Revised Draft Traffic Impact Analysis

MESA 500-KV SUBSTATION

Prepared for:
Insignia Environmental

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Chapter 1. Executive Summary

This section provides an executive summary of the Transportation Impact Analysis through a set of frequently asked questions (FAQs).

Where is the project located and what would be developed?

The Mesa Substation site is located north of SR 60, south of Potrero Grande Drive between Markland Drive and Greenwood Avenue in the City of Monterey Park in Los Angeles (LA) County. With the proposed project, the existing 220-kV substation would be demolished and replaced with the proposed 500-kV substation over three construction phases anticipated to take place over the next 55 months.

The associated components of the Proposed Project include:

- Removal, relocation, modification, and/or construction of transmission, subtransmission, distribution, and telecommunications structures within the cities of Monterey Park, Montebello, Rosemead, South El Monte, and Commerce, and in portions of unincorporated Los Angeles County.
- Conversion of an existing street light source line from overhead to underground between three street lights on Loveland Street within the City of Bell Gardens.
- Installation of a temporary 220 kV line loop-in at Goodrich Substation within the City of Pasadena.
- Minor internal modifications within the existing fenced perimeter of multiple existing substations throughout the Electrical Needs Area (ENA) and at Mira Loma, Pardee, and Vincent Substations, which are not in the ENA.

Following are descriptions of the major components outside of Mesa Substation and the adjacent transmission rights-of-way (ROWs).

Three telecommunications lines would be installed and one would be rerouted as part of the Proposed Project within the cities of Monterey Park and Montebello, and in portions of unincorporated Los Angeles County. The first telecommunications cable would connect Mesa Substation to a transmission tower located southeast in unincorporated Los Angeles County. The proposed telecommunications route would exit Mesa Substation, travel east on Potrero Grande Drive, and continue south along Hill Drive and San Gabriel Boulevard, before transitioning east to an existing SCE fee-owned ROW, just south of Darlington Avenue.

The second telecommunications line would connect Mesa Substation to an existing transmission tower also located in unincorporated Los Angeles County. The route would exit Mesa Substation in a southeasterly direction, cross SR-60, and continue along Montebello Boulevard. The route would then travel east along Avenida De La Merced and continue northeast along Lincoln Avenue, before heading southeast on Durfee Avenue.

The third telecommunications line would be rerouted between Mesa Substation and Harding Substation, located south of Mesa Substation in the City of Montebello. The reroute would exit Mesa Substation, travel west on Potrero Grande Drive, and continue in a southerly direction on Markland Drive, before crossing SR-60 and continuing westerly on Via Campo. The route would then head southwesterly along an existing SCE ROW and would continue in a southerly direction along Wilcox Avenue before heading east on Lincoln Avenue and connecting to existing facilities near Harding Substation.

Within the City of Commerce, an existing transmission tower would be replaced within an SCE fee-owned ROW. This tower is approximately 2.4 miles southwest of Mesa Substation and approximately 2.1 miles north of Laguna Bell Substation.

A street light source line would be converted from overhead to underground between three street lights on Loveland Street within the City of Bell Gardens, approximately 0.2 mile south of Laguna Bell Substation.

Finally, a temporary 220 kV line loop-in would be installed at Goodrich Substation within SCE's adjacent ROW in the City of Pasadena, approximately 7.2 miles north of Mesa Substation.

What existing public streets will serve the project and where is access proposed?

The Mesa Substation site is served by SR 60, Potrero Grande Drive, Markland Drive, San Gabriel Boulevard, Paramount Boulevard, and Hill Drive, which are the six primary roadways within the surrounding area and would serve project traffic at Mesa Substation. Vehicular access is proposed via one full access driveway along Potrero Grande Drive for phases 1 and 3. During phase 2, vehicular access is proposed via one full access driveway along Potrero Grande Drive and one right-in/right-out driveway on Markland Drive.

Other components of the project are served as follows. Within the vicinity of two new telecommunications routes, Potrero Grande Drive, Darlington Avenue, Avenida de la Merced, Lincoln Avenue, Durfee Avenue Markland Drive, and Via Campo are local public streets that run east-west; Hill Drive, San Gabriel Boulevard, Montebello Boulevard, and Wilcox Avenue are local public streets that run north-south. Within the vicinity of the proposed tower replacement north of Laguna Bell Substation, Washington Boulevard, Tubeway Avenue and Saybrook Avenue run east-west. Telegraph Road and Garfield Avenue run north-south. In the vicinity of the proposed street light source line undergrounding, Slauson Avenue, Gage Avenue, and Loveland Street run east-west. Garfield Avenue, Darwell Avenue, and Toler Avenue run north-south. Within the vicinity of Goodrich Substation, Foothill Boulevard and Orange Grove Boulevard are local public streets that run east-west; Sierra Madre Boulevard, Sunnyslope Avenue, and Sierra Madre Villa run north-south. In addition, Maple Street would provide access within the Proposed Project area.

Is the site currently served by public transit?

The site is currently served minimally by public transit, with a bus stop located along Via Campo. The nearest bus stop along Via Campo, west of Vail Avenue, is approximately one mile southwest (approximately a 20-minute walk) from the project site access location along Potrero Grande. The stop is approximately one-quarter mile (approximately a 6-minute walk) from the project site access located along Markland Drive. Additionally, the area is served by the City of Monterey Park Spirit Bus with a stop located at the Atlas Avenue/Saturn Street intersection, approximately ½ mile from the proposed access along Potrero Grande Drive.

How many vehicular trips would the project generate and what are the project's traffic volumes during the a.m. and p.m. peak hours of commute traffic?

Daily traffic is defined as traffic that would occur during a 24-hour period. Peak hour traffic is defined as the peak one hour (e.g., 7:30 – 8:30 AM) and 4:00 – 5:00 PM) of traffic during the two-hour a.m. (7-9 AM) and p.m. (4-6 PM) peak commute periods. The proposed project is anticipated to be constructed over 55 months in three phases. Phase 1 is anticipated to generate 2,144 daily trips with 202 occurring during the AM peak hour and 453 during the PM peak hour. Phase 1 is anticipated to be completed by the 4th quarter of 2018. Phase 2 is anticipated to be completed by the 1st quarter of 2019 and is anticipated to generate 789 daily trips with 72 trips occurring during the AM peak hour and 217 trips during the PM peak hour. The 3rd phase is anticipated to generate approximately 1,086 daily trips with 105 during the AM peak hour and 200 during the PM peak hour. Phase 3 is anticipated to be completed

by the 4th quarter of 2020. Other components of the project will generate few AM and PM trips; therefore traffic impacts are not analyzed in detail in this TIA.

What transportation impacts are anticipated, if any?

Temporary traffic impacts are anticipated at some of the study intersections that serve the Mesa Substation site.

What measures are proposed to reduce or control traffic impacts?

Mitigation measures to be provided by CPUC's environmental consultant.

Chapter 2. Introduction

The purpose of this Transportation Impact Analysis (TIA) is to identify potential traffic-related impacts associated with the peak construction phases of the three development phases of the Southern California Edison (SCE) Mesa Substation site (proposed project). Traffic-related impacts from the proposed project would be temporary, and would be removed from the study area by the time the proposed project is fully constructed and is in its permanent operations phase.

Project Description

The project site is located north of SR 60, south of Potrero Grande Drive between Markland Drive and Greenwood Avenue in the City of Monterey Park (City) in Los Angeles (LA) County (County) as shown on Figure 1. The existing 220-kV substation would be demolished and replaced with the proposed 500-kV substation. There is a single driveway along Potrero Grande Drive that serves all construction vehicles trips associated with the construction of the facility for all phases. Phase 2 of the project would have an additional access location along Markland Drive. Figure 2 shows the site vicinity and study intersections, as well as, the other associated project components. Figure 3 shows the preliminary site plan of the proposed Mesa Substation.

The associated components of the Proposed Project include:

- Removal, relocation, modification, and/or construction of transmission, subtransmission, distribution, and telecommunications structures within the cities of Monterey Park, Montebello, Rosemead, South El Monte, and Commerce, and in portions of unincorporated Los Angeles County.
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Finally, a temporary 220 kV line loop-in would be installed at Goodrich Substation within SCE's adjacent ROW in the City of Pasadena, approximately 7.2 miles north of Mesa Substation. The components outside of Mesa Substation are not expected to generate daily traffic impacts during the AM and PM peak hours; therefore traffic impacts are not analyzed in detail in this TIA.

It is anticipated that the project would be constructed in three phases between 2016 and 2020, and would be operational by 2020. It is anticipated that Phase 1 would be completed between the 2nd quarter of 2016 and the 4th quarter of 2018. Phase 2 would be completed between the 2nd quarter of 2018 and the 1st quarter of 2019 and phase 3 would be completed between the 1st quarter of 2019 and the 4th quarter of 2020. Additionally, post construction testing would be completed through the 2nd quarter of 2021. Analysis years were selected based on the anticipated peak construction traffic for each phase based on the projected construction schedule.

Study Area and Scope

The study area and scope were based on all potential construction traffic routes to/from the substation site. These routes consisted of roadway facilities traversing through a number of jurisdictions including the Cities of Monterey Park, Montebello, and Rosemead; and, portions of unincorporated LA County. The project scope was also coordinated with the California Public Utilities Commission (PUC), Energy Division.

This analysis focuses on the weekday AM (7:00 to 9:00 a.m.) and PM (4:00 to 6:00 p.m.) peak periods. These periods represent the highest cumulative total traffic for the adjacent street system. Only the construction phases of the proposed project have been evaluated since the permanent operations of the project would generate nominal peak hour trips. The existing roadways include:

1. Potrero Grande Drive
2. Markland Drive
3. Greenwood Avenue (Saturn Street)
4. Hill Drive (Del Mar Avenue)
5. Paramount Boulevard
6. San Gabriel Boulevard
7. Neil Armstrong Street
8. Town Center Street
9. Garfield Avenue
10. Via Campo
11. Wilcox Avenue

12. Pomona Boulevard
13. Town Center Drive
14. Montebello Boulevard
15. Walnut Grove Avenue

The study intersections, roadway segment, and freeway mainline segments (and their respective jurisdictions) include:

1. Garfield Avenue/Pomona Boulevard (City of Montebello)
2. Garfield Avenue/Via Campo (City of Montebello)
3. Wilcox Avenue/Pomona Boulevard (City of Montebello)
4. Wilcox Avenue/Via Campo (City of Montebello)
5. Markland Drive/Via Campo – SR 60 EB On-Ramp (City of Montebello)
6. Markland Drive/Potrero Grande Drive/SR 60 WB Off-Ramp (City of Monterey Park)
7. Greenwood Avenue – Saturn Street)/Potrero Grande Drive (City of Monterey Park)
8. Del Mar Avenue (Hill Drive)/Potrero Grande Drive (LA County)
9. Paramount Boulevard/Hill Drive (LA County)
10. Paramount Boulevard/SR 60 WB Ramps – Neil Armstrong Street (City of Montebello)
11. Paramount Boulevard/SR 60 EB Ramps – Town Center Drive (City of Montebello)
12. SR 60 EB Ramps – Montebello Boulevard/Montebello Town Center (City of Rosemead)
13. Walnut Grove Avenue/San Gabriel Boulevard (City of Rosemead)
14. San Gabriel Boulevard/SR 60 WB Ramps (City of Rosemead)
15. San Gabriel Boulevard/Montebello Town Center (City of Rosemead)
16. Potrero Grande Drive, Markland Drive to Greenwood Avenue (City of Monterey Park)
17. SR 60, west of Garfield Avenue (Caltrans)
18. SR 60, Garfield Avenue to Paramount Boulevard (Caltrans)
19. SR 60, Paramount Boulevard to San Gabriel Boulevard (Caltrans)
20. SR 60, east of San Gabriel Boulevard (Caltrans)

The study intersections were analyzed for the following seven study scenarios:

- Existing Conditions
- Forecast Year 2016 Without-Project Construction Traffic
- Forecast Year 2016 With-Project Phase 1 Construction Traffic
- Forecast Year 2018 Without-Project Construction Traffic
- Forecast Year 2018 With-Project Phase 2 Construction Traffic
- Forecast Year 2019 Without-Project Construction Traffic
- Forecast Year 2019 With-Project Phase 3 Construction Traffic

The forecast years were selected based on the highest anticipated construction traffic associated with that phase. In the instance of phase 1, the phase is anticipated to be completed between the 2nd quarter of 2016 and the 4th quarter of 2018 with the highest construction related traffic occurring during 2016. Similarly, the highest construction traffic associated with phase 2 is anticipated to occur during 2018, and the highest construction traffic associated with phase 3 is anticipated to occur during 2019.

The report first describes existing and future (2016, 2018, and 2019) without-project construction traffic in the vicinity of the project site. This includes the street system, existing and future without-project weekday AM and PM peak hour traffic volumes, traffic operations, non-motorized facilities, and transit service. Then, future 2016, 2018 and 2019 with-project Phases 1, 2, and 3 peak construction conditions, respectively, are then described. The project's temporary impacts on the surrounding transportation system were identified by comparing the future with-project conditions to the future without-project conditions.

Regional Map

Mesa 500-kV Substation

FIGURE
1

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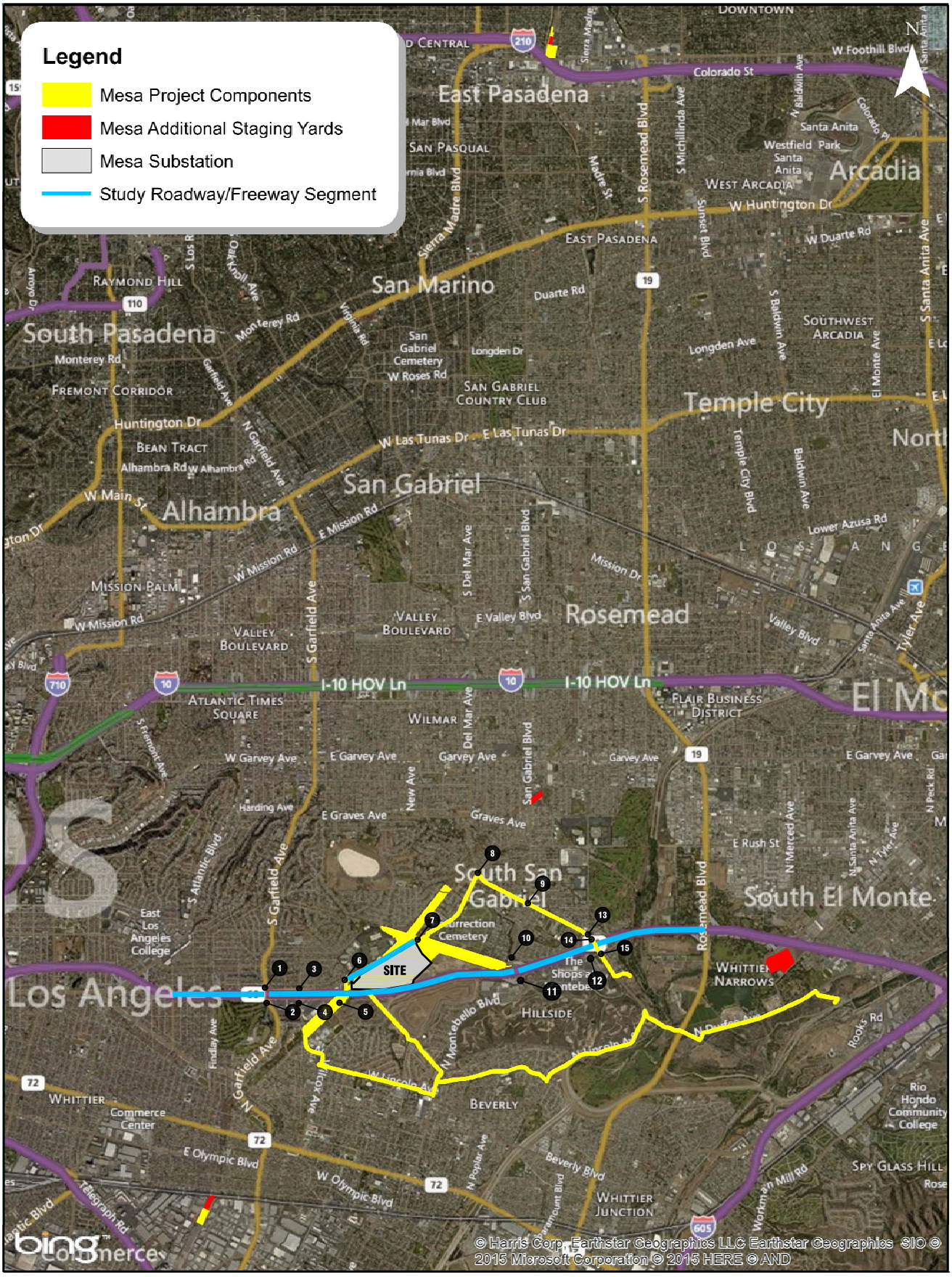

Site Vicinity & Study Intersections

Mesa 500-kV Substation

FIGURE **2**

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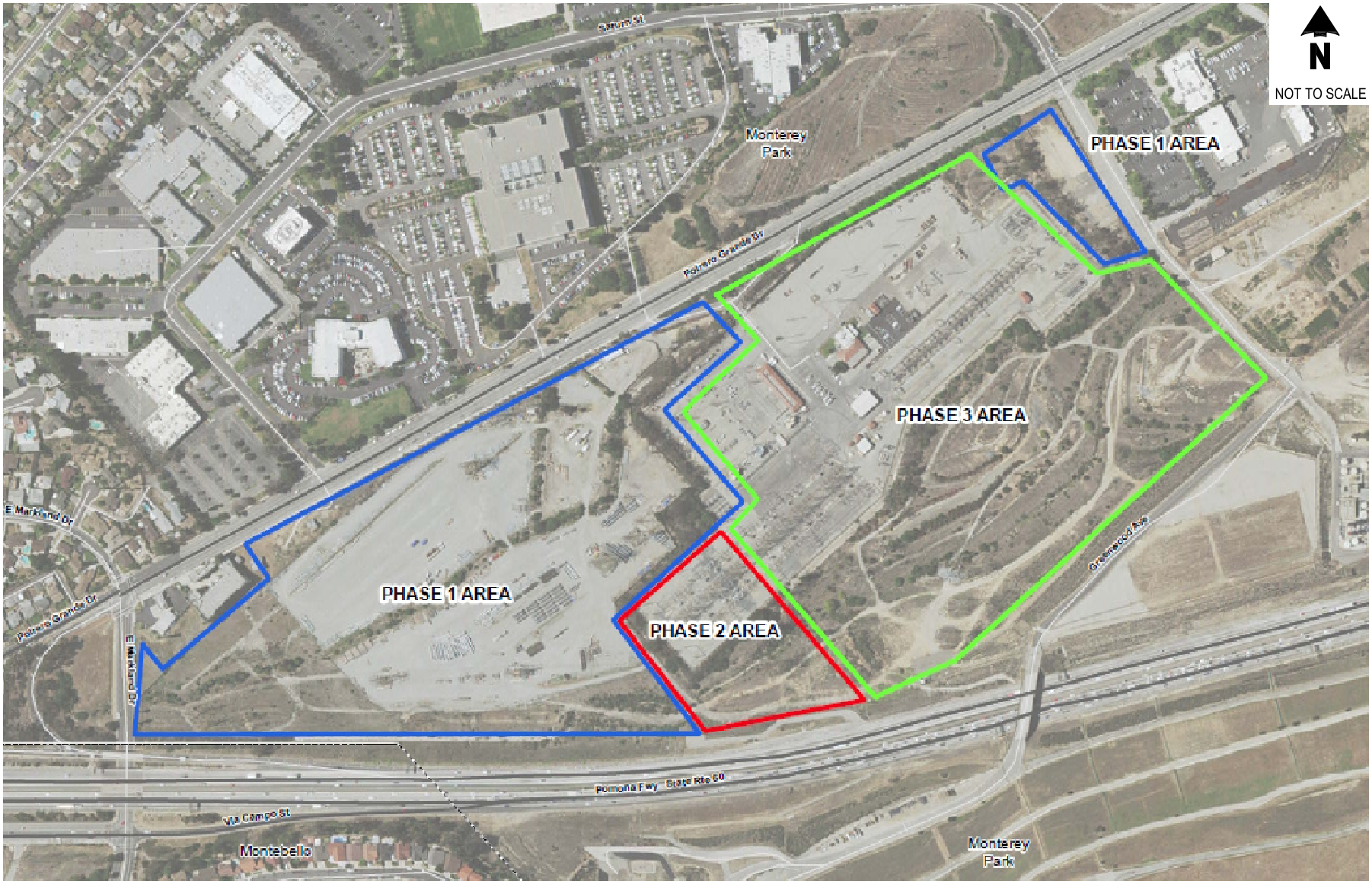

Preliminary Site Plan

Mesa 500-kV Substation

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Methodology

Passenger Car Equivalent (PCE) Factor

To properly assess the truck traffic generated by the various construction phases of the proposed project against intersection capacity during the AM and PM peak commute hours, which contain primarily passenger cars, a Passenger Car Equivalence (PCE) factor was applied to all trucks generated by the proposed project. A PCE factor of 2.0 was applied to 2 or 3 axle medium trucks (i.e., one medium truck is equivalent to two passenger cars) such as the concrete trucks or dump trucks without trailers. A PCE factor of 3.0 was applied to trucks with 4 axles or more including semi-trucks with trailers.

Intersections

Per the City of Monterey Park and Montebello Traffic Impact Study Guidelines, study intersections were analyzed for weekday AM and PM peak hour levels of service (LOS). The ICU (Intersection Capacity Utilization) was used to determine intersection LOS for signalized intersections. The *Highway Capacity Manual (*HCM 2010) was used for stop controlled intersections. The ICU method determines the volume-to-capacity (V/C) ratio on a critical lane basis and LOS associated with each V/C ratio at an intersection and was evaluated using *Traffix 8*. The HCM 2010 method determines the vehicle delay in seconds at stop controlled intersections and is reported for the worst movement.

Additionally, weekday AM and PM peak hour traffic operations for On/Off Ramps with SR 60 were evaluated based on the procedures identified in HCM 2010, consistent with Caltrans requirements, and were evaluated using the *Synchro 9* software program. Queuing at site access driveways was evaluated using the *Sim Traffic 9* software program.

The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. A complete description of the meaning of level of service can be found in the Highway Research Board Special Report 209 (HCM 2000). Brief descriptions of the six levels of service for signalized intersections are shown in Table 1 and Table 2 provides detailed descriptions of each level of service.

Table 1. Level of Service Definitions for Intersections

	ICU Methodology	HCM 2010 Methodology
Level of Service	V/C Ratio	Delay[1]
A	≤0.60	0 – 10
B	0.61 to ≤ 0.70	>10 – 15
C	0.71 to ≤ 0.80	>15 – 25
D	0.81 to ≤ 0.90	>25 – 35
E	0.91 to ≤ 1.00	>35 – 50
F	>1.00	>50

Source: *Highway Capacity Manual*, Transportation Research Board, 2010.
1. Average delay per vehicle in seconds.

Table 2. Level of Service Criteria Descriptions

Level of Service	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Source: *Highway Capacity Manual*, Transportation Research Board, 2010.

Construction Routes

Construction routes were based on existing counts and anticipated travel patterns. Different travel patterns are associated with worker trips, off-site worker trips, and the truck trips. The anticipated worker trip distribution is shown in Figure 9. The anticipated off-site worker distribution is based on the location of the two off-site staging areas and the distribution is shown on Figure 10. The truck trip distribution is anticipated to be more regional and is assigned 50 percent to the west and 50 percent to the east along SR 60. The truck trip distribution was developed utilizing designated truck routes with the exception of Hill Drive and Paramount Boulevard which will be treated as a temporary truck route. The truck trip distribution is shown on Figure 11.

Chapter 3. Area Development

This section describes existing and proposed land uses near the project site.

Existing Land Uses

The existing site is surrounded by industrial and office land uses to the north, State Route (SR-) 60 to the south, a cemetery to the northeast, and commercial and low-density residential land uses to the northwest. A large retail shopping center development (the Monterey Park Market Place) is currently in the entitlement phase and is proposed to be located directly southeast of the proposed site (north of SR 60).

Proposed Land Uses

Many of the proposed developments in the area are consistent with the existing land uses and typically include mixed-use developments. Twelve cumulative projects were noted in the area and the land use and size is summarized in Table 3.

Table 3. Proposed Land Uses

Location	Land Use	Size
City of Rosemead		
7801-7825 Garvey Avenue	Apartment (LU #220)	60 du
	Shopping Center (LU #820)	15.553 ksf
8408 Garvey Avenue	Apartment (LU #220)	46 du
	Shopping Center (LU #820)	11.5 ksf
8479 Garvey Avenue	Apartment (LU #220)	28 du
	Shopping Center (LU #820)	11.375 ksf
7419-7459 Garvey Avenue	Super Market (LU #850)	24 ksf
	General Office (LU #710)	24 ksf
Walnut Grove Avenue & Rush Street	Hotel (LU#310)	80 rooms
City of Monterey Park		
The Market Place	Shopping Center (LU #820)	600 ksf
2015 Potrero Grande	Single Family Home (LU #210)	80 du
500 Markland Drive	Mini-Warehouse (LU #151)	124.492ksf
Monterey Park Towne Center	Apartment (LU #220)	109 du
	Shopping Center (LU #820)	71.366 ksf
City of Montebello		
Montebello Hills Master Planned Community	Single Family Home (LU #210)	237 du
	Condo/Townhome (LU #230)	521 du
	City Park	5.5 acres
888 Montebello Boulevard	Hotel (LU#310)	54 rooms
LA County		
1264 San Gabriel Boulevard[4]	Condo/Townhome (LU #230)	20 du

du = dwelling unit, ksf = thousand square feet

Chapter 4. Existing Street System (Baseline/2015)

This section describes existing and future (2016, 2018 and 2019) without-project conditions within the identified study area. Characteristics are provided for the roadway network, peak hour traffic volumes, traffic operations, traffic safety, non-motorized facilities, and transit.

Street System

The following describes the existing street network within the vicinity of the proposed project and anticipated changes resulting from planned improvements. The study intersections include:

1. Garfield Avenue/Pomona Boulevard
2. Garfield Avenue/Via Campo
3. Wilcox Avenue/Pomona Boulevard
4. Wilcox Avenue/Via Campo
5. Markland Drive/Via Campo – SR 60 EB On-Ramp
6. Markland Drive/Potrero Grande Drive/SR 60 WB Off-Ramp
7. Greenwood Avenue – Saturn Street)/Potrero Grande Drive
8. Del Mar Avenue (Hill Drive)/Potrero Grande Drive
9. Paramount Boulevard/Hill Drive
10. Paramount Boulevard/SR 60 WB Ramps – Neil Armstrong Street
11. Paramount Boulevard/SR 60 EB Ramps – Town Center Drive
12. SR 60 EB Ramps – Montebello Boulevard/Montebello Town Center
13. Walnut Grove Avenue/San Gabriel Boulevard
14. San Gabriel Boulevard/SR 60 WB Ramps
15. San Gabriel Boulevard/Montebello Town Center

The study roadway segment is Potrero Grande Drive, Markland Drive to Greenwood Avenue.

Existing

Characteristics of the existing street system in the proposed project vicinity are shown in Table 4. As shown on Figure 4 and in Table 4, the site is in the immediate vicinity of a four-lane principal arterial and SR 60. Additionally, the existing intersection geometrics are shown on Figure 4.

Table 4. Study Area Existing Street System Summary

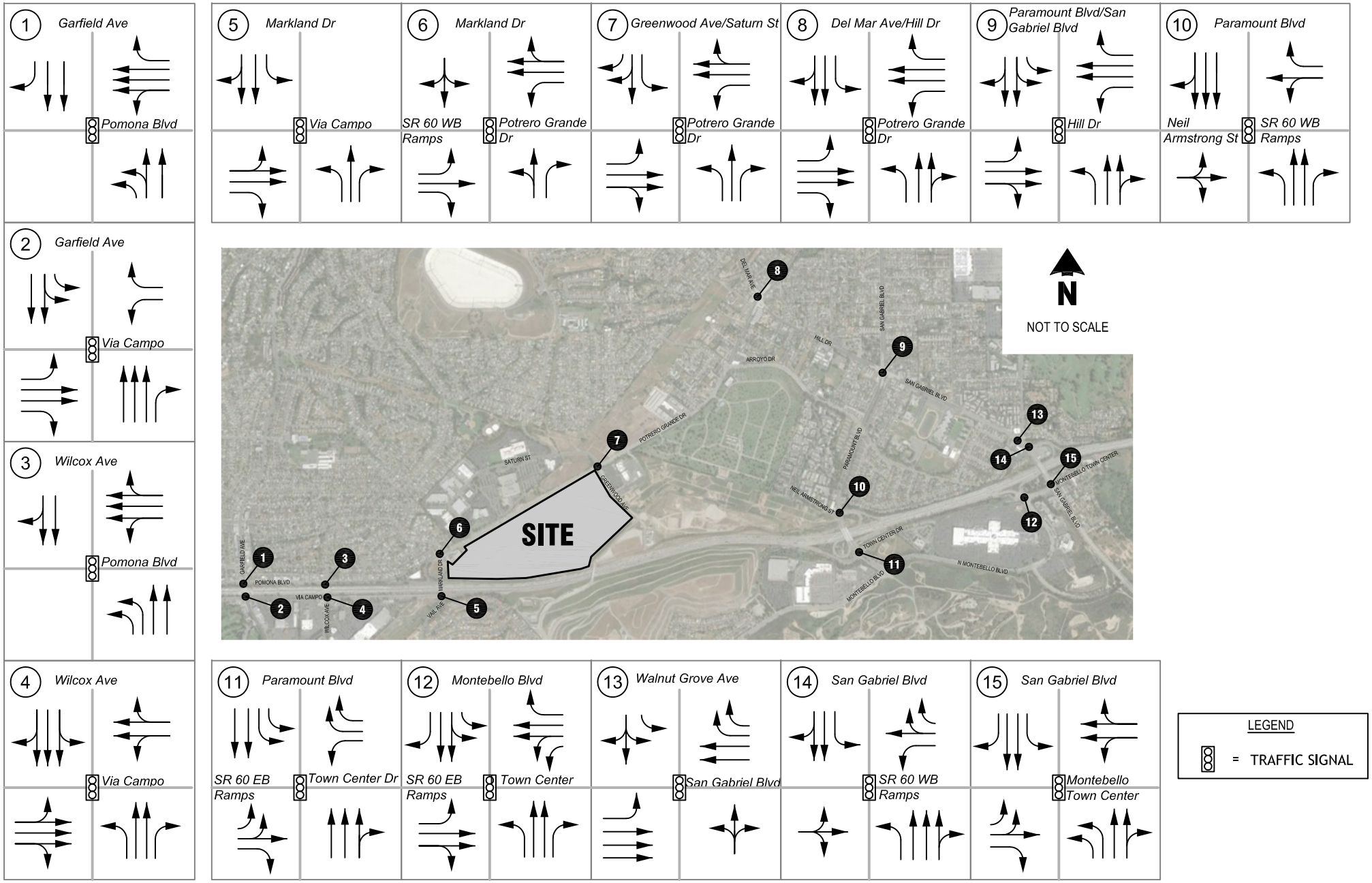
Roadway	Street Classification	Posted Speed Limit	Number of Travel Lanes	Parking	Sidewalks	Bicycle Lanes
Potrero Grande Drive	Principal Arterial	45 mph	5	Yes	Yes	No
Markland Drive	Major Collector	25 mph	4	No	Yes	No
Greenwood Avenue (Saturn Street)	Minor Arterial	25/35 mph	2/4	No	Yes[1]	No
Hill Drive (Del Mar Avenue)	Minor Arterial	40 mph	4	Yes[2]	Yes	No
Paramount Boulevard	Principal Arterial	40 mph	4	Yes	Yes[3]	No
San Gabriel Boulevard	Principal Arterial	40 mph	4	Yes	Yes	No
Neil Armstrong Street	Local Street	25 mph[4]	2	Yes	Yes	No
Town Center Street	Local Street	25 mph	4	No	Yes[5]	No
Garfield Avenue	Principal Arterial	35 mph	5	Yes	Yes	No
Via Campo	Principal Arterial	40 mph	5	No	Yes[5]	No
Wilcox Avenue	Minor Arterial	35 mph	2/5	No	Yes	No
Pomona Boulevard	Principal Arterial	40 mph	3	Yes	Yes	No
Town Center Drive	Local Street	20 mph	2	No	No	No
Montebello Boulevard	Minor Arterial	40 mph	4	No	Yes	Yes
Walnut Grove Avenue	Minor Arterial	45 mph	5	Yes	Yes	No

Source: Caltrans California Road System (CRS) Maps, 2013
1. Sidewalk located north of Potrero Grande Drive.
2. Parking allowed north of Potrero Grande Drive.
3. Sidewalks located along the west side of the roadway.
4. No posted speed limit, assumed at 25 mph.
5. Sidewalks located along the south side of the roadway.

Future

This section identifies specific transportation improvements that will affect the future transportation system within the study area.

Although SR 60 Ramp improvements are planned at the Paramount Boulevard interchange, a completion date has not been determined and was not assumed in future analysis for this project. Additionally, based on a review of the City of Monterey Park, Montebello, Rosemead, and LA County Transportation Capital Improvements Street Improvements, no improvement projects in the study area are anticipated to be completed by 2016 – 2019.



Existing Intersection Geometrics

Mesa 500-kV Substation

FIGURE
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Traffic Volumes

The following summarize the traffic volumes for existing and future (2016, 2018, and 2019) without-project conditions.

Existing

The Cities' and County's requirements (Cities of Montebello, Monterey Park, and Rosemead; and, LA County) are only for intersection peak hour analyses. Therefore, no analysis of daily traffic volumes is required.

Peak Hour Traffic Volumes
Existing turning movement counts at the study intersections were conducted in June 2015. Intersection turning movement counts collected in June 2015 are provided in Appendix A. Additionally, counts for other intersections were obtained from the *Montebello Hills Specific Plan*[1] and *The Monterey Park Market Place* traffic studies.[2] The following identifies the intersection as well as the study intersection where the counts were obtained from:

1. Garfield Avenue/Pomona Boulevard – The Monterey Park Market Place Study
2. Garfield Avenue/Via Campo – The Monterey Park Market Place Study
3. Wilcox Avenue/Pomona Boulevard – The Monterey Park Market Place Study
4. Wilcox Avenue/Via Campo – The Monterey Park Market Place Study
5. Markland Drive/Via Campo (SR 60 EB On-Ramp) – The Monterey Park Market Place Study
6. Markland Drive/Potrero Grande Drive/SR 60 WB Off-Ramp – Newly collected in 2015
7. Greenwood Avenue (Saturn Street)/Potrero Grande Drive – Newly collected in 2015
8. Del Mar Avenue (Hill Drive)/Potrero Grande Drive – Newly collected in 2015
9. Paramount Boulevard/Hill Drive – Newly collected in 2015
10. Paramount Boulevard/SR 60 WB Ramps Neil Armstrong Street) – Newly collected in 2015
11. Paramount Boulevard/SR 60 EB Ramps (Town Center Drive) – Newly collected in 2015
12. Montebello Boulevard/Montebello Town Center (SR 60 EB Ramps) – The Monterey Park Market Place Study
13. Walnut Grove Avenue/San Gabriel Boulevard – The Montebello Hills Specific Plan Study
14. San Gabriel Boulevard/SR 60 WB Ramps – The Montebello Hills Specific Plan Study
15. San Gabriel Boulevard/Montebello Town Center – The Monterey Park Market Place Study

The counts from those previous studies were adjusted to current 2015 conditions based on various ambient growth rates described below. Existing weekday AM and PM peak hour volumes are summarized on Figure 5 and were used to evaluate existing traffic conditions.

The following are the annual growth rates applied to the major roadways or City specific intersections within the study area to develop existing 2015 volumes and all future volumes:

- City of Montebello 1.46%
- City of Monterey Park 0.82%
- San Gabriel Boulevard 1.23%
- Paramount Boulevard 1.44%
- Montebello Boulevard 1.92%

[1] Traffic Study for the Montebello Hills Specific Plan, Montebello, California, KOA Corporation, July 31, 2014
[2] Monterey Park Market Place, Arch Beach Consulting, March 11, 2011

- San Gabriel Ramps 1.19%
- Paramount Ramps 0.78%

For the major roadways, growth rates were applied to the through volumes. These growth rates are consistent with the *Traffic Study for the Montebello Hills Specific Plan, Montebello, California.*

Existing SCE Traffic Volumes

Currently, there are 47 employees that work at the existing substation site. The 47 employees include maintenance and test personnel who perform regular maintenance at the substation and/or within the transmission rights of way. The current substation generates approximately 154 daily trips, with 47 occurring during the a.m. peak hour, and 47 occurring during the p.m. peak hour.

Future

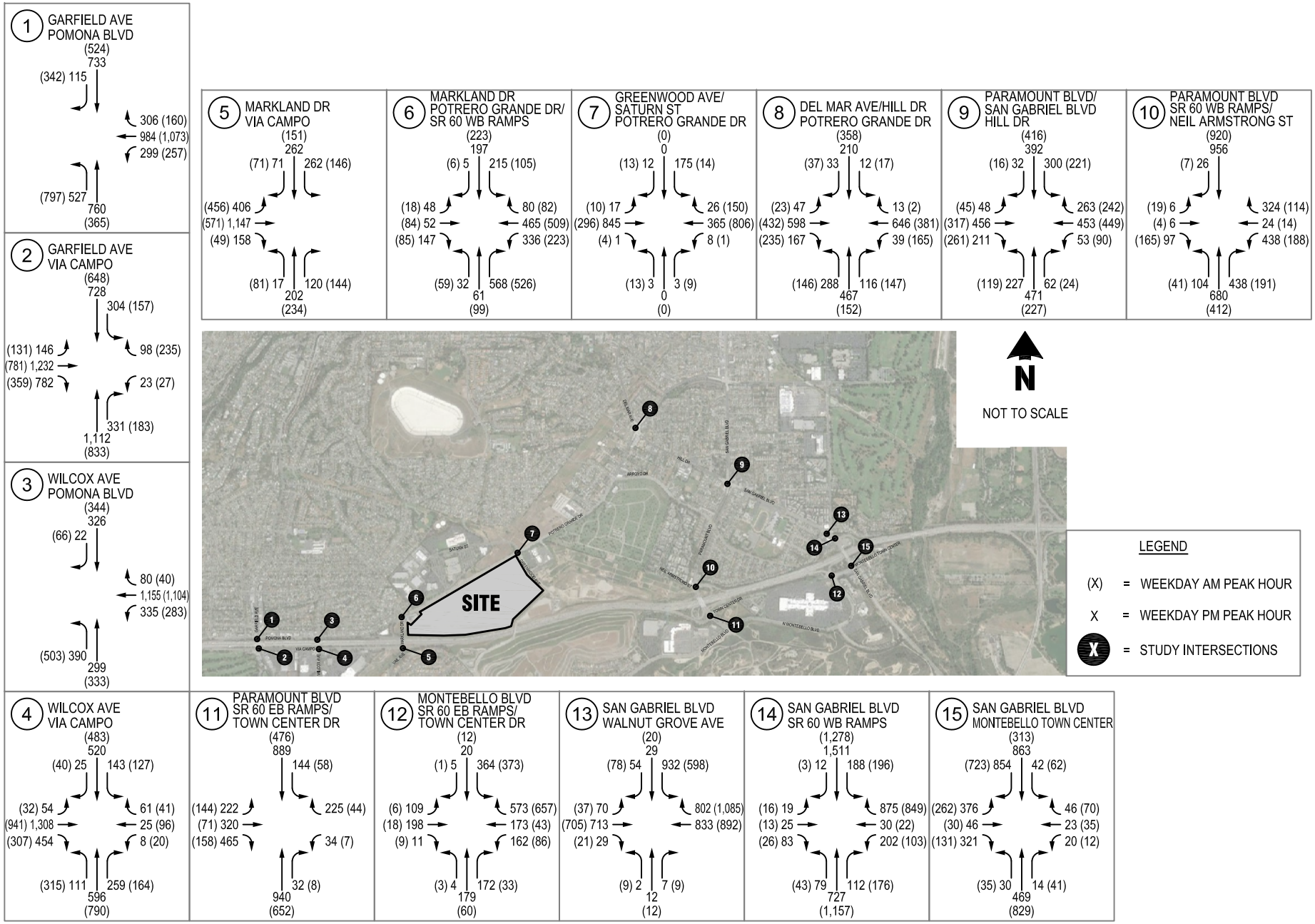
Future (2016, 2018, and 2019) without-project traffic volumes were forecasted by applying the above described annual growth rates to existing traffic volumes as well as traffic from previously approved and/or pending (cumulative) projects that would increase background traffic at study intersections. Twelve cumulative projects were noted in the area and were assumed to be completed by 2016 to provide a conservative analysis. Where available, trips from pipeline projects were distributed and assigned to the network based on the traffic studies. If no traffic study was available the trips were distributed and assigned to the network based on counts and anticipated travel patterns.

Future (2016, 2018, and 2019) without-project weekday AM and PM peak hour traffic volumes reflecting the background growth and traffic from the pipeline projects are shown on Figure 6, Figure 7, and Figure 8 respectively.

Table 5. Cumulative Projects

Location	Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
City of Rosemead									
7801-7825 Garvey Avenue	Apartment (LU #220)	60 du	487	7	26	33	33	18	51
	Shopping Center (LU #820)[1]	15.553 ksf	438	6	4	10	18	20	38
8408 Garvey Avenue	Apartment (LU #220)	46 du	402	5	21	26	28	15	43
	Shopping Center (LU #820)[1]	11.5 ksf	324	5	2	7	13	15	28
8479 Garvey Avenue	Apartment (LU #220)	28 du	293	3	14	17	21	12	33
	Shopping Center (LU #820)[1]	11.375 ksf	321	5	2	7	13	15	28
7419-7459 Garvey Avenue	Super Market (LU #850)[2]	24 ksf	1,571	36	16	52	75	71	146
	General Office (LU #710)	24 ksf	265	33	4	37	6	30	36
Walnut Grove Avenue & Rush Street	Hotel (LU#310)	80 rooms	654	25	17	42	24	24	48
Total			**4,755**	**125**	**106**	**231**	**231**	**220**	**451**
City of Monterey Park									
The Market Place[3]	Shopping Center (LU #820)	600 ksf	19,719	383	301	684	674	680	1,354
2015 Potrero Grande	Single Family Home (LU #210)	80 du	762	15	45	60	50	30	80
500 Markland Drive	Mini-Warehouse (LU #151)	124.492 ksf	319	10	8	18	17	16	33
Monterey Park Towne Center	Apartment (LU #220)	109 du	784	11	46	57	51	27	78
	Shopping Center (LU #820)[1]	71.366 ksf	2,011	31	15	46	82	93	175
Total			**23,595**	**450**	**415**	**865**	**874**	**846**	**1,720**
City of Montebello									
Montebello Hills Master Planned Community[4]	Single Family Home (LU #210)	237 du	2,269	44	134	178	152	88	240
	Condo/Townhome (LU #230)	521 du	3,028	39	191	230	182	89	271
	City Park	5.5 acres	72	2	0	2	13	5	18
888 Montebello Boulevard	Hotel (LU#310)	54 rooms	441	17	12	29	16	16	32
Total			**5,810**	**102**	**337**	**439**	**363**	**198**	**561**
LA County									
1264 San Gabriel Boulevard[4]	Condo/Townhome (LU #230)	20 du	117	2	7	9	8	3	11
Total Cumulative Projects			**34,277**	**679**	**865**	**1,544**	**1,476**	**1,267**	**2,743**

du = dwelling unit, ksf = thousand square feet
1. Net new trips are presented. A pass-by rate of 34% was utilized consistent with the *ITE Trip Generation Handbook*, 3rd Edition, August 2014
2. Net new trips are presented. A pass-by rate of 36% was utilized consistent with the *ITE Trip Generation Handbook*, 3rd Edition, August 2014
3. Trip generation taken from *Monterey Park Market Place*, Arch Beach Consulting, March 11, 2011
4. Trip generation taken from Traffic Impact Study - Montebello Hills Specific Plan, KOA Corporation July 2014

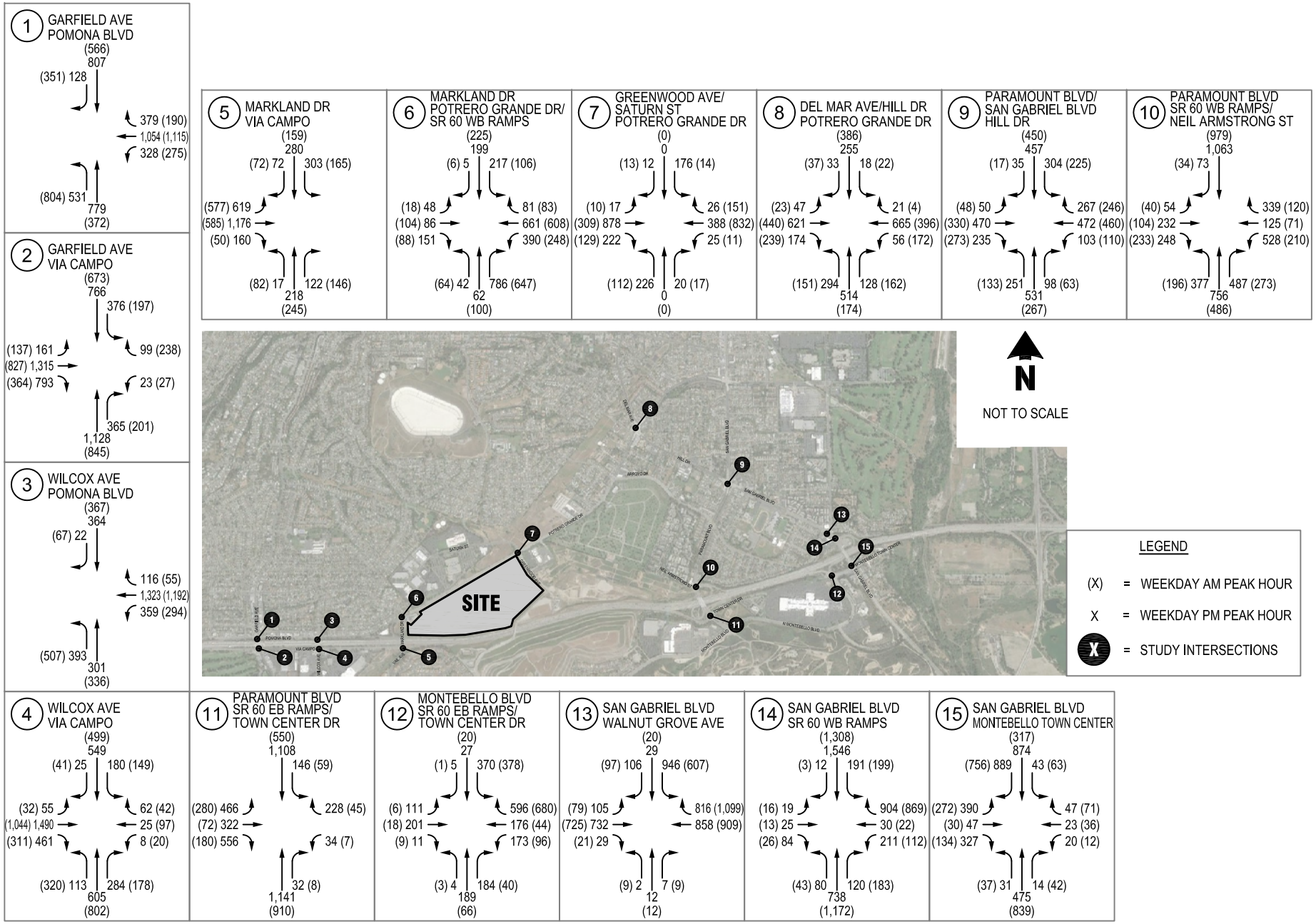


Existing (2015) Peak Hour Traffic Volumes

FIGURE 5

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.

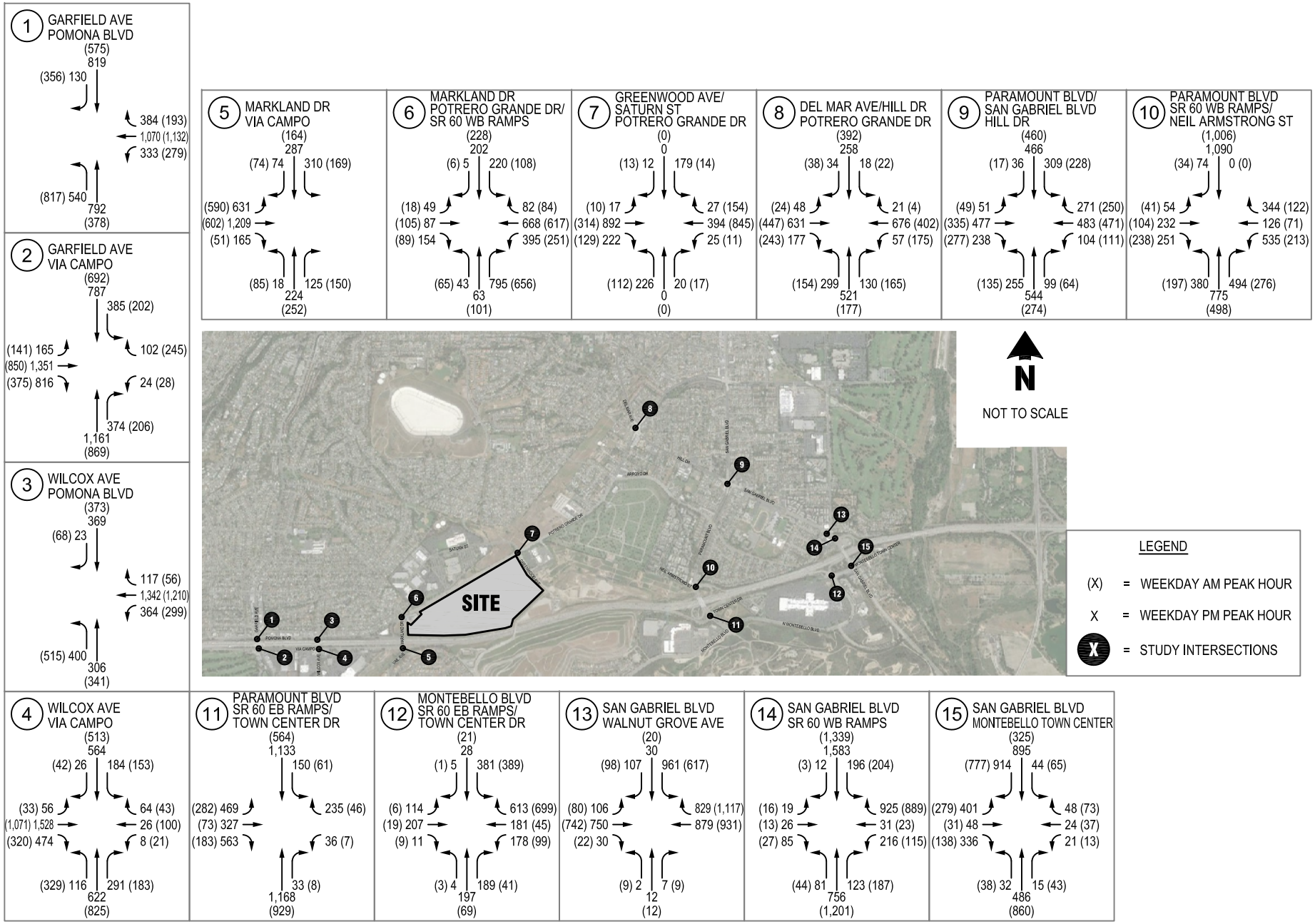


Future (2016) Without-Project Peak Hour Traffic Volumes

FIGURE 6

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.

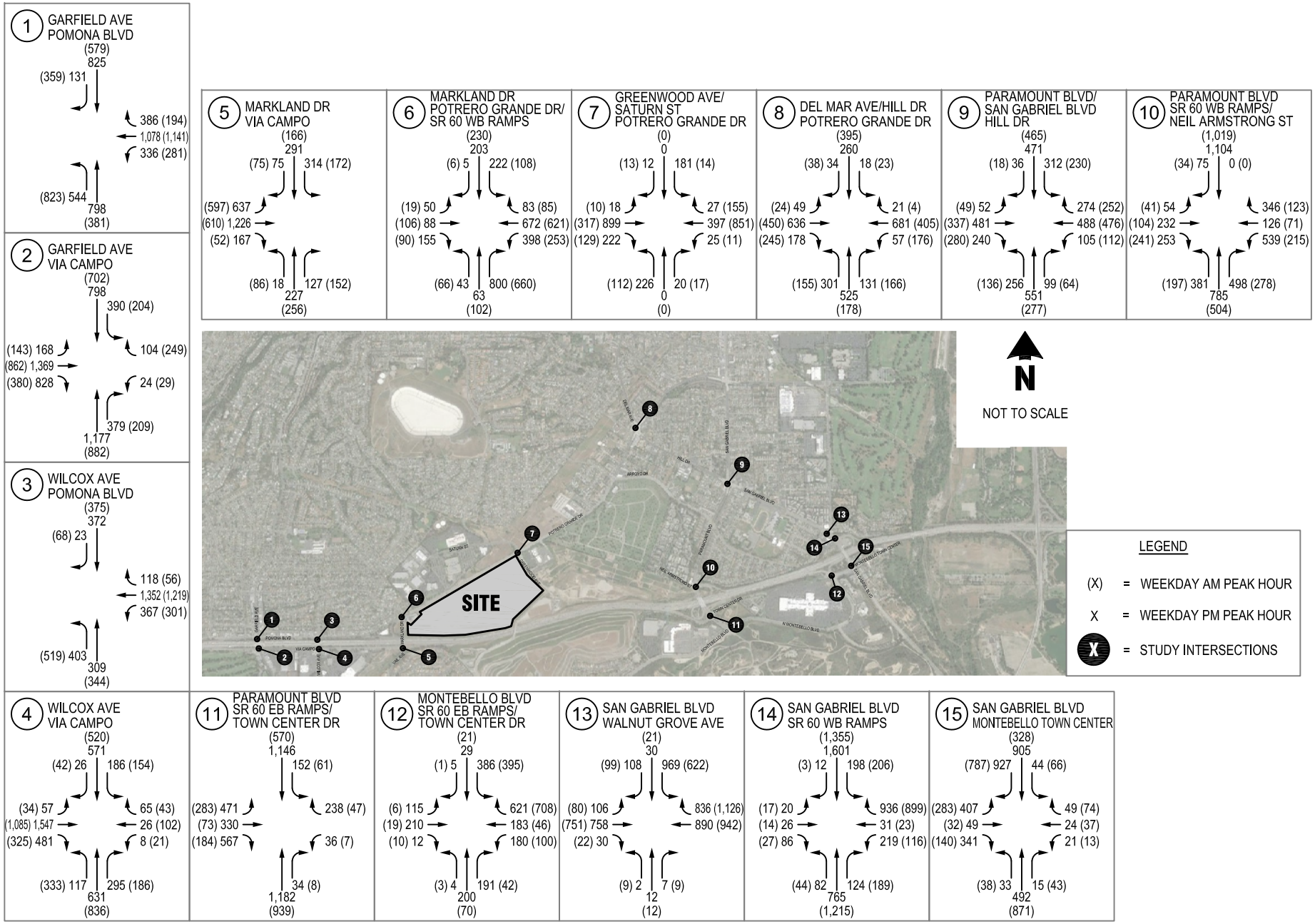


Future (2018) Without-Project Peak Hour Traffic Volumes

FIGURE 7

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.



Future (2019) Without-Project Peak Hour Traffic Volumes

FIGURE 8

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.

Traffic Operations – Phase 1

The following sections outline the existing and future (2016) without-project intersection and midblock/freeway mainline operations.

Intersection Operations

Based on the analysis methodology described previously, the existing weekday AM and PM peak hour traffic volumes were input into *Traffix 8* and *Synchro 9* to determine the existing intersection V/C ratios, delay, and resulting LOS values. Table 6 presents the results of the existing and future (2016) without-project intersection LOS analysis for the weekday AM peak hour. Table 7 presents the results of the existing and future (2016) without-project intersection LOS analysis for the weekday PM peak hour. The LOS calculation sheets are provided in Appendix B.

Table 6. Existing & Future 2016 Weekday AM Peak Hour Intersection Level of Service

			2015 Existing		2016 Without-Project	
Intersection	**LOS Method**	**Traffic Control**	**LOS[1]**	**V/C[2]or Delay[3]**	**LOS[1]**	**V/C[2]or Delay[3]**
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	D	0.868	D	0.888
2. Garfield Avenue/Via Campo	ICU	Signal	C	0.737	C	0.762
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.700	C	0.738
4. Wilcox Avenue/Via Campo	ICU	Signal	C	0.776	D	0.807
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	B	0.658	C	0.717
	HCM	*Signal*	*B*	*20*	*C*	*21*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	A	0.547	B	0.643
	HCM	*Signal*	*B*	*14*	*B*	*17*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.421	A	0.492
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.615	B	0.635
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	A	0.552	B	0.606
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	A	0.554	D	0.801
	HCM	*Signal*	*A*	*6*	*B*	*20*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	A	0.370	A	0.438
	HCM	*Signal*	*A*	*9*	*A*	*10*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	B	0.667	B	0.685
	HCM	*Signal*	*B*	*13*	*B*	*13*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	B	0.698	C	0.738
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	D	0.809	D	0.825
	HCM	*Signal*	*C*	*29*	*C*	*32*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	B	0.699	C	0.724

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 6 all intersections currently operate at LOS D or better during the AM peak. Under future (2016) without-project conditions all intersections are anticipated to operate at LOS D or better with minimal increases in V/C.

Table 7. Existing & Future 2016 Weekday PM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2015 Existing LOS[1]	2015 Existing V/C[2]or Delay[3]	2016 Without-Project LOS[1]	2016 Without-Project V/C[2]or Delay[3]
PM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	D	0.864	E	0.913
2. Garfield Avenue/Via Campo	ICU	Signal	F	1.062	F	1.085
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	B	0.671	C	0.732
4. Wilcox Avenue/Via Campo	ICU	Signal	C	0.768	D	0.846
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	D	0.875	E	0.986
	HCM	*Signal*	*C*	*31*	*D*	*47*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	B	0.682	D	0.821
	HCM	*Signal*	*C*	*22*	*C*	*31*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.479	B	0.608
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.609	B	0.647
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	B	0.659	C	0.748
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	C	0.716	F	1.236
	HCM	*Signal*	*D*	*50*	*F*	*123*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	C	0.739	D	0.865
	HCM	*Signal*	*B*	*16*	*C*	*22*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	C	0.709	C	0.730
	HCM	*Signal*	*B*	*17*	*B*	*18*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	C	0.734	C	0.785
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	E	0.920	E	0.941
	HCM	*Signal*	*D*	*39*	*D*	*43*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	D	0.874	E	0.900

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 7 all intersections currently operate at LOS D or better during the PM peak, with the exception of the Garfield Avenue/Via Campo intersection. The Garfield Avenue/Via Campo intersection currently operates at LOS F. Under future (2016) without-project conditions a number of intersections are anticipated to degrade to LOS E or F. The following intersections are anticipated to degrade to LOS E under future (2016) without-project conditions:

- Garfield Avenue/Pomona Boulevard
- Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
- San Gabriel Boulevard/SR 60 WB Ramps
- San Gabriel Boulevard/Town Center Drive

The Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps intersection is anticipated to degrade to LOS F under future (2016) without-project conditions. The remaining intersections are anticipated to operate at LOS D or better.

Midblock and Freeway Mainline Analysis

A midblock roadway segment analysis was also conducted. The *Highway Capacity Software* (HCS 2010) Multi-Lane Highways module, consistent with HCM 2010 methodology, was used to determine the midblock LOS of each study segment for existing and future (2016) without project. The analysis determines the midblock segment LOS based on the density of vehicles on the roadway segment in terms of passenger-cars per mile per lane (pc/mi/ln). AM and PM peak hour midblock traffic volumes were derived for each analysis scenario and input into the HCS software. In addition, other midblock geometrics such as number lanes, lane widths, roadway grades, and number of access points, were entered into HCS.

Table 8 presents the results of the midblock analysis for each study segment. The HCS worksheets are provided in Appendix C.

Table 8. Existing 2015 and Future 2016 Baseline HCS Midblock and Freeway Mainline Summary

	AM Peak Hour Eastbound		AM Peak Hour Westbound		PM Peak Hour Eastbound		PM Peak Hour Westbound	
	LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density
Potrero Grande Drive: Markland Drive to Greenwood Avenue								
Existing 2015	A	3.4	A	8.4	A	9.6	A	3.8
Future 2016 Baseline	A	5	A	9.7	B	12.4	A	6.3
SR 60: West of Garfield Avenue								
Existing 2015	D	29.3	F	57.7	E	36.1	E	43.7
Future 2016 Baseline	D	29.5	F	58.4	E	36.8	E	44.5
SR 60: Garfield Avenue to Paramount Boulevard								
Existing 2015	C	21.1	D	32.4	C	24.3	D	28
Future 2016 Baseline	C	21.8	D	33.6	C	25.9	D	29.4
SR 60: Paramount Boulevard to San Gabriel Boulevard								
Existing 2015	C	20.8	D	30.8	C	24.4	D	26.7
Future 2016 Baseline	C	21.0	D	31.3	C	24.5	D	27.6
SR 60: East of San Gabriel Boulevard								
Existing 2015	C	22.1	D	34.1	C	25.5	D	29.4
Future 2016 Baseline	C	22.3	D	34.3	C	25.6	D	29.6

Notes: Analyzed per multi-lane module in HCS 2010
1. Density is passenger cars per mile per lane (pc/mi/ln)

As shown in Table 8, all roadway segments are anticipated to operate at the same LOS as under baseline 2016 conditions in both directions with the exception of the Potrero Grande Drive from Markland Drive to Greenwood Avenue segment in the eastbound direction. Segments are anticipated to experience minor increases in pc/mi/ln. The segment of Potrero Grande Drive from Markland Drive to Greenwood Avenue is anticipated to degrade from LOS A to LOS B with a 2.8 increase in pc/mi/ln.

Traffic Operations – Phase 2

The following sections outline the existing and future (2018) without-project intersection and midblock operations.

Intersection Operations

The following section summarizes the existing and future (2018) without-project traffic operations for Phase 2. Table 9 presents the results of the existing and future (2018) without-project intersection LOS analysis for the weekday AM peak hour. Table 10 presents the results of the existing and future (2018) without-project intersection LOS analysis for the weekday PM peak hour. The LOS calculation sheets are provided in Appendix B.

Table 9. Existing & Future 2018 Weekday AM Peak Hour Intersection Level of Service

			2015 Existing		2018 Without-Project	
Intersection	**LOS Method**	**Traffic Control**	**LOS[1]**	**V/C[2]or Delay[3]**	**LOS[1]**	**V/C[2]or Delay[3]**
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	D	0.868	E	0.900
2. Garfield Avenue/Via Campo	ICU	Signal	C	0.737	C	0.781
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.700	C	0.743
4. Wilcox Avenue/Via Campo	ICU	Signal	C	0.776	D	0.827
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	B	0.658	C	0.732
	HCM	*Signal*	*B*	*20*	*C*	*22*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	A	0.547	B	0.643
	HCM	*Signal*	*B*	*14*	*B*	*17*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.421	A	0.497
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.615	B	0.643
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	A	0.552	B	0.616
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	A	0.554	D	0.813
	HCM	*Signal*	*A*	*6*	*C*	*22*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	A	0.370	A	0.445
	HCM	*Signal*	*A*	*9*	*B*	*10*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	B	0.667	C	0.702
	HCM	*Signal*	*B*	*13*	*B*	*13*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	B	0.698	C	0.748
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	D	0.809	D	0.842
	HCM	*Signal*	*C*	*29*	*D*	*37*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	B	0.699	C	0.741

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Figure 8 by 2018 with cumulative projects and growth in the area all intersections are anticipated to operate at LOS D or better with the exception of the Garfield Avenue/Pomona Boulevard intersection. The Garfield Avenue/Pomona Boulevard intersection is anticipated to operate at LOS E.

Table 10. Existing & Future 2018 Weekday PM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2015 Existing LOS[1]	2015 Existing V/C[2] or Delay[3]	2018 Without-Project LOS[1]	2018 Without-Project V/C[2] or Delay[3]
PM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	D	0.864	E	0.926
2. Garfield Avenue/Via Campo	ICU	Signal	F	1.062	F	1.113
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	B	0.671	C	0.741
4. Wilcox Avenue/Via Campo	ICU	Signal	C	0.768	D	0.866
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	D	0.875	F	1.009
	HCM	*Signal*	*C*	*31*	*D*	*50*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	B	0.682	D	0.831
	HCM	*Signal*	*C*	*22*	*C*	*32*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.479	B	0.613
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.609	B	0.656
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	B	0.659	C	0.759
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	C	0.716	F	1.250
	HCM	*Signal*	*D*	*50*	*F*	*127*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	C	0.739	D	0.879
	HCM	*Signal*	*B*	*16*	*C*	*24*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	C	0.709	C	0.748
	HCM	*Signal*	*B*	*17*	*B*	*18*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	C	0.734	C	0.797
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	E	0.920	E	0.960
	HCM	*Signal*	*D*	*39*	*D*	*52*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	D	0.874	E	0.923

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 10 under future (2018) without-project conditions a number of intersections are anticipated to degrade to LOS E or F. The following intersections are anticipated to degrade to LOS E under future (2018) without-project conditions:

- Garfield Avenue/Pomona Boulevard
- San Gabriel Boulevard/SR 60 WB Ramps
- San Gabriel Boulevard/Town Center Drive

The following intersections are anticipated to degrade to LOS F under future (2018) without-project conditions:

- Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
- Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps

As mentioned previously, improvements are planned at the SR 60 On/Off Ramps but were not assumed in this analysis. The remaining intersections are anticipated to operate at LOS D or better.

Midblock and Freeway Mainline Analysis

Table 11 presents the results of the midblock and freeway mainline analysis of the study segments. The HCS worksheets are provided in Appendix C.

Table 11. Existing 2015 and Future 2018 Baseline HCS Midblock and Freeway Mainline Summary

	AM Peak Hour Eastbound		AM Peak Hour Westbound		PM Peak Hour Eastbound		PM Peak Hour Westbound	
	LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density
Potrero Grande Drive: Markland Drive to Greenwood Avenue								
Existing 2015	A	3.4	A	8.4	A	9.6	A	3.8
Future 2018 Baseline	A	5.0	A	9.8	B	12.6	A	6.4
SR 60: West of Garfield Avenue								
Existing 2015	D	29.3	F	57.7	E	36.1	E	43.7
Future 2018 Baseline	D	29.5	F	58.4	E	36.8	E	44.5
SR 60: Garfield Avenue to Paramount Boulevard								
Existing 2015	C	21.1	D	32.4	C	24.3	D	28
Future 2018 Baseline	C	21.9	D	33.6	D	26.1	D	29.5
SR 60: Paramount Boulevard to San Gabriel Boulevard								
Existing 2015	C	20.8	D	30.8	C	24.4	D	26.7
Future 2018 Baseline	C	21.1	D	31.4	C	24.4	D	27.7
SR 60: East of San Gabriel Boulevard								
Existing 2015	C	22.1	D	34.1	C	25.5	D	29.4
Future 2018 Baseline	C	22.3	D	34.5	C	25.7	D	29.7

Notes: Analyzed per multi-lane module in HCS 2010
1. Density is passenger cars per mile per lane (pc/mi/ln)

As shown in Table 11, all roadway segments are anticipated to operate at the same LOS as under baseline 2018 conditions in both directions with the exception of the Potrero Grande Drive from Markland Drive to Greenwood Avenue and SR 60 from Garfield Avenue to Paramount Boulevard segments in the eastbound directions. Segments are anticipated to experience minor increases in pc/mi/ln. The segment of Potrero Grande Drive from Markland Drive to Greenwood Avenue is anticipated to degrade from LOS A to LOS B with a 3.0 increase in pc/mi/ln. The segment of SR 60 from Garfield Avenue to Paramount Boulevard is anticipated to degrade from LOS C to LOS D with a 1.8 increase in pc/mi/ln.

Traffic Operations – Phase 3

The following sections outline the existing and future (2019) without-project intersection and midblock operations.

Intersection Operations

The following section summarizes the existing and future (2019) without-project traffic operations for Phase 2. Table 12 presents the results of the existing and future (2019) without-project intersection LOS analysis for the weekday AM peak hour. Table 13 presents the results of the existing and future (2019) without-project intersection LOS analysis for the weekday PM peak hour. The LOS calculation sheets are provided in Appendix B.

Table 12. Existing Weekday & Future 2019 AM Peak Hour Intersection Level of Service

			2015 Existing		2019 Without-Project	
Intersection	**LOS Method**	**Traffic Control**	**LOS[1]**	**V/C[2]or Delay[3]**	**LOS[1]**	**V/C[2]or Delay[3]**
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	D	0.868	E	0.907
2. Garfield Avenue/Via Campo	ICU	Signal	C	0.737	C	0.790
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.700	C	0.747
4. Wilcox Avenue/Via Campo	ICU	Signal	C	0.776	D	0.837
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	B	0.658	C	0.744
	HCM	*Signal*	*B*	*20*	*C*	*23*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	A	0.547	B	0.647
	HCM	*Signal*	*B*	*14*	*B*	*17*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.421	A	0.500
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.615	B	0.648
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	A	0.552	B	0.620
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	A	0.554	D	0.818
	HCM	*Signal*	*A*	*6*	*C*	*22*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	A	0.370	A	0.448
	HCM	*Signal*	*A*	*9*	*B*	*10*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	B	0.667	C	0.710
	HCM	*Signal*	*B*	*13*	*B*	*13*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	B	0.698	C	0.753
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	D	0.809	D	0.851
	HCM	*Signal*	*C*	*29*	*D*	*38*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	B	0.699	C	0.750

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 12 by 2019 with cumulative projects and growth in the area all intersections are anticipated to operate at LOS D or better with the exception of the Garfield Avenue/Pomona Boulevard intersection. The Garfield Avenue/Pomona Boulevard intersection is anticipated to operate at LOS E.

Table 13. Existing & Future 2019 Weekday PM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2015 Existing LOS[1]	2015 Existing V/C[2] or Delay[3]	2019 Without-Project LOS[1]	2019 Without-Project V/C[2] or Delay[3]
PM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	D	0.864	E	0.932
2. Garfield Avenue/Via Campo	ICU	Signal	F	1.062	F	1.127
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	B	0.671	C	0.746
4. Wilcox Avenue/Via Campo	ICU	Signal	C	0.768	D	0.876
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	D	0.875	F	1.020
	HCM	*Signal*	*C*	*31*	*D*	*52*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	B	0.682	D	0.835
	HCM	*Signal*	*C*	*22*	*C*	*33*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.479	B	0.615
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.609	B	0.660
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	B	0.659	C	0.765
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	C	0.716	F	1.257
	HCM	*Signal*	*D*	*50*	*F*	*128*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	C	0.739	D	0.887
	HCM	*Signal*	*B*	*16*	*C*	*24*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	C	0.709	C	0.757
	HCM	*Signal*	*B*	*17*	*B*	*18*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	C	0.734	D	0.804
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	E	0.920	E	0.970
	HCM	*Signal*	*D*	*39*	*D*	*53*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	D	0.874	E	0.934

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 13 under future (2019) without-project conditions a number of intersections are anticipated to degrade to LOS E or F. The following intersections are anticipated to degrade to LOS E under future (2019) without-project conditions:

- Garfield Avenue/Pomona Boulevard
- San Gabriel Boulevard/SR 60 WB Ramps
- San Gabriel Boulevard/Town Center Drive

The following intersections are anticipated to degrade to LOS F under future (2019) without-project conditions:

- Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
- Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps

The remaining intersections are anticipated to operate at LOS D or better.

Midblock and Freeway Mainline Analysis

Table 14 presents the results of the midblock analysis of the study segments. The HCS worksheets are provided in Appendix C.

Table 14. Existing 2015 and Future 2019 Baseline HCS Midblock and Freeway Mainline Summary

	AM Peak Hour Eastbound		AM Peak Hour Westbound		PM Peak Hour Eastbound		PM Peak Hour Westbound	
	LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density
Potrero Grande Drive: Markland Drive to Greenwood Avenue								
Existing 2015	A	3.4	A	8.4	A	9.6	A	3.8
Future 2019 Baseline	A	5.1	A	9.9	B	12.7	A	6.4
SR 60: West of Garfield Avenue								
Existing 2015	D	29.3	F	57.7	E	36.1	E	43.7
Future 2019 Baseline	D	29.5	F	58.4	E	36.8	E	44.5
SR 60: Garfield Avenue to Paramount Boulevard								
Existing 2015	C	21.1	D	32.4	C	24.3	D	28
Future 2019 Baseline	C	21.9	D	33.7	D	26.3	D	29.5
SR 60: Paramount Boulevard to San Gabriel Boulevard								
Existing 2015	C	20.8	D	30.8	C	24.4	D	26.7
Future 2019 Baseline	C	21.1	D	31.5	C	24.5	D	27.8
SR 60: East of San Gabriel Boulevard								
Existing 2015	C	22.1	D	34.1	C	25.5	D	29.4
Future 2019 Baseline	C	22.4	D	34.5	C	25.8	D	29.8

Notes: Analyzed per multi-lane module in HCS 2010
1. Density is passenger cars per mile per lane (pc/mi/ln)

As shown in Table 14, all roadway segments are anticipated to operate at the same LOS as under baseline 2018 conditions in both directions with the exception of the Potrero Grande Drive from Markland Drive to Greenwood Avenue and SR 60 from Garfield Avenue to Paramount Boulevard segments in the eastbound directions. Segments are anticipated to experience minor increases in pc/mi/ln. The segment of Potrero Grande Drive from Markland Drive to Greenwood Avenue is anticipated to degrade from LOS A to LOS B with a 3.1 increase in pc/mi/ln. The segment of SR 60 from Garfield Avenue to Paramount Boulevard is anticipated to degrade from LOS C to LOS D with a 2.0 increase in pc/mi/ln.

Non-Motorized Facilities

The following describes the existing and future non-motorized facilities within the study area.

Existing

Sidewalks are provided on at least one side of all streets, with the exception of Town Center Drive in the study area. Marked crosswalks are provided on at least one leg of all signalized intersections.

Transit Service

The following sections describe existing and future transit service within the study area.

Existing

Bus transit service in the study area is provided by Metro and City of Monterey Park Spirit Bus. The nearest bus stop is located along Via Campo west of Vail Avenue, approximately one mile southwest (approximately a 20-minute walk) from the project site access location along Potrero Grande. The stop is approximately one-quarter mile (approximately a 6-minute

walk) from the project site access located along Markland Drive. The following lines service the project area:

Line 68/84 Downtown Los Angeles to Montebello – Metro
Line 68 traverses eastbound/westbound primarily along Cesar E. Chavez Avenue between Downtown Los Angeles and Montebello. During a typical weekday the route operates between approximately 4:15 a.m. and 12:45 a.m. Additional Saturday, and Sunday services are provided.

Route 5 – Spirit Bus
Route 5 traverses eastbound/westbound primarily along Riggin Street, Floral Drive, and Corporate Center drive along the southern and western portions of the City of Monterey Park. During a typical weekday the route operates between approximately 6:30 a.m. and 6:30 p.m. Saturday and Sunday services are not provided for Route 5.

Future

There are no transit service changes in the site vicinity based on available plans.

Chapter 5. Traffic Generation Forecast

This section of the analysis documents the proposed weekday daily, AM, and PM peak hour traffic generated by the proposed project.

Trip Generation

The proposed project would include demolition of the existing 220-kV substation and replaced with the proposed 500-kV substation, through three phases of construction.

Project trip generation is based on peak constriction times during the three phases of construction. To develop daily and peak hour trip rates, anticipated construction vehicles and worker trips were estimated based on the various construction components to be completed during the each phase. It is anticipated that a majority of workers would be on-site before 7 AM but that most workers would leave the site at approximately 5 PM. Also, approximately 10 percent of workers are anticipated to meet off-site and carpool to the site. It was assumed that workers carpool to the site would have an average vehicle occupancy of 2. It is anticipated that all workers would be inbound during the AM peak hour and outbound during the PM peak hour. The resulting worker trip generation for each phase is shown in Table 15.

Table 15. Trip Generation for Workers

		AM Peak Hour			PM Peak Hour		
	Daily	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Phase 1 – 2016							
Worker Passenger Car	850	79	0	79	0	346	346
Less 10%	85	8	0	8	0	35	35
Net New Worker Passenger Car	765	71	0	71	0	311	311
Off-Site Worker	43	4	0	4	0	18	18
Total	**808**	**75**	**0**	**75**	**0**	**329**	**329**
Phase 2 – 2018							
Worker Passenger Car	506	50	0	50	0	203	203
Less 10%	51	5	0	5	0	20	20
Net New Worker Passenger Car	455	45	0	45	0	183	183
Off-Site Worker	26	3	0	3	0	10	10
Total	**481**	**48**	**0**	**48**	**0**	**193**	**193**
Phase 3 – 2019							
Worker Passenger Car	328	32	0	32	0	132	132
Less 10%	33	3	0	3	0	13	13
Net New Worker Passenger Car	295	29	0	29	0	119	119
Off-Site Worker	17	2	0	2	0	7	7
Total	**312**	**31**	**0**	**31**	**0**	**126**	**126**

Source: Insignia Environmental, July 2015.

As shown in the table it is anticipated that phase 1 of the project would generate approximately 808 daily worker trips with 75 inbound during the AM peak hour and 329 outbound during the PM peak hour. Phase 2 of the project is anticipated to generate approximately 481 daily trips with approximately 48 inbound during the AM peak hour and 193 outbound during the PM peak hour. Finally, phase three is anticipated to generate approximately 312 daily trips with 31 inbound during the AM peak hour and 126 outbound during the PM peak hour.

For construction truck and heavy vehicle trips it was estimated that approximately 10 percent of the daily construction vehicles would occur during the AM and PM peak hours and were divided into two categories. Truck trips are anticipated to be associated with the substation work as well as the transmission/subtransmission work. It was assumed that all trucks that entered during the peak hour would exit during the peak hour.

To properly assess the truck traffic generated by the various construction phases of the proposed project against intersection capacity during the AM and PM peak commute hours, which contain primarily passenger cars, a Passenger Car Equivalence (PCE) factor was applied to all trucks generated by the proposed project. A PCE factor of 2.0 was applied to 2 or 3 axle medium trucks (i.e., one medium truck is equivalent to two passenger cars) such as the concrete trucks. A PCE factor of 3.0 was applied to trucks with 4 axels or more including single unit and multi-trailer units. The resulting phase 1, 2, and 3 truck trip generation is summarized in Table 16, Table 17, and Table 18, respectively.

