVWD is projected to have 7.2 years of imported water demand in storage which can be used to supply water during drought periods even if no SPW is available.

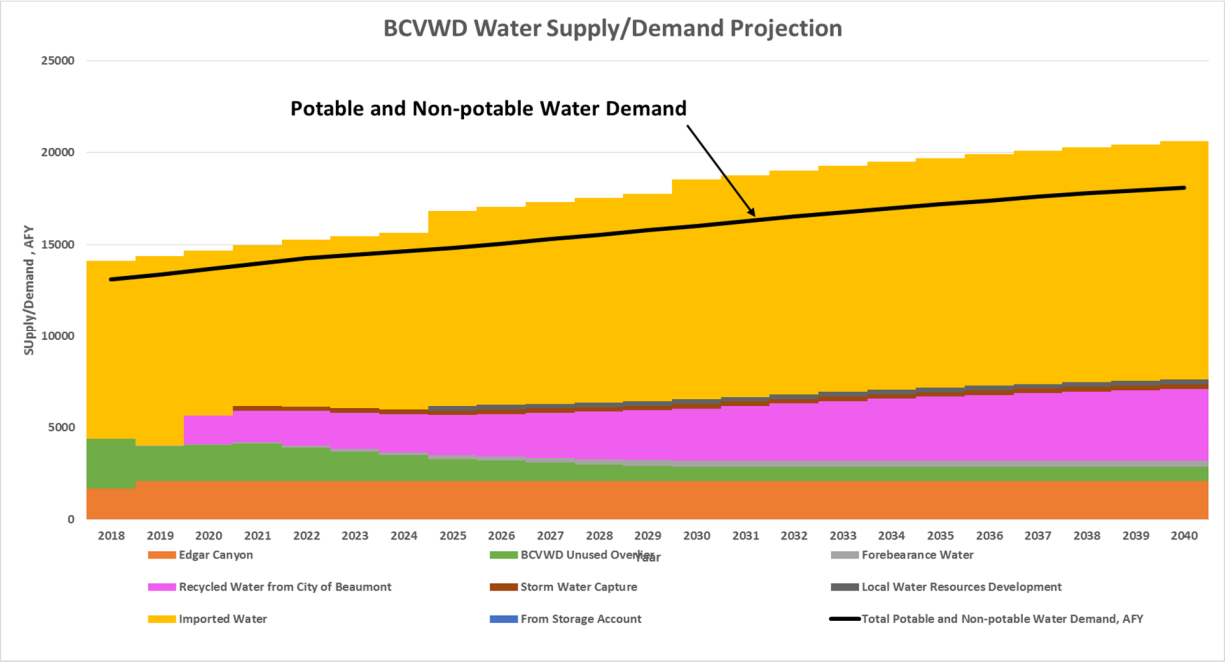


Figure 6
BCVWD's Water Supply and Demand Projection to 2040

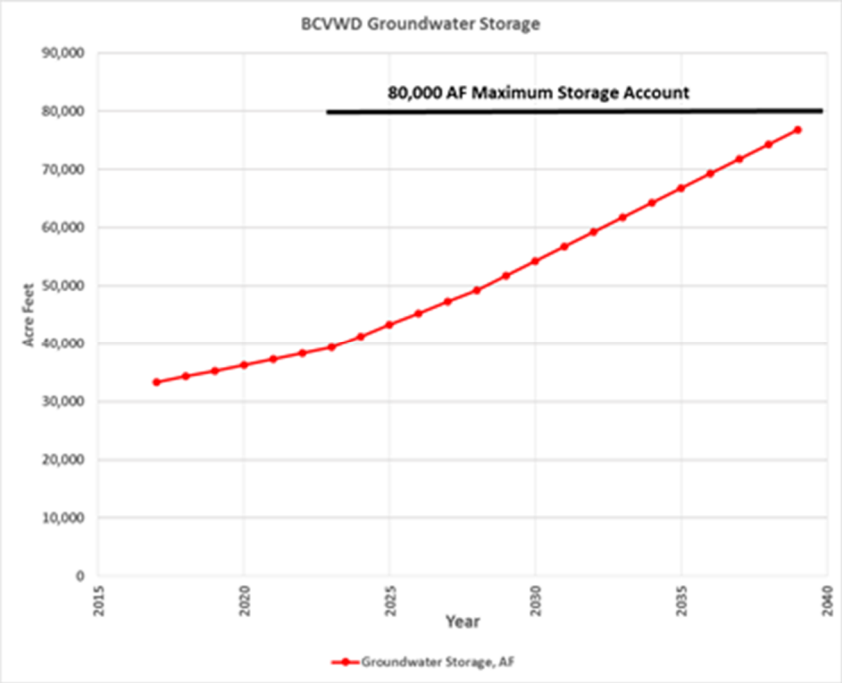


Figure 7
BCVWD's Groundwater Storage Balance to 2040

9. WATER SUPPLY SINGLE AND MULTIPLE DRY PERIOD ANALYSIS

The previous sections in this WSA analyzed a typical, normal or average, water supply year. The previous sections demonstrated there is adequate water supply both regionally and for BCVWD to meet the needs provided the projects and agreements identified are implemented. But, in addition to a "normal" year, the WSA requires a supply sufficiency analysis for critical dry year and multiple dry year conditions. The water supply conditions for these periods are presented in BCVWD's 2015 UWMP, Section 7, Water Supply Reliability Assessment. Key tables and information are extracted from the 2015 UWMP to support the analysis presented herein and updated. The scenarios evaluated in this section include:

- Single Critical Dry Year -- the lowest water supply available to BCVWD, a worst-case condition
- 2 Consecutive Dry Years -- the lowest average available water supply over a 2-year period
- 3 Consecutive Dry Years-- the lowest average available water supply over a 3-year period
- 6 Consecutive Dry Years-- the lowest average available water supply over a 6-year period

BCVWD will be relying on banked water to provide the major portion of the supply during these periods.

BCVWD enjoys the benefits of a groundwater basin (Beaumont Basin) with very large storage capacity. BCVWD and its neighboring agencies in the San Gorgonio Pass Area take advantage

of this by banking imported water during wet years for use during extended droughts. Complementing the large storage capacity is the fact that percolation and recharge occur at relatively high rates. It is very easy to "bank" water in the Beaumont Basin. It is retained in the Basin due to well-managed groundwater levels, and the ample storage capacity. Figure 8 shows the amount of water BCVWD has accumulated in its storage account since 2003. Imported water began to be spread in 2006. As of the end of 2018, there were 34,794 AF in storage. BCVWD's current maximum storage capacity is 80,000 AF. The figure shows the drop in storage in response to the drought in 2015 when there was very little imported water available for recharge and banking.

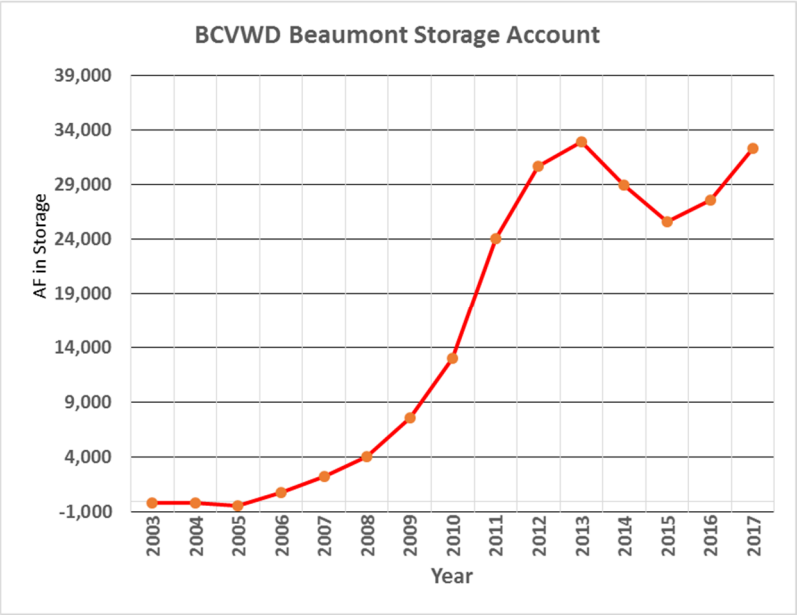


Figure 8
BCVWD Historic Beaumont Basin Groundwater Storage Account

9.1 Water Source Availability

The amount of water available during the dry periods from BCVWD's water sources are presented below.

9.1.1 Groundwater

9.1.1.1 Beaumont Basin

The Beaumont Basin is managed by the Beaumont Basin Watermaster under the principles of the Adjudication.

In any given year, BCVWD can pump out its stored (banked) water. The storage is replenished, at least partially, every year by forbearance water, reallocated unused Overlying Party pumping rights, and imported water when available. Recharge, using advanced treated recycled water from the City of Beaumont, will occur in the future. The amount of imported water that can be recharged in any year depends on DWR's SWP allocation. This varies from year to year.

The amount of unused Overlying Party rights is based on a 5-year moving average and could decrease slightly during drought periods as the Overlying Parties use more groundwater to compensate for the lack of rainfall. The forbearance water will decrease during dry periods as users reduce water consumption.

Table 9-1 shows the estimated amount of water credited to BCVWD by Watermaster for a single or multiple dry year analysis. For the dry year analysis, it was estimated that there would be a 15% conservation effect; in other words, for dry year analysis, only 85% of average annual forbearance, reallocated Overlying Party rights, etc. would be available. In Table 9-1 the 15% reduction factor is also applied to the recycled forbearance water to account for a potential reduction in treated wastewater due to water conservation effects.

Table 9-1 - Summary of BCVWD's Forbearance and Reallocated Overlier Pumping Rights

Item	2019	2020	2025	2030	2035	2040
Total Allocated Overlying Party Rights, and Forbearance Water from Table 6-7, AFY	1,905	2,012	1,400	1,100	1,100	1,100
Expected to be Available for Single and Multiple Dry Year Analysis, AFY	2,300	1,710	1,190	935	935	935

9.1.1.2 Edgar Canyon

Groundwater from Edgar Canyon is affected to some degree by climate. The average annual extraction from Edgar Canyon is 2,094 AFY (rounded to 2,100 AFY) based on records from 1983-2019. During that period of time the minimum extracted was 1,117 AFY, which occurred in 1991. This can be considered the "Single Dry Year Water Available." The 2-year, 3-year, and 6-year moving averages for the extractions from 1983-2019 were determined and are presented in Table 9-2 along with the Base Period for moving averages.

Table 9-2 - Groundwater Available from Edgar Canyon for Single and Multiple Dry Year Analysis

Drought Condition (Base Years)	Average Available over the Drought Period, AFY
Single Dry Year (1991)	1,117
2 Consecutive Dry Years (1990 – 91)	1,173
3 Consecutive Dry Years (1989 – 91)	1,230
6 Consecutive Dry Years (1987 – 92)	1,367

9.1.2 Imported Water

The amount of imported water available from the SGPWA via the State Water Project is climate dependent. A spreadsheet was developed using the 2015 DWR Delivery Capability Report simulation data (1922 to 2003) for SGPWA to develop an estimate of the delivery capability for the single dry year and multiple dry year reliability analysis. The 2-, 4-, and 6-year moving averages of annual estimated delivery allocations were determined for the period 1922-2003. A summary of the Table A delivery percentages is shown in Table 9-3.

Table 9-3 - SGPWA SWP Delivery Capability as Percent of Table A (Based on 2017 DWR SWP Delivery Capability Report)

Dry Year(s)	Single	2-year	4-year	6-year
Table A Annual Delivery Average Over the Drought Period, %	8	14	16	13

The percentages in Table 9-3 were compared to actual SWP delivery allocations for the period 1992 to 2020, a 28-year period:

Minimum year	5% (2014)
Minimum 2 consecutive years	12.5% (2014-15)
Minimum 3 consecutive years	20% (2013 – 15)
Minimum 6 consecutive years	40% (2013 – 18)

The actual minimum year and minimum 2 and 3 consecutive years allocation percentages are less than those reported in the 2017 DWR SWP Delivery Capability Report. The 2017 Report replaced the 3-year statistic with a 4-year statistic but is conservatively assumed to be an equivalent measure. Therefore, for the reliability analysis in the BP WSA, the lowest allocation percentages were used, as shown in Table 9-4:

Table 9-4 - SGPWA SWP Delivery Capability as Percent of Table A (Used for WSA Reliability Analysis)

Dry Year(s)	Single	2-year	3-year	6-year
Table A Annual Delivery Average Over the Drought Period, %	5	12.5	16	13

It should be noted that not all SGPWA imported water sources will be available during extended dry periods.

Yuba Accord Water is a dry-year program of which SGPWA can expect 200 AFY during dry years. AVEK-Nickel Water is “South of the Delta” water and is not affected by DWR’s SWP reliability

issues and is available every year until termination of the existing agreement in 2037. The Delta Conveyance Project reliability recovery water and the Delta Conveyance Project Side Deals would be available during extended dry periods but are subject to the average Table A delivery percentages as SPW in Table 9-4.

During dry periods San Bernardino Valley MWD Surplus Water, Article 21 water, and Turn-back Pool Water would likely not be available and should not be counted on for supply. Similarly, the availability of short and long term exchanges are unlikely, which would also include any additional Table A Water should SGPWA be able to secure a long-term exchange contract with the Additional Table A SGPWA Partner Agency.

The Sites Reservoir Project was designed to be a dry period flow augmentation project. Excess storm flows in the Sacramento River are diverted and pumped into Sites Reservoir, stored, and released back into the Sacramento River during dry periods. Data from the Sites Project Authority submitted with their application to the California Water Commission for Proposition 1 Funding was used to determine the amount of water which could be depended on during dry periods. Figure 9 (borrowed from Sites Reservoir Project Authority's Proposition 1 Application Executive Summary) shows the dry year benefits based on 82 years of hydrologic simulation using the CalSim II Model[16].

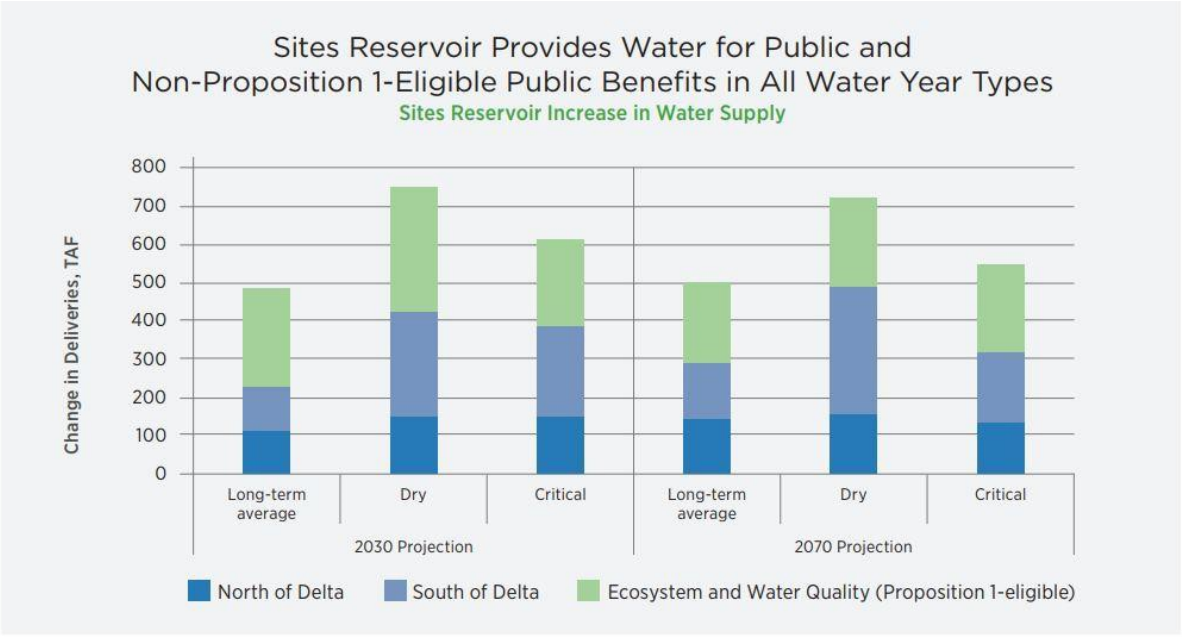


Figure 9 - Sites Reservoir Available Water 2030 and 2070

Attachment D9, prepared by the Sites Project Authority, in response to questions from the California Water Commission, February 23, 2018, provided a breakdown of the estimated amounts of Sites Project Water which would be delivered to the project participants. Table 9-5 presents a summary of the preliminary estimates of Sites Reservoir Water available to SGPWA.

[16] Sites Project Authority (2017). Sites Project Executive Summary for California's Water Storage Investment Program, August 14.

It is important to note this is a preliminary estimate developed prior to the Value Planning Analysis.

The modeling that was performed for the application was prescribed by the California Water Commission and includes the effects of climate change. For the analysis in the BP WSA, the year 2030 values will be used for 2030 through 2040. The "critical" volume will be used for all the dry period analyses to be conservative.

Table 9-5 - SGPWA Preliminary Amount of Sites Reservoir Water Available, AFY

Development Condition	82-year Simulation (Average)	Water Year Type				
		Wet	Above Normal	Below Normal	Dry	Critical
Current	8,400	2,700	2,900	5,600	19,000	13,800
2030	9,500	3,000	7,700	7,400	18,000	16,400
2070	11,400	5,400	7,300	11,500	17,900	17,200

Source: Attachment D9 of Sites Project Authority response to California Water Commission comments on Proposition 1 Application February 23, 2018.

Tables 9-6 through 9-9 present a summary of the imported water supply to the SGPWA for the single dry year, and 2, 3 and 6 consecutive year dry periods.

Table 9-6 - Regional Summary of SGPWA Imported Water Supply Single Dry Year, AFY

Source	Year				
	2020	2025	2030	2035	2040
Table A	17,300	17,300	17,300	17,300	17,300
Allocation (5%)	865	865	865	865	865
Yuba Accord (Dry Year Program)	200	200	200	200	200
AVEK Nickel (Not Affected)	1,700	1,700	1,700	1,700	1,700
Subtotal	2,765	2,765	2,765	2,765	2,765
DCP Allocation (5% of Reliability Recovery, 2080 AFY)				104	104
Sites Reservoir Critical Dry Period				16,400	16,400
Total Imported Water Supply	2,765	2,765	2,765	19,269	19,269

Table 9-7 - Regional Summary of SGPWA Imported Water Supply Two Consecutive Dry Years, AFY

Source	Year				
	2020	2025	2030	2035	2040
Table A	17,300	17,300	17,300	17,300	17,300
Allocation (12.5%)	2,163	2,163	2,163	2,163	2,163
Yuba Accord (Dry Year Program)	200	200	200	200	200
AVEK Nickel (Not Affected)	1,700	1,700	1,700	1,700	1,700
Subtotal	4,063	4,063	4,063	4,063	4,063
DCP Allocation (12.5% of Reliability Recovery, 2080 AFY)				260	260
Sites Reservoir Critical Dry Period				16,400	16,400
Total Imported Water Supply	4,063	4,063	4,063	20,723	20,723

Table 9-8 - Regional Summary of SGPWA Imported Water Supply Three Consecutive Dry Years, AFY

Source	Year				
	2020	2025	2030	2035	2040
Table A	17,300	17,300	17,300	17,300	17,300
Allocation (16%)	2,768	2,768	2,768	2,768	2,768
Yuba Accord (Dry Year Program)	200	200	200	200	200
AVEK Nickel (Not Affected)	1,700	1,700	1,700	1,700	1,700
Subtotal	4,668	4,668	4,668	4,668	4,668
DCP Allocation (16% of Reliability Recovery, 2080 AFY)				333	333
Sites Reservoir Critical Dry Period				16,400	16,400
Total Imported Water Supply	4,668	4,668	4,668	21,401	21,401

Table 9-9 - Regional Summary of SGPWA Imported Water Supply Six Consecutive Dry Years, AFY

Source	Year				
	2020	2025	2030	2035	2040
Table A	17,300	17,300	17,300	17,300	17,300
Allocation (13%)	2,249	2,249	2,249	2,249	2,249
Yuba Accord (Dry Year Program)	200	200	200	200	200
AVEK Nickel (Not Affected)	1,700	1,700	1,700	1,700	1,700
Subtotal	4,149	4,149	4,149	4,149	4,149
DCP Allocation (13% of Reliability Recovery)				270	270
Sites Reservoir Dry Period				16,400	16,400
Total Imported Water Supply	4,149	4,149	4,149	20,819	20,819

Table 9-10 presents a summary of total SGPWA regional imported water demand and the imported water supply available during the single and multiple dry years. The demand does not include the "banking" demand, since "banking" would not be occurring during years when imported water supply is reduced. Table 9-10 shows the conditions when the imported water demand exceeds the supply which will require SGPWA's member agencies, like BCVWD to withdraw water from their storage account. The supply of imported water is less than the demand until Sites Reservoir comes on-line about year 2035.

Table 9-10 - Summary of SGPWA Regional Imported Water Supply and Demand Single and Multiple Dry Years

Source	2020	2025	2030	2035	2040
Demand without Banking or drought proofing (Tables 6-8, 7-4), AFY	9,109	11,367	13,806	15,676	17,151
Total Supply					
Single Dry Year (Table 9-6), AFY	2,765	2,765	2,765	19,269	19,269
2 Consecutive Dry Years (Table 9-7), AFY	4,063	4,063	4,063	20,723	20,723
3 Consecutive Dry Years (Table 9-8), AFY	4,668	4,668	4,668	21,401	21,401
6 Consecutive Dry Years (Table 9-9), AFY	4,149	4,149	4,149	20,819	20,819

When the demand for imported water exceeds the supply, it is reasonable to assume the imported water will be allocated in proportion to the member agency's fraction of the total imported water demand without banking. Table 9-11 shows the allocation percentages.

Table 9-11 - Member Agency's Percent of Available Imported Water When Demand Exceeds Supply

Agency	Year				
	2020	2025	2030	2035	2040
City of Banning	0	0	0	0	5.8%
YVWD/Calimesa	6.7%	6.7%	7.0%	7.6%	8.4%
BCVWD	87.8%	79.2%	72.8%	67.5%	62.4%
Other Member Agencies	5.5%	14.1%	20.3%	24.9%	29.2%
Total	100%	100%	100%	100%	100%

Table 9-12 shows the estimated amount of imported water BCVWD can expect during single and multiple dry year periods based on the amount of imported water presented in Table 9-10 and the allocation percentages in Table 9-11.

Table 9-12 - BCVWD Available Imported Water During Single and Multiple Dry Year Periods

Scenario	Year				
	2020	2025	2030	2035	2040
Single Dry Year, AFY	2,428	2,189	2,012	13,011	12,029
2 Consecutive Dry Years, AFY	3,568	3,217	2,956	13,993	12,937
3 Consecutive Dry Years, AFY	4,100	3,696	3,396	14,451	13,360
6 Consecutive Dry Years, AFY	3,644	3,285	3,018	14,058	12,997

9.1.3 Recycled Water

Recycled water from the City of Beaumont is consistently available; although during droughts, consumers are more aware of water conservation and reduce their indoor water consumption somewhat. They are more aware of the need to do only full loads of laundry, full loads for the dishwasher, etc. Agencies, including the City of Beaumont, have observed a reduction in wastewater flows during the recent drought.

The average year amount of recycled water from the City of Beaumont is taken from Table 6-7. As stated in the discussion for Table 6-7, the total wastewater produced by the City is reduced by 1.8 mgd for habitat maintenance, and a capacity factor of 75% was applied to the remaining water to account for brine and other losses. For a single dry year, an estimate of 90% of the normal, average recycled water will be available. As the drought becomes more pervasive, the amount of recycled water is estimated to reduce further to 85% of normal. Table 9-13 provides an estimate of the available recycled water during extended dry periods from the City of Beaumont.

Table 9-13 - BCVWD Available Recycled Water During Single and Multiple Dry Year Periods

Agency	Year				
	2020	2025	2030	2035	2040
Average Year (Table 6-7), AFY	1,556	2,188	2,840	3,487	3,930
Single Dry Year (90%), AFY	1,400	1,970	2,555	3,135	3,535
2, 3, and 6 Consecutive Dry Years (85%), AFY	1,320	1,860	2,415	2,960	3,340

9.1.4 Storm Water and Other Local Water Resources

Storm water and Urban Runoff quantities are dependent on rainfall. Review of the rainfall record at Beaumont for the period 1888 – 2006 resulted in the data shown in Table 9-14. To determine the multiple dry year rainfall as a percent of the average rainfall, the 2-, 3-, and 6-year moving averages of the annual rainfall was determined.

Table 9-14 - Ratio of Dry Period Precipitation to Average Precipitation at Beaumont and Estimated New Water from Storm Water Capture and Local Water Resource Projects

Dry Year(s)	Single	2-year	3-year	6-year
% of Annual Average	36%	45%	45%	65%
Total Storm water Capture, beginning 2021, 250 AFY	90	110	110	160
Total Local Water Resource Projects, beginning 2025, 250 AFY	90	110	110	160

9.2 Water Demands During Critical and Multi-year Dry Periods

Table 6-7 showed the average BCVWD water demands (potable and non- potable). These demands are used in the Dry Period Reliability Analysis below for the 1, 2, and 3 consecutive year dry periods, primarily because there may not be enough time to implement water demand restrictions and see the effect of these restrictions on demand. However, for the 6 consecutive year dry period, it is assumed the water shortage contingency planning actions set forth in Section 8 of BCVWD's 2015 UWMP would be in effect and at least a 15% reduction in demand would be obtained. This is over and above the nominal water conservation efforts envisioned in the development of the average demands in Table 6-7. Water supply for single dry year, 2 consecutive dry years, 3 consecutive dry years, and 6 consecutive dry years are presented in Tables 9-15 through 9-18 respectively.

Table 9-15 - BCVWD Water Supply Summary – Critical Dry Year

Single Dry Year						
	YEAR					
	2020	2022	2025	2030	2035	2040
DEMAND						
Total Water Demand	13,668	14,498	15,188	16,584	17,772	18,337
SUPPLY						
Groundwater						
Edgar Canyon, AFY	1,117	1,117	1,117	1,117	1,117	1,117
Beaumont Basin, Allocated Overlier Pumping Rights and Forbearance Water, AFY	1,710	1,502	1,190	935	935	935
Storm Water, AFY	90	90	90	90	90	90
Other Local Water Resource Projects, AFY	90	90	90	90	90	90
Recycled Water, AFY	1,400	1,628	1,970	2,555	3,135	3,535
Imported SPW,AFY	2,428	2,332	2,189	2,012	13,011	12,029
Subtotal Supply, AFY	6,835	6,579	6,646	6,799	18,378	17,796
From Banked Beaumont Basin Storage, AF	6,833	7,739	8,542	9,785	-606	541

Table 9-16 - BCVWD Water Supply Summary – 2 Consecutive Dry Years

2 Consecutive Dry Years						
	YEAR					
	2020	2022	2025	2030	2035	2040
DEMAND						
Total Water Demand	13,668	14,498	15,188	16,584	17,772	18,337
SUPPLY						
Groundwater						
Edgar Canyon, AFY	1,173	1,173	1,173	1,173	1,173	1,173
Beaumont Basin, Allocated Overlier Pumping Rights and Forbearance Water, AFY	1,710	1,502	1,190	935	935	935
Storm Water, AFY	90	90	90	90	90	90
Other Local Water Resource Projects, AFY	90	90	90	90	90	90
Recycled Water, AFY	1,320	1,536	1,860	2,415	2,960	3,340
Imported SPW,AFY	3,568	3,428	3,217	2,956	13,993	12,937
Subtotal Supply, AFY	7,951	7,819	7,620	7,659	19,241	18,565
From Banked Beaumont Basin Storage, AF	5,717	6,679	7,568	8,925	-1,469	-228
Total Volume Withdrawn from Storage, AF	11,434	13,359	15,136	17,849	-2,937	-455

Table 9-17 - BCVWD Water Supply Summary – 3 Consecutive Dry Years

3 Consecutive Dry Years						
	YEAR					
	2020	2022	2025	2030	2035	2040
DEMAND						
Total Water Demand	13,668	14,498	15,188	16,584	17,772	18,337
SUPPLY						
Groundwater						
Edgar Canyon, AFY	1,230	1,230	1,230	1,230	1,230	1,230
Beaumont Basin, Allocated Overlier Pumping Rights and Forbearance Water, AFY	1,710	1,502	1,190	680	680	680
Storm Water, AFY	90	90	90	90	90	90
Other Local Water Resource Projects, AFY	90	90	90	90	90	90
Recycled Water, AFY	1,320	1,536	1,860	2,415	2,960	3,340
Imported SPW,AFY	4,100	3,938	3,696	3,396	14,451	13,360
Subtotal Supply, AFY	8,540	8,368	8,156	8,156	19,756	19,045
From Banked Beaumont Basin Storage, AF	5,128	6,112	7,032	8,428	-1,984	-708
Total Volume Withdrawn from Storage, AF	15,384	18,335	21,096	25,283	-5,951	-2,123

Table 9-18 - BCVWD Water Supply Summary – 6 Consecutive Dry Years

6 Consecutive Dry Years						
	YEAR					
	2020	2022	2025	2030	2035	2040
DEMAND						
Total Water Demand	11,618	12,323	12,910	14,096	15,106	15,587
SUPPLY						
Groundwater						
Edgar Canyon, AFY	1,367	1,367	1,367	1,367	1,367	1,367
Beaumont Basin, Allocated Overlier Pumping Rights and Forbearance Water, AFY	1,710	1,502	1,190	935	935	935
Storm Water, AFY	90	90	90	90	90	90
Other Local Water Resource Projects, AFY	90	90	90	90	90	90
Recycled Water, AFY	1,320	1,536	1,860	2,415	2,960	3,340
Imported SPW,AFY	3,644	3,500	3,285	3,018	14,058	12,997
Subtotal Supply, AFY	8,221	8,085	7,882	7,915	19,500	18,819
From Banked Beaumont Basin Storage, AF	3,397	4,238	5,028	6,181	-4,394	-3,232
Total Volume Withdrawn from Storage, AF	20,381	25,427	30,167	37,087	-26,361	-19,393

Table 9-15 through 9-18 demonstrate BCVWD can provide water to the planned developments listed in Table 6-6 (Section 6) which include the Beaumont Pointe development project during critical dry year and multiple dry year periods by relying on BCVWD's Beaumont Basin Groundwater Storage assuming DCP and Sites Reservoir are on-line as planned. BCVWD will need to maintain 25,713 AF of water banked in storage to meet the 6-year dry period by the time Sites Reservoir and the DCP are "on-line." This is not an unreasonable amount of storage considering BCVWD has an 80,000 AF storage account and as of the end of 2018, 34,794 AF in storage.

Table 6-7 provided BCVWD's Beaumont Basin storage account balance under the basis of average water supply conditions assuming the development projects listed in Table 6-6 were constructed. Table 6-7 shows a steady increase in projected groundwater storage from 35,794 AF in 2020-22 to approximately 77,294 AF in the year 2040. To achieve this level of storage, BCVWD will be banking additional water for drought proofing to supply water during critical and multiple dry year period.

The water banking pursuant to BCVWD's 2015 UWMP:

> *BCVWD's plan, which is shown in BCVWD's 2015 UWMP envisions banking anywhere from 1,000 AFY to 2,500 AFY to drought proof new development. This is accounted for in the spreadsheet each year. Should there be a year when the projected amount cannot be delivered by SGPWA, any deficiency will be made up in successive years when adequate supply is available*[17].

In addition to BCVWD, YVWD/Calimesa and the City of Banning have storage accounts which when combined with BCVWD's will have an estimated 117,800 AF in storage as of the end of 2021. Tables 6-2 and 6-5 (Section 6 herein) show that the storage accounts for YVWD/Calimesa and the City of Banning these agencies are projected to have 50,000 and 76,510 AF, respectively, in storage by 2040. When combined with BCVWD's projected storage account balance, on a regional basis there will be over 200,000 AF in banked storage – more than ample to meet the needs during short-term droughts.

[17] BCVWD (2015). UWMP, pg 7-4

10. CONCLUSIONS

1. The projected water demand from the Beaumont Pointe development project is 197 AFY of which 85.2 AFY is outdoor, non-potable water use. This compares to BCVWD's current demand of 13,668 AFY (estimated for 2020).
2. The Beaumont Pointe development project site was included in the list of planned development projects in BCVWD's 2015 UWMP (previously identified as Jack Rabbit Trail) which demonstrated adequate water supplies upto the year 2040. The BP project site was previously planned with a land use density of 2,000 equivalent dwelling units (EDUs). The new BP land use plan estimates a significantly reduced density by 1,640 EDUs for a new proposed Project total of 360 EDUs, representing reduced site density and water demand by 82 percent.
3. BCVWD prepared a series of White Papers which analyzed the regional (SGPWA) imported water supply requirements and funding requirements. These White Papers are referenced for the BP WSA. The basis for the White Papers was a regional spreadsheet demand model, developed by BCVWD, which was reviewed by the City of Banning and YVWD.
4. The White Papers indicate that SGPWA can obtain sufficient imported water supply to supplement local supplies to meet regional needs including BCVWD's needs. The White Papers also indicated that adequate funding is available to implement the imported water projects currently planned for the short and long terms.
5. BCVWD prepared and adopted a Potable Water Master Plan which identified water needs and facility needs to build-out. The BCVWD 2015 UWMP identified recycled water from the City of Beaumont for non-potable water irrigation with a plan for the recharge of surplus recycled water with appropriate treatment and permits. The City and BCVWD signed a Memorandum of Understanding (MOU) in 2019 which began the process of an agreement for purchase of recycled water by BCVWD. In addition, storm water capture and other local water resource projects were identified. One of these projects, MDP-Line 16, (Grand Avenue Storm Drain) is currently in design by the Riverside County Flood and Water Conservation District and BCVWD. The storm drain will be partially funded through a grant from the Santa Ana Watershed Project Authority.
6. SGPWA and BCVWD have made financial commitments to the Sites Reservoir project Phase 1 studies and will commit funds to Phase 2.
7. Adequate water supply exists, or is planned, for the Beaumont Pointe development project to 2040 and beyond as outlined in Tables 9-6 through 9-9. BCVWD can meet the Project needs as well as BCVWD's existing demands and the demands of the other planned developments within BCVWD's service area which are listed in the BP WSA.
8. Multiple dry-year reliability analysis demonstrates that BCVWD will be able to meet its existing demands and the demands of the other planned developments within its service area which were listed in the BP WSA. BCVWD will supplement its existing supply sources during these dry periods with banked water in BCVWD's Beaumont Basin Groundwater Storage Account.

9. Pursuant to §10910 of the California Water Code (SB 610) and information provided in the BP WSA, BCVWD has determined that currently available and planned supplies are sufficient to meet the water demands of the proposed BP project in addition to the existing and other planned project demands during normal, single dry and multiple dry years over the next 20 years, as outlined in Tables 9-15 through 9-18.
10. Pursuant to the California Government Code Section 66473.7, (SB 221) BCVWD has determined that it has sufficient and adequate water supply available to serve the long-term needs of the Beaumont Pointe in addition to the existing and other planned project demands during normal, single dry and multiple dry years over the next 20 years, as outlined in Table 9-15 through 9-18.

11. REFERENCES

1. TTM 31570 – Legacy Highlands WSA, Beaumont Cherry Valley Water District, revised June 2020.
2. Hidden Canyon Industrial Park WSA, Beaumont Cherry Valley Water District, February 2019.
3. Beaumont Basin Watermaster 2017 Annual Report, March 2018.
4. Beaumont Basin Watermaster 2018 Annual Report, February 2020 draft
5. 2019 DWR State Water Project Delivery Capability Report, August 2020.
6. 2015 Urban Water Management Plan, Beaumont Cherry Valley Water District, adopted January 17, 2017; acknowledged by California Department of Water Resources, March 14, 2018.

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BEAUMONT-CHERRY VALLEY WATER DISTRICT

560 MAGNOLIA AVENUE

BEAUMONT, CALIFORNIA 92223

www.bcvwd.org

ADDENDUM #1 - WATER SUPPLY ASSESSMENT

for

BEAUMONT POINTE DEVELOPMENT

City of Beaumont, CA

DRAFT - January 17, 2022
FINAL – April 8, 2022

Prepared by
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for

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1 Background and Purpose for Addendum

1.1 Background

The Beaumont Pointe Development "Project", previously referred to as the Jack Rabbit Trail Development, is located in the City of Beaumont, CA. The Project will be a new 625-acre industrial, commercial, and recreational complex constructed south of the CA-60 freeway and northwest of the proposed Hidden Canyon Development. The Project will consist of general commercial/retail land uses and five large industrial warehouse buildings totaling approximately 5.0 million square feet of floor space. The Project is currently proceeding with filing an EIR and seeking incorporation into the Beaumont Cherry Valley Water District (BCVWD) and, by association, the San Gorgonio Pass Water Agency (SGPWA).

The Project will be located in the Beaumont Cherry Valley Water District's ("District") sphere of influence. The Project's potable water (PW) and fire flow demands are proposed to be provided from the District's 2650 pressure zone, which currently serves the westerly part of the District's service area, south of Interstate 10 and west of Cherry Valley Blvd. As part of on-going water conservation efforts and the Project's plan of service with the District, all outdoor irrigation demands will utilize non-potable water (NPW) distributed by BCVWD.

From 2018 through 2021, the Project worked with the District to complete a Water Supply Assessment (WSA), dated April 13, 2021. The Beaumont Point Development WSA was originally based on the District's 2015 Urban Water Management Plan (UWMP) and continuously updated with the most current information from the SGPWA / District's "White Papers", which contained the most current updated calculations and projections for imported water supplied from SGPWA and local groundwater supplied from BCVWD for their committed service area. During the District's June 9th, 2021 Board Meeting, the 2021 Beaumont Point WSA was presented and approved by the District's Board of Directors. Subsequently, the District provided the Project with a conditional Will Serve Letter, which stipulated that the District will provide water service to the Project. The Project is currently working with the District on a Plan of Service document required by the Will Serve Letter.

In September 2021, four months after approval of the Beaumont Pointe WSA, the District Board of Directors approved the 2020 BCVWD UWMP, updating the District's 2015 UWMP to be in compliance with State law. Specific to the Beaumont Pointe Development, the 2020 BCVWD UWMP incorporates the specific change in land use from residential to commercial, reducing the total water demand for the Project from 2,000 Equivalent Dwelling Units (EDUs) to 360.26 EDUs, a reduction of 82%. Additionally, the 2020 BCWD UMWP further defines the District's and City of Beaumont's commitment to using non-potable water, available from the City's upgraded Title 22 recycled water treatment plant and shallow aquifer wells, which are not suitable for direct potable water supply. This is consistent with the approved Beaumont Pointe Development WSA, which indicated 43.31% of the total demand could be supplied by BCVWD's non-potable water system. Doing so reduces the Project's imported and local ground water (potable) demand further, from 360.26 EDUs to 204.21 EDUs.