Table 16. Truck Trip Generation – Phase 1

		AM Peak Hour			PM Peak Hour		
Vehicle Type	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Substation							
Medium Truck	236	12	12	24	12	12	24
2.0 PCE	*472*	*24*	*24*	*48*	*24*	*24*	*48*
Large Truck	230	11	11	22	11	11	22
3.0 PCE	*690*	*33*	*33*	*66*	*33*	*33*	*66*
Subtotal (With PCE)	**1,162**	**57**	**57**	**114**	**57**	**57**	**114**
Transmission/Subtransmission							
Medium Truck	30	1	1	2	1	1	2
2.0 PCE	*60*	*2*	*2*	*4*	*2*	*2*	*4*
Large Truck	38	1	1	2	1	1	2
3.0 PCE	*114*	*3*	*3*	*6*	*3*	*3*	*6*
Subtotal (With PCE)	**174**	**5**	**5**	**10**	**5**	**5**	**10**
Total New Truck Trips	**1,336**	**62**	**62**	**124**	**62**	**62**	**124**

Source: Insignia Environmental, July 2015.

As shown in Table 16, during phase 1 the project is anticipated to generate approximately 1,336 passenger car equivalent trips during with approximately 124 during the AM and PM peak hour.

Table 17. Truck Trip Generation – Phase 2

Vehicle Type	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Substation							
Medium Truck	42	2	2	4	2	2	4
2.0 PCE	*84*	*4*	*4*	*8*	*4*	*4*	*8*
Large Truck	32	1	1	2	1	1	2
3.0 PCE	*96*	*3*	*3*	*6*	*3*	*3*	*6*
Subtotal (With PCE)	**180**	**7**	**7**	**14**	**7**	**7**	**14**
Transmission/Subtransmission							
Medium Truck	28	1	1	2	1	1	2
2.0 PCE	*56*	*2*	*2*	*4*	*2*	*2*	*4*
Large Truck	24	1	1	2	1	1	2
3.0 PCE	*72*	*3*	*3*	*6*	*3*	*3*	*6*
Subtotal (With PCE)	**128**	**5**	**5**	**10**	**5**	**5**	**10**
Total New Truck Trips	**308**	**12**	**12**	**24**	**12**	**12**	**24**

Source: Insignia Environmental, July 2015.

As shown in Table 17, during phase 2 the project is anticipated to generate approximately 308 passenger car equivalent trips during with approximately 24 during the AM and PM peak hour.

Table 18. Truck Trip Generation – Phase 3

Vehicle Type	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Substation							
Medium Truck	42	2	2	4	2	2	4
2.0 PCE	*84*	*4*	*4*	*8*	*4*	*4*	*8*
Large Truck	228	11	11	22	11	11	22
3.0 PCE	*684*	*33*	*33*	*66*	*33*	*33*	*66*
Subtotal (With PCE)	**768**	**37**	**37**	**74**	**37**	**37**	**74**
Transmission/Subtransmission							
Medium Truck	0	0	0	0	0	0	0
2.0 PCE	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Large Truck	2	0	0	0	0	0	0
3.0 PCE	*6*	*0*	*0*	*0*	*0*	*0*	*0*
Subtotal (With PCE)	**6**	**0**	**0**	**0**	**0**	**0**	**0**
Total New Truck Trips	**774**	**37**	**37**	**74**	**37**	**37**	**74**

Source: Insignia Environmental, July 2015.

As shown in Table 18, during phase 3 the project is anticipated to generate approximately 774 passenger car equivalent trips during with approximately 37 during the AM and PM peak hour.

The total combine trip generation associated with each phase is summarized in Table 19.

Table 19. Trip Generation Summary by Phase

		AM Peak Hour			PM Peak Hour		
	Daily	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Phase 1 – 2016							
Net New Worker Passenger Car	765	71	0	71	0	311	311
Off-Site Worker	43	4	0	4	0	18	18
Medium Truck (PCE Equivalent)	532	26	26	52	26	26	52
Large Truck (PCE Equivalent)	804	36	36	72	36	36	72
Total	**2,144**	**140**	**62**	**202**	**62**	**391**	**453**
Phase 2 – 2018							
Net New Worker Passenger Car	455	45	0	45	0	183	183
Off-Site Worker	26	3	0	3	0	10	10
Medium Truck (PCE Equivalent)	140	6	6	12	6	6	12
Large Truck (PCE Equivalent)	168	6	6	12	6	6	12
Total	**789**	**60**	**12**	**72**	**12**	**205**	**217**
Phase 3 – 2019							
Net New Worker Passenger Car	295	29	0	29	0	119	119
Off-Site Worker	17	2	0	2	0	7	7
Medium Truck (PCE Equivalent)	84	4	4	8	4	4	8
Large Truck (PCE Equivalent)	690	33	33	66	33	33	66
Total	**1,086**	**68**	**37**	**105**	**37**	**163**	**200**

Source: Insignia Environmental, July 2015.

Chapter 6. Traffic Distribution and Assignment

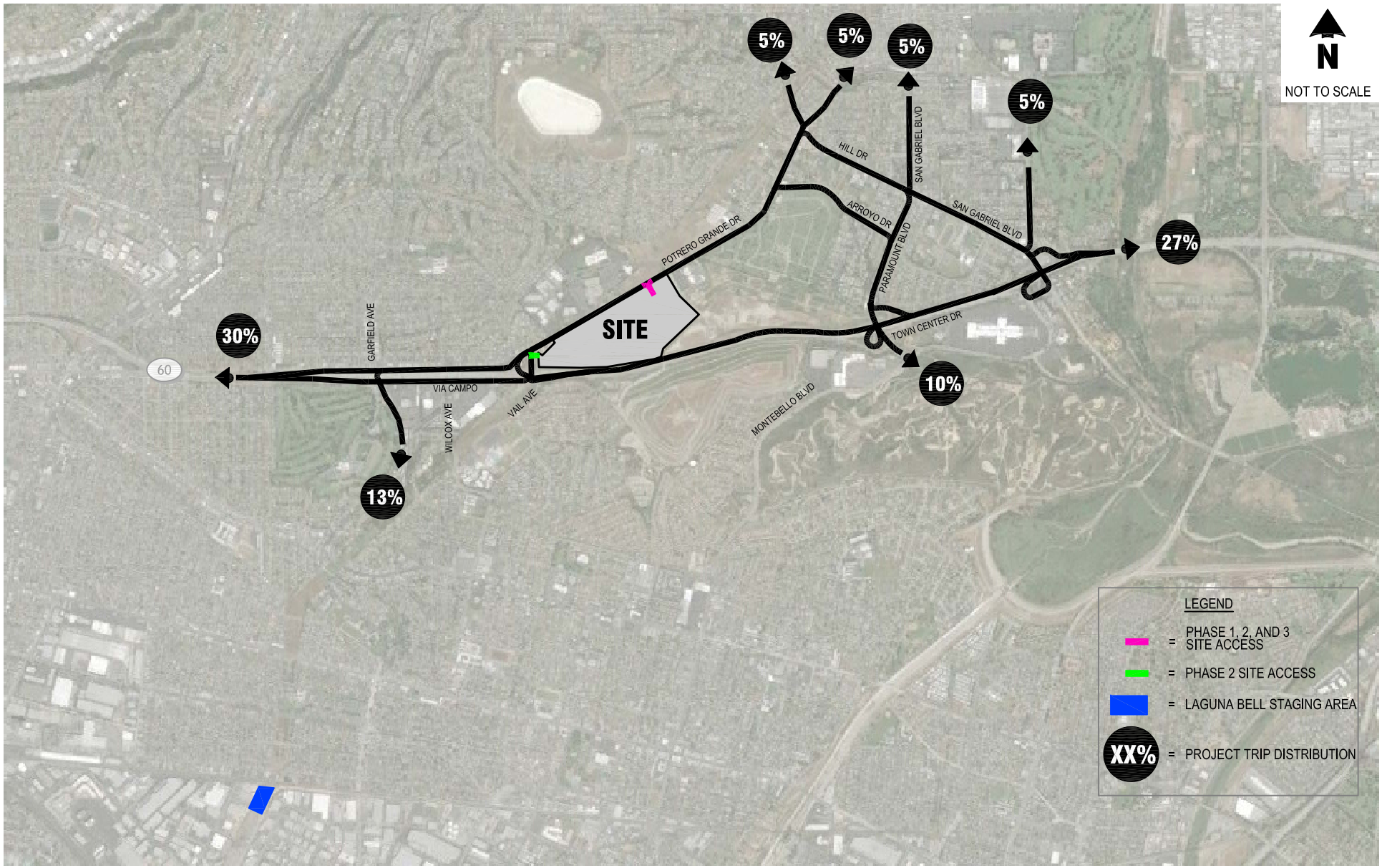
This section of the analysis documents the anticipated trip distributed to adjacent roadways and intersections within the study area for the weekday AM and PM peak hour.

Trip Distribution & Assignment

Project trips were distributed to the network based on existing counts and anticipated travel patterns. Different travel patterns are associated with worker trips, off-site worker trips, and the truck trips. The anticipated worker trip distribution is shown in Figure 9. As shown on Figure 9, the driveway along Potrero Grande Drive was assumed during all phases, and the driveway along Markland Drive was assumed during phase 2 of the project. The driveway on Markland Drive is assumed to be a right-in/right-out driveway only and would not be utilized by truck traffic. Both driveways were accounted for in the trip assignment for phase 2 as shown on Figure 13, it is not anticipated that the overall trip distribution shown on Figure 9 would differ for phase 2. It is anticipated that approximately 25 percent of workers would utilize the driveway during the AM peak hour and approximately 40 percent during the PM peak hour. The anticipated off-site worker distribution is based on the location of the two off-site staging areas and the distribution is shown on Figure 10. The truck trip distribution is anticipated to be more regional and is assigned 50 percent to the west and 50 percent to the east along SR 60. The truck trip distribution was developed utilizing designated truck routes with the exception of Hill Drive which will be treated as a temporary truck route. The truck trip distribution is shown on Figure 11. The resulting trip assignment for phases 1, 2, and 3 is shown on Figure 12, Figure 13, and Figure 14, respectively.

Traffic Volumes

The project traffic was added to future (2016, 2018, and 2019) without-project weekday AM and PM peak hour traffic volumes to form the basis of the with-project analysis. The resulting phase 1, 2, and 3 peak hour traffic volumes are shown on Figure 15, Figure 16, and Figure 17, respectively.



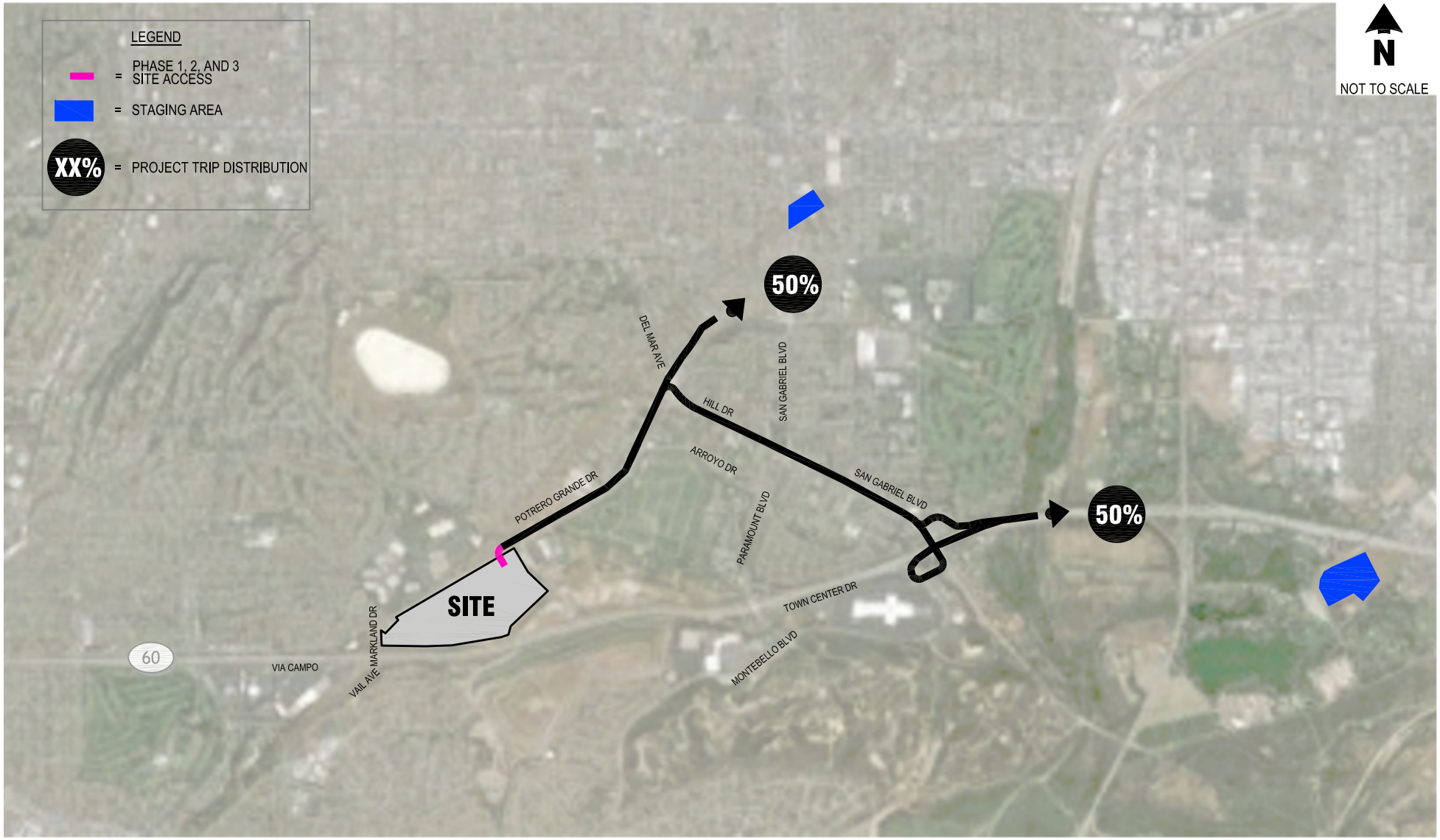
Worker Trip Distribution

Mesa 500-kV Substation

FIGURE
9

transpogroup
WHAT TRANSPORTATION CAN BE.

Aug 26, 2015 - 4:20pm jessical Q:\Projects\15\15238.00 - SCE Mesa Substation Expansion\Graphics\15238_Graphics.dwg Layout: Figure 9 Worker Distribution



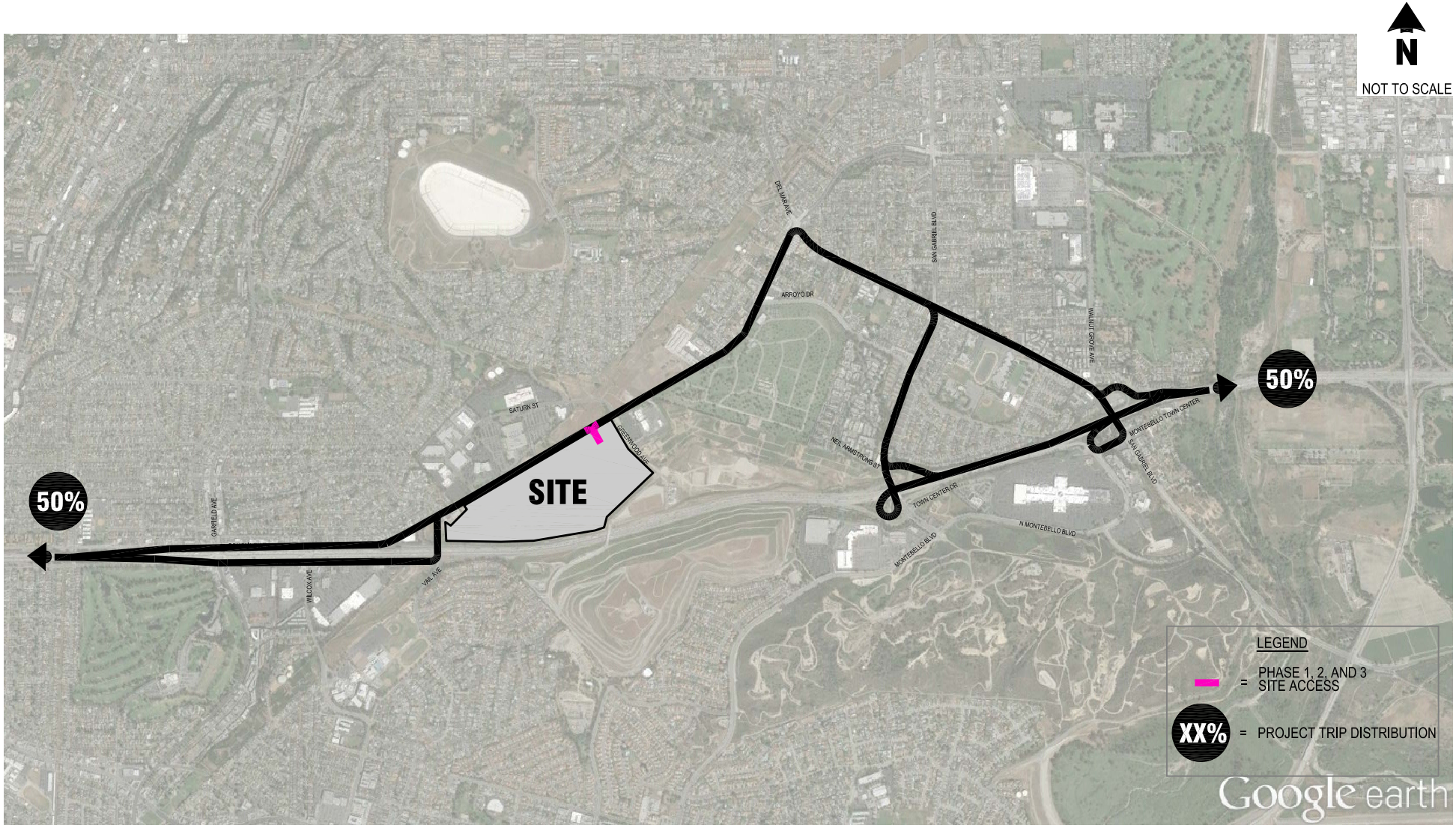
Off-Site Worker Trip Distribution

Mesa 500-kV Substation

FIGURE
10

transpogroup
WHAT TRANSPORTATION CAN BE.

Aug 18, 2015 - 3:13pm jessical Q:\Projects\15\15238.00 - SCE Mesa Substation Expansion\Graphics\15238_Graphics.dwg Layout: Figure 10 Off-Site Worker Dist



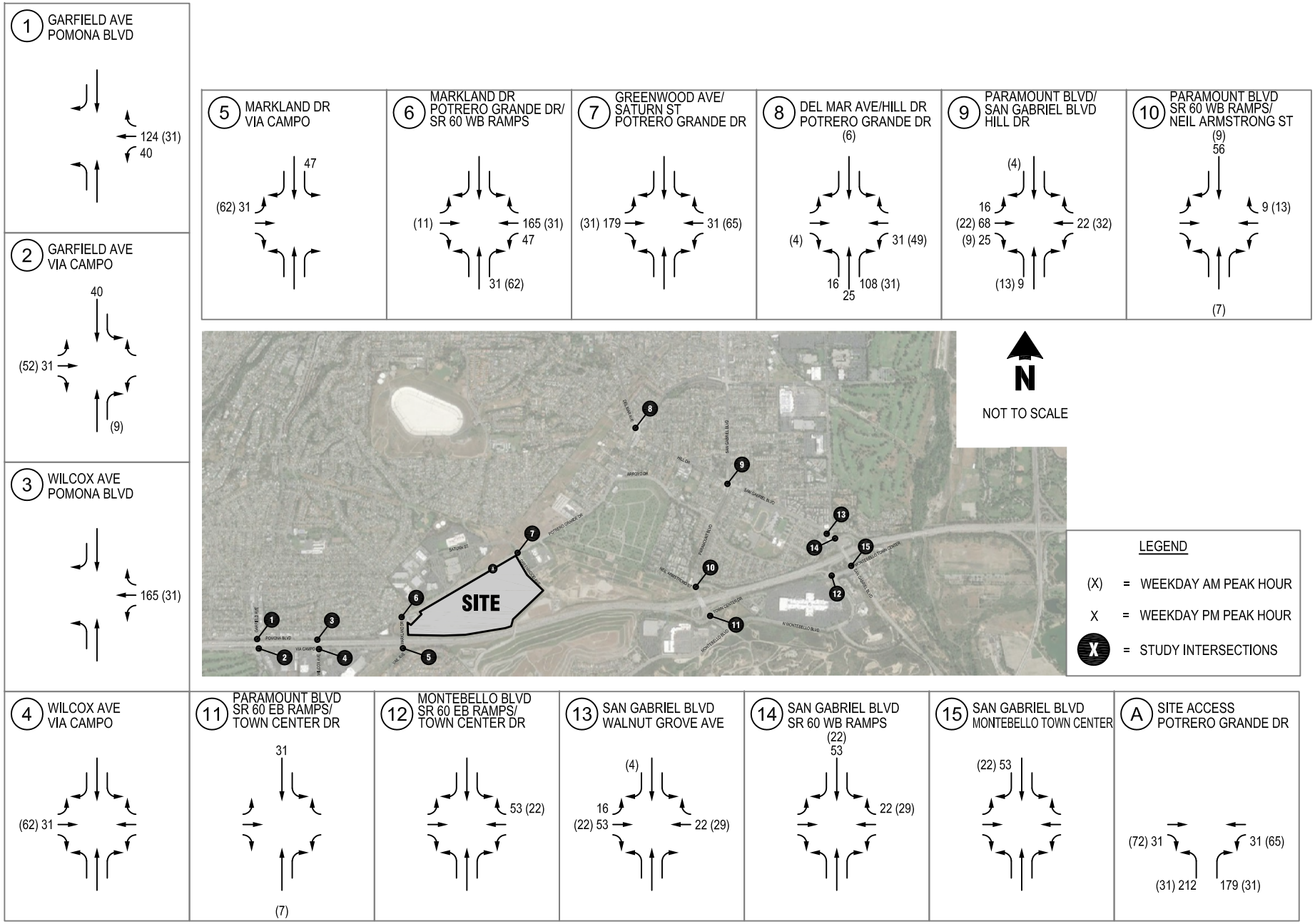
Truck Trip Distribution

Mesa 500-kV Substation

FIGURE
11

transpogroup
WHAT TRANSPORTATION CAN BE.

Jul 17, 2015 - 10:51am jessical Q:\Projects\15\15238.00 - SCE Mesa Substation Expansion\Graphics\15238_Graphics.dwg Layout: Figure 11 Truck Dist

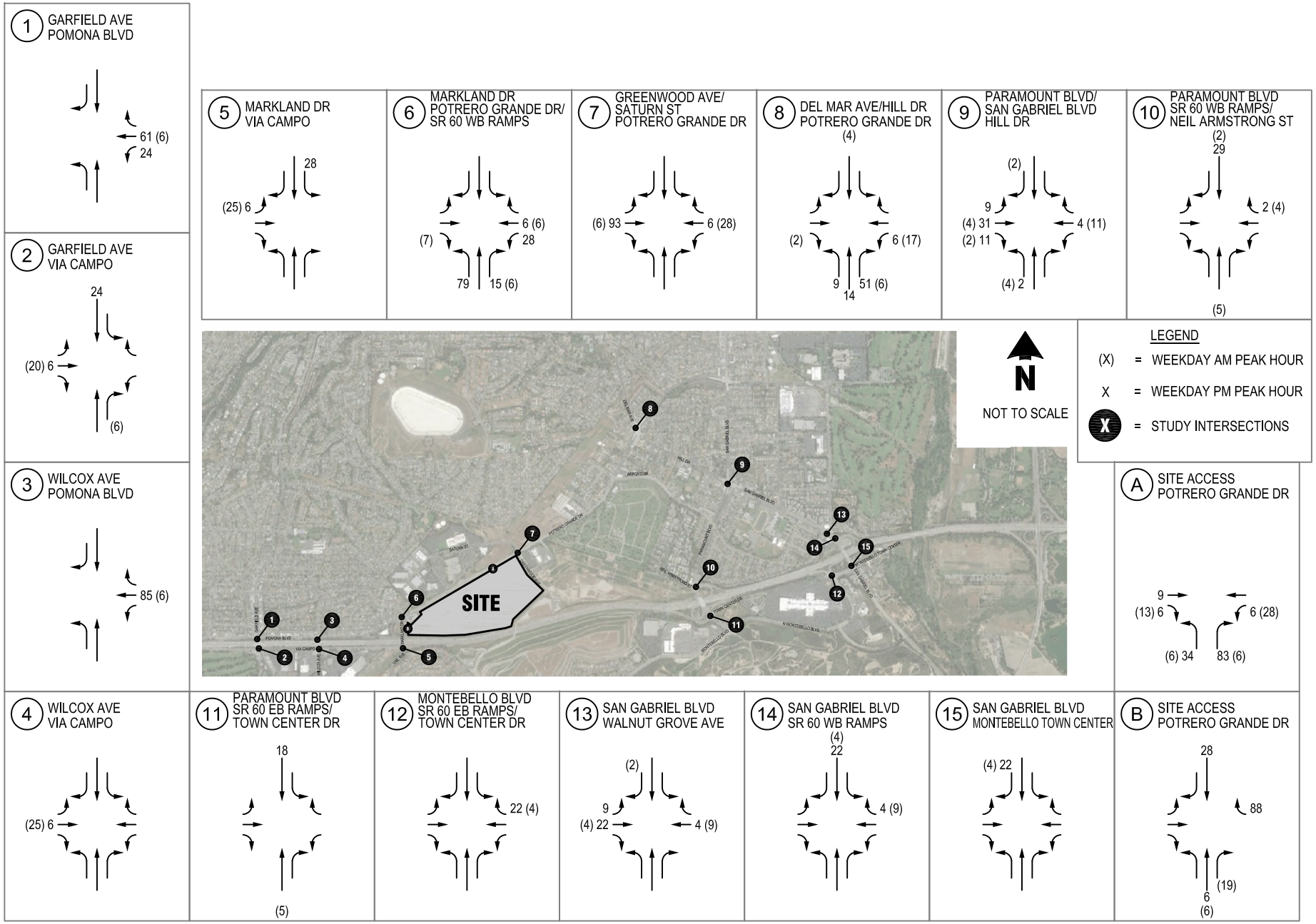


Phase 1 Project Trip Assignment

FIGURE **12**

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.

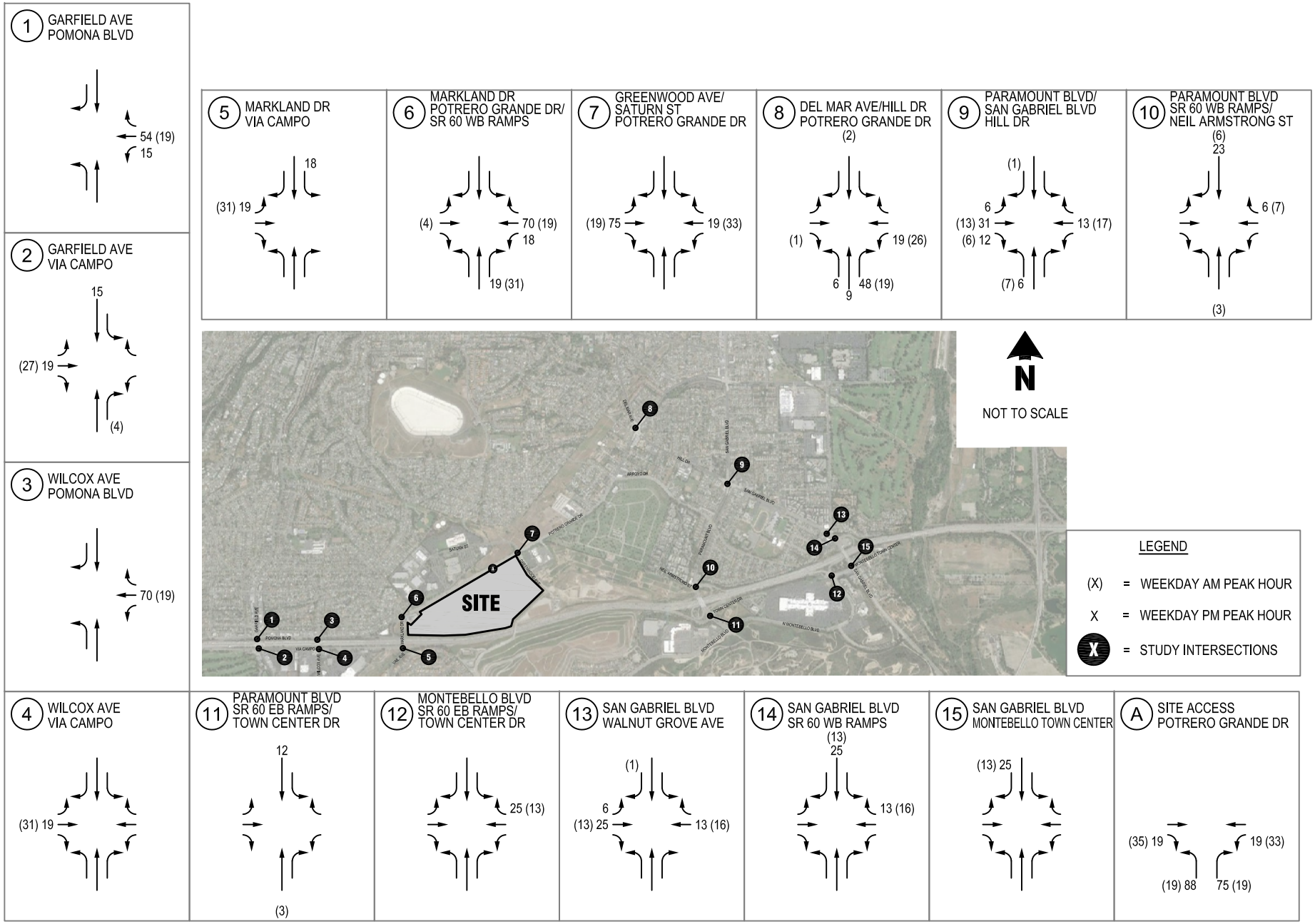


Phase 2 Project Trip Assignment

FIGURE **13**

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.

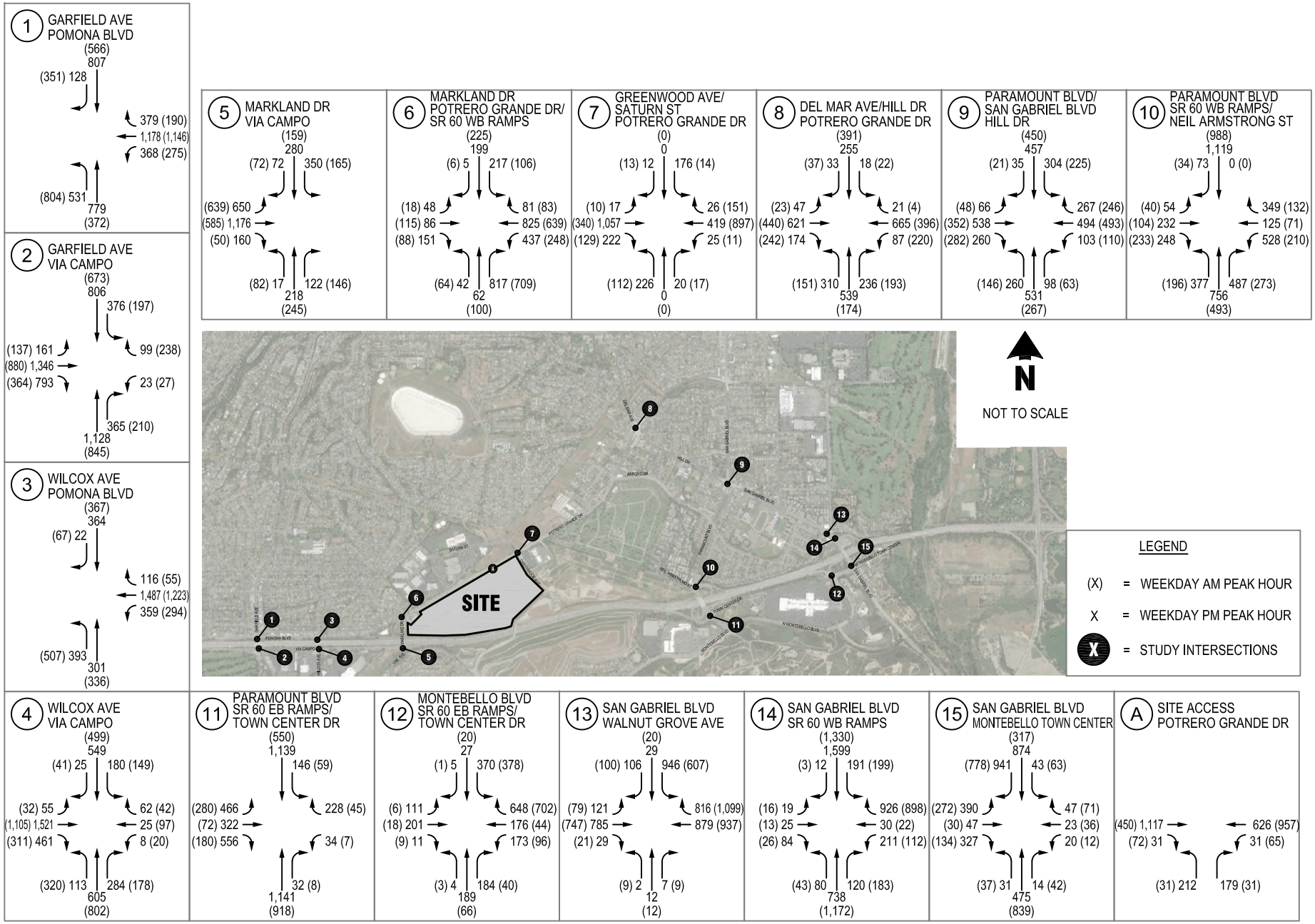


Phase 3 Project Trip Assignment

Mesa 500-kV Substation

FIGURE
14

transpogroup
WHAT TRANSPORTATION CAN BE.

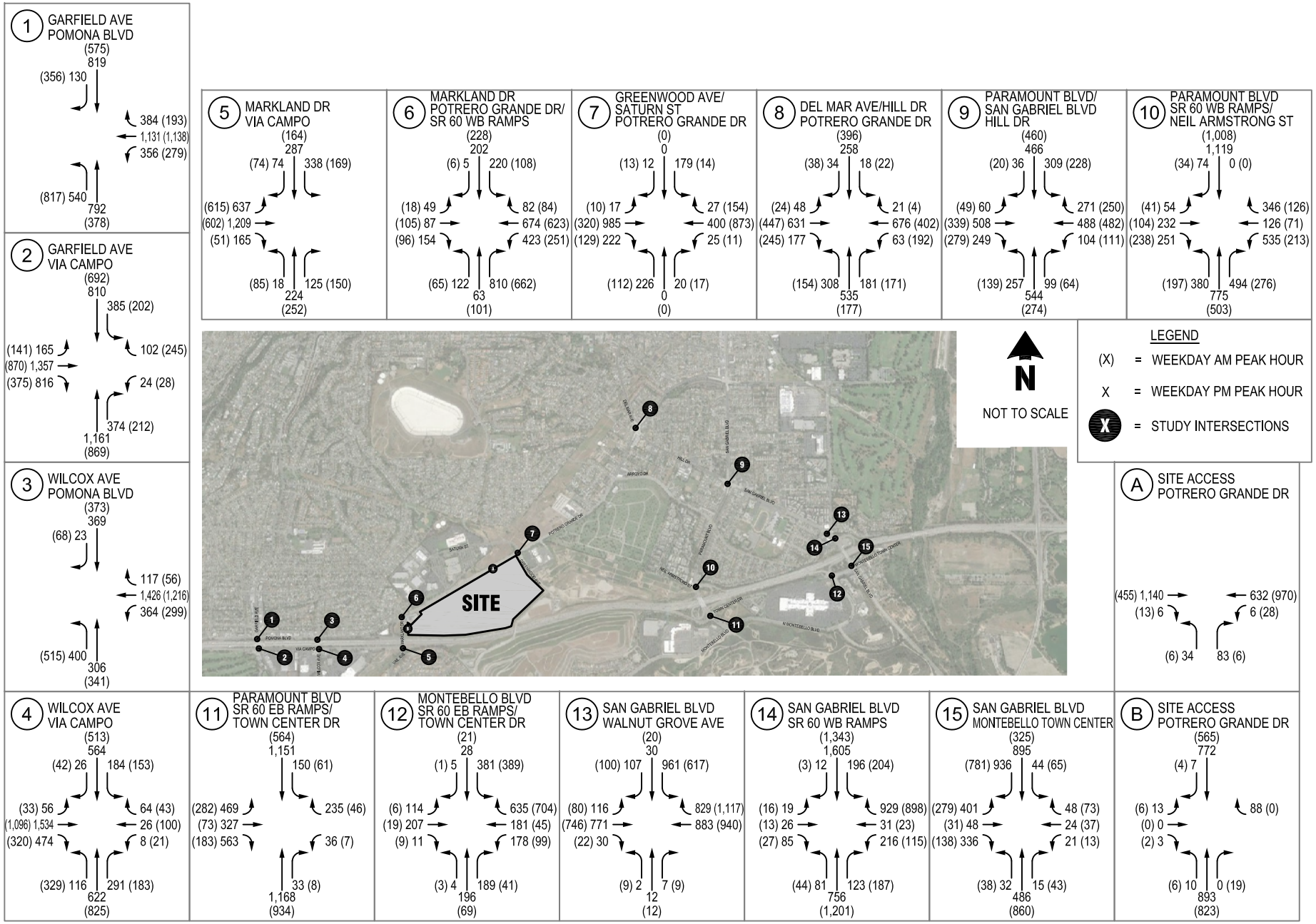


Future (2016) Phase 1 With-Project Peak Hour Traffic Volumes

FIGURE 15

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.

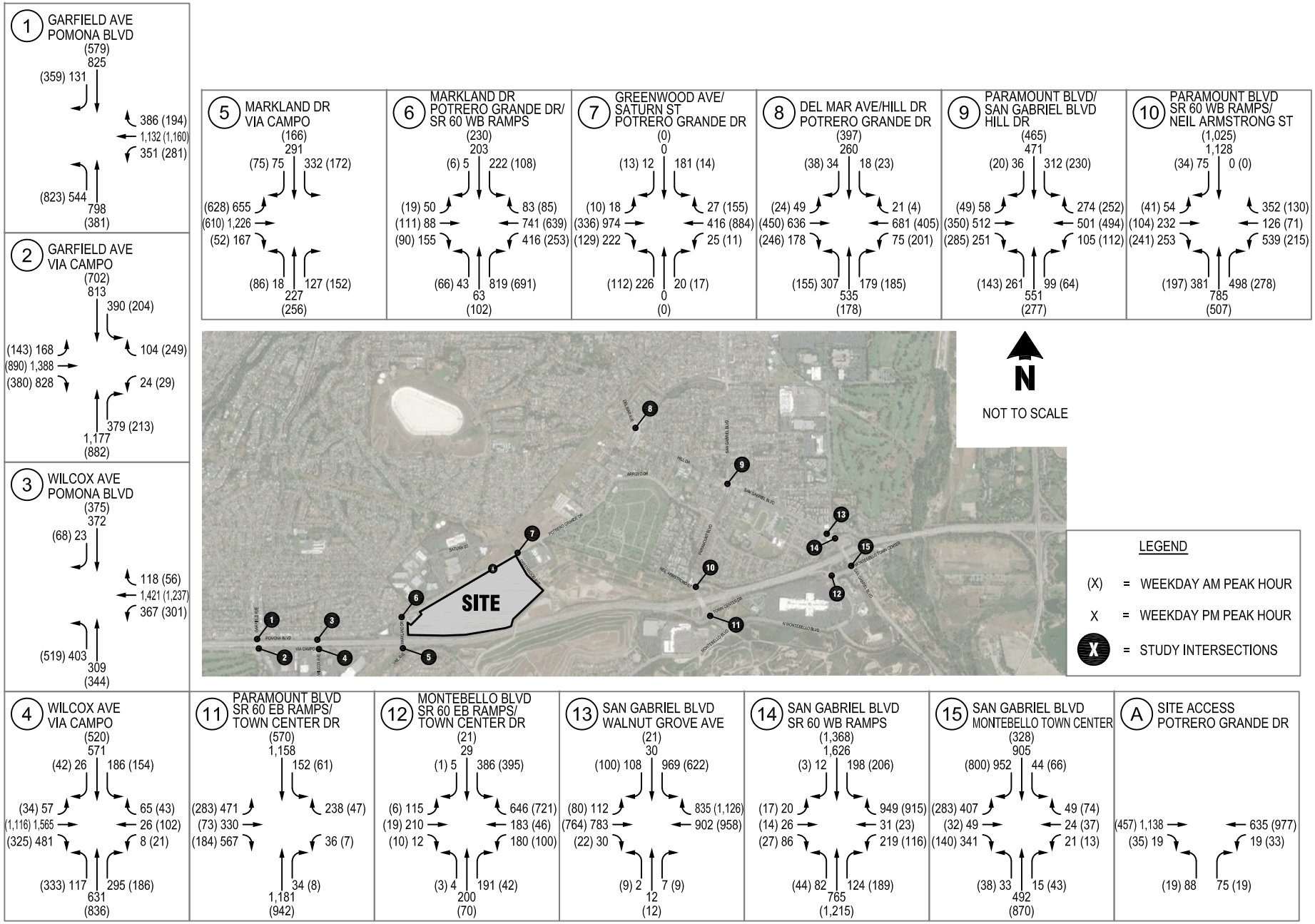


Future (2018) Phase 2 With-Project Peak Hour Traffic Volumes

FIGURE **16**

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.



Future (2019) Phase 3 With-Project Peak Hour Traffic Volumes

FIGURE 17

Mesa 500-kV Substation

transpogroup
WHAT TRANSPORTATION CAN BE.

Chapter 7. Traffic Impact Study/Project Impacts

This section of the analysis documents the proposed project's impacts on the surrounding street system and at study intersections. First, the previously estimated traffic generated by the proposed project was distributed and assigned to adjacent roadways and intersections within the study area for the weekday AM and PM peak hour. Next, project trips are added to future without-project traffic volumes and the potential impacts to traffic operations, safety, transit, and non-motorized facilities are identified.

Significance Criteria

The study area for this project spans a number of jurisdictions, each of which has established their own traffic impact significance criteria. The following sections describe the traffic impact significance criteria by jurisdiction. Based on the significance criteria for each jurisdiction, the ICU criteria described below was used to determine if there are impacts at intersections.

City of Montebello

The City of Montebello has specific thresholds for project-related increases in volumes and V/C ratio based on the future without and with-project operating levels. Table 20 describes the various criteria for the City of Montebello.

Table 20. City of Montebello Traffic Impact Significance Criteria

Existing LOS	Existing ICU Value	Project-Related Increase in ICU Value
A,B	0.00 – 0.690	Equal to or greater than 0.05
C	>0.700 – 0.790	Equal to or greater than 0.03
D	> 0.800 – 0.890	Equal to or greater than 0.02
E, F	> 0.900 or greater	Equal to or greater than 0.005

Source: *Guidelines for Process and Requirements for Traffic Impact Study Reports*, City of Montebello, December 2004.

City of Monterey Park

The City of Monterey Park has specific thresholds for project-related increases in volumes and V/C ratio based on the future without and with-project operating levels. Table 21 describes the various criteria for the City of Monterey Park.

Table 21. City of Monterey Park Traffic Impact Significance Criteria

Existing LOS	Existing ICU Value	Project-Related Increase in ICU Value
A,B	0.00 – 0.700	Equal to or greater than 0.06
C	>0.701 – 0.800	Equal to or greater than 0.04
D	> 0.801 – 0.900	Equal to or greater than 0.02
E, F	> 0.901 or greater	Equal to or greater than 0.01

Source: City of Monterey Park from the *Traffic Study for Montebello Hills Specific Plan*, KOA, July 2014.

City of Rosemead

The City of Rosemead *Transportation Impact Analysis Guidelines* (February 2007) has a specific threshold for project-related increases in volumes and V/C ratio based on the future without and with-project operating levels. For intersections operating at LOS F (V/C greater than 1.0), a project is considered to have an impact if the project-related V/C increase is equal to or greater than 0.020.

Los Angeles (LA) County

LA County has a specific threshold for project-related increases in volumes and V/C ratio based on the future without and with-project operating levels. Table 22 describes the various criteria for the LA County.

Table 22. LA County Traffic Impact Significance Criteria

Existing LOS	Existing ICU Value	Project-Related Increase in ICU Value
C	0.700 – 0.800	Equal to or greater than 0.04
D	< 0.800 – 0.900	Equal to or greater than 0.02
E, F	< 0.900 or greater	Equal to or greater than 0.01

Source: *Traffic Impact Analysis Report Guidelines*, LA County, January 1997.

Traffic Operations – Phase 1

The following sections outline the anticipated intersection and midblock operations for phase 1.

Intersection Operations

An intersection operations analysis was conducted in the study area to evaluate the future (2016) without and with-project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously. Table 23 provides a comparison between the future 2016 without and with-project operations for the AM peak hour and Table 24 provides a comparison between the future 2016 without and with-project operations for the PM peak hour. The tables also describe the intersection traffic control and which analysis method was utilized. The on/off-ramps with SR 60 were evaluated using the ICU and HCM 2010 methodologies per Caltrans requirements. For purposes of this analysis it was assumed that all site access locations are stop controlled on the side-street, therefore the HCM 2010 methodology was used. Detailed LOS and V/C worksheets are included in Appendix B.

Table 23. Future 2016 AM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2016 Without-Project LOS[1]	2016 Without-Project V/C[2] or Delay[3]	2016 With-Project LOS[1]	2016 With-Project V/C[2] or Delay[3]
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	D	0.888	D	0.894
2. Garfield Avenue/Via Campo	ICU	Signal	C	0.762	C	0.779
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.738	C	0.744
4. Wilcox Avenue/Via Campo	ICU	Signal	D	0.807	D	0.820
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	C	0.717	C	0.756
	HCM	*Signal*	*C*	*21*	*C*	*22*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	B	0.643	B	0.692
	HCM	*Signal*	*B*	*17*	*B*	*18*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.492	A	0.512
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.635	B	0.667
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	B	0.606	B	0.617
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	D	0.801	D	0.803
	HCM	*Signal*	*B*	*20*	*B*	*20*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	A	0.438	A	0.440
	HCM	*Signal*	*A*	*10*	*A*	*10*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	B	0.685	B	0.699
	HCM	*Signal*	*B*	*13*	*B*	*13*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	C	0.738	C	0.739
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	D	0.825	D	0.841
	HCM	*Signal*	*C*	*32*	*C*	*35*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	C	0.724	C	0.737
A. Site Access/Potrero Grande Drive	HCM	Stop	-	-	C	17

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 23, during the AM peak hour all intersections are anticipated to operate at the same LOS under future without and with-project conditions.

Table 24. Future 2016 PM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2016 Without-Project LOS[1]	2016 Without-Project V/C[2] or Delay[3]	2016 With-Project LOS[1]	2016 With-Project V/C[2] or Delay[3]
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	E	0.913	E	0.947
2. Garfield Avenue/Via Campo	ICU	Signal	F	1.085	F	1.097
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.732	C	0.766
4. Wilcox Avenue/Via Campo	ICU	Signal	D	0.846	D	0.853
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	E	0.986	F	1.025
	HCM	*Signal*	*D*	*47*	*E*	*55*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	D	0.821	D	0.840
	HCM	*Signal*	*C*	*31*	*D*	*37*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	B	0.608	B	0.664
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.647	B	0.677
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	C	0.748	C	0.777
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	F	1.236	F	1.248
	HCM	*Signal*	*F*	*123*	*F*	*124*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	D	0.865	D	0.874
	HCM	*Signal*	*C*	*22*	*C*	*22*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	C	0.730	C	0.762
	HCM	*Signal*	*B*	*18*	*B*	*18*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	C	0.785	D	0.801
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	E	0.941	E	0.964
	HCM	*Signal*	*D*	*43*	*D*	*48*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	E	0.900	E	0.933
A. Site Access/Potrero Grande Drive	HCM	Stop	-	-	F	279

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 24, during the PM peak hour all intersections are anticipated to operate at the same LOS under future without and with-project conditions with the exception of the Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp intersection. The Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp intersection is anticipated to degrade from LOS E to LOS F under future with-project conditions.

Table 25. Phase 1 2016 AM Peak Hour Project Impact Significance

Intersection	Jurisdiction	Baseline LOS[1]	Without-Project	With-Project	V/C[2] Delta	Exceedance of Standard?
1. Garfield Avenue/Pomona Boulevard	Montebello	D	0.888	0.894	0.006	Yes
2. Garfield Avenue/Via Campo	Montebello	C	0.762	0.779	0.017	Yes
3. Wilcox Avenue/Pomona Boulevard	Montebello	C	0.738	0.744	0.006	No
4. Wilcox Avenue/Via Campo	Montebello	D	0.807	0.82	0.013	No
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	Montebello	C	0.717	0.756	0.039	Yes
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	Monterey Park	B	0.643	0.692	0.049	Yes
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	Monterey Park	A	0.492	0.512	0.02	No
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	LA County	B	0.635	0.667	0.032	No
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	LA County	B	0.606	0.617	0.011	No
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	Montebello	D	0.801	0.803	0.002	No
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	Montebello	A	0.438	0.44	0.002	No
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	Rosemead	B	0.685	0.699	0.014	No
13. Walnut Grove Avenue/San Gabriel Boulevard	Rosemead	C	0.738	0.739	0.001	No
14. San Gabriel Boulevard/SR 60 WB Ramps	Rosemead	D	0.825	0.841	0.016	No
15. San Gabriel Boulevard/Town Center Drive	Rosemead	C	0.724	0.737	0.013	No

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.

As shown in Table 25 phase 1 of the project will exceed adopted standards at 4 intersections during the AM peak hour. Impacts area anticipated that the following intersections:

- Garfield Avenue/Pomona Boulevard
- Garfield Avenue/Via Campo
- Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
- Markland Drive/Potrero Grande-SR 60 WB Off-Ramp

All impacts are associated with construction traffic and will be temporary and therefore not significant. All LOS results are provided for the anticipated peak construction periods for each phase of construction for the proposed project. Temporary mitigation measures contained in a Construction Traffic Management Plan will be implemented to reduce the temporary impacts of construction-related traffic. The specifics of the Construction Traffic Management Plan are discussed in Chapter 4 – Findings and Recommendations.

Table 26. Phase 1 2016 PM Peak Hour Project Impact Significance

Intersection	Jurisdiction	Baseline LOS[1]	Without-Project	With-Project	V/C[2] Delta	Exceedance of Standard?
1. Garfield Avenue/Pomona Boulevard	Montebello	E	0.913	0.947	0.034	Yes
2. Garfield Avenue/Via Campo	Montebello	F	1.085	1.097	0.012	Yes
3. Wilcox Avenue/Pomona Boulevard	Montebello	C	0.732	0.766	0.034	Yes
4. Wilcox Avenue/Via Campo	Montebello	D	0.846	0.853	0.007	No
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	Montebello	E	0.986	1.025	0.039	Yes
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	Monterey Park	D	0.821	0.84	0.019	No
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	Monterey Park	B	0.608	0.664	0.056	No
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	LA County	B	0.647	0.677	0.03	No
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	LA County	C	0.748	0.777	0.029	No
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	Montebello	F	1.236	1.248	0.012	Yes
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	Montebello	D	0.865	0.874	0.009	No
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	Rosemead	C	0.73	0.762	0.032	No
13. Walnut Grove Avenue/San Gabriel Boulevard	Rosemead	C	0.785	0.801	0.016	No
14. San Gabriel Boulevard/SR 60 WB Ramps	Rosemead	E	0.941	0.964	0.023	No
15. San Gabriel Boulevard/Town Center Drive	Rosemead	E	0.724	0.737	0.013	No

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 26 phase 1 of the project is anticipated to exceed adopted standards at 5 intersections during the PM peak hour. Impacts area anticipated at the following intersections:

- Garfield Avenue/Pomona Boulevard
- Garfield Avenue/Via Campo
- Wilcox Avenue/Pomona Boulevard
- Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
- Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps

All impacts are associated with construction traffic and will be temporary and therefore not significant.

Midblock and Freeway Mainline Analysis

A midblock roadway segment and freeway mainline analysis was also conducted. The *Highway Capacity Software* (HCS 2010) Multi-Lane Highways module, consistent with HCM 2010 methodology, was used to determine the midblock LOS of each study segment for future (2016) without and with-project. The analysis determines the midblock segment LOS based on the density of vehicles on the roadway segment in terms of passenger-cars per mile per lane (pc/mi/ln). AM and PM peak hour midblock traffic volumes were derived for each analysis scenario and input into the HCS software. In addition, other midblock geometrics such as number lanes, lane widths, roadway grades, and number of access points, were entered into HCS.

Table 27 presents the results of the midblock analysis for the study segments for future (2016) without and with-project conditions. The HCS worksheets are provided in Appendix C.

Table 27. Phase 1 (2016) HCS Midblock and Freeway Mainline Summary

	AM Peak Hour Eastbound		AM Peak Hour Westbound		PM Peak Hour Eastbound		PM Peak Hour Westbound	
	LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density
Potrero Grande Drive: Markland Drive to Greenwood Avenue								
Future 2016 Baseline	A	5.0	A	9.7	B	12.4	A	6.3
Future 2016 + Phase 1	A	5.3	A	10.3	B	14.4	A	6.6
SR 60: West of Garfield Avenue								
Future 2016 Baseline	D	29.5	F	58.4	E	36.8	E	44.5
Future 2016 + Phase 1	D	29.8	F	59.0	E	37	E	45.9
SR 60: Garfield Avenue to Paramount Boulevard								
Future 2016 Baseline	C	21.8	D	33.6	C	25.9	D	29.4
Future 2016 + Phase 1	C	21.8	D	33.7	D	26.1	D	29.4
SR 60: Paramount Boulevard to San Gabriel Boulevard								
Future 2016 Baseline	C	21.0	D	31.3	C	24.5	D	27.6
Future 2016 + Phase 1	C	21.1	D	31.4	C	24.5	D	27.7
SR 60: East of San Gabriel Boulevard								
Future 2016 Baseline	C	22.3	D	34.3	C	25.6	D	29.6
Future 2016 + Phase 1	C	22.3	D	34.5	C	25.8	D	29.7

Notes: Analyzed per multi-lane module in HCS 2010
1. Density is passenger cars per mile per lane (pc/mi/ln)

As shown in Table 27, all roadway segments are anticipated to operate at the same LOS as under baseline 2016 conditions in both directions with the exception of the SR 60 from Garfield Avenue to Paramount Boulevard segment in the eastbound direction. Segments are anticipated to experience minor increases in pc/mi/ln. The segment of SR 60 from Garfield Avenue to Paramount Boulevard is anticipated to degrade from LOS C to LOS D with a 0.2 increase in pc/mi/ln.

All impacts are associated with construction traffic and will be temporary and therefore not significant.

Traffic Operations – Phase 2

The following sections outline the anticipated intersection and midblock operations for phase 2.

Intersection Operations

An intersection operations analysis was conducted in the study area to evaluate the future (2018) without and with-project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously. Table 28 provides a comparison between the future 2018 without and with-project operations for the AM peak hour and Table 29 provides a comparison between the future 2018 without and with-project operations for the PM peak hour. Detailed LOS and V/C worksheets are included in Appendix B.

Table 28. Future 2018 AM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2018 Without-Project LOS[1]	2018 Without-Project V/C[2] or Delay[3]	2018 With-Project LOS[1]	2018 With-Project V/C[2] or Delay[3]
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	E	0.900	E	0.902
2. Garfield Avenue/Via Campo	ICU	Signal	C	0.781	C	0.787
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.743	C	0.744
4. Wilcox Avenue/Via Campo	ICU	Signal	D	0.827	D	0.832
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	C	0.732	C	0.748
	HCM	*Signal*	*C*	*22*	*C*	*22*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	B	0.643	B	0.651
	HCM	*Signal*	*B*	*17*	*B*	*17*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.497	A	0.506
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.643	B	0.655
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	B	0.616	B	0.618
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	D	0.813	D	0.813
	HCM	*Signal*	*C*	*22*	*C*	*22*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	A	0.445	A	0.446
	HCM	*Signal*	*B*	*10*	*B*	*10*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	C	0.702	C	0.705
	HCM	*Signal*	*B*	*13*	*B*	*13*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	C	0.748	C	0.748
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	D	0.842	D	0.846
	HCM	*Signal*	*D*	*37*	*D*	*38*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	C	0.741	C	0.744
A. Site Access/Potrero Grande Drive	HCM	Stop	-	-	C	15
B. Markland Drive/Site Access	HCM	Stop	-	-	C	18

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 28, during the AM peak hour all intersections are anticipated to operate at the same LOS under future 2018 without and with-project conditions.

Table 29. Future 2018 PM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2018 Without-Project LOS[1]	2018 Without-Project V/C[2] or Delay[3]	2018 With-Project LOS[1]	2018 With-Project V/C[2] or Delay[3]
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	E	0.926	E	0.943
2. Garfield Avenue/Via Campo	ICU	Signal	F	1.113	F	1.120
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.741	C	0.759
4. Wilcox Avenue/Via Campo	ICU	Signal	D	0.866	D	0.867
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	F	1.009	F	1.028
	HCM	*Signal*	*D*	*50*	*D*	*53*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	D	0.831	D	0.840
	HCM	*Signal*	*C*	*32*	*D*	*46*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	B	0.613	B	0.642
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.656	B	0.665
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	C	0.759	C	0.772
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	F	1.250	F	1.256
	HCM	*Signal*	*F*	*127*	*F*	*127*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	D	0.879	D	0.885
	HCM	*Signal*	*C*	*24*	*C*	*24*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	C	0.748	C	0.762
	HCM	*Signal*	*B*	*18*	*B*	*18*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	C	0.797	D	0.805
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	E	0.960	E	0.968
	HCM	*Signal*	*D*	*52*	*D*	*53*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	E	0.923	E	0.937
A. Site Access/Potrero Grande Drive	HCM	Stop	-	-	C	24
B. Markland Drive/Site Access	HCM	Stop	-	-	E	36

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 29, during the PM peak hour all intersections are anticipated to operate at the same LOS under future 2018 without and with-project conditions.

Table 30. Phase 2 2018 AM Peak Hour Project Impact Significance

Intersection	Jurisdiction	Baseline LOS[1]	Without-Project	With-Project	V/C[2] Delta	Exceedance of Standard?
1. Garfield Avenue/Pomona Boulevard	Montebello	E	0.900	0.902	0.002	No
2. Garfield Avenue/Via Campo	Montebello	C	0.781	0.787	0.006	Yes
3. Wilcox Avenue/Pomona Boulevard	Montebello	C	0.743	0.744	0.001	No
4. Wilcox Avenue/Via Campo	Montebello	D	0.827	0.832	0.005	No
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	Montebello	C	0.732	0.748	0.016	No
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	Monterey Park	B	0.643	0.651	0.008	No
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	Monterey Park	A	0.497	0.506	0.009	No
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	LA County	B	0.643	0.655	0.012	No
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	LA County	B	0.616	0.618	0.002	No
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	Montebello	D	0.813	0.813	0.000	No
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	Montebello	A	0.445	0.446	0.001	No
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	Rosemead	C	0.702	0.705	0.003	No
13. Walnut Grove Avenue/San Gabriel Boulevard	Rosemead	C	0.748	0.748	0.000	No
14. San Gabriel Boulevard/SR 60 WB Ramps	Rosemead	D	0.842	0.846	0.004	No
15. San Gabriel Boulevard/Town Center Drive	Rosemead	C	0.741	0.744	0.003	No

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.

As shown in Table 30 during the AM peak hour, impacts associated with phase 2 of the project are anticipated at the Garfield Avenue/Via Campo intersection and will be temporary.

All impacts are associated with construction traffic and will be temporary and therefore not significant.

Table 31. Phase 2 2018 PM Peak Hour Project Impact Significance

Intersection	Jurisdiction	Baseline LOS[1]	Without-Project	With-Project	V/C[2] Delta	Exceedance of Standard?
1. Garfield Avenue/Pomona Boulevard	Montebello	E	0.926	0.943	0.017	Yes
2. Garfield Avenue/Via Campo	Montebello	F	1.113	1.12	0.007	Yes
3. Wilcox Avenue/Pomona Boulevard	Montebello	C	0.741	0.759	0.018	No
4. Wilcox Avenue/Via Campo	Montebello	D	0.866	0.867	0.001	No
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	Montebello	F	1.009	1.028	0.019	Yes
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	Monterey Park	D	0.831	0.84	0.009	No
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	Monterey Park	B	0.613	0.642	0.029	No
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	LA County	B	0.656	0.665	0.009	No
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	LA County	C	0.759	0.772	0.013	No
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	Montebello	F	1.25	1.256	0.006	Yes
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	Montebello	D	0.879	0.885	0.006	No
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	Rosemead	C	0.748	0.762	0.014	No
13. Walnut Grove Avenue/San Gabriel Boulevard	Rosemead	C	0.797	0.805	0.008	No
14. San Gabriel Boulevard/SR 60 WB Ramps	Rosemead	E	0.96	0.968	0.008	No
15. San Gabriel Boulevard/Town Center Drive	Rosemead	E	0.923	0.937	0.014	No

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 31 phase 2 of the project is anticipated to have temporary significant impacts at 4 intersections during the PM peak hour. Impacts area anticipated at the following intersections:

- Garfield Avenue/Pomona Boulevard
- Garfield Avenue/Via Campo
- Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
- Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps

All impacts are associated with construction traffic and will be temporary and therefore not significant.

Midblock and Freeway Mainline Analysis

Table 32 presents the results of the midblock analysis for the study segments for future (2018) without and with-project conditions. The HCS worksheets are provided in Appendix C.

Table 32. Phase 2 2018 HCS Midblock and Freeway Mainline Summary

	AM Peak Hour Eastbound		AM Peak Hour Westbound		PM Peak Hour Eastbound		PM Peak Hour Westbound	
	LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density
Potrero Grande Drive: Markland Drive to Greenwood Avenue								
Future 2018 Baseline	A	5.0	A	9.8	B	12.6	A	6.4
Future 2018 + Phase 2	A	5.1	A	10.1	B	13.6	A	6.5
SR 60: West of Garfield Avenue								
Future 2018 Baseline	D	29.5	F	58.4	E	36.8	E	44.5
Future 2018 + Phase 2	D	29.6	F	58.5	E	36.8	E	45.2
SR 60: Garfield Avenue to Paramount Boulevard								
Future 2018 Baseline	C	21.9	D	33.6	D	26.1	D	29.5
Future 2018 + Phase 2	C	21.9	D	33.7	D	26.3	D	29.5
SR 60: Paramount Boulevard to San Gabriel Boulevard								
Future 2018 Baseline	C	21.1	D	31.4	C	24.4	D	27.7
Future 2018 + Phase 2	C	21.1	D	31.4	C	24.5	D	27.7
SR 60: East of San Gabriel Boulevard								
Future 2018 Baseline	C	22.3	D	34.5	C	25.7	D	29.7
Future 2018 + Phase 2	C	22.3	D	34.5	C	25.8	D	29.7

Notes: Analyzed per multi-lane module in HCS 2010
1. Density is passenger cars per mile per lane (pc/mi/ln)

As shown in Table 32, all roadway segments are anticipated to operate at the same LOS as under baseline 2018 conditions in both directions with minor increases in overall pc/mi/ln.

All impacts are associated with construction traffic and will be temporary and therefore not significant.

Traffic Operations – Phase 3

The following sections outline the anticipated intersection and midblock operations for phase 3.

Intersection Operations

An intersection operations analysis was conducted in the study area to evaluate the future (2019) without and with-project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described previously. Table 33 provides a comparison between the future 2019 without and with-project operations for the AM peak hour and Table 34 provides a comparison between the future 2019 without and with-project operations for the PM peak hour. Detailed LOS and V/C worksheets are included in Appendix B.

Table 33. Future 2019 AM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2019 Without-Project LOS[1]	2019 Without-Project V/C[2] or Delay[3]	2019 With-Project LOS[1]	2019 With-Project V/C[2] or Delay[3]
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	E	0.907	E	0.911
2. Garfield Avenue/Via Campo	ICU	Signal	C	0.790	C	0.799
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.747	C	0.751
4. Wilcox Avenue/Via Campo	ICU	Signal	D	0.837	D	0.843
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	C	0.744	C	0.759
	HCM	*Signal*	*C*	*23*	*C*	*23*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	B	0.647	B	0.679
	HCM	*Signal*	*B*	*17*	*B*	*18*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	A	0.500	A	0.510
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.648	B	0.664
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	B	0.620	B	0.627
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	D	0.818	D	0.820
	HCM	*Signal*	*C*	*22*	*C*	*22*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	A	0.448	A	0.449
	HCM	*Signal*	*B*	*10*	*B*	*10*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	C	0.710	C	0.719
	HCM	*Signal*	*B*	*13*	*B*	*13*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	C	0.753	C	0.753
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	D	0.851	D	0.860
	HCM	*Signal*	*D*	*38*	*D*	*40*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	C	0.750	C	0.758
A. Site Access/Potrero Grande Drive	HCM	Stop	-	-	C	16

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 33, during the AM peak hour all intersections are anticipated to operate at the same LOS under future 2019 without and with-project conditions.

Table 34. Future 2019 PM Peak Hour Intersection Level of Service

Intersection	LOS Method	Traffic Control	2019 Without-Project LOS[1]	2019 Without-Project V/C[2] or Delay[3]	2019 With-Project LOS[1]	2019 With-Project V/C[2] or Delay[3]
AM Peak Hour						
1. Garfield Avenue/Pomona Boulevard	ICU	Signal	E	0.932	E	0.946
2. Garfield Avenue/Via Campo	ICU	Signal	F	1.127	F	1.132
3. Wilcox Avenue/Pomona Boulevard	ICU	Signal	C	0.746	C	0.760
4. Wilcox Avenue/Via Campo	ICU	Signal	D	0.876	D	0.879
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	ICU	Signal	F	1.020	F	1.037
	HCM	*Signal*	*D*	*52*	*D*	*55*
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	ICU	Signal	D	0.835	D	0.847
	HCM	*Signal*	*C*	*33*	*D*	*36*
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	ICU	Signal	B	0.615	B	0.639
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	ICU	Signal	B	0.660	B	0.675
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	ICU	Signal	C	0.765	C	0.778
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	ICU	Signal	F	1.257	F	1.262
	HCM	*Signal*	*F*	*128*	*F*	*128*
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	ICU	Signal	D	0.887	D	0.890
	HCM	*Signal*	*C*	*24*	*C*	*24*
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	ICU	Signal	C	0.757	C	0.773
	HCM	*Signal*	*B*	*18*	*B*	*18*
13. Walnut Grove Avenue/San Gabriel Boulevard	ICU	Signal	D	0.804	D	0.811
14. San Gabriel Boulevard/SR 60 WB Ramps	ICU	Signal	E	0.970	E	0.982
	HCM	*Signal*	*D*	*53*	*E*	*56*
15. San Gabriel Boulevard/Town Center Drive	ICU	Signal	E	0.934	E	0.950
A. Site Access/Potrero Grande Drive	HCM	Stop	-	-	F	62

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 34, during the PM peak hour all intersections are anticipated to operate at the same LOS under future 2019 without and with-project conditions.

Table 35. Phase 3 2019 AM Peak Hour Project Impact Significance

Intersection	Jurisdiction	Baseline LOS[1]	Without-Project	With-Project	V/C[2] Delta	Exceedance of Standard?
1. Garfield Avenue/Pomona Boulevard	Montebello	E	0.907	0.911	0.004	No
2. Garfield Avenue/Via Campo	Montebello	C	0.790	0.799	0.009	No
3. Wilcox Avenue/Pomona Boulevard	Montebello	C	0.747	0.751	0.004	No
4. Wilcox Avenue/Via Campo	Montebello	D	0.837	0.843	0.006	No
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	Montebello	C	0.744	0.759	0.015	No
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	Monterey Park	B	0.647	0.679	0.032	No
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	Monterey Park	A	0.500	0.510	0.010	No
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	LA County	B	0.648	0.664	0.016	No
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	LA County	B	0.620	0.627	0.007	No
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	Montebello	D	0.818	0.820	0.002	No
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	Montebello	A	0.448	0.449	0.001	No
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	Rosemead	C	0.710	0.719	0.009	No
13. Walnut Grove Avenue/San Gabriel Boulevard	Rosemead	C	0.753	0.753	0.000	No
14. San Gabriel Boulevard/SR 60 WB Ramps	Rosemead	D	0.851	0.860	0.009	No
15. San Gabriel Boulevard/Town Center Drive	Rosemead	C	0.750	0.758	0.008	No

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.

As shown in Table 35 during the AM peak hour, no impacts and anticipated with phase 3 of the project.

Table 36. Phase 3 2019 PM Peak Hour Project Impact Significance

Intersection	Jurisdiction	Baseline LOS[1]	Without-Project	With-Project	V/C[2] Delta	Significant Impact?
1. Garfield Avenue/Pomona Boulevard	Montebello	E	0.932	0.946	0.014	Yes
2. Garfield Avenue/Via Campo	Montebello	F	1.127	1.132	0.005	Yes
3. Wilcox Avenue/Pomona Boulevard	Montebello	C	0.746	0.760	0.014	No
4. Wilcox Avenue/Via Campo	Montebello	D	0.876	0.879	0.003	No
5. Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp	Montebello	F	1.020	1.037	0.017	Yes
6. Markland Drive/Potrero Grande-SR 60 WB Off-Ramp	Monterey Park	D	0.835	0.847	0.012	No
7. Potrero Grande Drive/Greenwood Avenue(Saturn Street)	Monterey Park	B	0.615	0.639	0.024	No
8. Potrero Grande Drive/Hill Drive (Del Mar Avenue)	LA County	B	0.660	0.675	0.015	No
9. Paramount Boulevard/Hill Drive (San Gabriel Boulevard)	LA County	C	0.765	0.778	0.013	No
10. Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps	Montebello	F	1.257	1.262	0.005	Yes
11. Paramount Boulevard/Town Center Drive-SR 60 WB Ramps	Montebello	D	0.887	0.890	0.003	No
12. Montebello Boulevard/Town Center Drive-SR 60 EB Ramps	Rosemead	C	0.757	0.773	0.016	No
13. Walnut Grove Avenue/San Gabriel Boulevard	Rosemead	D	0.804	0.811	0.007	No
14. San Gabriel Boulevard/SR 60 WB Ramps	Rosemead	E	0.970	0.982	0.012	No
15. San Gabriel Boulevard/Town Center Drive	Rosemead	E	0.934	0.950	0.016	No

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board.
2. V/C is volume to capacity ratio.
3. Average delay in seconds.

As shown in Table 36 phase 3 of the project is anticipated to exceed adopted standards at 4 intersections during the PM peak hour. Impacts are anticipated at the following intersections:

- Garfield Avenue/Pomona Boulevard
- Garfield Avenue/Via Campo
- Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
- Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps

All impacts are associated with construction traffic and will be temporary and therefore not significant.

Midblock and Freeway Mainline Analysis

Table 37 presents the results of the midblock and freeway mainline analysis for the study segments for future (2019) without and with-project conditions. The HCS worksheets are provided in Appendix C.

Table 37. Phase 3 2019 HCS Midblock and Freeway Mainline Summary

	AM Peak Hour Eastbound		AM Peak Hour Westbound		PM Peak Hour Eastbound		PM Peak Hour Westbound	
	LOS	Density1	LOS	Density	LOS	Density	LOS	Density
Potrero Grande Drive: Markland Drive to Greenwood Avenue								
Future 2019 Baseline	A	5.1	A	9.9	B	12.7	A	6.4
Future 2019 + Phase 3	A	5.3	A	10.2	B	13.5	A	6.6
SR 60: West of Garfield Avenue								
Future 2019 Baseline	D	29.5	F	58.4	E	36.8	E	44.5
Future 2019 + Phase 3	D	29.7	F	58.8	E	37.0	E	45.1
SR 60: Garfield Avenue to Paramount Boulevard								
Future 2019 Baseline	C	21.9	D	33.7	D	26.3	D	29.5
Future 2019 + Phase 3	C	21.9	D	33.7	D	26.4	D	29.5
SR 60: Paramount Boulevard to San Gabriel Boulevard								
Future 2019 Baseline	C	21.1	D	31.5	C	24.5	D	27.8
Future 2019 + Phase 3	C	21.1	D	31.5	C	24.5	D	27.8
SR 60: East of San Gabriel Boulevard								
Future 2019 Baseline	C	22.4	D	34.5	C	25.8	D	29.8
Future 2019 + Phase 3	C	22.4	D	34.6	C	25.9	D	29.8

Notes: Analyzed per multi-lane module in HCS 2010
1. Density is passenger cars per mile per lane (pc/mi/ln)

As shown in Table 37, all roadway segments are anticipated to operate at the same LOS as under baseline 2019 conditions in both directions with minor increases in overall pc/mi/ln.

All impacts are associated with construction traffic and will be temporary and therefore not significant.

Site Access Evaluation

The proposed project includes one full access driveway locations along Potrero Grande Drive which will be utilized during all phases of construction. Additionally, site access will be provided via a right-in/right-out driveway along Markland Drive during phase 2 of the project. It is anticipated that the site access on Markland Avenue would be adjacent to a driveway associated with a mini-warehouse in the future. Both driveways were assumed to be side-street stop controlled. The driveway associated with the mini-warehouse was assumed to be full access. The site access location operations are summarized in Table 38.

Table 38. Driveway Operation Summary

	Phase 1 2016		Phase 2 2018		Phase 3 2019	
Intersection	**LOS[1]**	**Delay[2]**	**LOS[1]**	**Delay[2]**	**LOS[1]**	**Delay[2]**
AM Peak Hour						
A. Potrero Grande Drive/Site Access	C	17	C	15	C	16
B. Site Access/Markland Drive	-	-	C	18	-	-
PM Peak Hour						
A. Potrero Grande Drive/Site Access	F	279	C	24	F	62
B. Site Access/Markland Drive	-	-	E	36	-	-

1. Level of service (LOS) as defined by the 2010 *Highway Capacity Manual*, Transportation Research Board. .
2. Delay in seconds reported for the worst movement.

Queuing Analysis

A queueing analysis was completed utilizing Sim Traffic (version 9.0) at the site access driveways to review on-site queuing as summarized in Table 39.

Table 39. Driveway Queuing Summary

	Phase 1 2016		Phase 2 2018		Phase 3 2019	
Intersection	**Queue[1]**	**WM[2]**	**Queue[1]**	**WM[2]**	**Queue[1]**	**WM[2]**
AM Peak Hour						
A. Potrero Grande Drive/Site Access	48	NBL	39	NBL	40	NBL
B. Site Access/Markland Drive[3]	-	-	7	NBR	-	-
PM Peak Hour						
A. Potrero Grande Drive/Site Access	2,546	NBL	52	NBR	162	NBL
B. Site Access/Markland Drive[3]	-	-	85	WBR	-	-

NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound
1. Driveway queuing summarized for the 95th percentile in feet for driveway movements.
2. Worst movement.
3. Only queuing associated with the project is presented.

As shown in Table 39, the largest queues are generally expected for the northbound left-turn movement from the site access location on Potrero Grande Drive under phases 1, 3 and phase 2 for the AM peak hour. Under phase 2 PM peak hour conditions the worst queue is anticipated to be the westbound right-turn movement at the site access located along Markland Drive.

All impacts are associated with construction traffic and will be temporary and therefore not significant.

Chapter 8. Parking Impacts

On-site vehicle parking would be accommodated within the proposed substation site. Parking would be located on-site in areas that are out of the way of construction activities. No off-site on-street parking is anticipated. Anticipated peak parking demand is estimated based on the daily trip generation for each phase of construction.

Parking associated with other elements of the project, including the transmission, subtransmission, distribution, and telecommunications work would be on the ROW or at a substation site. There is no anticipated on-street parking associated with these components.

Chapter 9. Other Construction Impacts

This section outlines additional impacts anticipated from the proposed project's construction related traffic.

Unusual Circumstances (pavement impacts from truck traffic)

Although, traffic generated by the three construction phases of the project would have the potential to impact street pavement on truck routes, all truck traffic was distributed and assigned to the network utilizing existing City-designated truck routes. These existing truck routes are on streets that have been designed and built with higher pavement indices to accommodate higher truck volumes. The exception would be on Paramount Boulevard, between Arroyo Drive and Hill Drive; and, Hill Drive from Paramount Boulevard to Potrero Grande Drive. It is anticipated that these roadways will be temporarily designated as a truck route during construction.

Impacts at Non-Substation Construction Areas

The majority of daily and peak hour trips are associated with construction at the Mesa Substation and within the adjacent transmission rights-of-way. Limited trips will be required at the 28 outlying substations where work within the interior of existing substations would occur. We estimate these trips to be 15 to 30 trips per substation, per day during construction activities at these locations and will not cause significant impacts. Along the telecommunications routes, 1-2 trucks are necessary to be required for installation along these routes, and will not cause significant traffic impacts.

Seven potential staging yards have been proposed, three of which are located on the ROWs adjacent to Mesa Substation. (There is a fourth staging yard adjacent to Goodrich Substation, which will only serve work at that location and is not expected to generate significant trips.) The largest anticipated staging areas are located east of San Gabriel Boulevard at Fern Avenue (San Gabriel yard), east of Santa Anita Avenue to the south of SR 60 (Santa Anita yard), and at Saybrook Avenue and South Tubeway Avenue (Laguna Bell yard), as shown on Figure 9 and Figure 10.

All trips associated with the six potential staging yards serving construction at Mesa Substation, including the Laguna Bell staging yard, have been accounted for in the trip generation and distribution analyses, as shown on Figure 9, with the exception of the San Gabriel and the Santa Anita staging areas. The San Gabriel and Santa Anita staging yards were accounted for as shown on Figure 10. Trips to and from the other yards are not expected to cause significant impacts on the adjacent roadways. Traffic generated by construction workers to/from these yards to the Mesa Substation has already been accounted for in the traffic analysis. A majority of the traffic generated by trucks was assumed to come directly from SR 60 to the east and west.

Truck traffic from the San Gabriel and Laguna Bell staging areas would redistribute a nominal amount of project-related truck traffic at the intersection of San Gabriel Boulevard/Hill Drive (from the San Gabriel site) and at the Garfield Avenue/Via Campo intersection (from the Laguna Bell site). The Santa Anita site would use the SR 60 to get to the substation, so trucks from that site have already been accounted for in the traffic analysis. Approximately three trucks (or six truck trips – one inbound and one outbound trip; or, 18 passenger-car trips assuming a 3.0 PCE) per day from each staging yard we would generate one inbound truck (or 3 passenger-cars) trip to the Mesa Substation during the a.m. peak hour. That truck would stay on-site for at least an hour, unloading/loading materials, and leave the site after the a.m. peak hour. The other two trucks (or four truck trips; or, 12 passenger-car trips)

would be destined to the substation during the middle of the day, before the p.m. peak hour. No trucks from the staging areas would arrive or depart the site during the p.m. peak hour as it would be too late to receive or load materials.