1.2 Purpose for Addendum

State law indicates that the WSA for a project shall utilize the most recent UWMP (See Water Code Section 10910 (c)3), which states that if the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from that plan in preparing the WSA. As mentioned above, the water demand information presented in the approved Beaumont Pointe WSA utilized the District's most up to date calculations from the "White Papers" and therefore, the water demand values are consistent with the adopted BCVWD 2020 UWMP. However, the approved Beaumont Point WSA also indicated that it was based on the BCVWD 2015 UWMP and therefore, the document did present tables and information about the general service areas from both the SGPWA and BCVWD 2015 UWMPs, which the Project wishes to now update with this Addendum. The BCVWD 2020 UWMP includes the

Beaumont Pointe Development water demands and indicates that the District can meet its service area's water supply requirements under normal, single, and multiple consecutive dry years.

Since Beaumont Pointe Development's overall water demands did not change (outdoor irrigation demands will utilize NPW as discussed further), and since the updated BCVWD 2020 UWMP included the Project's demands and verified the District can satisfy the service area's demands under the required conditions, the purpose of this addendum is the following:

- Identify, summarize, and provide modified and/or replacement language to the Project's previously approved WSA for differences between the SGPWA and BCVWD 2015 and 2020 UWMPs referenced in the Project's WSA. Specifically, this includes the following:
    - As indicated in the BCVWD 2020 UWMP and the previously approved Beaumont Pointe Development WSA, update the Project's WSA to further define the use of NPW supplies for all outdoor irrigation demands.
    - Update the SGPWA and BCVWD data and tables presented in the Beaumont Pointe Development WSA with the current data and tables from agency's 2020 UWMPs.
    - Update the SGPWA and BCVWD data and tables for the projected future water supplies and demands of BCVWD for the required 20-year projection (through 2045) under normal, single, and multiple consecutive dry year conditions.
    - Add a new section summarizing the BCVWD 2020 Water Shortage Contingency Plan referenced in the BCVWD 2020 UWMP.

2 2021 Beaumont Pointe WSA Updates

As part of this addendum, the following lists the revisions, additions, and/or deletions that shall be made from the existing sections in the approved *April 13th, 2021 Water Supply Assessment for the Beaumont Pointe Development.*

Section 1. Introduction

Within Section 1, the second paragraph shall be removed and replaced with the following. This revision adds language reflecting the Project's utilization of NPW for all outdoor irrigation demands as discussed during the Project's Plan of Service. Additionally, this revision includes a brief introduction to the planning of the Project in the updated BCVWD 2020 UWMP.

> The Project was previously planned and included in the BCVWD's 2015 UWMP with a land use density of 2,000 equivalent dwelling units (EDUs) (previously identified as Jack Rabbit Trail). Based on the District's adopted EDU usage factor of 0.546 AFY/EDU, this equates to an estimated water demand of 1,092 AFY. The new Beaumont Pointe Development land use plan, consisting primarily of industrial warehouse buildings, estimates a density of 360.26 EDUs. The originally approved Beaumont Point Development WSA indicated that approximately 43.31% of the potable water demand from the 360.26 EDUs could be served by BCVWD's Non-Potable Water (NPW) system reducing the Project's potable water demand to 204.21 EDUs. As part of the Project's Plan of Service documents and ongoing water conservation efforts, the Project will be designed to utilize NPW for all outdoor irrigation demands.
>
> To clarify, when the District was preparing the basis for future water demands within the District's service area in the BCVWD's 2020 UWMP, the District utilized the potable water demands from the DRAFT November 2020 Beaumont Pointe WSA. This draft version of the Project's WSA identified the potable water demand as 221 EDUs as shown in Table 3-7 in the BCVWD's 2020 UWMP. Because the Project's updated land use plan has a potable water demand of 204.21 EDUs, the District's 2020 UWMP conservatively included the Project's anticipated potable water demands at 221 EDU

Section 3.1 Background

The fifth paragraph shall be removed and replaced with the following. This revision updates 2015 UWMP references with the applicable BCVWD 2020 UWMP updates showing the District's latest UWMP has considered the Beaumont Pointe Development in their updated water supply assessments.

> Like SB 221, SB 610 specific levels of supply reliability are not mandated (i.e., whether a specific level of demand can be met over a designated frequency); rather, the law provides that it is a local policy decision of the water provider as part of the planning process. As provided for in the law, the WSA can rely on the data in the latest UWMP in assessing the water demand of the proposed project relative to the overall increase in demands expected by BCVWD. The Beaumont Pointe development project site was included in Table 3-7 of BCVWD's 2020 UWMP (previously identified as Jack Rabbit Trail). The Project site was previously planned for the development of single-family residences with a land use density of, and corresponding water demand for, 2,000 equivalent dwelling units (EDUs). Based on the District's adopted EDU usage factor of 0.546 AFY/EDU, this equates to an estimated water demand of 1,092 AFY. The new Beaumont Pointe Development land use plan, consisting primarily of industrial warehouse buildings, estimates a density of 360.26 EDUs. The originally approved Beaumont Point Development WSA indicated that approximately 43.31% of the potable water demand from the 360.26 EDUs could be served by BCVWD's Non-Potable Water (NPW) system reducing the Project's potable water demand to 204.21 EDUs. As part of the Project's Plan of Service documents and ongoing water conservation efforts, the Project will be designed to utilize NPW for all outdoor irrigation demands.

To clarify, when the District was preparing the basis for future water demands within the District's service area in the BCVWD's 2020 UWMP, the District utilized the potable water demands from the November 2020 BP DRAFT WSA. This draft version of the Project's WSA identified the potable water demand as 221 EDUs as shown in Table 3-7 in the BCVWD's 2020 UWMP. Because the Project's updated land use plan has a potable water demand of 204.21 EDUs, the District's 2020 UWMP conservatively included the Project's anticipated potable water demands.

Section 3.2 San Gorgonio Pass Water Agency 2015 UWMP

Section 3.2 shall be removed and replaced with the following and the section title shall be replaced with "San Gorgonio Pass Water Agency 2020 UWMP". This section has been updated to reflect the changes in both the BCVWD and the SGPWA 2020 UWMP.

The Beaumont Pointe Development is located within the service area of the San Gorgonio Pass Water Agency (SGPWA or Pass Agency). BCVWD provided data to SGPWA on BCVWD's projected demands so the SGPWA could prepare their UWMP. Because the California Department of Water Resources (DWR) required the imported water suppliers to submit their UWMPs earlier than the retail agencies, BCVWD made some preliminary estimates of their demand over the 20-year projection period and provided the projections to SGPWA. These preliminary estimates deviated slightly from the actual demands in BCVWD's 2020 UWMP. Since the BP Project site was included in the demands in BCVWD's 2020 UWMP, it is considered to be included in the 2020 SGPWA UWMP, adopted by SGPWA Board of Directors on June 21st, 2021. Table 3-1 below is taken from Table 3-16 in the SGPWA 2020 UWMP.

Table 3-1 – Project Water Demands on SGPWA (AF)

Service Area Water Supply to Meet Demands	2025	2030	2035	2040	2045
City of Banning	9,473	10,198	10,853	11,565	12,278
Beaumont Cherry Valley	14,963	16,160	17,515	18,710	19,693
Yucaipa Valley WD (Riverside Portion)	1,509	1,841	2,174	2,507	2,839
South Mesa WC (Riverside Portion)	1,032	1,084	1,138	1,196	1,196
High Valley WD	3,400	3,600	3,900	4,100	4,300
Cabazon County WD					
Mission Springs (SGPWA area)					
Other SGPWA service area not served by named retailers					
Total SGPWA Boundary Supply to meet Demands	30,400	32,900	35,600	38,100	40,300

Note:
1. Table 3-1 is taken from Table 3-16 in the SGPWA 2020 UWMP.

In Chapter 1 of the SGPWA's 2020 UWMP, the UWMP stated the following.

"It is important to note that this UWMP [SGPWA 2020 UWMP] has been completed to address regional resource management and does not address the particular conditions of any specific retail water agency or entity within the SGPWA service area. The retail urban water suppliers within SGPWA service area are preparing their own separate UWMPs where required, though SGPWA has facilitated coordination among the retailers to assure consistency."

BCVWD recognizes and acknowledges the disclaimer statement within the 2020 Urban Water Management Plan prepared by the SGPWA related to regional planning. While the UWMP prepared by the SGPWA "…does not address the particular conditions of any specific retail water agency…" BCVWD relies upon the policies and practices of the SGPWA as a foundation for regional water supply solutions. In other words, while the SGPWA's regional planning document does not address local water conditions, BCVWD does rely upon the policies of the SGPWA to provide comprehensive regional solutions related to the use of imported water in the SGPWA area. As an example of the policies and practices adopted by the SGPWA and relied upon by BCVWD include, but are not limited, to the following:

- San Gorgonio Pass Water Agency, Ordinance No. 8, An Ordinance Establishing Rules and Regulations for SGPWA Water Service, February 7, 2005;
- San Gorgonio Pass Water Agency Strategic Plan, May 2012;
- San Gorgonio Pass Water Agency, Resolution No. 2014-02, A Resolution of the San Gorgonio Pass Water Agency Establishing a Policy for Meeting Future Water Demands, February 18, 2014;
- San Gorgonio Pass Water Agency, Ordinance No. 10, Ordinance Establishing Water Shortage Plan, July 21, 2014;
- San Gorgonio Pass Water Agency, Resolution No. 2015-05, Resolution of the Board of Directors of the San Gorgonio Pass Water Agency to Adopt Facility Capacity Fees for Facilities and Water, July 27, 2015;
- San Gorgonio Pass Water Agency, State of the Supply PowerPoint Presentation, September 30, 2016;
- San Gorgonio Pass Water Agency, Ordinance No. 13, An Ordinance Amending Rules and Regulations Regarding Authorization for Service, June 5, 2017.

Section 3.3 BCVWD's 2015 UWMP

Section 3.3 shall be revised as shown in red below. This Section has been updated to note the minor differences between the projections in the BCVWD's 2020 UWMP and the projections provided to SGPWA for their 2020 UWMP. Additionally, the section title shall be revised to state "BCVWD's 2020 UWMP".

There were some minor differences between the projections in BCVWD's 2020 UWMP and the projections provided to SGPWA for their 2020 UWMP. These differences stemmed from the need for BCVWD to provide preliminary demand projections early on so the SGPWA could meet their prescribed deadline.

BCVWD's demands for imported water are presented in BCVWD's 2020 UWMP (Table 6-24) and are repeated in Table 3-2 below. Table 3-2 shows the actual imported water demand to meet the potable water demand plus the banking water demand to ensure drought-proofing of future development. If imported water is not available in a given year, no banking will occur. But when imported water is available, any deficiencies from previous years would be "carried over" and "made up." As can be seen, there is a slight difference between the demands in Table 3-1 versus those shown above in Table 3-1.

Table 3-2 BCVWD Imported Water Needs from BCVWD 2020 UWMP

	2025	2030	2035	2040	2045
BCVWD Drinking Water Demand, AFY	9,144[2]	9,546[2]	9,966	10,717	11,281
Banking Demands, AFY	1,500	1,200	1,000	1,000	1,000
Total BCVWD Imported Water Demand, AFY	**10,644**	**10,746**	**10,966**	**11,717**	**12,281**

Note:
1. Taken from the BCVWD 2020 UWMP, Table 6-24
2. Includes imported water for non-potable water system since non-potable water system is supplied with potable groundwater.

Section 4.1 – Figure 2

Figure 2 shall be replaced with the following updated Figure 2. While the land use and acreage of the Beaumont Pointe Development project did not change, this Addendum updates Figure 2 of the previously approved WSA to no longer show the additional proposed conservation area south of the project.

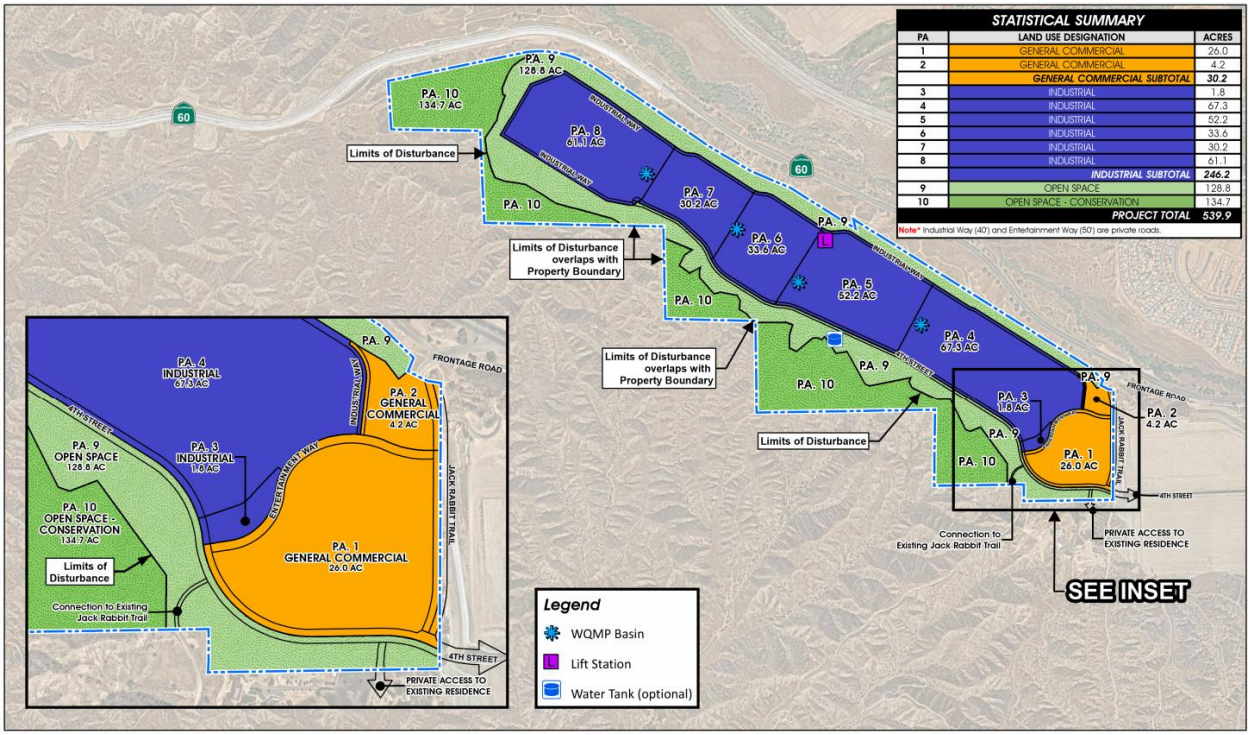


Figure 2 – Beaumont Pointe Land Use Plan

Section 4.1 – Project Description

The last paragraph in Section 4.1 shall be revised as shown in red below. These revisions will clarify the use of utilizing non-potable water for all outdoor irrigation demands.

> The project is required to adhere to the landscaping standards in the "Guide to California Friendly Landscaping", the City of Beaumont's, and Riverside County Landscaping Ordinances which requires water efficient landscaping. Pursuant to BCVWD requirements, and as part of ongoing water conservation efforts, all outdoor irrigation demands shall utilize non-potable water, and recycled water produced by the City of Beaumont and distributed by BCVWD as it becomes available.

Section 4.2 – Estimated Water Demand - Tables 4-2 Note 5 and 6

Notes 5 and 6 under Table 4-2 in the WSA shall be revised as shown in red below. These revisions clarify the potable water demand for the Project's latest land use plan, and the use of non-potable water for all outdoor irrigation demands.

> [5] Not Used
>
> [6] Represents demands that will be served by non-domestic water sources.

Section 4.2 – Estimated Water Demand - Tables 4-3 Note 4 and 5

Notes 4 and 5 under Table 4-3 in the WSA shall be revised as shown in red below. These revisions clarify the potable water demand for the Project's latest land use plan, and the use of non-potable water for all outdoor irrigation demands.

[4] Not Used

[5] Represents demands that will be served by non-domestic water sources.

Section 4.2 – Estimated Water Demand

The last paragraph shall be revised as shown in red below. These revisions clarify the reduced potable water demand shown in the BCVWD 2020 UWMP and the use of non-potable water for all outdoor irrigation demands.

Table 4-2 and 4-3 calculate the total estimated water demand at Beaumont Pointe Development buildout of 175,584 gpd, or 196.70 AFY. Based on BCVWD equivalent dwelling unit usage of 0.546 AFY per equivalent dwelling unit, this equates to 360.26 EDUs (196.70 AFY). Of the total water demand, the potable water demand is estimated to be 204.21 EDUs (111.50 AFY) and the non-potable water demand for outdoor irrigation is estimated to be 85.20 AFY, equivalent to 156.04 EDUs.

Section 5.1 – Overview of BCVWD's Water System and Operation – Table 5-1

Table 5-1 shall be revised as shown in red below. These revisions update the potable and non-potable water connections, average and maximum day demands to reflect the values listed in the BCVWD 2020 UWMP. Please note that the BCVWD 2020 UWMP does not include the total water pumped for 2020 and therefore this row was removed from Table 5-1.

Table 5-1 BCVWD Potable and Non-Potable Water Connection and Deliveries 2020

	Potable Water	Non-Potable Water	Total
Number of Connections	19,359	300	19,659[1]
Average Annual, MGD	10.8[2]	5.6[2]	16.4
Maximum Day, MGD	21.6[2]	6.7[2]	NA
Total Demand, AF[3]	10,845	1,647	12,492

Notes:
1. Taken from Section 3.1 the BCVWD 2020 UWMP.
2. Taken from Section 3.6 in the BCVWD 2020 UWMP.
3. The Total Demand shown does not include system losses.

Section 5.2 – Potable Water System

Section 5.2 shall be removed and replaced with the potable water system overview provided in the District's 2020 UWMP.

BCVWD's potable water system is supplied by wells in Little San Gorgonio Creek (Edgar Canyon) and the Beaumont Basin (sometimes called the Beaumont Storage Unit or the Beaumont Management Zone). The District has a total of 24 wells (1 well is a standby). One of the wells, Well 26, can pump into either the potable water or the non-potable water system. Currently, it is pumping into the non-potable water system.

The Beaumont Basin is adjudicated and managed by the Beaumont Basin Watermaster. BCVWD augments its groundwater supply with imported State Project Water from the SGPWA which is recharged at BCVWD's recharge facility at the intersection of Brookside Avenue and Beaumont Avenue. The Beaumont Basin Adjudication requires that the extracted amount of water from the Basin must be replaced.

Wells in Edgar Canyon have limited yield, particularly in dry years, and take water from shallow alluvial and fractured bedrock aquifers. Wells in the Beaumont Basin are large capacity and pump from deep aquifers – some as deep as 1,500 ft below the ground surface. The Edgar Canyon wells are very inexpensive to operate and are the preferred source due to there being no replenishment requirement like the Beaumont Basin; however, those wells are not able to meet the current average day demand. The Edgar Canyon wells pump to a gravity transmission main that extends the full length of the District-owned properties in Edgar Canyon. The transmission main connects to the distribution system in Cherry Valley. Water from the Edgar Canyon Wells, which is not used in the developed areas adjacent to Edgar Canyon or Cherry Valley, is transferred to lower pressure zones serving the City of Beaumont. The Edgar Canyon Wells provide about 15 to 20 percent of the total annual supply; the rest is pumped from wells in the Beaumont Basin supplemented by recharged imported water.

BCVWD has two active stream diversion locations within Little San Gorgonio Creek (Edgar Canyon) that are in the State Water Resources Control Board, Division of Water Rights database (S014351, S014352). The diversions have pre-1914 recorded water rights amounting to 3,000 miner's inch hours (MIH) or approximately 45,000 AFY of right for diversion of water for domestic and irrigation uses. These date back to the early history of the District. However, the District has never had a demand that requires such large quantities of water supply; and the watersheds may not be capable of supplying such quantities during an average year. At the present time, the District currently diverts streamflow in Edgar Canyon to a series of percolation ponds which recharge the shallow wells in Edgar Canyon. This water is then extracted for domestic purposes.

BCVWD's total well capacity (Edgar Canyon and Beaumont Basin) is about 27.5 mgd with the largest well out of service, which is greater than the current 21.6 mgd maximum day demand (2020). The District has 11 pressure zones and 14 reservoirs (tanks) ranging in size from 0.5 MG to 5 MG. Total storage is approximately 22 MG –just over two average days or just over one maximum day. The reservoirs provide gravity supply to their respective pressure zones. The BCVWD's potable system is constructed such that any higher zone reservoir can supply water on an emergency basis to any lower zone reservoir. There are booster pumps in the system to pump water up from a lower pressure zone to a higher pressure zone also.

The transmission system in the main pressure zones is comprised of 24-in diameter pipelines (there are some 30-in diameter pipelines at some reservoirs). The bulk of the transmission system is ductile iron pipe with cement mortar lining and was installed in the last 10 to 15 years. There are a number of small distribution lines (4-in and smaller) that are gradually being replaced over time with minimum 8-in diameter ductile iron pipe. All developments, since the early 1980s, have installed mortar lined, ductile iron pipe. The distribution system is capable of providing over 4,000 gallons per minute (gpm) fire flow in the industrial/commercial areas of the service area.

Section 5.3 – Imported Water and Recharge Facilities

Section 5.3 shall be removed and replaced with the Imported Water and Recharge Facilities overview provided in the District's 2020 UWMP.

Around 2001, BCVWD began investigating an 80-acre site on the east side of Beaumont Avenue between Brookside Avenue and Cherry Valley Boulevard as a location for a facility to recharge captured storm flow and imported water. After extensive hydrogeologic investigations, including pilot testing, the District eventually purchased the site (known as the Oda Property) and developed Phase 1 of the recharge facility on the westerly half of the site. The Phase 1 facilities were completed and went online in late summer 2006. Phase 2 of the recharge facility was completed in 2014. The 80-acre site has excellent recharge capabilities with long-term percolation rates around 7 to 10 acre-ft/acre/day, with proper maintenance.

The District completed construction of a 24-in pipeline from the SGPWA turnout on East Branch Extension (EBX) of the State Water Project to the District's recharge facilities in 2006. A metering station was installed at the turnout at Noble Creek and Vineland Avenue and BCVWD began taking imported water deliveries from SGPWA for recharge in September of 2006. In 2019, the EBX facility was expanded to allow for additional imported water capacity. Since its operation in 2006 through the end of 2020, nearly 108,900 acre-ft (about 35.5 billion gallons) of imported water have been recharged. As of the end of 2020, BCVWD has 39,750 acre-ft "banked" in the Beaumont Basin; this is more than a three-year supply.

The District is also currently working with Riverside County Flood Control and Water Conservation District to complete the MDP Line 16 Project, which will allow the District to capture and recharge stormwater at the Phase 2 recharge facilities. The expected volume of stormwater able to be recharged is approximately 250 AFY. Construction is expected to begin in 2021 and be completed by fall 2022.

Section 5.4– Non-potable (Recycled) Water System

Section 5.4 shall be removed and replaced with the Non-potable (Recycled) Water System overview provided in the District's 2020 UWMP. The purpose of including this section will be to identify the current and future operating NPW systems and their source of NPW.

Currently, BCVWD has over 40 miles of non-potable water transmission and distribution pipelines (6-in and larger) in-place. This construction has occurred since about 2002. A 24-in diameter ductile iron pipeline forms a loop around the City of Beaumont. The system includes a 2 million gallon recycled (non-potable) water reservoir which provides gravity storage and pressurization for the system. The 2 MG non-potable water reservoir is configured to receive potable water or untreated State Project Water (SPW) through air gap connections. The non-potable water system can have a blend of recycled water, imported water, non-potable groundwater, and potable water. The 2 MG reservoir is located at the District's groundwater recharge facility at Beaumont Avenue between Brookside Avenue and Cherry Valley Boulevard. There are about 300 existing landscape connections to the recycled water system receiving about 1,600 acre-ft of water based on 2020 water meter records (in 2019, the non-potable water demand was 1,540 acre-ft). The effects of increased development in the District's service area impacted the non-potable system too.

A large part of the non-potable water system is currently supplied from Well 26 and supplemented with potable water which is introduced into the 2 MG non-potable water tank through an air gap connection. The non-potable water system in the Tournament Hills and Fairway Canyon area is currently supplied with potable water through temporary interconnections between the potable and non-potable water system.

BCVWD is currently working with the City of Beaumont to secure recycled water for use in the non-potable water system. As of the end of 2020, the City is nearing the completion of the

expansion and upgrade of its existing wastewater treatment facility to bring it to 6 MGD capacity and will be installing a new membrane bioreactor (MBR) treatment unit followed by reverse osmosis membrane treatment. A brine line from the treatment plant to the Inland Empire Brine Line (IEBL) in San Bernardino was constructed in 2020. Upon the availability of recycled water from the City, the non-potable system will be completely severed from the potable system.

A memorandum of understanding between BCVWD and the City for recycled water purchase and use was signed in July 2019 and the City and BCVWD are in the process of finalizing an agreement for purchase of recycled water through an ad-hoc committee consisting of City Council members and BCVWD Board Members.

The Regional Water Quality Control Board (RWQCB) has ordered the City to be in compliance with the maximum benefit provisions, which include providing recycled water for beneficial use, by November 30, 2020. Construction completion has been delayed due to wet weather and the Covid-19 virus shutdown.

When the demand for recycled water for landscape irrigation is less than the supply available (winter months), BCVWD may ultimately recharge surplus recycled water at BCVWD's groundwater recharge facility or some alternative facility with appropriate treatment and permits. Recycled water use and recharge is permitted by the Beaumont Basin Adjudication.

Section 6.1 Regional Water Supply Demand Spreadsheet Models

As required by SB610, a Project's WSA must identify other public water systems that receive water from the same source as the public water system. Since BCVWD relies heavily on imported water from the SGPWA, updated numbers from the other regional retail agencies and their estimated current and future water demands were listed in the original Project's WSA. Therefore, Table 3-16 from the 2020 SGPWA UWMP is shown below and is intended to update the water supply demands for the different SGPWA service areas described in Section 6.1.1 through Section 6.1.3 in the original WSA.

Service Area Water Supply to Meet Demands	2025	2030	2035	2040	2045
City of Banning	9,473	10,198	10,853	11,565	12,278
Beaumont Cherry Valley	14,963	16,160	17,515	18,710	19,693
Yucaipa Valley WD (Riverside Portion)	1,509	1,841	2,174	2,507	2,839
South Mesa WC (Riverside Portion)	1,032	1,084	1,138	1,196	1,196
High Valley WD	3,400	3,600	3,900	4,100	4,300
Cabazon County WD					
Mission Springs (SGPWA area)					
Other SGPWA service area not served by named retailers					
Total SGPWA Boundary Supply to meet Demands	30,400	32,900	35,600	38,100	40,300

Note:
1. Taken from Table 3-16 in the SGPWA 2020 UWMP

Section 6.1.3.1 – City of Beaumont Development

Section 6.1.3.1 in the Beaumont Pointe Development WSA listed the major development projects in the BCVWD service area and their estimated EDUs. This allowed for the Supply-Demand Model for BCVWD to be projected for the next 20 years. Tables 3-6 through 3-8 in the BCVWD 2020 UWMP (shown below) list the updated projects within the BCVWD service area or sphere of influence currently under construction or planning and their corresponding EDU. These tables shall replace the existing Table 6-6 in the Beaumont Pointe Development WSA and shall be used as a reference for the projected water demands in future projections. Additionally, the following changes in red from the second paragraph in Section 6.1.3.1 will be made to reflect the updated Beaumont Pointe Development EDUs.

Prior "proposed" projects equivalent dwelling units within the BCVWD service area were estimated at 12,544 (Legacy Highlands WSA, June 2020). The Beaumont Pointe Development project site was previously planned with a land use density of 2,000 equivalent dwelling units (EDUs). The new Beaumont Pointe Development land use plan estimates a significantly reduced density of 360.26 EDUs, representing a reduced site density by 82 percent. The originally approved Beaumont Point Development WSA indicated that approximately 43.31% of the potable water demand from the 360.26 EDUs could be served by BCVWD's Non-Potable Water (NPW) system reducing the Project's potable water demand to 204.21 EDUs. As part of the Project's Plan of Service documents and ongoing water conservation efforts, the Project will be designed to utilize NPW for all outdoor irrigation demands or approximately 156.04 EDUs.

To clarify, when the District was preparing the basis for future water demands within the District's service area in the BCVWD's 2020 UWMP, the District utilized the potable water demands from the November 2020 BP DRAFT WSA. This draft version of the Project's WSA identified the potable water demand as 221 EDUs as shown in Table 3-7 (shown below) in the BCVWD's 2020 UWMP. Because the Project's updated land use plan has a potable water demand of 204.21 EDUs, the District's 2020 UWMP conservatively included the Project's anticipated potable water demands.

Figure 4 shows the number of single-family home building permits issued in the City of Beaumont since year 2002. (Year 2018 was estimated based on data through September 2018.) Although not shown in the figure, the permit applications started to increase in 1999- 2000 and reached their peak in 2005 with 2,300 new home permits issued for that year. The number of permits for new homes declined to a low of 169 in 2011. Over the last 10 years, permits averaged 396 per year, and 508 over the last 5 years. The 16-year average was 747 per year. Future growth will likely be in the range of 450 to 650 permits per year, although some developers have projected slightly higher amounts in their build-out forecasts.

Development Name	Total Anticipated EDU's	Estimated Housing Units Yet to be Constructed (Feb. 2021) [16]	Estimated Build-out Year
Sundance	4,450	808	2027
Fairway Canyon SCPGA	3,300	1,650	2035
Olivewood (Heartland)	981	697	2030
Hidden Canyon Industrial Park (Beaumont Distribution Center)	Industrial	-	2021
Sundance Corporate Center	Commercial	-	2021
Totals	**8,731**	**3,155**	

Note:
1. Taken from Table 3-6 in the BCVWD 2020 UWMP

Development Name	Total Probable EDU's	Estimated Build-out Year	Status (April 2021)
Beaumont Industrial Park (Industrial) [1,2]	70	2040	
Beaumont Downtown District	900	Unknown	
Beaumont Village (Mixed Use) [1,2]	2350	Unknown	
Beaumont Pointe (Jack Rabbit Trail – Commercial/Industrial) [1]	221	2027	
CJ Foods (Industrial)	225	2023	Incremental EDU increase per year, beginning 2018 and ending in 2023
Dowling Orchard (Industrial)[1,2]	50	Unknown	
Potrero Logistics (Hidden Canyon II) [1,2]	59	2031	
I-10 & Oak Valley Parkway (Commercial)[1]	200	2035	
Kirkwood Ranch	391	2040	Specific Plan (1991), Tent. Tract Map 27357 Approved
Loma Linda/BUSD (Commercial/Industrial)[1,2]	100	2040	
MCM Chicken Ranch (Industrial) [1,2]	50	2045	
Noble Creek Vistas (Tract 29522)	298	Unknown	
Noble Creek Meadows (Tract 29267)	274	2025	
Oak Creek Village*(Commercial) [1,2]	100	Unknown	
Oak Valley Parkway/Oak View Drive (Commercial) [1,2]	75	Unknown	
Olivewood (Commercial) [1,2]	40	2035	
Potrero Creek Estates [1,2]	700	Unknown	Specific Plan (1989)
Riedman Properties (Merlin Properties)	140	2035	

Note:

1. Taken from Table 3-7 in the BCVWD 2020 UWMP

Development Name	Total Probable EDU's	Estimated Build-out Year	Status (April 2021)
SDC Fairway Canyon Commercial[1,2]	75	Unknown	
Sunny Cal Egg Ranch	529	2040	
Taurek	244	Unknown	
Legacy Highlands (Residential, Commercial, Industrial)[2]	2,542	Unknown	
Tournament Hills Phase 3, (TM 36307)	284	2028	Tract 36307, Amendment to Oak Valley Specific Plan Approved
Oak Valley Towncenter (NW Corner Beaumont Avenue & Oak Valley Parkway)	60	2030	
Manzanita (Tract 32850)	95	2035	
Xenia Apartments[3]	100	2029	
Totals	**9,272**		

(1) Commercial/Industrial "EDUs" determined based on 0.546 AFY/EDU, or approximately 487 gal/EDU/day.
(2) District staff estimated EDUs due to project not fully entitled.

Note:
1. Taken from Table 3-7 in the BCVWD 2020 UWMP

	Cumulative New EDUs					
	2020	2025	2030	2035	2040	2045
Beaumont	1947	4026	6293	8732	10693	12502
Cherry Valley	14	40	97	158	228	262
Total	1961	4066	6390	8889	10922	12764
Average New EDUs/year	654	421	465	500	406	368

Note:
1. Taken from Table 3-8 in the BCVWD 2020 UWMP

Section 6.1.3.3 – Supply Demand Model for BCVWD

Section 6.1.3.3 shall be removed and replaced with the following updates from the BCVWD 2020 UWMP. As required by the SB610, the Project's WSA shall discuss the public water systems water supplies available during normal conditions for existing and future conditions in 5 year periods for 20 years. To update Section 6 and to provide a 20-year outlook based on the BCVWD 2020 UWMP, the following is intended to update Section 6.1.3.3 based on providing a 20-year projection.

	YEAR				
	2025	**2030**	**2035**	**2040**	**2045**
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Drought Proofing, AFY	1,500	1,200	1,000	1,000	1,000
Supplemental Water to Non-Potable System, AFY	276	246	-	-	-
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	**16,929**	**17,873**	**18,869**	**19,846**	**20,660**
LOCAL SUPPLY					
Potable Groundwater					
Edgar Canyon, AFY	2,073	2,073	2,073	2,073	2,073
Beaumont Basin Groundwater Available					
Overlier Potable Forebearance, AFY	-	67	264	384	384
Overlier Non-Potable Forebearance, AFY	471	480	1,123	1,158	1,158
Reallocation of Unused Overlier Rights, AFY	1,322	1,286	1,165	1,099	1,099
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	185	535	535	535	535
Non-Potable Groundwater					
Mouth of Edgar Canyon, AFY	-	-	300	300	300
San Timoteo Creek, AFY	-	-	600	600	600
Recycled Water Available, AFY	2,017	2,381	2,892	2,955	2,915
Subtotal Local Supply, AFY	**6,348**	**7,335**	**9,820**	**10,027**	**10,220**
BCVWD's Share of Imported Supply					
Table A Allocation (58%), AFY	7,877	7,184	6,653	5,860	5,248
Yuba Accord, AFY	182	166	154	135	121
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
SGPWA Carryover Water, AFY	2,368	2,159	2,000	1,761	1,577
Sites Reservoir, AFY	-	-	3,037	5,623	7,911
Additional SWP Transfers/Exchanges, AFY	455	415	385	339	303
Subtotal Imported Supply (Normal Conditions), AFY	**12,216**	**11,142**	**13,355**	**14,711**	**16,050**
Total Supply, AFY	**18,565**	**18,478**	**23,175**	**24,738**	**26,270**
From (To) Banked Beaumont Basin Storage, AF	(1,636)	(605)	(4,306)	(4,892)	(5,610)

Note:
1. Taken from Table 7-8 in the BCVWD 2020 UWMP

BCVWD's current and future water sources can be summarized in the Table below and as described below. As shown in the table above, the total BCVWD demand is less than the total available supply showing BCVWD will have sufficient water supplies for the Project under normal operating conditions.

Water Source	Current	Future
Groundwater, Edgar Canyon	●	●
Groundwater stored in the Beaumont Basin	●	●
Imported Water purchased through SGPWA	●	●
Recycled water for landscape irrigation		■
Recycled water for groundwater recharge from the City of Beaumont		Potential
Storm Water Capture and Recharge from Edgar Canyon, Noble Creek and other local watershed		■
Urban Storm Runoff captured in detention and water quality basins		■
Captured, nitrate-contaminated shallow groundwater from Edgar Canyon to supplement non-potable water system		Potential
Singleton Basin groundwater		Potential
San Timoteo Basin groundwater to supplement non-potable water system		■
Joint Projects with Other Agencies with Exchanges		Potential
Sites Reservoir		Potential

● Firm, existing source ■ Firm, future source

Note:
1. Taken from Table 6-1 in the BCVWD 2020 UWMP

BCWD's source of supply consists of:

- **Edgar Canyon (Little San Gorgonio Creek) Groundwater –** BCVWD has long-term records on pumping. From 1957 to 2020, a period of 64 years, the average production from the Edgar Canyon Wells is 1,881 AFY. However, prior to 1983, the ability to utilize the water pumped from Edgar Canyon was limited due to a lack of sufficient conveyance capacity to deliver water from Edgar Canyon to Cherry Valley and Beaumont. In 1983, the District installed the 14-in Edgar Canyon Transmission Main which enabled larger quantities of water to be conveyed from Edgar Canyon to Cherry Valley and Beaumont. From 1983 to 2020, a period of 38 years, the average amount pumped was 2,073 AFY. This is far more indicative of Edgar Canyon's ability to produce water. As shown in Table 6-7 in the BCVWD 2020 UWMP the Edgar Canyon Wells produced about 10% of the District's annual demand (potable and non-potable) in 2020.

- **Beaumont Basin**
  - **Overlier Potable and Non-Potable Water Forbearance** – is credited to a water supplier by Watermaster for any potable and/or recycled water provided to an overlying party or an overlying party's land. The overlier forbears pumping the equivalent amount of water supplied and the appropriator then has the right to pump the volume of water forgone by the overlier. This is done through the Basin Watermaster who transfers forgone water to the appropriator's groundwater storage account on an annual basis.

- **Reallocated Unused Overlier Pumping Rights** – All of the "safe yield" from the Beaumont Basin is allocated to the overlying parties (overliers). Each overlier was given a share of the safe yield and was allowed to pump no more than five times that share in any five-year period. Most, if not all, of the overliers do not pump their entire share of the safe yield. The amount of groundwater not produced by an overlying party shall be available for allocation to appropriators in accordance with their percentage shares of unused safe yield stated in the Adjudication Exhibit C3. BCVWD's share is 42.51% of the unused overlier pumping rights. The Beaumont Basin Watermaster administers this reallocation and transfers the appropriate amounts into the appropriators' storage accounts on an annual basis.

- **Return Flow Credits** – Return flow is defined as the portion of water which is applied to the land which is not evaporated or evapo-transpired and which ultimately percolates (returns) to the groundwater table and which can be re-extracted for use. Return flows originate from irrigation of agricultural land and lawns and landscaped areas in rural and urban settings and from deep percolation of septic tank effluent in unsewered areas, e.g., Cherry Valley. In most adjudicated groundwater basins, credit is given to the supplier of water which is used on land overlying the groundwater basin and which percolates back or "returns" to the groundwater. Watermaster provided annual return flow estimates from various land uses in Table 3 of the Safe Yield Report and were used in estimating current and future return flow credits.