The additional truck trip (or 3 passenger-car trips) during the a.m. peak hour from each staging area would equate to 0.11 percent of the a.m. peak hour traffic at San Gabriel Boulevard/Hill Drive; and, 0.08 percent of the a.m. peak hour traffic at Garfield Avenue/Via Campo. These percentages of traffic would not be measureable in terms of V/C increases at the affected intersections, and therefore, the addition of truck traffic to these intersections from the off-site staging yards would not cause these intersections to exceed, or further exceed, a V/C threshold per their respective jurisdiction's Significance Criteria.

Proposed Traffic Control

Temporary lane closures will be necessary during trenching activities along Potrero Drive. Traffic control measures would be consistent with those published in the California Joint Utility Traffic Control Manual (California Inter-Utility Coordinating Committee 2010). Lane closures will be consistent with the traffic control manual.

Temporary, short-term lane closures will occur on Loveland Street during the conversion of the streetlight source line to underground, and during installation of portions of the telecommunications lines adjacent to Durfee Avenue, Lincoln Avenue, Avenida De la Merced, a portion of Montebello Boulevard, San Gabriel Boulevard, and Potrero Grande Drive. These temporary lane closures are expected to be short-term in duration

Chapter 10. Findings and Mitigation

This transportation impact study summarizes the project traffic impacts of the proposed substation demolition and expansion. General findings include:

- The proposed project would demolish the existing 220-kV substation and construct a 500-kV substation.
- The proposed project is anticipated to be constructed over 55 months in three phases. Phase 1 is anticipated to generate 2,144 daily trips with 202 occurring during the AM peak hour and 453 during the PM peak hour. Phase 1 is anticipated to be completed by the 4th quarter of 2018. Phase 2 is anticipated to be completed by the 1st quarter of 2019 and is anticipated to generate 789 daily trips with 72 trips occurring during the AM peak hour and 217 trips during the PM peak hour. The 3rd phase is anticipated to generate approximately 1,086 daily trips with 105 during the AM peak hour and 200 during the PM peak hour. Phase 3 is anticipated to be completed by the 4th quarter of 2020.
- Anticipated intersection impacts associated with phase 1 are listed below

  During AM peak hour, impacts are anticipated at the following 4 intersections:

  - Garfield Avenue/Pomona Boulevard
  - Garfield Avenue/Via Campo
  - Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
  - Markland Drive/Potrero Grande-SR 60 WB Off-Ramp

  During the PM peak hour, impacts are anticipated at the following 5 intersections:

  - Garfield Avenue/Pomona Boulevard
  - Garfield Avenue/Via Campo
  - Wilcox Avenue/Pomona Boulevard
  - Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
  - Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps
- Anticipated intersection impacts associated with phase 2 are listed below

  During AM peak hour, impacts are anticipated at the following intersection:

  - Garfield Avenue/Via Campo

  During the PM peak hour, impacts are anticipated at the following 4 intersections:

  - Garfield Avenue/Pomona Boulevard
  - Garfield Avenue/Via Campo
  - Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
  - Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps

- Anticipated intersection impacts associated with phase 3 are listed below

  During AM peak hour no impacts are anticipated

  During the PM peak hour, impacts are anticipated at the following 4 intersections:

  - Garfield Avenue/Pomona Boulevard
  - Garfield Avenue/Via Campo
  - Markland Drive (Vail Avenue)/Via Campo-SR 60 EB On-Ramp
  - Paramount Boulevard/Neil Armstrong Street-SR 60 WB Ramps

Mitigation Measures

It is anticipated that because the impacts are not significant, mitigation measures would not be required.

Appendix A: Traffic Counts

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Montebello
N/S: Paramount Boulevard
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : MBOPA60EAM
Site Code : 99900000
Start Date : 6/11/2015
Page No : 1

Groups Printed- Total Volume

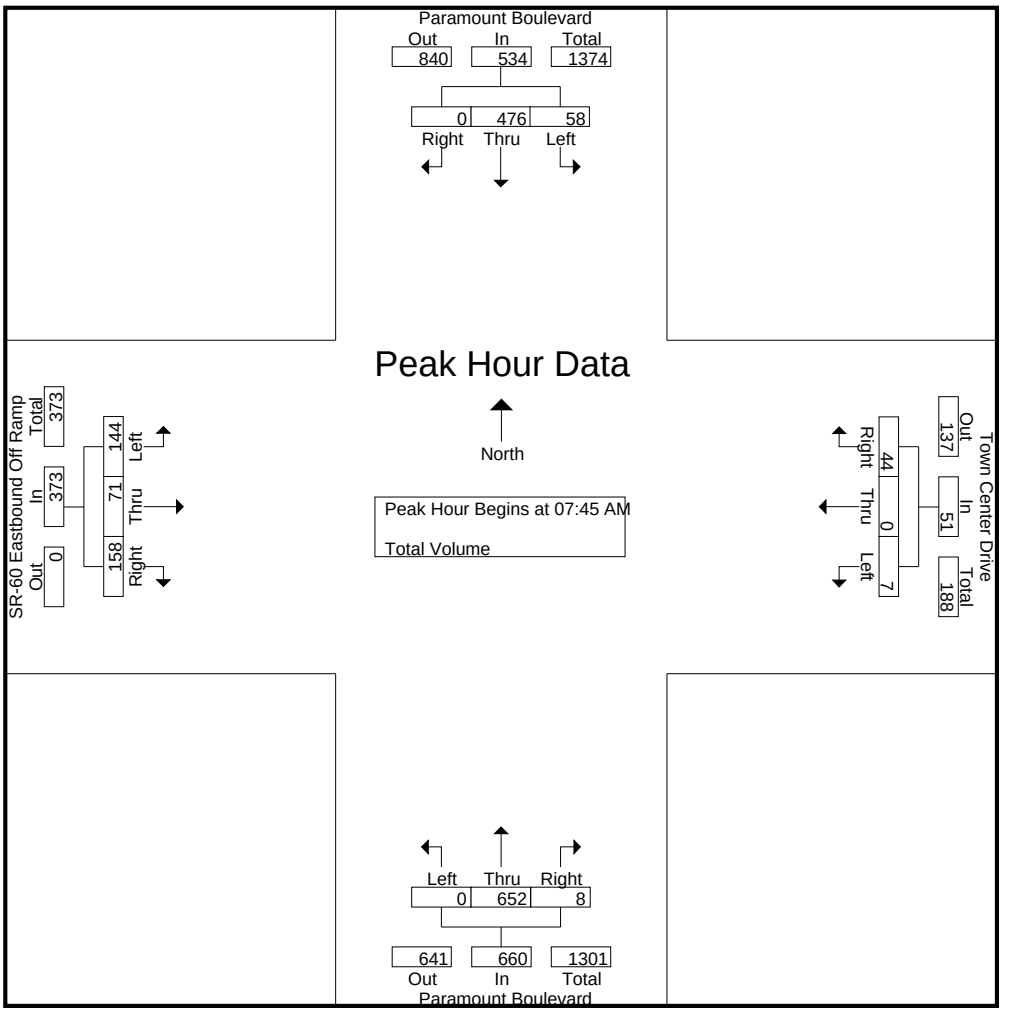
	Paramount Boulevard Southbound				Town Center Drive Westbound				Paramount Boulevard Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	92	0	96	1	0	3	4	0	147	1	148	21	6	35	62	310
07:15 AM	8	92	0	100	0	0	4	4	0	152	1	153	34	9	50	93	350
07:30 AM	5	126	0	131	0	0	4	4	0	159	2	161	29	8	34	71	367
07:45 AM	16	122	0	138	0	0	3	3	0	177	1	178	38	14	49	101	420
Total	33	432	0	465	1	0	14	15	0	635	5	640	122	37	168	327	1447
08:00 AM	11	108	0	119	1	0	11	12	0	187	2	189	42	9	32	83	403
08:15 AM	16	123	0	139	1	0	14	15	0	147	2	149	35	25	47	107	410
08:30 AM	15	123	0	138	5	0	16	21	0	141	3	144	29	23	30	82	385
08:45 AM	11	99	0	110	4	0	6	10	0	153	3	156	35	17	49	101	377
Total	53	453	0	506	11	0	47	58	0	628	10	638	141	74	158	373	1575
Grand Total	86	885	0	971	12	0	61	73	0	1263	15	1278	263	111	326	700	3022
Apprch %	8.9	91.1	0		16.4	0	83.6		0	98.8	1.2		37.6	15.9	46.6		
Total %	2.8	29.3	0	32.1	0.4	0	2	2.4	0	41.8	0.5	42.3	8.7	3.7	10.8	23.2	

	Paramount Boulevard Southbound				Town Center Drive Westbound				Paramount Boulevard 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	16	122	0	138	0	0	3	3	0	177	1	178	38	14	49	101	420
08:00 AM	11	108	0	119	1	0	11	12	0	187	2	189	42	9	32	83	403
08:15 AM	16	123	0	139	1	0	14	15	0	147	2	149	35	25	47	107	410
08:30 AM	15	123	0	138	5	0	16	21	0	141	3	144	29	23	30	82	385
Total Volume	58	476	0	534	7	0	44	51	0	652	8	660	144	71	158	373	1618
% App. Total	10.9	89.1	0		13.7	0	86.3		0	98.8	1.2		38.6	19	42.4		
PHF	.906	.967	.000	.960	.350	.000	.688	.607	.000	.872	.667	.873	.857	.710	.806	.871	.963

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Montebello
N/S: Paramount Boulevard
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : MBOPA60EAM
Site Code : 99900000
Start Date : 6/11/2015
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				08:00 AM				07:15 AM				07:45 AM			
+0 mins.	16	122	0	138	1	0	11	12	0	152	1	153	38	14	49	101
+15 mins.	11	108	0	119	1	0	14	15	0	159	2	161	42	9	32	83
+30 mins.	16	123	0	139	5	0	16	21	0	177	1	178	35	25	47	107
+45 mins.	15	123	0	138	4	0	6	10	0	187	2	189	29	23	30	82
Total Volume	58	476	0	534	11	0	47	58	0	675	6	681	144	71	158	373
% App. Total	10.9	89.1	0		19	0	81		0	99.1	0.9		38.6	19	42.4	
PHF	.906	.967	.000	.960	.550	.000	.734	.690	.000	.902	.750	.901	.857	.710	.806	.871

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Montebello
N/S: Paramount Boulevard
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : MBOPA60EPM
Site Code : 99900000
Start Date : 6/11/2015
Page No : 1

Groups Printed- Total Volume

	Paramount Boulevard Southbound				Town Center Drive Westbound				Paramount Boulevard 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	33	166	0	199	6	0	69	75	0	167	8	175	44	71	100	215	664
04:15 PM	28	181	0	209	7	0	63	70	0	218	6	224	54	66	84	204	707
04:30 PM	29	220	0	249	3	0	52	55	0	202	6	208	37	54	112	203	715
04:45 PM	30	183	0	213	4	0	69	73	0	222	5	227	53	77	105	235	748
Total	120	750	0	870	20	0	253	273	0	809	25	834	188	268	401	857	2834
05:00 PM	29	203	0	232	8	0	63	71	0	245	10	255	49	71	106	226	784
05:15 PM	34	224	0	258	8	0	62	70	0	229	7	236	58	89	111	258	822
05:30 PM	39	230	0	269	9	0	55	64	0	221	6	227	58	79	119	256	816
05:45 PM	42	232	0	274	9	0	45	54	0	245	9	254	57	81	129	267	849
Total	144	889	0	1033	34	0	225	259	0	940	32	972	222	320	465	1007	3271
Grand Total	264	1639	0	1903	54	0	478	532	0	1749	57	1806	410	588	866	1864	6105
Apprch %	13.9	86.1	0		10.2	0	89.8		0	96.8	3.2		22	31.5	46.5		
Total %	4.3	26.8	0	31.2	0.9	0	7.8	8.7	0	28.6	0.9	29.6	6.7	9.6	14.2	30.5	

	Paramount Boulevard Southbound				Town Center Drive Westbound				Paramount Boulevard 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 05:00 PM																	
05:00 PM	29	203	0	232	8	0	63	71	0	245	10	255	49	71	106	226	784
05:15 PM	34	224	0	258	8	0	62	70	0	229	7	236	58	89	111	258	822
05:30 PM	39	230	0	269	9	0	55	64	0	221	6	227	58	79	119	256	816
05:45 PM	42	232	0	274	9	0	45	54	0	245	9	254	57	81	129	267	849
Total Volume	144	889	0	1033	34	0	225	259	0	940	32	972	222	320	465	1007	3271
% App. Total	13.9	86.1	0		13.1	0	86.9		0	96.7	3.3		22	31.8	46.2		
PHF	.857	.958	.000	.943	.944	.000	.893	.912	.000	.959	.800	.953	.957	.899	.901	.943	.963

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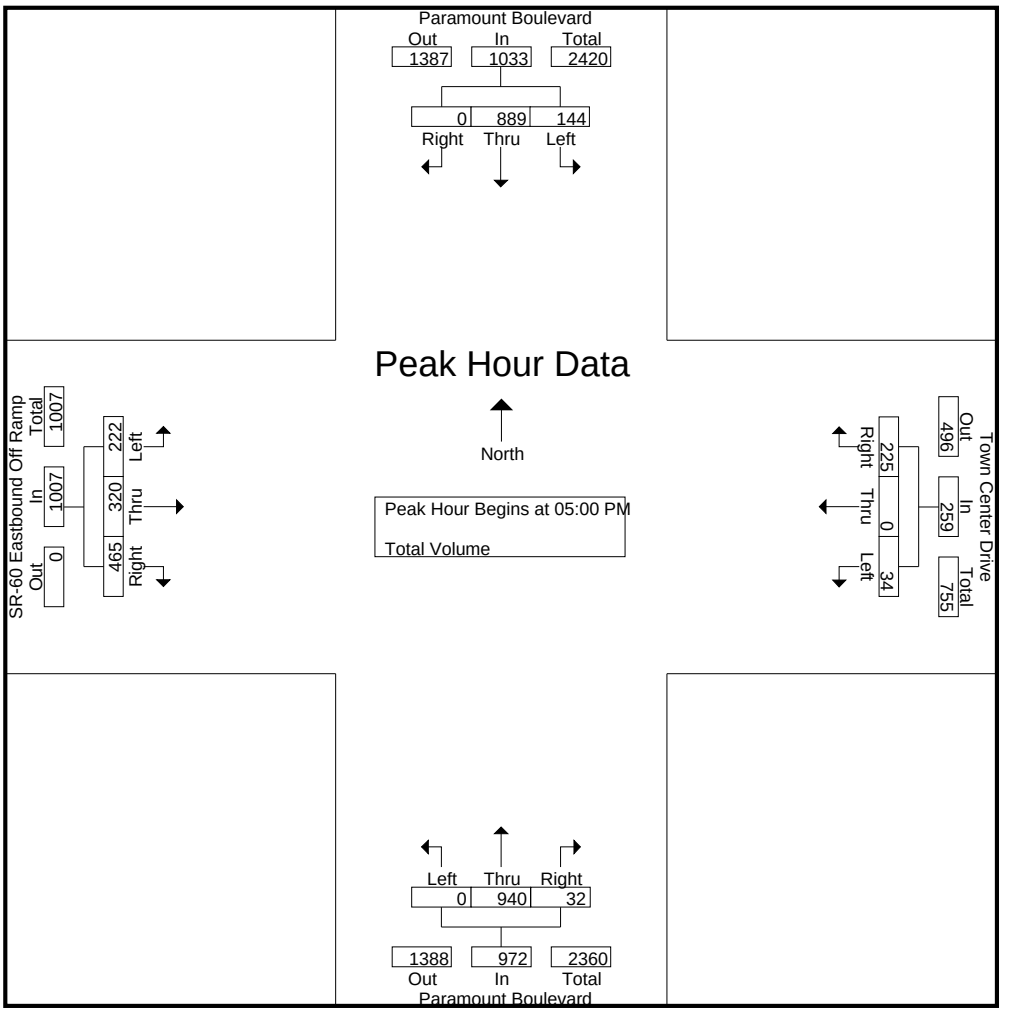
City of Montebello
N/S: Paramount Boulevard
E/W: SR-60 Eastbound Ramps
Weather: Clear

File Name : MBOPA60EPM
Site Code : 99900000
Start Date : 6/11/2015
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				04:45 PM				05:00 PM				05:00 PM			
+0 mins.	29	203	0	232	4	0	69	73	0	245	10	255	49	71	106	226
+15 mins.	34	224	0	258	8	0	63	71	0	229	7	236	58	89	111	258
+30 mins.	39	230	0	269	8	0	62	70	0	221	6	227	58	79	119	256
+45 mins.	42	232	0	274	9	0	55	64	0	245	9	254	57	81	129	267
Total Volume	144	889	0	1033	29	0	249	278	0	940	32	972	222	320	465	1007
% App. Total	13.9	86.1	0		10.4	0	89.6		0	96.7	3.3		22	31.8	46.2	
PHF	.857	.958	.000	.943	.806	.000	.902	.952	.000	.959	.800	.953	.957	.899	.901	.943

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City of Montebello
N/S: Paramount Boulevard
E/W: SR-60 Westbound Ramps
Weather: Clear

File Name : MBOPA60WAM
Site Code : 99900000
Start Date : 6/11/2015

Groups Printed- Total Volume

	Paramount Boulevard Southbound				Westbound Ramps Westbound				Paramount Boulevard Northbound				Neil Armstrong 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	131	0	131	50	5	26	81	6	66	49	121	1	0	35	36	369
07:15 AM	0	177	3	180	45	0	19	64	5	84	51	140	5	2	49	56	440
07:30 AM	0	202	1	203	49	5	17	71	12	80	52	144	3	3	40	46	464
07:45 AM	0	227	0	227	46	3	27	76	6	106	40	152	6	0	44	50	505
Total	0	737	4	741	190	13	89	292	29	336	192	557	15	5	168	188	1778
08:00 AM	0	246	5	251	50	4	33	87	15	134	52	201	5	1	45	51	590
08:15 AM	0	245	1	246	43	2	37	82	8	92	47	147	5	0	36	41	516
08:30 AM	0	213	0	213	49	1	28	78	16	76	45	137	1	0	30	31	459
08:45 AM	0	159	3	162	43	3	33	79	15	80	48	143	0	0	29	29	413
Total	0	863	9	872	185	10	131	326	54	382	192	628	11	1	140	152	1978
Grand Total	0	1600	13	1613	375	23	220	618	83	718	384	1185	26	6	308	340	3756
Apprch %	0	99.2	0.8		60.7	3.7	35.6		7	60.6	32.4		7.6	1.8	90.6		
Total %	0	42.6	0.3	42.9	10	0.6	5.9	16.5	2.2	19.1	10.2	31.5	0.7	0.2	8.2	9.1	

	Paramount Boulevard Southbound				Westbound Ramps Westbound				Paramount Boulevard Northbound				Neil Armstrong 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 07:30 AM																	
07:30 AM	0	202	1	203	49	5	17	71	12	80	52	144	3	3	40	46	464
07:45 AM	0	227	0	227	46	3	27	76	6	106	40	152	6	0	44	50	505
08:00 AM	0	246	5	251	50	4	33	87	15	134	52	201	5	1	45	51	590
08:15 AM	0	245	1	246	43	2	37	82	8	92	47	147	5	0	36	41	516
Total Volume	0	920	7	927	188	14	114	316	41	412	191	644	19	4	165	188	2075
% App. Total	0	99.2	0.8		59.5	4.4	36.1		6.4	64	29.7		10.1	2.1	87.8		
PHF	.000	.935	.350	.923	.940	.700	.770	.908	.683	.769	.918	.801	.792	.333	.917	.922	.879

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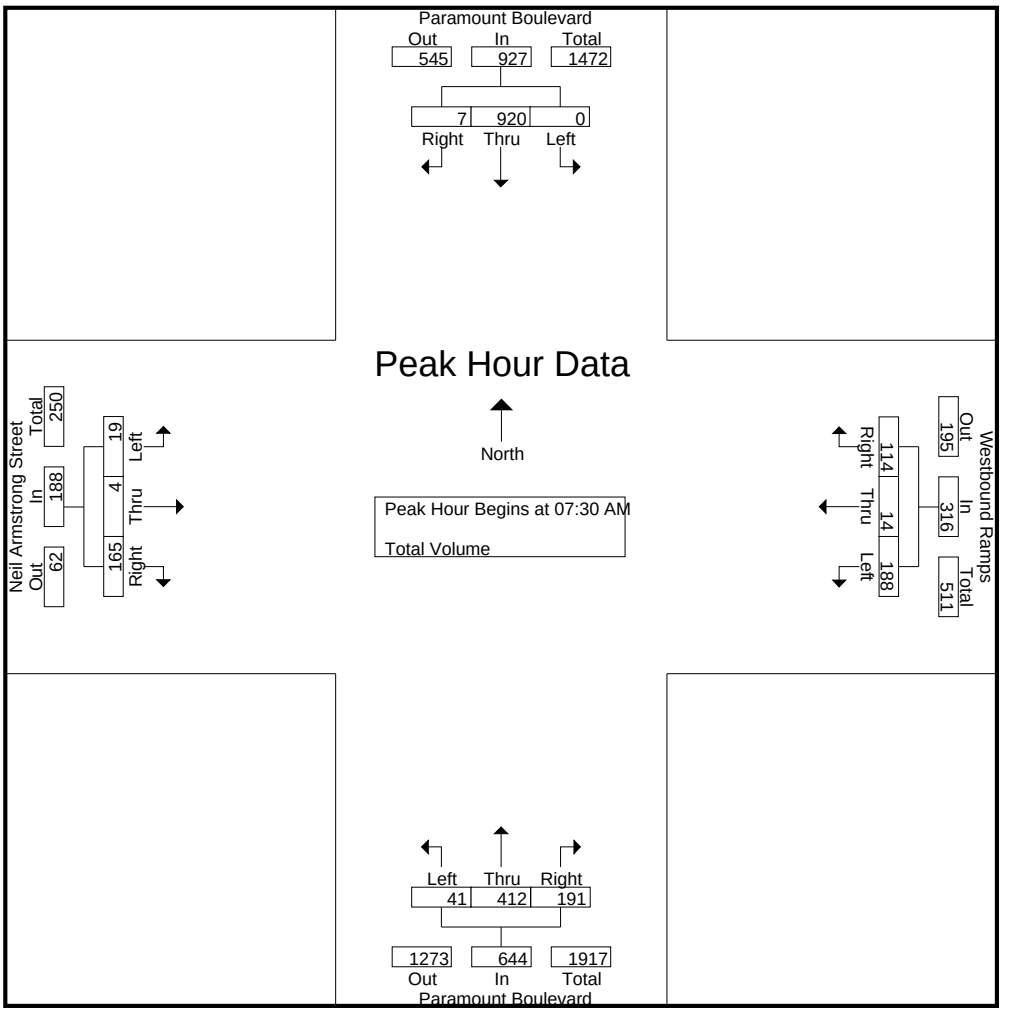
City of Montebello
N/S: Paramount Boulevard
E/W: SR-60 Westbound Ramps
Weather: Clear

File Name : MBOPA60WAM
Site Code : 99900000
Start Date : 6/11/2015
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				08:00 AM				07:30 AM				07:15 AM			
+0 mins.	0	227	0	227	50	4	33	87	12	80	52	144	5	2	49	56
+15 mins.	0	246	5	251	43	2	37	82	6	106	40	152	3	3	40	46
+30 mins.	0	245	1	246	49	1	28	78	15	134	52	201	6	0	44	50
+45 mins.	0	213	0	213	43	3	33	79	8	92	47	147	5	1	45	51
Total Volume	0	931	6	937	185	10	131	326	41	412	191	644	19	6	178	203
% App. Total	0	99.4	0.6		56.7	3.1	40.2		6.4	64	29.7		9.4	3	87.7	
PHF	.000	.946	.300	.933	.925	.625	.885	.937	.683	.769	.918	.801	.792	.500	.908	.906

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City of Montebello
N/S: Paramount Boulevard
E/W: SR-60 Westbound Ramps
Weather: Clear

File Name : MBOPA60WPM
Site Code : 99900000
Start Date : 6/11/2015
Page No : 1

Groups Printed- Total Volume

	Paramount Boulevard Southbound				Westbound Ramps Westbound				Paramount Boulevard Northbound				Neil Armstrong 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	188	3	191	89	6	33	128	15	120	118	253	2	1	13	16	588
04:15 PM	0	213	4	217	87	9	33	129	23	151	121	295	1	1	12	14	655
04:30 PM	0	209	5	214	87	6	35	128	23	127	105	255	3	0	27	30	627
04:45 PM	0	192	4	196	104	4	33	141	23	160	122	305	4	1	16	21	663
Total	0	802	16	818	367	25	134	526	84	558	466	1108	10	3	68	81	2533
05:00 PM	0	193	5	198	100	7	51	158	15	152	122	289	1	0	20	21	666
05:15 PM	0	253	9	262	125	5	77	207	25	181	109	315	2	2	29	33	817
05:30 PM	0	250	5	255	102	2	89	193	28	174	100	302	2	2	21	25	775
05:45 PM	0	260	7	267	111	10	107	228	36	173	107	316	1	2	27	30	841
Total	0	956	26	982	438	24	324	786	104	680	438	1222	6	6	97	109	3099
Grand Total	0	1758	42	1800	805	49	458	1312	188	1238	904	2330	16	9	165	190	5632
Apprch %	0	97.7	2.3		61.4	3.7	34.9		8.1	53.1	38.8		8.4	4.7	86.8		
Total %	0	31.2	0.7	32	14.3	0.9	8.1	23.3	3.3	22	16.1	41.4	0.3	0.2	2.9	3.4	

	Paramount Boulevard Southbound				Westbound Ramps Westbound				Paramount Boulevard Northbound				Neil Armstrong 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 05:00 PM																	
05:00 PM	0	193	5	198	100	7	51	158	15	152	122	289	1	0	20	21	666
05:15 PM	0	253	9	262	125	5	77	207	25	181	109	315	2	2	29	33	817
05:30 PM	0	250	5	255	102	2	89	193	28	174	100	302	2	2	21	25	775
05:45 PM	0	260	7	267	111	10	107	228	36	173	107	316	1	2	27	30	841
Total Volume	0	956	26	982	438	24	324	786	104	680	438	1222	6	6	97	109	3099
% App. Total	0	97.4	2.6		55.7	3.1	41.2		8.5	55.6	35.8		5.5	5.5	89		
PHF	.000	.919	.722	.919	.876	.600	.757	.862	.722	.939	.898	.967	.750	.750	.836	.826	.921

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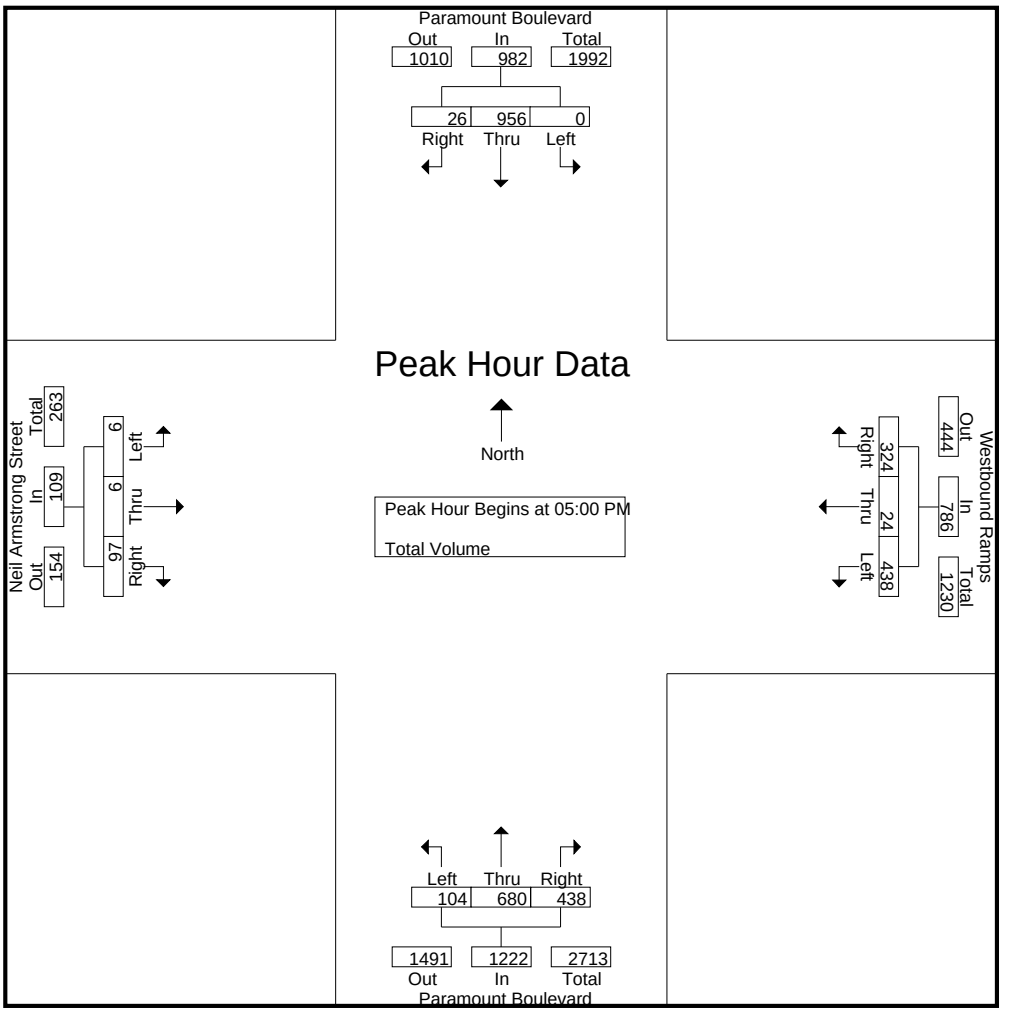
City of Montebello
N/S: Paramount Boulevard
E/W: SR-60 Westbound Ramps
Weather: Clear

File Name : MBOPA60WPM
Site Code : 99900000
Start Date : 6/11/2015
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				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	193	5	198	100	7	51	158	15	152	122	289	1	0	20	21
+15 mins.	0	253	9	262	125	5	77	207	25	181	109	315	2	2	29	33
+30 mins.	0	250	5	255	102	2	89	193	28	174	100	302	2	2	21	25
+45 mins.	0	260	7	267	111	10	107	228	36	173	107	316	1	2	27	30
Total Volume	0	956	26	982	438	24	324	786	104	680	438	1222	6	6	97	109
% App. Total	0	97.4	2.6		55.7	3.1	41.2		8.5	55.6	35.8		5.5	5.5	89	
PHF	.000	.919	.722	.919	.876	.600	.757	.862	.722	.939	.898	.967	.750	.750	.836	.826

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City of Monterey Park
N/S: SR-60 WB Off Ramp to Markland Dr
E/W: SR-60 Westbound Off Ramp
Weather: Clear

File Name : MNP60WOFFAM
Site Code : 99900000
Start Date : 6/11/2015

Groups Printed- Total Volume

	SR-60 WB Off Ramp to Markland Dr Southbound			SR-60 Westbound Off Ramp Westbound			SR-60 WB Off Ramp to Potrero Grande Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	172	36	208	0	0	0	208
07:15 AM	0	0	0	163	42	205	0	0	0	205
07:30 AM	0	0	0	199	51	250	0	0	0	250
07:45 AM	0	0	0	208	45	253	0	0	0	253
Total	0	0	0	742	174	916	0	0	0	916
08:00 AM	0	0	0	234	41	275	0	0	0	275
08:15 AM	0	0	0	218	46	264	0	0	0	264
08:30 AM	0	0	0	189	65	254	0	0	0	254
08:45 AM	0	0	0	202	56	258	0	0	0	258
Total	0	0	0	843	208	1051	0	0	0	1051
Grand Total	0	0	0	1585	382	1967	0	0	0	1967
Apprch %	0	0		80.6	19.4		0	0		
Total %	0	0	0	80.6	19.4	100	0	0	0	

	SR-60 WB Off Ramp to Markland Dr Southbound			SR-60 Westbound Off Ramp Westbound			SR-60 WB Off Ramp to Potrero Grande 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 08:00 AM										
08:00 AM	0	0	0	234	41	275	0	0	0	275
08:15 AM	0	0	0	218	46	264	0	0	0	264
08:30 AM	0	0	0	189	65	254	0	0	0	254
08:45 AM	0	0	0	202	56	258	0	0	0	258
Total Volume	0	0	0	843	208	1051	0	0	0	1051
% App. Total	0	0		80.2	19.8		0	0		
PHF	.000	.000	.000	.901	.800	.955	.000	.000	.000	.955

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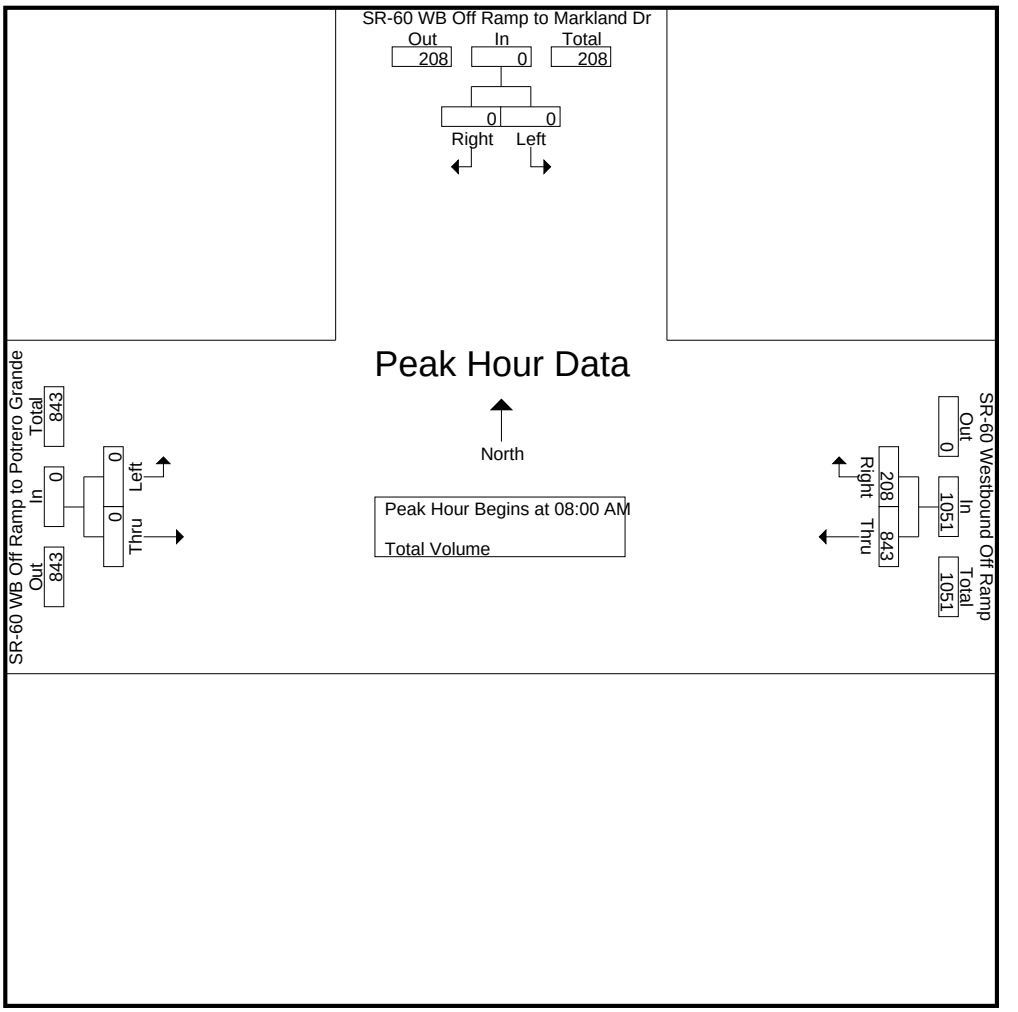
City of Monterey Park
N/S: SR-60 WB Off Ramp to Markland Dr
E/W: SR-60 Westbound Off Ramp
Weather: Clear

File Name : MNP60WOFFAM
Site Code : 99900000
Start Date : 6/11/2015
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			08:00 AM			07:00 AM		
+0 mins.	0	0	0	234	41	275	0	0	0
+15 mins.	0	0	0	218	46	264	0	0	0
+30 mins.	0	0	0	189	65	254	0	0	0
+45 mins.	0	0	0	202	56	258	0	0	0
Total Volume	0	0	0	843	208	1051	0	0	0
% App. Total	0	0		80.2	19.8		0	0	
PHF	.000	.000	.000	.901	.800	.955	.000	.000	.000

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City of Monterey Park
N/S: SR-60 WB Off Ramp to Markland Dr
E/W: SR-60 Westbound Off Ramp
Weather: Clear

File Name : MNP60WOFFPM
Site Code : 99900000
Start Date : 6/11/2015

Groups Printed- Total Volume

	SR-60 WB Off Ramp to Markland Dr Southbound			SR-60 Westbound Off Ramp Westbound			SR-60 WB Off Ramp to Potrero Grande Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	105	23	128	0	0	0	128
04:15 PM	0	0	0	226	36	262	0	0	0	262
04:30 PM	0	0	0	110	23	133	0	0	0	133
04:45 PM	0	0	0	198	48	246	0	0	0	246
Total	0	0	0	639	130	769	0	0	0	769
05:00 PM	0	0	0	244	50	294	0	0	0	294
05:15 PM	0	0	0	276	68	344	0	0	0	344
05:30 PM	0	0	0	252	52	304	0	0	0	304
05:45 PM	0	0	0	278	61	339	0	0	0	339
Total	0	0	0	1050	231	1281	0	0	0	1281
Grand Total	0	0	0	1689	361	2050	0	0	0	2050
Apprch %	0	0		82.4	17.6		0	0		
Total %	0	0	0	82.4	17.6	100	0	0	0	

	SR-60 WB Off Ramp to Markland Dr Southbound			SR-60 Westbound Off Ramp Westbound			SR-60 WB Off Ramp to Potrero Grande 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 05:00 PM										
05:00 PM	0	0	0	244	50	294	0	0	0	294
05:15 PM	0	0	0	276	68	344	0	0	0	344
05:30 PM	0	0	0	252	52	304	0	0	0	304
05:45 PM	0	0	0	278	61	339	0	0	0	339
Total Volume	0	0	0	1050	231	1281	0	0	0	1281
% App. Total	0	0		82	18		0	0		
PHF	.000	.000	.000	.944	.849	.931	.000	.000	.000	.931

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City of Monterey Park
N/S: SR-60 WB Off Ramp to Markland Dr
E/W: SR-60 Westbound Off Ramp
Weather: Clear

File Name : MNP60WOFFPM
Site Code : 99900000
Start Date : 6/11/2015
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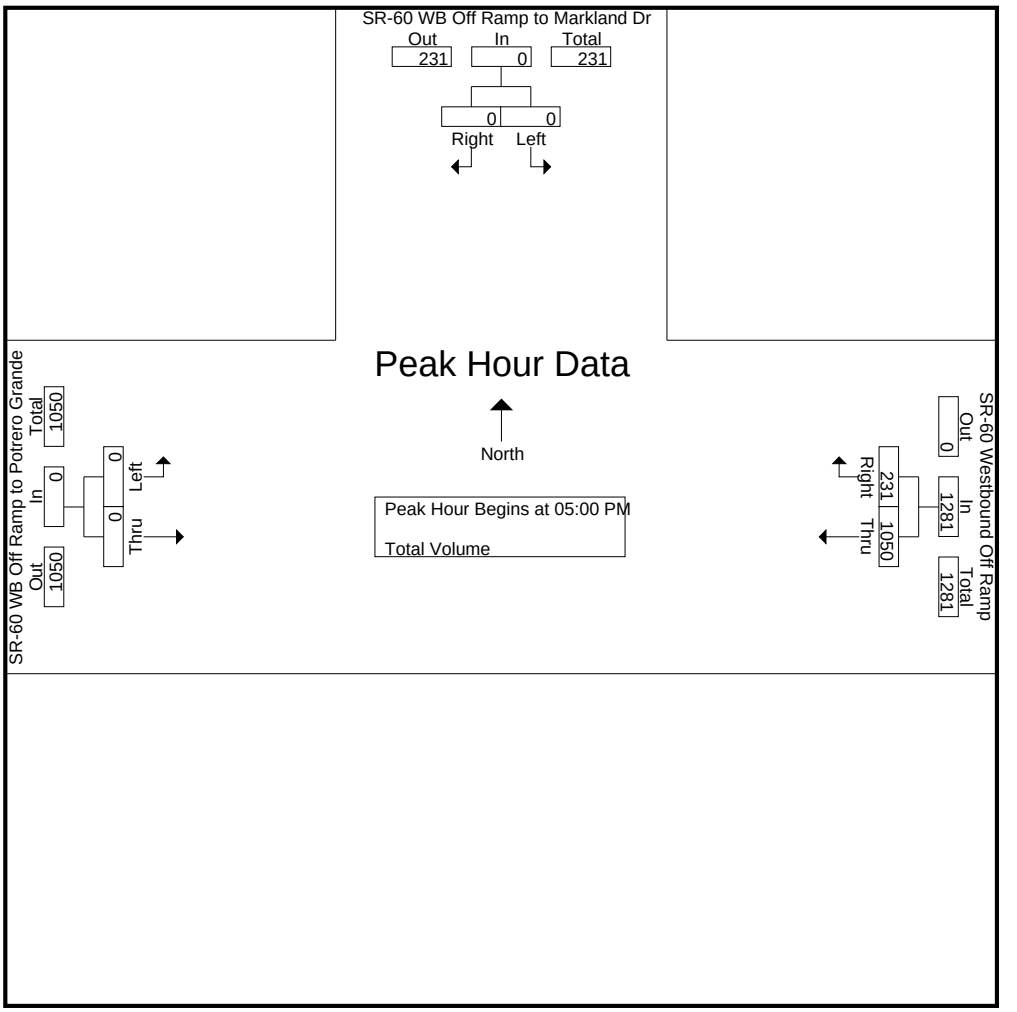

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			05:00 PM			04:00 PM		
+0 mins.	0	0	0	244	50	294	0	0	0
+15 mins.	0	0	0	276	68	344	0	0	0
+30 mins.	0	0	0	252	52	304	0	0	0
+45 mins.	0	0	0	278	61	339	0	0	0
Total Volume	0	0	0	1050	231	1281	0	0	0
% App. Total	0	0		82	18		0	0	
PHF	.000	.000	.000	.944	.849	.931	.000	.000	.000

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City of Monterey Park
N/S: Greenwood Avenue
E/W: Potrero Grande Drive
Weather: Clear

File Name : MNPGRPGAM
Site Code : 99900000
Start Date : 6/11/2015
Page No : 1

Groups Printed- Total Volume

	Saturn Street Southbound				Potrero Grande Drive Westbound				Greenwood Avenue Northbound				Potrero Grande Drive 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	3	4	3	118	21	142	1	0	0	1	0	31	0	31	178
07:15 AM	2	0	4	6	1	183	18	202	0	0	2	2	1	45	3	49	259
07:30 AM	3	0	6	9	0	228	37	265	3	0	0	3	2	79	1	82	359
07:45 AM	3	0	4	7	0	214	33	247	2	0	2	4	2	95	3	100	358
Total	9	0	17	26	4	743	109	856	6	0	4	10	5	250	7	262	1154
08:00 AM	5	0	2	7	1	188	42	231	7	0	2	9	3	59	0	62	309
08:15 AM	3	0	1	4	0	176	38	214	1	0	5	6	3	63	0	66	290
08:30 AM	2	0	2	4	0	137	22	159	0	0	1	1	2	59	1	62	226
08:45 AM	2	0	2	4	1	153	26	180	0	0	1	1	2	69	0	71	256
Total	12	0	7	19	2	654	128	784	8	0	9	17	10	250	1	261	1081
Grand Total	21	0	24	45	6	1397	237	1640	14	0	13	27	15	500	8	523	2235
Apprch %	46.7	0	53.3		0.4	85.2	14.5		51.9	0	48.1		2.9	95.6	1.5		
Total %	0.9	0	1.1	2	0.3	62.5	10.6	73.4	0.6	0	0.6	1.2	0.7	22.4	0.4	23.4	

	Saturn Street Southbound				Potrero Grande Drive Westbound				Greenwood Avenue Northbound				Potrero Grande Drive 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 07:30 AM																	
07:30 AM	3	0	6	9	0	228	37	265	3	0	0	3	2	79	1	82	359
07:45 AM	3	0	4	7	0	214	33	247	2	0	2	4	2	95	3	100	358
08:00 AM	5	0	2	7	1	188	42	231	7	0	2	9	3	59	0	62	309
08:15 AM	3	0	1	4	0	176	38	214	1	0	5	6	3	63	0	66	290
Total Volume	14	0	13	27	1	806	150	957	13	0	9	22	10	296	4	310	1316
% App. Total	51.9	0	48.1		0.1	84.2	15.7		59.1	0	40.9		3.2	95.5	1.3		
PHF	.700	.000	.542	.750	.250	.884	.893	.903	.464	.000	.450	.611	.833	.779	.333	.775	.916

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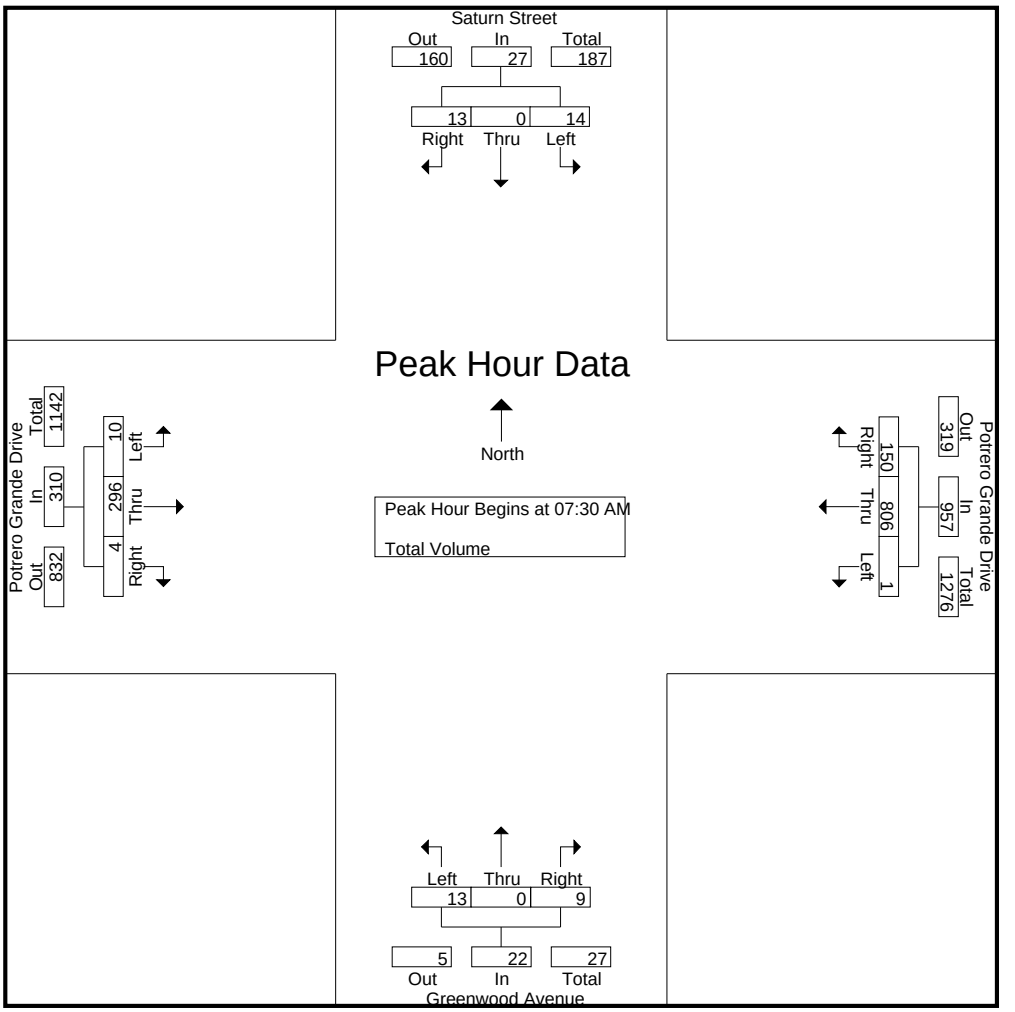
City of Monterey Park
N/S: Greenwood Avenue
E/W: Potrero Grande Drive
Weather: Clear

File Name : MNPGRPGAM
Site Code : 99900000
Start Date : 6/11/2015
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:

	07:15 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	2	0	4	6	0	228	37	265	3	0	0	3	2	79	1	82
+15 mins.	3	0	6	9	0	214	33	247	2	0	2	4	2	95	3	100
+30 mins.	3	0	4	7	1	188	42	231	7	0	2	9	3	59	0	62
+45 mins.	5	0	2	7	0	176	38	214	1	0	5	6	3	63	0	66
Total Volume	13	0	16	29	1	806	150	957	13	0	9	22	10	296	4	310
% App. Total	44.8	0	55.2		0.1	84.2	15.7		59.1	0	40.9		3.2	95.5	1.3	
PHF	.650	.000	.667	.806	.250	.884	.893	.903	.464	.000	.450	.611	.833	.779	.333	.775

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City of Monterey Park
N/S: Greenwood Avenue
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Groups Printed- Total Volume

	Saturn Street Southbound				Potrero Grande Drive Westbound				Greenwood Avenue Northbound				Potrero Grande Drive 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	17	0	1	18	0	95	3	98	1	0	1	2	1	150	0	151	269
04:15 PM	19	0	3	22	2	109	4	115	0	0	1	1	2	156	0	158	296
04:30 PM	37	0	2	39	0	83	5	88	13	0	12	25	2	172	1	175	327
04:45 PM	29	0	4	33	0	98	8	106	1	0	0	1	4	168	4	176	316
Total	102	0	10	112	2	385	20	407	15	0	14	29	9	646	5	660	1208
05:00 PM	57	0	2	59	0	93	5	98	1	0	1	2	5	181	0	186	345
05:15 PM	34	0	3	37	1	87	5	93	1	0	0	1	2	231	1	234	365
05:30 PM	49	0	2	51	6	81	8	95	1	0	1	2	3	214	0	217	365
05:45 PM	35	0	5	40	1	104	8	113	0	0	1	1	7	219	0	226	380
Total	175	0	12	187	8	365	26	399	3	0	3	6	17	845	1	863	1455
Grand Total	277	0	22	299	10	750	46	806	18	0	17	35	26	1491	6	1523	2663
Apprch %	92.6	0	7.4		1.2	93.1	5.7		51.4	0	48.6		1.7	97.9	0.4		
Total %	10.4	0	0.8	11.2	0.4	28.2	1.7	30.3	0.7	0	0.6	1.3	1	56	0.2	57.2	

	Saturn Street Southbound				Potrero Grande Drive Westbound				Greenwood Avenue Northbound				Potrero Grande Drive 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	57	0	2	59	0	93	5	98	1	0	1	2	5	181	0	186	345
05:15 PM	34	0	3	37	1	87	5	93	1	0	0	1	2	231	1	234	365
05:30 PM	49	0	2	51	6	81	8	95	1	0	1	2	3	214	0	217	365
05:45 PM	35	0	5	40	1	104	8	113	0	0	1	1	7	219	0	226	380
Total Volume	175	0	12	187	8	365	26	399	3	0	3	6	17	845	1	863	1455
% App. Total	93.6	0	6.4		2	91.5	6.5		50	0	50		2	97.9	0.1		
PHF	.768	.000	.600	.792	.333	.877	.813	.883	.750	.000	.750	.750	.607	.915	.250	.922	.957

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City of Monterey Park
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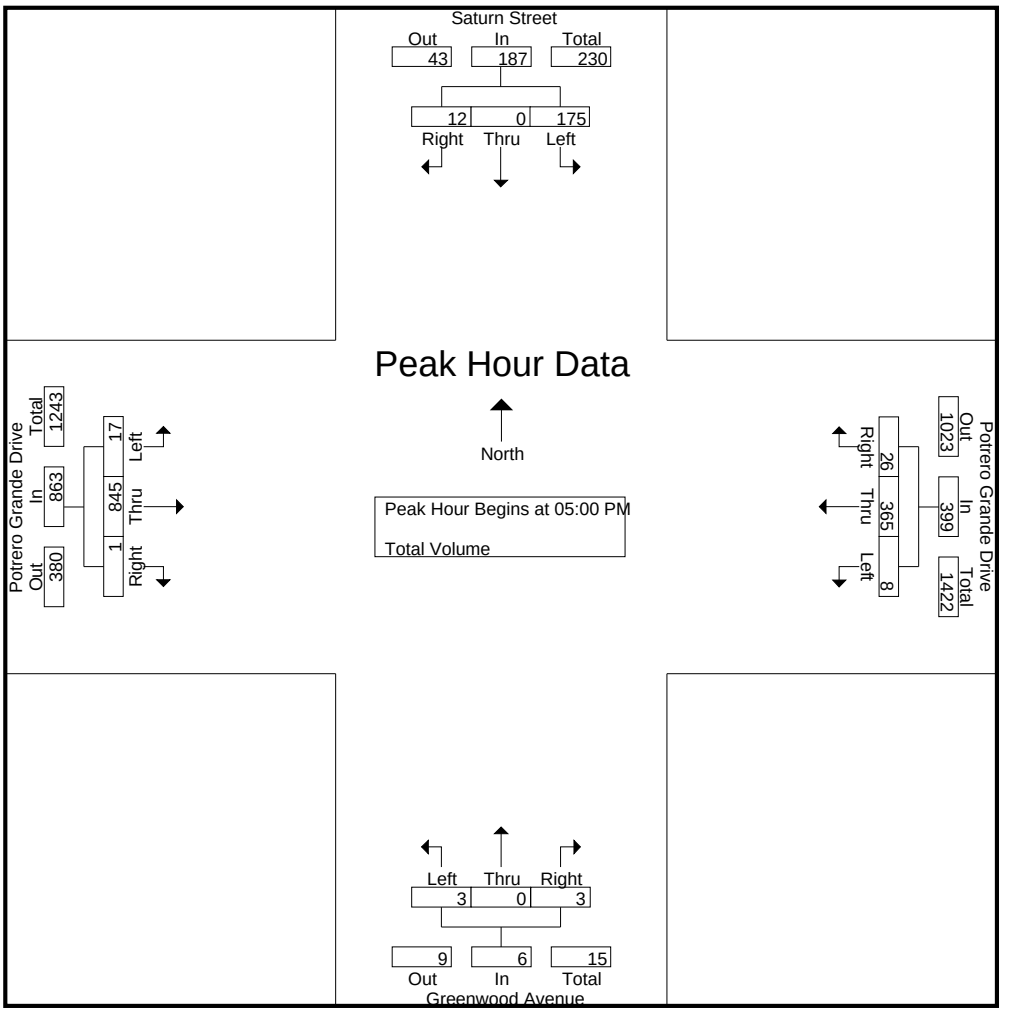

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				05:00 PM			
+0 mins.	57	0	2	59	0	95	3	98	1	0	1	2	5	181	0	186
+15 mins.	34	0	3	37	2	109	4	115	0	0	1	1	2	231	1	234
+30 mins.	49	0	2	51	0	83	5	88	13	0	12	25	3	214	0	217
+45 mins.	35	0	5	40	0	98	8	106	1	0	0	1	7	219	0	226
Total Volume	175	0	12	187	2	385	20	407	15	0	14	29	17	845	1	863
% App. Total	93.6	0	6.4		0.5	94.6	4.9		51.7	0	48.3		2	97.9	0.1	
PHF	.768	.000	.600	.792	.250	.883	.625	.885	.288	.000	.292	.290	.607	.915	.250	.922

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City of Monterey Park
N/S: Markland Drive
E/W: Potrero Grande Drive
Weather: Clear

File Name : MNPMAPGAM
Site Code : 99900000
Start Date : 6/11/2015
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Groups Printed- Total Volume

	Markland Drive Southbound				Potrero Grande Drive Westbound				Markland Drive Northbound				Potrero Grande Drive 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	35	2	45	33	109	2	144	12	5	64	81	1	21	15	37	307
07:15 AM	17	60	2	79	50	102	7	159	17	18	104	139	1	19	30	50	427
07:30 AM	24	83	2	109	77	132	13	222	19	28	117	164	1	11	37	49	544
07:45 AM	22	42	2	66	55	149	16	220	14	19	155	188	3	27	16	46	520
Total	71	220	8	299	215	492	38	745	62	70	440	572	6	78	98	182	1798
08:00 AM	31	44	1	76	47	123	24	194	17	24	124	165	9	18	17	44	479
08:15 AM	28	54	1	83	44	105	29	178	9	28	130	167	5	28	15	48	476
08:30 AM	35	58	1	94	26	94	25	145	12	21	120	153	7	40	14	61	453
08:45 AM	21	30	2	53	27	82	17	126	15	7	103	125	3	36	20	59	363
Total	115	186	5	306	144	404	95	643	53	80	477	610	24	122	66	212	1771
Grand Total	186	406	13	605	359	896	133	1388	115	150	917	1182	30	200	164	394	3569
Apprch %	30.7	67.1	2.1		25.9	64.6	9.6		9.7	12.7	77.6		7.6	50.8	41.6		
Total %	5.2	11.4	0.4	17	10.1	25.1	3.7	38.9	3.2	4.2	25.7	33.1	0.8	5.6	4.6	11	

	Markland Drive Southbound				Potrero Grande Drive Westbound				Markland Drive Northbound				Potrero Grande Drive 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 07:30 AM																	
07:30 AM	24	83	2	109	77	132	13	222	19	28	117	164	1	11	37	49	544
07:45 AM	22	42	2	66	55	149	16	220	14	19	155	188	3	27	16	46	520
08:00 AM	31	44	1	76	47	123	24	194	17	24	124	165	9	18	17	44	479
08:15 AM	28	54	1	83	44	105	29	178	9	28	130	167	5	28	15	48	476
Total Volume	105	223	6	334	223	509	82	814	59	99	526	684	18	84	85	187	2019
% App. Total	31.4	66.8	1.8		27.4	62.5	10.1		8.6	14.5	76.9		9.6	44.9	45.5		
PHF	.847	.672	.750	.766	.724	.854	.707	.917	.776	.884	.848	.910	.500	.750	.574	.954	.928

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City of Monterey Park
N/S: Markland Drive
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File Name : MNPMAPGAM
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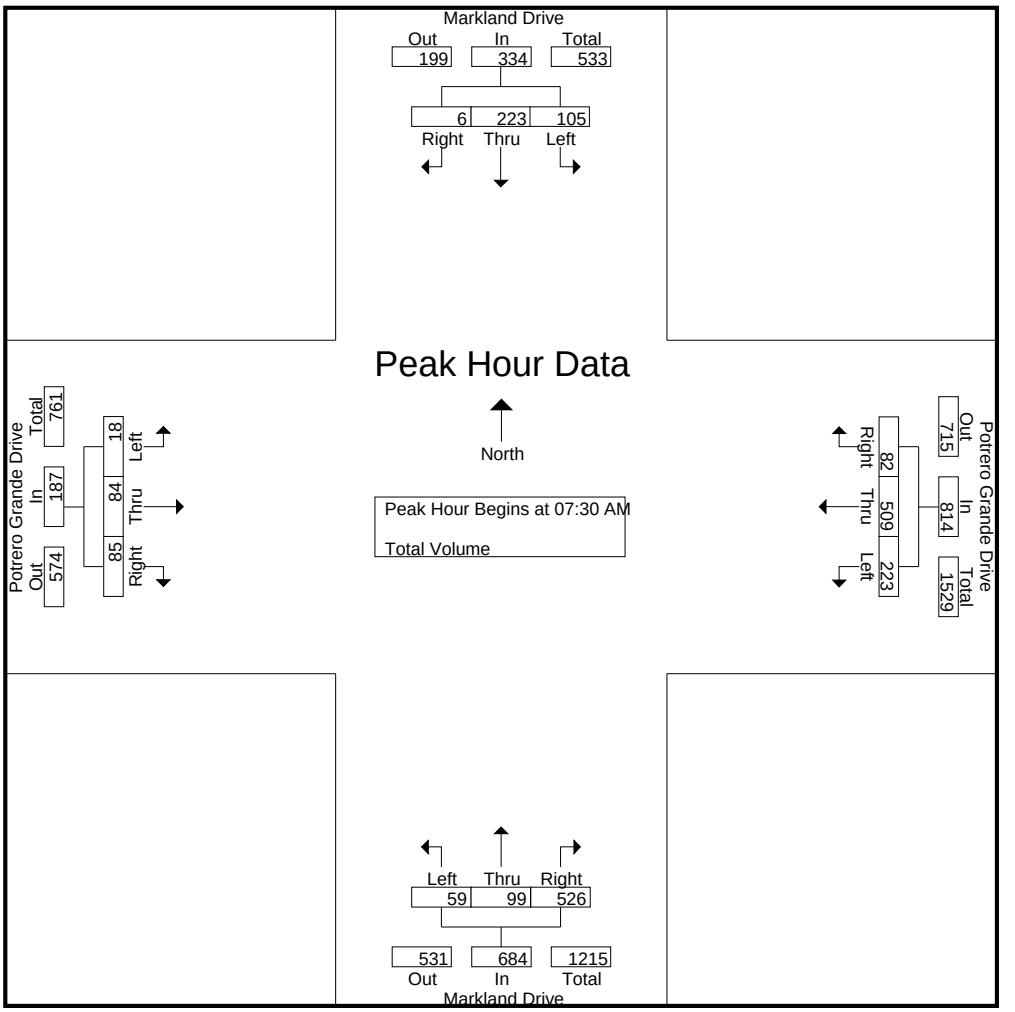

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				08:00 AM			
+0 mins.	24	83	2	109	77	132	13	222	19	28	117	164	9	18	17	44
+15 mins.	22	42	2	66	55	149	16	220	14	19	155	188	5	28	15	48
+30 mins.	31	44	1	76	47	123	24	194	17	24	124	165	7	40	14	61
+45 mins.	28	54	1	83	44	105	29	178	9	28	130	167	3	36	20	59
Total Volume	105	223	6	334	223	509	82	814	59	99	526	684	24	122	66	212
% App. Total	31.4	66.8	1.8		27.4	62.5	10.1		8.6	14.5	76.9		11.3	57.5	31.1	
PHF	.847	.672	.750	.766	.724	.854	.707	.917	.776	.884	.848	.910	.667	.763	.825	.869

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City of Monterey Park
N/S: Markland Drive
E/W: Potrero Grande Drive
Weather: Clear

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Groups Printed- Total Volume

	Markland Drive Southbound				Potrero Grande Drive Westbound				Markland Drive Northbound				Potrero Grande Drive 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	43	55	1	99	75	98	14	187	5	16	104	125	14	6	15	35	446
04:15 PM	40	46	0	86	55	77	16	148	9	14	113	136	9	5	24	38	408
04:30 PM	46	56	1	103	74	143	17	234	9	14	115	138	9	12	21	42	517
04:45 PM	62	40	1	103	52	97	11	160	8	11	148	167	11	13	32	56	486
Total	191	197	3	391	256	415	58	729	31	55	480	566	43	36	92	171	1857
05:00 PM	41	51	0	92	100	124	23	247	6	14	126	146	11	8	36	55	540
05:15 PM	57	54	1	112	77	115	22	214	7	17	156	180	16	13	42	71	577
05:30 PM	65	39	2	106	86	134	20	240	8	13	150	171	9	15	37	61	578
05:45 PM	52	53	2	107	73	92	15	180	11	17	136	164	12	16	32	60	511
Total	215	197	5	417	336	465	80	881	32	61	568	661	48	52	147	247	2206
Grand Total	406	394	8	808	592	880	138	1610	63	116	1048	1227	91	88	239	418	4063
Apprch %	50.2	48.8	1		36.8	54.7	8.6		5.1	9.5	85.4		21.8	21.1	57.2		
Total %	10	9.7	0.2	19.9	14.6	21.7	3.4	39.6	1.6	2.9	25.8	30.2	2.2	2.2	5.9	10.3	

	Markland Drive Southbound				Potrero Grande Drive Westbound				Markland Drive Northbound				Potrero Grande Drive 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	41	51	0	92	100	124	23	247	6	14	126	146	11	8	36	55	540
05:15 PM	57	54	1	112	77	115	22	214	7	17	156	180	16	13	42	71	577
05:30 PM	65	39	2	106	86	134	20	240	8	13	150	171	9	15	37	61	578
05:45 PM	52	53	2	107	73	92	15	180	11	17	136	164	12	16	32	60	511
Total Volume	215	197	5	417	336	465	80	881	32	61	568	661	48	52	147	247	2206
% App. Total	51.6	47.2	1.2		38.1	52.8	9.1		4.8	9.2	85.9		19.4	21.1	59.5		
PHF	.827	.912	.625	.931	.840	.868	.870	.892	.727	.897	.910	.918	.750	.813	.875	.870	.954

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City of Monterey Park
N/S: Markland Drive
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File Name : MNPMAPGPM
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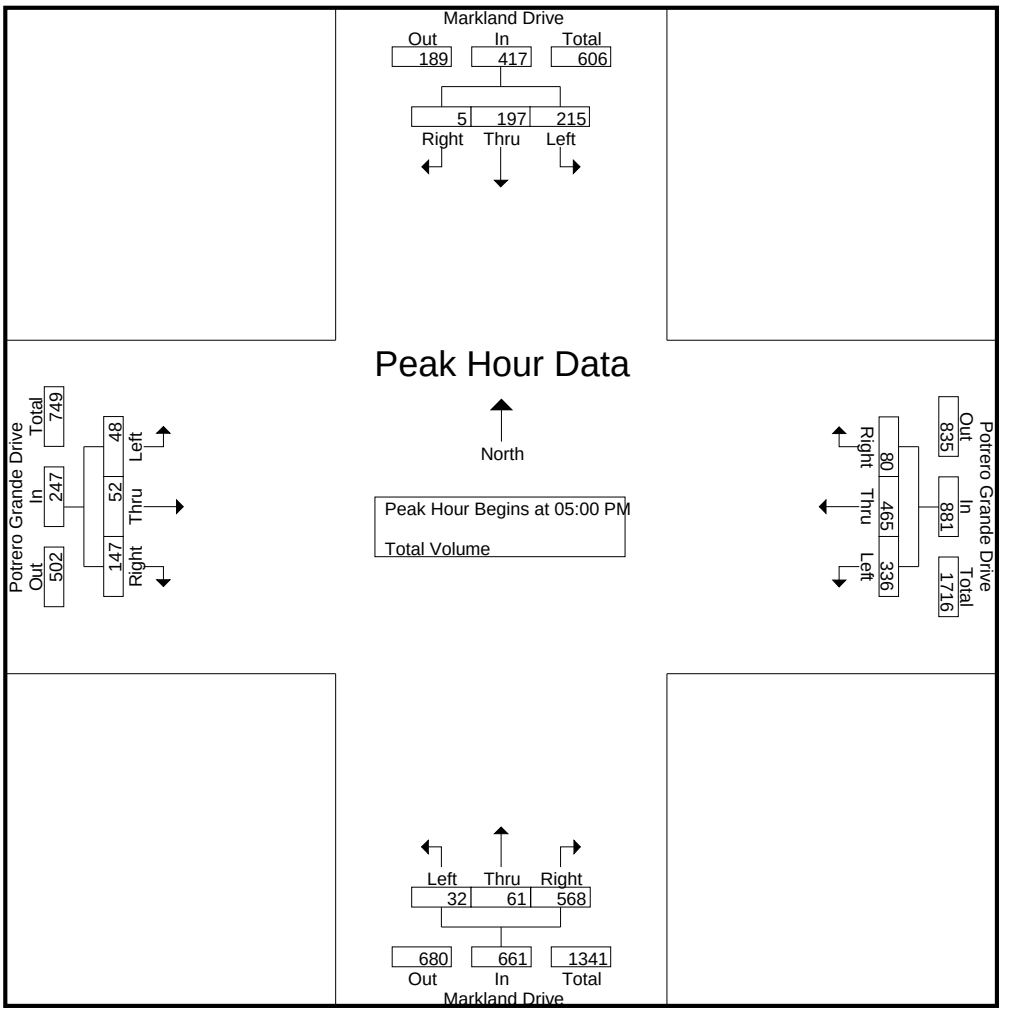

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				05:00 PM				04:45 PM				05:00 PM			
+0 mins.	41	51	0	92	100	124	23	247	8	11	148	167	11	8	36	55
+15 mins.	57	54	1	112	77	115	22	214	6	14	126	146	16	13	42	71
+30 mins.	65	39	2	106	86	134	20	240	7	17	156	180	9	15	37	61
+45 mins.	52	53	2	107	73	92	15	180	8	13	150	171	12	16	32	60
Total Volume	215	197	5	417	336	465	80	881	29	55	580	664	48	52	147	247
% App. Total	51.6	47.2	1.2		38.1	52.8	9.1		4.4	8.3	87.3		19.4	21.1	59.5	
PHF	.827	.912	.625	.931	.840	.868	.870	.892	.906	.809	.929	.922	.750	.813	.875	.870

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City of Rosemead
N/S: Paramount Blvd/San Gabriel Blvd
E/W: Hill Dr/San Gabriel Blvd
Weather: Clear

File Name : RMDPASGAM
Site Code : 99900000
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Groups Printed- Total Volume

	San Gabriel Boulevard Southbound				San Gabriel Boulevard Westbound				Paramount Boulevard Northbound				Hill Drive 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	32	82	8	122	13	71	48	132	12	40	5	57	3	32	33	68	379
07:15 AM	43	90	6	139	14	111	45	170	18	64	8	90	5	65	43	113	512
07:30 AM	38	92	5	135	14	89	46	149	19	51	7	77	4	71	57	132	493
07:45 AM	55	88	4	147	21	126	58	205	33	53	3	89	9	75	67	151	592
Total	168	352	23	543	62	397	197	656	82	208	23	313	21	243	200	464	1976
08:00 AM	62	104	3	169	25	115	61	201	47	71	9	127	14	106	94	214	711
08:15 AM	57	118	7	182	22	108	55	185	22	52	4	78	11	66	57	134	579
08:30 AM	47	106	2	155	22	100	68	190	17	51	8	76	11	70	43	124	545
08:45 AM	53	90	3	146	14	114	68	196	12	55	10	77	4	77	28	109	528
Total	219	418	15	652	83	437	252	772	98	229	31	358	40	319	222	581	2363
Grand Total	387	770	38	1195	145	834	449	1428	180	437	54	671	61	562	422	1045	4339
Apprch %	32.4	64.4	3.2		10.2	58.4	31.4		26.8	65.1	8		5.8	53.8	40.4		
Total %	8.9	17.7	0.9	27.5	3.3	19.2	10.3	32.9	4.1	10.1	1.2	15.5	1.4	13	9.7	24.1	

	San Gabriel Boulevard Southbound				San Gabriel Boulevard Westbound				Paramount Boulevard Northbound				Hill Drive 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	55	88	4	147	21	126	58	205	33	53	3	89	9	75	67	151	592
08:00 AM	62	104	3	169	25	115	61	201	47	71	9	127	14	106	94	214	711
08:15 AM	57	118	7	182	22	108	55	185	22	52	4	78	11	66	57	134	579
08:30 AM	47	106	2	155	22	100	68	190	17	51	8	76	11	70	43	124	545
Total Volume	221	416	16	653	90	449	242	781	119	227	24	370	45	317	261	623	2427
% App. Total	33.8	63.7	2.5		11.5	57.5	31		32.2	61.4	6.5		7.2	50.9	41.9		
PHF	.891	.881	.571	.897	.900	.891	.890	.952	.633	.799	.667	.728	.804	.748	.694	.728	.853

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City of Rosemead
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E/W: Hill Dr/San Gabriel Blvd
Weather: Clear

File Name : RMDPASGAM
Site Code : 99900000
Start Date : 6/11/2015
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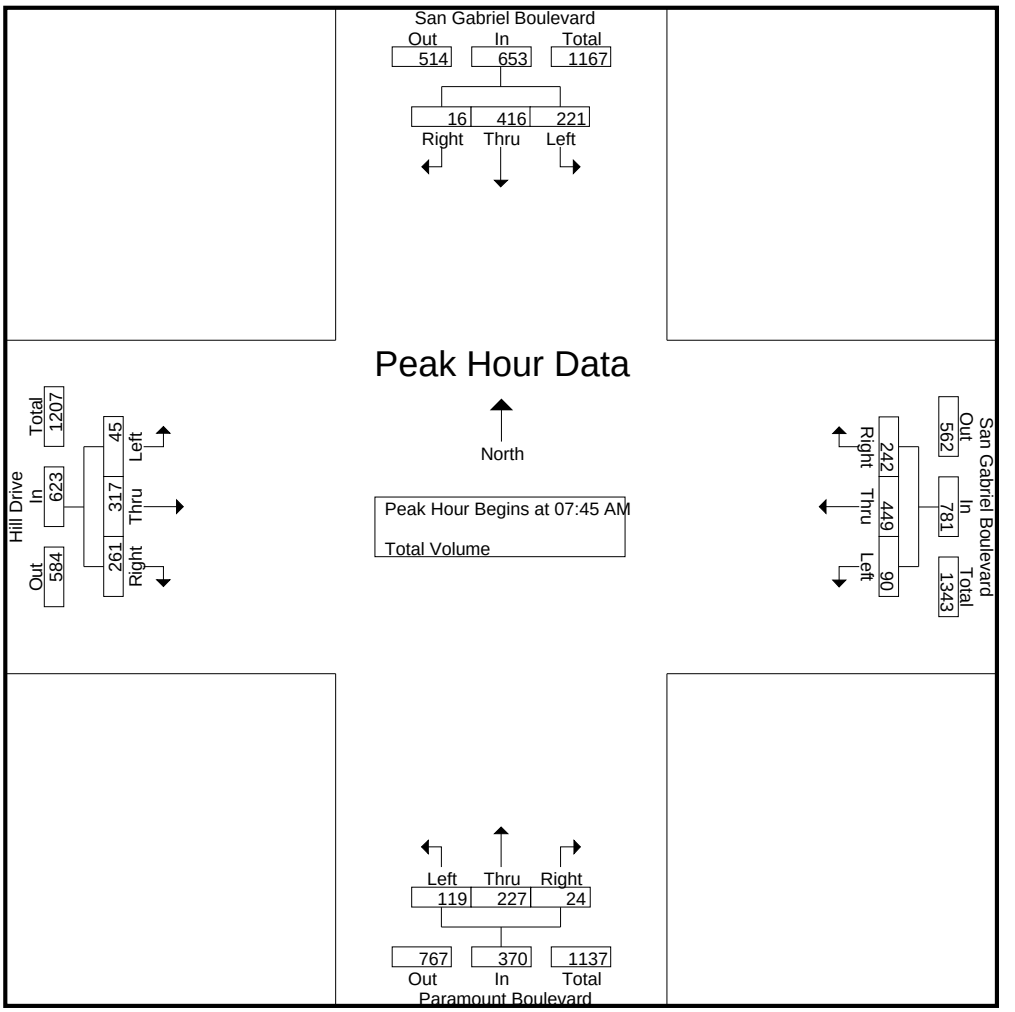

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:15 AM				07:30 AM			
+0 mins.	55	88	4	147	21	126	58	205	18	64	8	90	4	71	57	132
+15 mins.	62	104	3	169	25	115	61	201	19	51	7	77	9	75	67	151
+30 mins.	57	118	7	182	22	108	55	185	33	53	3	89	14	106	94	214
+45 mins.	47	106	2	155	22	100	68	190	47	71	9	127	11	66	57	134
Total Volume	221	416	16	653	90	449	242	781	117	239	27	383	38	318	275	631
% App. Total	33.8	63.7	2.5		11.5	57.5	31		30.5	62.4	7		6	50.4	43.6	
PHF	.891	.881	.571	.897	.900	.891	.890	.952	.622	.842	.750	.754	.679	.750	.731	.737

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Corona, CA 92878
(951) 268-6268

City of Rosemead
N/S: Paramount Blvd/San Gabriel Blvd
E/W: Hill Dr/San Gabriel Blvd
Weather: Clear

File Name : RMDPASGPM
Site Code : 99900000
Start Date : 6/11/2015
Page No : 1

Groups Printed- Total Volume

	San Gabriel Boulevard Southbound				San Gabriel Boulevard Westbound				Paramount Boulevard Northbound				Hill Drive 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	58	105	4	167	10	81	54	145	32	82	19	133	3	105	45	153	598
04:15 PM	55	98	4	157	9	87	52	148	35	98	19	152	7	97	34	138	595
04:30 PM	69	107	4	180	13	80	54	147	33	94	17	144	5	120	44	169	640
04:45 PM	88	100	4	192	15	85	69	169	38	110	15	163	4	109	33	146	670
Total	270	410	16	696	47	333	229	609	138	384	70	592	19	431	156	606	2503
05:00 PM	70	83	9	162	13	105	69	187	41	88	11	140	9	126	49	184	673
05:15 PM	75	93	6	174	14	120	66	200	60	127	22	209	12	103	46	161	744
05:30 PM	79	110	11	200	12	108	59	179	54	114	14	182	12	129	60	201	762
05:45 PM	76	106	6	188	14	120	69	203	72	142	15	229	15	98	56	169	789
Total	300	392	32	724	53	453	263	769	227	471	62	760	48	456	211	715	2968
Grand Total	570	802	48	1420	100	786	492	1378	365	855	132	1352	67	887	367	1321	5471
Apprch %	40.1	56.5	3.4		7.3	57	35.7		27	63.2	9.8		5.1	67.1	27.8		
Total %	10.4	14.7	0.9	26	1.8	14.4	9	25.2	6.7	15.6	2.4	24.7	1.2	16.2	6.7	24.1	

	San Gabriel Boulevard Southbound				San Gabriel Boulevard Westbound				Paramount Boulevard Northbound				Hill Drive 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	70	83	9	162	13	105	69	187	41	88	11	140	9	126	49	184	673
05:15 PM	75	93	6	174	14	120	66	200	60	127	22	209	12	103	46	161	744
05:30 PM	79	110	11	200	12	108	59	179	54	114	14	182	12	129	60	201	762
05:45 PM	76	106	6	188	14	120	69	203	72	142	15	229	15	98	56	169	789
Total Volume	300	392	32	724	53	453	263	769	227	471	62	760	48	456	211	715	2968
% App. Total	41.4	54.1	4.4		6.9	58.9	34.2		29.9	62	8.2		6.7	63.8	29.5		
PHF	.949	.891	.727	.905	.946	.944	.953	.947	.788	.829	.705	.830	.800	.884	.879	.889	.940