- **Storm Water** – Stormwater capture plays a significant role in BCVWD's local water resources supply development. Diverted stormwater is/will be routed to percolation ponds capable of recharging the groundwater basins. The District currently has stormwater diversion located in the Upper and Middle of Edgar Canyon and has several other proposed projects in the future.

- **Non-Potable Groundwater**

  - **Mouth of Edgar Canyon** – High nitrate groundwater located at the mouth of Edgar Canyon can supplement the recycled water/non-potable water system flow in the summer, high demand months, making well water available for potable water use. BCVWD believes as much as 300 AFY can be captured and reused.

  - **San Timoteo Creek** – San Timoteo Canyon Extraction Wells to capture groundwater from the Beaumont Basin flowing into San Timoteo Canyon and also to capture City of Beaumont wastewater flow discharged to Cooper's Creek once the water has percolated and is no longer available for habitat maintenance. It is estimated that 400 to 800 AFY can be captured and put into the recycled water/non-potable water system to meet summertime demands.

- **Recycled Water –** BCVWD is currently working with the City of Beaumont to distribute Title 22 recycled water produced at the City of Beaumont's Treatment Plant No. 1. Phase 1 of the City's wastewater treatment plant construction has been completed, increasing the rated capacity from 4 MGD to 6 MGD. Process upgrades include redundant coarse screens, a grit removal system, a flow equalization basin, a fine screen system, an activated sludge process coupled with a new MBR system followed by a partial RO, and a new UV disinfection system. The City submitted a Title 22 Recycled Water Engineering Report to the Santa Ana Regional Water Board in September 2019 and is awaiting formal comment. Another component to the treatment facility upgrades is the construction of a 12-inch diameter gravity pipeline from the Beaumont WWTP to the nearest connection point in the Inland Empire Brine Line (IEBL) to dispose of the brine

waste generated by the upgraded treatment facility. Construction of the brine line was completed around early 2020 and is approximately 23 miles long.

BCVWD continues to work with the City relative to recycled water. Historically, the City of Beaumont's effluent has experienced TDS concentrations of about 400 mg/L, which is an excess of the Regional Board's Maximum Benefit Water Quality Objectives for the Beaumont Basin. With the implementation of the reverse osmosis system, the recycle water from the City will be treated to a high-level and should have no issue in achieving the Maximum Benefit Water Quality Objectives.

Table 6-15 in the BCVWD 2020 UWMP shown below lists the estimated recycled water produced, the recycled water that must be reserved for habitat mitigation (1.8 mgd), and the net amount of recycled water available for recycling. Please note that not all the wastewater can be recycled due to onsite recycled water demands and reject water from the reverse osmosis process.

Year	2020	2025	2030	2035	2040	2045
City of Beaumont Population	51,663	59,261	67,104	74,891	79,522	81,513
Wastewater Generation Flow Rate, gpcd	70	67.5	65	65	62	60
Wastewater Flow, mgd	3.62	4	4.36	4.87	4.93	4.89
Environmental Mitigation Flow, mgd	1.8	1.8	1.8	1.8	1.8	1.8
Wastewater Available for Recycling, mgd	1.82	2.2	2.56	3.07	3.13	3.09
Estimated amount which can be recycled, mgd	1.45	1.8	2.13	2.58	2.64	2.6
Estimated amount which can be recycled, AFY	1,630	2,017	2,381	2,892	2,955	2,915
Estimated amount which can be recycled, AF/month	136	168	198	241	246	243
Estimated amount which can be recycled, gal/min	1,020	1,260	1,480	1,800	1,840	1,810

Notes

1. The City of Beaumont population growth is less aggressive than shown in tables presented in Section 3 of the BCVWD 2020 UWMP to be conservative in the amount of recycled water available.
2. Table taken from Table 6-15 in the BCVWD 2020 UWMP.

- **Imported Water from SGPWA –** The amount of imported water which BCVWD is able to purchase and recharge is only the amount left over after YVWD, the City of Banning, and others have purchased the amount each needs to meet their demands and banking. The amount available from the SGPWA collectively is discussed later in this WSA. BCVWD has entered into an agreement, and participated financially, with the SGPWA for a share of the yield from the Sites Reservoir Project. This is discussed later in this WSA.

Section 7 SGPWA Available Imported Water

BCVWD relies on imported water from the SGPWA. In order to meet the requirements of SB610 of showing the current and future availability of the BCVWD water supplies, Section 7 of the original WSA is intended to be replaced with following which is essentially a summary of Section 3.1 from the 2020 SGPWA UWMP in order to describe the updated SGPWA Imported Water Supply Sources.

7 SGPWA Available Imported Water

In November of 1962, SGPWA entered a State Water Project water service contract (SWP Contract) with the State of California Department of Water Resources (DWR). The SWP Contract authorized DWR to deliver SWP water to SGPWA under certain terms and conditions.

SGPWA also acquires water supplies through contracts with other agencies and annual water transfers and exchanges. SGPWA annually acquires Yuba Accord water as well as water under the Nickel Agreement. SGPWA may also acquire water through an agreement with San Bernardino Valley Municipal Water District (SBVMWD) as well as annual transfers and exchanges with other SWP contractors. And, in the future, SGPWA will acquire water through the Sites Reservoir Agreement. All of these additional supplies, beyond SGPWA's SWP supply, are discussed in the following sections

SGPWA's delivery of supplemental water includes both delivery to water filtration facilities and groundwater recharge basins to assist with the management of groundwater in the SGPWA service area. Whether by direct delivery, in-lieu recharge, or direct recharge, the SGPWA plays a critical role in the local management of groundwater and surface water resources.

7.1 State Water Project Overview

The State Water Project (SWP) is the largest state-built, multi-purpose water project in the country. It was authorized by the California State Legislature in 1959, with the construction of most facilities completed by 1973. Today, the SWP includes 28 dams and reservoirs, 26 pumping and generating plants, and approximately 660 miles of aqueducts.

The primary water source for the SWP is the Feather River, a tributary of the Sacramento River. The water flowing in the Feather River is captured by the SWP in Oroville dam and reservoir. Storage released from Oroville Dam flows down natural river channels to the Sacramento-San Joaquin River Delta (Delta). While some SWP supplies are pumped from the northern Delta into the North Bay Aqueduct or diverted by SWP contractors upstream, the vast majority of SWP supplies are pumped from the southern Delta into the 444-mile-long California Aqueduct. The California Aqueduct conveys water along the west side of the San Joaquin Valley to the Edmonston Pumping Plant, where water is pumped over the Tehachapi Mountains. From there the California Aqueduct divides into the East and West Branches. SGPWA takes its SWP deliveries from the East Branch, which was completed in 2003. Phase 2 of the East Branch Extension was completed in 2018 which increased the capacity of the supplemental water supplies and allowed the SGPWA to take the Agency's official maximum allotment of State Project Water.

SGPWA delivers its SWP supplies, along with other water supplies, to recharge local groundwater basins through transmission pipelines and recharge systems as well as some delivery to Yucaipa Valley Water District.

SGPWA is one of 29 water agencies that have a SWP Contract with DWR. Each SWP contractor's SWP Contract contains a "Table A Annual Amounts" (Table A) which lists the contracted maximum amount of water an agency may receive under its contract. Table A is also used in determining each contractor's share of the total SWP water supply DWR determines to be available each year. The total planned annual delivery capability of the SWP and the sum of all

contractors' maximum Table A amounts was originally 4.23 million acre-feet. The initial SWP storage and conveyance facilities were designed to meet contractors' water demands with the construction of additional storage facilities planned as demands increased. However, few additional SWP storage facilities have been constructed since the early 1970s and a portion of the original conveyance design was never completed. SWP conveyance facilities were generally designed and have been constructed to deliver Table A to all contractors. The maximum Table A of all SWP contractors now totals about 4.133 million AF. SGPWA manages its SWP supplies to maximize the availability of these supplies to its retail customers. In this way, SGPWA seeks to optimally manage its Table A wet year supplies, acquire additional SWP supplies through Article 21 conditions (SWP surplus conditions), access Advanced Table A supplies, and potentially exchange Table A supplies with other SWP contractors. All of these actions improve the long-term reliability of Table A supplies.

7.1.1 Table A Allocations

SGPWA's Table A Annual Amount is 17,300 acre-feet per year up through the 2045 UWMP planning horizon. SGPWA's Table A represents a maximum contract amount that could be available each year assuming that the SWP could deliver 100% contract supplies to all SWP contractors. The last 100% allocation year occurred in 2006. SGPWA's SWP Contract has numerous components that allow SGPWA to manage and control the annually available SWP water supplies.

More often than not, actual SWP allocations are less than 100% SGPWA's Table A Annual Amount. Annual SWP percentage Table A allocations fluctuate based upon hydrology, water storage, and regulatory criteria in the Delta. Table 7-1 below shows the SGPWA Table A Annual Amount from 2010 through 2020, the SWP allocation percentage, and the final available Table A allocation from 2010-2020. During this period, the SGPWA received on average 8,335 acre-feet, or about 48% of the Table A contract amount. It is important to recognize that this period included a significant and recent drought event.

Table 7-1: SWP Table A Allocations and Deliveries

Year	SWP Contract Table A	Percent Allocation	Allocation Amount
2010	17,300	50%	8,650
2011	17,300	80%	13,840
2012	17,300	65%	11,245
2013	17,300	35%	6,055
2014	17,300	5%	865
2015	17,300	20%	3,460
2016	17,300	60%	10,380
2017	17,300	85%	14,705
2018	17,300	35%	6,055
2019	17,300	75%	12,975
2020	17,300	20%	3,460

Notes
1. Taken from Table 3-1 in the 2020 SGPWA UWMP.

DWR has projected that it is less likely that 100% allocation years will occur on a regular basis in the future. In August 2020, DWR finalized the "2019 SWP Delivery Capability Report" (DCR) that outlined the probable future water supply allocations for the SWP system. The DCR showed variations in future Table A deliveries based upon hydrological and regulatory conditions. These

conditions are summarized in Table 7-2 below along with SGPWA's corresponding Table A amount.

Table 7-2: SWP Estimated Table A Deliveries from DCR (values in acre-feet)

	Long Term Average		Single Dry Year (1977)		Dry Periods							
					2 Year Drought (1976-1977)		4-Year Drought (1931-1934)		6-Year Drought (1987-1992)		6 Year Drought (1929-1934)	
2017 Report	2,571	62%	336	8%	1,206	29%	1,397	34%	1,203	29%	1,408	34%
2019 Report	2,414	58%	288	7%	1,311	32%	1,228	30%	1,058	26%	1,158	28%

Notes
1. Taken from Table 3-2 in the 2020 SGPWA UWMP

As shown in Table 7-2, DWR's long-term average reliability shows a downward trend from 62% in the 2017 SWP DCR to 58% in the 2019 DCR. DWR attributes this downward trend to climatological and hydrological factors that impact precipitation patterns and snowfall accumulation above its main SWP facility, Lake Oroville. In this way, SGPWA characterizes its average normal year SWP water supply through 2045 as 58% of its Table A Annual Amount in accordance with the DCR. Thus, from 2025 through 2045, SGPWA's projected Table A final available allocation will be 58% of 17,300 acre-feet or 10,034 acre-feet per year. Importantly, SGPWA anticipates years where its Table A Allocation exceeds the average normal year delivery of 58%. In these years, SGPWA will capture and store the surplus water assets.

The single dry year characterization and five consecutive dry year characterization for the SWP supplies are also an important consideration in SGPWA's UWMP. The 2017 and 2019 DCR represent the single driest year as 1977 with an 8% SWP allocation estimate in 2017 DCR and a 7% SWP allocation estimate in 2019 DCR. The single lowest historical SWP allocation occurred in 2014 at 5%, and this 5% allocation is also representative of the 2021 Table A Allocation. As such, to be conservative in its projections, SGPWA will use 5% of 17,300 acre-feet or 865 acre-feet per year as the single dry year allocation through 2045 as depicted in Table 7-3.

Table 7-3: SWP Future Table A Projected Water Year Deliveries During Single and Multi-Year Drought Conditions (AFY)

Table A	Year Type	Amount
Normal		10,034
Single Dry Year		865
Multi-Year Drought	Year 1	6,055
	Year 2	865
	Year 3	865
	Year 4	3,460
	Year 5	6,055

Notes
1. Taken from Table 3-3 in the 2020 SGPWA UWMP

The 2019 DCR also identifies various drought periods for purposes of characterizing SWP allocation percentages that would accompany those drought periods. The averaging of the allocations over the course of the drought period is not representative of SGPWA drought planning purposes. SGPWA will use the following drought characterization for its short-term and long-term planning: year 1 at 35%; year 2 at 5%; year 3 at 5%; year 4 at 20%; and year 5 at 35%. SGPWA examined the historical record and determined that there was no representative five consecutive year historical SWP delivery dry period that adequately reflects a potential future

five-year critical drought condition that could drastically reduce SWP supply deliveries for SGPWA's service area. As such, taking a more conservative planning approach, SGPWA created a more restrictive dry year characterization that adequately represents a critical drought over five consecutive years. In this dry year modeled sequence, two consecutive critically dry years are bounded by Table A allocations that are reflected in the recent historical record. Table 3-4 shows the normal year, single dry year, and five consecutive dry years planned SWP Table A Allocation for San Gorgonio Pass Water Agency through 2045.

Table 7-4: Future SWP Allocations by Year Type Through 2045 (AFY)

Total Supply		2025	2030	2035	2040	2045
Normal		10,034	10,034	10,034	10,034	10,034
Single Dry Year		865	865	865	865	865
Multi-Year Drought	Year 1	6,055	6,055	6,055	6,055	6,055
	Year 2	865	865	865	865	865
	Year 3	865	865	865	865	865
	Year 4	3,460	3,460	3,460	3,460	3,460
	Year 5	6,055	6,055	6,055	6,055	6,055

Notes
1. Taken from Table 3-4 in the 2020 SGPWA UWMP

7.1.2. Table A Carryover Water

SGPWA's SWP Contract allows it to forego use of its allocated SWP Table A supply and retain a portion of that allocated supply in storage for future use. This retained supply is termed "Carryover" and is governed under Article 56 of SGPWA's SWP contract. Carryover water is water that is released from Oroville dam and reservoir, re-diverted at the Delta, and then stored in San Luis Reservoir – an off-stream reservoir located just outside the City of Santa Nella at the junction of Interstate 5 and California State Highway 152. San Luis Reservoir is jointly owned and operated by the state and federal governments and all SWP contractors may use the storage facility to manage Carryover water supplies. In short, the San Luis Reservoir receives, regulates, and stores exported water derived from the State Water Project and Federal Central Valley Project.

The amount of water that SGPWA may carryover in any given year is subject to a set of rules that implicate all SWP contractors throughout California. In brief, SGPWA delivers its Table A supplies to Carryover in San Luis Reservoir with an expectation that it will be able to divert all or a portion of these supplies in a subsequent year. In the event that water supplies are abundant, San Luis Reservoir may "spill." When San Luis Reservoir reaches a "spill" stage, DWR releases SGPWA's Carryover in accordance with the aforementioned rules as they apply in the context of all entities with stored water in San Luis Reservoir. Nevertheless, over the last 10 years SGPWA has retained a portion of its Table A Allocation as Carryover even in the driest years and continues to maintain a Carryover balance. Table 7-5 shows SGPWA's Carryover balance from 2010 through 2020.

Table 7-5: SGPWA Historic SWP Carryover Storage and Use (AFY)

Year	Source	Available Carryover
2010	97-12 Historic Delivery Database	2,719
2011	97-12 Historic Delivery Database	4,535
2012	97-12 Historic Delivery Database	4,956
2013	Finalization Report	5,277
2014	Finalization Report	5,264
2015	Finalization Report	954
2016	Finalization Report	936
2017	Finalization Report	1,700
2018	Finalization Report	5,159
2019	Finalization Report	2,668
2020	Finalization Report	4,211

Notes
1. Taken from Table 3-5 in the 2020 SGPWA UWMP

The Carryover supplies noted in Table 7-5 combine a number of water management factors that impact SGPWA's overall water supply availability. For example, where SGPWA is able to acquire additional water assets in normal and wet year types, SGPWA may carryover SWP supplies to water shortage years for use. Moreover, where SGPWA may acquire alternative supplies through transfers and exchanges, even in the driest years, the Agency may then manage its supply portfolio to preserve Carryover supplies for later use. For instance, in 2015, SGPWA stored 954 acre-feet of water supplies as Carryover when SWP allocations were at the lowest historical allocation on record – five percent (5%) – in the 2014 water year (see Table 7-1). Similarly, in 2015 – a 20% allocation year – SGPWA was able to carryover 936 acre-feet of water into the 2016 water year by acquiring alternative supplies and flexibly managing regional supplies in coordination with the retail agencies. SGPWA's management actions coordinated the Agency's available water supply portfolio in these years with the regional retail agencies water supply portfolios and water conservation efforts in order to preserve SWP supplies for future uses.

SGPWA will have access to its Table A Carryover supplies in future years based upon the hydrological and regulatory conditions. The Table A Carryover supplies result from a number of variables that are tied to the SWP Table A annual percent allocation, operations in San Luis Reservoir, and water supply management by SGPWA throughout its service area. In wet years, SGPWA carries over substantial supplies that are considered in the annual carryover numbers.

Accordingly, water years 2013 through 2017 above are representative of a five-year Carryover supply availability for SGPWA – and include 2014 and 2015 two of the driest years on record. Furthermore, SGPWA conservatively estimates future Carryover supplies in a normal year to be approximately 5,200 acre-feet similar to 2013, 2014, and 2018 and carryover in a single dry year to be just over 900 acre-feet like 2015 and 2016. These supplies are estimated based upon typical SWP management in a normal year in context of SGPWA's total water supply portfolio. The future normal year Carryover supply represents approximately half of SGPWA's normal year carryover number as noted in Table 7-5 but other years represent Carryover supplies that may result from additional SGPWA multi-year management actions that allow Carryover supplies to be available in these year types. Table 7-6 shows the Carryover supplies through 2025 and Table 7-7 shows the representative Table A Carryover supplies through 2045

Table 7-6: Carryover Supplies Through 2025 (AFY)

Carryover	Year Type	Amount
Normal		3,000
Single Dry Year		936
Multi-Year Drought	Year 1	3,000
	Year 2	2,500
	Year 3	954
	Year 4	936
	Year 5	1,700

Notes
1. Taken from Table 3-6 in the 2020 SGPWA UWMP

Table 7-7: Future Available Table A Carryover Supplies (AFY)

Year Type		2025	2030	2035	2040	2045
Normal		3,000	3,000	3,000	3,000	3,000
Single Dry Year		936	936	936	936	936
Multi-Year Drought	Year 1	3,000	3,000	3,000	3,000	3,000
	Year 2	2,500	2,500	2,500	2,500	2,500
	Year 3	954	954	954	954	954
	Year 4	936	936	936	936	936
	Year 5	1,700	1,700	1,700	1,700	1,700

Notes
1. Taken from Table 3-7 in the 2020 SGPWA UWMP

7.1.3 Delta Conveyance Project Future SWP Increment

The Delta Conveyance Project, if implemented, would increase the future reliability of SGPWA water supplies derived from the SWP. Consistent with Executive Order N-10-19, in early 2019, the state announced a new single tunnel project, which proposed a set of new diversion intakes along Sacramento River in the north Delta for SWP. In 2019, the California Department of Water Resources (DWR) initiated planning and environmental review for a single tunnel Delta Conveyance Project (DCP) to protect the reliability of State Water Project (SWP) supplies from the effects of climate change and seismic events, among other risks. DWR's current schedule for the DCP environmental planning and permitting extends through the end of 2024. DCP will potentially be operational no later than 2040 following extensive planning, permitting, and construction.