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City of Rosemead
N/S: Paramount Blvd/San Gabriel Blvd
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Weather: Clear

File Name : RMDPASGPM
Site Code : 99900000
Start Date : 6/11/2015
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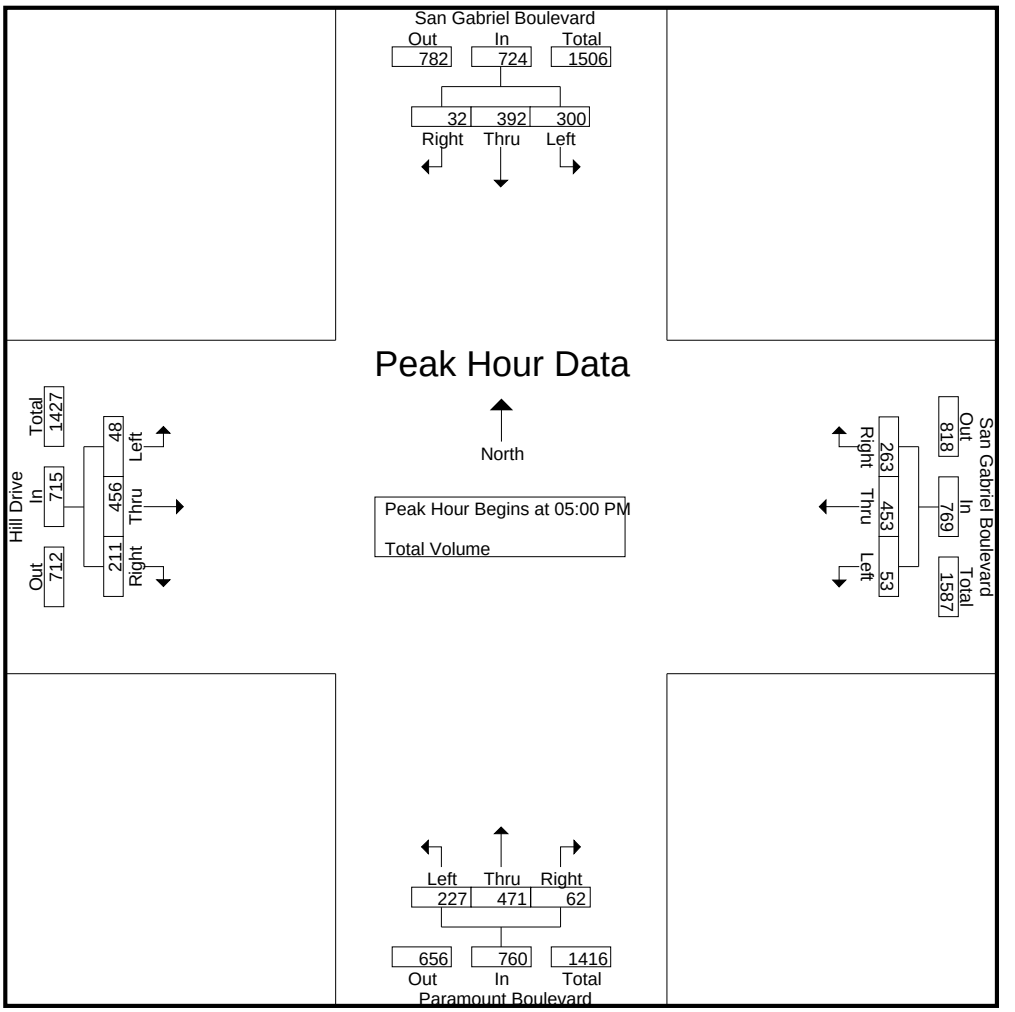

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	88	100	4	192	13	105	69	187	41	88	11	140	9	126	49	184
+15 mins.	70	83	9	162	14	120	66	200	60	127	22	209	12	103	46	161
+30 mins.	75	93	6	174	12	108	59	179	54	114	14	182	12	129	60	201
+45 mins.	79	110	11	200	14	120	69	203	72	142	15	229	15	98	56	169
Total Volume	312	386	30	728	53	453	263	769	227	471	62	760	48	456	211	715
% App. Total	42.9	53	4.1		6.9	58.9	34.2		29.9	62	8.2		6.7	63.8	29.5	
PHF	.886	.877	.682	.910	.946	.944	.953	.947	.788	.829	.705	.830	.800	.884	.879	.889

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City of Rosemead
N/S: Potrero Grande Drive
E/W: Hill Drive / Del Mar Avenue
Weather: Clear

File Name : RMDPOHIAM
Site Code : 99900000
Start Date : 6/11/2015
Page No : 1

Groups Printed- Total Volume

	Potrero Grande Drive Southbound				Hill Drive Westbound				Potrero Grande Drive Northbound				Del Mar Avenue 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	46	7	54	20	67	2	89	21	13	2	36	3	55	43	101	280
07:15 AM	6	79	4	89	22	93	2	117	34	32	12	78	2	89	60	151	435
07:30 AM	7	97	10	114	28	82	1	111	41	48	22	111	2	106	66	174	510
07:45 AM	1	99	6	106	44	93	0	137	31	26	40	97	8	99	59	166	506
Total	15	321	27	363	114	335	5	454	127	119	76	322	15	349	228	592	1731
08:00 AM	7	76	10	93	45	102	0	147	40	43	70	153	6	121	60	187	580
08:15 AM	2	83	11	96	47	101	1	149	33	34	14	81	7	102	48	157	483
08:30 AM	4	74	5	83	28	98	1	127	26	32	7	65	3	99	45	147	422
08:45 AM	3	71	8	82	27	108	1	136	32	43	5	80	5	96	46	147	445
Total	16	304	34	354	147	409	3	559	131	152	96	379	21	418	199	638	1930
Grand Total	31	625	61	717	261	744	8	1013	258	271	172	701	36	767	427	1230	3661
Apprch %	4.3	87.2	8.5		25.8	73.4	0.8		36.8	38.7	24.5		2.9	62.4	34.7		
Total %	0.8	17.1	1.7	19.6	7.1	20.3	0.2	27.7	7	7.4	4.7	19.1	1	21	11.7	33.6	

	Potrero Grande Drive Southbound				Hill Drive Westbound				Potrero Grande Drive Northbound				Del Mar Avenue 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 07:30 AM																	
07:30 AM	7	97	10	114	28	82	1	111	41	48	22	111	2	106	66	174	510
07:45 AM	1	99	6	106	44	93	0	137	31	26	40	97	8	99	59	166	506
08:00 AM	7	76	10	93	45	102	0	147	40	43	70	153	6	121	60	187	580
08:15 AM	2	83	11	96	47	101	1	149	33	34	14	81	7	102	48	157	483
Total Volume	17	355	37	409	164	378	2	544	145	151	146	442	23	428	233	684	2079
% App. Total	4.2	86.8	9		30.1	69.5	0.4		32.8	34.2	33		3.4	62.6	34.1		
PHF	.607	.896	.841	.897	.872	.926	.500	.913	.884	.786	.521	.722	.719	.884	.883	.914	.896

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City of Rosemead
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File Name : RMDPOHIAM
Site Code : 99900000
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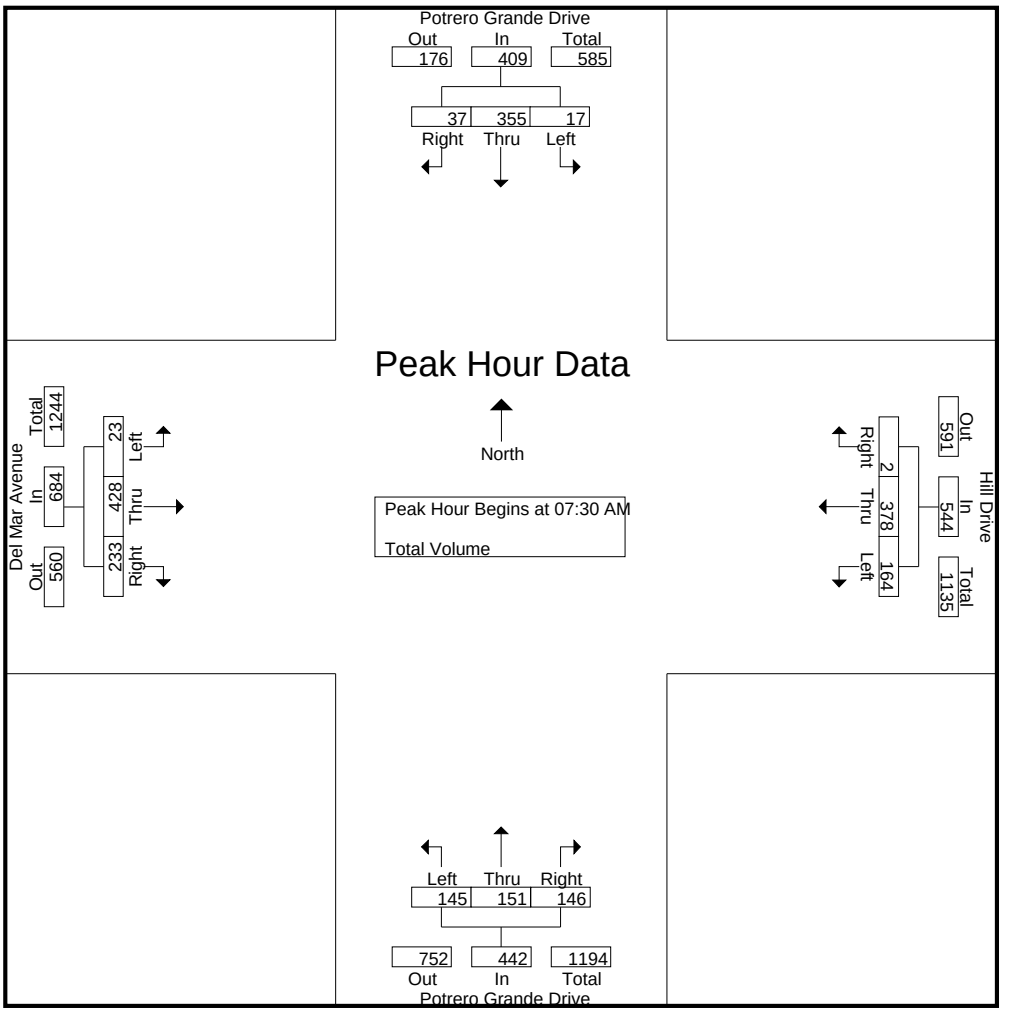

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:45 AM				07:30 AM				07:30 AM			
+0 mins.	7	97	10	114	44	93	0	137	41	48	22	111	2	106	66	174
+15 mins.	1	99	6	106	45	102	0	147	31	26	40	97	8	99	59	166
+30 mins.	7	76	10	93	47	101	1	149	40	43	70	153	6	121	60	187
+45 mins.	2	83	11	96	28	98	1	127	33	34	14	81	7	102	48	157
Total Volume	17	355	37	409	164	394	2	560	145	151	146	442	23	428	233	684
% App. Total	4.2	86.8	9		29.3	70.4	0.4		32.8	34.2	33		3.4	62.6	34.1	
PHF	.607	.896	.841	.897	.872	.966	.500	.940	.884	.786	.521	.722	.719	.884	.883	.914

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City of Rosemead
N/S: Potrero Grande Drive
E/W: Hill Drive / Del Mar Avenue
Weather: Clear

File Name : RMDPOHIPM
Site Code : 99900000
Start Date : 6/11/2015
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Groups Printed- Total Volume

	Potrero Grande Drive Southbound				Hill Drive Westbound				Potrero Grande Drive Northbound				Del Mar Avenue 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	37	10	50	13	106	5	124	58	69	27	154	14	117	51	182	510
04:15 PM	3	46	4	53	4	93	5	102	48	68	31	147	7	104	40	151	453
04:30 PM	4	48	9	61	10	100	4	114	52	75	24	151	6	145	37	188	514
04:45 PM	4	46	13	63	11	115	3	129	63	93	30	186	9	130	39	178	556
Total	14	177	36	227	38	414	17	469	221	305	112	638	36	496	167	699	2033
05:00 PM	6	52	6	64	10	131	3	144	85	103	25	213	16	151	40	207	628
05:15 PM	2	54	9	65	9	161	4	174	71	117	27	215	5	136	38	179	633
05:30 PM	2	54	9	65	8	172	4	184	72	133	35	240	16	165	44	225	714
05:45 PM	2	50	9	61	12	182	2	196	60	114	29	203	10	146	45	201	661
Total	12	210	33	255	39	646	13	698	288	467	116	871	47	598	167	812	2636
Grand Total	26	387	69	482	77	1060	30	1167	509	772	228	1509	83	1094	334	1511	4669
Apprch %	5.4	80.3	14.3		6.6	90.8	2.6		33.7	51.2	15.1		5.5	72.4	22.1		
Total %	0.6	8.3	1.5	10.3	1.6	22.7	0.6	25	10.9	16.5	4.9	32.3	1.8	23.4	7.2	32.4	

	Potrero Grande Drive Southbound				Hill Drive Westbound				Potrero Grande Drive Northbound				Del Mar Avenue 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	6	52	6	64	10	131	3	144	85	103	25	213	16	151	40	207	628
05:15 PM	2	54	9	65	9	161	4	174	71	117	27	215	5	136	38	179	633
05:30 PM	2	54	9	65	8	172	4	184	72	133	35	240	16	165	44	225	714
05:45 PM	2	50	9	61	12	182	2	196	60	114	29	203	10	146	45	201	661
Total Volume	12	210	33	255	39	646	13	698	288	467	116	871	47	598	167	812	2636
% App. Total	4.7	82.4	12.9		5.6	92.6	1.9		33.1	53.6	13.3		5.8	73.6	20.6		
PHF	.500	.972	.917	.981	.813	.887	.813	.890	.847	.878	.829	.907	.734	.906	.928	.902	.923

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City of Rosemead
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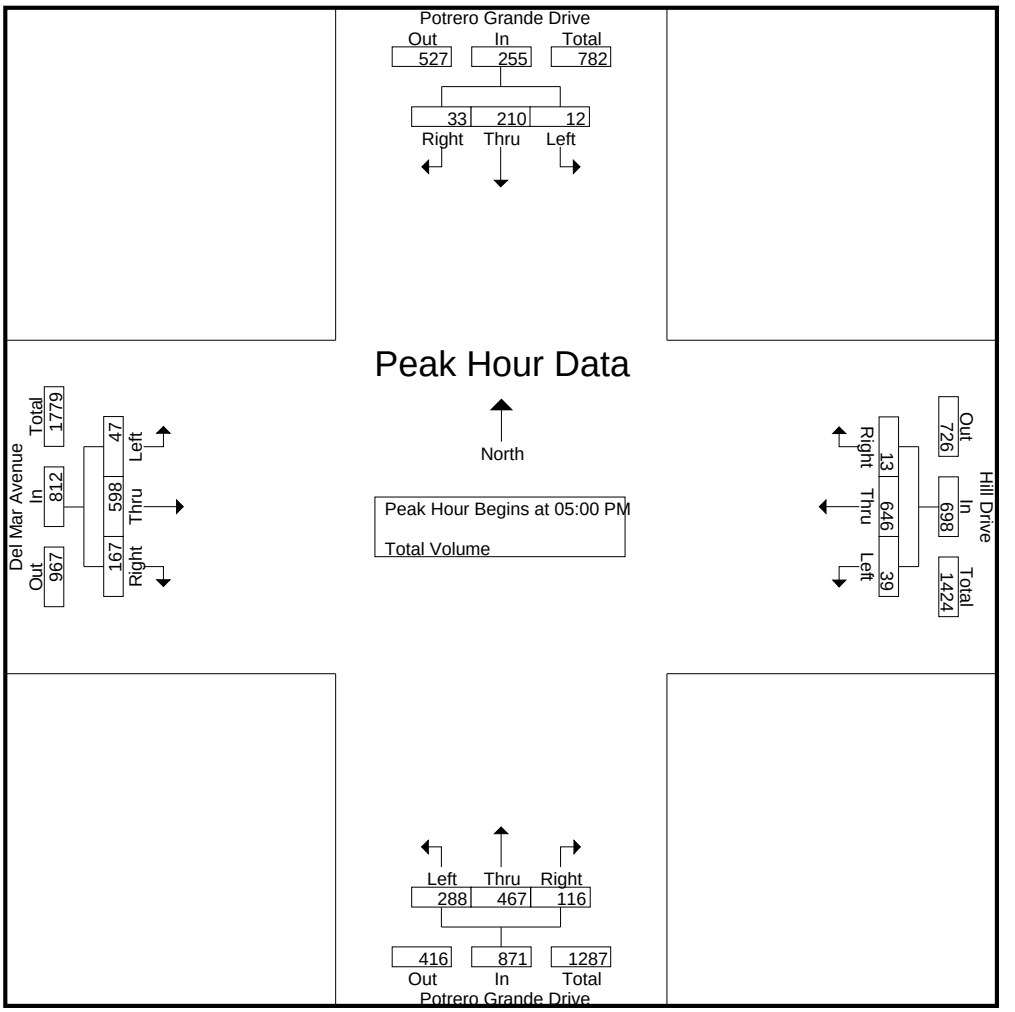

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				05:00 PM				05:00 PM				05:00 PM			
+0 mins.	4	46	13	63	10	131	3	144	85	103	25	213	16	151	40	207
+15 mins.	6	52	6	64	9	161	4	174	71	117	27	215	5	136	38	179
+30 mins.	2	54	9	65	8	172	4	184	72	133	35	240	16	165	44	225
+45 mins.	2	54	9	65	12	182	2	196	60	114	29	203	10	146	45	201
Total Volume	14	206	37	257	39	646	13	698	288	467	116	871	47	598	167	812
% App. Total	5.4	80.2	14.4		5.6	92.6	1.9		33.1	53.6	13.3		5.8	73.6	20.6	
PHF	.583	.954	.712	.988	.813	.887	.813	.890	.847	.878	.829	.907	.734	.906	.928	.902

Appendix B: LOS Worksheets

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.868
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	86	Level Of Service:	D

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1	1 0 0	0	0	2 0 1	0	0	0 0 0	0	1	2 0 1
Volume Module:												
Base Vol:	797	365	0	0	524	342	0	0	0	257	1073	160
Growth 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
Initial Bse:	797	365	0	0	524	342	0	0	0	257	1073	160
User 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
PHF 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
PHF Volume:	797	365	0	0	524	342	0	0	0	257	1073	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	797	365	0	0	524	342	0	0	0	257	1073	160
PCE 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
MLF 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
FinalVolume:	797	365	0	0	524	342	0	0	0	257	1073	160
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.58	2.42	1.00
Final Sat.:	2880	1600	0	0	3200	1600	0	0	0	928	3872	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.23	0.00	0.00	0.16	0.21	0.00	0.00	0.00	0.16	0.28	0.10
Crit Moves:	****					****					****	

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.737
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 3	0 1	1	1 1	0 0	1	0 2	0 1	1	0 0	0 1
Volume Module:												
Base Vol:	0	833	183	157	648	0	131	781	359	27	0	235
Growth 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
Initial Bse:	0	833	183	157	648	0	131	781	359	27	0	235
User 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
PHF 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
PHF Volume:	0	833	183	157	648	0	131	781	359	27	0	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	833	183	157	648	0	131	781	359	27	0	235
PCE 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
MLF 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
FinalVolume:	0	833	183	157	648	0	131	781	359	27	0	235
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.17	0.11	0.10	0.20	0.00	0.08	0.24	0.22	0.02	0.00	0.15
Crit Moves:		****			****			****		****		

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.700
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	503	333	0	0	344	66	0	0	0	283	1104	40
Growth 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
Initial Bse:	503	333	0	0	344	66	0	0	0	283	1104	40
User 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
PHF 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
PHF Volume:	503	333	0	0	344	66	0	0	0	283	1104	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	503	333	0	0	344	66	0	0	0	283	1104	40
PCE 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
MLF 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
FinalVolume:	503	333	0	0	344	66	0	0	0	283	1104	40
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.68	0.32	0.00	0.00	0.00	0.59	2.33	0.08
Final Sat.:	2880	3200	0	0	2685	515	0	0	0	952	3714	135
Capacity Analysis Module:												
Vol/Sat:	0.17	0.10	0.00	0.00	0.13	0.13	0.00	0.00	0.00	0.18	0.30	0.30
Crit Moves:	****				****						****	

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.776
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	315	790	164	127	483	40	32	941	307	20	96	41
Growth 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
Initial Bse:	315	790	164	127	483	40	32	941	307	20	96	41
User 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
PHF 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
PHF Volume:	315	790	164	127	483	40	32	941	307	20	96	41
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	790	164	127	483	40	32	941	307	20	96	41
PCE 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
MLF 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
FinalVolume:	315	790	164	127	483	40	32	941	307	20	96	41
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.85	0.15	0.07	2.21	0.72	0.25	1.23	0.52
Final Sat.:	1600	4800	1600	1600	2955	245	120	3529	1151	408	1957	836
Capacity Analysis Module:												
Vol/Sat:	0.20	0.16	0.10	0.08	0.16	0.16	0.27	0.27	0.27	0.05	0.05	0.05
Crit Moves:	****				****			****			****	

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.658
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0 1	1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	81	234	144	146	151	71	456	571	49	0	0	0
Growth 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
Initial Bse:	81	234	144	146	151	71	456	571	49	0	0	0
User 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
PHF 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
PHF Volume:	81	234	144	146	151	71	456	571	49	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	234	144	146	151	71	456	571	49	0	0	0
PCE 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
MLF 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
FinalVolume:	81	234	144	146	151	71	456	571	49	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.36	0.64	0.89	1.11	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2177	1023	1421	1779	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.15	0.09	0.09	0.07	0.07	0.28	0.32	0.03	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.547
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	36	Level Of Service:	A

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	0	1!	0	0	1	0
Volume Module: >> Count Date: 11 Jun 2015 <<												
Base Vol:	59	99	526	105	223	6	18	84	85	223	509	82
Growth 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
Initial Bse:	59	99	526	105	223	6	18	84	85	223	509	82
User 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
PHF 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
PHF Volume:	59	99	526	105	223	6	18	84	85	223	509	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	99	526	105	223	6	18	84	85	223	509	82
PCE 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
MLF 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
FinalVolume:	59	99	526	105	223	6	18	84	85	223	509	82
OvlAdjVol:			303									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.37	0.63	1.00	0.31	0.67	0.02	1.00	1.00	1.00	1.00	1.72	0.28
Final Sat.:	597	1003	1600	503	1068	29	1600	1600	1600	1600	2756	444
Capacity Analysis Module:												
Vol/Sat:	0.04	0.10	0.33	0.07	0.21	0.21	0.01	0.05	0.05	0.14	0.18	0.18
OvlAdjV/S:			0.19									
Crit Moves:			****	****				****		****		

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.421
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	13	0	9	14	0	13	10	296	4	1	806	150
Growth 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
Initial Bse:	13	0	9	14	0	13	10	296	4	1	806	150
User 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
PHF 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
PHF Volume:	13	0	9	14	0	13	10	296	4	1	806	150
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	0	9	14	0	13	10	296	4	1	806	150
PCE 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
MLF 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
FinalVolume:	13	0	9	14	0	13	10	296	4	1	806	150
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.97	0.03	1.00	1.69	0.31
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3157	43	1600	2698	502
Capacity Analysis Module:												
Vol/Sat:	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.09	0.09	0.00	0.30	0.30
Crit Moves:	****					****	****				****	

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.615
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	146	152	147	17	358	37	23	432	235	165	381	2
Growth 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
Initial Bse:	146	152	147	17	358	37	23	432	235	165	381	2
User 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
PHF 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
PHF Volume:	146	152	147	17	358	37	23	432	235	165	381	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	146	152	147	17	358	37	23	432	235	165	381	2
PCE 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
MLF 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
FinalVolume:	146	152	147	17	358	37	23	432	235	165	381	2
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.30	0.70	1.00	1.99	0.01
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2073	1127	1600	3183	17
Capacity Analysis Module:												
Vol/Sat:	0.09	0.05	0.09	0.01	0.11	0.02	0.01	0.21	0.21	0.10	0.12	0.12
Crit Moves:	****				****			****			****	

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.552
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	1 0	1 0	1	0 1	1 0	1	0 2	1 0
Volume Module:												
Base Vol:	119	227	24	221	416	16	45	317	261	90	449	242
Growth 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
Initial Bse:	119	227	24	221	416	16	45	317	261	90	449	242
User 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
PHF 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
PHF Volume:	119	227	24	221	416	16	45	317	261	90	449	242
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	227	24	221	416	16	45	317	261	90	449	242
PCE 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
MLF 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
FinalVolume:	119	227	24	221	416	16	45	317	261	90	449	242
OvlAdjVol:												23
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.02	1.91	0.07	1.00	1.10	0.90	1.00	2.00	1.00
Final Sat.:	1600	2894	306	1630	3054	117	1600	1755	1445	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.08	0.08	0.14	0.14	0.14	0.03	0.18	0.18	0.06	0.14	0.15
OvlAdjV/S:												0.01
Crit Moves:	****				****		****			****		

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	0.554
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	37	Level Of Service:	A

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	41	412	191	0	920	7	19	4	165	188	14	114
Growth 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
Initial Bse:	41	412	191	0	920	7	19	4	165	188	14	114
User 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
PHF 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
PHF Volume:	41	412	191	0	920	7	19	4	165	188	14	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	412	191	0	920	7	19	4	165	188	14	114
PCE 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
MLF 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
FinalVolume:	41	412	191	0	920	7	19	4	165	188	14	114
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.98	0.02	0.10	0.02	0.88	0.93	0.07	1.00
Final Sat.:	1600	3200	1600	0	4764	36	162	34	1404	1489	111	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.13	0.12	0.00	0.19	0.19	0.01	0.12	0.12	0.12	0.13	0.07
Crit Moves:	****				****			****		****		

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.370
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	27	Level Of Service:	A

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	652	8	58	476	0	144	71	158	7	0	44
Growth 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
Initial Bse:	0	652	8	58	476	0	144	71	158	7	0	44
User 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
PHF 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
PHF Volume:	0	652	8	58	476	0	144	71	158	7	0	44
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	652	8	58	476	0	144	71	158	7	0	44
PCE 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
MLF 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
FinalVolume:	0	652	8	58	476	0	144	71	158	7	0	44
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.96	0.04	2.00	2.00	0.00	1.34	0.66	1.00	1.00	0.00	2.00
Final Sat.:	0	4742	58	2880	3200	0	2143	1057	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.14	0.14	0.02	0.15	0.00	0.07	0.07	0.10	0.00	0.00	0.01
Crit Moves:		****		****					****			****

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.667
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	1	1 0 1	1	0 1	1 0	1	1	1 0 1
Volume Module:												
Base Vol:	3	60	33	373	12	1	6	18	9	86	43	657
Growth 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
Initial Bse:	3	60	33	373	12	1	6	18	9	86	43	657
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	60	0	373	12	1	6	18	9	86	43	657
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	60	0	373	12	1	6	18	9	86	43	657
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	60	0	373	12	1	6	18	9	86	43	657
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.33	0.67	2.00	1.00	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	2133	1067	3200	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.00	0.13	0.01	0.00	0.00	0.01	0.01	0.03	0.03	0.41
Crit Moves:		****		****				****				****

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.698
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1! 0	0	1	0 1 1 0	0	0	2 0 2
Volume Module:												
Base Vol:	9	12	9	598	20	78	37	705	21	0	892	1085
Growth 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
Initial Bse:	9	12	9	598	20	78	37	705	21	0	892	1085
User 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
PHF 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
PHF Volume:	9	12	9	598	20	78	37	705	21	0	892	1085
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	9	598	20	78	37	705	21	0	892	1085
PCE 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
MLF 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
FinalVolume:	9	12	9	598	20	78	37	705	21	0	892	1085
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.40	0.30	1.72	0.06	0.22	1.00	1.94	0.06	0.00	2.00	2.00
Final Sat.:	480	640	480	2749	92	359	1600	3107	93	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.22	0.22	0.22	0.02	0.23	0.23	0.00	0.28	0.34
Crit Moves:		****			****			****				****

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	43	1157	176	196	1278	3	16	13	26	103	22	849
Growth 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
Initial Bse:	43	1157	176	196	1278	3	16	13	26	103	22	849
User 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
PHF 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
PHF Volume:	43	1157	176	196	1278	3	16	13	26	103	22	849
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	1157	176	196	1278	3	16	13	26	103	22	849
PCE 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
MLF 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
FinalVolume:	43	1157	176	196	1278	3	16	13	26	103	22	849
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.60	0.40	1.00	1.99	0.01	0.55	0.45	1.00	1.00	0.05	1.95
Final Sat.:	1600	4166	634	1600	3193	7	883	717	1600	1600	81	3119
Capacity Analysis Module:												
Vol/Sat:	0.03	0.28	0.28	0.12	0.40	0.40	0.01	0.02	0.02	0.06	0.27	0.27
Crit Moves:	****				****		****				****	

Mesa Substation
Existing
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.699
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	2	0 1	1 1	0	0 1	0 1	0	1 0
Volume Module:												
Base Vol:	35	829	41	62	313	723	262	30	131	12	35	70
Growth 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
Initial Bse:	35	829	41	62	313	723	262	30	131	12	35	70
User 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
PHF 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
PHF Volume:	35	829	41	62	313	723	262	30	131	12	35	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	829	41	62	313	723	262	30	131	12	35	70
PCE 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
MLF 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
FinalVolume:	35	829	41	62	313	723	262	30	131	12	35	70
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.91	0.09	1.00	2.00	1.00	1.79	0.21	1.00	0.21	0.79	1.00
Final Sat.:	2880	3049	151	1600	3200	1600	2871	329	1600	328	1272	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.27	0.27	0.04	0.10	0.45	0.09	0.09	0.08	0.04	0.03	0.04
Crit Moves:	****					****		****				****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	456	571	49	0	0	0	81	234	144	146	151	71
Future Volume (veh/h)	456	571	49	0	0	0	81	234	144	146	151	71
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	490	614	53				87	252	155	157	162	76
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	717	715	640				128	411	350	200	622	279
Arrive On Green	0.40	0.40	0.40				0.07	0.22	0.22	0.11	0.26	0.26
Sat Flow, veh/h	1810	1805	1615				1810	1900	1615	1810	2424	1089
Grp Volume(v), veh/h	490	614	53				87	252	155	157	119	119
Grp Sat Flow(s),veh/h/ln	1810	1805	1615				1810	1900	1615	1810	1805	1708
Q Serve(g_s), s	10.9	15.2	1.0				2.3	5.8	4.1	4.1	2.6	2.7
Cycle Q Clear(g_c), s	10.9	15.2	1.0				2.3	5.8	4.1	4.1	2.6	2.7
Prop In Lane	1.00		1.00				1.00		1.00	1.00		0.64
Lane Grp Cap(c), veh/h	717	715	640				128	411	350	200	463	438
V/C Ratio(X)	0.68	0.86	0.08				0.68	0.61	0.44	0.78	0.26	0.27
Avail Cap(c_a), veh/h	760	758	678				189	759	645	241	773	731
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	13.5	9.2				22.1	17.3	16.6	21.1	14.4	14.5
Incr Delay (d2), s/veh	2.4	9.4	0.1				6.1	1.5	0.9	13.0	0.3	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	5.9	9.4	1.2				1.4	3.2	1.9	2.8	1.3	1.3
LnGrp Delay(d),s/veh	14.6	22.9	9.3				28.2	18.8	17.5	34.1	14.7	14.8
LnGrp LOS	B	C	A				C	B	B	C	B	B
Approach Vol, veh/h		1157						494			395	
Approach Delay, s/veh		18.7						20.0			22.5	
Approach LOS		B						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	9.9	15.1		23.8	8.0	17.0		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	6.5	19.5		20.5	5.1	20.9		
Max Q Clear Time (g_c+I1), s	6.1	7.8		17.2	4.3	4.7		
Green Ext Time (p_c), s	0.0	2.7		2.1	0.0	3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	84	85	223	509	82	59	99	526	105	223	6
Future Volume (veh/h)	18	84	85	223	509	82	59	99	526	105	223	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	90	91	240	547	88	63	106	566	113	240	6
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	347	295	302	1016	163	274	416	840	218	384	8
Arrive On Green	0.02	0.18	0.18	0.17	0.33	0.33	0.35	0.35	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1810	1900	1615	1810	3117	500	468	1176	1615	322	1087	24
Grp Volume(v), veh/h	19	90	91	240	316	319	169	0	566	359	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1812	1643	0	1615	1432	0	0
Q Serve(g_s), s	0.5	1.8	2.2	5.8	6.5	6.5	0.0	0.0	11.8	5.5	0.0	0.0
Cycle Q Clear(g_c), s	0.5	1.8	2.2	5.8	6.5	6.5	2.9	0.0	11.8	9.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.28	0.37		1.00	0.31		0.02
Lane Grp Cap(c), veh/h	42	347	295	302	589	591	690	0	840	610	0	0
V/C Ratio(X)	0.45	0.26	0.31	0.79	0.54	0.54	0.25	0.00	0.67	0.59	0.00	0.00
Avail Cap(c_a), veh/h	199	752	640	418	933	937	755	0	909	666	0	0
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	0.00
Uniform Delay (d), s/veh	21.9	15.9	16.1	18.2	12.5	12.5	10.4	0.0	8.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	7.2	0.4	0.6	7.1	0.8	0.8	0.2	0.0	1.8	1.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.0	1.0	3.5	3.4	3.4	1.5	0.0	5.6	4.0	0.0	0.0
LnGrp Delay(d),s/veh	29.1	16.3	16.7	25.3	13.3	13.3	10.6	0.0	9.8	13.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B		A	B		
Approach Vol, veh/h		200			875			735			359	
Approach Delay, s/veh		17.7			16.6			10.0			13.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		20.6	12.1	12.8		20.6	5.6	19.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.0	23.5
Max Q Clear Time (g_c+I1), s		13.8	7.8	4.2		11.0	2.5	8.5
Green Ext Time (p_c), s		2.3	0.2	4.1		3.4	0.0	4.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	4	165	188	14	114	41	412	191	0	920	7
Future Volume (veh/h)	19	4	165	188	14	114	41	412	191	0	920	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	22	5	188	214	16	130	47	468	217	0	1045	8
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	31	369	593	31	424	427	1686	754	0	2481	19
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.47	0.47	0.47	0.00	0.47	0.47
Sat Flow, veh/h	83	120	1408	1365	119	1615	544	3610	1615	0	5481	41
Grp Volume(v), veh/h	215	0	0	230	0	130	47	468	217	0	680	373
Grp Sat Flow(s),veh/h/ln	1610	0	0	1484	0	1615	544	1805	1615	0	1729	1893
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	1.9	1.9	2.3	2.4	0.0	3.9	3.9
Cycle Q Clear(g_c), s	3.3	0.0	0.0	3.2	0.0	1.9	5.7	2.3	2.4	0.0	3.9	3.9
Prop In Lane	0.10		0.87	0.93		1.00	1.00		1.00	0.00		0.02
Lane Grp Cap(c), veh/h	556	0	0	624	0	424	427	1686	754	0	1615	884
V/C Ratio(X)	0.39	0.00	0.00	0.37	0.00	0.31	0.11	0.28	0.29	0.00	0.42	0.42
Avail Cap(c_a), veh/h	996	0	0	970	0	874	467	1953	874	0	1871	1024
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	0.0	0.0	9.2	0.0	8.8	7.1	4.8	4.8	0.0	5.2	5.2
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.4	0.1	0.1	0.2	0.0	0.2	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(50%),veh/ln	1.6	0.0	0.0	1.6	0.0	0.9	0.3	1.2	1.1	0.0	1.8	2.0
LnGrp Delay(d),s/veh	9.7	0.0	0.0	9.6	0.0	9.2	7.2	4.9	5.1	0.0	5.4	5.5
LnGrp LOS	A			A		A	A	A	A		A	A
Approach Vol, veh/h		215			360			732			1053	
Approach Delay, s/veh		9.7			9.4			5.1			5.5	
Approach LOS		A			A			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		17.8		11.8		17.8		11.8
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		7.7		5.3		5.9		5.2
Green Ext Time (p_c), s		6.1		2.5		7.2		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	71	158	7	0	44	0	652	8	58	476	0
Future Volume (veh/h)	144	71	158	7	0	44	0	652	8	58	476	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	112	127	165	7	0	46	0	679	8	60	496	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	337	353	300	0	0	0	0	1868	22	223	1983	0
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.00	0.35	0.35	0.06	0.55	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5456	62	3510	3705	0
Grp Volume(v), veh/h	112	127	165		0.0		0	444	243	60	496	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1889	1755	1805	0
Q Serve(g_s), s	1.8	2.0	3.2				0.0	3.2	3.2	0.6	2.4	0.0
Cycle Q Clear(g_c), s	1.8	2.0	3.2				0.0	3.2	3.2	0.6	2.4	0.0
Prop In Lane	1.00		1.00				0.00		0.03	1.00		0.00
Lane Grp Cap(c), veh/h	337	353	300				0	1222	668	223	1983	0
V/C Ratio(X)	0.33	0.36	0.55				0.00	0.36	0.36	0.27	0.25	0.00
Avail Cap(c_a), veh/h	984	1033	878				0	2033	1111	568	3184	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.0	12.1	12.6				0.0	8.2	8.2	15.2	4.0	0.0
Incr Delay (d2), s/veh	0.6	0.6	1.6				0.0	0.2	0.3	0.6	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	1.1	1.5				0.0	1.6	1.7	0.3	1.2	0.0
LnGrp Delay(d),s/veh	12.6	12.7	14.1				0.0	8.3	8.5	15.8	4.1	0.0
LnGrp LOS	B	B	B					A	A	B	A	
Approach Vol, veh/h		404						687			556	
Approach Delay, s/veh		13.2						8.4			5.3	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.7	16.5		10.8		23.2		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.5	20.0		18.5		30.0		
Max Q Clear Time (g_c+I1), s	2.6	5.2		5.2		4.4		
Green Ext Time (p_c), s	0.0	6.8		1.3		8.8		

Intersection Summary	
HCM 2010 Ctrl Delay	8.6
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	18	9	86	43	657	3	60	33	373	12	1
Future Volume (veh/h)	6	18	9	86	43	657	3	60	33	373	12	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	20	10	93	47	0	3	65	0	405	13	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	105	49	405	213	181	129	257	115	737	387	329
Arrive On Green	0.04	0.04	0.04	0.11	0.11	0.00	0.07	0.07	0.00	0.20	0.20	0.00
Sat Flow, veh/h	1810	2398	1111	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	7	15	15	93	47	0	3	65	0	405	13	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1704	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	0.1	0.2	0.3	0.7	0.7	0.0	0.0	0.5	0.0	3.2	0.2	0.0
Cycle Q Clear(g_c), s	0.1	0.2	0.3	0.7	0.7	0.0	0.0	0.5	0.0	3.2	0.2	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	79	75	405	213	181	129	257	115	737	387	329
V/C Ratio(X)	0.09	0.19	0.21	0.23	0.22	0.00	0.02	0.25	0.00	0.55	0.03	0.00
Avail Cap(c_a), veh/h	1030	1028	970	2061	1082	920	1030	2056	920	2061	1082	920
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.5	14.6	14.6	12.8	12.8	0.0	13.7	13.9	0.0	11.3	10.1	0.0
Incr Delay (d2), s/veh	0.5	1.1	1.3	0.3	0.5	0.0	0.1	0.5	0.0	0.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	0.2	0.4	0.4	0.0	0.0	0.3	0.0	1.6	0.1	0.0
LnGrp Delay(d),s/veh	15.0	15.7	15.9	13.1	13.3	0.0	13.7	14.4	0.0	11.9	10.1	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		37			140			68			418	
Approach Delay, s/veh		15.6			13.2			14.4			11.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		6.7		5.9		10.9		8.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.5		2.3		5.2		2.7
Green Ext Time (p_c), s		0.2		0.1		1.3		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	13	26	103	22	849	43	1157	176	196	1278	3
Future Volume (veh/h)	16	13	26	103	22	849	43	1157	176	196	1278	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	14	28	111	0	929	46	1244	189	211	1374	3
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	143	126	176	526	0	932	80	1598	243	260	1667	4
Arrive On Green	0.29	0.29	0.29	0.29	0.00	0.29	0.04	0.35	0.35	0.14	0.45	0.45
Sat Flow, veh/h	239	438	612	1386	0	3230	1810	4546	691	1810	3696	8
Grp Volume(v), veh/h	59	0	0	111	0	929	46	946	487	211	671	706
Grp Sat Flow(s),veh/h/ln	1289	0	0	1386	0	1615	1810	1729	1778	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	17.9	1.6	15.2	15.2	7.1	20.3	20.3
Cycle Q Clear(g_c), s	1.5	0.0	0.0	3.3	0.0	17.9	1.6	15.2	15.2	7.1	20.3	20.3
Prop In Lane	0.29		0.47	1.00		1.00	1.00		0.39	1.00		0.00
Lane Grp Cap(c), veh/h	446	0	0	526	0	932	80	1216	625	260	814	856
V/C Ratio(X)	0.13	0.00	0.00	0.21	0.00	1.00	0.58	0.78	0.78	0.81	0.82	0.82
Avail Cap(c_a), veh/h	446	0	0	526	0	932	145	1231	633	328	825	867
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	0.0	0.0	16.9	0.0	22.2	29.2	18.1	18.1	25.9	15.0	15.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	28.6	6.4	3.2	6.1	11.7	6.8	6.5
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	1.5	0.0	11.6	0.9	7.8	8.5	4.4	11.6	12.1
LnGrp Delay(d),s/veh	16.5	0.0	0.0	17.1	0.0	50.8	35.7	21.3	24.1	37.6	21.7	21.4
LnGrp LOS	B			B		D	D	C	C	D	C	C
Approach Vol, veh/h		59			1040			1479			1588	
Approach Delay, s/veh		16.5			47.2			22.7			23.7	
Approach LOS		B			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.4	26.4		22.5	7.2	32.6		22.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	11.3	22.2		18.0	5.0	28.5		18.0
Max Q Clear Time (g_c+I1), s	9.1	17.2		3.5	3.6	22.3		19.9
Green Ext Time (p_c), s	0.1	4.7		4.5	0.0	5.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	262	30	131	12	35	70	35	829	41	62	313	723
Future Volume (veh/h)	262	30	131	12	35	70	35	829	41	62	313	723
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	309	0	142	13	38	76	38	901	45	67	340	786
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	521	0	233	38	112	129	142	1321	66	107	1430	640
Arrive On Green	0.14	0.00	0.14	0.08	0.08	0.08	0.04	0.38	0.38	0.06	0.40	0.40
Sat Flow, veh/h	3619	0	1615	478	1398	1615	3510	3499	175	1810	3610	1615
Grp Volume(v), veh/h	309	0	142	51	0	76	38	465	481	67	340	786
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1876	0	1615	1755	1805	1869	1810	1805	1615
Q Serve(g_s), s	4.2	0.0	4.4	1.4	0.0	2.4	0.6	11.4	11.4	1.9	3.3	21.0
Cycle Q Clear(g_c), s	4.2	0.0	4.4	1.4	0.0	2.4	0.6	11.4	11.4	1.9	3.3	21.0
Prop In Lane	1.00		1.00	0.25		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	521	0	233	150	0	129	142	681	706	107	1430	640
V/C Ratio(X)	0.59	0.00	0.61	0.34	0.00	0.59	0.27	0.68	0.68	0.63	0.24	1.23
Avail Cap(c_a), veh/h	1229	0	548	637	0	548	331	712	737	174	1430	640
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	21.3	23.1	0.0	23.5	24.7	13.8	13.8	24.4	10.7	16.0
Incr Delay (d2), s/veh	1.1	0.0	2.6	1.3	0.0	4.2	1.0	2.5	2.5	5.9	0.1	116.1
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	2.2	0.0	2.1	0.8	0.0	1.2	0.3	6.2	6.4	1.1	1.7	29.9
LnGrp Delay(d),s/veh	22.3	0.0	23.9	24.4	0.0	27.8	25.7	16.4	16.3	30.2	10.8	132.1
LnGrp LOS	C		C	C		C	C	B	B	C	B	F
Approach Vol, veh/h		451			127			984			1193	
Approach Delay, s/veh		22.8			26.4			16.7			91.8	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	24.5		12.1	6.6	25.5		8.7
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	20.9		18.0	5.0	21.0		18.0
Max Q Clear Time (g_c+I1), s	3.9	13.4		6.4	2.6	23.0		4.4
Green Ext Time (p_c), s	0.0	5.8		1.3	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	50.7
HCM 2010 LOS	D

Notes

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.864
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	D

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0	0 2	0 1	0	0 0	0 0	0	1 2	0 1
Volume Module:												
Base Vol:	527	760	0	0	733	115	0	0	0	299	984	306
Growth 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
Initial Bse:	527	760	0	0	733	115	0	0	0	299	984	306
User 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
PHF 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
PHF Volume:	527	760	0	0	733	115	0	0	0	299	984	306
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	527	760	0	0	733	115	0	0	0	299	984	306
PCE 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
MLF 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
FinalVolume:	527	760	0	0	733	115	0	0	0	299	984	306
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.23	1.77	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.70	2.30	1.00
Final Sat.:	1966	2834	0	0	3200	1600	0	0	0	1119	3681	1600
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.00	0.00	0.23	0.07	0.00	0.00	0.00	0.19	0.27	0.19
Crit Moves:		****			****						****	

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.062
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 3	0 1	1	1 1	0 0	1	0 2	0 1	1	0 0	0 1
Volume Module:												
Base Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
Growth 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
Initial Bse:	0	1112	331	304	728	0	146	1232	782	23	0	98
User 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
PHF 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
PHF Volume:	0	1112	331	304	728	0	146	1232	782	23	0	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
PCE 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
MLF 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
FinalVolume:	0	1112	331	304	728	0	146	1232	782	23	0	98
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.23	0.21	0.19	0.23	0.00	0.09	0.39	0.49	0.01	0.00	0.06
Crit Moves:		****			****				****	****		

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.671
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
Growth 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
Initial Bse:	390	299	0	0	326	22	0	0	0	335	1155	80
User 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
PHF 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
PHF Volume:	390	299	0	0	326	22	0	0	0	335	1155	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
PCE 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
MLF 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
FinalVolume:	390	299	0	0	326	22	0	0	0	335	1155	80
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.87	0.13	0.00	0.00	0.00	0.64	2.21	0.15
Final Sat.:	2880	3200	0	0	2998	202	0	0	0	1024	3531	245
Capacity Analysis Module:												
Vol/Sat:	0.14	0.09	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.21	0.33	0.33
Crit Moves:	****				****						****	

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.768
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
Growth 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
Initial Bse:	111	596	259	143	520	25	54	1308	454	8	25	61
User 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
PHF 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
PHF Volume:	111	596	259	143	520	25	54	1308	454	8	25	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
PCE 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
MLF 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
FinalVolume:	111	596	259	143	520	25	54	1308	454	8	25	61
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.91	0.09	0.09	2.16	0.75	0.17	0.83	1.00
Final Sat.:	1600	4800	1600	1600	3053	147	143	3457	1200	272	1328	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.12	0.16	0.09	0.17	0.17	0.38	0.38	0.38	0.03	0.02	0.04
Crit Moves:			****	****				****				****

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.875
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	89	Level Of Service:	D

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1	1 0	0 1	1 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
Growth 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
Initial Bse:	17	202	120	262	262	71	406	1147	158	0	0	0
User 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
PHF 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
PHF Volume:	17	202	120	262	262	71	406	1147	158	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
PCE 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
MLF 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
FinalVolume:	17	202	120	262	262	71	406	1147	158	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.57	0.43	0.52	1.48	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2518	682	837	2363	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.13	0.08	0.16	0.10	0.10	0.25	0.49	0.10	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.682
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	0	1!	0	0	1	0	1	0	1	1	0
Volume Module:												
Base Vol:	32	61	568	215	197	5	48	52	147	336	465	80
Growth 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
Initial Bse:	32	61	568	215	197	5	48	52	147	336	465	80
User 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
PHF 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
PHF Volume:	32	61	568	215	197	5	48	52	147	336	465	80
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	61	568	215	197	5	48	52	147	336	465	80
PCE 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
MLF 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
FinalVolume:	32	61	568	215	197	5	48	52	147	336	465	80
OvlAdjVol:			232									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.34	0.66	1.00	0.52	0.47	0.01	1.00	1.00	1.00	1.00	1.71	0.29
Final Sat.:	551	1049	1600	825	756	19	1600	1600	1600	1600	2730	470
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.36	0.13	0.26	0.26	0.03	0.03	0.09	0.21	0.17	0.17
OvlAdjV/S:			0.15									
Crit Moves:	****			****					****	****		

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.479
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	3	0	3	175	0	12	17	845	1	8	365	26
Growth 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
Initial Bse:	3	0	3	175	0	12	17	845	1	8	365	26
User 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
PHF 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
PHF Volume:	3	0	3	175	0	12	17	845	1	8	365	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	0	3	175	0	12	17	845	1	8	365	26
PCE 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
MLF 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
FinalVolume:	3	0	3	175	0	12	17	845	1	8	365	26
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.99	0.01	1.00	1.87	0.13
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	3196	4	1600	2987	213
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.01	0.01	0.26	0.26	0.01	0.12	0.12
Crit Moves:		****		****				****		****		

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.609
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	288	467	116	12	210	33	47	598	167	39	646	13
Growth 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
Initial Bse:	288	467	116	12	210	33	47	598	167	39	646	13
User 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
PHF 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
PHF Volume:	288	467	116	12	210	33	47	598	167	39	646	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	288	467	116	12	210	33	47	598	167	39	646	13
PCE 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
MLF 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
FinalVolume:	288	467	116	12	210	33	47	598	167	39	646	13
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.56	0.44	1.00	1.96	0.04
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2501	699	1600	3137	63
Capacity Analysis Module:												
Vol/Sat:	0.18	0.15	0.07	0.01	0.07	0.02	0.03	0.24	0.24	0.02	0.21	0.21
Crit Moves:	****				****			****			****	

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.659
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	San Gabriel Boulevard-Paramount B						Hill Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	1 0	1 0	1	0 1	1 0	1	0 2	1 0
Volume Module:												
Base Vol:	227	471	62	300	392	32	48	456	211	53	453	263
Growth 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
Initial Bse:	227	471	62	300	392	32	48	456	211	53	453	263
User 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
PHF 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
PHF Volume:	227	471	62	300	392	32	48	456	211	53	453	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	227	471	62	300	392	32	48	456	211	53	453	263
PCE 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
MLF 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
FinalVolume:	227	471	62	300	392	32	48	456	211	53	453	263
OvlAdjVol:												21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.77	0.23	1.24	1.63	0.13	1.00	1.37	0.63	1.00	2.00	1.00
Final Sat.:	1600	2828	372	1982	2604	214	1600	2188	1012	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.17	0.17	0.15	0.15	0.15	0.03	0.21	0.21	0.03	0.14	0.16
OvlAdjV/S:												0.01
Crit Moves:	****			****				****		****		

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	0.716
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	104	680	438	0	956	26	6	6	97	438	24	324
Growth 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
Initial Bse:	104	680	438	0	956	26	6	6	97	438	24	324
User 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
PHF 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
PHF Volume:	104	680	438	0	956	26	6	6	97	438	24	324
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	104	680	438	0	956	26	6	6	97	438	24	324
PCE 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
MLF 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
FinalVolume:	104	680	438	0	956	26	6	6	97	438	24	324
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.92	0.08	0.05	0.06	0.89	0.95	0.05	1.00
Final Sat.:	1600	3200	1600	0	4673	127	88	88	1424	1517	83	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.21	0.27	0.00	0.20	0.20	0.00	0.07	0.07	0.27	0.29	0.20
Crit Moves:			****	****				****		****		

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.739
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	940	32	144	889	0	222	320	465	34	0	225
Growth 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
Initial Bse:	0	940	32	144	889	0	222	320	465	34	0	225
User 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
PHF 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
PHF Volume:	0	940	32	144	889	0	222	320	465	34	0	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	940	32	144	889	0	222	320	465	34	0	225
PCE 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
MLF 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
FinalVolume:	0	940	32	144	889	0	222	320	465	34	0	225
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.90	0.10	2.00	2.00	0.00	1.00	1.00	1.00	1.00	0.00	2.00
Final Sat.:	0	4642	158	2880	3200	0	1600	1600	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.05	0.28	0.00	0.14	0.20	0.29	0.02	0.00	0.07
Crit Moves:	****				****				****			****

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.709
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	1	1 0 1	1	0 1	1 0	1	1	1 0 1
Volume Module:												
Base Vol:	4	179	172	364	20	5	109	198	11	162	173	573
Growth 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
Initial Bse:	4	179	172	364	20	5	109	198	11	162	173	573
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	179	0	364	20	5	109	198	11	162	173	573
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	179	0	364	20	5	109	198	11	162	173	573
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	179	0	364	20	5	109	198	11	162	173	573
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.89	0.11	1.45	1.55	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	3032	168	2321	2479	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.13	0.01	0.00	0.07	0.07	0.07	0.07	0.07	0.36
Crit Moves:		****		****			****					****

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.734
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0	1! 0	0	1	0	1	1 0
Volume Module:												
Base Vol:	2	12	7	932	29	54	70	713	29	0	833	802
Growth 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
Initial Bse:	2	12	7	932	29	54	70	713	29	0	833	802
User 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
PHF 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
PHF Volume:	2	12	7	932	29	54	70	713	29	0	833	802
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	12	7	932	29	54	70	713	29	0	833	802
PCE 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
MLF 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
FinalVolume:	2	12	7	932	29	54	70	713	29	0	833	802
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.57	0.33	1.84	0.06	0.10	1.00	1.92	0.08	0.00	2.00	2.00
Final Sat.:	152	914	533	2938	91	170	1600	3075	125	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.32	0.32	0.32	0.04	0.23	0.23	0.00	0.26	0.25
Crit Moves:	****			****			****				****	

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.920
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	111	Level Of Service:	E

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
Growth 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
Initial Bse:	79	727	112	188	1511	12	19	25	83	202	30	875
User 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
PHF 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
PHF Volume:	79	727	112	188	1511	12	19	25	83	202	30	875
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
PCE 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
MLF 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
FinalVolume:	79	727	112	188	1511	12	19	25	83	202	30	875
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.60	0.40	1.00	1.98	0.02	0.43	0.57	1.00	1.00	0.07	1.93
Final Sat.:	1600	4159	641	1600	3175	25	691	909	1600	1600	106	3094
Capacity Analysis Module:												
Vol/Sat:	0.05	0.17	0.17	0.12	0.48	0.48	0.01	0.03	0.05	0.13	0.28	0.28
Crit Moves:	****				****		****				****	

Mesa Substation
Existing
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.874
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	88	Level Of Service:	D

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	30	469	14	42	863	854	376	46	321	20	23	46
Growth 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
Initial Bse:	30	469	14	42	863	854	376	46	321	20	23	46
User 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
PHF 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
PHF Volume:	30	469	14	42	863	854	376	46	321	20	23	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	30	469	14	42	863	854	376	46	321	20	23	46
PCE 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
MLF 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
FinalVolume:	30	469	14	42	863	854	376	46	321	20	23	46
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.94	0.06	1.00	2.00	1.00	1.78	0.22	1.00	0.45	0.55	1.00
Final Sat.:	2880	3107	93	1600	3200	1600	2851	349	1600	719	881	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.15	0.03	0.27	0.53	0.13	0.13	0.20	0.03	0.03	0.03
Crit Moves:	****					****			****			****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	406	1147	158	0	0	0	17	202	120	262	262	71
Future Volume (veh/h)	406	1147	158	0	0	0	17	202	120	262	262	71
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	427	1207	166				18	213	126	276	276	75
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	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
Cap, veh/h	457	1389	815				37	304	258	313	881	235
Arrive On Green	0.50	0.50	0.50				0.02	0.16	0.16	0.17	0.31	0.31
Sat Flow, veh/h	907	2753	1615				1810	1900	1615	1810	2820	752
Grp Volume(v), veh/h	874	760	166				18	213	126	276	175	176
Grp Sat Flow(s),veh/h/ln	1855	1805	1615				1810	1900	1615	1810	1805	1767
Q Serve(g_s), s	36.7	30.0	4.7				0.8	8.8	5.9	12.4	6.1	6.3
Cycle Q Clear(g_c), s	36.7	30.0	4.7				0.8	8.8	5.9	12.4	6.1	6.3
Prop In Lane	0.49		1.00				1.00		1.00	1.00		0.43
Lane Grp Cap(c), veh/h	935	910	815				37	304	258	313	564	552
V/C Ratio(X)	0.93	0.84	0.20				0.49	0.70	0.49	0.88	0.31	0.32
Avail Cap(c_a), veh/h	949	924	827				109	439	373	322	630	617
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	17.6	11.4				40.2	33.0	31.8	33.5	21.7	21.8
Incr Delay (d2), s/veh	15.6	6.6	0.1				9.5	2.9	1.4	23.0	0.3	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	22.5	16.5	5.8				0.5	4.9	2.7	8.1	3.1	3.1
LnGrp Delay(d),s/veh	34.9	24.3	11.5				49.8	35.9	33.2	56.5	22.0	22.1
LnGrp LOS	C	C	B				D	D	C	E	C	C
Approach Vol, veh/h		1800						357			627	
Approach Delay, s/veh		28.2						35.7			37.2	
Approach LOS		C						D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	18.9	17.8		46.4	6.2	30.5		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	14.8	19.2		42.5	5.0	29.0		
Max Q Clear Time (g_c+I1), s	14.4	10.8		38.7	2.8	8.3		
Green Ext Time (p_c), s	0.0	2.5		3.2	0.0	3.8		

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	52	147	336	465	80	32	61	568	215	197	5
Future Volume (veh/h)	48	52	147	336	465	80	32	61	568	215	197	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	55	155	354	489	84	34	64	598	226	207	5
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
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	82	310	264	406	1056	181	253	447	1036	297	235	5
Arrive On Green	0.05	0.16	0.16	0.22	0.34	0.34	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1810	1900	1615	1810	3085	527	438	1072	1615	522	563	13
Grp Volume(v), veh/h	51	55	155	354	285	288	98	0	598	438	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1807	1510	0	1615	1098	0	0
Q Serve(g_s), s	1.9	1.7	6.1	13.0	8.5	8.6	0.0	0.0	14.6	24.5	0.0	0.0
Cycle Q Clear(g_c), s	1.9	1.7	6.1	13.0	8.5	8.6	2.2	0.0	14.6	26.7	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.29	0.35		1.00	0.52		0.01
Lane Grp Cap(c), veh/h	82	310	264	406	618	619	700	0	1036	537	0	0
V/C Ratio(X)	0.62	0.18	0.59	0.87	0.46	0.47	0.14	0.00	0.58	0.82	0.00	0.00
Avail Cap(c_a), veh/h	170	497	423	510	812	813	701	0	1037	538	0	0
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	0.00
Uniform Delay (d), s/veh	32.4	24.9	26.8	25.9	17.8	17.8	12.4	0.0	7.1	19.5	0.0	0.0
Incr Delay (d2), s/veh	7.6	0.3	2.1	12.9	0.5	0.5	0.1	0.0	0.8	9.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.9	2.9	7.9	4.3	4.3	1.2	0.0	6.5	9.4	0.0	0.0
LnGrp Delay(d),s/veh	40.0	25.2	28.8	38.7	18.3	18.3	12.5	0.0	7.9	28.9	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	B		A	C		
Approach Vol, veh/h		261			927			696			438	
Approach Delay, s/veh		30.3			26.1			8.5			28.9	
Approach LOS		C			C			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		33.3	20.0	15.8		33.3	7.6	28.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		28.9	19.5	18.1		28.9	6.5	31.1
Max Q Clear Time (g_c+I1), s		16.6	15.0	8.1		28.7	3.9	10.6
Green Ext Time (p_c), s		5.4	0.5	3.2		0.1	0.0	4.4

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	6	97	438	24	324	104	680	438	0	956	26
Future Volume (veh/h)	6	6	97	438	24	324	104	680	438	0	956	26
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	7	7	107	481	26	356	114	747	481	0	1051	29
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	64	489	329	9	754	262	1284	574	0	1845	51
Arrive On Green	0.47	0.47	0.47	0.47	0.47	0.47	0.36	0.36	0.36	0.00	0.36	0.36
Sat Flow, veh/h	0	137	1048	370	20	1615	531	3610	1615	0	5361	143
Grp Volume(v), veh/h	121	0	0	507	0	356	114	747	481	0	700	380
Grp Sat Flow(s),veh/h/ln	1186	0	0	390	0	1615	531	1805	1615	0	1729	1875
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	6.8	8.6	7.6	12.3	0.0	7.4	7.4
Cycle Q Clear(g_c), s	21.0	0.0	0.0	21.0	0.0	6.8	16.0	7.6	12.3	0.0	7.4	7.4
Prop In Lane	0.06		0.88	0.95		1.00	1.00		1.00	0.00		0.08
Lane Grp Cap(c), veh/h	638	0	0	338	0	754	262	1284	574	0	1230	667
V/C Ratio(X)	0.19	0.00	0.00	1.50	0.00	0.47	0.44	0.58	0.84	0.00	0.57	0.57
Avail Cap(c_a), veh/h	638	0	0	338	0	754	262	1284	574	0	1230	667
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	0.0	0.0	16.8	0.0	8.2	18.6	11.8	13.3	0.0	11.7	11.7
Incr Delay (d2), s/veh	0.1	0.0	0.0	239.8	0.0	0.5	1.1	0.7	10.5	0.0	0.6	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	0.9	0.0	0.0	26.7	0.0	3.1	1.5	3.9	7.0	0.0	3.6	4.0
LnGrp Delay(d),s/veh	7.4	0.0	0.0	256.6	0.0	8.7	19.8	12.5	23.8	0.0	12.3	12.9
LnGrp LOS	A			F		A	B	B	C		B	B
Approach Vol, veh/h		121			863			1342			1080	
Approach Delay, s/veh		7.4			154.4			17.2			12.5	
Approach LOS		A			F			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		25.0		20.0		25.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		21.0		16.0		21.0
Max Q Clear Time (g_c+I1), s		18.0		23.0		9.4		23.0
Green Ext Time (p_c), s		0.0		0.0		5.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	50.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	320	465	34	0	225	0	940	32	144	889	0
Future Volume (veh/h)	222	320	465	34	0	225	0	940	32	144	889	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	231	333	484	35	0	234	0	979	33	150	926	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	617	647	550	0	0	0	0	1678	56	291	1777	0
Arrive On Green	0.34	0.34	0.34	0.00	0.00	0.00	0.00	0.33	0.33	0.08	0.49	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5325	174	3510	3705	0
Grp Volume(v), veh/h	231	333	484		0.0		0	657	355	150	926	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1869	1755	1805	0
Q Serve(g_s), s	5.2	7.5	15.2				0.0	8.5	8.5	2.2	9.4	0.0
Cycle Q Clear(g_c), s	5.2	7.5	15.2				0.0	8.5	8.5	2.2	9.4	0.0
Prop In Lane	1.00		1.00				0.00		0.09	1.00		0.00
Lane Grp Cap(c), veh/h	617	647	550				0	1126	609	291	1777	0
V/C Ratio(X)	0.37	0.51	0.88				0.00	0.58	0.58	0.51	0.52	0.00
Avail Cap(c_a), veh/h	655	688	585				0	1246	673	332	1944	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.4	14.2	16.7				0.0	15.1	15.1	23.7	9.3	0.0
Incr Delay (d2), s/veh	0.4	0.6	13.9				0.0	0.6	1.1	1.4	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	2.6	4.0	8.8				0.0	4.1	4.5	1.1	4.7	0.0
LnGrp Delay(d),s/veh	13.8	14.8	30.6				0.0	15.7	16.2	25.1	9.6	0.0
LnGrp LOS	B	B	C					B	B	C	A	
Approach Vol, veh/h		1048						1012			1076	
Approach Delay, s/veh		21.9						15.9			11.7	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.0	22.0		22.8		31.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.1	19.4		19.5		29.0		
Max Q Clear Time (g_c+I1), s	4.2	10.5		17.2		11.4		
Green Ext Time (p_c), s	0.0	7.0		1.2		12.1		

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	109	198	11	162	173	573	4	179	172	364	20	5
Future Volume (veh/h)	109	198	11	162	173	573	4	179	172	364	20	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	115	208	12	118	257	0	4	188	0	383	21	0
Adj No. of Lanes	1	2	0	1	2	1	1	2	1	2	1	1
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	244	468	27	266	559	238	195	389	174	633	332	282
Arrive On Green	0.13	0.13	0.13	0.15	0.15	0.00	0.11	0.11	0.00	0.17	0.17	0.00
Sat Flow, veh/h	1810	3471	199	1810	3800	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	115	108	112	118	257	0	4	188	0	383	21	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1865	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	2.4	2.3	2.3	2.5	2.6	0.0	0.1	2.0	0.0	4.0	0.4	0.0
Cycle Q Clear(g_c), s	2.4	2.3	2.3	2.5	2.6	0.0	0.1	2.0	0.0	4.0	0.4	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	244	244	252	266	559	238	195	389	174	633	332	282
V/C Ratio(X)	0.47	0.44	0.45	0.44	0.46	0.00	0.02	0.48	0.00	0.61	0.06	0.00
Avail Cap(c_a), veh/h	788	786	812	788	1655	703	788	1572	703	1576	827	703
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.5	16.4	16.5	16.1	16.1	0.0	16.5	17.4	0.0	15.7	14.2	0.0
Incr Delay (d2), s/veh	1.4	1.3	1.2	1.2	0.6	0.0	0.0	0.9	0.0	0.9	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	1.3	1.2	1.3	1.3	1.4	0.0	0.0	1.0	0.0	2.1	0.2	0.0
LnGrp Delay(d),s/veh	17.9	17.7	17.7	17.2	16.7	0.0	16.5	18.3	0.0	16.7	14.3	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		335			375			192			404	
Approach Delay, s/veh		17.8			16.9			18.3			16.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		8.9		10.1		11.7		10.6
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.0		4.4		6.0		4.6
Green Ext Time (p_c), s		0.9		1.3		1.2		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	25	83	202	30	875	79	727	112	188	1511	12
Future Volume (veh/h)	19	25	83	202	30	875	79	727	112	188	1511	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	26	86	208	0	923	81	749	115	194	1558	12
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
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	85	108	252	451	0	829	104	1914	291	241	1823	14
Arrive On Green	0.26	0.26	0.26	0.26	0.00	0.26	0.06	0.42	0.42	0.13	0.50	0.50
Sat Flow, veh/h	105	420	982	1301	0	3230	1810	4544	692	1810	3672	28
Grp Volume(v), veh/h	132	0	0	208	0	923	81	569	295	194	766	804
Grp Sat Flow(s),veh/h/ln	1507	0	0	1301	0	1615	1810	1729	1778	1810	1805	1895
Q Serve(g_s), s	0.0	0.0	0.0	4.6	0.0	18.3	3.1	8.1	8.2	7.4	26.5	26.5
Cycle Q Clear(g_c), s	4.5	0.0	0.0	9.0	0.0	18.3	3.1	8.1	8.2	7.4	26.5	26.5
Prop In Lane	0.15		0.65	1.00		1.00	1.00		0.39	1.00		0.01
Lane Grp Cap(c), veh/h	445	0	0	451	0	829	104	1457	749	241	896	941
V/C Ratio(X)	0.30	0.00	0.00	0.46	0.00	1.11	0.78	0.39	0.39	0.81	0.85	0.86
Avail Cap(c_a), veh/h	445	0	0	451	0	829	140	1457	749	398	954	1002
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	0.0	22.9	0.0	26.5	33.2	14.3	14.3	30.0	15.7	15.7
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	67.4	17.4	0.2	0.3	6.3	7.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	3.6	0.0	15.8	2.1	3.9	4.1	4.1	14.8	15.5
LnGrp Delay(d),s/veh	21.7	0.0	0.0	23.6	0.0	93.9	50.5	14.5	14.7	36.3	23.0	22.8
LnGrp LOS	C			C		F	D	B	B	D	C	C
Approach Vol, veh/h		132			1131			945			1764	
Approach Delay, s/veh		21.7			81.0			17.6			24.4	
Approach LOS		C			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.0	34.5		22.8	8.6	39.9		22.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	15.7	27.5		18.3	5.5	37.7		18.3
Max Q Clear Time (g_c+I1), s	9.4	10.2		6.5	5.1	28.5		20.3
Green Ext Time (p_c), s	0.3	14.2		4.7	0.0	6.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	376	46	321	20	23	46	30	469	14	42	863	854
Future Volume (veh/h)	376	46	321	20	23	46	30	469	14	42	863	854
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	430	0	338	21	24	48	32	494	15	44	908	899
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	854	0	381	50	58	94	115	1496	45	73	1537	688
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.03	0.42	0.42	0.04	0.43	0.43
Sat Flow, veh/h	3619	0	1615	866	990	1615	3510	3577	108	1810	3610	1615
Grp Volume(v), veh/h	430	0	338	45	0	48	32	249	260	44	908	899
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1857	0	1615	1755	1805	1881	1810	1805	1615
Q Serve(g_s), s	7.5	0.0	14.7	1.7	0.0	2.1	0.6	6.8	6.8	1.7	14.0	31.0
Cycle Q Clear(g_c), s	7.5	0.0	14.7	1.7	0.0	2.1	0.6	6.8	6.8	1.7	14.0	31.0
Prop In Lane	1.00		1.00	0.47		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	854	0	381	108	0	94	115	755	786	73	1537	688
V/C Ratio(X)	0.50	0.00	0.89	0.42	0.00	0.51	0.28	0.33	0.33	0.60	0.59	1.31
Avail Cap(c_a), veh/h	895	0	399	459	0	399	241	755	786	159	1537	688
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	0.0	26.9	33.1	0.0	33.3	34.4	14.3	14.3	34.3	16.0	20.9
Incr Delay (d2), s/veh	0.5	0.0	20.1	2.5	0.0	4.2	1.3	0.3	0.2	7.7	0.6	148.6
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	3.8	0.0	8.7	1.0	0.0	1.0	0.3	3.4	3.6	1.0	7.1	42.0
LnGrp Delay(d),s/veh	24.6	0.0	47.0	35.6	0.0	37.5	35.7	14.6	14.5	42.0	16.6	169.5
LnGrp LOS	C		D	D		D	D	B	B	D	B	F
Approach Vol, veh/h		768			93			541			1851	
Approach Delay, s/veh		34.4			36.6			15.8			91.5	
Approach LOS		C			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.4	34.9		21.7	6.9	35.5		8.7
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.4	29.6		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	3.7	8.8		16.7	2.6	33.0		4.1
Green Ext Time (p_c), s	0.0	14.3		0.5	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	63.9
HCM 2010 LOS	E

Notes

Mesa Substation
Baseline 2016
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.888
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	94	Level Of Service:	D

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1	1 0	0	0	2 0	1	0	0 0	0	1	2 0 1
Volume Module:												
Base Vol:	797	365	0	0	524	342	0	0	0	257	1073	160
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	804	368	0	0	528	345	0	0	0	259	1082	161
Added Vol:	0	4	0	0	38	6	0	0	0	16	33	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	804	372	0	0	566	351	0	0	0	275	1115	190
User 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
PHF 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
PHF Volume:	804	372	0	0	566	351	0	0	0	275	1115	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	804	372	0	0	566	351	0	0	0	275	1115	190
PCE 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
MLF 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
FinalVolume:	804	372	0	0	566	351	0	0	0	275	1115	190
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.59	2.41	1.00
Final Sat.:	2880	1600	0	0	3200	1600	0	0	0	950	3850	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.23	0.00	0.00	0.18	0.22	0.00	0.00	0.00	0.17	0.29	0.12
Crit Moves:	****					****					****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	3 0	1	1 1	1 0	0	1 0	2 0	1	1 0	0 0	1
Volume Module:												
Base Vol:	0	833	183	157	648	0	131	781	359	27	0	235
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	845	186	159	657	0	133	792	364	27	0	238
Added Vol:	0	0	15	38	16	0	4	35	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	845	201	197	673	0	137	827	364	27	0	238
User 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
PHF 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
PHF Volume:	0	845	201	197	673	0	137	827	364	27	0	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	845	201	197	673	0	137	827	364	27	0	238
PCE 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
MLF 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
FinalVolume:	0	845	201	197	673	0	137	827	364	27	0	238
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.13	0.12	0.21	0.00	0.09	0.26	0.23	0.02	0.00	0.15
Crit Moves:		****			****			****		****		

Mesa Substation
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.738
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	503	333	0	0	344	66	0	0	0	283	1104	40
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	507	336	0	0	347	67	0	0	0	285	1113	40
Added Vol:	0	0	0	0	20	0	0	0	0	9	79	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	507	336	0	0	367	67	0	0	0	294	1192	55
User Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
PHF 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
PHF Volume:	511	338	0	0	370	67	0	0	0	297	1202	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	511	338	0	0	370	67	0	0	0	297	1202	56
PCE 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
MLF 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
FinalVolume:	511	338	0	0	370	67	0	0	0	297	1202	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.69	0.31	0.00	0.00	0.00	0.57	2.32	0.11
Final Sat.:	2880	3200	0	0	2709	491	0	0	0	916	3711	172
Capacity Analysis Module:												
Vol/Sat:	0.18	0.11	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.19	0.32	0.32
Crit Moves:	****				****						****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.807
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	1	1 0	0 1	1	1 0	0 1	0 1	0
Volume Module:												
Base Vol:	315	790	164	127	483	40	32	941	307	20	96	41
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	320	802	166	129	490	41	32	955	311	20	97	42
Added Vol:	0	0	12	20	9	0	0	89	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	320	802	178	149	499	41	32	1044	311	20	97	42
User 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
PHF 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
PHF Volume:	320	802	178	149	499	41	32	1044	311	20	97	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	320	802	178	149	499	41	32	1044	311	20	97	42
PCE 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
MLF 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
FinalVolume:	320	802	178	149	499	41	32	1044	311	20	97	42
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.85	0.15	0.07	2.26	0.67	0.25	1.23	0.52
Final Sat.:	1600	4800	1600	1600	2959	241	112	3610	1077	408	1957	836
Capacity Analysis Module:												
Vol/Sat:	0.20	0.17	0.11	0.09	0.17	0.17	0.29	0.29	0.29	0.05	0.05	0.05
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.717
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0	1 1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	81	234	144	146	151	71	456	571	49	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	82	237	146	148	153	72	463	579	50	0	0	0
Added Vol:	0	8	0	17	6	0	114	6	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	245	146	165	159	72	577	585	50	0	0	0
User 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
PHF 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
PHF Volume:	82	245	146	165	159	72	577	585	50	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	245	146	165	159	72	577	585	50	0	0	0
PCE 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
MLF 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
FinalVolume:	82	245	146	165	159	72	577	585	50	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.38	0.62	0.99	1.01	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2203	997	1588	1612	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.15	0.09	0.10	0.07	0.07	0.36	0.36	0.03	0.00	0.00	0.00
Crit Moves:		****			****			****				

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.643
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0	1	0	1 1 0
Volume Module:												
Base Vol:	59	99	526	105	223	6	18	84	85	223	509	82
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	59	100	530	106	225	6	18	85	86	225	513	83
Added Vol:	5	0	117	0	0	0	0	19	2	23	95	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	64	100	647	106	225	6	18	104	88	248	608	83
User 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
PHF 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
PHF Volume:	64	100	647	106	225	6	18	104	88	248	608	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	100	647	106	225	6	18	104	88	248	608	83
PCE 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
MLF 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
FinalVolume:	64	100	647	106	225	6	18	104	88	248	608	83
OvlAdjVol:			399									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.61	1.00	0.31	0.67	0.02	1.00	1.00	1.00	1.00	1.76	0.24
Final Sat.:	628	972	1600	503	1068	29	1600	1600	1600	1600	2817	383
Capacity Analysis Module:												
Vol/Sat:	0.04	0.10	0.40	0.07	0.21	0.21	0.01	0.06	0.05	0.15	0.22	0.22
OvlAdjV/S:			0.25									
Crit Moves:			****	****			****				****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.492
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	13	0	9	14	0	13	10	296	4	1	806	150
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	13	0	9	14	0	13	10	298	4	1	813	151
Added Vol:	99	0	8	0	0	0	0	11	125	10	19	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	0	17	14	0	13	10	309	129	11	832	151
User 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
PHF 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
PHF Volume:	112	0	17	14	0	13	10	309	129	11	832	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	0	17	14	0	13	10	309	129	11	832	151
PCE 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
MLF 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
FinalVolume:	112	0	17	14	0	13	10	309	129	11	832	151
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.41	0.59	1.00	1.69	0.31
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2258	942	1600	2708	492
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.01	0.01	0.00	0.01	0.01	0.14	0.14	0.01	0.31	0.31
Crit Moves:	****					****	****				****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.635
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	146	152	147	17	358	37	23	432	235	165	381	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	147	153	148	17	361	37	23	436	237	166	384	2
Added Vol:	4	21	14	5	25	0	0	4	2	6	12	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	151	174	162	22	386	37	23	440	239	172	396	4
User 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
PHF 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
PHF Volume:	151	174	162	22	386	37	23	440	239	172	396	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	174	162	22	386	37	23	440	239	172	396	4
PCE 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
MLF 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
FinalVolume:	151	174	162	22	386	37	23	440	239	172	396	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.30	0.70	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2073	1127	1600	3168	32
Capacity Analysis Module:												
Vol/Sat:	0.09	0.05	0.10	0.01	0.12	0.02	0.01	0.21	0.21	0.11	0.13	0.13
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.606
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	San Gabriel Boulevard-Paramount B						Hill Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	119	227	24	221	416	16	45	317	261	90	449	242
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	120	230	24	223	421	16	45	320	263	91	455	244
Added Vol:	13	37	39	2	29	1	3	10	10	19	5	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	133	267	63	225	450	17	48	330	273	110	460	246
User 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
PHF 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
PHF Volume:	133	267	63	225	450	17	48	330	273	110	460	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	267	63	225	450	17	48	330	273	110	460	246
PCE 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
MLF 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
FinalVolume:	133	267	63	225	450	17	48	330	273	110	460	246
OvlAdjVol:												12
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.62	0.38	1.00	1.93	0.07	1.00	1.09	0.91	1.00	2.00	1.00
Final Sat.:	1600	2588	612	1600	3082	118	1600	1750	1450	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.10	0.10	0.14	0.15	0.14	0.03	0.19	0.19	0.07	0.14	0.15
OvlAdjV/S:												0.01
Crit Moves:			****		****			****			****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	41	412	191	0	920	7	19	4	165	188	14	114
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	42	418	192	0	933	7	19	4	167	189	14	115
Added Vol:	154	68	81	0	46	27	21	100	66	21	57	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	196	486	273	0	979	34	40	104	233	210	71	120
User 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
PHF 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
PHF Volume:	196	486	273	0	979	34	40	104	233	210	71	120
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	486	273	0	979	34	40	104	233	210	71	120
PCE 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
MLF 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
FinalVolume:	196	486	273	0	979	34	40	104	233	210	71	120
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.90	0.10	0.11	0.27	0.62	0.75	0.25	1.00
Final Sat.:	1600	3200	1600	0	4638	162	171	441	989	1196	404	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.15	0.17	0.00	0.21	0.21	0.03	0.24	0.24	0.13	0.18	0.07
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.438
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2 0	2	0 0	1 1	0	0 1	1 0	0	0 2
Volume Module:												
Base Vol:	0	652	8	58	476	0	144	71	158	7	0	44
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	661	8	59	483	0	145	72	159	7	0	45
Added Vol:	0	249	0	0	67	0	135	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	910	8	59	550	0	280	72	180	7	0	45
User 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
PHF 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
PHF Volume:	0	910	8	59	550	0	280	72	180	7	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	910	8	59	550	0	280	72	180	7	0	45
PCE 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
MLF 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
FinalVolume:	0	910	8	59	550	0	280	72	180	7	0	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.97	0.03	2.00	2.00	0.00	1.59	0.41	1.00	1.00	0.00	2.00
Final Sat.:	0	4758	42	2880	3200	0	2549	651	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.19	0.02	0.17	0.00	0.11	0.11	0.11	0.00	0.00	0.01
Crit Moves:		****		****					****			****

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.685
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	1 1	0 1	1	0 1	1 0	1	1 1	0 1
Volume Module:												
Base Vol:	3	60	33	373	12	1	6	18	9	86	43	657
Growth Adj:	1.01	1.02	1.01	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	61	33	378	12	1	6	18	9	87	44	667
Added Vol:	0	5	7	0	8	0	0	0	0	9	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	66	40	378	20	1	6	18	9	96	44	680
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	66	0	378	20	1	6	18	9	96	44	680
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	66	0	378	20	1	6	18	9	96	44	680
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	66	0	378	20	1	6	18	9	96	44	680
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.33	0.67	2.00	1.00	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	2133	1067	2880	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.00	0.13	0.01	0.00	0.00	0.01	0.01	0.03	0.03	0.42
Crit Moves:		****		****				****				****

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.738
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0	1! 0	0	1	0	1	1	0	0	0	2	0	2
Volume Module:												
Base Vol:	9	12	9	598	20	78	37	705	21	0	892	1085
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	9	12	9	603	20	79	37	714	21	0	903	1094
Added Vol:	0	0	0	4	0	18	42	11	0	0	6	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	12	9	607	20	97	79	725	21	0	909	1099
User 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
PHF 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
PHF Volume:	9	12	9	607	20	97	79	725	21	0	909	1099
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	9	607	20	97	79	725	21	0	909	1099
PCE 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
MLF 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
FinalVolume:	9	12	9	607	20	97	79	725	21	0	909	1099
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.40	0.30	1.68	0.05	0.27	1.00	1.94	0.06	0.00	2.00	2.00
Final Sat.:	480	640	480	2684	89	427	1600	3109	91	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.23	0.23	0.23	0.05	0.23	0.23	0.00	0.28	0.34
Crit Moves:	****			****			****					****

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.825
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	D

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	43	1157	176	196	1278	3	16	13	26	103	22	849
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	43	1171	178	198	1294	3	16	13	26	104	22	859
Added Vol:	0	1	5	1	14	0	0	0	0	8	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	1172	183	199	1308	3	16	13	26	112	22	869
User 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
PHF 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
PHF Volume:	43	1172	183	199	1308	3	16	13	26	112	22	869
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	1172	183	199	1308	3	16	13	26	112	22	869
PCE 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
MLF 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
FinalVolume:	43	1172	183	199	1308	3	16	13	26	112	22	869
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.59	0.41	1.00	1.99	0.01	0.55	0.45	1.00	1.00	0.05	1.95
Final Sat.:	1600	4152	648	1600	3193	7	881	719	1600	1600	80	3120
Capacity Analysis Module:												
Vol/Sat:	0.03	0.28	0.28	0.12	0.41	0.41	0.01	0.02	0.02	0.07	0.28	0.28
Crit Moves:	****				****		****				****	

Mesa Substation
Baseline 2016
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.724
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	53	Level Of Service:	C

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	35	829	41	62	313	723	262	30	131	12	35	70
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	36	839	42	63	317	734	266	30	133	12	36	71
Added Vol:	1	0	0	0	0	22	6	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	839	42	63	317	756	272	30	134	12	36	71
User 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
PHF 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
PHF Volume:	37	839	42	63	317	756	272	30	134	12	36	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	839	42	63	317	756	272	30	134	12	36	71
PCE 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
MLF 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
FinalVolume:	37	839	42	63	317	756	272	30	134	12	36	71
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.91	0.09	1.00	2.00	1.00	1.80	0.20	1.00	0.21	0.79	1.00
Final Sat.:	2880	3049	151	1600	3200	1600	2878	322	1600	328	1272	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.28	0.28	0.04	0.10	0.47	0.09	0.09	0.08	0.04	0.03	0.04
Crit Moves:	****					****		****				****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	577	585	50	0	0	0	82	245	146	165	159	72
Future Volume (veh/h)	577	585	50	0	0	0	82	245	146	165	159	72
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	620	629	54				88	263	157	177	171	77
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	785	784	701				119	392	333	224	648	280
Arrive On Green	0.43	0.43	0.43				0.07	0.21	0.21	0.12	0.26	0.26
Sat Flow, veh/h	1810	1805	1615				1810	1900	1615	1810	2456	1062
Grp Volume(v), veh/h	620	629	54				88	263	157	177	124	124
Grp Sat Flow(s),veh/h/ln	1810	1805	1615				1810	1900	1615	1810	1805	1713
Q Serve(g_s), s	16.9	17.3	1.1				2.7	7.3	4.9	5.4	3.1	3.3
Cycle Q Clear(g_c), s	16.9	17.3	1.1				2.7	7.3	4.9	5.4	3.1	3.3
Prop In Lane	1.00		1.00				1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	785	784	701				119	392	333	224	476	452
V/C Ratio(X)	0.79	0.80	0.08				0.74	0.67	0.47	0.79	0.26	0.27
Avail Cap(c_a), veh/h	902	900	805				282	615	523	301	603	572
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	14.1	9.5				26.2	20.9	20.0	24.3	16.6	16.7
Incr Delay (d2), s/veh	4.2	4.7	0.0				8.6	2.0	1.0	9.8	0.3	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	9.2	9.6	1.3				1.7	4.0	2.3	3.3	1.6	1.6
LnGrp Delay(d),s/veh	18.1	18.7	9.5				34.8	22.9	21.0	34.1	16.9	17.0
LnGrp LOS	B	B	A				C	C	C	C	B	B
Approach Vol, veh/h		1303						508			425	
Approach Delay, s/veh		18.1						24.4			24.1	
Approach LOS		B						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	11.6	16.3		29.3	8.3	19.6		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	9.5	18.5		28.5	8.9	19.1		
Max Q Clear Time (g_c+I1), s	7.4	9.3		19.3	4.7	5.3		
Green Ext Time (p_c), s	0.1	2.5		5.5	0.1	3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	20.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	104	88	248	608	83	64	100	647	106	225	6
Future Volume (veh/h)	18	104	88	248	608	83	64	100	647	106	225	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	112	95	267	654	89	69	108	696	114	242	6
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	356	302	326	1099	149	276	392	875	205	373	8
Arrive On Green	0.02	0.19	0.19	0.18	0.34	0.34	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1900	1615	1810	3194	434	484	1085	1615	305	1032	23
Grp Volume(v), veh/h	19	112	95	267	369	374	177	0	696	362	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1823	1569	0	1615	1359	0	0
Q Serve(g_s), s	0.5	2.5	2.5	7.1	8.4	8.4	0.0	0.0	17.3	6.7	0.0	0.0
Cycle Q Clear(g_c), s	0.5	2.5	2.5	7.1	8.4	8.4	3.3	0.0	17.3	10.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.24	0.39		1.00	0.31		0.02
Lane Grp Cap(c), veh/h	42	356	302	326	621	627	668	0	875	587	0	0
V/C Ratio(X)	0.45	0.31	0.31	0.82	0.59	0.60	0.26	0.00	0.80	0.62	0.00	0.00
Avail Cap(c_a), veh/h	182	687	584	382	852	861	668	0	875	587	0	0
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	0.00
Uniform Delay (d), s/veh	24.0	17.5	17.5	19.6	13.5	13.5	11.2	0.0	9.2	13.0	0.0	0.0
Incr Delay (d2), s/veh	7.4	0.5	0.6	11.6	0.9	0.9	0.2	0.0	5.2	2.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.4	1.2	4.5	4.3	4.3	1.7	0.0	8.8	4.4	0.0	0.0
LnGrp Delay(d),s/veh	31.4	18.0	18.1	31.3	14.4	14.4	11.4	0.0	14.3	15.0	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B		B	B		
Approach Vol, veh/h		226			1010			873			362	
Approach Delay, s/veh		19.1			18.8			13.7			15.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.5	13.5	13.8		22.5	5.7	21.6
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.0	23.5
Max Q Clear Time (g_c+I1), s		19.3	9.1	4.5		12.5	2.5	10.4
Green Ext Time (p_c), s		0.0	0.1	4.8		3.2	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	104	233	210	71	120	196	486	273	0	979	34
Future Volume (veh/h)	40	104	233	210	71	120	196	486	273	0	979	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	45	118	265	239	81	136	223	552	310	0	1112	39
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	117	190	343	95	646	296	1444	646	0	2058	72
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	293	476	464	238	1615	496	3610	1615	0	5317	180
Grp Volume(v), veh/h	428	0	0	320	0	136	223	552	310	0	747	404
Grp Sat Flow(s),veh/h/ln	768	0	0	702	0	1615	496	1805	1615	0	1729	1868
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	2.2	9.4	4.3	5.7	0.0	6.6	6.6
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	2.2	16.0	4.3	5.7	0.0	6.6	6.6
Prop In Lane	0.11		0.62	0.75		1.00	1.00		1.00	0.00		0.10
Lane Grp Cap(c), veh/h	407	0	0	438	0	646	296	1444	646	0	1383	747
V/C Ratio(X)	1.05	0.00	0.00	0.73	0.00	0.21	0.75	0.38	0.48	0.00	0.54	0.54
Avail Cap(c_a), veh/h	407	0	0	438	0	646	296	1444	646	0	1383	747
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	12.5	0.0	7.9	17.6	8.5	8.9	0.0	9.2	9.2
Incr Delay (d2), s/veh	59.1	0.0	0.0	6.1	0.0	0.2	10.3	0.2	0.6	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	0.0	4.2	0.0	1.0	3.3	2.2	2.6	0.0	3.2	3.5
LnGrp Delay(d),s/veh	69.7	0.0	0.0	18.6	0.0	8.0	27.9	8.7	9.5	0.0	9.6	10.0
LnGrp LOS	F			B		A	C	A	A		A	A
Approach Vol, veh/h		428			456			1085			1151	
Approach Delay, s/veh		69.7			15.5			12.8			9.7	
Approach LOS		E			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		8.6		18.0
Green Ext Time (p_c), s		0.0		0.0		6.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.9
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	72	180	7	0	45	0	910	8	59	550	0
Future Volume (veh/h)	280	72	180	7	0	45	0	910	8	59	550	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	184	227	188	7	0	47	0	948	8	61	573	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	378	397	337	0	0	0	0	2065	17	217	2037	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.56	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5476	45	3510	3705	0
Grp Volume(v), veh/h	184	227	188		0.0		0	618	338	61	573	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1892	1755	1805	0
Q Serve(g_s), s	3.6	4.3	4.1				0.0	5.3	5.3	0.7	3.3	0.0
Cycle Q Clear(g_c), s	3.6	4.3	4.1				0.0	5.3	5.3	0.7	3.3	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	378	397	337				0	1346	736	217	2037	0
V/C Ratio(X)	0.49	0.57	0.56				0.00	0.46	0.46	0.28	0.28	0.00
Avail Cap(c_a), veh/h	826	867	737				0	1813	992	451	2767	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.8	14.1	14.1				0.0	9.0	9.0	17.8	4.5	0.0
Incr Delay (d2), s/veh	1.0	1.3	1.4				0.0	0.2	0.4	0.7	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
%ile BackOfQ(50%),veh/ln	1.8	2.4	2.0				0.0	2.5	2.8	0.3	1.6	0.0
LnGrp Delay(d),s/veh	14.8	15.4	15.5				0.0	9.3	9.5	18.5	4.6	0.0
LnGrp LOS	B	B	B					A	A	B	A	
Approach Vol, veh/h		599						956			634	
Approach Delay, s/veh		15.2						9.3			5.9	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	6.9	19.9		12.8		26.9		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.1	20.8		18.1		30.4		
Max Q Clear Time (g_c+I1), s	2.7	7.3		6.3		5.3		
Green Ext Time (p_c), s	0.0	8.2		2.0		11.8		

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	18	9	96	44	680	3	66	40	378	20	1
Future Volume (veh/h)	6	18	9	96	44	680	3	66	40	378	20	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	20	10	104	48	0	3	72	0	411	22	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	105	49	418	219	186	137	274	123	743	390	331
Arrive On Green	0.04	0.04	0.04	0.12	0.12	0.00	0.08	0.08	0.00	0.21	0.21	0.00
Sat Flow, veh/h	1810	2398	1111	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	7	15	15	104	48	0	3	72	0	411	22	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1704	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	0.1	0.3	0.3	0.8	0.7	0.0	0.0	0.6	0.0	3.3	0.3	0.0
Cycle Q Clear(g_c), s	0.1	0.3	0.3	0.8	0.7	0.0	0.0	0.6	0.0	3.3	0.3	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	79	75	418	219	186	137	274	123	743	390	331
V/C Ratio(X)	0.09	0.19	0.21	0.25	0.22	0.00	0.02	0.26	0.00	0.55	0.06	0.00
Avail Cap(c_a), veh/h	1013	1010	954	2025	1063	904	1013	2020	904	2025	1063	904
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.8	14.8	14.8	13.0	12.9	0.0	13.8	14.0	0.0	11.5	10.3	0.0
Incr Delay (d2), s/veh	0.5	1.1	1.3	0.3	0.5	0.0	0.1	0.5	0.0	0.6	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	0.1	0.2	0.2	0.4	0.4	0.0	0.0	0.3	0.0	1.7	0.2	0.0
LnGrp Delay(d),s/veh	15.2	15.9	16.2	13.3	13.4	0.0	13.8	14.5	0.0	12.1	10.3	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		37			152			75			433	
Approach Delay, s/veh		15.9			13.3			14.5			12.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		6.9		5.9		11.1		8.2
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.6		2.3		5.3		2.8
Green Ext Time (p_c), s		0.3		0.1		1.3		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	13	26	112	22	869	43	1172	183	199	1308	3
Future Volume (veh/h)	16	13	26	112	22	869	43	1172	183	199	1308	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	14	28	120	0	950	46	1260	197	214	1406	3
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	141	124	173	521	0	922	79	1611	252	261	1687	4
Arrive On Green	0.29	0.29	0.29	0.29	0.00	0.29	0.04	0.36	0.36	0.14	0.46	0.46
Sat Flow, veh/h	237	436	607	1386	0	3230	1810	4526	708	1810	3696	8
Grp Volume(v), veh/h	59	0	0	120	0	950	46	963	494	214	687	722
Grp Sat Flow(s),veh/h/ln	1280	0	0	1386	0	1615	1810	1729	1775	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	18.0	1.6	15.7	15.7	7.2	21.0	21.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	3.7	0.0	18.0	1.6	15.7	15.7	7.2	21.0	21.0
Prop In Lane	0.29		0.47	1.00		1.00	1.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	439	0	0	521	0	922	79	1231	632	261	824	867
V/C Ratio(X)	0.13	0.00	0.00	0.23	0.00	1.03	0.58	0.78	0.78	0.82	0.83	0.83
Avail Cap(c_a), veh/h	439	0	0	521	0	922	144	1262	648	301	824	867
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	0.0	17.3	0.0	22.5	29.6	18.1	18.1	26.2	15.0	15.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	37.6	6.5	3.2	6.0	14.5	7.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	1.6	0.0	12.8	0.9	7.9	8.6	4.7	12.0	12.5
LnGrp Delay(d),s/veh	16.8	0.0	0.0	17.6	0.0	60.1	36.1	21.3	24.2	40.7	22.4	22.1
LnGrp LOS	B			B		F	D	C	C	D	C	C
Approach Vol, veh/h		59			1070			1503			1623	
Approach Delay, s/veh		16.8			55.3			22.7			24.7	
Approach LOS		B			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.6	26.9		22.5	7.3	33.3		22.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	10.5	23.0		18.0	5.0	28.5		18.0
Max Q Clear Time (g_c+I1), s	9.2	17.7		3.6	3.6	23.0		20.0
Green Ext Time (p_c), s	0.1	4.8		4.6	0.0	5.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.6
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	30	134	12	36	71	37	839	42	63	317	756
Future Volume (veh/h)	272	30	134	12	36	71	37	839	42	63	317	756
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	320	0	146	13	39	77	40	912	46	68	345	822
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	531	0	237	37	112	129	147	1316	66	108	1422	636
Arrive On Green	0.15	0.00	0.15	0.08	0.08	0.08	0.04	0.38	0.38	0.06	0.39	0.39
Sat Flow, veh/h	3619	0	1615	469	1407	1615	3510	3497	176	1810	3610	1615
Grp Volume(v), veh/h	320	0	146	52	0	77	40	471	487	68	345	822
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1877	0	1615	1755	1805	1869	1810	1805	1615
Q Serve(g_s), s	4.4	0.0	4.5	1.4	0.0	2.5	0.6	11.7	11.7	2.0	3.4	21.0
Cycle Q Clear(g_c), s	4.4	0.0	4.5	1.4	0.0	2.5	0.6	11.7	11.7	2.0	3.4	21.0
Prop In Lane	1.00		1.00	0.25		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	531	0	237	150	0	129	147	679	703	108	1422	636
V/C Ratio(X)	0.60	0.00	0.62	0.35	0.00	0.60	0.27	0.69	0.69	0.63	0.24	1.29
Avail Cap(c_a), veh/h	1222	0	545	634	0	545	329	708	733	173	1422	636
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	21.3	23.2	0.0	23.7	24.8	14.0	14.0	24.5	10.8	16.2
Incr Delay (d2), s/veh	1.1	0.0	2.6	1.4	0.0	4.4	1.0	2.8	2.7	6.0	0.1	143.0
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	2.3	0.0	2.2	0.8	0.0	1.2	0.3	6.3	6.5	1.2	1.7	34.5
LnGrp Delay(d),s/veh	22.4	0.0	23.9	24.6	0.0	28.1	25.7	16.8	16.7	30.5	10.9	159.2
LnGrp LOS	C		C	C		C	C	B	B	C	B	F
Approach Vol, veh/h		466			129			998			1235	
Approach Delay, s/veh		22.9			26.7			17.1			110.7	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	24.6		12.3	6.7	25.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	20.9		18.0	5.0	21.0		18.0
Max Q Clear Time (g_c+I1), s	4.0	13.7		6.5	2.6	23.0		4.5
Green Ext Time (p_c), s	0.0	5.7		1.3	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	59.4
HCM 2010 LOS	E

Notes

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.913
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0 0	2	0 1	0 0	0	0 0	0 1	2	0 1
Volume Module:												
Base Vol:	527	760	0	0	733	115	0	0	0	299	984	306
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	531	766	0	0	739	116	0	0	0	301	992	309
Added Vol:	0	13	0	0	68	12	0	0	0	27	62	70
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	531	779	0	0	807	128	0	0	0	328	1054	379
User 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
PHF 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
PHF Volume:	531	779	0	0	807	128	0	0	0	328	1054	379
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	531	779	0	0	807	128	0	0	0	328	1054	379
PCE 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
MLF 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
FinalVolume:	531	779	0	0	807	128	0	0	0	328	1054	379
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.22	1.78	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.71	2.29	1.00
Final Sat.:	1946	2854	0	0	3200	1600	0	0	0	1140	3660	1600
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.00	0.00	0.25	0.08	0.00	0.00	0.00	0.21	0.29	0.24
Crit Moves:	****			****							****	

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.085
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	3 0	1	1 1	1 0	0	1 0	2 0	1	1 0	0 0	1
Volume Module:												
Base Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	1128	336	308	739	0	148	1250	793	23	0	99
Added Vol:	0	0	29	68	27	0	13	65	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1128	365	376	766	0	161	1315	793	23	0	99
User 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
PHF 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
PHF Volume:	0	1128	365	376	766	0	161	1315	793	23	0	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1128	365	376	766	0	161	1315	793	23	0	99
PCE 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
MLF 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
FinalVolume:	0	1128	365	376	766	0	161	1315	793	23	0	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.23	0.24	0.24	0.00	0.10	0.41	0.50	0.01	0.00	0.06
Crit Moves:		****			****				****	****		

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	393	301	0	0	329	22	0	0	0	338	1164	81
Added Vol:	0	0	0	0	35	0	0	0	0	21	159	35
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	393	301	0	0	364	22	0	0	0	359	1323	116
User 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
PHF 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
PHF Volume:	393	301	0	0	364	22	0	0	0	359	1323	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	301	0	0	364	22	0	0	0	359	1323	116
PCE 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
MLF 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
FinalVolume:	393	301	0	0	364	22	0	0	0	359	1323	116
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.89	0.11	0.00	0.00	0.00	0.60	2.21	0.19
Final Sat.:	2880	3200	0	0	3016	184	0	0	0	958	3533	309
Capacity Analysis Module:												
Vol/Sat:	0.14	0.09	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.22	0.37	0.37
Crit Moves:	****				****						****	

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.846
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	113	605	263	145	528	25	55	1327	461	8	25	62
Added Vol:	0	0	21	35	21	0	0	163	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	113	605	284	180	549	25	55	1490	461	8	25	62
User 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
PHF 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
PHF Volume:	113	605	284	180	549	25	55	1490	461	8	25	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	605	284	180	549	25	55	1490	461	8	25	62
PCE 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
MLF 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
FinalVolume:	113	605	284	180	549	25	55	1490	461	8	25	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.91	0.09	0.08	2.23	0.69	0.17	0.83	1.00
Final Sat.:	1600	4800	1600	1600	3059	141	131	3566	1102	272	1328	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.18	0.11	0.18	0.18	0.42	0.42	0.42	0.03	0.02	0.04
Crit Moves:			****	****					****			****

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.986
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	176	Level Of Service:	E

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1	1 0	0 1	1 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	17	205	122	266	266	72	412	1164	160	0	0	0
Added Vol:	0	13	0	37	14	0	207	12	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	218	122	303	280	72	619	1176	160	0	0	0
User 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
PHF 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
PHF Volume:	17	218	122	303	280	72	619	1176	160	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	218	122	303	280	72	619	1176	160	0	0	0
PCE 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
MLF 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
FinalVolume:	17	218	122	303	280	72	619	1176	160	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.69	1.31	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2545	655	1104	2096	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.08	0.19	0.11	0.11	0.39	0.56	0.10	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.821
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	72	Level Of Service:	D

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0	1	0	1 1 0
Volume Module:												
Base Vol:	32	61	568	215	197	5	48	52	147	336	465	80
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	32	62	573	217	199	5	48	52	148	339	469	81
Added Vol:	10	0	213	0	0	0	0	34	3	51	192	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	62	786	217	199	5	48	86	151	390	661	81
User 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
PHF 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
PHF Volume:	42	62	786	217	199	5	48	86	151	390	661	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	62	786	217	199	5	48	86	151	390	661	81
PCE 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
MLF 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
FinalVolume:	42	62	786	217	199	5	48	86	151	390	661	81
OvlAdjVol:			396									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.59	1.00	0.52	0.47	0.01	1.00	1.00	1.00	1.00	1.78	0.22
Final Sat.:	652	948	1600	825	756	19	1600	1600	1600	1600	2852	348
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.49	0.14	0.26	0.26	0.03	0.05	0.09	0.24	0.23	0.23
OvlAdjV/S:			0.25									
Crit Moves:			****	****					****	****		

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.608
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	3	0	3	175	0	12	17	845	1	8	365	26
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	0	3	176	0	12	17	852	1	8	368	26
Added Vol:	223	0	17	0	0	0	0	26	221	17	20	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	0	20	176	0	12	17	878	222	25	388	26
User 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
PHF 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
PHF Volume:	226	0	20	176	0	12	17	878	222	25	388	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	0	20	176	0	12	17	878	222	25	388	26
PCE 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
MLF 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
FinalVolume:	226	0	20	176	0	12	17	878	222	25	388	26
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.60	0.40	1.00	1.87	0.13
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2554	646	1600	2997	203
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.01	0.11	0.00	0.01	0.01	0.34	0.34	0.02	0.13	0.13
Crit Moves:	****					****		****		****		

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.647
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	288	467	116	12	210	33	47	598	167	39	646	13
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	290	471	117	12	212	33	47	603	168	39	651	13
Added Vol:	4	43	11	6	43	0	0	18	6	17	14	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	294	514	128	18	255	33	47	621	174	56	665	21
User 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
PHF 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
PHF Volume:	294	514	128	18	255	33	47	621	174	56	665	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	294	514	128	18	255	33	47	621	174	56	665	21
PCE 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
MLF 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
FinalVolume:	294	514	128	18	255	33	47	621	174	56	665	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.56	0.44	1.00	1.94	0.06
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2498	702	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.18	0.16	0.08	0.01	0.08	0.02	0.03	0.25	0.25	0.04	0.21	0.21
Crit Moves:	****			****			****			****		

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	227	471	62	300	392	32	48	456	211	53	453	263
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	229	478	63	302	397	32	48	460	213	53	459	265
Added Vol:	22	53	35	2	60	3	2	10	22	50	13	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	251	531	98	304	457	35	50	470	235	103	472	267
User 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
PHF 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
PHF Volume:	251	531	98	304	457	35	50	470	235	103	472	267
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	251	531	98	304	457	35	50	470	235	103	472	267
PCE 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
MLF 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
FinalVolume:	251	531	98	304	457	35	50	470	235	103	472	267
OvlAdjVol:												1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.14	1.73	0.13	1.00	1.33	0.67	1.00	2.00	1.00
Final Sat.:	1600	2703	497	1830	2756	214	1600	2134	1066	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.17	0.17	0.17	0.03	0.22	0.22	0.06	0.15	0.17
OvlAdjV/S:												0.00
Crit Moves:			****	****				****		****		

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	1.236
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0	1 0	0 1
Volume Module:												
Base Vol:	104	680	438	0	956	26	6	6	97	438	24	324
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	106	690	441	0	970	26	6	6	98	441	24	327
Added Vol:	271	66	46	0	93	47	48	226	150	87	101	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	377	756	487	0	1063	73	54	232	248	528	125	339
User 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
PHF 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
PHF Volume:	377	756	487	0	1063	73	54	232	248	528	125	339
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	377	756	487	0	1063	73	54	232	248	528	125	339
PCE 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
MLF 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
FinalVolume:	377	756	487	0	1063	73	54	232	248	528	125	339
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.81	0.19	0.10	0.43	0.47	0.81	0.19	1.00
Final Sat.:	1600	3200	1600	0	4490	310	162	695	744	1294	306	1600
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.30	0.00	0.24	0.24	0.03	0.33	0.33	0.33	0.41	0.21
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.865
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 2	1	0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	940	32	144	889	0	222	320	465	34	0	225
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	954	32	146	902	0	224	322	469	34	0	228
Added Vol:	0	187	0	0	206	0	242	0	87	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1141	32	146	1108	0	466	322	556	34	0	228
User 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
PHF 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
PHF Volume:	0	1141	32	146	1108	0	466	322	556	34	0	228
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1141	32	146	1108	0	466	322	556	34	0	228
PCE 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
MLF 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
FinalVolume:	0	1141	32	146	1108	0	466	322	556	34	0	228
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.92	0.08	2.00	2.00	0.00	1.18	0.82	1.00	1.00	0.00	2.00
Final Sat.:	0	4667	133	2880	3200	0	1891	1309	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.05	0.35	0.00	0.25	0.25	0.35	0.02	0.00	0.07
Crit Moves:	****				****				****			****

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.730
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	C

Street Name: Montebello Boulevard - SR-60 EB R / Town Center Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	1 1	0 1	1	0 1	1 0	1	1 1	0 1
Volume Module:												
Base Vol:	4	179	172	364	20	5	109	198	11	162	173	573
Growth Adj:	1.01	1.02	1.01	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	4	182	175	369	20	5	111	201	11	164	176	581
Added Vol:	0	7	9	1	7	0	0	0	0	9	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	189	184	370	27	5	111	201	11	173	176	596
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	189	0	370	27	5	111	201	11	173	176	596
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	189	0	370	27	5	111	201	11	173	176	596
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	189	0	370	27	5	111	201	11	173	176	596
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.89	0.11	1.49	1.51	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	3032	168	2385	2415	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.13	0.02	0.00	0.07	0.07	0.07	0.07	0.07	0.37
Crit Moves:		****		****			****					****

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.785
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1!	0 0	1 0	1!	0 0	1 0	1	1 0	0 0	2	0 2
Volume Module:												
Base Vol:	2	12	7	932	29	54	70	713	29	0	833	802
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	2	12	7	940	29	54	71	722	29	0	843	809
Added Vol:	0	0	0	6	0	52	34	10	0	0	15	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	12	7	946	29	106	105	732	29	0	858	816
User 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
PHF 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
PHF Volume:	2	12	7	946	29	106	105	732	29	0	858	816
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	12	7	946	29	106	105	732	29	0	858	816
PCE 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
MLF 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
FinalVolume:	2	12	7	946	29	106	105	732	29	0	858	816
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.57	0.33	1.75	0.05	0.20	1.00	1.92	0.08	0.00	2.00	2.00
Final Sat.:	152	914	533	2798	87	315	1600	3077	123	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.34	0.34	0.34	0.07	0.24	0.24	0.00	0.27	0.25
Crit Moves:	****			****			****				****	

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

****

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.941
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	126	Level Of Service:	E

****

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	80	736	113	190	1530	12	19	25	84	204	30	885
Added Vol:	0	2	7	1	16	0	0	0	0	7	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	738	120	191	1546	12	19	25	84	211	30	904
User 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
PHF 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
PHF Volume:	80	738	120	191	1546	12	19	25	84	211	30	904
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	738	120	191	1546	12	19	25	84	211	30	904
PCE 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
MLF 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
FinalVolume:	80	738	120	191	1546	12	19	25	84	211	30	904
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.58	0.42	1.00	1.98	0.02	0.43	0.57	1.00	1.00	0.06	1.94
Final Sat.:	1600	4127	673	1600	3175	25	689	911	1600	1600	104	3096
Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.12	0.49	0.49	0.01	0.03	0.05	0.13	0.29	0.29
Crit Moves:	****				****		****				****	

****

Mesa Substation
Baseline 2016
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.900
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0 1			1 0 2		0 1	1 1 0		0 1	0 1 0		
Volume Module:												
Base Vol:	30	469	14	42	863	854	376	46	321	20	23	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	30	475	14	43	874	866	381	47	326	20	23	47
Added Vol:	1	0	0	0	0	23	9	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	475	14	43	874	889	390	47	327	20	23	47
User 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
PHF 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
PHF Volume:	31	475	14	43	874	889	390	47	327	20	23	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	475	14	43	874	889	390	47	327	20	23	47
PCE 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
MLF 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
FinalVolume:	31	475	14	43	874	889	390	47	327	20	23	47
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.94	0.06	1.00	2.00	1.00	1.79	0.21	1.00	0.45	0.55	1.00
Final Sat.:	2880	3107	93	1600	3200	1600	2858	342	1600	719	881	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.15	0.03	0.27	0.56	0.14	0.14	0.20	0.03	0.03	0.03
Crit Moves:	****					****			****			****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	619	1176	160	0	0	0	17	218	122	303	280	72
Future Volume (veh/h)	619	1176	160	0	0	0	17	218	122	303	280	72
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	652	1238	168				18	229	128	319	295	76
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	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
Cap, veh/h	638	1326	870				35	289	246	331	901	228
Arrive On Green	0.54	0.54	0.54				0.02	0.15	0.15	0.18	0.32	0.32
Sat Flow, veh/h	1184	2462	1615				1810	1900	1615	1810	2854	723
Grp Volume(v), veh/h	1014	876	168				18	229	128	319	185	186
Grp Sat Flow(s),veh/h/ln	1841	1805	1615				1810	1900	1615	1810	1805	1772
Q Serve(g_s), s	57.5	46.5	5.7				1.1	12.4	7.8	18.7	8.3	8.6
Cycle Q Clear(g_c), s	57.5	46.5	5.7				1.1	12.4	7.8	18.7	8.3	8.6
Prop In Lane	0.64		1.00				1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	992	972	870				35	289	246	331	570	559
V/C Ratio(X)	1.02	0.90	0.19				0.51	0.79	0.52	0.97	0.32	0.33
Avail Cap(c_a), veh/h	992	972	870				90	347	295	331	570	560
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	22.1	12.7				51.8	43.6	41.7	43.3	27.9	27.9
Incr Delay (d2), s/veh	34.4	11.4	0.1				11.1	10.0	1.7	40.1	0.3	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	38.4	26.0	7.3				0.6	7.3	3.6	13.0	4.2	4.2
LnGrp Delay(d),s/veh	59.0	33.5	12.8				63.0	53.6	43.4	83.4	28.2	28.3
LnGrp LOS	F	C	B				E	D	D	F	C	C
Approach Vol, veh/h		2058						375			690	
Approach Delay, s/veh		44.3						50.6			53.7	
Approach LOS		D						D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	24.0	20.8		62.0	6.6	38.2		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	19.5	19.5		57.5	5.3	33.7		
Max Q Clear Time (g_c+I1), s	20.7	14.4		59.5	3.1	10.6		
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	4.1		

Intersection Summary	
HCM 2010 Ctrl Delay	47.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	86	151	390	661	81	42	62	786	217	199	5
Future Volume (veh/h)	48	86	151	390	661	81	42	62	786	217	199	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	91	159	411	696	85	44	65	827	228	209	5
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
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	80	332	282	457	1241	151	263	363	1032	244	179	4
Arrive On Green	0.04	0.17	0.17	0.25	0.38	0.38	0.39	0.39	0.39	0.39	0.39	0.39
Sat Flow, veh/h	1810	1900	1615	1810	3240	395	499	938	1615	435	464	10
Grp Volume(v), veh/h	51	91	159	411	388	393	109	0	827	442	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1830	1437	0	1615	910	0	0
Q Serve(g_s), s	2.0	3.0	6.5	15.9	12.2	12.2	0.0	0.0	27.5	25.3	0.0	0.0
Cycle Q Clear(g_c), s	2.0	3.0	6.5	15.9	12.2	12.2	2.7	0.0	27.5	28.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.22	0.40		1.00	0.52		0.01
Lane Grp Cap(c), veh/h	80	332	282	457	691	701	625	0	1032	427	0	0
V/C Ratio(X)	0.64	0.27	0.56	0.90	0.56	0.56	0.17	0.00	0.80	1.04	0.00	0.00
Avail Cap(c_a), veh/h	162	472	401	512	797	808	625	0	1032	427	0	0
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	0.00
Uniform Delay (d), s/veh	34.1	25.9	27.4	26.2	17.6	17.6	14.5	0.0	9.7	24.9	0.0	0.0
Incr Delay (d2), s/veh	8.1	0.4	1.8	17.6	0.7	0.7	0.1	0.0	4.6	52.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.6	3.1	10.1	6.2	6.3	1.4	0.0	13.3	14.7	0.0	0.0
LnGrp Delay(d),s/veh	42.1	26.4	29.1	43.8	18.3	18.3	14.6	0.0	14.3	77.9	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	B		B	F		
Approach Vol, veh/h		301			1192			936			442	
Approach Delay, s/veh		30.5			27.1			14.3			77.9	
Approach LOS		C			C			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		32.5	22.8	17.2		32.5	7.7	32.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		28.0	20.5	18.0		28.0	6.5	32.0
Max Q Clear Time (g_c+I1), s		29.5	17.9	8.5		30.0	4.0	14.2
Green Ext Time (p_c), s		0.0	0.4	4.1		0.0	0.0	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	232	248	528	125	339	377	756	487	0	1063	73
Future Volume (veh/h)	54	232	248	528	125	339	377	756	487	0	1063	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	59	255	273	580	137	373	414	831	535	0	1168	80
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	147	128	354	45	646	277	1444	646	0	1983	136
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	368	320	478	113	1615	452	3610	1615	0	5130	339
Grp Volume(v), veh/h	587	0	0	717	0	373	414	831	535	0	814	434
Grp Sat Flow(s),veh/h/ln	689	0	0	591	0	1615	452	1805	1615	0	1729	1840
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.2	8.6	7.2	11.9	0.0	7.4	7.4
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	7.2	16.0	7.2	11.9	0.0	7.4	7.4
Prop In Lane	0.10		0.47	0.81		1.00	1.00		1.00	0.00		0.18
Lane Grp Cap(c), veh/h	374	0	0	399	0	646	277	1444	646	0	1383	736
V/C Ratio(X)	1.57	0.00	0.00	1.80	0.00	0.58	1.49	0.58	0.83	0.00	0.59	0.59
Avail Cap(c_a), veh/h	374	0	0	399	0	646	277	1444	646	0	1383	736
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	15.3	0.0	9.4	18.5	9.4	10.8	0.0	9.4	9.4
Incr Delay (d2), s/veh	268.0	0.0	0.0	367.9	0.0	1.3	240.1	0.6	8.8	0.0	0.7	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	31.9	0.0	0.0	45.1	0.0	3.3	21.5	3.6	6.8	0.0	3.6	4.0
LnGrp Delay(d),s/veh	278.6	0.0	0.0	383.1	0.0	10.6	258.6	9.9	19.6	0.0	10.1	10.7
LnGrp LOS	F			F		B	F	A	B		B	B
Approach Vol, veh/h		587			1090			1780			1248	
Approach Delay, s/veh		278.6			255.7			70.6			10.3	
Approach LOS		F			F			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		9.4		18.0
Green Ext Time (p_c), s		0.0		0.0		6.3		0.0

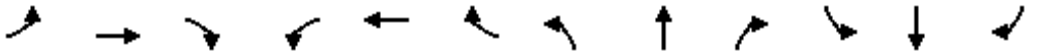
Intersection Summary	
HCM 2010 Ctrl Delay	123.4
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	466	322	556	34	0	228	0	1141	32	146	1108	0
Future Volume (veh/h)	466	322	556	34	0	228	0	1141	32	146	1108	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	410	440	579	35	0	238	0	1189	33	152	1154	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	677	711	604	0	0	0	0	1807	50	251	1763	0
Arrive On Green	0.37	0.37	0.37	0.00	0.00	0.00	0.00	0.35	0.35	0.07	0.49	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5360	144	3510	3705	0
Grp Volume(v), veh/h	410	440	579		0.0		0	792	430	152	1154	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1875	1755	1805	0
Q Serve(g_s), s	12.0	12.4	22.9				0.0	12.7	12.7	2.8	15.7	0.0
Cycle Q Clear(g_c), s	12.0	12.4	22.9				0.0	12.7	12.7	2.8	15.7	0.0
Prop In Lane	1.00		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	677	711	604				0	1204	653	251	1763	0
V/C Ratio(X)	0.61	0.62	0.96				0.00	0.66	0.66	0.61	0.65	0.00
Avail Cap(c_a), veh/h	677	711	604				0	1267	687	295	1874	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.6	16.7	20.0				0.0	18.0	18.0	29.5	12.6	0.0
Incr Delay (d2), s/veh	1.5	1.6	26.5				0.0	1.2	2.2	2.6	0.8	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	6.2	6.8	14.6				0.0	6.2	7.0	1.4	7.9	0.0
LnGrp Delay(d),s/veh	18.1	18.3	46.5				0.0	19.2	20.2	32.1	13.4	0.0
LnGrp LOS	B	B	D					B	C	C	B	
Approach Vol, veh/h		1429						1222			1306	
Approach Delay, s/veh		29.7						19.6			15.5	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.2	27.3		29.0		36.5		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.5	24.0		24.5		34.0		
Max Q Clear Time (g_c+I1), s	4.8	14.7		24.9		17.7		
Green Ext Time (p_c), s	0.0	8.1		0.0		13.3		

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	201	11	173	176	596	4	189	184	370	27	5
Future Volume (veh/h)	111	201	11	173	176	596	4	189	184	370	27	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	212	12	205	152	0	4	199	0	389	28	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	245	471	27	540	284	241	200	399	179	638	335	285
Arrive On Green	0.14	0.14	0.14	0.15	0.15	0.00	0.11	0.11	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1810	3475	196	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	117	110	114	205	152	0	4	199	0	389	28	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1865	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	2.5	2.3	2.4	2.1	3.1	0.0	0.1	2.2	0.0	4.2	0.5	0.0
Cycle Q Clear(g_c), s	2.5	2.3	2.4	2.1	3.1	0.0	0.1	2.2	0.0	4.2	0.5	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	245	253	540	284	241	200	399	179	638	335	285
V/C Ratio(X)	0.48	0.45	0.45	0.38	0.54	0.00	0.02	0.50	0.00	0.61	0.08	0.00
Avail Cap(c_a), veh/h	775	773	799	1550	814	692	775	1546	692	1550	814	692
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	16.7	16.7	16.1	16.5	0.0	16.7	17.6	0.0	16.0	14.5	0.0
Incr Delay (d2), s/veh	1.4	1.3	1.3	0.4	1.6	0.0	0.0	1.0	0.0	0.9	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	1.3	1.2	1.3	1.1	1.7	0.0	0.0	1.1	0.0	2.1	0.3	0.0
LnGrp Delay(d),s/veh	18.2	18.0	18.0	16.6	18.1	0.0	16.7	18.6	0.0	16.9	14.6	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		341			357			203			417	
Approach Delay, s/veh		18.1			17.2			18.5			16.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.1		10.2		11.9		10.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.2		4.5		6.2		5.1
Green Ext Time (p_c), s		0.9		1.3		1.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	25	84	211	30	904	80	738	120	191	1546	12
Future Volume (veh/h)	19	25	84	211	30	904	80	738	120	191	1546	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	26	87	218	0	953	82	761	124	197	1594	12
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
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	84	106	251	448	0	825	106	1897	307	244	1827	14
Arrive On Green	0.26	0.26	0.26	0.26	0.00	0.26	0.06	0.42	0.42	0.13	0.50	0.50
Sat Flow, veh/h	103	416	982	1300	0	3230	1810	4502	728	1810	3672	28
Grp Volume(v), veh/h	133	0	0	218	0	953	82	583	302	197	783	823
Grp Sat Flow(s),veh/h/ln	1502	0	0	1300	0	1615	1810	1729	1772	1810	1805	1895
Q Serve(g_s), s	0.0	0.0	0.0	5.2	0.0	18.3	3.2	8.4	8.5	7.6	27.6	27.6
Cycle Q Clear(g_c), s	4.5	0.0	0.0	9.7	0.0	18.3	3.2	8.4	8.5	7.6	27.6	27.6
Prop In Lane	0.15		0.65	1.00		1.00	1.00		0.41	1.00		0.01
Lane Grp Cap(c), veh/h	442	0	0	448	0	825	106	1457	746	244	898	943
V/C Ratio(X)	0.30	0.00	0.00	0.49	0.00	1.15	0.78	0.40	0.40	0.81	0.87	0.87
Avail Cap(c_a), veh/h	442	0	0	448	0	825	139	1457	746	397	950	998
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.5	0.0	0.0	23.3	0.0	26.7	33.3	14.4	14.5	30.1	16.0	16.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.8	0.0	83.2	17.8	0.2	0.4	6.3	8.6	8.3
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	2.2	0.0	0.0	3.9	0.0	17.6	2.1	4.0	4.2	4.2	15.6	16.3
LnGrp Delay(d),s/veh	21.9	0.0	0.0	24.1	0.0	109.9	51.1	14.6	14.8	36.4	24.6	24.3
LnGrp LOS	C			C		F	D	B	B	D	C	C
Approach Vol, veh/h		133			1171			967			1803	
Approach Delay, s/veh		21.9			93.9			17.8			25.7	
Approach LOS		C			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.1	34.7		22.8	8.7	40.1		22.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	15.7	27.5		18.3	5.5	37.7		18.3
Max Q Clear Time (g_c+I1), s	9.6	10.5		6.5	5.2	29.6		20.3
Green Ext Time (p_c), s	0.3	14.2		4.9	0.0	6.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	43.3
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	390	47	327	20	23	47	31	475	14	43	874	889
Future Volume (veh/h)	390	47	327	20	23	47	31	475	14	43	874	889
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	446	0	344	21	24	49	33	500	15	45	920	936
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	862	0	385	50	58	94	117	1490	45	74	1530	685
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.03	0.42	0.42	0.04	0.42	0.42
Sat Flow, veh/h	3619	0	1615	866	990	1615	3510	3579	107	1810	3610	1615
Grp Volume(v), veh/h	446	0	344	45	0	49	33	252	263	45	920	936
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1857	0	1615	1755	1805	1881	1810	1805	1615
Q Serve(g_s), s	7.8	0.0	15.1	1.7	0.0	2.2	0.7	6.9	6.9	1.8	14.4	31.0
Cycle Q Clear(g_c), s	7.8	0.0	15.1	1.7	0.0	2.2	0.7	6.9	6.9	1.8	14.4	31.0
Prop In Lane	1.00		1.00	0.47		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	862	0	385	108	0	94	117	752	783	74	1530	685
V/C Ratio(X)	0.52	0.00	0.89	0.42	0.00	0.52	0.28	0.34	0.34	0.61	0.60	1.37
Avail Cap(c_a), veh/h	891	0	398	457	0	398	240	752	783	158	1530	685
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	27.0	33.2	0.0	33.4	34.5	14.5	14.5	34.5	16.3	21.1
Incr Delay (d2), s/veh	0.5	0.0	21.4	2.5	0.0	4.4	1.3	0.3	0.3	7.8	0.7	174.5
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	4.0	0.0	9.0	1.0	0.0	1.1	0.3	3.5	3.6	1.0	7.3	46.9
LnGrp Delay(d),s/veh	24.7	0.0	48.4	35.8	0.0	37.8	35.8	14.7	14.7	42.3	16.9	195.6
LnGrp LOS	C		D	D		D	D	B	B	D	B	F
Approach Vol, veh/h		790			94			548			1901	
Approach Delay, s/veh		35.0			36.9			16.0			105.5	
Approach LOS		D			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	34.9		21.9	6.9	35.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.4	29.6		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	3.8	8.9		17.1	2.7	33.0		4.2
Green Ext Time (p_c), s	0.0	14.6		0.4	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	72.1
HCM 2010 LOS	E

Notes

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.900
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0	0 2	0 1	0	0 0	0 0	0	1 2	0 1
Volume Module:												
Base Vol:	797	365	0	0	524	342	0	0	0	257	1073	160
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	817	374	0	0	537	350	0	0	0	263	1099	164
Added Vol:	0	4	0	0	38	6	0	0	0	16	33	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	817	378	0	0	575	356	0	0	0	279	1132	193
User 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
PHF 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
PHF Volume:	817	378	0	0	575	356	0	0	0	279	1132	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	817	378	0	0	575	356	0	0	0	279	1132	193
PCE 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
MLF 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
FinalVolume:	817	378	0	0	575	356	0	0	0	279	1132	193
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.59	2.41	1.00
Final Sat.:	2880	1600	0	0	3200	1600	0	0	0	950	3850	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.24	0.00	0.00	0.18	0.22	0.00	0.00	0.00	0.17	0.29	0.12
Crit Moves:	****					****					****	

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.781
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 3	0 1	1	1 1	0 0	1	0 2	0 1	1	0 0	0 1
Volume Module:												
Base Vol:	0	833	183	157	648	0	131	781	359	27	0	235
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	869	191	164	676	0	137	815	375	28	0	245
Added Vol:	0	0	15	38	16	0	4	35	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	869	206	202	692	0	141	850	375	28	0	245
User 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
PHF 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
PHF Volume:	0	869	206	202	692	0	141	850	375	28	0	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	869	206	202	692	0	141	850	375	28	0	245
PCE 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
MLF 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
FinalVolume:	0	869	206	202	692	0	141	850	375	28	0	245
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.13	0.13	0.22	0.00	0.09	0.27	0.23	0.02	0.00	0.15
Crit Moves:		****			****			****		****		

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.743
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	503	333	0	0	344	66	0	0	0	283	1104	40
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	515	341	0	0	352	68	0	0	0	290	1131	41
Added Vol:	0	0	0	0	20	0	0	0	0	9	79	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	515	341	0	0	372	68	0	0	0	299	1210	56
User 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
PHF 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
PHF Volume:	515	341	0	0	372	68	0	0	0	299	1210	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	515	341	0	0	372	68	0	0	0	299	1210	56
PCE 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
MLF 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
FinalVolume:	515	341	0	0	372	68	0	0	0	299	1210	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.69	0.31	0.00	0.00	0.00	0.57	2.32	0.11
Final Sat.:	2880	3200	0	0	2708	492	0	0	0	917	3711	172
Capacity Analysis Module:												
Vol/Sat:	0.18	0.11	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.19	0.33	0.33
Crit Moves:	****				****						****	

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.827
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	73	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	315	790	164	127	483	40	32	941	307	20	96	41
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	329	825	171	133	504	42	33	982	320	21	100	43
Added Vol:	0	0	12	20	9	0	0	89	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	329	825	183	153	513	42	33	1071	320	21	100	43
User 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
PHF 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
PHF Volume:	329	825	183	153	513	42	33	1071	320	21	100	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	329	825	183	153	513	42	33	1071	320	21	100	43
PCE 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
MLF 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
FinalVolume:	329	825	183	153	513	42	33	1071	320	21	100	43
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.85	0.15	0.07	2.26	0.67	0.25	1.23	0.52
Final Sat.:	1600	4800	1600	1600	2959	241	113	3608	1079	408	1957	836
Capacity Analysis Module:												
Vol/Sat:	0.21	0.17	0.11	0.10	0.17	0.17	0.30	0.30	0.30	0.05	0.05	0.05
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.732
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	C

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0	1 1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	81	234	144	146	151	71	456	571	49	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	85	244	150	152	158	74	476	596	51	0	0	0
Added Vol:	0	8	0	17	6	0	114	6	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	252	150	169	164	74	590	602	51	0	0	0
User 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
PHF 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
PHF Volume:	85	252	150	169	164	74	590	602	51	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	252	150	169	164	74	590	602	51	0	0	0
PCE 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
MLF 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
FinalVolume:	85	252	150	169	164	74	590	602	51	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.38	0.62	0.99	1.01	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2202	998	1584	1616	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.09	0.11	0.07	0.07	0.37	0.37	0.03	0.00	0.00	0.00
Crit Moves:		****		****			****					

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.643
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0	1	0	1 1 0
Volume Module:												
Base Vol:	59	99	526	105	223	6	18	84	85	223	509	82
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	60	101	539	108	228	6	18	86	87	228	522	84
Added Vol:	5	0	117	0	0	0	0	19	2	23	95	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	101	656	108	228	6	18	105	89	251	617	84
User 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
PHF 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
PHF Volume:	65	101	656	108	228	6	18	105	89	251	617	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	101	656	108	228	6	18	105	89	251	617	84
PCE 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
MLF 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
FinalVolume:	65	101	656	108	228	6	18	105	89	251	617	84
OvlAdjVol:			404									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.61	1.00	0.31	0.67	0.02	1.00	1.00	1.00	1.00	1.76	0.24
Final Sat.:	628	972	1600	503	1068	29	1600	1600	1600	1600	2816	384
Capacity Analysis Module:												
Vol/Sat:	0.04	0.10	0.41	0.07	0.21	0.21	0.01	0.07	0.06	0.16	0.22	0.22
OvlAdjV/S:			0.25									
Crit Moves:			****	****				****		****		

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.497
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	13	0	9	14	0	13	10	296	4	1	806	150
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	13	0	9	14	0	13	10	303	4	1	826	154
Added Vol:	99	0	8	0	0	0	0	11	125	10	19	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	0	17	14	0	13	10	314	129	11	845	154
User 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
PHF 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
PHF Volume:	112	0	17	14	0	13	10	314	129	11	845	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	0	17	14	0	13	10	314	129	11	845	154
PCE 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
MLF 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
FinalVolume:	112	0	17	14	0	13	10	314	129	11	845	154
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.42	0.58	1.00	1.69	0.31
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2268	932	1600	2707	493
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.01	0.01	0.00	0.01	0.01	0.14	0.14	0.01	0.31	0.31
Crit Moves:	****					****	****				****	

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.643
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	146	152	147	17	358	37	23	432	235	165	381	2
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	150	156	151	17	367	38	24	443	241	169	390	2
Added Vol:	4	21	14	5	25	0	0	4	2	6	12	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	154	177	165	22	392	38	24	447	243	175	402	4
User 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
PHF 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
PHF Volume:	154	177	165	22	392	38	24	447	243	175	402	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	154	177	165	22	392	38	24	447	243	175	402	4
PCE 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
MLF 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
FinalVolume:	154	177	165	22	392	38	24	447	243	175	402	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.30	0.70	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2073	1127	1600	3168	32
Capacity Analysis Module:												
Vol/Sat:	0.10	0.06	0.10	0.01	0.12	0.02	0.01	0.22	0.22	0.11	0.13	0.13
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.616
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1	0 1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	119	227	24	221	416	16	45	317	261	90	449	242
Growth Adj:	1.02	1.04	1.02	1.02	1.04	1.02	1.02	1.02	1.02	1.02	1.04	1.02
Initial Bse:	122	237	25	226	431	16	46	325	267	92	466	248
Added Vol:	13	37	39	2	29	1	3	10	10	19	5	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	274	64	228	460	17	49	335	277	111	471	250
User 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
PHF 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
PHF Volume:	135	274	64	228	460	17	49	335	277	111	471	250
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	274	64	228	460	17	49	335	277	111	471	250
PCE 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
MLF 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
FinalVolume:	135	274	64	228	460	17	49	335	277	111	471	250
OvlAdjVol:												11
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.62	0.38	1.00	1.93	0.07	1.00	1.09	0.91	1.00	2.00	1.00
Final Sat.:	1600	2597	603	1600	3082	118	1600	1750	1450	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.11	0.11	0.14	0.15	0.15	0.03	0.19	0.19	0.07	0.15	0.16
OvlAdjV/S:												0.01
Crit Moves:	****			****			****			****		

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	0.813
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	41	412	191	0	920	7	19	4	165	188	14	114
Growth Adj:	1.04	1.04	1.02	1.02	1.04	1.04	1.04	1.02	1.04	1.02	1.02	1.02
Initial Bse:	43	430	195	0	960	7	20	4	172	192	14	117
Added Vol:	154	68	81	0	46	27	21	100	66	21	57	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	498	276	0	1006	34	41	104	238	213	71	122
User 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
PHF 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
PHF Volume:	197	498	276	0	1006	34	41	104	238	213	71	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	498	276	0	1006	34	41	104	238	213	71	122
PCE 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
MLF 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
FinalVolume:	197	498	276	0	1006	34	41	104	238	213	71	122
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.90	0.10	0.11	0.27	0.62	0.75	0.25	1.00
Final Sat.:	1600	3200	1600	0	4642	158	171	435	995	1199	401	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.17	0.00	0.22	0.22	0.03	0.24	0.24	0.13	0.18	0.08
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.445
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	652	8	58	476	0	144	71	158	7	0	44
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.02	1.02	1.02	1.04	1.04	1.04
Initial Bse:	0	680	8	61	497	0	147	73	162	7	0	46
Added Vol:	0	249	0	0	67	0	135	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	929	8	61	564	0	282	73	183	7	0	46
User 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
PHF 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
PHF Volume:	0	929	8	61	564	0	282	73	183	7	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	929	8	61	564	0	282	73	183	7	0	46
PCE 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
MLF 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
FinalVolume:	0	929	8	61	564	0	282	73	183	7	0	46
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.97	0.03	2.00	2.00	0.00	1.59	0.41	1.00	1.00	0.00	2.00
Final Sat.:	0	4757	43	2880	3200	0	2545	655	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.02	0.18	0.00	0.11	0.11	0.11	0.00	0.00	0.01
Crit Moves:		****		****					****			****

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.702
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1	1 0	1	1 0	1 1	0	1	1 0	1
Volume Module:												
Base Vol:	3	60	33	373	12	1	6	18	9	86	43	657
Growth Adj:	1.04	1.06	1.04	1.04	1.06	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	3	63	34	389	13	1	6	19	9	90	45	686
Added Vol:	0	5	7	0	8	0	0	0	0	9	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	68	41	389	21	1	6	19	9	99	45	699
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	68	0	389	21	1	6	19	9	99	45	699
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	68	0	389	21	1	6	19	9	99	45	699
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	68	0	389	21	1	6	19	9	99	45	699
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.33	0.67	2.00	1.00	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	2133	1067	2880	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.00	0.14	0.01	0.00	0.00	0.01	0.01	0.03	0.03	0.44
Crit Moves:		****		****				****				****

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 0	1! 0	0	1 0	1	1 0	0 0	2 0	2
Volume Module:												
Base Vol:	9	12	9	598	20	78	37	705	21	0	892	1085
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.04	1.02	1.02	1.04	1.02
Initial Bse:	9	12	9	613	20	80	38	731	22	0	925	1112
Added Vol:	0	0	0	4	0	18	42	11	0	0	6	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	12	9	617	20	98	80	742	22	0	931	1117
User 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
PHF 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
PHF Volume:	9	12	9	617	20	98	80	742	22	0	931	1117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	9	617	20	98	80	742	22	0	931	1117
PCE 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
MLF 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
FinalVolume:	9	12	9	617	20	98	80	742	22	0	931	1117
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.40	0.30	1.68	0.05	0.27	1.00	1.94	0.06	0.00	2.00	2.00
Final Sat.:	480	640	480	2685	89	426	1600	3110	90	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.23	0.23	0.23	0.05	0.24	0.24	0.00	0.29	0.35
Crit Moves:		****			****		****					****

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	D

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	43	1157	176	196	1278	3	16	13	26	103	22	849
Growth Adj:	1.02	1.04	1.04	1.04	1.04	1.02	1.02	1.04	1.02	1.04	1.04	1.04
Initial Bse:	44	1200	182	203	1325	3	16	13	27	107	23	879
Added Vol:	0	1	5	1	14	0	0	0	0	8	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	1201	187	204	1339	3	16	13	27	115	23	889
User 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
PHF 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
PHF Volume:	44	1201	187	204	1339	3	16	13	27	115	23	889
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	1201	187	204	1339	3	16	13	27	115	23	889
PCE 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
MLF 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
FinalVolume:	44	1201	187	204	1339	3	16	13	27	115	23	889
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.60	0.40	1.00	1.99	0.01	0.55	0.45	1.00	1.00	0.05	1.95
Final Sat.:	1600	4152	648	1600	3193	7	878	722	1600	1600	80	3120
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.13	0.42	0.42	0.01	0.02	0.02	0.07	0.29	0.29
Crit Moves:	****				****		****				****	

Mesa Substation
Baseline 2018
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	35	829	41	62	313	723	262	30	131	12	35	70
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	37	860	43	65	325	755	273	31	137	13	37	73
Added Vol:	1	0	0	0	0	22	6	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	860	43	65	325	777	279	31	138	13	37	73
User 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
PHF 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
PHF Volume:	38	860	43	65	325	777	279	31	138	13	37	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	860	43	65	325	777	279	31	138	13	37	73
PCE 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
MLF 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
FinalVolume:	38	860	43	65	325	777	279	31	138	13	37	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.91	0.09	1.00	2.00	1.00	1.80	0.20	1.00	0.21	0.79	1.00
Final Sat.:	2880	3048	152	1600	3200	1600	2878	322	1600	328	1272	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.28	0.28	0.04	0.10	0.49	0.10	0.10	0.09	0.04	0.03	0.05
Crit Moves:	****					****	****					****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	590	602	51	0	0	0	85	252	150	169	164	74
Future Volume (veh/h)	590	602	51	0	0	0	85	252	150	169	164	74
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	634	647	55				91	271	161	182	176	80
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	788	786	703				119	396	336	229	658	287
Arrive On Green	0.44	0.44	0.44				0.07	0.21	0.21	0.13	0.27	0.27
Sat Flow, veh/h	1810	1805	1615				1810	1900	1615	1810	2448	1068
Grp Volume(v), veh/h	634	647	55				91	271	161	182	128	128
Grp Sat Flow(s),veh/h/ln	1810	1805	1615				1810	1900	1615	1810	1805	1711
Q Serve(g_s), s	17.9	18.5	1.2				2.9	7.7	5.1	5.7	3.3	3.5
Cycle Q Clear(g_c), s	17.9	18.5	1.2				2.9	7.7	5.1	5.7	3.3	3.5
Prop In Lane	1.00		1.00				1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	788	786	703				119	396	336	229	485	460
V/C Ratio(X)	0.80	0.82	0.08				0.76	0.68	0.48	0.80	0.26	0.28
Avail Cap(c_a), veh/h	878	876	784				277	599	509	293	584	554
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.4	14.6	9.7				27.0	21.5	20.4	24.9	16.9	17.0
Incr Delay (d2), s/veh	5.0	5.9	0.0				9.7	2.1	1.1	11.2	0.3	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	9.9	10.4	1.4				1.8	4.3	2.4	3.6	1.7	1.7
LnGrp Delay(d),s/veh	19.4	20.4	9.7				36.7	23.6	21.5	36.1	17.2	17.3
LnGrp LOS	B	C	A				D	C	C	D	B	B
Approach Vol, veh/h		1336						523			438	
Approach Delay, s/veh		19.5						25.2			25.1	
Approach LOS		B						C			C	

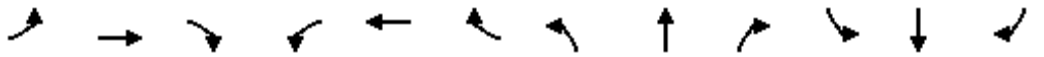
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	11.9	16.7		30.1	8.4	20.3		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	9.5	18.5		28.5	9.0	19.0		
Max Q Clear Time (g_c+I1), s	7.7	9.7		20.5	4.9	5.5		
Green Ext Time (p_c), s	0.1	2.5		5.1	0.1	3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	105	89	251	617	84	65	101	656	108	228	6
Future Volume (veh/h)	18	105	89	251	617	84	65	101	656	108	228	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	113	96	270	663	90	70	109	705	116	245	6
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	355	302	327	1101	149	275	390	881	205	373	8
Arrive On Green	0.02	0.19	0.19	0.18	0.34	0.34	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1900	1615	1810	3195	433	483	1070	1615	305	1022	22
Grp Volume(v), veh/h	19	113	96	270	374	379	179	0	705	367	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1824	1553	0	1615	1350	0	0
Q Serve(g_s), s	0.5	2.6	2.6	7.2	8.6	8.7	0.0	0.0	17.8	7.2	0.0	0.0
Cycle Q Clear(g_c), s	0.5	2.6	2.6	7.2	8.6	8.7	3.4	0.0	17.8	10.9	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.24	0.39		1.00	0.32		0.02
Lane Grp Cap(c), veh/h	42	355	302	327	622	628	666	0	881	586	0	0
V/C Ratio(X)	0.45	0.32	0.32	0.83	0.60	0.60	0.27	0.00	0.80	0.63	0.00	0.00
Avail Cap(c_a), veh/h	179	678	576	362	827	835	666	0	881	586	0	0
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	0.00
Uniform Delay (d), s/veh	24.3	17.7	17.7	19.9	13.7	13.7	11.2	0.0	9.2	13.1	0.0	0.0
Incr Delay (d2), s/veh	7.5	0.5	0.6	13.4	0.9	0.9	0.2	0.0	5.3	2.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.4	1.2	4.8	4.4	4.5	1.8	0.0	8.9	4.6	0.0	0.0
LnGrp Delay(d),s/veh	31.8	18.2	18.3	33.3	14.6	14.6	11.5	0.0	14.6	15.2	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B		B	B		
Approach Vol, veh/h		228			1023			884			367	
Approach Delay, s/veh		19.4			19.5			13.9			15.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.9	13.6	13.9		22.9	5.7	21.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.4	10.1	18.0		18.4	5.0	23.1
Max Q Clear Time (g_c+I1), s		19.8	9.2	4.6		12.9	2.5	10.7
Green Ext Time (p_c), s		0.0	0.1	4.8		3.2	0.0	4.6

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	104	238	213	71	122	197	498	276	0	1006	34
Future Volume (veh/h)	41	104	238	213	71	122	197	498	276	0	1006	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	47	118	270	242	81	139	224	566	314	0	1143	39
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	114	187	344	94	646	290	1444	646	0	2061	70
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	286	467	467	235	1615	482	3610	1615	0	5322	176
Grp Volume(v), veh/h	435	0	0	323	0	139	224	566	314	0	767	415
Grp Sat Flow(s),veh/h/ln	753	0	0	702	0	1615	482	1805	1615	0	1729	1869
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	2.3	9.2	4.5	5.8	0.0	6.8	6.8
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	2.3	16.0	4.5	5.8	0.0	6.8	6.8
Prop In Lane	0.11		0.62	0.75		1.00	1.00		1.00	0.00		0.09
Lane Grp Cap(c), veh/h	401	0	0	438	0	646	290	1444	646	0	1383	748
V/C Ratio(X)	1.09	0.00	0.00	0.74	0.00	0.22	0.77	0.39	0.49	0.00	0.55	0.55
Avail Cap(c_a), veh/h	401	0	0	438	0	646	290	1444	646	0	1383	748
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	12.6	0.0	7.9	17.7	8.5	8.9	0.0	9.3	9.3
Incr Delay (d2), s/veh	69.7	0.0	0.0	6.4	0.0	0.2	12.1	0.2	0.6	0.0	0.5	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	12.1	0.0	0.0	4.3	0.0	1.0	3.4	2.2	2.6	0.0	3.3	3.6
LnGrp Delay(d),s/veh	80.4	0.0	0.0	19.0	0.0	8.0	29.8	8.7	9.5	0.0	9.7	10.2
LnGrp LOS	F			B		A	C	A	A		A	B
Approach Vol, veh/h		435			462			1104			1182	
Approach Delay, s/veh		80.4			15.7			13.2			9.9	
Approach LOS		F			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		8.8		18.0
Green Ext Time (p_c), s		0.0		0.0		6.3		0.0

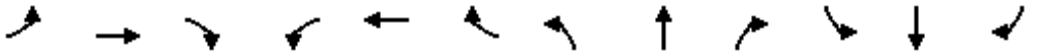
Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	73	183	7	0	46	0	929	8	61	564	0
Future Volume (veh/h)	282	73	183	7	0	46	0	929	8	61	564	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	185	229	191	7	0	48	0	968	8	64	588	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	378	397	338	0	0	0	0	2075	17	223	2046	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5477	44	3510	3705	0
Grp Volume(v), veh/h	185	229	191		0.0		0	631	345	64	588	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1892	1755	1805	0
Q Serve(g_s), s	3.6	4.4	4.3				0.0	5.5	5.5	0.7	3.4	0.0
Cycle Q Clear(g_c), s	3.6	4.4	4.3				0.0	5.5	5.5	0.7	3.4	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	378	397	338				0	1352	740	223	2046	0
V/C Ratio(X)	0.49	0.58	0.57				0.00	0.47	0.47	0.29	0.29	0.00
Avail Cap(c_a), veh/h	816	857	728				0	1791	980	446	2733	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.0	14.3	14.2				0.0	9.1	9.1	17.9	4.5	0.0
Incr Delay (d2), s/veh	1.0	1.3	1.5				0.0	0.3	0.5	0.7	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
%ile BackOfQ(50%),veh/ln	1.9	2.4	2.0				0.0	2.6	2.9	0.4	1.7	0.0
LnGrp Delay(d),s/veh	15.0	15.6	15.7				0.0	9.4	9.6	18.6	4.6	0.0
LnGrp LOS	B	B	B					A	A	B	A	
Approach Vol, veh/h		605						976			652	
Approach Delay, s/veh		15.4						9.4			6.0	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	7.1	20.2		12.9		27.3		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.1	20.8		18.1		30.4		
Max Q Clear Time (g_c+I1), s	2.7	7.5		6.4		5.4		
Green Ext Time (p_c), s	0.0	8.2		2.1		12.1		

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	19	9	99	45	699	3	69	41	389	21	1
Future Volume (veh/h)	6	19	9	99	45	699	3	69	41	389	21	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	21	10	108	49	0	3	75	0	423	23	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	109	48	421	221	188	141	281	126	754	396	336
Arrive On Green	0.04	0.04	0.04	0.12	0.12	0.00	0.08	0.08	0.00	0.21	0.21	0.00
Sat Flow, veh/h	1810	2436	1079	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	7	15	16	108	49	0	3	75	0	423	23	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1710	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	0.1	0.3	0.3	0.9	0.8	0.0	0.0	0.6	0.0	3.4	0.3	0.0
Cycle Q Clear(g_c), s	0.1	0.3	0.3	0.9	0.8	0.0	0.0	0.6	0.0	3.4	0.3	0.0
Prop In Lane	1.00		0.63	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	81	76	421	221	188	141	281	126	754	396	336
V/C Ratio(X)	0.09	0.19	0.21	0.26	0.22	0.00	0.02	0.27	0.00	0.56	0.06	0.00
Avail Cap(c_a), veh/h	1001	998	945	2001	1051	893	1001	1996	893	2001	1051	893
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.9	15.0	15.0	13.1	13.0	0.0	13.9	14.1	0.0	11.6	10.3	0.0
Incr Delay (d2), s/veh	0.5	1.1	1.3	0.3	0.5	0.0	0.1	0.5	0.0	0.7	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(50%),veh/ln	0.1	0.2	0.2	0.5	0.4	0.0	0.0	0.3	0.0	1.8	0.2	0.0
LnGrp Delay(d),s/veh	15.4	16.1	16.3	13.4	13.5	0.0	13.9	14.6	0.0	12.2	10.4	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		38			157			78			446	
Approach Delay, s/veh		16.1			13.5			14.6			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		7.0		6.0		11.3		8.3
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.6		2.3		5.4		2.9
Green Ext Time (p_c), s		0.3		0.1		1.4		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	13	27	115	23	889	44	1201	187	204	1339	3
Future Volume (veh/h)	16	13	27	115	23	889	44	1201	187	204	1339	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	14	29	124	0	973	47	1291	201	219	1440	3
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	116	168	494	0	879	78	1735	270	264	1796	4
Arrive On Green	0.27	0.27	0.27	0.27	0.00	0.27	0.04	0.38	0.38	0.15	0.49	0.49
Sat Flow, veh/h	231	427	616	1385	0	3230	1810	4529	705	1810	3696	8
Grp Volume(v), veh/h	60	0	0	124	0	973	47	986	506	219	703	740
Grp Sat Flow(s),veh/h/ln	1274	0	0	1385	0	1615	1810	1729	1776	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	18.5	1.7	16.7	16.7	8.0	22.3	22.3
Cycle Q Clear(g_c), s	1.8	0.0	0.0	4.3	0.0	18.5	1.7	16.7	16.7	8.0	22.3	22.3
Prop In Lane	0.28		0.48	1.00		1.00	1.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	415	0	0	494	0	879	78	1325	680	264	877	922
V/C Ratio(X)	0.14	0.00	0.00	0.25	0.00	1.11	0.60	0.74	0.74	0.83	0.80	0.80
Avail Cap(c_a), veh/h	415	0	0	494	0	879	133	1348	692	306	877	922
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	0.0	19.4	0.0	24.7	31.9	18.1	18.1	28.2	14.7	14.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	63.9	7.2	2.2	4.3	15.2	5.4	5.2
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	1.9	0.0	16.0	1.0	8.4	9.0	5.1	12.3	12.8
LnGrp Delay(d),s/veh	18.8	0.0	0.0	19.7	0.0	88.6	39.1	20.3	22.4	43.4	20.1	19.9
LnGrp LOS	B			B		F	D	C	C	D	C	B
Approach Vol, veh/h		60			1097			1539			1662	
Approach Delay, s/veh		18.8			80.8			21.6			23.1	
Approach LOS		B			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.4	30.5		23.0	7.4	37.5		23.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	11.5	26.5		18.5	5.0	33.0		18.5
Max Q Clear Time (g_c+I1), s	10.0	18.7		3.8	3.7	24.3		20.5
Green Ext Time (p_c), s	0.1	7.3		4.8	0.0	8.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	31	138	13	37	73	38	860	43	65	325	777
Future Volume (veh/h)	279	31	138	13	37	73	38	860	43	65	325	777
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	327	0	150	14	40	79	41	935	47	71	353	845
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	540	0	241	40	113	131	150	1305	66	110	1413	632
Arrive On Green	0.15	0.00	0.15	0.08	0.08	0.08	0.04	0.37	0.37	0.06	0.39	0.39
Sat Flow, veh/h	3619	0	1615	486	1389	1615	3510	3498	176	1810	3610	1615
Grp Volume(v), veh/h	327	0	150	54	0	79	41	482	500	71	353	845
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1876	0	1615	1755	1805	1869	1810	1805	1615
Q Serve(g_s), s	4.5	0.0	4.7	1.5	0.0	2.5	0.6	12.3	12.3	2.1	3.5	21.0
Cycle Q Clear(g_c), s	4.5	0.0	4.7	1.5	0.0	2.5	0.6	12.3	12.3	2.1	3.5	21.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	540	0	241	152	0	131	150	674	697	110	1413	632
V/C Ratio(X)	0.61	0.00	0.62	0.35	0.00	0.60	0.27	0.72	0.72	0.64	0.25	1.34
Avail Cap(c_a), veh/h	1214	0	542	629	0	542	327	703	728	172	1413	632
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	21.4	23.3	0.0	23.8	24.9	14.4	14.4	24.6	11.0	16.3
Incr Delay (d2), s/veh	1.1	0.0	2.6	1.4	0.0	4.4	1.0	3.3	3.2	6.2	0.1	162.1
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	2.4	0.0	2.2	0.8	0.0	1.3	0.3	6.7	6.9	1.2	1.8	37.6
LnGrp Delay(d),s/veh	22.4	0.0	24.0	24.7	0.0	28.2	25.9	17.7	17.6	30.8	11.1	178.4
LnGrp LOS	C		C	C		C	C	B	B	C	B	F
Approach Vol, veh/h		477			133			1023			1269	
Approach Delay, s/veh		22.9			26.8			18.0			123.6	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.8	24.5		12.5	6.8	25.5		8.9
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	20.9		18.0	5.0	21.0		18.0
Max Q Clear Time (g_c+I1), s	4.1	14.3		6.7	2.6	23.0		4.5
Green Ext Time (p_c), s	0.0	5.4		1.3	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	65.4
HCM 2010 LOS	E

Notes

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.926
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	115	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0 0	2	0 1	0 0	0	0 0	0 1	2	0 1
Volume Module:												
Base Vol:	527	760	0	0	733	115	0	0	0	299	984	306
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	540	779	0	0	751	118	0	0	0	306	1008	314
Added Vol:	0	13	0	0	68	12	0	0	0	27	62	70
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	540	792	0	0	819	130	0	0	0	333	1070	384
User 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
PHF 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
PHF Volume:	540	792	0	0	819	130	0	0	0	333	1070	384
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	540	792	0	0	819	130	0	0	0	333	1070	384
PCE 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
MLF 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
FinalVolume:	540	792	0	0	819	130	0	0	0	333	1070	384
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.22	1.78	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.71	2.29	1.00
Final Sat.:	1946	2854	0	0	3200	1600	0	0	0	1140	3660	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.00	0.00	0.26	0.08	0.00	0.00	0.00	0.21	0.29	0.24
Crit Moves:	****				****						****	

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.113
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	3	0 1	1 1	1	0 0	1 0	2	0 1	1 0	0	0 1
Volume Module:												
Base Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	1161	345	317	760	0	152	1286	816	24	0	102
Added Vol:	0	0	29	68	27	0	13	65	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1161	374	385	787	0	165	1351	816	24	0	102
User 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
PHF 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
PHF Volume:	0	1161	374	385	787	0	165	1351	816	24	0	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1161	374	385	787	0	165	1351	816	24	0	102
PCE 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
MLF 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
FinalVolume:	0	1161	374	385	787	0	165	1351	816	24	0	102
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.23	0.24	0.25	0.00	0.10	0.42	0.51	0.02	0.00	0.06
Crit Moves:		****			****				****	****		

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.741
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0 0	0	1 1	1 0
Volume Module:												
Base Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	400	306	0	0	334	23	0	0	0	343	1183	82
Added Vol:	0	0	0	0	35	0	0	0	0	21	159	35
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	400	306	0	0	369	23	0	0	0	364	1342	117
User 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
PHF 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
PHF Volume:	400	306	0	0	369	23	0	0	0	364	1342	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	400	306	0	0	369	23	0	0	0	364	1342	117
PCE 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
MLF 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
FinalVolume:	400	306	0	0	369	23	0	0	0	364	1342	117
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.88	0.12	0.00	0.00	0.00	0.60	2.21	0.19
Final Sat.:	2880	3200	0	0	3016	184	0	0	0	959	3533	308
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.23	0.38	0.38
Crit Moves:	****				****						****	

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.866
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	85	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	1 1	0	0 1	1 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	116	622	270	149	543	26	56	1365	474	8	26	64
Added Vol:	0	0	21	35	21	0	0	163	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	622	291	184	564	26	56	1528	474	8	26	64
User 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
PHF 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
PHF Volume:	116	622	291	184	564	26	56	1528	474	8	26	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	622	291	184	564	26	56	1528	474	8	26	64
PCE 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
MLF 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
FinalVolume:	116	622	291	184	564	26	56	1528	474	8	26	64
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.91	0.09	0.08	2.23	0.69	0.17	0.83	1.00
Final Sat.:	1600	4800	1600	1600	3058	142	131	3564	1105	272	1328	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.18	0.12	0.18	0.18	0.43	0.43	0.43	0.03	0.02	0.04
Crit Moves:			****	****				****				****

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.009
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0	1 1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	18	211	125	273	273	74	424	1197	165	0	0	0
Added Vol:	0	13	0	37	14	0	207	12	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	224	125	310	287	74	631	1209	165	0	0	0
User 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
PHF 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
PHF Volume:	18	224	125	310	287	74	631	1209	165	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	224	125	310	287	74	631	1209	165	0	0	0
PCE 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
MLF 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
FinalVolume:	18	224	125	310	287	74	631	1209	165	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.69	1.31	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2544	656	1097	2103	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.08	0.19	0.11	0.11	0.39	0.58	0.10	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.831
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	74	Level Of Service:	D

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0	1	0	1 1 0
Volume Module:												
Base Vol:	32	61	568	215	197	5	48	52	147	336	465	80
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	33	63	582	220	202	5	49	53	151	344	476	82
Added Vol:	10	0	213	0	0	0	0	34	3	51	192	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	63	795	220	202	5	49	87	154	395	668	82
User 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
PHF 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
PHF Volume:	43	63	795	220	202	5	49	87	154	395	668	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	63	795	220	202	5	49	87	154	395	668	82
PCE 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
MLF 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
FinalVolume:	43	63	795	220	202	5	49	87	154	395	668	82
OvlAdjVol:			400									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.59	1.00	0.52	0.47	0.01	1.00	1.00	1.00	1.00	1.78	0.22
Final Sat.:	650	950	1600	825	756	19	1600	1600	1600	1600	2850	350
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.50	0.14	0.27	0.27	0.03	0.05	0.10	0.25	0.23	0.23
OvlAdjV/S:			0.25									
Crit Moves:			****	****					****	****		