SGPWA anticipates that the DCP will increase access to water assets by providing conveyance opportunities that are currently unavailable. SGPWA recently increased its investment in the DCP from 1.22% to 2% of project capacity in order to improve future conveyance actions related to its water asset portfolio. As such, the DCP investment should provide better access to SWP supplies in normal and wet years as well as opportunities to deliver alternative planned supplies as they become available to SGPWA.

7.2 SGPWA Additional Imported Water Supplies

SGPWA has numerous other current and future water assets besides its Table A Annual Amount and Table A carryover supplies. These supplies are derived from the following items: Yuba

Accord, Nickel Agreement, San Bernardino Valley Municipal Water District Agreement, and Sites Reservoir Agreement. These additional water sources are more fully described below.

7.2.1. Yuba Accord Water

In 2008, SGPWA entered into the Yuba Accord Agreement and has amended the agreement several times through 2014. The Yuba Accord Agreement allows SGPWA to purchase water from Yuba County Water Agency through its contractual arrangement with DWR that permits 21 SWP contractors (including SGPWA) and the San Luis and Delta-Mendota Water Authority regular access to the supply. Yuba Accord water comes from the Yuba River, located north of the Delta, and the water purchased under this agreement is subject to losses associated with transporting it to SGPWA's service area. While the amount of this water varies each year depending on hydrologic conditions, the Agency anticipates receiving an average future amount of approximately 300 AFY. The Agency recently signed an extension to this agreement allowing it to purchase this water well into the future. Table 7-8 shows the last five years of Yuba Accord water supplies coming to SGPWA. Table 7-9 shows the normal, single dry, and five consecutive dry year water supplies available under the Yuba Accord.

Table 7-8: Last Five Years of Yuba Accord Water Deliveries (AFY)

Year	Yuba Accord Deliveries
2015	0
2016	0
2017	0
2018	124
2019	0
2020	406

Notes:
1. Taken from Table 3-8 in the 2020 SGPWA UWMP

Table 7-9: Yuba Accord Future Water Deliveries in all Year Types (AFY)

Yuba Accord Supply		2025	2030	2035	2040	2045
Normal		400	400	400	400	400
Single Dry Year		100	100	100	100	100
Multi-Year Drought	Year 1	300	300	300	300	300
	Year 2	100	100	100	100	100
	Year 3	100	100	100	100	100
	Year 4	200	200	200	200	200
	Year 5	300	300	300	300	300

Notes:
2. Taken from Table 3-9 in the 2020 SGPWA UWMP

7.2.2. Nickel Agreement

SGPWA signed an agreement with Antelope Valley – East Kern Water Agency (AVEK) on July 7, 2017 (hereafter called "Nickel Agreement"). The Nickel Agreement entitles SGPWA to purchase 1,700 acre-feet of AVEK water each year under a take or pay provision. The AVEK water is non-project water that is provided by the Kern County Water Agency. The Nickel Agreement expires in 2036 and SGPWA has a right of first refusal for an additional 20-year term. AVEK is required

to deliver 100% of the supply in all years. Table 7-10 shows SGPWA Nickel Agreement water deliveries since 2017.

Table 7-10: Nickel Agreement Water Deliveries since 2017 (AFY)

Year	Nickel Agreement Deliveries
2017	1,700
2018	1,700
2019	1,700
2020	1,700

Notes:
1. Taken from Table 3-10 in the 2020 SGPWA UWMP

SGPWA may consider the Nickel Agreement water supply always available in normal, single dry, and five consecutive dry years. The Nickel Agreement is a take or pay contract with no shortage provision that obligates AVEK to deliver the water in all year types. Table 7-11 shows the SGPWA Nickel Agreement future water supply availability.

Table 7-11: Nickel Agreement Future Water Deliveries in all Year Types (AFY)

Nickel Agreement Deliveries		2025	2030	2035	2040	2045
Normal		1,700	1,700	1,700	1,700	1,700
Single Dry Year		1,700	1,700	1,700	1,700	1,700
Multi-Year Drought	Year 1	1,700	1,700	1,700	1,700	1,700
	Year 2	1,700	1,700	1,700	1,700	1,700
	Year 3	1,700	1,700	1,700	1,700	1,700
	Year 4	1,700	1,700	1,700	1,700	1,700
	Year 5	1,700	1,700	1,700	1,700	1,700

Notes:
1. Taken from Table 3-11 in the 2020 SGPWA UWMP.

7.2.3. San Bernardino Valley Municipal Water District Agreement

SGPWA entered the Surplus Water Sale Agreement with San Bernardino Valley Municipal Water District Surplus Water Sale Agreement (SBVMWD Agreement) in June of 2018. SBVMWD is a SWP contractor that holds an entitlement to 102,600 acre-feet under its Table A Annual Amount in its 1960 SWP contract. The SBVMWD Agreement entitles SGPWA to purchase up to 5,000 acre-feet of SWP entitlement each year with SBMVWD's express concurrence. The SBVMWD Agreement expires on December 31, 2032, and there is no right of renewal. Nevertheless, SGPWA anticipates renewing this contract. The amount of water available under the contract varies each year and is subject to the "sole discretion" of SBVMWD whether the water will be made available for SGPWA to purchase. The water supply under this agreement may be available depending upon SBVMWD's supply availability determination. The SGPWA is not incorporating this potential supply into its water supply reliability determinations for all year types but considers the supply a component of its available transfer and exchange supplies and, when acquired, may be incorporated into its groundwater storage facilities.

7.2.4. Site Reservoir Agreement

SGPWA signed the Sites Reservoir Agreement in 2019. Sites Reservoir is a proposed new 1,500,000 acre-feet off-stream storage reservoir in northern California near Maxwell. Sacramento River flows will be diverted during excess flow periods and stored in the off-stream reservoir and released for use in the drier periods. Sites Reservoir is expected to provide water supply, environmental, flood, and recreational benefits. The proponents of Sites Reservoir include 30 entities including several individual SWP Public Water Agencies (PWAs). Sites Reservoir is expected to provide approximately 240 TAF of additional deliveries on average to participating agencies under existing conditions. Sites Reservoir is currently undergoing environmental planning and permitting. Full operations of the Sites Reservoir are estimated to start by 2029 following environmental planning, permitting, and construction. Sites was conditionally awarded $816 million from the California Water Commission for ecosystem, recreation, and flood control benefits under Proposition 1. Reclamation has also invested in Sites Reservoir and has allocated $13.7 million in 2021 for the project. Both SGPWA and Beaumont Cherry Valley Water District have purchased shares in Sites Reservoir, 10,000 shares and 4,000 shares respectively, that would augment supplies in the San Gorgonio Pass Water Agency service area. Table 7-12 shows the future availability of Sites Reservoir water in the SGPWA's service area and incorporates both the SGPWA and Beaumont Cherry Valley potential supplies. Other stakeholders with investments in Sites Reservoir have accounted for available supplies in 2035 as well.

Table 7-12 Future Availability of Site Reservoir Water (AFY)

Sites Reservoir		2025	2030	2035	2040	2045
Normal		0	0	10,000	12,000	15,000
Single Dry Year		0	0	10,000	12,000	15,000
Multi-Year Drought	Year 1	0	0	10,000	12,000	15,000
	Year 2	0	0	10,000	12,000	15,000
	Year 3	0	0	10,000	12,000	15,000
	Year 4	0	0	10,000	12,000	15,000
	Year 5	0	0	10,000	12,000	15,000

Notes:
1. Taken from Table 3-12 in the 2020 SGPWA UWMP.

7.2.5. Water Transfers and Exchanges

SGPWA also engages in water transfers and exchanges involving its SWP assets and other contractors' SWP water assets. Historically, SGPWA has both received and delivered water through these transfers and exchanges with various agencies throughout California. These transfers are essentially spot market transfers where short-term opportunities are identified and then actions taken for acquisition. These transfers help support management of SGPWA's and the retail agencies' water supply portfolios. Future SGPWA transfers and exchanges depend upon the allocations available to SGPWA and other water purveyors. As noted in Section 7.2.1., SGPWA has regularly acquired Yuba Accord water through its transfer and exchange activities. In addition, the State Water Contractors collectively develop annual water transfer and exchange programs to develop transferable supplies and negotiate transfer terms. SGPWA regularly participates in SWC's transfer programs. SGPWA seeks to augment potential opportunities for exchanges and transfers with SWP contractors and alternative transfer opportunities like the SWC annual transfer program. Table 7-13 shows the planned future SWP and other water transfer opportunities that could be available for SGPWA.

Table 7-13 SGPWA Future Transfers and Exchanges (AFY)

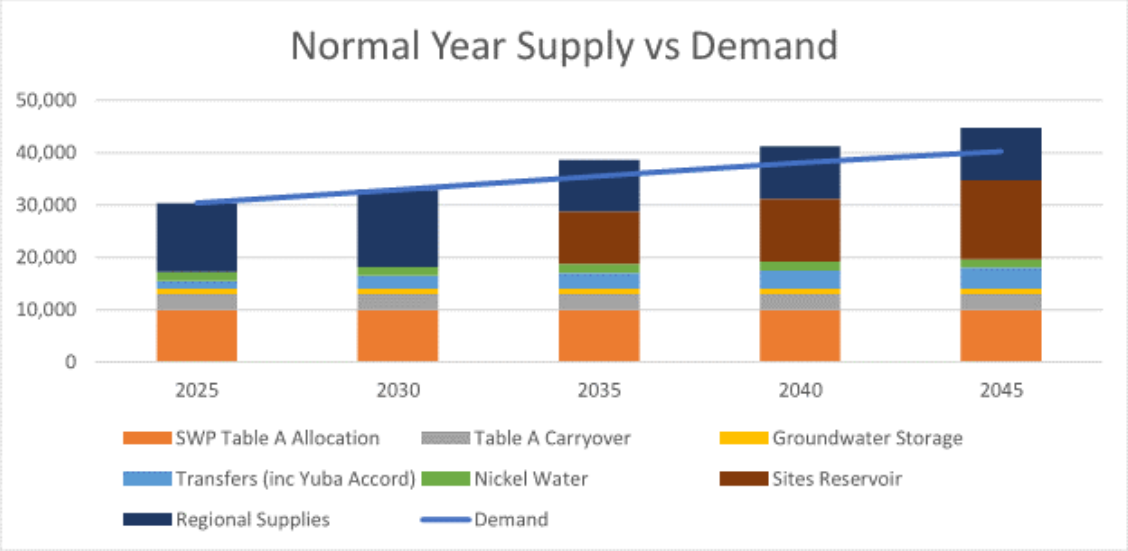
Target Supply	2025	2030	2035	2040	2045
State Water Project	500	1,000	1,000	1,000	1,000
Additional Supplies	600	1,100	1,600	2,100	2,600
Total Transfers	1,100	2,100	2,600	3,100	3,600

Notes:
1. Taken from Table 3-13 in the 2020 SGPWA UWMP.

7.3. Summary of Available Imported Water Supplies

As shown in Figure 7-1, SGPWA has reliable water supplies through the 2045 planning horizon. SGPWA has assessed the available SWP supplies, imported supplies, and locally available managed water supplies to assess regional water supply reliability through this planning horizon. In addition, SGPWA engages in annual water transfers and exchanges and stores water both within SGPWA's service area boundaries and outside its boundaries to address variable water conditions. Together, these supplies make up SGPWA's regional water asset portfolio that is actively managed by coordinated actions between SGPWA and the regional retail agencies to ensure long-term reliability.

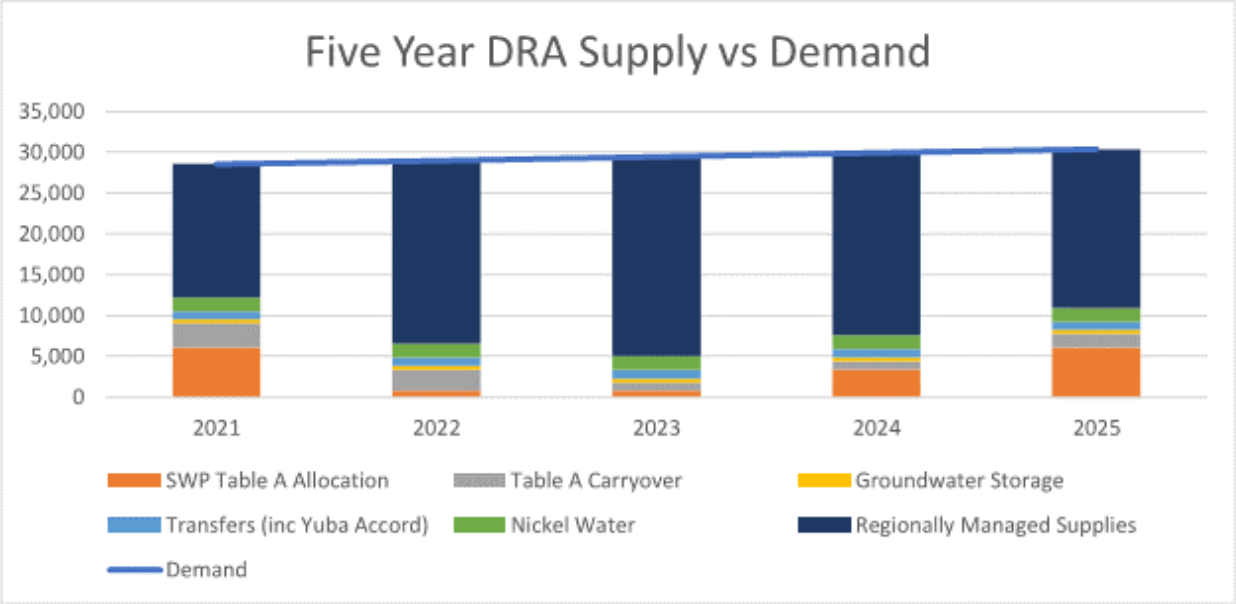
Figure 7-1: SGPWA's Water Service Reliability through 2045 (AFY)



Notes
1. Taken from Figure ES-2 from the 2020 SGPWA UWMP.

SGPWA also coordinates management of its water supplies with the retail agencies to address projected dry conditions. Specifically, SGPWA and the retail agencies capture and store surplus imported water in normal and wet years in order to use the stored water assets to meet regional demands in dry years. Moreover, the retail agencies rely upon locally managed water supplies, including native groundwater, recycled supplies, surface water assets, and return flows, to meet their annual demands. These actions stabilize annual fluctuations in recurring imported supplies that may not meet regional demands under certain dry conditions. Figure 7-2 shows a water reliability assessment for a drought lasting five consecutive years where the retail agencies in SGPWA service area use stored water and regionally managed supplies to offset fluctuations in its SWP supplies. In summary, SGPWA's diverse surface water supply portfolio, combined with its coordinated management of regionally managed surface and groundwater resources with retail purveyors, provide stable and reliable water supplies to meet SGPWA's current and 2045 future water demands in its service area.

Figure 7-2: SGPWA's Drought Risk Assessment from 2021 through 2025 (AFY)



Notes

1. Taken from Figure ES-3 from the 2020 SGPWA UWMP.

Section 8 Water Supply and Demand for BCVWD

As shown in the updated Sections 6 and 7 above, BCVWD has sufficient supply and imported water to meet demands beyond 2045 under average demand and supply conditions (see specifically updates to Section 6.1.3.3.). Therefore, no amendments are required for this section.

Section 9 Water Supply Single and Multiple Dry Period Analysis

As shown in the updated Sections 6 and 7 above, BCVWD has sufficient supply and imported water from SGPWA to meet the District's water supply requirements beyond 2045 under normal supply conditions. As required by SB610, the Project's WSA must describe the reliability of BCVWD's water supplies during dry years. The following is intended to summarize the water supply reliability and drought risk assessment presented in Section 7 of the BCVWD 2020 UWMP for the purposes of replacing Section 9 in the Project's WSA.

Section 9 – Water Supply Reliability and Drought Risk Assessment

Section 9.1 Constraints on Water Sources

A detailed description of BCVWD's current and future water sources are described previously in Section 6 of this WSA. **Table 9-1**, below shows a summary of BCVWD's current and future water sources and identifies the factors that affect the specific source's consistency of supply. Climate affects the amount of water available from most of the sources; there are some legal constraints on the Beaumont Groundwater Basin Source due to the Adjudication and contractual and environmental constraints on the imported State Project Water.

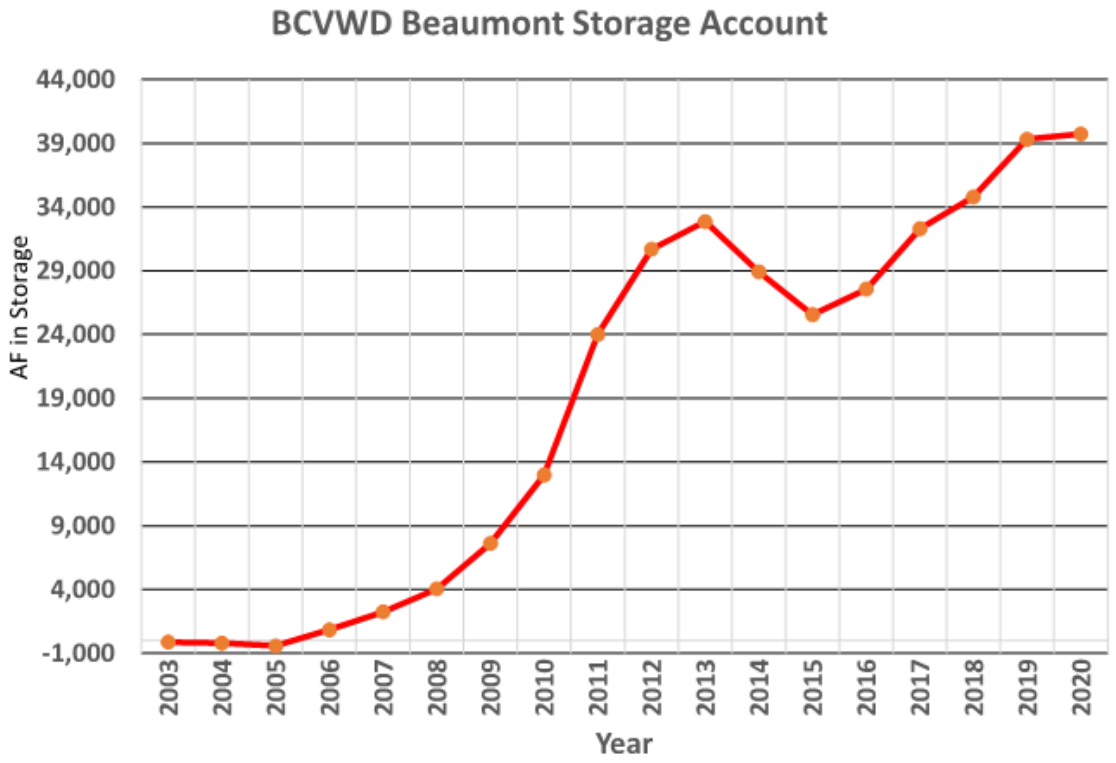
Table 9-1: Factors Resulting in Inconsistency of Supply

Water Supply Source	Cause of Inconsistent Supply				Additional Information
	Legal	Environmental	Water Quality	Climate	
Edgar Canyon Groundwater				X	
Beaumont Basin Groundwater Appropriator Rights	X				(1)
Beaumont Basin Groundwater Unused Overlier Rights	X			X	(2)
Imported State Project Water	X	X		X	(3)
Recycled Water				X	(4)
Stormwater Capture and Percolation				X	
Urban Runoff Capture and Percolation				X	
Nitrate-contaminated Groundwater from mouth of Edgar Canyon				X	

(1) After 2014, the Appropriator production rights are zero per Adjudication
(2) Reallocation of Overlier pumping rights are variable. Estimated to drop to 200 AFY by 2045.
(3) SWP reliability discussed in text. 10% of Table A is available 100% of the time; adjusted per draft allocation agreement.
(4) Recycled water is not subject to any significant variations; but some drought period reductions in flow are experienced – maybe 10%. Domestic water restrictions typically have the greatest impact on outdoor water use.