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.613
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	3	0	3	175	0	12	17	845	1	8	365	26
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	3	0	3	179	0	12	17	866	1	8	374	27
Added Vol:	223	0	17	0	0	0	0	26	221	17	20	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	0	20	179	0	12	17	892	222	25	394	27
User 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
PHF 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
PHF Volume:	226	0	20	179	0	12	17	892	222	25	394	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	0	20	179	0	12	17	892	222	25	394	27
PCE 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
MLF 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
FinalVolume:	226	0	20	179	0	12	17	892	222	25	394	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.60	0.40	1.00	1.87	0.13
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2562	638	1600	2997	203
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.01	0.11	0.00	0.01	0.01	0.35	0.35	0.02	0.13	0.13
Crit Moves:	****					****		****		****		

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	288	467	116	12	210	33	47	598	167	39	646	13
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	295	478	119	12	215	34	48	613	171	40	662	13
Added Vol:	4	43	11	6	43	0	0	18	6	17	14	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	299	521	130	18	258	34	48	631	177	57	676	21
User 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
PHF 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
PHF Volume:	299	521	130	18	258	34	48	631	177	57	676	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	299	521	130	18	258	34	48	631	177	57	676	21
PCE 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
MLF 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
FinalVolume:	299	521	130	18	258	34	48	631	177	57	676	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.56	0.44	1.00	1.94	0.06
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2498	702	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.19	0.16	0.08	0.01	0.08	0.02	0.03	0.25	0.25	0.04	0.22	0.22
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.759
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	227	471	62	300	392	32	48	456	211	53	453	263
Growth Adj:	1.02	1.04	1.02	1.02	1.04	1.02	1.02	1.02	1.02	1.02	1.04	1.02
Initial Bse:	233	491	64	307	406	33	49	467	216	54	470	269
Added Vol:	22	53	35	2	60	3	2	10	22	50	13	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	255	544	99	309	466	36	51	477	238	104	483	271
User 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
PHF 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
PHF Volume:	255	544	99	309	466	36	51	477	238	104	483	271
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	255	544	99	309	466	36	51	477	238	104	483	271
PCE 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
MLF 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
FinalVolume:	255	544	99	309	466	36	51	477	238	104	483	271
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.14	1.73	0.13	1.00	1.33	0.67	1.00	2.00	1.00
Final Sat.:	1600	2710	490	1825	2763	213	1600	2135	1065	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.17	0.17	0.17	0.03	0.22	0.22	0.07	0.15	0.17
OvlAdjV/S:												0.00
Crit Moves:			****	****				****		****		

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	1.250
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	104	680	438	0	956	26	6	6	97	438	24	324
Growth Adj:	1.04	1.04	1.02	1.02	1.04	1.04	1.04	1.02	1.04	1.02	1.02	1.02
Initial Bse:	109	709	448	0	997	27	6	6	101	448	25	332
Added Vol:	271	66	46	0	93	47	48	226	150	87	101	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	380	775	494	0	1090	74	54	232	251	535	126	344
User 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
PHF 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
PHF Volume:	380	775	494	0	1090	74	54	232	251	535	126	344
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	380	775	494	0	1090	74	54	232	251	535	126	344
PCE 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
MLF 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
FinalVolume:	380	775	494	0	1090	74	54	232	251	535	126	344
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.81	0.19	0.10	0.43	0.47	0.81	0.19	1.00
Final Sat.:	1600	3200	1600	0	4494	306	161	691	748	1296	304	1600
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.31	0.00	0.24	0.24	0.03	0.34	0.34	0.33	0.41	0.21
Crit Moves:	****				****			****		****		

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.879
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 2	1	0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	940	32	144	889	0	222	320	465	34	0	225
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.02	1.02	1.02	1.04	1.04	1.04
Initial Bse:	0	981	33	150	927	0	227	327	476	35	0	235
Added Vol:	0	187	0	0	206	0	242	0	87	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1168	33	150	1133	0	469	327	563	35	0	235
User 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
PHF 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
PHF Volume:	0	1168	33	150	1133	0	469	327	563	35	0	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1168	33	150	1133	0	469	327	563	35	0	235
PCE 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
MLF 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
FinalVolume:	0	1168	33	150	1133	0	469	327	563	35	0	235
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.92	0.08	2.00	2.00	0.00	1.18	0.82	1.00	1.00	0.00	2.00
Final Sat.:	0	4667	133	2880	3200	0	1885	1315	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.05	0.35	0.00	0.25	0.25	0.35	0.02	0.00	0.07
Crit Moves:	****				****				****			****

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1	1	0 1	1 0	1	1 0	1	1	0 1
Volume Module:												
Base Vol:	4	179	172	364	20	5	109	198	11	162	173	573
Growth Adj:	1.04	1.06	1.04	1.04	1.06	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	4	189	180	380	21	5	114	207	11	169	181	598
Added Vol:	0	7	9	1	7	0	0	0	0	9	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	196	189	381	28	5	114	207	11	178	181	613
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	196	0	381	28	5	114	207	11	178	181	613
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	196	0	381	28	5	114	207	11	178	181	613
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	196	0	381	28	5	114	207	11	178	181	613
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.89	0.11	1.49	1.51	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	3032	168	2383	2417	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.13	0.02	0.00	0.07	0.07	0.07	0.07	0.07	0.38
Crit Moves:		****		****			****					****

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.797
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxx
Optimal Cycle:	66	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1!	0	0	1 0	1! 0	0	1 0	1 1	0	0 0	2 0 2
Volume Module:												
Base Vol:	2	12	7	932	29	54	70	713	29	0	833	802
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.04	1.02	1.02	1.04	1.02
Initial Bse:	2	12	7	955	30	55	72	739	30	0	864	822
Added Vol:	0	0	0	6	0	52	34	10	0	0	15	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	12	7	961	30	107	106	749	30	0	879	829
User 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
PHF 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
PHF Volume:	2	12	7	961	30	107	106	749	30	0	879	829
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	12	7	961	30	107	106	749	30	0	879	829
PCE 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
MLF 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
FinalVolume:	2	12	7	961	30	107	106	749	30	0	879	829
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.57	0.33	1.75	0.05	0.20	1.00	1.92	0.08	0.00	2.00	2.00
Final Sat.:	152	914	533	2801	87	313	1600	3078	122	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.34	0.34	0.34	0.07	0.24	0.24	0.00	0.27	0.26
Crit Moves:	****				****		****				****	

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.960
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	143	Level Of Service:	E

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
Growth Adj:	1.02	1.04	1.04	1.04	1.04	1.02	1.02	1.04	1.02	1.04	1.04	1.04
Initial Bse:	81	754	116	195	1567	12	19	26	85	209	31	906
Added Vol:	0	2	7	1	16	0	0	0	0	7	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	756	123	196	1583	12	19	26	85	216	31	925
User 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
PHF 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
PHF Volume:	81	756	123	196	1583	12	19	26	85	216	31	925
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	756	123	196	1583	12	19	26	85	216	31	925
PCE 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
MLF 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
FinalVolume:	81	756	123	196	1583	12	19	26	85	216	31	925
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.58	0.42	1.00	1.98	0.02	0.43	0.57	1.00	1.00	0.06	1.94
Final Sat.:	1600	4128	672	1600	3175	25	687	913	1600	1600	104	3096
Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.12	0.50	0.50	0.01	0.03	0.05	0.14	0.30	0.30
Crit Moves:	****				****		****				****	

Mesa Substation
Baseline 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.923
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	113	Level Of Service:	E

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	30	469	14	42	863	854	376	46	321	20	23	46
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	31	486	15	44	895	891	392	48	335	21	24	48
Added Vol:	1	0	0	0	0	23	9	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	486	15	44	895	914	401	48	336	21	24	48
User 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
PHF 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
PHF Volume:	32	486	15	44	895	914	401	48	336	21	24	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	486	15	44	895	914	401	48	336	21	24	48
PCE 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
MLF 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
FinalVolume:	32	486	15	44	895	914	401	48	336	21	24	48
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.94	0.06	1.00	2.00	1.00	1.79	0.21	1.00	0.45	0.55	1.00
Final Sat.:	2880	3107	93	1600	3200	1600	2858	342	1600	719	881	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.16	0.03	0.28	0.57	0.14	0.14	0.21	0.03	0.03	0.03
Crit Moves:	****					****			****			****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	631	1209	165	0	0	0	18	224	125	310	287	74
Future Volume (veh/h)	631	1209	165	0	0	0	18	224	125	310	287	74
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	664	1273	174				19	236	132	326	302	78
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	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
Cap, veh/h	651	1367	894				36	270	230	344	892	227
Arrive On Green	0.55	0.55	0.55				0.02	0.14	0.14	0.19	0.31	0.31
Sat Flow, veh/h	1177	2469	1615				1810	1900	1615	1810	2852	725
Grp Volume(v), veh/h	1039	898	174				19	236	132	326	189	191
Grp Sat Flow(s),veh/h/ln	1841	1805	1615				1810	1900	1615	1810	1805	1772
Q Serve(g_s), s	65.5	52.3	6.4				1.2	14.4	9.0	21.1	9.5	9.8
Cycle Q Clear(g_c), s	65.5	52.3	6.4				1.2	14.4	9.0	21.1	9.5	9.8
Prop In Lane	0.64		1.00				1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	1019	999	894				36	270	230	344	565	554
V/C Ratio(X)	1.02	0.90	0.19				0.54	0.87	0.57	0.95	0.34	0.34
Avail Cap(c_a), veh/h	1019	999	894				84	297	252	344	565	554
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	23.5	13.2				57.5	49.7	47.4	47.3	31.2	31.3
Incr Delay (d2), s/veh	33.2	10.9	0.1				11.9	22.3	2.6	35.0	0.3	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	42.5	29.0	8.3				0.7	9.2	4.2	13.8	4.8	4.9
LnGrp Delay(d),s/veh	59.6	34.4	13.3				69.4	72.0	50.0	82.3	31.6	31.7
LnGrp LOS	F	C	B				E	E	D	F	C	C
Approach Vol, veh/h		2111						387			706	
Approach Delay, s/veh		45.1						64.4			55.0	
Approach LOS		D						E			E	

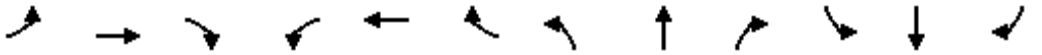
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	27.0	21.3		70.0	6.8	41.5		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	22.5	18.5		65.5	5.5	35.5		
Max Q Clear Time (g_c+I1), s	23.1	16.4		67.5	3.2	11.8		
Green Ext Time (p_c), s	0.0	0.4		0.0	0.0	4.3		

Intersection Summary	
HCM 2010 Ctrl Delay	49.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	87	154	395	668	82	43	63	795	220	202	5
Future Volume (veh/h)	49	87	154	395	668	82	43	63	795	220	202	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	92	162	416	703	86	45	66	837	232	213	5
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
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	77	313	266	460	1220	149	274	379	1082	248	188	4
Arrive On Green	0.04	0.16	0.16	0.25	0.38	0.38	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	1810	1900	1615	1810	3239	396	510	912	1615	436	453	10
Grp Volume(v), veh/h	52	92	162	416	392	397	111	0	837	450	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1830	1422	0	1615	899	0	0
Q Serve(g_s), s	2.3	3.5	7.6	18.2	14.1	14.1	0.0	0.0	29.0	31.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	3.5	7.6	18.2	14.1	14.1	3.0	0.0	29.0	34.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.22	0.41		1.00	0.52		0.01
Lane Grp Cap(c), veh/h	77	313	266	460	680	689	654	0	1082	441	0	0
V/C Ratio(X)	0.68	0.29	0.61	0.90	0.58	0.58	0.17	0.00	0.77	1.02	0.00	0.00
Avail Cap(c_a), veh/h	151	418	356	542	788	799	654	0	1082	441	0	0
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	0.00
Uniform Delay (d), s/veh	38.6	30.0	31.7	29.5	20.3	20.3	14.8	0.0	9.2	26.8	0.0	0.0
Incr Delay (d2), s/veh	10.0	0.5	2.2	16.9	0.8	0.8	0.1	0.0	3.5	48.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.9	3.5	11.2	7.1	7.2	1.6	0.0	13.6	15.7	0.0	0.0
LnGrp Delay(d),s/veh	48.6	30.5	33.9	46.4	21.1	21.1	14.9	0.0	12.8	75.2	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B		B	F		
Approach Vol, veh/h		306			1205			948			450	
Approach Delay, s/veh		35.4			29.8			13.0			75.2	
Approach LOS		D			C			B			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		38.5	25.3	18.0		38.5	8.0	35.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		34.0	24.5	18.0		34.0	6.8	35.7
Max Q Clear Time (g_c+I1), s		31.0	20.2	9.6		36.0	4.3	16.1
Green Ext Time (p_c), s		2.2	0.6	3.9		0.0	0.0	6.1

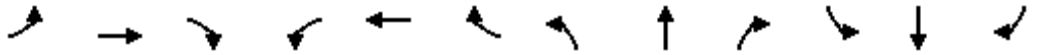
Intersection Summary	
HCM 2010 Ctrl Delay	31.9
HCM 2010 LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	232	251	535	126	344	380	775	494	0	1090	74
Future Volume (veh/h)	54	232	251	535	126	344	380	775	494	0	1090	74
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	59	255	276	588	138	378	418	852	543	0	1198	81
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	147	129	354	45	646	272	1444	646	0	1985	134
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	366	322	478	112	1615	439	3610	1615	0	5134	335
Grp Volume(v), veh/h	590	0	0	726	0	378	418	852	543	0	835	444
Grp Sat Flow(s),veh/h/ln	688	0	0	590	0	1615	439	1805	1615	0	1729	1841
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.3	8.4	7.4	12.2	0.0	7.6	7.6
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	7.3	16.0	7.4	12.2	0.0	7.6	7.6
Prop In Lane	0.10		0.47	0.81		1.00	1.00		1.00	0.00		0.18
Lane Grp Cap(c), veh/h	374	0	0	399	0	646	272	1444	646	0	1383	736
V/C Ratio(X)	1.58	0.00	0.00	1.82	0.00	0.59	1.54	0.59	0.84	0.00	0.60	0.60
Avail Cap(c_a), veh/h	374	0	0	399	0	646	272	1444	646	0	1383	736
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	15.3	0.0	9.4	18.6	9.4	10.8	0.0	9.5	9.5
Incr Delay (d2), s/veh	271.8	0.0	0.0	378.5	0.0	1.4	259.7	0.6	9.7	0.0	0.7	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	32.3	0.0	0.0	46.3	0.0	3.5	22.6	3.8	7.0	0.0	3.7	4.1
LnGrp Delay(d),s/veh	282.4	0.0	0.0	393.8	0.0	10.8	278.3	10.1	20.6	0.0	10.2	10.9
LnGrp LOS	F			F		B	F	B	C		B	B
Approach Vol, veh/h		590			1104			1813			1279	
Approach Delay, s/veh		282.4			262.6			75.0			10.5	
Approach LOS		F			F			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		9.6		18.0
Green Ext Time (p_c), s		0.0		0.0		6.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	126.6
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	469	327	563	36	0	235	0	1168	33	150	1133	0
Future Volume (veh/h)	469	327	563	36	0	235	0	1168	33	150	1133	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	415	445	586	38	0	245	0	1217	34	156	1180	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	650	683	580	0	0	0	0	1880	53	253	1816	0
Arrive On Green	0.36	0.36	0.36	0.00	0.00	0.00	0.00	0.36	0.36	0.07	0.50	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5359	145	3510	3705	0
Grp Volume(v), veh/h	415	445	586		0.0		0	811	440	156	1180	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1874	1755	1805	0
Q Serve(g_s), s	12.5	12.8	23.5				0.0	12.8	12.8	2.8	15.8	0.0
Cycle Q Clear(g_c), s	12.5	12.8	23.5				0.0	12.8	12.8	2.8	15.8	0.0
Prop In Lane	1.00		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	650	683	580				0	1253	679	253	1816	0
V/C Ratio(X)	0.64	0.65	1.01				0.00	0.65	0.65	0.62	0.65	0.00
Avail Cap(c_a), veh/h	650	683	580				0	1322	716	295	1932	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.4	17.5	21.0				0.0	17.4	17.4	29.5	12.0	0.0
Incr Delay (d2), s/veh	2.1	2.2	39.8				0.0	1.0	1.9	3.0	0.7	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	7.1	16.7				0.0	6.3	7.0	1.5	7.9	0.0
LnGrp Delay(d),s/veh	19.5	19.7	60.8				0.0	18.4	19.3	32.4	12.7	0.0
LnGrp LOS	B	B	F					B	B	C	B	
Approach Vol, veh/h		1446						1251			1336	
Approach Delay, s/veh		36.3						18.7			15.0	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.2	28.2		28.0		37.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.5	25.0		23.5		35.0		
Max Q Clear Time (g_c+I1), s	4.8	14.8		25.5		17.8		
Green Ext Time (p_c), s	0.0	8.9		0.0		14.1		

Intersection Summary	
HCM 2010 Ctrl Delay	23.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	207	11	178	181	613	4	197	189	381	28	5
Future Volume (veh/h)	114	207	11	178	181	613	4	197	189	381	28	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	120	218	12	212	156	0	4	207	0	401	29	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	248	476	26	547	287	244	206	410	184	647	339	289
Arrive On Green	0.14	0.14	0.14	0.15	0.15	0.00	0.11	0.11	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1810	3481	191	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	120	112	118	212	156	0	4	207	0	401	29	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1866	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	2.6	2.5	2.5	2.3	3.3	0.0	0.1	2.3	0.0	4.4	0.5	0.0
Cycle Q Clear(g_c), s	2.6	2.5	2.5	2.3	3.3	0.0	0.1	2.3	0.0	4.4	0.5	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	247	255	547	287	244	206	410	184	647	339	289
V/C Ratio(X)	0.48	0.46	0.46	0.39	0.54	0.00	0.02	0.50	0.00	0.62	0.09	0.00
Avail Cap(c_a), veh/h	760	758	783	1519	798	678	760	1515	678	1519	798	678
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.1	17.0	17.0	16.4	16.8	0.0	16.9	17.9	0.0	16.3	14.7	0.0
Incr Delay (d2), s/veh	1.5	1.3	1.3	0.4	1.6	0.0	0.0	1.0	0.0	1.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.3	1.4	1.2	1.8	0.0	0.0	1.2	0.0	2.3	0.3	0.0
LnGrp Delay(d),s/veh	18.6	18.3	18.3	16.9	18.4	0.0	16.9	18.8	0.0	17.2	14.8	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		350			368			211			430	
Approach Delay, s/veh		18.4			17.5			18.8			17.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.4		10.4		12.2		11.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.3		4.6		6.4		5.3
Green Ext Time (p_c), s		1.0		1.3		1.3		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	26	85	216	31	925	81	756	123	196	1583	12
Future Volume (veh/h)	19	26	85	216	31	925	81	756	123	196	1583	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	27	88	223	0	975	84	779	127	202	1632	12
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
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	79	103	239	418	0	788	108	1996	323	247	1910	14
Arrive On Green	0.24	0.24	0.24	0.24	0.00	0.24	0.06	0.44	0.44	0.14	0.52	0.52
Sat Flow, veh/h	102	421	978	1298	0	3230	1810	4501	728	1810	3673	27
Grp Volume(v), veh/h	135	0	0	223	0	975	84	597	309	202	801	843
Grp Sat Flow(s),veh/h/ln	1500	0	0	1298	0	1615	1810	1729	1771	1810	1805	1895
Q Serve(g_s), s	0.0	0.0	0.0	6.5	0.0	18.7	3.5	8.9	9.0	8.3	29.4	29.4
Cycle Q Clear(g_c), s	5.0	0.0	0.0	11.5	0.0	18.7	3.5	8.9	9.0	8.3	29.4	29.4
Prop In Lane	0.15		0.65	1.00		1.00	1.00		0.41	1.00		0.01
Lane Grp Cap(c), veh/h	420	0	0	418	0	788	108	1533	785	247	938	985
V/C Ratio(X)	0.32	0.00	0.00	0.53	0.00	1.24	0.78	0.39	0.39	0.82	0.85	0.86
Avail Cap(c_a), veh/h	420	0	0	418	0	788	130	1533	785	390	996	1046
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	0.0	26.1	0.0	29.0	35.5	14.3	14.4	32.2	15.9	15.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.3	0.0	117.4	21.2	0.2	0.3	7.4	7.0	6.8
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	2.4	0.0	0.0	4.4	0.0	21.2	2.4	4.3	4.4	4.7	16.3	17.1
LnGrp Delay(d),s/veh	24.2	0.0	0.0	27.4	0.0	146.4	56.7	14.5	14.7	39.5	22.9	22.7
LnGrp LOS	C			C		F	E	B	B	D	C	C
Approach Vol, veh/h		135			1198			990			1846	
Approach Delay, s/veh		24.2			124.3			18.1			24.6	
Approach LOS		C			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	38.5		23.2	9.1	44.3		23.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	16.5	31.3		18.7	5.5	42.3		18.7
Max Q Clear Time (g_c+I1), s	10.3	11.0		7.0	5.5	31.4		20.7
Green Ext Time (p_c), s	0.3	16.8		5.0	0.0	8.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	51.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	401	48	336	21	24	48	32	486	15	44	895	914
Future Volume (veh/h)	401	48	336	21	24	48	32	486	15	44	895	914
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	458	0	354	22	25	51	34	512	16	46	942	962
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	875	0	391	51	58	95	119	1478	46	75	1520	680
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.03	0.41	0.41	0.04	0.42	0.42
Sat Flow, veh/h	3619	0	1615	869	988	1615	3510	3574	112	1810	3610	1615
Grp Volume(v), veh/h	458	0	354	47	0	51	34	258	270	46	942	962
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1857	0	1615	1755	1805	1880	1810	1805	1615
Q Serve(g_s), s	8.1	0.0	15.7	1.8	0.0	2.3	0.7	7.2	7.2	1.8	15.1	31.0
Cycle Q Clear(g_c), s	8.1	0.0	15.7	1.8	0.0	2.3	0.7	7.2	7.2	1.8	15.1	31.0
Prop In Lane	1.00		1.00	0.47		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	875	0	391	109	0	95	119	747	778	75	1520	680
V/C Ratio(X)	0.52	0.00	0.91	0.43	0.00	0.54	0.28	0.35	0.35	0.61	0.62	1.41
Avail Cap(c_a), veh/h	885	0	395	454	0	395	238	747	778	160	1520	680
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	27.1	33.5	0.0	33.7	34.7	14.8	14.8	34.7	16.7	21.3
Incr Delay (d2), s/veh	0.5	0.0	23.9	2.7	0.0	4.7	1.3	0.3	0.3	7.9	0.8	195.4
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	4.1	0.0	9.6	1.0	0.0	1.1	0.4	3.6	3.8	1.1	7.6	50.5
LnGrp Delay(d),s/veh	24.8	0.0	51.0	36.1	0.0	38.3	36.0	15.1	15.0	42.6	17.5	216.7
LnGrp LOS	C		D	D		D	D	B	B	D	B	F
Approach Vol, veh/h		812			98			562			1950	
Approach Delay, s/veh		36.2			37.3			16.3			116.3	
Approach LOS		D			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	35.0		22.3	7.0	35.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.5	29.5		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	3.8	9.2		17.7	2.7	33.0		4.3
Green Ext Time (p_c), s	0.0	14.7		0.1	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	78.6
HCM 2010 LOS	E

Notes

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #1 Garfield Ave/Pomona Blvd

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.907
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	103	Level Of Service:	E

****

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0 0	2	0 1	0 0	0	0 0	0 1	2	0 1
Volume Module:												
Base Vol:	797	365	0	0	524	342	0	0	0	257	1073	160
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	823	377	0	0	541	353	0	0	0	265	1108	165
Added Vol:	0	4	0	0	38	6	0	0	0	16	33	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	823	381	0	0	579	359	0	0	0	281	1141	194
User 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
PHF 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
PHF Volume:	823	381	0	0	579	359	0	0	0	281	1141	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	823	381	0	0	579	359	0	0	0	281	1141	194
PCE 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
MLF 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
FinalVolume:	823	381	0	0	579	359	0	0	0	281	1141	194
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.59	2.41	1.00
Final Sat.:	2880	1600	0	0	3200	1600	0	0	0	950	3850	1600
Capacity Analysis Module:												
Vol/Sat:	0.29	0.24	0.00	0.00	0.18	0.22	0.00	0.00	0.00	0.18	0.30	0.12
Crit Moves:	****					****					****	

****

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.790
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	3	0 1	1 1	1	0 0	1 0	2	0 1	1 0	0	0 1
Volume Module:												
Base Vol:	0	833	183	157	648	0	131	781	359	27	0	235
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	882	194	166	686	0	139	827	380	29	0	249
Added Vol:	0	0	15	38	16	0	4	35	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	882	209	204	702	0	143	862	380	29	0	249
User 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
PHF 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
PHF Volume:	0	882	209	204	702	0	143	862	380	29	0	249
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	882	209	204	702	0	143	862	380	29	0	249
PCE 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
MLF 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
FinalVolume:	0	882	209	204	702	0	143	862	380	29	0	249
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.13	0.13	0.22	0.00	0.09	0.27	0.24	0.02	0.00	0.16
Crit Moves:		****			****			****		****		

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.747
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	503	333	0	0	344	66	0	0	0	283	1104	40
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	519	344	0	0	355	68	0	0	0	292	1140	41
Added Vol:	0	0	0	0	20	0	0	0	0	9	79	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	519	344	0	0	375	68	0	0	0	301	1219	56
User 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
PHF 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
PHF Volume:	519	344	0	0	375	68	0	0	0	301	1219	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	519	344	0	0	375	68	0	0	0	301	1219	56
PCE 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
MLF 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
FinalVolume:	519	344	0	0	375	68	0	0	0	301	1219	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.69	0.31	0.00	0.00	0.00	0.57	2.32	0.11
Final Sat.:	2880	3200	0	0	2708	492	0	0	0	917	3711	171
Capacity Analysis Module:												
Vol/Sat:	0.18	0.11	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.19	0.33	0.33
Crit Moves:	****				****						****	

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.837
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	315	790	164	127	483	40	32	941	307	20	96	41
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	333	836	174	134	511	42	34	996	325	21	102	43
Added Vol:	0	0	12	20	9	0	0	89	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	333	836	186	154	520	42	34	1085	325	21	102	43
User 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
PHF 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
PHF Volume:	333	836	186	154	520	42	34	1085	325	21	102	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	333	836	186	154	520	42	34	1085	325	21	102	43
PCE 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
MLF 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
FinalVolume:	333	836	186	154	520	42	34	1085	325	21	102	43
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.85	0.15	0.07	2.25	0.68	0.25	1.23	0.52
Final Sat.:	1600	4800	1600	1600	2959	241	113	3607	1080	408	1957	836
Capacity Analysis Module:												
Vol/Sat:	0.21	0.17	0.12	0.10	0.18	0.18	0.30	0.30	0.30	0.05	0.05	0.05
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.744
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0	1 1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	81	234	144	146	151	71	456	571	49	0	0	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	86	248	152	155	160	75	483	604	52	0	0	0
Added Vol:	0	8	0	17	6	0	114	6	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	86	256	152	172	166	75	597	610	52	0	0	0
User 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
PHF 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
PHF Volume:	86	256	152	172	166	75	597	610	52	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	256	152	172	166	75	597	610	52	0	0	0
PCE 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
MLF 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
FinalVolume:	86	256	152	172	166	75	597	610	52	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.38	0.62	0.99	1.01	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2202	998	1582	1618	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.10	0.11	0.08	0.08	0.37	0.38	0.03	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.647
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0	1	0	1 1 0
Volume Module:												
Base Vol:	59	99	526	105	223	6	18	84	85	223	509	82
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	61	102	543	108	230	6	19	87	88	230	526	85
Added Vol:	5	0	117	0	0	0	0	19	2	23	95	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	102	660	108	230	6	19	106	90	253	621	85
User 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
PHF 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
PHF Volume:	66	102	660	108	230	6	19	106	90	253	621	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	102	660	108	230	6	19	106	90	253	621	85
PCE 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
MLF 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
FinalVolume:	66	102	660	108	230	6	19	106	90	253	621	85
OvlAdjVol:			407									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.61	1.00	0.31	0.67	0.02	1.00	1.00	1.00	1.00	1.76	0.24
Final Sat.:	627	973	1600	503	1068	29	1600	1600	1600	1600	2816	384
Capacity Analysis Module:												
Vol/Sat:	0.04	0.11	0.41	0.07	0.22	0.22	0.01	0.07	0.06	0.16	0.22	0.22
OvlAdjV/S:			0.25									
Crit Moves:			****	****				****		****		

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.500
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	33	Level Of Service:	A

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1	1 0	1 0	1 1	0
Volume Module:												
Base Vol:	13	0	9	14	0	13	10	296	4	1	806	150
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	13	0	9	14	0	13	10	306	4	1	832	155
Added Vol:	99	0	8	0	0	0	0	11	125	10	19	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	0	17	14	0	13	10	317	129	11	851	155
User 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
PHF 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
PHF Volume:	112	0	17	14	0	13	10	317	129	11	851	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	0	17	14	0	13	10	317	129	11	851	155
PCE 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
MLF 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
FinalVolume:	112	0	17	14	0	13	10	317	129	11	851	155
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.42	0.58	1.00	1.69	0.31
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2273	927	1600	2707	493
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.01	0.01	0.00	0.01	0.01	0.14	0.14	0.01	0.31	0.31
Crit Moves:	****					****	****				****	

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.648
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	146	152	147	17	358	37	23	432	235	165	381	2
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	151	157	152	18	370	38	24	446	243	170	393	2
Added Vol:	4	21	14	5	25	0	0	4	2	6	12	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	178	166	23	395	38	24	450	245	176	405	4
User 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
PHF 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
PHF Volume:	155	178	166	23	395	38	24	450	245	176	405	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	178	166	23	395	38	24	450	245	176	405	4
PCE 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
MLF 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
FinalVolume:	155	178	166	23	395	38	24	450	245	176	405	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.30	0.70	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2073	1127	1600	3168	32
Capacity Analysis Module:												
Vol/Sat:	0.10	0.06	0.10	0.01	0.12	0.02	0.01	0.22	0.22	0.11	0.13	0.13
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.620
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

****

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	1 0	1 0	1	0 1	1 0	1	0 2	1 0
Volume Module:												
Base Vol:	119	227	24	221	416	16	45	317	261	90	449	242
Growth Adj:	1.03	1.06	1.03	1.03	1.05	1.03	1.03	1.03	1.03	1.03	1.05	1.03
Initial Bse:	123	240	25	228	436	17	46	327	270	93	471	250
Added Vol:	13	37	39	2	29	1	3	10	10	19	5	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	136	277	64	230	465	18	49	337	280	112	476	252
User 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
PHF 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
PHF Volume:	136	277	64	230	465	18	49	337	280	112	476	252
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	277	64	230	465	18	49	337	280	112	476	252
PCE 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
MLF 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
FinalVolume:	136	277	64	230	465	18	49	337	280	112	476	252
OvlAdjVol:												10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.93	0.07	1.00	1.09	0.91	1.00	2.00	1.00
Final Sat.:	1600	2601	599	1600	3081	119	1600	1750	1450	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.11	0.11	0.14	0.15	0.15	0.03	0.19	0.19	0.07	0.15	0.16
OvlAdjV/S:												0.01
Crit Moves:	****			****			****			****		

****

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	0.818
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	41	412	191	0	920	7	19	4	165	188	14	114
Growth Adj:	1.06	1.06	1.03	1.03	1.06	1.06	1.06	1.03	1.06	1.03	1.03	1.03
Initial Bse:	43	436	197	0	973	7	20	4	175	194	14	118
Added Vol:	154	68	81	0	46	27	21	100	66	21	57	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	504	278	0	1019	34	41	104	241	215	71	123
User 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
PHF 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
PHF Volume:	197	504	278	0	1019	34	41	104	241	215	71	123
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	504	278	0	1019	34	41	104	241	215	71	123
PCE 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
MLF 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
FinalVolume:	197	504	278	0	1019	34	41	104	241	215	71	123
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.90	0.10	0.11	0.27	0.62	0.75	0.25	1.00
Final Sat.:	1600	3200	1600	0	4643	157	170	432	998	1201	399	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.17	0.00	0.22	0.22	0.03	0.24	0.24	0.13	0.18	0.08
Crit Moves:	****				****			****		****		

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.448
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	652	8	58	476	0	144	71	158	7	0	44
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.03	1.03	1.03	1.06	1.06	1.06
Initial Bse:	0	690	8	61	503	0	148	73	163	7	0	47
Added Vol:	0	249	0	0	67	0	135	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	939	8	61	570	0	283	73	184	7	0	47
User 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
PHF 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
PHF Volume:	0	939	8	61	570	0	283	73	184	7	0	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	939	8	61	570	0	283	73	184	7	0	47
PCE 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
MLF 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
FinalVolume:	0	939	8	61	570	0	283	73	184	7	0	47
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.97	0.03	2.00	2.00	0.00	1.59	0.41	1.00	1.00	0.00	2.00
Final Sat.:	0	4757	43	2880	3200	0	2543	657	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.02	0.18	0.00	0.11	0.11	0.11	0.00	0.00	0.01
Crit Moves:		****		****					****			****

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	1	1 0 1	1	0 1	1 0	1	1	1 0 1
Volume Module:												
Base Vol:	3	60	33	373	12	1	6	18	9	86	43	657
Growth Adj:	1.06	1.08	1.06	1.06	1.08	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	3	65	35	395	13	1	6	19	10	91	46	695
Added Vol:	0	5	7	0	8	0	0	0	0	9	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	70	42	395	21	1	6	19	10	100	46	708
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	70	0	395	21	1	6	19	10	100	46	708
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	70	0	395	21	1	6	19	10	100	46	708
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	70	0	395	21	1	6	19	10	100	46	708
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.33	0.67	2.00	1.00	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	2133	1067	2880	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.00	0.14	0.01	0.00	0.00	0.01	0.01	0.03	0.03	0.44
Crit Moves:		****		****				****				****

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.753
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 0	1! 0	0	1 0	1	1 0	0 0	2 0	2
Volume Module:												
Base Vol:	9	12	9	598	20	78	37	705	21	0	892	1085
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.05	1.03	1.03	1.05	1.03
Initial Bse:	9	12	9	618	21	81	38	740	22	0	936	1121
Added Vol:	0	0	0	4	0	18	42	11	0	0	6	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	12	9	622	21	99	80	751	22	0	942	1126
User 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
PHF 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
PHF Volume:	9	12	9	622	21	99	80	751	22	0	942	1126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	9	622	21	99	80	751	22	0	942	1126
PCE 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
MLF 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
FinalVolume:	9	12	9	622	21	99	80	751	22	0	942	1126
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.40	0.30	1.68	0.05	0.27	1.00	1.94	0.06	0.00	2.00	2.00
Final Sat.:	480	640	480	2685	89	426	1600	3110	90	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.23	0.23	0.23	0.05	0.24	0.24	0.00	0.29	0.35
Crit Moves:	****			****			****					****

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.851
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	80	Level Of Service:	D

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	1	1 0	0 1	0	0 1	1 0	0	1 1
Volume Module:												
Base Vol:	43	1157	176	196	1278	3	16	13	26	103	22	849
Growth Adj:	1.03	1.05	1.05	1.05	1.05	1.03	1.03	1.05	1.03	1.05	1.05	1.05
Initial Bse:	44	1214	184	205	1341	3	17	14	27	108	23	889
Added Vol:	0	1	5	1	14	0	0	0	0	8	0	10
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	1215	189	206	1355	3	17	14	27	116	23	899
User 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
PHF 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
PHF Volume:	44	1215	189	206	1355	3	17	14	27	116	23	899
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	1215	189	206	1355	3	17	14	27	116	23	899
PCE 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
MLF 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
FinalVolume:	44	1215	189	206	1355	3	17	14	27	116	23	899
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.60	0.40	1.00	1.99	0.01	0.55	0.45	1.00	1.00	0.05	1.95
Final Sat.:	1600	4153	647	1600	3193	7	877	723	1600	1600	80	3120
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.13	0.42	0.42	0.01	0.02	0.02	0.07	0.29	0.29
Crit Moves:	****				****		****				****	

Mesa Substation
Baseline 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.750
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	35	829	41	62	313	723	262	30	131	12	35	70
Growth Adj:	1.06	1.05	1.06	1.06	1.05	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	37	870	43	66	328	765	277	32	139	13	37	74
Added Vol:	1	0	0	0	0	22	6	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	870	43	66	328	787	283	32	140	13	37	74
User 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
PHF 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
PHF Volume:	38	870	43	66	328	787	283	32	140	13	37	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	870	43	66	328	787	283	32	140	13	37	74
PCE 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
MLF 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
FinalVolume:	38	870	43	66	328	787	283	32	140	13	37	74
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.90	0.10	1.00	2.00	1.00	1.80	0.20	1.00	0.21	0.79	1.00
Final Sat.:	2880	3048	152	1600	3200	1600	2877	323	1600	328	1272	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.29	0.29	0.04	0.10	0.49	0.10	0.10	0.09	0.04	0.03	0.05
Crit Moves:	****					****		****				****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	597	610	52	0	0	0	86	256	152	172	166	75
Future Volume (veh/h)	597	610	52	0	0	0	86	256	152	172	166	75
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	642	656	56				92	275	163	185	178	81
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	789	787	704				120	398	338	231	663	290
Arrive On Green	0.44	0.44	0.44				0.07	0.21	0.21	0.13	0.27	0.27
Sat Flow, veh/h	1810	1805	1615				1810	1900	1615	1810	2447	1069
Grp Volume(v), veh/h	642	656	56				92	275	163	185	129	130
Grp Sat Flow(s),veh/h/ln	1810	1805	1615				1810	1900	1615	1810	1805	1711
Q Serve(g_s), s	18.5	19.2	1.2				3.0	8.0	5.3	5.9	3.4	3.6
Cycle Q Clear(g_c), s	18.5	19.2	1.2				3.0	8.0	5.3	5.9	3.4	3.6
Prop In Lane	1.00		1.00				1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	789	787	704				120	398	338	231	489	464
V/C Ratio(X)	0.81	0.83	0.08				0.77	0.69	0.48	0.80	0.26	0.28
Avail Cap(c_a), veh/h	867	864	773				274	591	502	289	576	546
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	14.9	9.8				27.3	21.8	20.7	25.2	17.0	17.1
Incr Delay (d2), s/veh	5.6	6.6	0.0				9.9	2.2	1.1	11.9	0.3	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	10.3	10.9	1.4				1.8	4.4	2.5	3.7	1.7	1.7
LnGrp Delay(d),s/veh	20.2	21.4	9.9				37.2	23.9	21.8	37.1	17.3	17.4
LnGrp LOS	C	C	A				D	C	C	D	B	B
Approach Vol, veh/h		1354						530			444	
Approach Delay, s/veh		20.4						25.6			25.6	
Approach LOS		C						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	12.1	17.0		30.4	8.4	20.6		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	9.5	18.5		28.5	9.0	19.0		
Max Q Clear Time (g_c+I1), s	7.9	10.0		21.2	5.0	5.6		
Green Ext Time (p_c), s	0.1	2.5		4.8	0.1	3.2		

Intersection Summary	
HCM 2010 Ctrl Delay	22.6
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	106	90	253	621	85	66	102	660	108	230	6
Future Volume (veh/h)	19	106	90	253	621	85	66	102	660	108	230	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	114	97	272	668	91	71	110	710	116	247	6
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	357	303	329	1102	150	274	387	881	204	372	8
Arrive On Green	0.02	0.19	0.19	0.18	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1900	1615	1810	3194	435	482	1063	1615	304	1023	22
Grp Volume(v), veh/h	20	114	97	272	377	382	181	0	710	369	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1823	1545	0	1615	1348	0	0
Q Serve(g_s), s	0.6	2.6	2.6	7.3	8.8	8.8	0.0	0.0	18.0	7.4	0.0	0.0
Cycle Q Clear(g_c), s	0.6	2.6	2.6	7.3	8.8	8.8	3.5	0.0	18.0	11.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.24	0.39		1.00	0.31		0.02
Lane Grp Cap(c), veh/h	44	357	303	329	623	629	661	0	881	584	0	0
V/C Ratio(X)	0.46	0.32	0.32	0.83	0.61	0.61	0.27	0.00	0.81	0.63	0.00	0.00
Avail Cap(c_a), veh/h	179	676	575	361	824	833	661	0	881	584	0	0
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	0.00
Uniform Delay (d), s/veh	24.4	17.8	17.8	19.9	13.7	13.7	11.3	0.0	9.3	13.3	0.0	0.0
Incr Delay (d2), s/veh	7.2	0.5	0.6	13.7	1.0	0.9	0.2	0.0	5.6	2.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.4	1.2	4.9	4.5	4.5	1.8	0.0	9.2	4.7	0.0	0.0
LnGrp Delay(d),s/veh	31.6	18.3	18.4	33.6	14.7	14.7	11.5	0.0	14.9	15.5	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B		B	B		
Approach Vol, veh/h		231			1031			891			369	
Approach Delay, s/veh		19.5			19.7			14.2			15.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.9	13.7	14.0		22.9	5.7	22.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.4	10.1	18.0		18.4	5.0	23.1
Max Q Clear Time (g_c+I1), s		20.0	9.3	4.6		13.1	2.6	10.8
Green Ext Time (p_c), s		0.0	0.1	4.9		3.1	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.1
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	104	241	215	71	123	197	504	278	0	1019	34
Future Volume (veh/h)	41	104	241	215	71	123	197	504	278	0	1019	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	47	118	274	244	81	140	224	573	316	0	1158	39
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	113	188	344	92	646	287	1444	646	0	2062	69
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	283	470	466	230	1615	475	3610	1615	0	5325	174
Grp Volume(v), veh/h	439	0	0	325	0	140	224	573	316	0	777	420
Grp Sat Flow(s),veh/h/ln	752	0	0	697	0	1615	475	1805	1615	0	1729	1869
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	2.3	9.0	4.5	5.8	0.0	7.0	7.0
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	2.3	16.0	4.5	5.8	0.0	7.0	7.0
Prop In Lane	0.11		0.62	0.75		1.00	1.00		1.00	0.00		0.09
Lane Grp Cap(c), veh/h	401	0	0	436	0	646	287	1444	646	0	1383	748
V/C Ratio(X)	1.10	0.00	0.00	0.74	0.00	0.22	0.78	0.40	0.49	0.00	0.56	0.56
Avail Cap(c_a), veh/h	401	0	0	436	0	646	287	1444	646	0	1383	748
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	12.7	0.0	7.9	17.8	8.6	9.0	0.0	9.3	9.3
Incr Delay (d2), s/veh	73.3	0.0	0.0	6.8	0.0	0.2	12.8	0.2	0.6	0.0	0.5	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	12.5	0.0	0.0	4.3	0.0	1.0	3.5	2.3	2.6	0.0	3.3	3.7
LnGrp Delay(d),s/veh	83.9	0.0	0.0	19.5	0.0	8.0	30.7	8.7	9.5	0.0	9.8	10.2
LnGrp LOS	F			B		A	C	A	A		A	B
Approach Vol, veh/h		439			465			1113			1197	
Approach Delay, s/veh		83.9			16.0			13.4			10.0	
Approach LOS		F			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		9.0		18.0
Green Ext Time (p_c), s		0.0		0.0		6.2		0.0

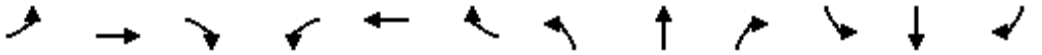
Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	73	184	7	0	47	0	939	8	61	570	0
Future Volume (veh/h)	283	73	184	7	0	47	0	939	8	61	570	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	186	229	192	7	0	49	0	978	8	64	594	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	378	397	337	0	0	0	0	2083	17	223	2049	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5478	43	3510	3705	0
Grp Volume(v), veh/h	186	229	192		0.0		0	637	349	64	594	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1892	1755	1805	0
Q Serve(g_s), s	3.7	4.4	4.3				0.0	5.5	5.5	0.7	3.4	0.0
Cycle Q Clear(g_c), s	3.7	4.4	4.3				0.0	5.5	5.5	0.7	3.4	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	378	397	337				0	1357	743	223	2049	0
V/C Ratio(X)	0.49	0.58	0.57				0.00	0.47	0.47	0.29	0.29	0.00
Avail Cap(c_a), veh/h	813	854	726				0	1785	977	444	2724	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.1	14.3	14.3				0.0	9.1	9.1	18.0	4.5	0.0
Incr Delay (d2), s/veh	1.0	1.3	1.5				0.0	0.3	0.5	0.7	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
%ile BackOfQ(50%),veh/ln	1.9	2.4	2.1				0.0	2.6	2.9	0.4	1.7	0.0
LnGrp Delay(d),s/veh	15.0	15.7	15.8				0.0	9.4	9.6	18.7	4.6	0.0
LnGrp LOS	B	B	B					A	A	B	A	
Approach Vol, veh/h		607						986			658	
Approach Delay, s/veh		15.5						9.4			6.0	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	7.1	20.3		12.9		27.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.1	20.8		18.1		30.4		
Max Q Clear Time (g_c+I1), s	2.7	7.5		6.4		5.4		
Green Ext Time (p_c), s	0.0	8.3		2.1		12.3		

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	19	10	100	46	708	3	70	42	395	21	1
Future Volume (veh/h)	6	19	10	100	46	708	3	70	42	395	21	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	21	11	109	50	0	3	76	0	429	23	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	83	108	52	423	222	189	142	283	126	759	398	339
Arrive On Green	0.05	0.05	0.05	0.12	0.12	0.00	0.08	0.08	0.00	0.21	0.21	0.00
Sat Flow, veh/h	1810	2361	1143	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	7	16	16	109	50	0	3	76	0	429	23	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1698	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	0.1	0.3	0.3	0.9	0.8	0.0	0.1	0.6	0.0	3.5	0.3	0.0
Cycle Q Clear(g_c), s	0.1	0.3	0.3	0.9	0.8	0.0	0.1	0.6	0.0	3.5	0.3	0.0
Prop In Lane	1.00		0.67	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	82	77	423	222	189	142	283	126	759	398	339
V/C Ratio(X)	0.08	0.19	0.21	0.26	0.23	0.00	0.02	0.27	0.00	0.57	0.06	0.00
Avail Cap(c_a), veh/h	995	992	934	1989	1044	888	995	1984	888	1989	1044	888
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.0	15.0	15.1	13.2	13.1	0.0	13.9	14.2	0.0	11.6	10.4	0.0
Incr Delay (d2), s/veh	0.4	1.1	1.3	0.3	0.5	0.0	0.1	0.5	0.0	0.7	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(50%),veh/ln	0.1	0.2	0.2	0.5	0.4	0.0	0.0	0.3	0.0	1.8	0.2	0.0
LnGrp Delay(d),s/veh	15.4	16.1	16.4	13.5	13.6	0.0	14.0	14.7	0.0	12.3	10.4	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		39			159			79			452	
Approach Delay, s/veh		16.1			13.5			14.7			12.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		7.1		6.0		11.4		8.3
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.6		2.3		5.5		2.9
Green Ext Time (p_c), s		0.3		0.1		1.4		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	14	27	116	23	899	44	1215	189	206	1355	3
Future Volume (veh/h)	17	14	27	116	23	899	44	1215	189	206	1355	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	15	29	125	0	984	47	1306	203	222	1457	3
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	119	162	498	0	886	79	1708	265	269	1782	4
Arrive On Green	0.27	0.27	0.27	0.27	0.00	0.27	0.04	0.38	0.38	0.15	0.48	0.48
Sat Flow, veh/h	237	434	589	1384	0	3230	1810	4530	704	1810	3696	8
Grp Volume(v), veh/h	62	0	0	125	0	984	47	997	512	222	711	749
Grp Sat Flow(s),veh/h/ln	1259	0	0	1384	0	1615	1810	1729	1776	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	18.5	1.7	17.0	17.0	8.0	22.7	22.7
Cycle Q Clear(g_c), s	1.8	0.0	0.0	4.3	0.0	18.5	1.7	17.0	17.0	8.0	22.7	22.7
Prop In Lane	0.29		0.47	1.00		1.00	1.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	414	0	0	498	0	886	79	1304	670	269	870	915
V/C Ratio(X)	0.15	0.00	0.00	0.25	0.00	1.11	0.60	0.76	0.76	0.83	0.82	0.82
Avail Cap(c_a), veh/h	414	0	0	498	0	886	134	1318	677	330	883	929
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	19.2	0.0	24.5	31.7	18.4	18.4	27.9	14.9	14.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	65.3	7.1	2.7	5.2	13.3	6.0	5.7
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	0.9	0.0	0.0	1.9	0.0	16.3	1.0	8.5	9.2	5.0	12.7	13.3
LnGrp Delay(d),s/veh	18.6	0.0	0.0	19.5	0.0	89.8	38.8	21.1	23.5	41.1	20.9	20.7
LnGrp LOS	B			B		F	D	C	C	D	C	C
Approach Vol, veh/h		62			1109			1556			1682	
Approach Delay, s/veh		18.6			81.9			22.4			23.5	
Approach LOS		B			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.5	29.9		23.0	7.4	37.0		23.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.3	25.7		18.5	5.0	33.0		18.5
Max Q Clear Time (g_c+I1), s	10.0	19.0		3.8	3.7	24.7		20.5
Green Ext Time (p_c), s	0.1	6.3		4.8	0.0	7.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	37.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	32	140	13	37	74	38	871	43	66	328	787
Future Volume (veh/h)	283	32	140	13	37	74	38	871	43	66	328	787
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	333	0	152	14	40	80	41	947	47	72	357	855
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	545	0	243	40	114	132	149	1301	65	111	1409	630
Arrive On Green	0.15	0.00	0.15	0.08	0.08	0.08	0.04	0.37	0.37	0.06	0.39	0.39
Sat Flow, veh/h	3619	0	1615	486	1389	1615	3510	3501	174	1810	3610	1615
Grp Volume(v), veh/h	333	0	152	54	0	80	41	488	506	72	357	855
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1876	0	1615	1755	1805	1869	1810	1805	1615
Q Serve(g_s), s	4.6	0.0	4.7	1.5	0.0	2.6	0.6	12.5	12.5	2.1	3.6	21.0
Cycle Q Clear(g_c), s	4.6	0.0	4.7	1.5	0.0	2.6	0.6	12.5	12.5	2.1	3.6	21.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	545	0	243	154	0	132	149	671	695	111	1409	630
V/C Ratio(X)	0.61	0.00	0.63	0.35	0.00	0.60	0.27	0.73	0.73	0.65	0.25	1.36
Avail Cap(c_a), veh/h	1211	0	540	627	0	540	326	701	726	172	1409	630
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	21.4	23.3	0.0	23.9	25.0	14.6	14.6	24.7	11.1	16.4
Incr Delay (d2), s/veh	1.1	0.0	2.6	1.4	0.0	4.4	1.0	3.7	3.5	6.3	0.1	170.6
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	2.4	0.0	2.3	0.8	0.0	1.3	0.3	6.9	7.1	1.2	1.8	39.0
LnGrp Delay(d),s/veh	22.5	0.0	24.1	24.7	0.0	28.2	25.9	18.2	18.1	30.9	11.2	187.0
LnGrp LOS	C		C	C		C	C	B	B	C	B	F
Approach Vol, veh/h		485			134			1035			1284	
Approach Delay, s/veh		23.0			26.8			18.5			129.4	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.8	24.5		12.6	6.8	25.5		8.9
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	20.9		18.0	5.0	21.0		18.0
Max Q Clear Time (g_c+I1), s	4.1	14.5		6.7	2.6	23.0		4.6
Green Ext Time (p_c), s	0.0	5.2		1.4	0.0	0.0		0.5

Intersection Summary		
HCM 2010 Ctrl Delay		68.1
HCM 2010 LOS		E

Notes

Mesa Substation
Baseline 2019
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.932
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	119	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	2 0	1
Volume Module:												
Base Vol:	527	760	0	0	733	115	0	0	0	299	984	306
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	544	785	0	0	757	119	0	0	0	309	1016	316
Added Vol:	0	13	0	0	68	12	0	0	0	27	62	70
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	544	798	0	0	825	131	0	0	0	336	1078	386
User 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
PHF 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
PHF Volume:	544	798	0	0	825	131	0	0	0	336	1078	386
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	544	798	0	0	825	131	0	0	0	336	1078	386
PCE 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
MLF 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
FinalVolume:	544	798	0	0	825	131	0	0	0	336	1078	386
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.22	1.78	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.71	2.29	1.00
Final Sat.:	1946	2854	0	0	3200	1600	0	0	0	1140	3660	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.00	0.00	0.26	0.08	0.00	0.00	0.00	0.21	0.29	0.24
Crit Moves:	****			****							****	

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.127
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	3	0 1	1 1	1	0 0	1 0	2	0 1	1 0	0	0 1
Volume Module:												
Base Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	1177	350	322	771	0	155	1304	828	24	0	104
Added Vol:	0	0	29	68	27	0	13	65	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1177	379	390	798	0	168	1369	828	24	0	104
User 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
PHF 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
PHF Volume:	0	1177	379	390	798	0	168	1369	828	24	0	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1177	379	390	798	0	168	1369	828	24	0	104
PCE 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
MLF 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
FinalVolume:	0	1177	379	390	798	0	168	1369	828	24	0	104
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.24	0.24	0.25	0.00	0.10	0.43	0.52	0.02	0.00	0.06
Crit Moves:		****			****				****	****		

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.746
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 0	0	0 0	1 1	0	0 0	0 0	0	0 1	1 1	0
Volume Module:												
Base Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	403	309	0	0	337	23	0	0	0	346	1193	83
Added Vol:	0	0	0	0	35	0	0	0	0	21	159	35
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	403	309	0	0	372	23	0	0	0	367	1352	118
User 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
PHF 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
PHF Volume:	403	309	0	0	372	23	0	0	0	367	1352	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	403	309	0	0	372	23	0	0	0	367	1352	118
PCE 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
MLF 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
FinalVolume:	403	309	0	0	372	23	0	0	0	367	1352	118
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.88	0.12	0.00	0.00	0.00	0.60	2.21	0.19
Final Sat.:	2880	3200	0	0	3016	184	0	0	0	959	3533	307
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.23	0.38	0.38
Crit Moves:	****				****						****	

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.876
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	89	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	1 1	0	0 1	1 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	117	631	274	151	550	26	57	1384	481	8	26	65
Added Vol:	0	0	21	35	21	0	0	163	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	631	295	186	571	26	57	1547	481	8	26	65
User 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
PHF 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
PHF Volume:	117	631	295	186	571	26	57	1547	481	8	26	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	631	295	186	571	26	57	1547	481	8	26	65
PCE 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
MLF 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
FinalVolume:	117	631	295	186	571	26	57	1547	481	8	26	65
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.91	0.09	0.08	2.23	0.69	0.17	0.83	1.00
Final Sat.:	1600	4800	1600	1600	3058	142	132	3562	1106	272	1328	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.18	0.12	0.19	0.19	0.43	0.43	0.43	0.03	0.02	0.04
Crit Moves:			****	****			****					****

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.020
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1	1 0	0 1	1 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	18	214	127	277	277	75	430	1214	167	0	0	0
Added Vol:	0	13	0	37	14	0	207	12	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	227	127	314	291	75	637	1226	167	0	0	0
User 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
PHF 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
PHF Volume:	18	227	127	314	291	75	637	1226	167	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	227	127	314	291	75	637	1226	167	0	0	0
PCE 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
MLF 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
FinalVolume:	18	227	127	314	291	75	637	1226	167	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.68	1.32	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2544	656	1094	2106	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.08	0.20	0.11	0.11	0.40	0.58	0.10	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.835
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	76	Level Of Service:	D

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0 1!	0 0	1	0 1	0 1	1	0 1	1 0
Volume Module:												
Base Vol:	32	61	568	215	197	5	48	52	147	336	465	80
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	33	63	587	222	203	5	50	54	152	347	480	83
Added Vol:	10	0	213	0	0	0	0	34	3	51	192	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	63	800	222	203	5	50	88	155	398	672	83
User 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
PHF 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
PHF Volume:	43	63	800	222	203	5	50	88	155	398	672	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	63	800	222	203	5	50	88	155	398	672	83
PCE 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
MLF 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
FinalVolume:	43	63	800	222	203	5	50	88	155	398	672	83
OvlAdjVol:			402									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.59	1.00	0.52	0.47	0.01	1.00	1.00	1.00	1.00	1.78	0.22
Final Sat.:	649	951	1600	825	756	19	1600	1600	1600	1600	2850	350
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.50	0.14	0.27	0.27	0.03	0.05	0.10	0.25	0.24	0.24
OvlAdjV/S:			0.25									
Crit Moves:			****	****					****	****		

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.615
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1	1 0	1 0	1 1	0
Volume Module:												
Base Vol:	3	0	3	175	0	12	17	845	1	8	365	26
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	3	0	3	181	0	12	18	873	1	8	377	27
Added Vol:	223	0	17	0	0	0	0	26	221	17	20	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	0	20	181	0	12	18	899	222	25	397	27
User 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
PHF 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
PHF Volume:	226	0	20	181	0	12	18	899	222	25	397	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	0	20	181	0	12	18	899	222	25	397	27
PCE 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
MLF 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
FinalVolume:	226	0	20	181	0	12	18	899	222	25	397	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.60	0.40	1.00	1.87	0.13
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2566	634	1600	2997	203
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.01	0.11	0.00	0.01	0.01	0.35	0.35	0.02	0.13	0.13
Crit Moves:	****					****		****		****		

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.660
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	288	467	116	12	210	33	47	598	167	39	646	13
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	297	482	120	12	217	34	49	618	172	40	667	13
Added Vol:	4	43	11	6	43	0	0	18	6	17	14	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	301	525	131	18	260	34	49	636	178	57	681	21
User 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
PHF 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
PHF Volume:	301	525	131	18	260	34	49	636	178	57	681	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	301	525	131	18	260	34	49	636	178	57	681	21
PCE 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
MLF 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
FinalVolume:	301	525	131	18	260	34	49	636	178	57	681	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.56	0.44	1.00	1.94	0.06
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2498	702	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.19	0.16	0.08	0.01	0.08	0.02	0.03	0.25	0.25	0.04	0.22	0.22
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Street Name:	San Gabriel Boulevard-Paramount B						Hill Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	227	471	62	300	392	32	48	456	211	53	453	263
Growth Adj:	1.03	1.06	1.03	1.03	1.05	1.03	1.03	1.03	1.03	1.03	1.05	1.03
Initial Bse:	234	498	64	310	411	33	50	471	218	55	475	272
Added Vol:	22	53	35	2	60	3	2	10	22	50	13	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	551	99	312	471	36	52	481	240	105	488	274
User 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
PHF 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
PHF Volume:	256	551	99	312	471	36	52	481	240	105	488	274
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	551	99	312	471	36	52	481	240	105	488	274
PCE 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
MLF 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
FinalVolume:	256	551	99	312	471	36	52	481	240	105	488	274
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.14	1.73	0.13	1.00	1.33	0.67	1.00	2.00	1.00
Final Sat.:	1600	2713	487	1823	2765	212	1600	2135	1065	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.17	0.17	0.17	0.03	0.23	0.23	0.07	0.15	0.17
OvlAdjV/S:												0.00
Crit Moves:		****			****				****		****	

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	1.257
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	104	680	438	0	956	26	6	6	97	438	24	324
Growth Adj:	1.06	1.06	1.03	1.03	1.06	1.06	1.06	1.03	1.06	1.03	1.03	1.03
Initial Bse:	110	719	452	0	1011	28	6	6	103	452	25	334
Added Vol:	271	66	46	0	93	47	48	226	150	87	101	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	381	785	498	0	1104	75	54	232	253	539	126	346
User 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
PHF 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
PHF Volume:	381	785	498	0	1104	75	54	232	253	539	126	346
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	381	785	498	0	1104	75	54	232	253	539	126	346
PCE 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
MLF 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
FinalVolume:	381	785	498	0	1104	75	54	232	253	539	126	346
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.81	0.19	0.10	0.43	0.47	0.81	0.19	1.00
Final Sat.:	1600	3200	1600	0	4497	303	161	689	750	1297	303	1600
Capacity Analysis Module:												
Vol/Sat:	0.24	0.25	0.31	0.00	0.25	0.25	0.03	0.34	0.34	0.34	0.42	0.22
Crit Moves:	****				****			****			****	

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.887
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	94	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	940	32	144	889	0	222	320	465	34	0	225
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.03	1.03	1.03	1.06	1.06	1.06
Initial Bse:	0	994	34	152	940	0	229	330	480	36	0	238
Added Vol:	0	187	0	0	206	0	242	0	87	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1181	34	152	1146	0	471	330	567	36	0	238
User 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
PHF 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
PHF Volume:	0	1181	34	152	1146	0	471	330	567	36	0	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1181	34	152	1146	0	471	330	567	36	0	238
PCE 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
MLF 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
FinalVolume:	0	1181	34	152	1146	0	471	330	567	36	0	238
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.92	0.08	2.00	2.00	0.00	1.18	0.82	1.00	1.00	0.00	2.00
Final Sat.:	0	4666	134	2880	3200	0	1882	1318	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.05	0.36	0.00	0.25	0.25	0.35	0.02	0.00	0.07
Crit Moves:	****				****				****			****

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.757
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1	1 0	1	1 0	1 1	0	1	1 0	1
Volume Module:												
Base Vol:	4	179	172	364	20	5	109	198	11	162	173	573
Growth Adj:	1.06	1.08	1.06	1.06	1.08	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	4	193	182	385	22	5	115	210	12	171	183	606
Added Vol:	0	7	9	1	7	0	0	0	0	9	0	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	200	191	386	29	5	115	210	12	180	183	621
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	200	0	386	29	5	115	210	12	180	183	621
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	200	0	386	29	5	115	210	12	180	183	621
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	200	0	386	29	5	115	210	12	180	183	621
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.89	0.11	1.49	1.51	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	3032	168	2383	2417	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.13	0.02	0.00	0.07	0.07	0.07	0.08	0.08	0.39
Crit Moves:		****		****			****					****

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.804
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1!	0	0	1 0	1! 0	0	1 0	1 1	0	0 0	2 0 2
Volume Module:												
Base Vol:	2	12	7	932	29	54	70	713	29	0	833	802
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.05	1.03	1.03	1.05	1.03
Initial Bse:	2	12	7	963	30	56	72	748	30	0	874	828
Added Vol:	0	0	0	6	0	52	34	10	0	0	15	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	12	7	969	30	108	106	758	30	0	889	835
User 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
PHF 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
PHF Volume:	2	12	7	969	30	108	106	758	30	0	889	835
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	12	7	969	30	108	106	758	30	0	889	835
PCE 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
MLF 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
FinalVolume:	2	12	7	969	30	108	106	758	30	0	889	835
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.57	0.33	1.76	0.05	0.19	1.00	1.92	0.08	0.00	2.00	2.00
Final Sat.:	152	914	533	2802	87	312	1600	3078	122	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.35	0.35	0.35	0.07	0.25	0.25	0.00	0.28	0.26
Crit Moves:	****					****	****				****	

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.970
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	154	Level Of Service:	E

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
Growth Adj:	1.03	1.05	1.05	1.05	1.05	1.03	1.03	1.05	1.03	1.05	1.05	1.05
Initial Bse:	82	763	117	197	1585	12	20	26	86	212	31	917
Added Vol:	0	2	7	1	16	0	0	0	0	7	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	765	124	198	1601	12	20	26	86	219	31	936
User 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
PHF 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
PHF Volume:	82	765	124	198	1601	12	20	26	86	219	31	936
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	765	124	198	1601	12	20	26	86	219	31	936
PCE 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
MLF 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
FinalVolume:	82	765	124	198	1601	12	20	26	86	219	31	936
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.58	0.42	1.00	1.98	0.02	0.43	0.57	1.00	1.00	0.06	1.94
Final Sat.:	1600	4129	671	1600	3175	25	685	915	1600	1600	104	3096
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.19	0.12	0.50	0.50	0.01	0.03	0.05	0.14	0.30	0.30
Crit Moves:	****				****		****				****	

Mesa Substation
Baseline 2019
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.934
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	121	Level Of Service:	E

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	2	0 1	1 1	0	0 1	0 1	0	1 0
Volume Module:												
Base Vol:	30	469	14	42	863	854	376	46	321	20	23	46
Growth Adj:	1.06	1.05	1.06	1.06	1.05	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	32	492	15	44	905	904	398	49	340	21	24	49
Added Vol:	1	0	0	0	0	23	9	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	492	15	44	905	927	407	49	341	21	24	49
User 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
PHF 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
PHF Volume:	33	492	15	44	905	927	407	49	341	21	24	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	492	15	44	905	927	407	49	341	21	24	49
PCE 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
MLF 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
FinalVolume:	33	492	15	44	905	927	407	49	341	21	24	49
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.94	0.06	1.00	2.00	1.00	1.79	0.21	1.00	0.45	0.55	1.00
Final Sat.:	2880	3106	94	1600	3200	1600	2858	342	1600	719	881	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.16	0.03	0.28	0.58	0.14	0.14	0.21	0.03	0.03	0.03
Crit Moves:	****					****			****			****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	637	1226	167	0	0	0	18	227	127	314	291	75
Future Volume (veh/h)	637	1226	167	0	0	0	18	227	127	314	291	75
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	671	1291	176				19	239	134	331	306	79
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	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
Cap, veh/h	652	1373	897				36	275	234	336	886	225
Arrive On Green	0.56	0.56	0.56				0.02	0.14	0.14	0.19	0.31	0.31
Sat Flow, veh/h	1174	2472	1615				1810	1900	1615	1810	2852	725
Grp Volume(v), veh/h	1052	910	176				19	239	134	331	192	193
Grp Sat Flow(s),veh/h/ln	1841	1805	1615				1810	1900	1615	1810	1805	1772
Q Serve(g_s), s	65.5	53.3	6.4				1.2	14.5	9.1	21.5	9.7	9.9
Cycle Q Clear(g_c), s	65.5	53.3	6.4				1.2	14.5	9.1	21.5	9.7	9.9
Prop In Lane	0.64		1.00				1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	1022	1002	897				36	275	234	336	561	550
V/C Ratio(X)	1.03	0.91	0.20				0.53	0.87	0.57	0.99	0.34	0.35
Avail Cap(c_a), veh/h	1022	1002	897				84	308	262	336	561	550
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	23.5	13.1				57.3	49.4	47.1	47.9	31.4	31.5
Incr Delay (d2), s/veh	35.9	11.8	0.1				11.9	21.0	2.4	45.0	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
%ile BackOfQ(50%),veh/ln	43.1	29.6	8.3				0.7	9.2	4.2	15.0	4.9	4.9
LnGrp Delay(d),s/veh	62.1	35.3	13.2				69.2	70.3	49.5	92.8	31.7	31.8
LnGrp LOS	F	D	B				E	E	D	F	C	C
Approach Vol, veh/h		2138						392			716	
Approach Delay, s/veh		46.7						63.1			60.0	
Approach LOS		D						E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	26.4	21.6		70.0	6.8	41.1		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	21.9	19.1		65.5	5.5	35.5		
Max Q Clear Time (g_c+I1), s	23.5	16.5		67.5	3.2	11.9		
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	4.3		

Intersection Summary	
HCM 2010 Ctrl Delay	51.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	88	155	398	672	83	43	63	800	222	203	5
Future Volume (veh/h)	50	88	155	398	672	83	43	63	800	222	203	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	93	163	419	707	87	45	66	842	234	214	5
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
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	78	317	269	465	1232	152	271	375	1076	245	183	4
Arrive On Green	0.04	0.17	0.17	0.26	0.38	0.38	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1810	1900	1615	1810	3237	398	509	916	1615	434	447	10
Grp Volume(v), veh/h	53	93	163	419	394	400	111	0	842	453	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1830	1425	0	1615	890	0	0
Q Serve(g_s), s	2.3	3.5	7.6	18.1	14.0	14.0	0.0	0.0	29.4	30.0	0.0	0.0
Cycle Q Clear(g_c), s	2.3	3.5	7.6	18.1	14.0	14.0	3.0	0.0	29.4	33.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.22	0.41		1.00	0.52		0.01
Lane Grp Cap(c), veh/h	78	317	269	465	687	697	646	0	1076	432	0	0
V/C Ratio(X)	0.68	0.29	0.61	0.90	0.57	0.57	0.17	0.00	0.78	1.05	0.00	0.00
Avail Cap(c_a), veh/h	152	424	360	572	821	832	646	0	1076	432	0	0
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	0.00
Uniform Delay (d), s/veh	38.1	29.5	31.2	29.0	19.8	19.8	15.0	0.0	9.4	26.9	0.0	0.0
Incr Delay (d2), s/veh	9.9	0.5	2.2	15.2	0.8	0.7	0.1	0.0	3.8	56.8	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.9	3.5	10.9	7.0	7.1	1.6	0.0	14.0	16.3	0.0	0.0
LnGrp Delay(d),s/veh	48.0	30.0	33.4	44.1	20.6	20.6	15.1	0.0	13.2	83.7	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B		B	F		
Approach Vol, veh/h		309			1213			953			453	
Approach Delay, s/veh		34.9			28.7			13.4			83.7	
Approach LOS		C			C			B			F	

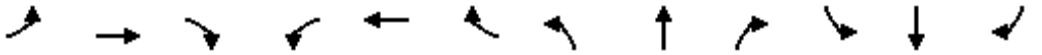
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		37.5	25.3	17.9		37.5	8.0	35.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		33.0	25.5	18.0		33.0	6.8	36.7
Max Q Clear Time (g_c+I1), s		31.4	20.1	9.6		35.0	4.3	16.0
Green Ext Time (p_c), s		1.2	0.7	3.9		0.0	0.0	6.3

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	232	253	539	126	346	381	785	498	0	1104	75
Future Volume (veh/h)	54	232	253	539	126	346	381	785	498	0	1104	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	59	255	278	592	138	380	419	863	547	0	1213	82
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	146	129	354	45	646	269	1444	646	0	1985	134
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	365	323	478	111	1615	433	3610	1615	0	5134	335
Grp Volume(v), veh/h	592	0	0	730	0	380	419	863	547	0	845	450
Grp Sat Flow(s),veh/h/ln	688	0	0	589	0	1615	433	1805	1615	0	1729	1841
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.4	8.2	7.5	12.3	0.0	7.8	7.8
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	7.4	16.0	7.5	12.3	0.0	7.8	7.8
Prop In Lane	0.10		0.47	0.81		1.00	1.00		1.00	0.00		0.18
Lane Grp Cap(c), veh/h	374	0	0	399	0	646	269	1444	646	0	1383	736
V/C Ratio(X)	1.58	0.00	0.00	1.83	0.00	0.59	1.56	0.60	0.85	0.00	0.61	0.61
Avail Cap(c_a), veh/h	374	0	0	399	0	646	269	1444	646	0	1383	736
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	15.3	0.0	9.4	18.6	9.5	10.9	0.0	9.5	9.5
Incr Delay (d2), s/veh	274.4	0.0	0.0	383.5	0.0	1.4	268.2	0.7	10.2	0.0	0.8	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	32.6	0.0	0.0	46.8	0.0	3.5	23.0	3.9	7.1	0.0	3.8	4.2
LnGrp Delay(d),s/veh	284.9	0.0	0.0	398.7	0.0	10.8	286.9	10.1	21.1	0.0	10.3	11.0
LnGrp LOS	F			F		B	F	B	C		B	B
Approach Vol, veh/h		592			1110			1829			1295	
Approach Delay, s/veh		284.9			265.9			76.8			10.6	
Approach LOS		F			F			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		9.8		18.0
Green Ext Time (p_c), s		0.0		0.0		6.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	128.1
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	471	330	567	36	0	238	0	1182	34	152	1146	0
Future Volume (veh/h)	471	330	567	36	0	238	0	1182	34	152	1146	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	418	447	591	38	0	248	0	1231	35	158	1194	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	649	682	579	0	0	0	0	1883	54	253	1819	0
Arrive On Green	0.36	0.36	0.36	0.00	0.00	0.00	0.00	0.36	0.36	0.07	0.50	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5356	147	3510	3705	0
Grp Volume(v), veh/h	418	447	591		0.0		0	821	445	158	1194	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1874	1755	1805	0
Q Serve(g_s), s	12.6	12.9	23.5				0.0	13.0	13.0	2.9	16.1	0.0
Cycle Q Clear(g_c), s	12.6	12.9	23.5				0.0	13.0	13.0	2.9	16.1	0.0
Prop In Lane	1.00		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	649	682	579				0	1256	681	253	1819	0
V/C Ratio(X)	0.64	0.66	1.02				0.00	0.65	0.65	0.62	0.66	0.00
Avail Cap(c_a), veh/h	649	682	579				0	1320	715	295	1929	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.5	17.6	21.0				0.0	17.4	17.4	29.5	12.0	0.0
Incr Delay (d2), s/veh	2.2	2.3	42.6				0.0	1.1	2.0	3.2	0.8	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	6.7	7.1	17.1				0.0	6.3	7.1	1.5	8.2	0.0
LnGrp Delay(d),s/veh	19.7	19.9	63.6				0.0	18.5	19.4	32.7	12.8	0.0
LnGrp LOS	B	B	F					B	B	C	B	
Approach Vol, veh/h		1456						1266			1352	
Approach Delay, s/veh		37.6						18.8			15.1	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.2	28.3		28.0		37.5		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.5	25.0		23.5		35.0		
Max Q Clear Time (g_c+I1), s	4.9	15.0		25.5		18.1		
Green Ext Time (p_c), s	0.0	8.8		0.0		14.0		

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	210	12	180	183	621	4	200	191	386	29	5
Future Volume (veh/h)	115	210	12	180	183	621	4	200	191	386	29	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	121	221	13	214	158	0	4	211	0	406	31	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	249	476	28	549	288	245	208	416	186	651	342	290
Arrive On Green	0.14	0.14	0.14	0.15	0.15	0.00	0.12	0.12	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1810	3466	203	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	121	114	120	214	158	0	4	211	0	406	31	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1864	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	2.7	2.5	2.6	2.3	3.3	0.0	0.1	2.4	0.0	4.5	0.6	0.0
Cycle Q Clear(g_c), s	2.7	2.5	2.6	2.3	3.3	0.0	0.1	2.4	0.0	4.5	0.6	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	248	256	549	288	245	208	416	186	651	342	290
V/C Ratio(X)	0.49	0.46	0.47	0.39	0.55	0.00	0.02	0.51	0.00	0.62	0.09	0.00
Avail Cap(c_a), veh/h	753	751	775	1505	790	672	753	1502	672	1505	790	672
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.3	17.2	17.2	16.5	17.0	0.0	17.0	18.0	0.0	16.4	14.8	0.0
Incr Delay (d2), s/veh	1.5	1.3	1.3	0.5	1.6	0.0	0.0	1.0	0.0	1.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.3	1.4	1.2	1.9	0.0	0.0	1.2	0.0	2.3	0.3	0.0
LnGrp Delay(d),s/veh	18.7	18.5	18.5	17.0	18.6	0.0	17.0	19.0	0.0	17.4	14.9	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		355			372			215			437	
Approach Delay, s/veh		18.6			17.7			18.9			17.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.5		10.4		12.3		11.1
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.4		4.7		6.5		5.3
Green Ext Time (p_c), s		1.0		1.4		1.3		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	26	86	219	31	936	82	765	124	198	1601	12
Future Volume (veh/h)	20	26	86	219	31	936	82	765	124	198	1601	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	27	89	226	0	986	85	789	128	204	1651	12
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
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	80	101	236	417	0	788	110	1991	321	249	1907	14
Arrive On Green	0.24	0.24	0.24	0.24	0.00	0.24	0.06	0.44	0.44	0.14	0.52	0.52
Sat Flow, veh/h	106	415	966	1296	0	3230	1810	4504	726	1810	3674	27
Grp Volume(v), veh/h	137	0	0	226	0	986	85	604	313	204	811	852
Grp Sat Flow(s),veh/h/ln	1488	0	0	1296	0	1615	1810	1729	1772	1810	1805	1895
Q Serve(g_s), s	0.0	0.0	0.0	6.7	0.0	18.7	3.5	9.1	9.2	8.4	30.0	30.1
Cycle Q Clear(g_c), s	5.1	0.0	0.0	11.8	0.0	18.7	3.5	9.1	9.2	8.4	30.0	30.1
Prop In Lane	0.15		0.65	1.00		1.00	1.00		0.41	1.00		0.01
Lane Grp Cap(c), veh/h	417	0	0	417	0	788	110	1528	783	249	937	984
V/C Ratio(X)	0.33	0.00	0.00	0.54	0.00	1.25	0.78	0.40	0.40	0.82	0.87	0.87
Avail Cap(c_a), veh/h	417	0	0	417	0	788	130	1528	783	404	996	1046
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	0.0	26.2	0.0	29.0	35.5	14.5	14.5	32.1	16.1	16.1
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.4	0.0	123.3	21.5	0.2	0.3	6.7	7.7	7.5
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	2.4	0.0	0.0	4.5	0.0	21.8	2.4	4.3	4.5	4.7	16.9	17.7
LnGrp Delay(d),s/veh	24.3	0.0	0.0	27.7	0.0	152.2	57.0	14.6	14.8	38.8	23.8	23.6
LnGrp LOS	C			C		F	E	B	B	D	C	C
Approach Vol, veh/h		137			1212			1002			1867	
Approach Delay, s/veh		24.3			129.0			18.3			25.3	
Approach LOS		C			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.1	38.4		23.2	9.1	44.3		23.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	17.1	30.7		18.7	5.5	42.3		18.7
Max Q Clear Time (g_c+I1), s	10.4	11.2		7.1	5.5	32.1		20.7
Green Ext Time (p_c), s	0.3	16.4		5.0	0.0	7.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.4
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	407	49	341	21	24	49	33	492	15	44	905	927
Future Volume (veh/h)	407	49	341	21	24	49	33	492	15	44	905	927
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	465	0	359	22	25	52	35	518	16	46	953	976
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	881	0	393	51	58	95	122	1476	46	75	1514	678
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.03	0.41	0.41	0.04	0.42	0.42
Sat Flow, veh/h	3619	0	1615	869	988	1615	3510	3575	110	1810	3610	1615
Grp Volume(v), veh/h	465	0	359	47	0	52	35	261	273	46	953	976
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1857	0	1615	1755	1805	1881	1810	1805	1615
Q Serve(g_s), s	8.2	0.0	16.0	1.8	0.0	2.3	0.7	7.3	7.4	1.8	15.4	31.0
Cycle Q Clear(g_c), s	8.2	0.0	16.0	1.8	0.0	2.3	0.7	7.3	7.4	1.8	15.4	31.0
Prop In Lane	1.00		1.00	0.47		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	881	0	393	109	0	95	122	745	776	75	1514	678
V/C Ratio(X)	0.53	0.00	0.91	0.43	0.00	0.55	0.29	0.35	0.35	0.61	0.63	1.44
Avail Cap(c_a), veh/h	882	0	393	452	0	393	238	745	776	159	1514	678
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	27.2	33.6	0.0	33.8	34.8	14.9	14.9	34.8	16.9	21.4
Incr Delay (d2), s/veh	0.6	0.0	25.2	2.7	0.0	4.8	1.3	0.3	0.3	7.9	0.8	206.6
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	4.2	0.0	9.8	1.0	0.0	1.2	0.4	3.7	3.8	1.1	7.7	52.4
LnGrp Delay(d),s/veh	24.9	0.0	52.4	36.2	0.0	38.7	36.1	15.2	15.2	42.8	17.8	228.0
LnGrp LOS	C		D	D		D	D	B	B	D	B	F
Approach Vol, veh/h		824			99			569			1975	
Approach Delay, s/veh		36.9			37.5			16.5			122.3	
Approach LOS		D			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	35.0		22.5	7.1	35.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.5	29.5		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	3.8	9.4		18.0	2.7	33.0		4.3
Green Ext Time (p_c), s	0.0	14.8		0.0	0.0	0.0		0.4