The District relies on groundwater banking within the Beaumont Basin during wet periods to supply demands during specified dry periods. Complementing the large storage capacity is the fact that percolation and recharge occur at relatively high rates making it very easy to “bank” water in the Beaumont Basin. Figure 9-1 below shows the amount of water BCVWD has accumulated in its storage account since 2003. Please note that imported water began to be spread in 2006.

Figure 9-1 – BCVWD's Beaumont Basin Storage Amount



Notes
1. Taken from Figure 7-1 in the BCVWD 2020 UWMP

With the ability to bank water and the large "underground" reservoir, BCVWD and its neighboring agencies can withstand extended periods of drought without severe restrictions. At the end of 2020, for example, BCVWD had 39,750 AF in storage. This amount in BCVWD's storage account has seen an increase of about 14,182 AF since 2015. BCVWD can store up to 80,000 AF in the Beaumont Basin managed by the Watermaster.

In Table 9-2 below (Table 6-24 in the 2020 BCVWD UWMP) a quantity of BCVWD-purchased imported water was identified as "From SGPWA for Banking." This varied from 1,000 AFY to 1,500 AFY and is over and above the amount of imported water needed to meet demands. The purpose of this "banking water" is to build up BCVWD's Beaumont Basin Groundwater Storage Account to be used as reserve for drought periods when adequate SPW is not available.

SGPWA is to supply the imported water requested in Table 9-2 below to meet BCVWD's needs plus the anticipated SPW for banking. If, in any year(s), either of these quantities cannot be supplied for any reason, the accumulated shortfall is expected to be delivered to BCVWD by SGPWA as soon as possible once imported water is available. In this way, BCVWD will be able to keep adequate water in storage for current (2020) needs and accommodate growth in BCVWD's service area. BCVWD anticipates banking around 28,500 AF of water over the next 25 years, which would bring BCVWD's storage account to about 68,250 AF. This is over 3 years of SPW requirements to meet 2045 demands with no SPW for over 3.5 years. The following subsections quantify the variability in BCVWD's water sources.

Table 9-2: BCVWD Water Supplies – Projected

DWR Table 6-9 Retail: Water Supplies — Projected											
Water Supply		Projected Water Supply * Report To the Extent Practicable									
Drop down list May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool	Additional Detail on Water Supply	2025		2030		2035		2040		2045 (opt)	
		Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)	Reasonably Available Volume	Total Right or Safe Yield (optional)
Add additional rows as needed											
Groundwater (not desalinated)	Little San Gorgonio Canyon	2,070	2,200	2,070	2,200	2,070	2,200	2,070	2,200	2,070	2,200
Groundwater (not desalinated)	Beaumont Basin (Reallocated unused overlier rights)	1,322		1,286		1,165		1,099		1,099	
Groundwater (not desalinated)	Beaumont Basin total forbearance water	471		547		1,387		1,542		1,542	
Groundwater (not desalinated)	Return flows	280		514		868		922		1,155	
Stormwater Use	Beaumont MDP Line 16	185		185		185		185		185	
Stormwater Use	Misc. Stormwater	0		350		350		350		350	
Purchased or Imported Water	From SGPWA for Replenishment of Beaumont Basin (Potable water)	8,868		9,300		9,966		10,717		11,281	
Recycled Water	From City of Beaumont for Landscaping	2,017		2,381		2,892		2,955		2,915	
Purchased or Imported Water	To supplement Non-Potable Water Supply (Purchased for Replenishment)	276		246		0		0		0	
Groundwater (not desalinated)	Non-Potable Groundwater at Mouth of Edgar Canyon	0		0		300		300		300	
Groundwater (not desalinated)	Non-Potable Groundwater along San Timoteo Creek	0		0		600		600		600	
Purchased or Imported Water	From SGPWA for Banking	1,500		1,200		1,000		1,000		1,000	
Purchased or Imported Water	Additional Imported Water Available from SGPWA	1,572		396		2,389		2,994		3,769	
	Total	18,561	2,200	18,475	2,200	23,172	2,200	24,734	2,200	26,266	2,200
Total Imported Water Required		10,644		10,746		10,966		11,717		12,281	
Total Imported Water Available to BCVWD from SGPWA (See Table 7-8)		12,216		11,142		13,355		14,711		16,050	
*Units of measure (AF, CCF, MG) must remain consistent throughout the UWMP as reported in Table 2-3.											
NOTES:											

Section 9.2 Regional Supply Reliability

BCVWD has a very diverse water portfolio that allows it to maintain a reliable water supply to its current and future customers. The existing sources include:

- Unadjudicated groundwater from the Little San Gorgonio Creek (Edgar Canyon)
- Adjudicated groundwater from the Beaumont Basin
- Stormwater capture in Edgar Canyon (Little San Gorgonio Creek) and recharge in percolation ponds in Upper and Middle Canyon and at the Canyon mount in recently added desilting and recharge basins.
- Non-potable groundwater supplying the existing non-potable water system
- Imported State Project Water from SGPWA
- AVEK-Nickel Water leased through SGPWA

- Yuba Accord water purchased through SGPWA

Potential Future Sources include the following and were described in Section 6.1.3.3 in this WSA.

- Recycled water from the City of Beaumont for landscape irrigation and with advanced treatment for indirect potable reuse (groundwater recharge).
- Improved recharge of captured urban runoff from Sundance development
- Non-potable groundwater from the mouth of Edgar Canyon
- Non-potable groundwater from San Timoteo Creek
- Stormwater capture and recharge via the MDP Line 16 Storm Drain (cost shared with RCFC&WCD, SAWPA grant and preparing for construction)
- Stormwater capture from Noble and Marshall Creek
- Additional urban runoff capture and recharge from developing areas

BCVWD's water management strategy since its formation has always been to maximize local water resources including local groundwater and capture and percolate surface flows in Little San Gorgonio Creek for subsequent extraction in the District's Edgar Canyon wells. With the development that occurred starting about year 2000, BCVWD began installation of a non-potable water system with the intent of using recycled water from the City of Beaumont. Currently (2020), the water demand in the non-potable system is about 12% of the total water demand. This demand is being partially met by non-potable groundwater. When recycled water becomes available, the District's non-potable demand will be primarily met with recycled water. Any additional non-potable demands will be met with non-potable groundwater.

As discussed above, BCVWD has an 80,000 AF storage account in the Beaumont Basin to purchase and store imported water when available in ample supply during wet years. In addition to SGPWA's Table A amount, there are two other sources of imported water over and that are available and are discussed within Section 7 above:

- Article 21 Water
- Turn-Back Pool Water

Section 9.3 Water Service Reliability Assessment

The amount of water available during the dry periods from BCVWD's water sources are presented below.

Section 9.3.1 Groundwater

Section 9.3.1.1. Beaumont Basin

The Beaumont Basin is managed by the Beaumont Basin Watermaster. In any given year, BCVWD can pump out its stored (banked) water. The storage is replenished, at least partially, every year by forbearance water, reallocated unused Overlying Party pumping rights, return flows, and imported water, when available. The amount of imported water that can be recharged in any year depends on DWR's SWP allocation and varies from year to year. The amount of unused Overlying Party rights is based on a 5-year moving average and could decrease slightly during drought periods as the Overlying Parties use more well water to compensate for the lack of rainfall. The forbearance water and return flows will also decrease during dry periods as users reduce water consumption.

Table 9-1 below (Table 7-2 in the BCVWD 2020 UWMP) shows the estimated amount of water credited to BCVWD by Watermaster for a single or multiple dry year analysis. For the dry year analysis, it was estimated that there would be a 15% conservation effect; in other words, for dry year analysis, only 85% of average annual forbearance, reallocated Overlying Party rights, etc. would be available. In Table 9-1, the 15% reduction factor is also applied to the recycled forbearance water to account for a potential reduction in treated wastewater due to water conservation effects. This is believed to be conservative.

Return flow credits, included in Table 9-1 below, were not applied with a 15% reduction factor as return flows are dependent upon the conservation factors in effect during the year for which credits are given.

Table 9-1 Summary of BCVWD's Beaumont Basin Storage Credits[1,2]

Item	2025	2030	2035	2040	2045
Total Return Flow Credits, Reallocated Unused Overlier Rights, and Forbearance Water from Table 6-10, AFY	2,073	2,346	2,820	2,963	3,196
Expected Ground Water Available for Dry Year Analysis, AFY	1,804	2,065	2,483	2,583	2,816

Note
1. *Taken from Table 7-2 in the BCVWD 2020 UWMP.*
2. *Reference Table 6-10 included in the table above should reference to Table 7-8 in the 2020 BCVWD UWMP.*

Edgar Canyon

Groundwater from Edgar Canyon is affected to some degree by climate change. The average annual extraction from Edgar Canyon is 2,073 AFY based on records from 1983-2020. During that period of time, the minimum extracted was 1,117 AFY, which occurred in 1991. This can be considered the "Single Dry Year Water Available." The 2-year, 3-year, 4-year, 5-year and 6-year moving averages for the extractions from 1983 -20 were determined and are presented in Table 9-2 (Table 7-3 in the BCVWD 2020 UWMP) along with the Base Period for moving averages.

Table 9-2 Groundwater Available from Edgar Canyon for Single and Multiple Dry Year Analysis

Drought Condition (Base Years)	Average Available over the Drought Period, AFY
Single Dry Year (1991)	1,117
2 Consecutive Dry Years (1990 – 91)	1,173
3 Consecutive Dry Years (1989 – 91)	1,230
4 Consecutive Dry Years (1989 – 92)	1,267
5 Consecutive Dry Years (1988 – 92)	1,305
6 Consecutive Dry Years (1987 – 92)	1,367

Note
1. *Taken from Table 7-3 in the BCVWD 2020 UWMP.*

Section 9.1.2 Imported Water – Table 9-3 and Table 9-4

The amount of imported water available from the SGPWA via the State Water Project is very climate dependent. A spreadsheet was developed using the 2019 DWR Delivery Capability Report simulation data (1922 to 2003) for SGPWA to develop an estimate of the delivery capability for the single dry year and multiple dry year reliability analysis. The 2-, 3-, 4-, 5-, and 6-year moving averages of annual estimated delivery allocations were determined for the period 1922-2003. A summary of the Table A delivery percentages is shown in Table 9-3 (Table 7-4 in the BCVWD 2020 UWMP).

Table 9-3 SGPWA SWP Delivery Capability as Percent of Table A

Year	Long-term Average		Single Dry Year (1977)		Dry Periods							
					2-Year Drought (1976-1977)		4-Year Drought (1931-1934)		6-Year Drought (1987-1992)		6-Year Drought (1929-1934)	
2017 Report	2,571	62%	336	8%	1,206	29%	1,397	34%	1,203	29%	1,408	34%
2019 Report	2,414	58%	288	7%	1,311	32%	1,228	30%	1,058	26%	1,158	28%

Note
1. *Taken from Table 7-4 in the BCVWD 2020 UWMP.*

The percentages in Table 9-3 were compared to actual SWP delivery allocations for the period 1922 to 2020. The allocations found in BCVWD's analysis of available data are indicated below:

Minimum year	5% (2015, 2020)
Minimum 2 consecutive years	12.5% (2014 - 2015)
Minimum 3 consecutive years	18% (1990 – 1992)
Minimum 4 consecutive years	26% (1988 – 1991)
Minimum 5 consecutive years	24% (1988 – 1992)
Minimum 6 consecutive years	25% (1987 – 1992)

As can be seen, the actual minimum single dry year and minimum 2 consecutive dry years are less than those from the 2019 DWR SWP Delivery Capability Report. For the reliability analysis in this 2020 UWMP and this WSA, the allocation percentages in Table 9-4 (Table 7-5 in the BCVWD 2020 UWMP) will be used.

Table 9-4 SGPWA SWP Delivery Capability as Percent of Table A (Used for Reliability Analysis)

Dry Year(s)	Single	2-Year	3-Year	4-Year	5-Year	6-Year
Table A Annual Delivery Average Over the Drought Period, %	5	12.5	18	26	24	25

Note
1. *Taken from Table 7-5 in the BCVWD 2020 UWMP.*

For the reliability analysis, the percentages in Table 9-4 will be applied to BCVWD's estimated available imported water supplies for any particular dry year period. The results of the reliability analysis are presented in Tables 9-8 through 9-13.

By Resolution 2015-05, the SGPWA Board of Directors established an obligation to meet the future water supply needs of the region, including BCVWD. BCVWD can rely on the SGPWA to secure and deliver the imported water needed to meet BCVWD's current and future demands as set forth in this 2020 UWMP and subsequent UWMP updates in concert with DWR's Delivery Capability Reports.

Section 9.1.3. Recycled Water

Recycled water is consistently available; although during droughts, consumers are more aware of water conservation and reduce their indoor water consumption somewhat. They are more aware of the need to do only full loads of laundry, full loads for the dishwasher etc. Agencies, including the City of Beaumont, have observed a reduction in wastewater flows during the current drought.

BCVWD is counting on one source of recycled water, the City of Beaumont. For a single dry year, an estimate of 90% of the normal, average recycled water will be available. As the drought becomes more pervasive, the amount of recycled water is estimated to reduce further to 85% of normal. Table 9-5 provides an estimate of the available recycled water during extended dry periods. The amount of recycled water under normal conditions is shown in the updated Section 6 above.

Table 9-5 Estimated Recycled Water Available During Extended Dry Periods

		Year				
		2025	2030	2035	2040	2045
City of Beaumont Recycled Water Available (AFY)	% Available	2017	2381	2892	2955	2915
Single Dry Year	90%	1820	2150	2610	2660	2630
2-Years	85%	1720	2030	2460	2520	2480
3-Years	85%	1720	2030	2460	2520	2480
4-Years	85%	1720	2030	2460	2520	2480
5-Years	85%	1720	2030	2460	2520	2480
6-Years	85%	1720	2030	2460	2520	2480

Notes:
1. Taken from Table 7-6 in the BCVWD 2020 UWMP.

Section 9.1.4. Storm Water and Urban Runoff Reliability (Potential Projects).

Storm water and Urban Runoff quantities are very dependent on rainfall. Review of the rainfall record at Beaumont for the period 1888 – 2006 resulted in the data shown in Table 9-6 (Table 7-7 in the BCVWD 2020 UWMP). To determine the multiple dry year rainfall as a percent of the average rainfall, the 2-, 3-, 4-, 5- and 6-year moving averages of the annual rainfall was determined.

Table 9-6 Estimated Recycled Water Available During Extended Dry Periods

Dry Year (s)	Normal	Single	2 - Year	3 - Year	4 - Year	5 - Year	6 - Year
% of Annual Average		36%	45%	52%	52%	61%	63%
Facility	Estimated Average Annual Stormwater Capture, AFY						
MDP Line 16	185	66	83	96	96	113	117
Misc. Urban Runoff Basins	350	126	158	182	182	213	222
Total Stormwater Capture	535	192	241	279	278	325	339

Notes:
1. Taken from Table 7-7 in the BCVWD 2020 UWMP.

Section 9.2 Drought Risk Assessment

A conservative approach was taken when considering the amount of imported supply BCVWD could expect in future conditions. BCVWD has included in its anticipated imported water supplies from the anticipated Table A Allocation available (using percentages described previously in Table 9-4), as well as additional potential sources of imported water identified in SGPWA's 2020 UWMP (June 2021). In any given year, when the demand for imported water exceeds the available supply, it is reasonable to assume that the imported water will be allocated by SGPWA in proportion to each member agency's fraction of the total imported water demand without banking. A summary of the expected allocation percentages for each agency is indicated in Table 9-7, below. Percentages as indicated were determined based on a series of White Papers (White

Papers No. 1 through 7) that evaluated water supply and demand for the major retailers in the SGPWA service area.

Table 9-7 Member Agency's Percent of Available Imported Water When Demand Exceed Supply

Agency	Year				
	2025	2030	2035	2040	2045
City of Banning	0.0%	0.0%	0.0%	5.6%	5.6%
YVWD/Calimesa	7.0%	7.3%	7.9%	8.1%	8.5%
BCVWD	78.5%	71.6%	66.3%	58.4%	52.3%
Other Member Agencies	14.5%	21.1%	25.8%	27.9%	33.6%
Total	100%	100%	100%	100%	100%

Notes:

1. Taken from Table 7-9 in the BCVWD 2020 UWMP.

In the future, other SGPWA water retailers will require greater supplies of imported water to meet growing demands. As a result, the allocation percentages described above will continue to change. BCVWD expects to update these percentages after the adoption of the 2020 UWMP updates for the other member agencies in the SGPWA service area.

For the Single Dry Year, potable and non-potable water demands in Table 9-9 (Table 7-11 in the BCVWD 2020 UWMP) did not reflect any conservation. For 2 consecutive dry years through 6 consecutive dry years, demand reductions for potable and non-potable water were included. The estimated demand reductions (as percent) that could be seen during various multiple dry years are indicated below in Tables 9-10 through 9-14 (Tables 7-12 through 7-16 in the BCVWD 2020 UWMP).

Table 9-8 Estimated Demand Reductions During Various Dry Year Periods

Dry Year Analysis Period	Demand Reductions
Single Dry Year	0%
2 Consecutive Dry Years	10%
3 Consecutive Dry Years	20%
4 Consecutive Dry Years	25%
5 Consecutive Dry Years	30%
6 Consecutive Dry Years	40%

Notes:

1. Taken from Table 7-10 in the BCVWD 2020 UWMP.

This is a reasonable assumption since there would be adequate time to implement the potential water use restrictions identified in Section 10 for a dry period lasting longer than a single year. Tables 9-9 through 9-14 present the water service reliability assessment for single through 6 consecutive dry years.