Intersection Summary		
HCM 2010 Ctrl Delay		82.2
HCM 2010 LOS		F

Notes

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.894
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	97	Level Of Service:	D

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1	1 0 0	0	0	2 0 1	0	0	0 0 0	0	1	2 0 1
Volume Module:												
Base Vol:	797	365	0	0	524	342	0	0	0	257	1073	160
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	804	368	0	0	528	345	0	0	0	259	1082	161
Added Vol:	0	4	0	0	38	6	0	0	0	16	64	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	804	372	0	0	566	351	0	0	0	275	1146	190
User 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
PHF 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
PHF Volume:	804	372	0	0	566	351	0	0	0	275	1146	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	804	372	0	0	566	351	0	0	0	275	1146	190
PCE 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
MLF 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
FinalVolume:	804	372	0	0	566	351	0	0	0	275	1146	190
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.58	2.42	1.00
Final Sat.:	2880	1600	0	0	3200	1600	0	0	0	929	3871	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.23	0.00	0.00	0.18	0.22	0.00	0.00	0.00	0.17	0.30	0.12
Crit Moves:	****					****					****	

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.779
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	3	0 1	1 1	1	0 0	1 0	2	0 1	1 0	0	0 1
Volume Module:												
Base Vol:	0	833	183	157	648	0	131	781	359	27	0	235
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	845	186	159	657	0	133	792	364	27	0	238
Added Vol:	0	0	24	38	16	0	4	88	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	845	210	197	673	0	137	880	364	27	0	238
User 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
PHF 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
PHF Volume:	0	845	210	197	673	0	137	880	364	27	0	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	845	210	197	673	0	137	880	364	27	0	238
PCE 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
MLF 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
FinalVolume:	0	845	210	197	673	0	137	880	364	27	0	238
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.13	0.12	0.21	0.00	0.09	0.28	0.23	0.02	0.00	0.15
Crit Moves:		****			****			****		****		

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.744
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0 2		0 0	0 0 1		1 0	0 0 0		0 0	0 1 1		1 0
Volume Module:												
Base Vol:	503	333	0	0	344	66	0	0	0	283	1104	40
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	507	336	0	0	347	67	0	0	0	285	1113	40
Added Vol:	0	0	0	0	20	0	0	0	0	9	110	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	507	336	0	0	367	67	0	0	0	294	1223	55
User Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
PHF 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
PHF Volume:	511	338	0	0	370	67	0	0	0	297	1233	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	511	338	0	0	370	67	0	0	0	297	1233	56
PCE 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
MLF 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
FinalVolume:	511	338	0	0	370	67	0	0	0	297	1233	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.69	0.31	0.00	0.00	0.00	0.56	2.33	0.11
Final Sat.:	2880	3200	0	0	2709	491	0	0	0	898	3733	169
Capacity Analysis Module:												
Vol/Sat:	0.18	0.11	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.19	0.33	0.33
Crit Moves:	****				****						****	

Mesa Substation
Future 2016 With-Project
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	1 1	0	0 1	1 1	0	0 1	0 1	0
Volume Module:												
Base Vol:	315	790	164	127	483	40	32	941	307	20	96	41
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	320	802	166	129	490	41	32	955	311	20	97	42
Added Vol:	0	0	12	20	9	0	0	150	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	320	802	178	149	499	41	32	1105	311	20	97	42
User 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
PHF 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
PHF Volume:	320	802	178	149	499	41	32	1105	311	20	97	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	320	802	178	149	499	41	32	1105	311	20	97	42
PCE 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
MLF 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
FinalVolume:	320	802	178	149	499	41	32	1105	311	20	97	42
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.85	0.15	0.07	2.29	0.64	0.25	1.23	0.52
Final Sat.:	1600	4800	1600	1600	2959	241	108	3660	1032	408	1957	836
Capacity Analysis Module:												
Vol/Sat:	0.20	0.17	0.11	0.09	0.17	0.17	0.30	0.30	0.30	0.05	0.05	0.05
Crit Moves:	****				****		****			****		

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.756
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 1	0	0 1	1 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	81	234	144	146	151	71	456	571	49	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	82	237	146	148	153	72	463	579	50	0	0	0
Added Vol:	0	8	0	17	6	0	176	6	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	245	146	165	159	72	639	585	50	0	0	0
User 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
PHF 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
PHF Volume:	82	245	146	165	159	72	639	585	50	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	245	146	165	159	72	639	585	50	0	0	0
PCE 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
MLF 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
FinalVolume:	82	245	146	165	159	72	639	585	50	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.38	0.62	1.00	1.00	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2203	997	1600	1600	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.15	0.09	0.10	0.07	0.07	0.40	0.37	0.03	0.00	0.00	0.00
Crit Moves:		****		****			****					

Mesa Substation
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.692
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	49	Level Of Service:	B

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0 1	1	0	1 1 0
Volume Module:												
Base Vol:	59	99	526	105	223	6	18	84	85	223	509	82
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	59	100	530	106	225	6	18	85	86	225	513	83
Added Vol:	5	0	179	0	0	0	0	30	2	23	126	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	64	100	709	106	225	6	18	115	88	248	639	83
User 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
PHF 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
PHF Volume:	64	100	709	106	225	6	18	115	88	248	639	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	100	709	106	225	6	18	115	88	248	639	83
PCE 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
MLF 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
FinalVolume:	64	100	709	106	225	6	18	115	88	248	639	83
OvlAdjVol:			461									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.61	1.00	0.31	0.67	0.02	1.00	1.00	1.00	1.00	1.77	0.23
Final Sat.:	628	972	1600	503	1068	29	1600	1600	1600	1600	2834	366
Capacity Analysis Module:												
Vol/Sat:	0.04	0.10	0.44	0.07	0.21	0.21	0.01	0.07	0.05	0.15	0.23	0.23
OvlAdjV/S:			0.29									
Crit Moves:			****	****			****				****	

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.512
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	13	0	9	14	0	13	10	296	4	1	806	150
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	13	0	9	14	0	13	10	298	4	1	813	151
Added Vol:	99	0	8	0	0	0	0	42	125	10	84	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	0	17	14	0	13	10	340	129	11	897	151
User 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
PHF 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
PHF Volume:	112	0	17	14	0	13	10	340	129	11	897	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	0	17	14	0	13	10	340	129	11	897	151
PCE 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
MLF 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
FinalVolume:	112	0	17	14	0	13	10	340	129	11	897	151
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.45	0.55	1.00	1.71	0.29
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2320	880	1600	2738	462
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.01	0.01	0.00	0.01	0.01	0.15	0.15	0.01	0.33	0.33
Crit Moves:	****					****	****				****	

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.667
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1 0	2 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	146	152	147	17	358	37	23	432	235	165	381	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	147	153	148	17	361	37	23	436	237	166	384	2
Added Vol:	4	21	45	5	30	0	0	4	5	54	12	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	151	174	193	22	391	37	23	440	242	220	396	4
User 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
PHF 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
PHF Volume:	151	174	193	22	391	37	23	440	242	220	396	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	151	174	193	22	391	37	23	440	242	220	396	4
PCE 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
MLF 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
FinalVolume:	151	174	193	22	391	37	23	440	242	220	396	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.29	0.71	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2064	1136	1600	3168	32
Capacity Analysis Module:												
Vol/Sat:	0.09	0.05	0.12	0.01	0.12	0.02	0.01	0.21	0.21	0.14	0.13	0.13
Crit Moves:	****				****			****			****	

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.617
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	41	Level Of Service:	B

Street Name:	San Gabriel Boulevard-Paramount B						Hill Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	119	227	24	221	416	16	45	317	261	90	449	242
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	120	230	24	223	421	16	45	320	263	91	455	244
Added Vol:	26	37	39	2	29	5	3	32	19	19	38	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	146	267	63	225	450	21	48	352	282	110	493	246
User 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
PHF 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
PHF Volume:	146	267	63	225	450	21	48	352	282	110	493	246
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	146	267	63	225	450	21	48	352	282	110	493	246
PCE 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
MLF 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
FinalVolume:	146	267	63	225	450	21	48	352	282	110	493	246
OvlAdjVol:												10
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.62	0.38	1.00	1.91	0.09	1.00	1.11	0.89	1.00	2.00	1.00
Final Sat.:	1600	2588	612	1600	3055	145	1600	1775	1425	1600	3201	1599
Capacity Analysis Module:												
Vol/Sat:	0.09	0.10	0.10	0.14	0.15	0.15	0.03	0.20	0.20	0.07	0.15	0.15
OvlAdjV/S:												0.01
Crit Moves:			****		****			****		****		

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	0.803
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	41	412	191	0	920	7	19	4	165	188	14	114
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	42	418	192	0	933	7	19	4	167	189	14	115
Added Vol:	154	75	81	0	55	27	21	100	66	21	57	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	196	493	273	0	988	34	40	104	233	210	71	132
User 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
PHF 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
PHF Volume:	196	493	273	0	988	34	40	104	233	210	71	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	493	273	0	988	34	40	104	233	210	71	132
PCE 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
MLF 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
FinalVolume:	196	493	273	0	988	34	40	104	233	210	71	132
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.90	0.10	0.11	0.27	0.62	0.75	0.25	1.00
Final Sat.:	1600	3200	1600	0	4640	160	171	441	989	1196	404	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.15	0.17	0.00	0.21	0.21	0.03	0.24	0.24	0.13	0.18	0.08
Crit Moves:	****				****			****		****		

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.440
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	652	8	58	476	0	144	71	158	7	0	44
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	661	8	59	483	0	145	72	159	7	0	45
Added Vol:	0	257	0	0	67	0	135	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	918	8	59	550	0	280	72	180	7	0	45
User 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
PHF 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
PHF Volume:	0	918	8	59	550	0	280	72	180	7	0	45
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	918	8	59	550	0	280	72	180	7	0	45
PCE 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
MLF 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
FinalVolume:	0	918	8	59	550	0	280	72	180	7	0	45
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.97	0.03	2.00	2.00	0.00	1.59	0.41	1.00	1.00	0.00	2.00
Final Sat.:	0	4758	42	2880	3200	0	2549	651	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.19	0.02	0.17	0.00	0.11	0.11	0.11	0.00	0.00	0.01
Crit Moves:		****		****					****			****

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.699
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	50	Level Of Service:	B

Street Name: Montebello Boulevard - SR-60 EB R / Town Center Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1	1	1 0	1	1 0	1 1 0	1	1	1 0 1
Volume Module:												
Base Vol:	3	60	33	373	12	1	6	18	9	86	43	657
Growth Adj:	1.01	1.02	1.01	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	61	33	378	12	1	6	18	9	87	44	667
Added Vol:	0	5	7	0	8	0	0	0	0	9	0	35
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	66	40	378	20	1	6	18	9	96	44	702
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	66	0	378	20	1	6	18	9	96	44	702
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	66	0	378	20	1	6	18	9	96	44	702
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	66	0	378	20	1	6	18	9	96	44	702
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.33	0.67	2.00	1.00	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	2133	1067	2880	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.00	0.13	0.01	0.00	0.00	0.01	0.01	0.03	0.03	0.44
Crit Moves:		****		****				****				****

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.739
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 0	1! 0	0	1 0	1	1 0	0 0	2 0	2
Volume Module:												
Base Vol:	9	12	9	598	20	78	37	705	21	0	892	1085
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	9	12	9	603	20	79	37	714	21	0	903	1094
Added Vol:	0	0	0	4	0	21	42	33	0	0	34	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	12	9	607	20	100	79	747	21	0	937	1099
User 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
PHF 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
PHF Volume:	9	12	9	607	20	100	79	747	21	0	937	1099
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	9	607	20	100	79	747	21	0	937	1099
PCE 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
MLF 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
FinalVolume:	9	12	9	607	20	100	79	747	21	0	937	1099
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.40	0.30	1.67	0.06	0.27	1.00	1.94	0.06	0.00	2.00	2.00
Final Sat.:	480	640	480	2672	89	439	1600	3112	88	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.23	0.23	0.23	0.05	0.24	0.24	0.00	0.29	0.34
Crit Moves:	****			****			****					****

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.841
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	43	1157	176	196	1278	3	16	13	26	103	22	849
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	43	1171	178	198	1294	3	16	13	26	104	22	859
Added Vol:	0	1	5	1	36	0	0	0	0	8	0	39
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	1172	183	199	1330	3	16	13	26	112	22	898
User 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
PHF 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
PHF Volume:	43	1172	183	199	1330	3	16	13	26	112	22	898
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	1172	183	199	1330	3	16	13	26	112	22	898
PCE 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
MLF 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
FinalVolume:	43	1172	183	199	1330	3	16	13	26	112	22	898
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.59	0.41	1.00	1.99	0.01	0.55	0.45	1.00	1.00	0.05	1.95
Final Sat.:	1600	4152	648	1600	3193	7	881	719	1600	1600	77	3123
Capacity Analysis Module:												
Vol/Sat:	0.03	0.28	0.28	0.12	0.42	0.42	0.01	0.02	0.02	0.07	0.29	0.29
Crit Moves:	****				****		****				****	

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.737
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	55	Level Of Service:	C

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	2	0 1	1 1	0	0 1	0 1	0	1 0
Volume Module:												
Base Vol:	35	829	41	62	313	723	262	30	131	12	35	70
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	36	839	42	63	317	734	266	30	133	12	36	71
Added Vol:	1	0	0	0	0	44	6	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	839	42	63	317	778	272	30	134	12	36	71
User 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
PHF 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
PHF Volume:	37	839	42	63	317	778	272	30	134	12	36	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	839	42	63	317	778	272	30	134	12	36	71
PCE 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
MLF 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
FinalVolume:	37	839	42	63	317	778	272	30	134	12	36	71
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.91	0.09	1.00	2.00	1.00	1.80	0.20	1.00	0.21	0.79	1.00
Final Sat.:	2880	3049	151	1600	3200	1600	2878	322	1600	328	1272	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.28	0.28	0.04	0.10	0.49	0.09	0.09	0.08	0.04	0.03	0.04
Crit Moves:	****					****		****				****

Mesa Substation
Future 2016 With-Project
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Site Access/Potrero Grande Dr

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: C[17.3]

Street Name:	Potrero Grande Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 1			1 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	310	0	0	832	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	0	0	0	0	313	0	0	839	0
Added Vol:	31	0	31	0	0	0	0	137	72	65	118	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	0	31	0	0	0	0	450	72	65	957	0
User 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
PHF 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
PHF Volume:	31	0	31	0	0	0	0	450	72	65	957	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	31	0	31	0	0	0	0	450	72	65	957	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1058	xxxx	225	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	522	xxxx	xxxxx
Potent Cap.:	223	xxxx	785	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1055	xxxx	xxxxx
Move Cap.:	213	xxxx	785	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1055	xxxx	xxxxx
Volume/Cap:	0.15	xxxx	0.04	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.5	xxxx	0.1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	24.8	xxxx	9.8	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx
LOS by Move:	C	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	17.3			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	639	585	50	0	0	0	82	245	146	165	159	72
Future Volume (veh/h)	639	585	50	0	0	0	82	245	146	165	159	72
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	687	629	54				88	263	157	177	171	77
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	807	805	720				117	386	328	223	643	278
Arrive On Green	0.45	0.45	0.45				0.06	0.20	0.20	0.12	0.26	0.26
Sat Flow, veh/h	1810	1805	1615				1810	1900	1615	1810	2456	1062
Grp Volume(v), veh/h	687	629	54				88	263	157	177	124	124
Grp Sat Flow(s),veh/h/ln	1810	1805	1615				1810	1900	1615	1810	1805	1713
Q Serve(g_s), s	20.1	17.6	1.1				2.8	7.6	5.1	5.6	3.2	3.4
Cycle Q Clear(g_c), s	20.1	17.6	1.1				2.8	7.6	5.1	5.6	3.2	3.4
Prop In Lane	1.00		1.00				1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	807	805	720				117	386	328	223	472	448
V/C Ratio(X)	0.85	0.78	0.07				0.75	0.68	0.48	0.79	0.26	0.28
Avail Cap(c_a), veh/h	870	868	777				272	593	504	290	582	552
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	14.0	9.4				27.2	21.8	20.8	25.2	17.3	17.4
Incr Delay (d2), s/veh	7.7	4.3	0.0				9.4	2.1	1.1	10.8	0.3	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	11.6	9.5	1.4				1.7	4.2	2.4	3.5	1.6	1.7
LnGrp Delay(d),s/veh	22.3	18.3	9.5				36.6	24.0	21.9	36.1	17.6	17.7
LnGrp LOS	C	B	A				D	C	C	D	B	B
Approach Vol, veh/h		1370						508			425	
Approach Delay, s/veh		20.0						25.5			25.3	
Approach LOS		B						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	11.8	16.5		30.9	8.3	20.0		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	9.5	18.5		28.5	8.9	19.1		
Max Q Clear Time (g_c+I1), s	7.6	9.6		22.1	4.8	5.4		
Green Ext Time (p_c), s	0.1	2.4		4.3	0.1	3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	22.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	115	88	248	639	83	64	100	709	106	225	6
Future Volume (veh/h)	18	115	88	248	639	83	64	100	709	106	225	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	124	95	267	687	89	69	108	762	114	242	6
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	370	314	325	1129	146	270	384	867	200	360	8
Arrive On Green	0.02	0.19	0.19	0.18	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1900	1615	1810	3215	416	477	1073	1615	295	1007	22
Grp Volume(v), veh/h	19	124	95	267	385	391	177	0	762	362	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1827	1550	0	1615	1324	0	0
Q Serve(g_s), s	0.5	2.8	2.5	7.1	8.9	8.9	0.0	0.0	18.0	7.4	0.0	0.0
Cycle Q Clear(g_c), s	0.5	2.8	2.5	7.1	8.9	8.9	3.4	0.0	18.0	11.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.23	0.39		1.00	0.31		0.02
Lane Grp Cap(c), veh/h	42	370	314	325	634	641	653	0	867	567	0	0
V/C Ratio(X)	0.45	0.34	0.30	0.82	0.61	0.61	0.27	0.00	0.88	0.64	0.00	0.00
Avail Cap(c_a), veh/h	180	679	577	377	842	853	653	0	867	567	0	0
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	0.00
Uniform Delay (d), s/veh	24.3	17.5	17.3	19.9	13.5	13.5	11.5	0.0	10.2	13.4	0.0	0.0
Incr Delay (d2), s/veh	7.5	0.5	0.5	12.0	0.9	0.9	0.2	0.0	10.2	2.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.5	1.2	4.6	4.6	4.6	1.8	0.0	11.4	4.7	0.0	0.0
LnGrp Delay(d),s/veh	31.7	18.0	17.9	31.9	14.4	14.4	11.7	0.0	20.4	15.8	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B		C	B		
Approach Vol, veh/h		238			1043			939			362	
Approach Delay, s/veh		19.0			18.9			18.8			15.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.5	13.5	14.3		22.5	5.7	22.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.0	10.5	18.0		18.0	5.0	23.5
Max Q Clear Time (g_c+I1), s		20.0	9.1	4.8		13.1	2.5	10.9
Green Ext Time (p_c), s		0.0	0.1	5.0		3.0	0.0	4.9

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	104	233	210	71	132	196	493	273	0	988	34
Future Volume (veh/h)	40	104	233	210	71	132	196	493	273	0	988	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	45	118	265	239	81	150	223	560	310	0	1123	39
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	117	190	343	95	646	294	1444	646	0	2059	71
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	293	476	464	238	1615	491	3610	1615	0	5319	179
Grp Volume(v), veh/h	428	0	0	320	0	150	223	560	310	0	754	408
Grp Sat Flow(s),veh/h/ln	768	0	0	702	0	1615	491	1805	1615	0	1729	1868
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	2.5	9.3	4.4	5.7	0.0	6.7	6.7
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	2.5	16.0	4.4	5.7	0.0	6.7	6.7
Prop In Lane	0.11		0.62	0.75		1.00	1.00		1.00	0.00		0.10
Lane Grp Cap(c), veh/h	407	0	0	438	0	646	294	1444	646	0	1383	747
V/C Ratio(X)	1.05	0.00	0.00	0.73	0.00	0.23	0.76	0.39	0.48	0.00	0.55	0.55
Avail Cap(c_a), veh/h	407	0	0	438	0	646	294	1444	646	0	1383	747
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	12.5	0.0	7.9	17.6	8.5	8.9	0.0	9.2	9.2
Incr Delay (d2), s/veh	59.1	0.0	0.0	6.1	0.0	0.2	10.8	0.2	0.6	0.0	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	0.0	4.2	0.0	1.1	3.3	2.2	2.6	0.0	3.2	3.6
LnGrp Delay(d),s/veh	69.7	0.0	0.0	18.6	0.0	8.1	28.4	8.7	9.5	0.0	9.7	10.0
LnGrp LOS	F			B		A	C	A	A		A	B
Approach Vol, veh/h		428			470			1093			1162	
Approach Delay, s/veh		69.7			15.3			12.9			9.8	
Approach LOS		E			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		8.7		18.0
Green Ext Time (p_c), s		0.0		0.0		6.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	72	180	7	0	45	0	918	8	59	550	0
Future Volume (veh/h)	280	72	180	7	0	45	0	918	8	59	550	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	184	227	188	7	0	47	0	956	8	61	573	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	378	396	337	0	0	0	0	2070	17	216	2039	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.56	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5477	44	3510	3705	0
Grp Volume(v), veh/h	184	227	188		0.0		0	623	341	61	573	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1892	1755	1805	0
Q Serve(g_s), s	3.6	4.3	4.1				0.0	5.3	5.3	0.7	3.3	0.0
Cycle Q Clear(g_c), s	3.6	4.3	4.1				0.0	5.3	5.3	0.7	3.3	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	378	396	337				0	1349	738	216	2039	0
V/C Ratio(X)	0.49	0.57	0.56				0.00	0.46	0.46	0.28	0.28	0.00
Avail Cap(c_a), veh/h	824	865	735				0	1809	990	450	2761	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.9	14.1	14.1				0.0	9.0	9.0	17.8	4.5	0.0
Incr Delay (d2), s/veh	1.0	1.3	1.4				0.0	0.2	0.5	0.7	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
%ile BackOfQ(50%),veh/ln	1.8	2.4	2.0				0.0	2.6	2.8	0.3	1.6	0.0
LnGrp Delay(d),s/veh	14.8	15.4	15.5				0.0	9.3	9.5	18.5	4.5	0.0
LnGrp LOS	B	B	B					A	A	B	A	
Approach Vol, veh/h		599						964			634	
Approach Delay, s/veh		15.3						9.3			5.9	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	7.0	20.0		12.8		27.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.1	20.8		18.1		30.4		
Max Q Clear Time (g_c+I1), s	2.7	7.3		6.3		5.3		
Green Ext Time (p_c), s	0.0	8.2		2.0		11.9		

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	18	9	96	44	702	3	66	40	378	20	1
Future Volume (veh/h)	6	18	9	96	44	702	3	66	40	378	20	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	20	10	104	48	0	3	72	0	411	22	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	105	49	418	219	186	137	274	123	743	390	331
Arrive On Green	0.04	0.04	0.04	0.12	0.12	0.00	0.08	0.08	0.00	0.21	0.21	0.00
Sat Flow, veh/h	1810	2398	1111	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	7	15	15	104	48	0	3	72	0	411	22	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1704	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	0.1	0.3	0.3	0.8	0.7	0.0	0.0	0.6	0.0	3.3	0.3	0.0
Cycle Q Clear(g_c), s	0.1	0.3	0.3	0.8	0.7	0.0	0.0	0.6	0.0	3.3	0.3	0.0
Prop In Lane	1.00		0.65	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	79	75	418	219	186	137	274	123	743	390	331
V/C Ratio(X)	0.09	0.19	0.21	0.25	0.22	0.00	0.02	0.26	0.00	0.55	0.06	0.00
Avail Cap(c_a), veh/h	1013	1010	954	2025	1063	904	1013	2020	904	2025	1063	904
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.8	14.8	14.8	13.0	12.9	0.0	13.8	14.0	0.0	11.5	10.3	0.0
Incr Delay (d2), s/veh	0.5	1.1	1.3	0.3	0.5	0.0	0.1	0.5	0.0	0.6	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	0.1	0.2	0.2	0.4	0.4	0.0	0.0	0.3	0.0	1.7	0.2	0.0
LnGrp Delay(d),s/veh	15.2	15.9	16.2	13.3	13.4	0.0	13.8	14.5	0.0	12.1	10.3	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		37			152			75			433	
Approach Delay, s/veh		15.9			13.3			14.5			12.0	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		6.9		5.9		11.1		8.2
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.6		2.3		5.3		2.8
Green Ext Time (p_c), s		0.3		0.1		1.3		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	13	26	112	22	898	43	1172	183	199	1330	3
Future Volume (veh/h)	16	13	26	112	22	898	43	1172	183	199	1330	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	14	28	120	0	982	46	1260	197	214	1430	3
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	140	124	172	521	0	922	79	1611	252	261	1687	4
Arrive On Green	0.29	0.29	0.29	0.29	0.00	0.29	0.04	0.36	0.36	0.14	0.46	0.46
Sat Flow, veh/h	233	433	601	1386	0	3230	1810	4526	708	1810	3696	8
Grp Volume(v), veh/h	59	0	0	120	0	982	46	963	494	214	698	735
Grp Sat Flow(s),veh/h/ln	1267	0	0	1386	0	1615	1810	1729	1775	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	2.2	0.0	18.0	1.6	15.7	15.7	7.2	21.6	21.6
Cycle Q Clear(g_c), s	1.6	0.0	0.0	3.7	0.0	18.0	1.6	15.7	15.7	7.2	21.6	21.6
Prop In Lane	0.29		0.47	1.00		1.00	1.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	435	0	0	521	0	922	79	1231	632	261	824	867
V/C Ratio(X)	0.14	0.00	0.00	0.23	0.00	1.06	0.58	0.78	0.78	0.82	0.85	0.85
Avail Cap(c_a), veh/h	435	0	0	521	0	922	144	1262	648	301	824	867
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	0.0	17.3	0.0	22.5	29.6	18.1	18.1	26.2	15.2	15.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.2	0.0	48.4	6.5	3.2	6.0	14.5	8.3	7.9
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	0.8	0.0	0.0	1.6	0.0	14.2	0.9	7.9	8.6	4.7	12.6	13.1
LnGrp Delay(d),s/veh	16.8	0.0	0.0	17.6	0.0	71.0	36.1	21.3	24.2	40.7	23.4	23.1
LnGrp LOS	B			B		F	D	C	C	D	C	C
Approach Vol, veh/h		59			1102			1503			1647	
Approach Delay, s/veh		16.8			65.1			22.7			25.5	
Approach LOS		B			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.6	26.9		22.5	7.3	33.3		22.5
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	10.5	23.0		18.0	5.0	28.5		18.0
Max Q Clear Time (g_c+I1), s	9.2	17.7		3.6	3.6	23.6		20.0
Green Ext Time (p_c), s	0.1	4.8		4.8	0.0	4.6		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	34.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	272	30	134	12	36	71	37	839	42	63	317	778
Future Volume (veh/h)	272	30	134	12	36	71	37	839	42	63	317	778
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	320	0	146	13	39	77	40	912	46	68	345	846
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	531	0	237	37	112	129	147	1316	66	108	1422	636
Arrive On Green	0.15	0.00	0.15	0.08	0.08	0.08	0.04	0.38	0.38	0.06	0.39	0.39
Sat Flow, veh/h	3619	0	1615	469	1407	1615	3510	3497	176	1810	3610	1615
Grp Volume(v), veh/h	320	0	146	52	0	77	40	471	487	68	345	846
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1877	0	1615	1755	1805	1869	1810	1805	1615
Q Serve(g_s), s	4.4	0.0	4.5	1.4	0.0	2.5	0.6	11.7	11.7	2.0	3.4	21.0
Cycle Q Clear(g_c), s	4.4	0.0	4.5	1.4	0.0	2.5	0.6	11.7	11.7	2.0	3.4	21.0
Prop In Lane	1.00		1.00	0.25		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	531	0	237	150	0	129	147	679	703	108	1422	636
V/C Ratio(X)	0.60	0.00	0.62	0.35	0.00	0.60	0.27	0.69	0.69	0.63	0.24	1.33
Avail Cap(c_a), veh/h	1222	0	545	634	0	545	329	708	733	173	1422	636
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	21.3	23.2	0.0	23.7	24.8	14.0	14.0	24.5	10.8	16.2
Incr Delay (d2), s/veh	1.1	0.0	2.6	1.4	0.0	4.4	1.0	2.8	2.7	6.0	0.1	159.1
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	2.3	0.0	2.2	0.8	0.0	1.2	0.3	6.3	6.5	1.2	1.7	37.3
LnGrp Delay(d),s/veh	22.4	0.0	23.9	24.6	0.0	28.1	25.7	16.8	16.7	30.5	10.9	175.3
LnGrp LOS	C		C	C		C	C	B	B	C	B	F
Approach Vol, veh/h		466			129			998			1259	
Approach Delay, s/veh		22.9			26.7			17.1			122.4	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.7	24.6		12.3	6.7	25.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	20.9		18.0	5.0	21.0		18.0
Max Q Clear Time (g_c+I1), s	4.0	13.7		6.5	2.6	23.0		4.5
Green Ext Time (p_c), s	0.0	5.7		1.3	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	65.0
HCM 2010 LOS	E

Notes

Intersection: 16: Site Access & E Pomona Blvd

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	17	57	53	44
Average Queue (ft)	1	22	22	16
95th Queue (ft)	8	51	48	38
Link Distance (ft)			973	973
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	75	75		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Zone Summary

Zone wide Queuing Penalty: 0

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.947
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	131	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0 0	2	0 1	0 0	0	0 0	0 1	2	0 1
Volume Module:												
Base Vol:	527	760	0	0	733	115	0	0	0	299	984	306
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	531	766	0	0	739	116	0	0	0	301	992	309
Added Vol:	0	13	0	0	68	12	0	0	0	67	186	70
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	531	779	0	0	807	128	0	0	0	368	1178	379
User 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
PHF 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
PHF Volume:	531	779	0	0	807	128	0	0	0	368	1178	379
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	531	779	0	0	807	128	0	0	0	368	1178	379
PCE 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
MLF 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
FinalVolume:	531	779	0	0	807	128	0	0	0	368	1178	379
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.22	1.78	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.71	2.29	1.00
Final Sat.:	1946	2854	0	0	3200	1600	0	0	0	1144	3656	1600
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.00	0.00	0.25	0.08	0.00	0.00	0.00	0.23	0.32	0.24
Crit Moves:	****			****							****	

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.097
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 3	0 1	1	1 1	0 0	1	0 2	0 1	1	0 0	0 1
Volume Module:												
Base Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	1128	336	308	739	0	148	1250	793	23	0	99
Added Vol:	0	0	29	68	67	0	13	96	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1128	365	376	806	0	161	1346	793	23	0	99
User 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
PHF 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
PHF Volume:	0	1128	365	376	806	0	161	1346	793	23	0	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1128	365	376	806	0	161	1346	793	23	0	99
PCE 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
MLF 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
FinalVolume:	0	1128	365	376	806	0	161	1346	793	23	0	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.23	0.24	0.25	0.00	0.10	0.42	0.50	0.01	0.00	0.06
Crit Moves:		****			****				****	****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.766
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 0	0	0	0 1	1 0	0	0 0	0 0	0	1	1 1 0
Volume Module:												
Base Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	393	301	0	0	329	22	0	0	0	338	1164	81
Added Vol:	0	0	0	0	35	0	0	0	0	21	323	35
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	393	301	0	0	364	22	0	0	0	359	1487	116
User 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
PHF 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
PHF Volume:	393	301	0	0	364	22	0	0	0	359	1487	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	301	0	0	364	22	0	0	0	359	1487	116
PCE 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
MLF 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
FinalVolume:	393	301	0	0	364	22	0	0	0	359	1487	116
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.89	0.11	0.00	0.00	0.00	0.55	2.27	0.18
Final Sat.:	2880	3200	0	0	3016	184	0	0	0	878	3639	283
Capacity Analysis Module:												
Vol/Sat:	0.14	0.09	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.22	0.41	0.41
Crit Moves:	****				****						****	

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.853
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	113	605	263	145	528	25	55	1327	461	8	25	62
Added Vol:	0	0	21	35	21	0	0	194	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	113	605	284	180	549	25	55	1521	461	8	25	62
User 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
PHF 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
PHF Volume:	113	605	284	180	549	25	55	1521	461	8	25	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	605	284	180	549	25	55	1521	461	8	25	62
PCE 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
MLF 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
FinalVolume:	113	605	284	180	549	25	55	1521	461	8	25	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.91	0.09	0.08	2.24	0.68	0.17	0.83	1.00
Final Sat.:	1600	4800	1600	1600	3059	141	129	3585	1086	272	1328	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.18	0.11	0.18	0.18	0.42	0.42	0.42	0.03	0.02	0.04
Crit Moves:			****	****				****				****

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.025
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0 1	1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	17	205	122	266	266	72	412	1164	160	0	0	0
Added Vol:	0	13	0	84	14	0	238	12	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	218	122	350	280	72	650	1176	160	0	0	0
User 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
PHF 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
PHF Volume:	17	218	122	350	280	72	650	1176	160	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	218	122	350	280	72	650	1176	160	0	0	0
PCE 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
MLF 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
FinalVolume:	17	218	122	350	280	72	650	1176	160	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.71	1.29	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2545	655	1139	2061	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.08	0.22	0.11	0.11	0.41	0.57	0.10	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.840
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	0	1!	0	0	1	0
Volume Module:												
Base Vol:	32	61	568	215	197	5	48	52	147	336	465	80
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	32	62	573	217	199	5	48	52	148	339	469	81
Added Vol:	10	0	244	0	0	0	0	34	3	98	356	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	62	817	217	199	5	48	86	151	437	825	81
User 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
PHF 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
PHF Volume:	42	62	817	217	199	5	48	86	151	437	825	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	62	817	217	199	5	48	86	151	437	825	81
PCE 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
MLF 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
FinalVolume:	42	62	817	217	199	5	48	86	151	437	825	81
OvlAdjVol:			380									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.59	1.00	0.52	0.47	0.01	1.00	1.00	1.00	1.00	1.82	0.18
Final Sat.:	652	948	1600	825	756	19	1600	1600	1600	1600	2915	285
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.51	0.14	0.26	0.26	0.03	0.05	0.09	0.27	0.28	0.28
OvlAdjV/S:			0.24									
Crit Moves:			****	****					****	****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.664
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	3	0	3	175	0	12	17	845	1	8	365	26
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	0	3	176	0	12	17	852	1	8	368	26
Added Vol:	223	0	17	0	0	0	0	205	221	17	51	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	0	20	176	0	12	17	1057	222	25	419	26
User 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
PHF 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
PHF Volume:	226	0	20	176	0	12	17	1057	222	25	419	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	0	20	176	0	12	17	1057	222	25	419	26
PCE 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
MLF 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
FinalVolume:	226	0	20	176	0	12	17	1057	222	25	419	26
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.65	0.35	1.00	1.88	0.12
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2645	555	1600	3012	188
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.01	0.11	0.00	0.01	0.01	0.40	0.40	0.02	0.14	0.14
Crit Moves:	****					****		****		****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.677
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	288	467	116	12	210	33	47	598	167	39	646	13
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	290	471	117	12	212	33	47	603	168	39	651	13
Added Vol:	20	68	119	6	43	0	0	18	6	48	14	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	310	539	236	18	255	33	47	621	174	87	665	21
User 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
PHF 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
PHF Volume:	310	539	236	18	255	33	47	621	174	87	665	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	539	236	18	255	33	47	621	174	87	665	21
PCE 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
MLF 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
FinalVolume:	310	539	236	18	255	33	47	621	174	87	665	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.56	0.44	1.00	1.94	0.06
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2498	702	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.19	0.17	0.15	0.01	0.08	0.02	0.03	0.25	0.25	0.05	0.21	0.21
Crit Moves:	****			****			****			****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.777
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	San Gabriel Boulevard-Paramount B						Hill Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	227	471	62	300	392	32	48	456	211	53	453	263
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	229	478	63	302	397	32	48	460	213	53	459	265
Added Vol:	31	53	35	2	60	3	18	78	47	50	35	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	260	531	98	304	457	35	66	538	260	103	494	267
User 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
PHF 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
PHF Volume:	260	531	98	304	457	35	66	538	260	103	494	267
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	260	531	98	304	457	35	66	538	260	103	494	267
PCE 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
MLF 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
FinalVolume:	260	531	98	304	457	35	66	538	260	103	494	267
OvlAdjVol:												1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.14	1.73	0.13	1.00	1.35	0.65	1.00	2.00	1.00
Final Sat.:	1600	2703	497	1830	2756	214	1600	2158	1042	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.17	0.17	0.17	0.04	0.25	0.25	0.06	0.15	0.17
OvlAdjV/S:												0.00
Crit Moves:			****	****				****		****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	1.248
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2	1 0	0 0	1! 0	0	0	1 0	0 1
Volume Module:												
Base Vol:	104	680	438	0	956	26	6	6	97	438	24	324
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	106	690	441	0	970	26	6	6	98	441	24	327
Added Vol:	271	66	46	0	149	47	48	226	150	87	101	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	377	756	487	0	1119	73	54	232	248	528	125	349
User 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
PHF 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
PHF Volume:	377	756	487	0	1119	73	54	232	248	528	125	349
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	377	756	487	0	1119	73	54	232	248	528	125	349
PCE 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
MLF 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
FinalVolume:	377	756	487	0	1119	73	54	232	248	528	125	349
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.82	0.18	0.10	0.43	0.47	0.81	0.19	1.00
Final Sat.:	1600	3200	1600	0	4505	295	162	695	744	1294	306	1600
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.30	0.00	0.25	0.25	0.03	0.33	0.33	0.33	0.41	0.22
Crit Moves:	****				****			****		****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.874
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	89	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	940	32	144	889	0	222	320	465	34	0	225
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	954	32	146	902	0	224	322	469	34	0	228
Added Vol:	0	187	0	0	237	0	242	0	87	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1141	32	146	1139	0	466	322	556	34	0	228
User 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
PHF 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
PHF Volume:	0	1141	32	146	1139	0	466	322	556	34	0	228
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1141	32	146	1139	0	466	322	556	34	0	228
PCE 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
MLF 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
FinalVolume:	0	1141	32	146	1139	0	466	322	556	34	0	228
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.92	0.08	2.00	2.00	0.00	1.18	0.82	1.00	1.00	0.00	2.00
Final Sat.:	0	4667	133	2880	3200	0	1891	1309	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.05	0.36	0.00	0.25	0.25	0.35	0.02	0.00	0.07
Crit Moves:	****				****				****			****

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1	1 0	1	1 0	1 1	0	1	1 0	1
Volume Module:												
Base Vol:	4	179	172	364	20	5	109	198	11	162	173	573
Growth Adj:	1.01	1.02	1.01	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	4	182	175	369	20	5	111	201	11	164	176	581
Added Vol:	0	7	9	1	7	0	0	0	0	9	0	67
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	189	184	370	27	5	111	201	11	173	176	648
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	189	0	370	27	5	111	201	11	173	176	648
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	189	0	370	27	5	111	201	11	173	176	648
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	189	0	370	27	5	111	201	11	173	176	648
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.89	0.11	1.49	1.51	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	3032	168	2385	2415	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.13	0.02	0.00	0.07	0.07	0.07	0.07	0.07	0.41
Crit Moves:		****		****			****					****

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 0	1! 0	0	1 0	1	1 0	0 0	2 0	2
Volume Module:												
Base Vol:	2	12	7	932	29	54	70	713	29	0	833	802
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	2	12	7	940	29	54	71	722	29	0	843	809
Added Vol:	0	0	0	6	0	52	50	63	0	0	36	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	12	7	946	29	106	121	785	29	0	879	816
User 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
PHF 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
PHF Volume:	2	12	7	946	29	106	121	785	29	0	879	816
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	12	7	946	29	106	121	785	29	0	879	816
PCE 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
MLF 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
FinalVolume:	2	12	7	946	29	106	121	785	29	0	879	816
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.57	0.33	1.75	0.05	0.20	1.00	1.93	0.07	0.00	2.00	2.00
Final Sat.:	152	914	533	2798	87	315	1600	3085	115	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.34	0.34	0.34	0.08	0.25	0.25	0.00	0.27	0.25
Crit Moves:	****			****			****				****	

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.964
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	147	Level Of Service:	E

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	80	736	113	190	1530	12	19	25	84	204	30	885
Added Vol:	0	2	7	1	68	0	0	0	0	7	0	41
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	738	120	191	1598	12	19	25	84	211	30	926
User 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
PHF 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
PHF Volume:	80	738	120	191	1598	12	19	25	84	211	30	926
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	738	120	191	1598	12	19	25	84	211	30	926
PCE 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
MLF 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
FinalVolume:	80	738	120	191	1598	12	19	25	84	211	30	926
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.58	0.42	1.00	1.98	0.02	0.43	0.57	1.00	1.00	0.06	1.94
Final Sat.:	1600	4127	673	1600	3176	24	689	911	1600	1600	102	3098
Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.12	0.50	0.50	0.01	0.03	0.05	0.13	0.30	0.30
Crit Moves:	****				****		****				****	

Mesa Substation
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.933
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	120	Level Of Service:	E

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	30	469	14	42	863	854	376	46	321	20	23	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	30	475	14	43	874	866	381	47	326	20	23	47
Added Vol:	1	0	0	0	0	75	9	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	475	14	43	874	941	390	47	327	20	23	47
User 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
PHF 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
PHF Volume:	31	475	14	43	874	941	390	47	327	20	23	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	475	14	43	874	941	390	47	327	20	23	47
PCE 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
MLF 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
FinalVolume:	31	475	14	43	874	941	390	47	327	20	23	47
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.94	0.06	1.00	2.00	1.00	1.79	0.21	1.00	0.45	0.55	1.00
Final Sat.:	2880	3107	93	1600	3200	1600	2858	342	1600	719	881	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.15	0.03	0.27	0.59	0.14	0.14	0.20	0.03	0.03	0.03
Crit Moves:	****					****			****			****

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Site Access/Potrero Grande Dr

Average Delay (sec/veh): 49.7 Worst Case Level Of Service: F[278.5]

Street Name:	Potrero Grande Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 1			1 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	863	0	0	380	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	0	0	0	0	870	0	0	383	0
Added Vol:	212	0	179	0	0	0	0	247	31	31	243	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	212	0	179	0	0	0	0	1117	31	31	626	0
User 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
PHF 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
PHF Volume:	212	0	179	0	0	0	0	1117	31	31	626	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	212	0	179	0	0	0	0	1117	31	31	626	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1492	xxxx	559	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1148	xxxx	xxxxx
Potent Cap.:	116	xxxx	478	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	616	xxxx	xxxxx
Move Cap.:	112	xxxx	478	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	616	xxxx	xxxxx
Volume/Cap:	1.89	xxxx	0.37	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.05	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	17.2	xxxx	1.7	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	499.3	xxxx	17.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.2	xxxx	xxxxx
LOS by Move:	F	*	C	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	278.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	650	1176	160	0	0	0	17	218	122	350	280	72
Future Volume (veh/h)	650	1176	160	0	0	0	17	218	122	350	280	72
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	684	1238	168				18	229	128	368	295	76
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	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
Cap, veh/h	657	1306	870				35	289	246	331	901	228
Arrive On Green	0.54	0.54	0.54				0.02	0.15	0.15	0.18	0.32	0.32
Sat Flow, veh/h	1220	2424	1615				1810	1900	1615	1810	2854	723
Grp Volume(v), veh/h	1031	891	168				18	229	128	368	185	186
Grp Sat Flow(s),veh/h/ln	1839	1805	1615				1810	1900	1615	1810	1805	1772
Q Serve(g_s), s	57.5	48.0	5.7				1.1	12.4	7.8	19.5	8.3	8.6
Cycle Q Clear(g_c), s	57.5	48.0	5.7				1.1	12.4	7.8	19.5	8.3	8.6
Prop In Lane	0.66		1.00				1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	991	972	870				35	289	246	331	570	559
V/C Ratio(X)	1.04	0.92	0.19				0.51	0.79	0.52	1.11	0.32	0.33
Avail Cap(c_a), veh/h	991	972	870				90	347	295	331	570	560
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	22.4	12.7				51.8	43.6	41.7	43.6	27.9	27.9
Incr Delay (d2), s/veh	39.7	13.1	0.1				11.1	10.0	1.7	83.6	0.3	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	39.8	27.3	7.3				0.6	7.3	3.6	17.3	4.2	4.2
LnGrp Delay(d),s/veh	64.4	35.6	12.8				63.0	53.6	43.4	127.3	28.2	28.3
LnGrp LOS	F	D	B				E	D	D	F	C	C
Approach Vol, veh/h		2090						375			739	
Approach Delay, s/veh		47.9						50.6			77.5	
Approach LOS		D						D			E	

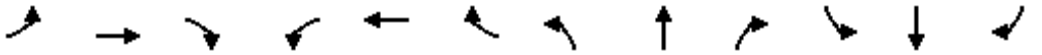
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	24.0	20.8		62.0	6.6	38.2		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	19.5	19.5		57.5	5.3	33.7		
Max Q Clear Time (g_c+I1), s	21.5	14.4		59.5	3.1	10.6		
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	4.1		

Intersection Summary	
HCM 2010 Ctrl Delay	55.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	86	151	437	825	81	42	62	817	217	199	5
Future Volume (veh/h)	48	86	151	437	825	81	42	62	817	217	199	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	91	159	460	868	85	44	65	860	228	209	5
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
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	79	341	290	491	1353	132	252	348	1037	229	163	4
Arrive On Green	0.04	0.18	0.18	0.27	0.41	0.41	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1810	1900	1615	1810	3322	325	499	938	1615	422	441	10
Grp Volume(v), veh/h	51	91	159	460	472	481	109	0	860	442	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1843	1437	0	1615	872	0	0
Q Serve(g_s), s	2.1	3.1	6.8	18.8	15.8	15.8	0.0	0.0	28.0	25.1	0.0	0.0
Cycle Q Clear(g_c), s	2.1	3.1	6.8	18.8	15.8	15.8	2.9	0.0	28.0	28.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.18	0.40		1.00	0.52		0.01
Lane Grp Cap(c), veh/h	79	341	290	491	735	750	600	0	1037	396	0	0
V/C Ratio(X)	0.65	0.27	0.55	0.94	0.64	0.64	0.18	0.00	0.83	1.12	0.00	0.00
Avail Cap(c_a), veh/h	156	453	385	491	764	780	600	0	1037	396	0	0
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	0.00
Uniform Delay (d), s/veh	35.6	26.7	28.2	26.9	18.0	18.0	15.9	0.0	10.4	26.8	0.0	0.0
Incr Delay (d2), s/veh	8.6	0.4	1.6	25.7	1.7	1.7	0.1	0.0	5.8	81.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.7	3.1	12.8	8.2	8.4	1.5	0.0	15.0	17.0	0.0	0.0
LnGrp Delay(d),s/veh	44.2	27.1	29.8	52.6	19.7	19.7	16.0	0.0	16.1	107.8	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	B		B	F		
Approach Vol, veh/h		301			1413			969			442	
Approach Delay, s/veh		31.5			30.4			16.1			107.8	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		32.5	25.0	18.1		32.5	7.8	35.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		28.0	20.5	18.0		28.0	6.5	32.0
Max Q Clear Time (g_c+I1), s		30.0	20.8	8.8		30.0	4.1	17.8
Green Ext Time (p_c), s		0.0	0.0	4.8		0.0	0.0	6.3

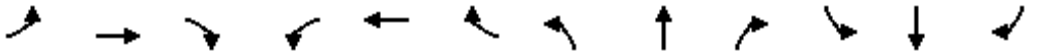
Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	232	248	528	125	349	377	756	487	0	1119	73
Future Volume (veh/h)	54	232	248	528	125	349	377	756	487	0	1119	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	59	255	273	580	137	384	414	831	535	0	1230	80
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	147	128	354	45	646	267	1444	646	0	1991	129
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	368	320	478	113	1615	426	3610	1615	0	5148	324
Grp Volume(v), veh/h	587	0	0	717	0	384	414	831	535	0	854	456
Grp Sat Flow(s),veh/h/ln	689	0	0	591	0	1615	426	1805	1615	0	1729	1843
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.5	8.1	7.2	11.9	0.0	7.9	7.9
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	7.5	16.0	7.2	11.9	0.0	7.9	7.9
Prop In Lane	0.10		0.47	0.81		1.00	1.00		1.00	0.00		0.18
Lane Grp Cap(c), veh/h	374	0	0	399	0	646	267	1444	646	0	1383	737
V/C Ratio(X)	1.57	0.00	0.00	1.80	0.00	0.59	1.55	0.58	0.83	0.00	0.62	0.62
Avail Cap(c_a), veh/h	374	0	0	399	0	646	267	1444	646	0	1383	737
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	15.3	0.0	9.4	18.7	9.4	10.8	0.0	9.6	9.6
Incr Delay (d2), s/veh	268.0	0.0	0.0	367.9	0.0	1.5	266.6	0.6	8.8	0.0	0.8	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	31.9	0.0	0.0	45.1	0.0	3.6	22.6	3.6	6.8	0.0	3.8	4.2
LnGrp Delay(d),s/veh	278.6	0.0	0.0	383.1	0.0	10.9	285.3	9.9	19.6	0.0	10.4	11.1
LnGrp LOS	F			F		B	F	A	B		B	B
Approach Vol, veh/h		587			1101			1780			1310	
Approach Delay, s/veh		278.6			253.3			76.9			10.7	
Approach LOS		F			F			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		9.9		18.0
Green Ext Time (p_c), s		0.0		0.0		5.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	124.1
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	466	322	556	34	0	228	0	1141	32	146	1139	0
Future Volume (veh/h)	466	322	556	34	0	228	0	1141	32	146	1139	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	410	440	579	35	0	238	0	1189	33	152	1186	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	676	710	604	0	0	0	0	1809	50	251	1765	0
Arrive On Green	0.37	0.37	0.37	0.00	0.00	0.00	0.00	0.35	0.35	0.07	0.49	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5360	144	3510	3705	0
Grp Volume(v), veh/h	410	440	579		0.0		0	792	430	152	1186	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1875	1755	1805	0
Q Serve(g_s), s	12.0	12.4	22.9				0.0	12.7	12.7	2.8	16.4	0.0
Cycle Q Clear(g_c), s	12.0	12.4	22.9				0.0	12.7	12.7	2.8	16.4	0.0
Prop In Lane	1.00		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	676	710	604				0	1206	654	251	1765	0
V/C Ratio(X)	0.61	0.62	0.96				0.00	0.66	0.66	0.61	0.67	0.00
Avail Cap(c_a), veh/h	676	710	604				0	1266	686	295	1873	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.6	16.7	20.0				0.0	18.0	18.0	29.5	12.8	0.0
Incr Delay (d2), s/veh	1.6	1.6	26.7				0.0	1.2	2.2	2.6	0.9	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	6.2	6.8	14.6				0.0	6.2	7.0	1.4	8.3	0.0
LnGrp Delay(d),s/veh	18.2	18.4	46.7				0.0	19.2	20.2	32.1	13.6	0.0
LnGrp LOS	B	B	D					B	C	C	B	
Approach Vol, veh/h		1429						1222			1338	
Approach Delay, s/veh		29.8						19.6			15.7	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.2	27.4		29.0		36.5		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.5	24.0		24.5		34.0		
Max Q Clear Time (g_c+I1), s	4.8	14.7		24.9		18.4		
Green Ext Time (p_c), s	0.0	8.2		0.0		12.9		

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	201	11	173	176	648	4	189	184	370	27	5
Future Volume (veh/h)	111	201	11	173	176	648	4	189	184	370	27	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	212	12	205	152	0	4	199	0	389	28	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	245	471	27	540	284	241	200	399	179	638	335	285
Arrive On Green	0.14	0.14	0.14	0.15	0.15	0.00	0.11	0.11	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1810	3475	196	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	117	110	114	205	152	0	4	199	0	389	28	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1865	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	2.5	2.3	2.4	2.1	3.1	0.0	0.1	2.2	0.0	4.2	0.5	0.0
Cycle Q Clear(g_c), s	2.5	2.3	2.4	2.1	3.1	0.0	0.1	2.2	0.0	4.2	0.5	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	245	253	540	284	241	200	399	179	638	335	285
V/C Ratio(X)	0.48	0.45	0.45	0.38	0.54	0.00	0.02	0.50	0.00	0.61	0.08	0.00
Avail Cap(c_a), veh/h	775	773	799	1550	814	692	775	1546	692	1550	814	692
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	16.7	16.7	16.1	16.5	0.0	16.7	17.6	0.0	16.0	14.5	0.0
Incr Delay (d2), s/veh	1.4	1.3	1.3	0.4	1.6	0.0	0.0	1.0	0.0	0.9	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	1.3	1.2	1.3	1.1	1.7	0.0	0.0	1.1	0.0	2.1	0.3	0.0
LnGrp Delay(d),s/veh	18.2	18.0	18.0	16.6	18.1	0.0	16.7	18.6	0.0	16.9	14.6	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		341			357			203			417	
Approach Delay, s/veh		18.1			17.2			18.5			16.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.1		10.2		11.9		10.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.2		4.5		6.2		5.1
Green Ext Time (p_c), s		0.9		1.3		1.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	25	84	211	30	926	80	738	120	191	1599	12
Future Volume (veh/h)	19	25	84	211	30	926	80	738	120	191	1599	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	26	87	218	0	976	82	761	124	197	1648	12
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
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	84	106	249	446	0	822	106	1904	308	244	1834	13
Arrive On Green	0.25	0.25	0.25	0.25	0.00	0.25	0.06	0.42	0.42	0.13	0.50	0.50
Sat Flow, veh/h	103	415	979	1300	0	3230	1810	4502	728	1810	3674	27
Grp Volume(v), veh/h	133	0	0	218	0	976	82	583	302	197	809	851
Grp Sat Flow(s),veh/h/ln	1497	0	0	1300	0	1615	1810	1729	1772	1810	1805	1895
Q Serve(g_s), s	0.0	0.0	0.0	5.3	0.0	18.3	3.2	8.4	8.5	7.6	29.3	29.3
Cycle Q Clear(g_c), s	4.5	0.0	0.0	9.8	0.0	18.3	3.2	8.4	8.5	7.6	29.3	29.3
Prop In Lane	0.15		0.65	1.00		1.00	1.00		0.41	1.00		0.01
Lane Grp Cap(c), veh/h	439	0	0	446	0	822	106	1463	749	244	901	946
V/C Ratio(X)	0.30	0.00	0.00	0.49	0.00	1.19	0.78	0.40	0.40	0.81	0.90	0.90
Avail Cap(c_a), veh/h	439	0	0	446	0	822	138	1463	749	395	947	994
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	0.0	23.4	0.0	26.8	33.4	14.4	14.4	30.2	16.3	16.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.8	0.0	96.3	18.0	0.2	0.3	6.3	11.0	10.6
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	2.2	0.0	0.0	3.9	0.0	19.1	2.1	4.0	4.2	4.2	17.1	17.9
LnGrp Delay(d),s/veh	22.0	0.0	0.0	24.3	0.0	123.1	51.3	14.6	14.8	36.5	27.3	27.0
LnGrp LOS	C			C		F	D	B	B	D	C	C
Approach Vol, veh/h		133			1194			967			1857	
Approach Delay, s/veh		22.0			105.0			17.8			28.2	
Approach LOS		C			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.2	34.9		22.8	8.7	40.4		22.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	15.7	27.5		18.3	5.5	37.7		18.3
Max Q Clear Time (g_c+I1), s	9.6	10.5		6.5	5.2	31.3		20.3
Green Ext Time (p_c), s	0.3	14.4		5.0	0.0	4.6		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		47.6
HCM 2010 LOS		D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	390	47	327	20	23	47	31	475	14	43	874	941
Future Volume (veh/h)	390	47	327	20	23	47	31	475	14	43	874	941
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	446	0	344	21	24	49	33	500	15	45	920	991
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	862	0	385	50	58	94	117	1490	45	74	1530	685
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.03	0.42	0.42	0.04	0.42	0.42
Sat Flow, veh/h	3619	0	1615	866	990	1615	3510	3579	107	1810	3610	1615
Grp Volume(v), veh/h	446	0	344	45	0	49	33	252	263	45	920	991
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1857	0	1615	1755	1805	1881	1810	1805	1615
Q Serve(g_s), s	7.8	0.0	15.1	1.7	0.0	2.2	0.7	6.9	6.9	1.8	14.4	31.0
Cycle Q Clear(g_c), s	7.8	0.0	15.1	1.7	0.0	2.2	0.7	6.9	6.9	1.8	14.4	31.0
Prop In Lane	1.00		1.00	0.47		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	862	0	385	108	0	94	117	752	783	74	1530	685
V/C Ratio(X)	0.52	0.00	0.89	0.42	0.00	0.52	0.28	0.34	0.34	0.61	0.60	1.45
Avail Cap(c_a), veh/h	891	0	398	457	0	398	240	752	783	158	1530	685
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	27.0	33.2	0.0	33.4	34.5	14.5	14.5	34.5	16.3	21.1
Incr Delay (d2), s/veh	0.5	0.0	21.4	2.5	0.0	4.4	1.3	0.3	0.3	7.8	0.7	209.6
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	4.0	0.0	9.0	1.0	0.0	1.1	0.3	3.5	3.6	1.0	7.3	53.5
LnGrp Delay(d),s/veh	24.7	0.0	48.4	35.8	0.0	37.8	35.8	14.7	14.7	42.3	16.9	230.6
LnGrp LOS	C		D	D		D	D	B	B	D	B	F
Approach Vol, veh/h		790			94			548			1956	
Approach Delay, s/veh		35.0			36.9			16.0			125.8	
Approach LOS		D			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	34.9		21.9	6.9	35.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.4	29.6		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	3.8	8.9		17.1	2.7	33.0		4.2
Green Ext Time (p_c), s	0.0	14.9		0.4	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	84.4
HCM 2010 LOS	F

Notes

Intersection: 16: Site Access & E Pomona Blvd

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	2	52	2347	2199
Average Queue (ft)	0	20	1463	646
95th Queue (ft)	2	47	2546	2112
Link Distance (ft)			3608	3608
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	75	75		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Zone Summary

Zone wide Queuing Penalty: 0

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.947
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	131	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0 0	2	0 1	0 0	0	0 0	0 1	2	0 1
Volume Module:												
Base Vol:	527	760	0	0	733	115	0	0	0	299	984	306
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	531	766	0	0	739	116	0	0	0	301	992	309
Added Vol:	0	13	0	0	68	12	0	0	0	67	186	70
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	531	779	0	0	807	128	0	0	0	368	1178	379
User 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
PHF 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
PHF Volume:	531	779	0	0	807	128	0	0	0	368	1178	379
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	531	779	0	0	807	128	0	0	0	368	1178	379
PCE 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
MLF 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
FinalVolume:	531	779	0	0	807	128	0	0	0	368	1178	379
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.22	1.78	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.71	2.29	1.00
Final Sat.:	1946	2854	0	0	3200	1600	0	0	0	1144	3656	1600
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	0.00	0.00	0.25	0.08	0.00	0.00	0.00	0.23	0.32	0.24
Crit Moves:	****			****							****	

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.097
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 3	0 1	1	1 1	0 0	1	0 2	0 1	1	0 0	0 1
Volume Module:												
Base Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	1128	336	308	739	0	148	1250	793	23	0	99
Added Vol:	0	0	29	68	67	0	13	96	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1128	365	376	806	0	161	1346	793	23	0	99
User 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
PHF 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
PHF Volume:	0	1128	365	376	806	0	161	1346	793	23	0	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1128	365	376	806	0	161	1346	793	23	0	99
PCE 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
MLF 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
FinalVolume:	0	1128	365	376	806	0	161	1346	793	23	0	99
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.23	0.24	0.25	0.00	0.10	0.42	0.50	0.01	0.00	0.06
Crit Moves:		****			****				****	****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.766
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	60	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2 0	0	0	0 1	1 0	0	0 0	0 0	0	1	1 1 0
Volume Module:												
Base Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	393	301	0	0	329	22	0	0	0	338	1164	81
Added Vol:	0	0	0	0	35	0	0	0	0	21	323	35
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	393	301	0	0	364	22	0	0	0	359	1487	116
User 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
PHF 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
PHF Volume:	393	301	0	0	364	22	0	0	0	359	1487	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	393	301	0	0	364	22	0	0	0	359	1487	116
PCE 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
MLF 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
FinalVolume:	393	301	0	0	364	22	0	0	0	359	1487	116
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.89	0.11	0.00	0.00	0.00	0.55	2.27	0.18
Final Sat.:	2880	3200	0	0	3016	184	0	0	0	878	3639	283
Capacity Analysis Module:												
Vol/Sat:	0.14	0.09	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.22	0.41	0.41
Crit Moves:	****				****						****	

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.853
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	81	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	113	605	263	145	528	25	55	1327	461	8	25	62
Added Vol:	0	0	21	35	21	0	0	194	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	113	605	284	180	549	25	55	1521	461	8	25	62
User 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
PHF 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
PHF Volume:	113	605	284	180	549	25	55	1521	461	8	25	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	605	284	180	549	25	55	1521	461	8	25	62
PCE 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
MLF 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
FinalVolume:	113	605	284	180	549	25	55	1521	461	8	25	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.91	0.09	0.08	2.24	0.68	0.17	0.83	1.00
Final Sat.:	1600	4800	1600	1600	3059	141	129	3585	1086	272	1328	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.18	0.11	0.18	0.18	0.42	0.42	0.42	0.03	0.02	0.04
Crit Moves:			****	****				****				****

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.025
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0 1	1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	17	205	122	266	266	72	412	1164	160	0	0	0
Added Vol:	0	13	0	84	14	0	238	12	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	218	122	350	280	72	650	1176	160	0	0	0
User 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
PHF 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
PHF Volume:	17	218	122	350	280	72	650	1176	160	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	218	122	350	280	72	650	1176	160	0	0	0
PCE 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
MLF 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
FinalVolume:	17	218	122	350	280	72	650	1176	160	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.71	1.29	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2545	655	1139	2061	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.08	0.22	0.11	0.11	0.41	0.57	0.10	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.840
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	1	0	0	1	0	0	1!	0	0	1	0
Volume Module:												
Base Vol:	32	61	568	215	197	5	48	52	147	336	465	80
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	32	62	573	217	199	5	48	52	148	339	469	81
Added Vol:	10	0	244	0	0	0	0	34	3	98	356	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	62	817	217	199	5	48	86	151	437	825	81
User 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
PHF 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
PHF Volume:	42	62	817	217	199	5	48	86	151	437	825	81
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	62	817	217	199	5	48	86	151	437	825	81
PCE 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
MLF 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
FinalVolume:	42	62	817	217	199	5	48	86	151	437	825	81
OvlAdjVol:			380									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.59	1.00	0.52	0.47	0.01	1.00	1.00	1.00	1.00	1.82	0.18
Final Sat.:	652	948	1600	825	756	19	1600	1600	1600	1600	2915	285
Capacity Analysis Module:												
Vol/Sat:	0.03	0.06	0.51	0.14	0.26	0.26	0.03	0.05	0.09	0.27	0.28	0.28
OvlAdjV/S:			0.24									
Crit Moves:			****	****					****	****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.664
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1	1 0	1 0	1	1 0
Volume Module:												
Base Vol:	3	0	3	175	0	12	17	845	1	8	365	26
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	0	3	176	0	12	17	852	1	8	368	26
Added Vol:	223	0	17	0	0	0	0	205	221	17	51	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	0	20	176	0	12	17	1057	222	25	419	26
User 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
PHF 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
PHF Volume:	226	0	20	176	0	12	17	1057	222	25	419	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	0	20	176	0	12	17	1057	222	25	419	26
PCE 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
MLF 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
FinalVolume:	226	0	20	176	0	12	17	1057	222	25	419	26
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.65	0.35	1.00	1.88	0.12
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2645	555	1600	3012	188
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.01	0.11	0.00	0.01	0.01	0.40	0.40	0.02	0.14	0.14
Crit Moves:	****					****		****		****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.677
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	288	467	116	12	210	33	47	598	167	39	646	13
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	290	471	117	12	212	33	47	603	168	39	651	13
Added Vol:	20	68	119	6	43	0	0	18	6	48	14	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	310	539	236	18	255	33	47	621	174	87	665	21
User 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
PHF 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
PHF Volume:	310	539	236	18	255	33	47	621	174	87	665	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	310	539	236	18	255	33	47	621	174	87	665	21
PCE 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
MLF 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
FinalVolume:	310	539	236	18	255	33	47	621	174	87	665	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.56	0.44	1.00	1.94	0.06
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2498	702	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.19	0.17	0.15	0.01	0.08	0.02	0.03	0.25	0.25	0.05	0.21	0.21
Crit Moves:	****			****			****			****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.777
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name:	San Gabriel Boulevard-Paramount B						Hill Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	227	471	62	300	392	32	48	456	211	53	453	263
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	229	478	63	302	397	32	48	460	213	53	459	265
Added Vol:	31	53	35	2	60	3	18	78	47	50	35	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	260	531	98	304	457	35	66	538	260	103	494	267
User 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
PHF 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
PHF Volume:	260	531	98	304	457	35	66	538	260	103	494	267
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	260	531	98	304	457	35	66	538	260	103	494	267
PCE 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
MLF 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
FinalVolume:	260	531	98	304	457	35	66	538	260	103	494	267
OvlAdjVol:												1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.14	1.73	0.13	1.00	1.35	0.65	1.00	2.00	1.00
Final Sat.:	1600	2703	497	1830	2756	214	1600	2158	1042	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.17	0.17	0.17	0.04	0.25	0.25	0.06	0.15	0.17
OvlAdjV/S:												0.00
Crit Moves:			****	****				****		****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	1.248
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2	1 0	0 0	1! 0	0	0	1 0	0 1
Volume Module:												
Base Vol:	104	680	438	0	956	26	6	6	97	438	24	324
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	106	690	441	0	970	26	6	6	98	441	24	327
Added Vol:	271	66	46	0	149	47	48	226	150	87	101	22
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	377	756	487	0	1119	73	54	232	248	528	125	349
User 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
PHF 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
PHF Volume:	377	756	487	0	1119	73	54	232	248	528	125	349
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	377	756	487	0	1119	73	54	232	248	528	125	349
PCE 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
MLF 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
FinalVolume:	377	756	487	0	1119	73	54	232	248	528	125	349
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.82	0.18	0.10	0.43	0.47	0.81	0.19	1.00
Final Sat.:	1600	3200	1600	0	4505	295	162	695	744	1294	306	1600
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.30	0.00	0.25	0.25	0.03	0.33	0.33	0.33	0.41	0.22
Crit Moves:	****				****			****		****		

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.874
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	89	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	940	32	144	889	0	222	320	465	34	0	225
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	954	32	146	902	0	224	322	469	34	0	228
Added Vol:	0	187	0	0	237	0	242	0	87	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1141	32	146	1139	0	466	322	556	34	0	228
User 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
PHF 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
PHF Volume:	0	1141	32	146	1139	0	466	322	556	34	0	228
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1141	32	146	1139	0	466	322	556	34	0	228
PCE 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
MLF 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
FinalVolume:	0	1141	32	146	1139	0	466	322	556	34	0	228
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.92	0.08	2.00	2.00	0.00	1.18	0.82	1.00	1.00	0.00	2.00
Final Sat.:	0	4667	133	2880	3200	0	1891	1309	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.24	0.05	0.36	0.00	0.25	0.25	0.35	0.02	0.00	0.07
Crit Moves:	****				****				****			****

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1	1 0	1	1 0	1 1	0	1	1 0	1
Volume Module:												
Base Vol:	4	179	172	364	20	5	109	198	11	162	173	573
Growth Adj:	1.01	1.02	1.01	1.01	1.02	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	4	182	175	369	20	5	111	201	11	164	176	581
Added Vol:	0	7	9	1	7	0	0	0	0	9	0	67
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	189	184	370	27	5	111	201	11	173	176	648
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	189	0	370	27	5	111	201	11	173	176	648
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	189	0	370	27	5	111	201	11	173	176	648
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	189	0	370	27	5	111	201	11	173	176	648
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.89	0.11	1.49	1.51	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	3032	168	2385	2415	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.13	0.02	0.00	0.07	0.07	0.07	0.07	0.07	0.41
Crit Moves:		****		****			****					****

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	67	Level Of Service:	D

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1! 0	0	1 0	1! 0	0	1 0	1	1 0	0 0	2 0	2
Volume Module:												
Base Vol:	2	12	7	932	29	54	70	713	29	0	833	802
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	2	12	7	940	29	54	71	722	29	0	843	809
Added Vol:	0	0	0	6	0	52	50	63	0	0	36	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	12	7	946	29	106	121	785	29	0	879	816
User 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
PHF 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
PHF Volume:	2	12	7	946	29	106	121	785	29	0	879	816
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	12	7	946	29	106	121	785	29	0	879	816
PCE 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
MLF 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
FinalVolume:	2	12	7	946	29	106	121	785	29	0	879	816
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.57	0.33	1.75	0.05	0.20	1.00	1.93	0.07	0.00	2.00	2.00
Final Sat.:	152	914	533	2798	87	315	1600	3085	115	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.34	0.34	0.34	0.08	0.25	0.25	0.00	0.27	0.25
Crit Moves:	****			****			****				****	

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.964
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	147	Level Of Service:	E

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	80	736	113	190	1530	12	19	25	84	204	30	885
Added Vol:	0	2	7	1	68	0	0	0	0	7	0	41
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	80	738	120	191	1598	12	19	25	84	211	30	926
User 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
PHF 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
PHF Volume:	80	738	120	191	1598	12	19	25	84	211	30	926
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	738	120	191	1598	12	19	25	84	211	30	926
PCE 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
MLF 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
FinalVolume:	80	738	120	191	1598	12	19	25	84	211	30	926
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.58	0.42	1.00	1.98	0.02	0.43	0.57	1.00	1.00	0.06	1.94
Final Sat.:	1600	4127	673	1600	3176	24	689	911	1600	1600	102	3098
Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.12	0.50	0.50	0.01	0.03	0.05	0.13	0.30	0.30
Crit Moves:	****				****		****				****	

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.933
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	120	Level Of Service:	E

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	30	469	14	42	863	854	376	46	321	20	23	46
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	30	475	14	43	874	866	381	47	326	20	23	47
Added Vol:	1	0	0	0	0	75	9	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	31	475	14	43	874	941	390	47	327	20	23	47
User 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
PHF 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
PHF Volume:	31	475	14	43	874	941	390	47	327	20	23	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	475	14	43	874	941	390	47	327	20	23	47
PCE 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
MLF 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
FinalVolume:	31	475	14	43	874	941	390	47	327	20	23	47
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.94	0.06	1.00	2.00	1.00	1.79	0.21	1.00	0.45	0.55	1.00
Final Sat.:	2880	3107	93	1600	3200	1600	2858	342	1600	719	881	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.15	0.15	0.03	0.27	0.59	0.14	0.14	0.20	0.03	0.03	0.03
Crit Moves:	****					****			****			****

Mesa Substation
Future 2016 With-Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Site Access/Potrero Grande Dr

Average Delay (sec/veh): 49.7 Worst Case Level Of Service: F[278.5]

Street Name:	Potrero Grande Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 1			1 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	863	0	0	380	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	0	0	0	0	870	0	0	383	0
Added Vol:	212	0	179	0	0	0	0	247	31	31	243	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	212	0	179	0	0	0	0	1117	31	31	626	0
User 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
PHF 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
PHF Volume:	212	0	179	0	0	0	0	1117	31	31	626	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	212	0	179	0	0	0	0	1117	31	31	626	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1492	xxxx	559	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1148	xxxx	xxxxx
Potent Cap.:	116	xxxx	478	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	616	xxxx	xxxxx
Move Cap.:	112	xxxx	478	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	616	xxxx	xxxxx
Volume/Cap:	1.89	xxxx	0.37	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.05	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	17.2	xxxx	1.7	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx
Control Del:	499.3	xxxx	17.0	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.2	xxxx	xxxxx
LOS by Move:	F	*	C	*	*	*	*	*	*	B	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	278.5			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	650	1176	160	0	0	0	17	218	122	350	280	72
Future Volume (veh/h)	650	1176	160	0	0	0	17	218	122	350	280	72
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	684	1238	168				18	229	128	368	295	76
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	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
Cap, veh/h	657	1306	870				35	289	246	331	901	228
Arrive On Green	0.54	0.54	0.54				0.02	0.15	0.15	0.18	0.32	0.32
Sat Flow, veh/h	1220	2424	1615				1810	1900	1615	1810	2854	723
Grp Volume(v), veh/h	1031	891	168				18	229	128	368	185	186
Grp Sat Flow(s),veh/h/ln	1839	1805	1615				1810	1900	1615	1810	1805	1772
Q Serve(g_s), s	57.5	48.0	5.7				1.1	12.4	7.8	19.5	8.3	8.6
Cycle Q Clear(g_c), s	57.5	48.0	5.7				1.1	12.4	7.8	19.5	8.3	8.6
Prop In Lane	0.66		1.00				1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	991	972	870				35	289	246	331	570	559
V/C Ratio(X)	1.04	0.92	0.19				0.51	0.79	0.52	1.11	0.32	0.33
Avail Cap(c_a), veh/h	991	972	870				90	347	295	331	570	560
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	22.4	12.7				51.8	43.6	41.7	43.6	27.9	27.9
Incr Delay (d2), s/veh	39.7	13.1	0.1				11.1	10.0	1.7	83.6	0.3	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	39.8	27.3	7.3				0.6	7.3	3.6	17.3	4.2	4.2
LnGrp Delay(d),s/veh	64.4	35.6	12.8				63.0	53.6	43.4	127.3	28.2	28.3
LnGrp LOS	F	D	B				E	D	D	F	C	C
Approach Vol, veh/h		2090						375			739	
Approach Delay, s/veh		47.9						50.6			77.5	
Approach LOS		D						D			E	

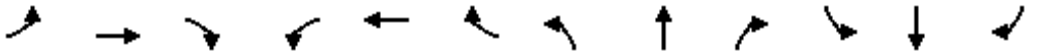
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	24.0	20.8		62.0	6.6	38.2		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	19.5	19.5		57.5	5.3	33.7		
Max Q Clear Time (g_c+I1), s	21.5	14.4		59.5	3.1	10.6		
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	4.1		

Intersection Summary	
HCM 2010 Ctrl Delay	55.1
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	86	151	437	825	81	42	62	817	217	199	5
Future Volume (veh/h)	48	86	151	437	825	81	42	62	817	217	199	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	91	159	460	868	85	44	65	860	228	209	5
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
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	79	341	290	491	1353	132	252	348	1037	229	163	4
Arrive On Green	0.04	0.18	0.18	0.27	0.41	0.41	0.37	0.37	0.37	0.37	0.37	0.37
Sat Flow, veh/h	1810	1900	1615	1810	3322	325	499	938	1615	422	441	10
Grp Volume(v), veh/h	51	91	159	460	472	481	109	0	860	442	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1843	1437	0	1615	872	0	0
Q Serve(g_s), s	2.1	3.1	6.8	18.8	15.8	15.8	0.0	0.0	28.0	25.1	0.0	0.0
Cycle Q Clear(g_c), s	2.1	3.1	6.8	18.8	15.8	15.8	2.9	0.0	28.0	28.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.18	0.40		1.00	0.52		0.01
Lane Grp Cap(c), veh/h	79	341	290	491	735	750	600	0	1037	396	0	0
V/C Ratio(X)	0.65	0.27	0.55	0.94	0.64	0.64	0.18	0.00	0.83	1.12	0.00	0.00
Avail Cap(c_a), veh/h	156	453	385	491	764	780	600	0	1037	396	0	0
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	0.00
Uniform Delay (d), s/veh	35.6	26.7	28.2	26.9	18.0	18.0	15.9	0.0	10.4	26.8	0.0	0.0
Incr Delay (d2), s/veh	8.6	0.4	1.6	25.7	1.7	1.7	0.1	0.0	5.8	81.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.7	3.1	12.8	8.2	8.4	1.5	0.0	15.0	17.0	0.0	0.0
LnGrp Delay(d),s/veh	44.2	27.1	29.8	52.6	19.7	19.7	16.0	0.0	16.1	107.8	0.0	0.0
LnGrp LOS	D	C	C	D	B	B	B		B	F		
Approach Vol, veh/h		301			1413			969			442	
Approach Delay, s/veh		31.5			30.4			16.1			107.8	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		32.5	25.0	18.1		32.5	7.8	35.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		28.0	20.5	18.0		28.0	6.5	32.0
Max Q Clear Time (g_c+I1), s		30.0	20.8	8.8		30.0	4.1	17.8
Green Ext Time (p_c), s		0.0	0.0	4.8		0.0	0.0	6.3

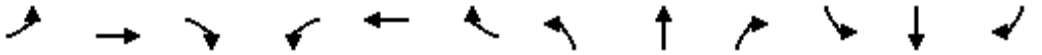
Intersection Summary	
HCM 2010 Ctrl Delay	37.0
HCM 2010 LOS	D