Table 9-9 Water Service Reliability Assessment for Single Dry Year

	YEAR				
	2025	**2030**	**2035**	**2040**	**2045**
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	**15,429**	**16,673**	**18,097**	**19,124**	**19,988**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,117	1,117	1,117	1,117	1,117
Beaumont Basin Groundwater Available					
Overlier Potable Forebearance, AFY	-	67	264	384	384
Overlier Non-Potable Forebearance, AFY	471	480	523	558	558
Reallocation of Unused Overlier Rights, AFY	1,322	1,286	1,165	1,099	1,099
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	66	192	192	192	192
Recycled Water Available, AFY	1,820	2,150	2,610	2,660	2,630
Subtotal Local Supply, AFY	**5,076**	**5,805**	**6,739**	**6,932**	**7,135**
BCVWD's Share of Imported Supply					
Table A Allocation (5%), AFY	679	619	573	505	452
Yuba Accord, AFY	16	14	13	12	10
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
SGPWA Carryover Water, AFY	204	186	172	152	136
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	39	36	33	29	26
Subtotal Imported Supply, AFY	**2,273**	**2,073**	**2,205**	**2,262**	**2,657**
Total Supply, AFY	**7,349**	**7,878**	**8,944**	**9,195**	**9,792**
From Banked Beaumont Basin Storage, AF	8,080	8,795	9,153	9,929	10,196

Notes:

1. Taken from Table 7-11 in the BCVWD 2020 UWMP.

Table 9-10 Water Service Reliability Assessment for 2 Consecutive Dry Years

	YEAR				
	2025	**2030**	**2035**	**2040**	**2045**
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,429	16,673	18,097	19,124	19,988
Total Water Demand (10% Demand Reduction), AFY	**13,886**	**15,006**	**16,287**	**17,212**	**17,989**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,173	1,173	1,173	1,173	1,173
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	60	237	346	346
Overlier Non-Potable Forebearance, AFY	424	432	471	502	502
Reallocation of Unused Overlier Rights, AFY	1,190	1,157	1,049	989	989
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	1,720	2,030	2,460	2,520	2,480
Subtotal Local Supply , AFY	**5,028**	**5,607**	**6,499**	**6,693**	**6,886**
BCVWD's Share of Imported Supply					
Table A Allocation (12.5%), AFY	1,698	1,548	1,434	1,263	1,131
Yuba Accord, AFY	39	36	33	29	26
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
SGPWA Carryover Water, AFY	510	465	431	380	340
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	98	90	83	73	65
Subtotal Imported Supply, AFY	**3,680**	**3,356**	**3,394**	**3,309**	**3,594**
Total Supply, AFY	**8,708**	**8,963**	**9,893**	**10,002**	**10,481**
From Banked Beaumont Basin Storage, AF	5,178	6,042	6,395	7,209	7,508
Total Withdrawn from Storage during Dry Period, AF	10,357	12,084	12,790	14,419	15,017

Notes:

1. Taken from Table 7-12 in the BCVWD 2020 UWMP.

Table 9-11 Water Service Reliability Assessment for 3 Consecutive Dry Years

	YEAR				
	2025	**2030**	**2035**	**2040**	**2045**
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,429	16,673	18,097	19,124	19,988
Total Water Demand (20% Demand Reduction), AFY	**12,343**	**13,338**	**14,478**	**15,299**	**15,990**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,230	1,230	1,230	1,230	1,230
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	54	211	308	308
Overlier Non-Potable Forebearance, AFY	377	384	418	446	446
Reallocation of Unused Overlier Rights, AFY	1,058	1,028	932	880	880
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	1,720	2,030	2,460	2,520	2,480
Subtotal Local Supply , AFY	**4,906**	**5,481**	**6,361**	**6,546**	**6,739**
BCVWD's Share of Imported Supply					
Table A Allocation (18%), AFY	2,444	2,230	2,065	1,819	1,629
Yuba Accord, AFY	57	52	48	42	38
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
SGPWA Carryover Water, AFY	735	670	621	547	490
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	141	129	119	105	94
Subtotal Imported Supply, AFY	**4,712**	**4,297**	**4,265**	**4,077**	**4,282**
Total Supply, AFY	**9,617**	**9,778**	**10,626**	**10,623**	**11,021**
From Banked Beaumont Basin Storage, AF	2,726	3,560	3,852	4,676	4,969
Total Withdrawn from Storage during Dry Period, AF	8,178	10,680	11,555	14,029	14,908

Notes:

1. Taken from Table 7-13 in the BCVWD 2020 UWMP.

Table 9-12 Water Service Reliability Assessment for 4 Consecutive Dry Years

	YEAR				
	2025	**2030**	**2035**	**2040**	**2045**
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,429	16,673	18,097	19,124	19,988
Total Water Demand (25% Demand Reduction), AFY	**11,572**	**12,505**	**13,573**	**14,343**	**14,991**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,267	1,267	1,267	1,267	1,267
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	50	198	288	288
Overlier Non-Potable Forebearance, AFY	353	360	392	418	418
Reallocation of Unused Overlier Rights, AFY	992	964	874	825	825
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	1,720	2,030	2,460	2,520	2,480
Subtotal Local Supply , AFY	**4,853**	**5,426**	**6,300**	**6,481**	**6,674**
BCVWD's Share of Imported Supply					
Table A Allocation (26%), AFY	3,531	3,221	2,982	2,627	2,352
Yuba Accord, AFY	82	74	69	61	54
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
SGPWA Carryover Water, AFY	1,061	968	896	790	707
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	204	186	172	152	136
Subtotal Imported Supply, AFY	**6,212**	**5,666**	**5,533**	**5,193**	**5,282**
Total Supply, AFY	**11,066**	**11,093**	**11,833**	**11,674**	**11,956**
From Banked Beaumont Basin Storage, AF	506	1,412	1,740	2,669	3,035
Total Withdrawn from Storage during Dry Period, AF	2,025	5,648	6,960	10,675	12,140

Notes:

1. Taken from Table 7-14 in the BCVWD 2020 UWMP.

Table 9-13 Water Service Reliability Assessment for 5 Consecutive Dry Years

	YEAR				
	2025	**2030**	**2035**	**2040**	**2045**
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,429	16,673	18,097	19,124	19,988
Total Water Demand (30% Demand Reduction), AFY	**10,800**	**11,671**	**12,668**	**13,387**	**13,992**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,305	1,305	1,305	1,305	1,305
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	47	185	269	269
Overlier Non-Potable Forebearance, AFY	330	336	366	390	390
Reallocation of Unused Overlier Rights, AFY	926	900	816	770	770
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	1,720	2,030	2,460	2,520	2,480
Subtotal Local Supply , AFY	**4,801**	**5,373**	**6,241**	**6,417**	**6,610**
BCVWD's Share of Imported Supply					
Table A Allocation (24%), AFY	3,259	2,973	2,753	2,425	2,171
Yuba Accord, AFY	75	69	64	56	50
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
SGPWA Carryover Water, AFY	980	894	827	729	653
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	188	172	159	140	126
Subtotal Imported Supply, AFY	**5,837**	**5,324**	**5,216**	**4,914**	**5,032**
Total Supply, AFY	**10,639**	**10,697**	**11,456**	**11,331**	**11,642**
From Banked Beaumont Basin Storage, AF	162	974	1,212	2,056	2,350
Total Withdrawn from Storage during Dry Period, AF	808	4,871	6,058	10,279	11,748

Notes:

1. Taken from Table 7-15 in the BCVWD 2020 UWMP.

Table 9-14 Water Service Reliability Assessment for 6 Consecutive Dry Years

	YEAR				
	2025	**2030**	**2035**	**2040**	**2045**
DEMAND					
Potable Water Demand, AFY	13,196	14,252	15,391	16,285	17,082
Supplemental Water to Non-Potable System, AFY	276	246	228	278	328
Non-Potable Water Demand, AFY	1,957	2,175	2,478	2,561	2,578
Total Water Demand, AFY	15,429	16,673	18,097	19,124	19,988
Total Water Demand (40% Demand Reduction), AFY	**9,257**	**10,004**	**10,858**	**11,474**	**11,993**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,367	1,367	1,367	1,367	1,367
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	40	158	231	231
Overlier Non-Potable Forebearance, AFY	283	288	314	335	335
Reallocation of Unused Overlier Rights, AFY	793	771	699	660	660
Return Flow Credits, AFY	280	514	868	922	1,155
Storm Water, AFY	241	241	241	241	241
Recycled Water, AFY	1,720	2,030	2,460	2,520	2,480
Subtotal Local Supply , AFY	**4,684**	**5,251**	**6,107**	**6,275**	**6,468**
BCVWD's Share of Imported Supply					
Table A Allocation (25%), AFY	3,395	3,097	2,867	2,526	2,262
Yuba Accord, AFY	79	72	66	58	52
AVEK Nickel, AFY	1,335	1,217	1,127	993	889
SGPWA Carryover Water, AFY	1,021	931	862	759	680
Sites Reservoir, AFY	-	-	286	571	1,143
Additional SWP Transfers/Exchanges, AFY	196	179	166	146	131
Subtotal Imported Supply, AFY	**6,025**	**5,495**	**5,374**	**5,054**	**5,157**
Total Supply, AFY	**10,709**	**10,747**	**11,482**	**11,329**	**11,625**
From Banked Beaumont Basin Storage, AF	(1,452)	(743)	(623)	146	368
Total Withdrawn from Storage during Dry Period, AF	(8,709)	(4,458)	(3,740)	875	2,208

Notes:

1. Taken from Table 7-16 in the BCVWD 2020 UWMP.

In all of the assessments, water must be extracted from BCVWD's Beaumont Basin Storage Account. Tables 9-9 through 9-14 clearly indicate the importance of maintaining substantial amounts of water in the storage account. Based on the assessment, BCVWD should keep about 12,000 AF in the storage account in order to maintain a 5-year supply as mandated by BCVWD Resolution 2015-05, if conservation measures are in effect. The total amount required to be withdrawn from banked storage will increase if conservation measures and restrictions described in Section 10 cannot be achieved. If no conservation occurs (worst case, conservative), BCVWD will need to maintain about 52,000 AF in its storage account to meet the demands during a 5 consecutive year dry period.

A summary of the available supplies expected during a 5-year drought, beginning in 2020 are summarized in Table 9-15 (Table 7-17 in the BCVWD 2020 UWMP) below. The results of the Drought Risk Assessment above assume that the demand reductions and conservation measures described in Section 12 (Section 8 in the BCVWP 2020 UWMP) are achieved.

Table 9-15 5-Year Drought Risk Assessment

	YEAR				
	2021	**2022**	**2023**	**2024**	**2025**
DEMAND					
Potable Water Demand, AFY	12,412	12,604	12,787	12,952	13,472
Non-Potable Water Demand, AFY	1,642	1,664	1,686	1,696	1,957
Total Water Demand, AFY	14,054	14,268	14,473	14,648	15,429
Demand Reduction (%)	0%	10%	20%	25%	30%
Total Water Demand (Including Reductions), AFY	**14,054**	**12,841**	**11,578**	**10,986**	**10,800**
LOCAL SUPPLY					
Groundwater					
Edgar Canyon, AFY	1,117	1,173	1,232	1,267	1,305
Beaumont Basin Available, AFY					
Overlier Potable Forebearance, AFY	-	-	-	-	-
Overlier Non-Potable Forebearance, AFY	-	-	-	-	330
Reallocation of Unused Overlier Rights, AFY	2,025	1,826	1,827	2,017	926
Return Flow Credits, AFY	235	246	258	269	280
Storm Water, AFY	-	185	185	185	241
Recycled Water, AFY		1,520	1,580	1,650	1,720
Subtotal Local Supply , AFY	**3,377**	**4,950**	**5,082**	**5,388**	**4,802**
BCVWD's Share of Imported Supply					
Table A Allocation (%), AFY	5%	12.5%	18%	26%	24%
Table A Allocation , AFY	679	1,698	2,444	3,531	3,259
Yuba Accord, AFY	16	39	57	82	75
AVEK Nickel, AFY	1,335	1,335	1,335	1,335	1,335
SGPWA Carryover Water, AFY	204	510	735	1,061	980
Sites Reservoir, AFY	-	-	-	-	-
Additional SWP Transfers/Exchanges, AFY	39	98	141	204	188
Subtotal Imported Supply, AFY	**2,273**	**3,680**	**4,712**	**6,212**	**5,837**
Total Supply, AFY	**5,650**	**8,630**	**9,794**	**11,600**	**10,639**
From Banked Beaumont Basin Storage, AF	8,404	4,212	1,785	(614)	161
Total Withdrawn from Storage during Dry Period, AF	8,404	12,616	14,401	13,786	13,947

Notes:

1. Taken from Table 7-17 in the BCVWD 2020 UWMP.

Section 11 Conclusions (Previously Section 10 in Project's WSA)

The following revisions noted in red shall be incorporated into Section 11 (previously Section 10 in the Project's WSA)

1. The projected water demand from the Beaumont Pointe Development project is 196.70 AFY of which 85.20 AFY is outdoor, non-potable water use. This equates to approximately 1% of the District existing water demand for 2020.

2. The Beaumont Pointe development project site was included in the list of planned development projects in BCVWD's 2020 UWMP (previously identified as Jack Rabbit Trail) which demonstrated adequate water supplies up to the year 2045. To clarify, when the District was preparing the basis for future water demands within the District's service area in the BCVWD's 2020 UWMP, the District utilized the potable water demands from the DRAFT November 2020 Beaumont Pointe WSA. This draft version of the Project's WSA identified the potable water demand as 221 EDUs as shown in Table 3-7 in the BCVWD's 2020 UWMP. Because the Project's updated land use plan has a potable water demand of 204.21 EDUs, the District's 2020 UWMP conservatively included the Project's anticipated potable water demands at 221 EDU

3. BCVWD prepared a series of White Papers which analyzed the regional (SGPWA) imported water supply requirements and funding requirements. These White Papers are referenced for the Beaumont Pointe Development WSA. The basis for the White Papers was a regional spreadsheet demand model, developed by BCVWD, which was reviewed by the City of Banning and YVWD.

4. The White Papers indicate that SGPWA can obtain sufficient imported water supply to supplement local supplies to meet regional needs including BCVWD's needs. The White Papers also indicated that adequate funding is available to implement the imported water projects currently planned for the short and long terms.

5. BCVWD prepared and adopted a Potable Water Master Plan which identified water needs and facility needs to build-out. The BCVWD 2020 UWMP identified recycled water from the City of Beaumont for non-potable water irrigation with a plan for the recharge of surplus recycled water with appropriate treatment and permits. The City and BCVWD signed a Memorandum of Understanding (MOU) in 2019 which began the process of an agreement for purchase of recycled water by BCVWD. In addition, storm water capture and other local water resource projects were identified. One of these projects, MDP-Line 16, (Grand Avenue Storm Drain) is currently in design by the Riverside County Flood and Water Conservation District and BCVWD. The storm drain will be partially funded through a grant from the Santa Ana Watershed Project Authority.

6. SGPWA and BCVWD have made financial commitments to the Sites Reservoir project Phase 1 studies and will commit funds to Phase 2.

7. Adequate water supply exists, or is planned, for the Beaumont Pointe development project to 2045 and beyond as outlined in Section 9. BCVWD can meet the Project needs as well as BCVWD's existing demands and the demands of the other planned developments within BCVWD's service area which are listed in the Beaumont Pointe Development WSA.

8. Multiple dry-year reliability analysis demonstrates that BCVWD will be able to meet its existing demands and the demands of the other planned developments within its service area which were listed in the Beaumont Pointe WSA. BCVWD will supplement its existing supply sources during these dry periods with banked water in BCVWD's Beaumont Basin Groundwater Storage Account.

9. Pursuant to §10910 of the California Water Code (SB 610) and information provided in the BP WSA, BCVWD has determined that currently available and planned supplies are sufficient to meet the water demands of the proposed BP project in addition to the existing and other planned project demands during normal, single dry and multiple dry years over the next 20 years, as outlined in Section 6 through 9 in this WSA.

10. Pursuant to the California Government Code Section 66473.7, (SB 221) BCVWD has determined that it has sufficient and adequate water supply available to serve the long-term needs of the Beaumont Pointe in addition to the existing and other planned project demands during normal, single dry and multiple dry years over the next 20 years, as outlined in Sections 6 through 9.

3 2021 Beaumont Pointe WSA Additions

Addition of Section 10 – BCVWD Water Shortage Contingency Plan

The BCVWD 2020 UWMP Section 10 addresses the DWR new requirements of a District-wide Water Shortage Contingency Plan (WSCP). The following is intended to be added as Section 10 – BCVWD Water Shortage Contingency Plan to the Project's WSA to summarize the BCVWD WSCP.

SECTION 10 – BCVWD WATER SHORTAGE CONTIGNECY PLAN (WSCP)

As a companion to the BCVWD 2020 UWMP and required by the State, the District prepared and approved the BCVWD 2020 Water Shortage Contingency Plan (WSCP) as a strategic planning process to prepare for and respond to water shortages. As part of this new requirement, BCVWD will assess each year's water supplies to determine if there was a water volume shortage for that year. Based on the water shortage, the District will implement one of the six water conservation levels (shown in Table 10-1 below), as defined in the District's WSCP, to encourage or require water conservation among its service area. The Beaumont Pointe Development will be subject to these water conservation levels as dictated by BCVWD.

Table 10-1 Water Shortage Contingency Levels

DWR Table 8-1 Water Shortage Contingency Plan Levels		
Shortage Level	**Percent Shortage Range**	**Shortage Response Actions** (*Narrative description*)
1	Up to 10%	Up to 10% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes voluntary public demand reduction of 10%, and community outreach encouraging conservation.
2	Up to 20%	Up to 20% reduction in normal, "long term" water supply (including conjuntive use water in storage); includes any actions from Shortage Level 1. Response actions include mandatory 10% reduction - Increased public outreach, restaurants serve water upon request, lodging must offer opt out of linen services
3	Up to 30%	Up to 30% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes any actions from Shortage Levels 1 and 2. Response actions include mandatory 20% reduction - limit landscape irrigation to certain number of days per week
4	Up to 40%	Up to 40% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes any actions from Shortage Levels 1, 2 and 3. Response actions include mandatory 25% reduction - limit irrigation of lawns to once a week except for lawns and turf irrigate with recycled water, restrict water use for decorative water features, limit filling of pools only to cases where appropriate cover is in place
5	Up to 50%	Up to 50% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes any actions from Shortage Levels 1 - 4. Response actions include mandatory 30% reduction - prohibit filling of swimming pools, washing of automobiles only limited to facilities using recycled water, prohibit potable water use for construction activities,industrial water users required to reduce water use (food processing, concrete mixing plant)
6	>50%	Greater than 50% reduction in normal, "long term" water supply (including conjuntive use water in storage); response actions includes any actions from Shortage Levels 1 - 5. Response actions include mandatory 30% reduction - prohibit landscape irrigation except for irrigation with use of recycled water, industrial water users required to further reduce water use (food processing, concrete mixing plant)
NOTES:		

Notes:
1. Taken from Table 8-1 in the BCVWD 2020 UWMP.

4 2021 Beaumont Pointe WSA Attachments

Beaumont Basin Adjudication and 2020 Annual Watermaster Report

Water Code Section 10910(f) must be met which will require the Project's WSA to include a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public system. While the updated sections above summarize the amount of groundwater available for BCVWD listed in the 2020 UWMP, the following will be included as attachments to meet the requirements of Water Code Section 10910(f).

Attachment A – Beaumont Basin Formation Documents

Attachment B – Amended Judgement Pursuant to Stipulation Adjudicating Groundwater Rights in the Beaumont Basin

Attachment C – Beaumont Basin Watermaster 2020 Consolidated Annual Report and Engineering Report

Beaumont Cherry Valley Water District 2020 Urban Water Management Plan and Water Shortage Contingency Plan

The information presented in the Project's WSA references the 2020 BCVWD 2020 UWMP. The following attachments include the updated BCVWD 2020 UWMP and their new 2020 BCVWD Water Shortage Contingency Plan.

Attachment D – BCVWD 2020 Urban Water Management Plan

Attachment E – BCVWD 2020 Water Shortage Contingency Plan

Water Supply Assessment for Beaumont Pointe – April 13th, 2021

This addendum is intended to update the Project's previously approved WSA. Attached will be the previously approved WSA for the Project

Attachment F – Water Supply Assessment for Beaumont Pointe – April 2021