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	232	248	528	125	349	377	756	487	0	1119	73
Future Volume (veh/h)	54	232	248	528	125	349	377	756	487	0	1119	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	59	255	273	580	137	384	414	831	535	0	1230	80
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	147	128	354	45	646	267	1444	646	0	1991	129
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	368	320	478	113	1615	426	3610	1615	0	5148	324
Grp Volume(v), veh/h	587	0	0	717	0	384	414	831	535	0	854	456
Grp Sat Flow(s),veh/h/ln	689	0	0	591	0	1615	426	1805	1615	0	1729	1843
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.5	8.1	7.2	11.9	0.0	7.9	7.9
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	7.5	16.0	7.2	11.9	0.0	7.9	7.9
Prop In Lane	0.10		0.47	0.81		1.00	1.00		1.00	0.00		0.18
Lane Grp Cap(c), veh/h	374	0	0	399	0	646	267	1444	646	0	1383	737
V/C Ratio(X)	1.57	0.00	0.00	1.80	0.00	0.59	1.55	0.58	0.83	0.00	0.62	0.62
Avail Cap(c_a), veh/h	374	0	0	399	0	646	267	1444	646	0	1383	737
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	15.3	0.0	9.4	18.7	9.4	10.8	0.0	9.6	9.6
Incr Delay (d2), s/veh	268.0	0.0	0.0	367.9	0.0	1.5	266.6	0.6	8.8	0.0	0.8	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	31.9	0.0	0.0	45.1	0.0	3.6	22.6	3.6	6.8	0.0	3.8	4.2
LnGrp Delay(d),s/veh	278.6	0.0	0.0	383.1	0.0	10.9	285.3	9.9	19.6	0.0	10.4	11.1
LnGrp LOS	F			F		B	F	A	B		B	B
Approach Vol, veh/h		587			1101			1780			1310	
Approach Delay, s/veh		278.6			253.3			76.9			10.7	
Approach LOS		F			F			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		9.9		18.0
Green Ext Time (p_c), s		0.0		0.0		5.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	124.1
HCM 2010 LOS	F



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	466	322	556	34	0	228	0	1141	32	146	1139	0
Future Volume (veh/h)	466	322	556	34	0	228	0	1141	32	146	1139	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	410	440	579	35	0	238	0	1189	33	152	1186	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	676	710	604	0	0	0	0	1809	50	251	1765	0
Arrive On Green	0.37	0.37	0.37	0.00	0.00	0.00	0.00	0.35	0.35	0.07	0.49	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5360	144	3510	3705	0
Grp Volume(v), veh/h	410	440	579		0.0		0	792	430	152	1186	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1875	1755	1805	0
Q Serve(g_s), s	12.0	12.4	22.9				0.0	12.7	12.7	2.8	16.4	0.0
Cycle Q Clear(g_c), s	12.0	12.4	22.9				0.0	12.7	12.7	2.8	16.4	0.0
Prop In Lane	1.00		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	676	710	604				0	1206	654	251	1765	0
V/C Ratio(X)	0.61	0.62	0.96				0.00	0.66	0.66	0.61	0.67	0.00
Avail Cap(c_a), veh/h	676	710	604				0	1266	686	295	1873	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.6	16.7	20.0				0.0	18.0	18.0	29.5	12.8	0.0
Incr Delay (d2), s/veh	1.6	1.6	26.7				0.0	1.2	2.2	2.6	0.9	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	6.2	6.8	14.6				0.0	6.2	7.0	1.4	8.3	0.0
LnGrp Delay(d),s/veh	18.2	18.4	46.7				0.0	19.2	20.2	32.1	13.6	0.0
LnGrp LOS	B	B	D					B	C	C	B	
Approach Vol, veh/h		1429						1222			1338	
Approach Delay, s/veh		29.8						19.6			15.7	
Approach LOS		C						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.2	27.4		29.0		36.5		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.5	24.0		24.5		34.0		
Max Q Clear Time (g_c+I1), s	4.8	14.7		24.9		18.4		
Green Ext Time (p_c), s	0.0	8.2		0.0		12.9		

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	201	11	173	176	648	4	189	184	370	27	5
Future Volume (veh/h)	111	201	11	173	176	648	4	189	184	370	27	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	212	12	205	152	0	4	199	0	389	28	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	245	471	27	540	284	241	200	399	179	638	335	285
Arrive On Green	0.14	0.14	0.14	0.15	0.15	0.00	0.11	0.11	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1810	3475	196	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	117	110	114	205	152	0	4	199	0	389	28	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1865	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	2.5	2.3	2.4	2.1	3.1	0.0	0.1	2.2	0.0	4.2	0.5	0.0
Cycle Q Clear(g_c), s	2.5	2.3	2.4	2.1	3.1	0.0	0.1	2.2	0.0	4.2	0.5	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	245	245	253	540	284	241	200	399	179	638	335	285
V/C Ratio(X)	0.48	0.45	0.45	0.38	0.54	0.00	0.02	0.50	0.00	0.61	0.08	0.00
Avail Cap(c_a), veh/h	775	773	799	1550	814	692	775	1546	692	1550	814	692
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	16.7	16.7	16.1	16.5	0.0	16.7	17.6	0.0	16.0	14.5	0.0
Incr Delay (d2), s/veh	1.4	1.3	1.3	0.4	1.6	0.0	0.0	1.0	0.0	0.9	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	1.3	1.2	1.3	1.1	1.7	0.0	0.0	1.1	0.0	2.1	0.3	0.0
LnGrp Delay(d),s/veh	18.2	18.0	18.0	16.6	18.1	0.0	16.7	18.6	0.0	16.9	14.6	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		341			357			203			417	
Approach Delay, s/veh		18.1			17.2			18.5			16.8	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.1		10.2		11.9		10.8
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.2		4.5		6.2		5.1
Green Ext Time (p_c), s		0.9		1.3		1.2		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	25	84	211	30	926	80	738	120	191	1599	12
Future Volume (veh/h)	19	25	84	211	30	926	80	738	120	191	1599	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	26	87	218	0	976	82	761	124	197	1648	12
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
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	84	106	249	446	0	822	106	1904	308	244	1834	13
Arrive On Green	0.25	0.25	0.25	0.25	0.00	0.25	0.06	0.42	0.42	0.13	0.50	0.50
Sat Flow, veh/h	103	415	979	1300	0	3230	1810	4502	728	1810	3674	27
Grp Volume(v), veh/h	133	0	0	218	0	976	82	583	302	197	809	851
Grp Sat Flow(s),veh/h/ln	1497	0	0	1300	0	1615	1810	1729	1772	1810	1805	1895
Q Serve(g_s), s	0.0	0.0	0.0	5.3	0.0	18.3	3.2	8.4	8.5	7.6	29.3	29.3
Cycle Q Clear(g_c), s	4.5	0.0	0.0	9.8	0.0	18.3	3.2	8.4	8.5	7.6	29.3	29.3
Prop In Lane	0.15		0.65	1.00		1.00	1.00		0.41	1.00		0.01
Lane Grp Cap(c), veh/h	439	0	0	446	0	822	106	1463	749	244	901	946
V/C Ratio(X)	0.30	0.00	0.00	0.49	0.00	1.19	0.78	0.40	0.40	0.81	0.90	0.90
Avail Cap(c_a), veh/h	439	0	0	446	0	822	138	1463	749	395	947	994
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	0.0	23.4	0.0	26.8	33.4	14.4	14.4	30.2	16.3	16.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.8	0.0	96.3	18.0	0.2	0.3	6.3	11.0	10.6
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	2.2	0.0	0.0	3.9	0.0	19.1	2.1	4.0	4.2	4.2	17.1	17.9
LnGrp Delay(d),s/veh	22.0	0.0	0.0	24.3	0.0	123.1	51.3	14.6	14.8	36.5	27.3	27.0
LnGrp LOS	C			C		F	D	B	B	D	C	C
Approach Vol, veh/h		133			1194			967			1857	
Approach Delay, s/veh		22.0			105.0			17.8			28.2	
Approach LOS		C			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.2	34.9		22.8	8.7	40.4		22.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	15.7	27.5		18.3	5.5	37.7		18.3
Max Q Clear Time (g_c+I1), s	9.6	10.5		6.5	5.2	31.3		20.3
Green Ext Time (p_c), s	0.3	14.4		5.0	0.0	4.6		0.0

Intersection Summary		
HCM 2010 Ctrl Delay		47.6
HCM 2010 LOS		D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	390	47	327	20	23	47	31	475	14	43	874	941
Future Volume (veh/h)	390	47	327	20	23	47	31	475	14	43	874	941
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	446	0	344	21	24	49	33	500	15	45	920	991
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	862	0	385	50	58	94	117	1490	45	74	1530	685
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.03	0.42	0.42	0.04	0.42	0.42
Sat Flow, veh/h	3619	0	1615	866	990	1615	3510	3579	107	1810	3610	1615
Grp Volume(v), veh/h	446	0	344	45	0	49	33	252	263	45	920	991
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1857	0	1615	1755	1805	1881	1810	1805	1615
Q Serve(g_s), s	7.8	0.0	15.1	1.7	0.0	2.2	0.7	6.9	6.9	1.8	14.4	31.0
Cycle Q Clear(g_c), s	7.8	0.0	15.1	1.7	0.0	2.2	0.7	6.9	6.9	1.8	14.4	31.0
Prop In Lane	1.00		1.00	0.47		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	862	0	385	108	0	94	117	752	783	74	1530	685
V/C Ratio(X)	0.52	0.00	0.89	0.42	0.00	0.52	0.28	0.34	0.34	0.61	0.60	1.45
Avail Cap(c_a), veh/h	891	0	398	457	0	398	240	752	783	158	1530	685
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	27.0	33.2	0.0	33.4	34.5	14.5	14.5	34.5	16.3	21.1
Incr Delay (d2), s/veh	0.5	0.0	21.4	2.5	0.0	4.4	1.3	0.3	0.3	7.8	0.7	209.6
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	4.0	0.0	9.0	1.0	0.0	1.1	0.3	3.5	3.6	1.0	7.3	53.5
LnGrp Delay(d),s/veh	24.7	0.0	48.4	35.8	0.0	37.8	35.8	14.7	14.7	42.3	16.9	230.6
LnGrp LOS	C		D	D		D	D	B	B	D	B	F
Approach Vol, veh/h		790			94			548			1956	
Approach Delay, s/veh		35.0			36.9			16.0			125.8	
Approach LOS		D			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	34.9		21.9	6.9	35.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.4	29.6		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	3.8	8.9		17.1	2.7	33.0		4.2
Green Ext Time (p_c), s	0.0	14.9		0.4	0.0	0.0		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	84.4
HCM 2010 LOS	F

Notes

Intersection: 16: Site Access & E Pomona Blvd

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	2	52	2347	2199
Average Queue (ft)	0	20	1463	646
95th Queue (ft)	2	47	2546	2112
Link Distance (ft)			3608	3608
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	75	75		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Zone Summary

Zone wide Queuing Penalty: 0

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.902
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	101	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0 0	2	0 1	0 0	0	0 0	0 1	2	0 1
Volume Module:												
Base Vol:	797	365	0	0	524	342	0	0	0	257	1073	160
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	817	374	0	0	537	350	0	0	0	263	1099	164
Added Vol:	0	4	0	0	38	6	0	0	0	16	39	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	817	378	0	0	575	356	0	0	0	279	1138	193
User 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
PHF 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
PHF Volume:	817	378	0	0	575	356	0	0	0	279	1138	193
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	817	378	0	0	575	356	0	0	0	279	1138	193
PCE 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
MLF 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
FinalVolume:	817	378	0	0	575	356	0	0	0	279	1138	193
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.59	2.41	1.00
Final Sat.:	2880	1600	0	0	3200	1600	0	0	0	946	3854	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.24	0.00	0.00	0.18	0.22	0.00	0.00	0.00	0.17	0.30	0.12
Crit Moves:	****					****					****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.787
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	64	Level Of Service:	C

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	3	0 1	1 1	1	0 0	1 0	2	0 1	1 0	0	0 1
Volume Module:												
Base Vol:	0	833	183	157	648	0	131	781	359	27	0	235
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	869	191	164	676	0	137	815	375	28	0	245
Added Vol:	0	0	21	38	16	0	4	55	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	869	212	202	692	0	141	870	375	28	0	245
User 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
PHF 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
PHF Volume:	0	869	212	202	692	0	141	870	375	28	0	245
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	869	212	202	692	0	141	870	375	28	0	245
PCE 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
MLF 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
FinalVolume:	0	869	212	202	692	0	141	870	375	28	0	245
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.13	0.13	0.22	0.00	0.09	0.27	0.23	0.02	0.00	0.15
Crit Moves:		****			****			****		****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.744
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	503	333	0	0	344	66	0	0	0	283	1104	40
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	515	341	0	0	352	68	0	0	0	290	1131	41
Added Vol:	0	0	0	0	20	0	0	0	0	9	85	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	515	341	0	0	372	68	0	0	0	299	1216	56
User 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
PHF 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
PHF Volume:	515	341	0	0	372	68	0	0	0	299	1216	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	515	341	0	0	372	68	0	0	0	299	1216	56
PCE 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
MLF 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
FinalVolume:	515	341	0	0	372	68	0	0	0	299	1216	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.69	0.31	0.00	0.00	0.00	0.57	2.32	0.11
Final Sat.:	2880	3200	0	0	2708	492	0	0	0	913	3716	171
Capacity Analysis Module:												
Vol/Sat:	0.18	0.11	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.19	0.33	0.33
Crit Moves:	****				****						****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.832
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	75	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	315	790	164	127	483	40	32	941	307	20	96	41
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	329	825	171	133	504	42	33	982	320	21	100	43
Added Vol:	0	0	12	20	9	0	0	114	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	329	825	183	153	513	42	33	1096	320	21	100	43
User 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
PHF 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
PHF Volume:	329	825	183	153	513	42	33	1096	320	21	100	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	329	825	183	153	513	42	33	1096	320	21	100	43
PCE 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
MLF 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
FinalVolume:	329	825	183	153	513	42	33	1096	320	21	100	43
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.85	0.15	0.07	2.27	0.66	0.25	1.23	0.52
Final Sat.:	1600	4800	1600	1600	2959	241	111	3629	1061	408	1957	836
Capacity Analysis Module:												
Vol/Sat:	0.21	0.17	0.11	0.10	0.17	0.17	0.30	0.30	0.30	0.05	0.05	0.05
Crit Moves:	****				****		****			****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0	1 1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	81	234	144	146	151	71	456	571	49	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	85	244	150	152	158	74	476	596	51	0	0	0
Added Vol:	0	8	0	17	6	0	139	6	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	85	252	150	169	164	74	615	602	51	0	0	0
User 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
PHF 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
PHF Volume:	85	252	150	169	164	74	615	602	51	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	252	150	169	164	74	615	602	51	0	0	0
PCE 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
MLF 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
FinalVolume:	85	252	150	169	164	74	615	602	51	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.38	0.62	1.00	1.00	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2202	998	1600	1600	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.09	0.11	0.07	0.07	0.38	0.38	0.03	0.00	0.00	0.00
Crit Moves:		****		****			****					

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.651
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0	1	0	1 1 0
Volume Module:												
Base Vol:	59	99	526	105	223	6	18	84	85	223	509	82
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	60	101	539	108	228	6	18	86	87	228	522	84
Added Vol:	5	0	123	0	0	0	0	26	2	23	101	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	65	101	662	108	228	6	18	112	89	251	623	84
User 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
PHF 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
PHF Volume:	65	101	662	108	228	6	18	112	89	251	623	84
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	65	101	662	108	228	6	18	112	89	251	623	84
PCE 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
MLF 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
FinalVolume:	65	101	662	108	228	6	18	112	89	251	623	84
OvlAdjVol:			410									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.61	1.00	0.31	0.67	0.02	1.00	1.00	1.00	1.00	1.76	0.24
Final Sat.:	628	972	1600	503	1068	29	1600	1600	1600	1600	2819	381
Capacity Analysis Module:												
Vol/Sat:	0.04	0.10	0.41	0.07	0.21	0.21	0.01	0.07	0.06	0.16	0.22	0.22
OvlAdjV/S:			0.26									
Crit Moves:			****	****				****		****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.506
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	13	0	9	14	0	13	10	296	4	1	806	150
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	13	0	9	14	0	13	10	303	4	1	826	154
Added Vol:	99	0	8	0	0	0	0	17	125	10	47	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	0	17	14	0	13	10	320	129	11	873	154
User 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
PHF 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
PHF Volume:	112	0	17	14	0	13	10	320	129	11	873	154
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	0	17	14	0	13	10	320	129	11	873	154
PCE 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
MLF 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
FinalVolume:	112	0	17	14	0	13	10	320	129	11	873	154
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.43	0.57	1.00	1.70	0.30
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2281	919	1600	2721	479
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.01	0.01	0.00	0.01	0.01	0.14	0.14	0.01	0.32	0.32
Crit Moves:	****					****	****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.655
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	45	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	146	152	147	17	358	37	23	432	235	165	381	2
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	150	156	151	17	367	38	24	443	241	169	390	2
Added Vol:	4	21	20	5	28	0	0	4	4	23	12	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	154	177	171	22	395	38	24	447	245	192	402	4
User 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
PHF 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
PHF Volume:	154	177	171	22	395	38	24	447	245	192	402	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	154	177	171	22	395	38	24	447	245	192	402	4
PCE 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
MLF 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
FinalVolume:	154	177	171	22	395	38	24	447	245	192	402	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.29	0.71	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2067	1133	1600	3168	32
Capacity Analysis Module:												
Vol/Sat:	0.10	0.06	0.11	0.01	0.12	0.02	0.01	0.22	0.22	0.12	0.13	0.13
Crit Moves:	****				****			****			****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.618
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	119	227	24	221	416	16	45	317	261	90	449	242
Growth Adj:	1.02	1.04	1.02	1.02	1.04	1.02	1.02	1.02	1.02	1.02	1.04	1.02
Initial Bse:	122	237	25	226	431	16	46	325	267	92	466	248
Added Vol:	17	37	39	2	29	4	3	14	12	19	16	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	139	274	64	228	460	20	49	339	279	111	482	250
User 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
PHF 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
PHF Volume:	139	274	64	228	460	20	49	339	279	111	482	250
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	139	274	64	228	460	20	49	339	279	111	482	250
PCE 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
MLF 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
FinalVolume:	139	274	64	228	460	20	49	339	279	111	482	250
OvlAdjVol:												9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.62	0.38	1.00	1.91	0.09	1.00	1.10	0.90	1.00	2.00	1.00
Final Sat.:	1600	2597	603	1600	3062	138	1600	1754	1446	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.11	0.11	0.14	0.15	0.15	0.03	0.19	0.19	0.07	0.15	0.16
OvlAdjV/S:												0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	0.813
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	70	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	41	412	191	0	920	7	19	4	165	188	14	114
Growth Adj:	1.04	1.04	1.02	1.02	1.04	1.04	1.04	1.02	1.04	1.02	1.02	1.02
Initial Bse:	43	430	195	0	960	7	20	4	172	192	14	117
Added Vol:	154	73	81	0	48	27	21	100	66	21	57	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	503	276	0	1008	34	41	104	238	213	71	126
User 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
PHF 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
PHF Volume:	197	503	276	0	1008	34	41	104	238	213	71	126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	503	276	0	1008	34	41	104	238	213	71	126
PCE 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
MLF 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
FinalVolume:	197	503	276	0	1008	34	41	104	238	213	71	126
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.90	0.10	0.11	0.27	0.62	0.75	0.25	1.00
Final Sat.:	1600	3200	1600	0	4642	158	171	435	995	1199	401	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.17	0.00	0.22	0.22	0.03	0.24	0.24	0.13	0.18	0.08
Crit Moves:	****				****			****			****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.446
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2 0	2	0 0	1 1	0	0 1	1 0	0	0 2
Volume Module:												
Base Vol:	0	652	8	58	476	0	144	71	158	7	0	44
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.02	1.02	1.02	1.04	1.04	1.04
Initial Bse:	0	680	8	61	497	0	147	73	162	7	0	46
Added Vol:	0	254	0	0	67	0	135	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	934	8	61	564	0	282	73	183	7	0	46
User 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
PHF 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
PHF Volume:	0	934	8	61	564	0	282	73	183	7	0	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	934	8	61	564	0	282	73	183	7	0	46
PCE 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
MLF 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
FinalVolume:	0	934	8	61	564	0	282	73	183	7	0	46
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.97	0.03	2.00	2.00	0.00	1.59	0.41	1.00	1.00	0.00	2.00
Final Sat.:	0	4757	43	2880	3200	0	2545	655	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.02	0.18	0.00	0.11	0.11	0.11	0.00	0.00	0.01
Crit Moves:		****		****					****			****

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.705
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	51	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	1	1 0	1	1 0	1 1	0	1 1	1 0	1
Volume Module:												
Base Vol:	3	60	33	373	12	1	6	18	9	86	43	657
Growth Adj:	1.04	1.06	1.04	1.04	1.06	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	3	63	34	389	13	1	6	19	9	90	45	686
Added Vol:	0	5	7	0	8	0	0	0	0	9	0	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	68	41	389	21	1	6	19	9	99	45	704
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	68	0	389	21	1	6	19	9	99	45	704
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	68	0	389	21	1	6	19	9	99	45	704
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	68	0	389	21	1	6	19	9	99	45	704
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.33	0.67	2.00	1.00	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	2133	1067	2880	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.00	0.14	0.01	0.00	0.00	0.01	0.01	0.03	0.03	0.44
Crit Moves:		****		****				****				****

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.748
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1!	0	0	1 0	1! 0	0	1 0	1 1	0	0 0	2 0 2
Volume Module:												
Base Vol:	9	12	9	598	20	78	37	705	21	0	892	1085
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.04	1.02	1.02	1.04	1.02
Initial Bse:	9	12	9	613	20	80	38	731	22	0	925	1112
Added Vol:	0	0	0	4	0	20	42	15	0	0	14	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	12	9	617	20	100	80	746	22	0	939	1117
User 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
PHF 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
PHF Volume:	9	12	9	617	20	100	80	746	22	0	939	1117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	9	617	20	100	80	746	22	0	939	1117
PCE 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
MLF 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
FinalVolume:	9	12	9	617	20	100	80	746	22	0	939	1117
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.40	0.30	1.67	0.06	0.27	1.00	1.94	0.06	0.00	2.00	2.00
Final Sat.:	480	640	480	2677	89	434	1600	3110	90	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.23	0.23	0.23	0.05	0.24	0.24	0.00	0.29	0.35
Crit Moves:	****			****			****					****

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.846
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	D

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	1	1 0	0 1	0	0 1	1 0	0	1 1
Volume Module:												
Base Vol:	43	1157	176	196	1278	3	16	13	26	103	22	849
Growth Adj:	1.02	1.04	1.04	1.04	1.04	1.02	1.02	1.04	1.02	1.04	1.04	1.04
Initial Bse:	44	1200	182	203	1325	3	16	13	27	107	23	879
Added Vol:	0	1	5	1	18	0	0	0	0	8	0	19
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	1201	187	204	1343	3	16	13	27	115	23	898
User 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
PHF 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
PHF Volume:	44	1201	187	204	1343	3	16	13	27	115	23	898
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	1201	187	204	1343	3	16	13	27	115	23	898
PCE 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
MLF 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
FinalVolume:	44	1201	187	204	1343	3	16	13	27	115	23	898
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.60	0.40	1.00	1.99	0.01	0.55	0.45	1.00	1.00	0.05	1.95
Final Sat.:	1600	4152	648	1600	3193	7	878	722	1600	1600	79	3121
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.13	0.42	0.42	0.01	0.02	0.02	0.07	0.29	0.29
Crit Moves:	****				****		****				****	

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.744
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	56	Level Of Service:	C

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	1	1 0	1 0	2	0 1	1 1	0	0 1	0 1	0	1 0
Volume Module:												
Base Vol:	35	829	41	62	313	723	262	30	131	12	35	70
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	37	860	43	65	325	755	273	31	137	13	37	73
Added Vol:	1	0	0	0	0	26	6	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	860	43	65	325	781	279	31	138	13	37	73
User 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
PHF 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
PHF Volume:	38	860	43	65	325	781	279	31	138	13	37	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	860	43	65	325	781	279	31	138	13	37	73
PCE 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
MLF 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
FinalVolume:	38	860	43	65	325	781	279	31	138	13	37	73
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.91	0.09	1.00	2.00	1.00	1.80	0.20	1.00	0.21	0.79	1.00
Final Sat.:	2880	3048	152	1600	3200	1600	2878	322	1600	328	1272	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.28	0.28	0.04	0.10	0.49	0.10	0.10	0.09	0.04	0.03	0.05
Crit Moves:	****					****	****					****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #16 Site Access/Potrero Grande Dr

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Average Delay (sec/veh): 0.3 Worst Case Level Of Service: C[15.0]

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Street Name:	Potrero Grande Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 1			1 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	310	0	0	832	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	0	0	0	0	0	0	0	318	0	0	852	0
Added Vol:	6	0	6	0	0	0	0	137	13	28	118	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	0	6	0	0	0	0	455	13	28	970	0
User 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
PHF 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
PHF Volume:	6	0	6	0	0	0	0	455	13	28	970	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	0	6	0	0	0	0	455	13	28	970	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	996	xxxx	227	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	468	xxxx	xxxxx
Potent Cap.:	245	xxxx	782	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1104	xxxx	xxxxx
Move Cap.:	240	xxxx	782	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1104	xxxx	xxxxx
Volume/Cap:	0.02	xxxx	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	0.0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	20.4	xxxx	9.6	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx
LOS by Move:	C	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	15.0			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

****

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #17 Markland Dr/Site Access

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C[17.6]

Street Name:	Markland Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0	1 0	0 0	1	1 0	0 0	1!	0 0	0 0	0	0 1
Volume Module:												
Base Vol:	0 684	0		0 531	0		0 0	0		0 0	0	
Growth Adj:	1.02 1.02	1.02		1.02 1.02	1.02		1.02 1.02	1.02		1.02 1.02	1.02	
Initial Bse:	0 701	0		0 544	0		0 0	0		0 0	0	
Added Vol:	6 122	19		0 21	4		6 0	2		0 0	0	
PasserByVol:	0 0	0		0 0	0		0 0	0		0 0	0	
Initial Fut:	6 823	19		0 565	4		6 0	2		0 0	0	
User 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	
PHF 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	
PHF Volume:	6 823	19		0 565	4		6 0	2		0 0	0	
Reduct Vol:	0 0	0		0 0	0		0 0	0		0 0	0	
FinalVolume:	6 823	19		0 565	4		6 0	2		0 0	0	
Critical Gap Module:												
Critical Gp:	4.1 xxxx	xxxxx	xxxxx xxxx	xxxxx			6.8 6.5	6.9		xxxxx xxxx	6.9	
FollowUpTim:	2.2 xxxx	xxxxx	xxxxx xxxx	xxxxx			3.5 4.0	3.3		xxxxx xxxx	3.3	
Capacity Module:												
Cnflict Vol:	569 xxxx	xxxxx	xxxx xxxx	xxxxx			990 1421	285		xxxx xxxx	421	
Potent Cap.:	1013 xxxx	xxxxx	xxxx xxxx	xxxxx			247 138	718		xxxx xxxx	587	
Move Cap.:	1013 xxxx	xxxxx	xxxx xxxx	xxxxx			246 137	718		xxxx xxxx	587	
Volume/Cap:	0.01 xxxx	xxxx	xxxx xxxx	xxxx			0.02 0.00	0.00		xxxx xxxx	0.00	
Level Of Service Module:												
2Way95thQ:	0.0 xxxx	xxxxx	xxxx xxxx	xxxxx			xxxx xxxx	xxxxx		xxxx xxxx	xxxxx	
Control Del:	8.6 xxxx	xxxxx	xxxxx xxxx	xxxxx			xxxxx xxxx	xxxxx		xxxxx xxxx	xxxxx	
LOS by Move:	A *	*	*	*	*		* *	*		* *	*	
Movement:	LT - LTR	- RT	LT - LTR	- RT			LT - LTR	- RT		LT - LTR	- RT	
Shared Cap.:	xxxx xxxx	xxxxx	xxxx xxxx	xxxxx			xxxx 294	xxxxx		xxxx xxxx	xxxxx	
SharedQueue:	0.0 xxxx	xxxxx	xxxxx xxxx	xxxxx			xxxxx 0.1	xxxxx		xxxxx xxxx	xxxxx	
Shrd ConDel:	8.6 xxxx	xxxxx	xxxxx xxxx	xxxxx			xxxxx 17.6	xxxxx		xxxxx xxxx	xxxxx	
Shared LOS:	A *	*	*	*	*		* C	*		* *	*	
ApproachDel:	xxxxxx		xxxxxx				17.6			xxxxxx		
ApproachLOS:	*		*				C			*		

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	615	602	51	0	0	0	85	252	150	169	164	74
Future Volume (veh/h)	615	602	51	0	0	0	85	252	150	169	164	74
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	661	647	55				91	271	161	182	176	80
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	793	791	708				119	394	335	228	656	287
Arrive On Green	0.44	0.44	0.44				0.07	0.21	0.21	0.13	0.27	0.27
Sat Flow, veh/h	1810	1805	1615				1810	1900	1615	1810	2448	1068
Grp Volume(v), veh/h	661	647	55				91	271	161	182	128	128
Grp Sat Flow(s),veh/h/ln	1810	1805	1615				1810	1900	1615	1810	1805	1711
Q Serve(g_s), s	19.1	18.6	1.2				2.9	7.8	5.2	5.8	3.3	3.5
Cycle Q Clear(g_c), s	19.1	18.6	1.2				2.9	7.8	5.2	5.8	3.3	3.5
Prop In Lane	1.00		1.00				1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	793	791	708				119	394	335	228	484	459
V/C Ratio(X)	0.83	0.82	0.08				0.77	0.69	0.48	0.80	0.26	0.28
Avail Cap(c_a), veh/h	871	868	777				275	593	504	290	579	549
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.7	14.6	9.7				27.2	21.7	20.7	25.1	17.1	17.1
Incr Delay (d2), s/veh	6.5	5.7	0.0				9.9	2.1	1.1	11.4	0.3	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	10.8	10.4	1.4				1.8	4.3	2.4	3.6	1.7	1.7
LnGrp Delay(d),s/veh	21.2	20.3	9.7				37.1	23.8	21.7	36.6	17.4	17.5
LnGrp LOS	C	C	A				D	C	C	D	B	B
Approach Vol, veh/h		1363						523			438	
Approach Delay, s/veh		20.3						25.5			25.4	
Approach LOS		C						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	12.0	16.8		30.5	8.4	20.4		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	9.5	18.5		28.5	9.0	19.0		
Max Q Clear Time (g_c+I1), s	7.8	9.8		21.1	4.9	5.5		
Green Ext Time (p_c), s	0.1	2.5		4.8	0.1	3.1		

Intersection Summary	
HCM 2010 Ctrl Delay	22.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	105	96	251	623	84	65	101	662	108	228	6
Future Volume (veh/h)	18	105	96	251	623	84	65	101	662	108	228	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	113	103	270	670	90	70	109	712	116	245	6
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	362	308	327	1113	149	273	387	878	204	370	8
Arrive On Green	0.02	0.19	0.19	0.18	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1900	1615	1810	3200	429	481	1067	1615	305	1019	22
Grp Volume(v), veh/h	19	113	103	270	378	382	179	0	712	367	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1824	1548	0	1615	1346	0	0
Q Serve(g_s), s	0.5	2.6	2.8	7.3	8.7	8.8	0.0	0.0	18.3	7.4	0.0	0.0
Cycle Q Clear(g_c), s	0.5	2.6	2.8	7.3	8.7	8.8	3.5	0.0	18.3	11.1	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.24	0.39		1.00	0.32		0.02
Lane Grp Cap(c), veh/h	42	362	308	327	628	634	660	0	878	582	0	0
V/C Ratio(X)	0.45	0.31	0.33	0.83	0.60	0.60	0.27	0.00	0.81	0.63	0.00	0.00
Avail Cap(c_a), veh/h	178	674	573	360	822	831	660	0	878	582	0	0
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	0.00
Uniform Delay (d), s/veh	24.4	17.7	17.7	20.0	13.6	13.6	11.4	0.0	9.5	13.3	0.0	0.0
Incr Delay (d2), s/veh	7.5	0.5	0.6	13.6	0.9	0.9	0.2	0.0	5.8	2.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.4	1.3	4.8	4.5	4.5	1.8	0.0	9.4	4.7	0.0	0.0
LnGrp Delay(d),s/veh	31.9	18.2	18.4	33.6	14.6	14.6	11.6	0.0	15.3	15.5	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B		B	B		
Approach Vol, veh/h		235			1030			891			367	
Approach Delay, s/veh		19.4			19.6			14.5			15.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.9	13.7	14.2		22.9	5.7	22.1
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.4	10.1	18.0		18.4	5.0	23.1
Max Q Clear Time (g_c+I1), s		20.3	9.3	4.8		13.1	2.5	10.8
Green Ext Time (p_c), s		0.0	0.1	4.9		3.1	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	104	238	213	71	126	197	503	276	0	1008	34
Future Volume (veh/h)	41	104	238	213	71	126	197	503	276	0	1008	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	47	118	270	242	81	143	224	572	314	0	1145	39
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	114	187	344	94	646	290	1444	646	0	2061	70
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	286	467	467	235	1615	481	3610	1615	0	5323	175
Grp Volume(v), veh/h	435	0	0	323	0	143	224	572	314	0	768	416
Grp Sat Flow(s),veh/h/ln	753	0	0	702	0	1615	481	1805	1615	0	1729	1869
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	2.3	9.1	4.5	5.8	0.0	6.9	6.9
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	2.3	16.0	4.5	5.8	0.0	6.9	6.9
Prop In Lane	0.11		0.62	0.75		1.00	1.00		1.00	0.00		0.09
Lane Grp Cap(c), veh/h	401	0	0	438	0	646	290	1444	646	0	1383	748
V/C Ratio(X)	1.09	0.00	0.00	0.74	0.00	0.22	0.77	0.40	0.49	0.00	0.56	0.56
Avail Cap(c_a), veh/h	401	0	0	438	0	646	290	1444	646	0	1383	748
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	12.6	0.0	7.9	17.8	8.6	8.9	0.0	9.3	9.3
Incr Delay (d2), s/veh	69.7	0.0	0.0	6.4	0.0	0.2	12.2	0.2	0.6	0.0	0.5	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	12.1	0.0	0.0	4.3	0.0	1.1	3.4	2.3	2.6	0.0	3.3	3.7
LnGrp Delay(d),s/veh	80.4	0.0	0.0	19.0	0.0	8.1	29.9	8.7	9.5	0.0	9.7	10.2
LnGrp LOS	F			B		A	C	A	A		A	B
Approach Vol, veh/h		435			466			1110			1184	
Approach Delay, s/veh		80.4			15.6			13.2			9.9	
Approach LOS		F			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		8.9		18.0
Green Ext Time (p_c), s		0.0		0.0		6.3		0.0

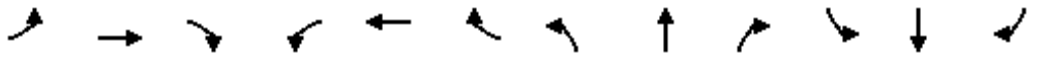
Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	282	73	183	7	0	46	0	934	8	61	564	0
Future Volume (veh/h)	282	73	183	7	0	46	0	934	8	61	564	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	185	229	191	7	0	48	0	973	8	64	588	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	378	397	338	0	0	0	0	2079	17	223	2047	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5478	44	3510	3705	0
Grp Volume(v), veh/h	185	229	191		0.0		0	634	347	64	588	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1892	1755	1805	0
Q Serve(g_s), s	3.6	4.4	4.3				0.0	5.5	5.5	0.7	3.4	0.0
Cycle Q Clear(g_c), s	3.6	4.4	4.3				0.0	5.5	5.5	0.7	3.4	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	378	397	338				0	1354	741	223	2047	0
V/C Ratio(X)	0.49	0.58	0.57				0.00	0.47	0.47	0.29	0.29	0.00
Avail Cap(c_a), veh/h	815	855	727				0	1789	979	445	2730	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.0	14.3	14.3				0.0	9.1	9.1	18.0	4.5	0.0
Incr Delay (d2), s/veh	1.0	1.3	1.5				0.0	0.3	0.5	0.7	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
%ile BackOfQ(50%),veh/ln	1.9	2.4	2.0				0.0	2.6	2.9	0.4	1.7	0.0
LnGrp Delay(d),s/veh	15.0	15.6	15.8				0.0	9.4	9.6	18.7	4.6	0.0
LnGrp LOS	B	B	B					A	A	B	A	
Approach Vol, veh/h		605						981			652	
Approach Delay, s/veh		15.5						9.4			6.0	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	7.1	20.2		12.9		27.3		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.1	20.8		18.1		30.4		
Max Q Clear Time (g_c+I1), s	2.7	7.5		6.4		5.4		
Green Ext Time (p_c), s	0.0	8.3		2.1		12.2		

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B

Notes



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	19	9	99	45	704	3	69	41	389	21	1
Future Volume (veh/h)	6	19	9	99	45	704	3	69	41	389	21	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	21	10	108	49	0	3	75	0	423	23	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	109	48	421	221	188	141	281	126	754	396	336
Arrive On Green	0.04	0.04	0.04	0.12	0.12	0.00	0.08	0.08	0.00	0.21	0.21	0.00
Sat Flow, veh/h	1810	2436	1079	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	7	15	16	108	49	0	3	75	0	423	23	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1710	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	0.1	0.3	0.3	0.9	0.8	0.0	0.0	0.6	0.0	3.4	0.3	0.0
Cycle Q Clear(g_c), s	0.1	0.3	0.3	0.9	0.8	0.0	0.0	0.6	0.0	3.4	0.3	0.0
Prop In Lane	1.00		0.63	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	81	76	421	221	188	141	281	126	754	396	336
V/C Ratio(X)	0.09	0.19	0.21	0.26	0.22	0.00	0.02	0.27	0.00	0.56	0.06	0.00
Avail Cap(c_a), veh/h	1001	998	945	2001	1051	893	1001	1996	893	2001	1051	893
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.9	15.0	15.0	13.1	13.0	0.0	13.9	14.1	0.0	11.6	10.3	0.0
Incr Delay (d2), s/veh	0.5	1.1	1.3	0.3	0.5	0.0	0.1	0.5	0.0	0.7	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(50%),veh/ln	0.1	0.2	0.2	0.5	0.4	0.0	0.0	0.3	0.0	1.8	0.2	0.0
LnGrp Delay(d),s/veh	15.4	16.1	16.3	13.4	13.5	0.0	13.9	14.6	0.0	12.2	10.4	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		38			157			78			446	
Approach Delay, s/veh		16.1			13.5			14.6			12.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		7.0		6.0		11.3		8.3
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.6		2.3		5.4		2.9
Green Ext Time (p_c), s		0.3		0.1		1.4		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	13	27	115	23	898	44	1201	187	204	1343	3
Future Volume (veh/h)	16	13	27	115	23	898	44	1201	187	204	1343	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	14	29	124	0	983	47	1291	201	219	1444	3
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	131	116	167	494	0	879	78	1735	270	264	1796	4
Arrive On Green	0.27	0.27	0.27	0.27	0.00	0.27	0.04	0.38	0.38	0.15	0.49	0.49
Sat Flow, veh/h	230	426	614	1385	0	3230	1810	4529	705	1810	3696	8
Grp Volume(v), veh/h	60	0	0	124	0	983	47	986	506	219	705	742
Grp Sat Flow(s),veh/h/ln	1270	0	0	1385	0	1615	1810	1729	1776	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	18.5	1.7	16.7	16.7	8.0	22.4	22.4
Cycle Q Clear(g_c), s	1.8	0.0	0.0	4.3	0.0	18.5	1.7	16.7	16.7	8.0	22.4	22.4
Prop In Lane	0.28		0.48	1.00		1.00	1.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	414	0	0	494	0	879	78	1325	680	264	877	922
V/C Ratio(X)	0.15	0.00	0.00	0.25	0.00	1.12	0.60	0.74	0.74	0.83	0.80	0.80
Avail Cap(c_a), veh/h	414	0	0	494	0	879	133	1348	692	306	877	922
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	0.0	19.4	0.0	24.7	31.9	18.1	18.1	28.2	14.7	14.7
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	68.2	7.2	2.2	4.3	15.2	5.5	5.2
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	1.9	0.0	16.6	1.0	8.4	9.0	5.1	12.3	12.9
LnGrp Delay(d),s/veh	18.8	0.0	0.0	19.7	0.0	92.9	39.1	20.3	22.4	43.4	20.2	20.0
LnGrp LOS	B			B		F	D	C	C	D	C	B
Approach Vol, veh/h		60			1107			1539			1666	
Approach Delay, s/veh		18.8			84.7			21.6			23.2	
Approach LOS		B			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.4	30.5		23.0	7.4	37.5		23.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	11.5	26.5		18.5	5.0	33.0		18.5
Max Q Clear Time (g_c+I1), s	10.0	18.7		3.8	3.7	24.4		20.5
Green Ext Time (p_c), s	0.1	7.3		4.8	0.0	8.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	38.1
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	279	31	138	13	37	73	38	860	43	65	325	781
Future Volume (veh/h)	279	31	138	13	37	73	38	860	43	65	325	781
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	327	0	150	14	40	79	41	935	47	71	353	849
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	540	0	241	40	113	131	150	1305	66	110	1413	632
Arrive On Green	0.15	0.00	0.15	0.08	0.08	0.08	0.04	0.37	0.37	0.06	0.39	0.39
Sat Flow, veh/h	3619	0	1615	486	1389	1615	3510	3498	176	1810	3610	1615
Grp Volume(v), veh/h	327	0	150	54	0	79	41	482	500	71	353	849
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1876	0	1615	1755	1805	1869	1810	1805	1615
Q Serve(g_s), s	4.5	0.0	4.7	1.5	0.0	2.5	0.6	12.3	12.3	2.1	3.5	21.0
Cycle Q Clear(g_c), s	4.5	0.0	4.7	1.5	0.0	2.5	0.6	12.3	12.3	2.1	3.5	21.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	540	0	241	152	0	131	150	674	697	110	1413	632
V/C Ratio(X)	0.61	0.00	0.62	0.35	0.00	0.60	0.27	0.72	0.72	0.64	0.25	1.34
Avail Cap(c_a), veh/h	1214	0	542	629	0	542	327	703	728	172	1413	632
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	0.0	21.4	23.3	0.0	23.8	24.9	14.4	14.4	24.6	11.0	16.3
Incr Delay (d2), s/veh	1.1	0.0	2.6	1.4	0.0	4.4	1.0	3.3	3.2	6.2	0.1	164.8
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	2.4	0.0	2.2	0.8	0.0	1.3	0.3	6.7	6.9	1.2	1.8	38.1
LnGrp Delay(d),s/veh	22.4	0.0	24.0	24.7	0.0	28.2	25.9	17.7	17.6	30.8	11.1	181.2
LnGrp LOS	C		C	C		C	C	B	B	C	B	F
Approach Vol, veh/h		477			133			1023			1273	
Approach Delay, s/veh		22.9			26.8			18.0			125.6	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.8	24.5		12.5	6.8	25.5		8.9
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	20.9		18.0	5.0	21.0		18.0
Max Q Clear Time (g_c+I1), s	4.1	14.3		6.7	2.6	23.0		4.5
Green Ext Time (p_c), s	0.0	5.4		1.3	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	66.4
HCM 2010 LOS	E

Notes

Intersection: 16: Site Access & E Pomona Blvd

Movement	WB	NB	NB
Directions Served	L	L	R
Maximum Queue (ft)	37	37	26
Average Queue (ft)	9	8	4
95th Queue (ft)	32	29	19
Link Distance (ft)		973	973
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	75		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 17: E Markland Dr & Site Access

Movement	EB	NB	NB
Directions Served	LTR	LT	TR
Maximum Queue (ft)	33	46	13
Average Queue (ft)	7	4	0
95th Queue (ft)	28	24	7
Link Distance (ft)	211	1064	1064
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 0

Mesa Substation
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PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #1 Garfield Ave/Pomona Blvd

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.943
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	128	Level Of Service:	E

****

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0 0	2	0 1	0 0	0	0 0	0 1	2	0 1
Volume Module:												
Base Vol:	527	760	0	0	733	115	0	0	0	299	984	306
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	540	779	0	0	751	118	0	0	0	306	1008	314
Added Vol:	0	13	0	0	68	12	0	0	0	50	123	70
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	540	792	0	0	819	130	0	0	0	356	1131	384
User 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
PHF 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
PHF Volume:	540	792	0	0	819	130	0	0	0	356	1131	384
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	540	792	0	0	819	130	0	0	0	356	1131	384
PCE 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
MLF 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
FinalVolume:	540	792	0	0	819	130	0	0	0	356	1131	384
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.22	1.78	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.72	2.28	1.00
Final Sat.:	1946	2854	0	0	3200	1600	0	0	0	1150	3650	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.00	0.00	0.26	0.08	0.00	0.00	0.00	0.22	0.31	0.24
Crit Moves:	****				****						****	

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Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.120
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 3	0 1	1	1 1	0 0	1	0 2	0 1	1	0 0	0 1
Volume Module:												
Base Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	0	1161	345	317	760	0	152	1286	816	24	0	102
Added Vol:	0	0	29	68	50	0	13	71	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1161	374	385	810	0	165	1357	816	24	0	102
User 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
PHF 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
PHF Volume:	0	1161	374	385	810	0	165	1357	816	24	0	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1161	374	385	810	0	165	1357	816	24	0	102
PCE 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
MLF 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
FinalVolume:	0	1161	374	385	810	0	165	1357	816	24	0	102
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.24	0.23	0.24	0.25	0.00	0.10	0.42	0.51	0.02	0.00	0.06
Crit Moves:		****			****				****	****		

Mesa Substation
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PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.759
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	400	306	0	0	334	23	0	0	0	343	1183	82
Added Vol:	0	0	0	0	35	0	0	0	0	21	243	35
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	400	306	0	0	369	23	0	0	0	364	1426	117
User 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
PHF 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
PHF Volume:	400	306	0	0	369	23	0	0	0	364	1426	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	400	306	0	0	369	23	0	0	0	364	1426	117
PCE 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
MLF 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
FinalVolume:	400	306	0	0	369	23	0	0	0	364	1426	117
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.88	0.12	0.00	0.00	0.00	0.57	2.25	0.18
Final Sat.:	2880	3200	0	0	3016	184	0	0	0	917	3589	294
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.23	0.40	0.40
Crit Moves:	****				****						****	

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.867
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	86	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	1 0	1	1 0	0 1	1	1 0	0 1	0 1	0
Volume Module:												
Base Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	116	622	270	149	543	26	56	1365	474	8	26	64
Added Vol:	0	0	21	35	21	0	0	169	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	116	622	291	184	564	26	56	1534	474	8	26	64
User 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
PHF 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
PHF Volume:	116	622	291	184	564	26	56	1534	474	8	26	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	622	291	184	564	26	56	1534	474	8	26	64
PCE 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
MLF 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
FinalVolume:	116	622	291	184	564	26	56	1534	474	8	26	64
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.91	0.09	0.08	2.23	0.69	0.17	0.83	1.00
Final Sat.:	1600	4800	1600	1600	3058	142	131	3567	1102	272	1328	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.18	0.12	0.18	0.18	0.43	0.43	0.43	0.03	0.02	0.04
Crit Moves:			****	****			****					****

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.028
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0	1 1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	18	211	125	273	273	74	424	1197	165	0	0	0
Added Vol:	0	13	0	65	14	0	213	12	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	224	125	338	287	74	637	1209	165	0	0	0
User 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
PHF 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
PHF Volume:	18	224	125	338	287	74	637	1209	165	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	224	125	338	287	74	637	1209	165	0	0	0
PCE 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
MLF 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
FinalVolume:	18	224	125	338	287	74	637	1209	165	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.69	1.31	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2544	656	1104	2096	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.08	0.21	0.11	0.11	0.40	0.58	0.10	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.840
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	77	Level Of Service:	D

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0 1	1 0	1	1 0
Volume Module:												
Base Vol:	32	61	568	215	197	5	48	52	147	336	465	80
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	33	63	582	220	202	5	49	53	151	344	476	82
Added Vol:	88	0	228	0	0	0	0	34	3	79	198	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	63	810	220	202	5	49	87	154	423	674	82
User 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
PHF 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
PHF Volume:	121	63	810	220	202	5	49	87	154	423	674	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	63	810	220	202	5	49	87	154	423	674	82
PCE 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
MLF 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
FinalVolume:	121	63	810	220	202	5	49	87	154	423	674	82
OvlAdjVol:			387									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.66	0.34	1.00	0.52	0.47	0.01	1.00	1.00	1.00	1.00	1.78	0.22
Final Sat.:	1054	546	1600	825	756	19	1600	1600	1600	1600	2853	347
Capacity Analysis Module:												
Vol/Sat:	0.08	0.11	0.51	0.14	0.27	0.27	0.03	0.05	0.10	0.26	0.24	0.24
OvlAdjV/S:			0.24									
Crit Moves:			****	****					****	****		

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.642
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	44	Level Of Service:	B

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	3	0	3	175	0	12	17	845	1	8	365	26
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	3	0	3	179	0	12	17	866	1	8	374	27
Added Vol:	223	0	17	0	0	0	0	119	221	17	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	0	20	179	0	12	17	985	222	25	400	27
User 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
PHF 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
PHF Volume:	226	0	20	179	0	12	17	985	222	25	400	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	0	20	179	0	12	17	985	222	25	400	27
PCE 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
MLF 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
FinalVolume:	226	0	20	179	0	12	17	985	222	25	400	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.63	0.37	1.00	1.88	0.12
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2611	589	1600	3000	200
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.01	0.11	0.00	0.01	0.01	0.38	0.38	0.02	0.13	0.13
Crit Moves:	****					****		****		****		

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.665
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	288	467	116	12	210	33	47	598	167	39	646	13
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	295	478	119	12	215	34	48	613	171	40	662	13
Added Vol:	13	57	62	6	43	0	0	18	6	23	14	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	308	535	181	18	258	34	48	631	177	63	676	21
User 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
PHF 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
PHF Volume:	308	535	181	18	258	34	48	631	177	63	676	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	308	535	181	18	258	34	48	631	177	63	676	21
PCE 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
MLF 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
FinalVolume:	308	535	181	18	258	34	48	631	177	63	676	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.56	0.44	1.00	1.94	0.06
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2498	702	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.19	0.17	0.11	0.01	0.08	0.02	0.03	0.25	0.25	0.04	0.22	0.22
Crit Moves:	****			****			****			****		

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.772
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

****

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	1 0	1 0	1	0 1	1 0	1	0 2	1 0
Volume Module:												
Base Vol:	227	471	62	300	392	32	48	456	211	53	453	263
Growth Adj:	1.02	1.04	1.02	1.02	1.04	1.02	1.02	1.02	1.02	1.02	1.04	1.02
Initial Bse:	233	491	64	307	406	33	49	467	216	54	470	269
Added Vol:	24	53	35	2	60	3	11	41	33	50	18	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	257	544	99	309	466	36	60	508	249	104	488	271
User 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
PHF 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
PHF Volume:	257	544	99	309	466	36	60	508	249	104	488	271
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	544	99	309	466	36	60	508	249	104	488	271
PCE 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
MLF 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
FinalVolume:	257	544	99	309	466	36	60	508	249	104	488	271
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.69	0.31	1.14	1.73	0.13	1.00	1.34	0.66	1.00	2.00	1.00
Final Sat.:	1600	2710	490	1825	2763	213	1600	2147	1053	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.17	0.17	0.17	0.04	0.24	0.24	0.07	0.15	0.17
OvlAdjV/S:												0.00
Crit Moves:			****	****				****		****		

****

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	1.256
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	104	680	438	0	956	26	6	6	97	438	24	324
Growth Adj:	1.04	1.04	1.02	1.02	1.04	1.04	1.04	1.02	1.04	1.02	1.02	1.02
Initial Bse:	109	709	448	0	997	27	6	6	101	448	25	332
Added Vol:	271	66	46	0	122	47	48	226	150	87	101	14
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	380	775	494	0	1119	74	54	232	251	535	126	346
User 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
PHF 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
PHF Volume:	380	775	494	0	1119	74	54	232	251	535	126	346
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	380	775	494	0	1119	74	54	232	251	535	126	346
PCE 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
MLF 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
FinalVolume:	380	775	494	0	1119	74	54	232	251	535	126	346
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.81	0.19	0.10	0.43	0.47	0.81	0.19	1.00
Final Sat.:	1600	3200	1600	0	4502	298	161	691	748	1296	304	1600
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.31	0.00	0.25	0.25	0.03	0.34	0.34	0.33	0.41	0.22
Crit Moves:	****				****			****			****	

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

****

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.885
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	D

****

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	940	32	144	889	0	222	320	465	34	0	225
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.02	1.02	1.02	1.04	1.04	1.04
Initial Bse:	0	981	33	150	927	0	227	327	476	35	0	235
Added Vol:	0	187	0	0	224	0	242	0	87	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1168	33	150	1151	0	469	327	563	35	0	235
User 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
PHF 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
PHF Volume:	0	1168	33	150	1151	0	469	327	563	35	0	235
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1168	33	150	1151	0	469	327	563	35	0	235
PCE 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
MLF 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
FinalVolume:	0	1168	33	150	1151	0	469	327	563	35	0	235
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.92	0.08	2.00	2.00	0.00	1.18	0.82	1.00	1.00	0.00	2.00
Final Sat.:	0	4667	133	2880	3200	0	1885	1315	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.05	0.36	0.00	0.25	0.25	0.35	0.02	0.00	0.07
Crit Moves:	****				****				****			****

****

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	1 1	0 1	1	0 1	1 0	1	1 1	0 1
Volume Module:												
Base Vol:	4	179	172	364	20	5	109	198	11	162	173	573
Growth Adj:	1.04	1.06	1.04	1.04	1.06	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	4	189	180	380	21	5	114	207	11	169	181	598
Added Vol:	0	7	9	1	7	0	0	0	0	9	0	37
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	196	189	381	28	5	114	207	11	178	181	635
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	196	0	381	28	5	114	207	11	178	181	635
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	196	0	381	28	5	114	207	11	178	181	635
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	196	0	381	28	5	114	207	11	178	181	635
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.89	0.11	1.49	1.51	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	3032	168	2383	2417	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.13	0.02	0.00	0.07	0.07	0.07	0.07	0.07	0.40
Crit Moves:		****		****			****					****

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.805
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	68	Level Of Service:	D

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1! 0	0	1	0 1 1 0	0	0	2 0 2
Volume Module:												
Base Vol:	2	12	7	932	29	54	70	713	29	0	833	802
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.04	1.02	1.02	1.04	1.02
Initial Bse:	2	12	7	955	30	55	72	739	30	0	864	822
Added Vol:	0	0	0	6	0	52	44	32	0	0	19	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	12	7	961	30	107	116	771	30	0	883	829
User 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
PHF 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
PHF Volume:	2	12	7	961	30	107	116	771	30	0	883	829
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	12	7	961	30	107	116	771	30	0	883	829
PCE 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
MLF 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
FinalVolume:	2	12	7	961	30	107	116	771	30	0	883	829
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.57	0.33	1.75	0.05	0.20	1.00	1.93	0.07	0.00	2.00	2.00
Final Sat.:	152	914	533	2801	87	313	1600	3081	119	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.34	0.34	0.34	0.07	0.25	0.25	0.00	0.28	0.26
Crit Moves:	****				****		****				****	

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.968
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	152	Level Of Service:	E

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	1	1 0	0 1	0	0 1	1 0	0	1 1
Volume Module:												
Base Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
Growth Adj:	1.02	1.04	1.04	1.04	1.04	1.02	1.02	1.04	1.02	1.04	1.04	1.04
Initial Bse:	81	754	116	195	1567	12	19	26	85	209	31	906
Added Vol:	0	2	7	1	38	0	0	0	0	7	0	23
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	81	756	123	196	1605	12	19	26	85	216	31	929
User 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
PHF 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
PHF Volume:	81	756	123	196	1605	12	19	26	85	216	31	929
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	81	756	123	196	1605	12	19	26	85	216	31	929
PCE 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
MLF 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
FinalVolume:	81	756	123	196	1605	12	19	26	85	216	31	929
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.58	0.42	1.00	1.98	0.02	0.43	0.57	1.00	1.00	0.06	1.94
Final Sat.:	1600	4128	672	1600	3176	24	687	913	1600	1600	104	3096
Capacity Analysis Module:												
Vol/Sat:	0.05	0.18	0.18	0.12	0.51	0.51	0.01	0.03	0.05	0.14	0.30	0.30
Crit Moves:	****			****			****			****		

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.937
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	122	Level Of Service:	E

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	30	469	14	42	863	854	376	46	321	20	23	46
Growth Adj:	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
Initial Bse:	31	486	15	44	895	891	392	48	335	21	24	48
Added Vol:	1	0	0	0	0	45	9	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	486	15	44	895	936	401	48	336	21	24	48
User 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
PHF 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
PHF Volume:	32	486	15	44	895	936	401	48	336	21	24	48
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	486	15	44	895	936	401	48	336	21	24	48
PCE 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
MLF 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
FinalVolume:	32	486	15	44	895	936	401	48	336	21	24	48
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.94	0.06	1.00	2.00	1.00	1.79	0.21	1.00	0.45	0.55	1.00
Final Sat.:	2880	3107	93	1600	3200	1600	2858	342	1600	719	881	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.16	0.03	0.28	0.59	0.14	0.14	0.21	0.03	0.03	0.03
Crit Moves:	****					****			****			****

Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #16 Site Access/Potrero Grande Dr

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Average Delay (sec/veh): 1.5 Worst Case Level Of Service: C[23.7]

****

Street Name:	Potrero Grande Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 1			1 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	863	0	0	380	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	0	0	0	0	0	0	0	884	0	0	389	0
Added Vol:	34	0	83	0	0	0	0	256	6	6	243	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	0	83	0	0	0	0	1140	6	6	632	0
User 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
PHF 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
PHF Volume:	34	0	83	0	0	0	0	1140	6	6	632	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	34	0	83	0	0	0	0	1140	6	6	632	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1468	xxxx	570	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1146	xxxx	xxxxx
Potent Cap.:	121	xxxx	470	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	617	xxxx	xxxxx
Move Cap.:	120	xxxx	470	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	617	xxxx	xxxxx
Volume/Cap:	0.28	xxxx	0.18	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	1.1	xxxx	0.6	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	46.6	xxxx	14.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.9	xxxx	xxxxx
LOS by Move:	E	*	B	*	*	*	*	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	23.7			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

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Note: Queue reported is the number of cars per lane.

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Mesa Substation
Future With-Project 2018
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #17 Markland Dr/Site Access

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: E[36.1]

Street Name:	Markland Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1 0	1	0	0 0	1	1 0	0 0	1!	0 0	0 0	0	0 1
Volume Module:												
Base Vol:	0	661	0	0	680	0	0	0	0	0	0	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	0	677	0	0	697	0	0	0	0	0	0	0
Added Vol:	10	216	0	0	75	7	13	0	3	0	0	88
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	893	0	0	772	7	13	0	3	0	0	88
User 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
PHF 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
PHF Volume:	10	893	0	0	772	7	13	0	3	0	0	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	10	893	0	0	772	7	13	0	3	0	0	88
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	6.5	6.9	xxxxx	xxxx	6.9
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	3.3
Capacity Module:												
Cnflict Vol:	779	xxxx	xxxxx	xxxx	xxxx	xxxxx	1242	1688	389	xxxx	xxxx	447
Potent Cap.:	847	xxxx	xxxxx	xxxx	xxxx	xxxxx	133	95	615	xxxx	xxxx	565
Move Cap.:	847	xxxx	xxxxx	xxxx	xxxx	xxxxx	111	93	615	xxxx	xxxx	565
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.12	0.00	0.00	xxxx	xxxx	0.16
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.5
Control Del:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	12.5
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	B
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	132	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	36.1	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	A	*	*	*	*	*	*	E	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			36.1			12.5		
ApproachLOS:	*			*			E			B		

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	637	1209	165	0	0	0	18	224	125	338	287	74
Future Volume (veh/h)	637	1209	165	0	0	0	18	224	125	338	287	74
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	671	1273	174				19	236	132	356	302	78
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	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
Cap, veh/h	656	1362	894				36	270	230	344	892	227
Arrive On Green	0.55	0.55	0.55				0.02	0.14	0.14	0.19	0.31	0.31
Sat Flow, veh/h	1185	2461	1615				1810	1900	1615	1810	2852	725
Grp Volume(v), veh/h	1043	901	174				19	236	132	356	189	191
Grp Sat Flow(s),veh/h/ln	1841	1805	1615				1810	1900	1615	1810	1805	1772
Q Serve(g_s), s	65.5	52.7	6.4				1.2	14.4	9.0	22.5	9.5	9.8
Cycle Q Clear(g_c), s	65.5	52.7	6.4				1.2	14.4	9.0	22.5	9.5	9.8
Prop In Lane	0.64		1.00				1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	1019	999	894				36	270	230	344	565	554
V/C Ratio(X)	1.02	0.90	0.19				0.54	0.87	0.57	1.03	0.34	0.34
Avail Cap(c_a), veh/h	1019	999	894				84	297	252	344	565	554
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	23.6	13.2				57.5	49.7	47.4	47.9	31.2	31.3
Incr Delay (d2), s/veh	34.3	11.2	0.1				11.9	22.3	2.6	57.8	0.3	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	42.8	29.2	8.3				0.7	9.2	4.2	16.7	4.8	4.9
LnGrp Delay(d),s/veh	60.7	34.8	13.3				69.4	72.0	50.0	105.7	31.6	31.7
LnGrp LOS	F	C	B				E	E	D	F	C	C
Approach Vol, veh/h		2118						387			736	
Approach Delay, s/veh		45.8						64.4			67.5	
Approach LOS		D						E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	27.0	21.3		70.0	6.8	41.5		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	22.5	18.5		65.5	5.5	35.5		
Max Q Clear Time (g_c+I1), s	24.5	16.4		67.5	3.2	11.8		
Green Ext Time (p_c), s	0.0	0.4		0.0	0.0	4.3		

Intersection Summary	
HCM 2010 Ctrl Delay	52.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	87	154	423	674	82	122	63	810	220	202	5
Future Volume (veh/h)	49	87	154	423	674	82	122	63	810	220	202	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	92	162	445	709	86	128	66	853	232	213	5
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
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	310	263	485	1261	153	378	181	1090	207	149	3
Arrive On Green	0.04	0.16	0.16	0.27	0.39	0.39	0.41	0.41	0.41	0.41	0.41	0.41
Sat Flow, veh/h	1810	1900	1615	1810	3243	393	751	445	1615	347	366	8
Grp Volume(v), veh/h	52	92	162	445	394	401	194	0	853	450	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1831	1196	0	1615	721	0	0
Q Serve(g_s), s	2.4	3.6	7.8	19.9	14.3	14.3	0.0	0.0	30.3	25.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	3.6	7.8	19.9	14.3	14.3	9.0	0.0	30.3	34.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.21	0.66		1.00	0.52		0.01
Lane Grp Cap(c), veh/h	76	310	263	485	702	712	559	0	1090	359	0	0
V/C Ratio(X)	0.68	0.30	0.62	0.92	0.56	0.56	0.35	0.00	0.78	1.25	0.00	0.00
Avail Cap(c_a), veh/h	147	410	348	531	772	783	559	0	1090	359	0	0
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	0.00
Uniform Delay (d), s/veh	39.4	30.7	32.5	29.7	19.9	19.9	17.1	0.0	9.3	30.4	0.0	0.0
Incr Delay (d2), s/veh	10.4	0.5	2.3	20.1	0.8	0.8	0.4	0.0	3.8	134.9	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.9	3.6	12.6	7.3	7.4	3.2	0.0	14.4	21.6	0.0	0.0
LnGrp Delay(d),s/veh	49.8	31.2	34.8	49.8	20.7	20.7	17.5	0.0	13.1	165.3	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B		B	F		
Approach Vol, veh/h		306			1240			1047			450	
Approach Delay, s/veh		36.3			31.1			13.9			165.3	
Approach LOS		D			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		38.5	26.9	18.1		38.5	8.0	37.0
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		34.0	24.5	18.0		34.0	6.8	35.7
Max Q Clear Time (g_c+I1), s		32.3	21.9	9.8		36.0	4.4	16.3
Green Ext Time (p_c), s		1.3	0.4	3.8		0.0	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	45.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	232	251	535	126	346	380	775	494	0	1119	74
Future Volume (veh/h)	54	232	251	535	126	346	380	775	494	0	1119	74
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	59	255	276	588	138	380	418	852	543	0	1230	81
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	147	129	354	45	646	266	1444	646	0	1989	131
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	366	322	478	112	1615	426	3610	1615	0	5144	327
Grp Volume(v), veh/h	590	0	0	726	0	380	418	852	543	0	855	456
Grp Sat Flow(s),veh/h/ln	688	0	0	590	0	1615	426	1805	1615	0	1729	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.4	8.1	7.4	12.2	0.0	7.9	7.9
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	7.4	16.0	7.4	12.2	0.0	7.9	7.9
Prop In Lane	0.10		0.47	0.81		1.00	1.00		1.00	0.00		0.18
Lane Grp Cap(c), veh/h	374	0	0	399	0	646	266	1444	646	0	1383	737
V/C Ratio(X)	1.58	0.00	0.00	1.82	0.00	0.59	1.57	0.59	0.84	0.00	0.62	0.62
Avail Cap(c_a), veh/h	374	0	0	399	0	646	266	1444	646	0	1383	737
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	15.3	0.0	9.4	18.7	9.4	10.8	0.0	9.6	9.6
Incr Delay (d2), s/veh	271.8	0.0	0.0	378.5	0.0	1.4	273.6	0.6	9.7	0.0	0.8	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	32.3	0.0	0.0	46.3	0.0	3.5	23.1	3.8	7.0	0.0	3.8	4.2
LnGrp Delay(d),s/veh	282.4	0.0	0.0	393.8	0.0	10.8	292.2	10.1	20.6	0.0	10.4	11.1
LnGrp LOS	F			F		B	F	B	C		B	B
Approach Vol, veh/h		590			1106			1813			1311	
Approach Delay, s/veh		282.4			262.2			78.3			10.7	
Approach LOS		F			F			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		9.9		18.0
Green Ext Time (p_c), s		0.0		0.0		5.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	127.1
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	469	327	563	36	0	235	0	1168	33	150	1151	0
Future Volume (veh/h)	469	327	563	36	0	235	0	1168	33	150	1151	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	415	445	586	38	0	245	0	1217	34	156	1199	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	650	682	580	0	0	0	0	1881	53	252	1817	0
Arrive On Green	0.36	0.36	0.36	0.00	0.00	0.00	0.00	0.36	0.36	0.07	0.50	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5359	145	3510	3705	0
Grp Volume(v), veh/h	415	445	586		0.0		0	811	440	156	1199	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1874	1755	1805	0
Q Serve(g_s), s	12.5	12.8	23.5				0.0	12.8	12.8	2.8	16.2	0.0
Cycle Q Clear(g_c), s	12.5	12.8	23.5				0.0	12.8	12.8	2.8	16.2	0.0
Prop In Lane	1.00		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	650	682	580				0	1254	680	252	1817	0
V/C Ratio(X)	0.64	0.65	1.01				0.00	0.65	0.65	0.62	0.66	0.00
Avail Cap(c_a), veh/h	650	682	580				0	1321	716	295	1931	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.4	17.5	21.0				0.0	17.4	17.4	29.5	12.1	0.0
Incr Delay (d2), s/veh	2.1	2.2	40.0				0.0	1.0	1.9	3.0	0.8	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	6.6	7.1	16.8				0.0	6.3	7.0	1.5	8.2	0.0
LnGrp Delay(d),s/veh	19.5	19.8	61.0				0.0	18.4	19.3	32.5	12.9	0.0
LnGrp LOS	B	B	F					B	B	C	B	
Approach Vol, veh/h		1446						1251			1355	
Approach Delay, s/veh		36.4						18.7			15.1	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.2	28.2		28.0		37.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.5	25.0		23.5		35.0		
Max Q Clear Time (g_c+I1), s	4.8	14.8		25.5		18.2		
Green Ext Time (p_c), s	0.0	8.9		0.0		13.9		

Intersection Summary	
HCM 2010 Ctrl Delay	23.8
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	207	11	178	181	635	4	196	189	381	28	5
Future Volume (veh/h)	114	207	11	178	181	635	4	196	189	381	28	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	120	218	12	212	156	0	4	206	0	401	29	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	248	476	26	547	287	244	205	409	183	647	340	289
Arrive On Green	0.14	0.14	0.14	0.15	0.15	0.00	0.11	0.11	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1810	3481	191	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	120	112	118	212	156	0	4	206	0	401	29	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1866	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	2.6	2.5	2.5	2.3	3.3	0.0	0.1	2.3	0.0	4.4	0.5	0.0
Cycle Q Clear(g_c), s	2.6	2.5	2.5	2.3	3.3	0.0	0.1	2.3	0.0	4.4	0.5	0.0
Prop In Lane	1.00		0.10	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	247	255	547	287	244	205	409	183	647	340	289
V/C Ratio(X)	0.48	0.46	0.46	0.39	0.54	0.00	0.02	0.50	0.00	0.62	0.09	0.00
Avail Cap(c_a), veh/h	760	758	784	1520	798	678	760	1517	678	1520	798	678
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.1	17.0	17.0	16.4	16.8	0.0	16.9	17.9	0.0	16.3	14.7	0.0
Incr Delay (d2), s/veh	1.5	1.3	1.3	0.4	1.6	0.0	0.0	1.0	0.0	1.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.3	1.4	1.2	1.8	0.0	0.0	1.2	0.0	2.3	0.3	0.0
LnGrp Delay(d),s/veh	18.6	18.3	18.3	16.8	18.4	0.0	16.9	18.8	0.0	17.2	14.8	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		350			368			210			430	
Approach Delay, s/veh		18.4			17.5			18.8			17.1	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.4		10.4		12.2		11.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.3		4.6		6.4		5.3
Green Ext Time (p_c), s		1.0		1.3		1.3		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	17.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	26	85	216	31	929	81	756	123	196	1605	12
Future Volume (veh/h)	19	26	85	216	31	929	81	756	123	196	1605	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	27	88	223	0	979	84	779	127	202	1655	12
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
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	79	102	238	417	0	787	108	2000	324	247	1913	14
Arrive On Green	0.24	0.24	0.24	0.24	0.00	0.24	0.06	0.44	0.44	0.14	0.52	0.52
Sat Flow, veh/h	101	420	977	1298	0	3230	1810	4501	728	1810	3674	27
Grp Volume(v), veh/h	135	0	0	223	0	979	84	597	309	202	813	854
Grp Sat Flow(s),veh/h/ln	1499	0	0	1298	0	1615	1810	1729	1771	1810	1805	1895
Q Serve(g_s), s	0.0	0.0	0.0	6.5	0.0	18.7	3.5	8.9	9.0	8.3	30.1	30.2
Cycle Q Clear(g_c), s	5.0	0.0	0.0	11.5	0.0	18.7	3.5	8.9	9.0	8.3	30.1	30.2
Prop In Lane	0.15		0.65	1.00		1.00	1.00		0.41	1.00		0.01
Lane Grp Cap(c), veh/h	419	0	0	417	0	787	108	1536	787	247	940	987
V/C Ratio(X)	0.32	0.00	0.00	0.53	0.00	1.24	0.78	0.39	0.39	0.82	0.86	0.87
Avail Cap(c_a), veh/h	419	0	0	417	0	787	130	1536	787	389	994	1044
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	0.0	26.2	0.0	29.0	35.6	14.3	14.4	32.2	16.0	16.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.3	0.0	120.6	21.3	0.2	0.3	7.4	7.7	7.5
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	2.4	0.0	0.0	4.4	0.0	21.5	2.4	4.3	4.4	4.7	16.9	17.7
LnGrp Delay(d),s/veh	24.3	0.0	0.0	27.5	0.0	149.6	56.9	14.5	14.7	39.7	23.8	23.5
LnGrp LOS	C			C		F	E	B	B	D	C	C
Approach Vol, veh/h		135			1202			990			1869	
Approach Delay, s/veh		24.3			127.0			18.1			25.4	
Approach LOS		C			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.0	38.6		23.2	9.1	44.5		23.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	16.5	31.3		18.7	5.5	42.3		18.7
Max Q Clear Time (g_c+I1), s	10.3	11.0		7.0	5.5	32.2		20.7
Green Ext Time (p_c), s	0.3	16.9		5.0	0.0	7.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	401	48	336	21	24	48	32	486	15	44	895	936
Future Volume (veh/h)	401	48	336	21	24	48	32	486	15	44	895	936
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	458	0	354	22	25	51	34	512	16	46	942	985
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	875	0	391	51	58	95	119	1478	46	75	1520	680
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.03	0.41	0.41	0.04	0.42	0.42
Sat Flow, veh/h	3619	0	1615	869	988	1615	3510	3574	112	1810	3610	1615
Grp Volume(v), veh/h	458	0	354	47	0	51	34	258	270	46	942	985
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1857	0	1615	1755	1805	1880	1810	1805	1615
Q Serve(g_s), s	8.1	0.0	15.7	1.8	0.0	2.3	0.7	7.2	7.2	1.8	15.1	31.0
Cycle Q Clear(g_c), s	8.1	0.0	15.7	1.8	0.0	2.3	0.7	7.2	7.2	1.8	15.1	31.0
Prop In Lane	1.00		1.00	0.47		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	875	0	391	109	0	95	119	747	778	75	1520	680
V/C Ratio(X)	0.52	0.00	0.91	0.43	0.00	0.54	0.28	0.35	0.35	0.61	0.62	1.45
Avail Cap(c_a), veh/h	885	0	395	454	0	395	238	747	778	160	1520	680
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	0.0	27.1	33.5	0.0	33.7	34.7	14.8	14.8	34.7	16.7	21.3
Incr Delay (d2), s/veh	0.5	0.0	23.9	2.7	0.0	4.7	1.3	0.3	0.3	7.9	0.8	210.2
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	4.1	0.0	9.6	1.0	0.0	1.1	0.4	3.6	3.8	1.1	7.6	53.3
LnGrp Delay(d),s/veh	24.8	0.0	51.0	36.1	0.0	38.3	36.0	15.1	15.0	42.6	17.5	231.5
LnGrp LOS	C		D	D		D	D	B	B	D	B	F
Approach Vol, veh/h		812			98			562			1973	
Approach Delay, s/veh		36.2			37.3			16.3			124.9	
Approach LOS		D			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.5	35.0		22.3	7.0	35.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.5	29.5		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	3.8	9.2		17.7	2.7	33.0		4.3
Green Ext Time (p_c), s	0.0	14.8		0.1	0.0	0.0		0.3

Intersection Summary		
HCM 2010 Ctrl Delay		83.8
HCM 2010 LOS		F

Notes

Intersection: 16: Site Access & E Pomona Blvd

Movement	EB	WB	NB	NB
Directions Served	T	L	L	R
Maximum Queue (ft)	5	30	72	84
Average Queue (ft)	0	4	25	34
95th Queue (ft)	5	20	57	63
Link Distance (ft)	2892		973	973
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		75		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 17: E Markland Dr & Site Access

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	R	LT	TR	T	TR
Maximum Queue (ft)	60	107	60	47	50	23
Average Queue (ft)	16	47	8	3	3	1
95th Queue (ft)	47	85	37	23	34	17
Link Distance (ft)	221	232	1066	1066	147	147
Upstream Blk Time (%)					0	0
Queuing Penalty (veh)					1	0
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Zone Summary

Zone wide Queuing Penalty: 1

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.911
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	106	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1 0	0	0 0	2 0	1	0 0	0 0	0	0 1	2 0	1
Volume Module:												
Base Vol:	797	365	0	0	524	342	0	0	0	257	1073	160
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	823	377	0	0	541	353	0	0	0	265	1108	165
Added Vol:	0	4	0	0	38	6	0	0	0	16	52	29
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	823	381	0	0	579	359	0	0	0	281	1160	194
User 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
PHF 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
PHF Volume:	823	381	0	0	579	359	0	0	0	281	1160	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	823	381	0	0	579	359	0	0	0	281	1160	194
PCE 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
MLF 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
FinalVolume:	823	381	0	0	579	359	0	0	0	281	1160	194
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.59	2.41	1.00
Final Sat.:	2880	1600	0	0	3200	1600	0	0	0	937	3863	1600
Capacity Analysis Module:												
Vol/Sat:	0.29	0.24	0.00	0.00	0.18	0.22	0.00	0.00	0.00	0.18	0.30	0.12
Crit Moves:	****					****					****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.799
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	66	Level Of Service:	C

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 3	0 1	1	1 1	0 0	1	0 2	0 1	1	0 0	0 1
Volume Module:												
Base Vol:	0	833	183	157	648	0	131	781	359	27	0	235
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	882	194	166	686	0	139	827	380	29	0	249
Added Vol:	0	0	19	38	16	0	4	63	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	882	213	204	702	0	143	890	380	29	0	249
User 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
PHF 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
PHF Volume:	0	882	213	204	702	0	143	890	380	29	0	249
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	882	213	204	702	0	143	890	380	29	0	249
PCE 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
MLF 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
FinalVolume:	0	882	213	204	702	0	143	890	380	29	0	249
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.18	0.13	0.13	0.22	0.00	0.09	0.28	0.24	0.02	0.00	0.16
Crit Moves:		****			****			****			****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.751
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	57	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	1	0
Volume Module:												
Base Vol:	503	333	0	0	344	66	0	0	0	283	1104	40
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	519	344	0	0	355	68	0	0	0	292	1140	41
Added Vol:	0	0	0	0	20	0	0	0	0	9	97	15
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	519	344	0	0	375	68	0	0	0	301	1237	56
User 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
PHF 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
PHF Volume:	519	344	0	0	375	68	0	0	0	301	1237	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	519	344	0	0	375	68	0	0	0	301	1237	56
PCE 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
MLF 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
FinalVolume:	519	344	0	0	375	68	0	0	0	301	1237	56
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.69	0.31	0.00	0.00	0.00	0.57	2.33	0.10
Final Sat.:	2880	3200	0	0	2708	492	0	0	0	907	3724	169
Capacity Analysis Module:												
Vol/Sat:	0.18	0.11	0.00	0.00	0.14	0.14	0.00	0.00	0.00	0.19	0.33	0.33
Crit Moves:	****				****						****	

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.843
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	78	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	315	790	164	127	483	40	32	941	307	20	96	41
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	333	836	174	134	511	42	34	996	325	21	102	43
Added Vol:	0	0	12	20	9	0	0	120	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	333	836	186	154	520	42	34	1116	325	21	102	43
User 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
PHF 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
PHF Volume:	333	836	186	154	520	42	34	1116	325	21	102	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	333	836	186	154	520	42	34	1116	325	21	102	43
PCE 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
MLF 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
FinalVolume:	333	836	186	154	520	42	34	1116	325	21	102	43
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.85	0.15	0.07	2.27	0.66	0.25	1.23	0.52
Final Sat.:	1600	4800	1600	1600	2959	241	110	3632	1058	408	1957	836
Capacity Analysis Module:												
Vol/Sat:	0.21	0.17	0.12	0.10	0.18	0.18	0.31	0.31	0.31	0.05	0.05	0.05
Crit Moves:	****			****					****	****		

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.759
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0	1 1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	81	234	144	146	151	71	456	571	49	0	0	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	86	248	152	155	160	75	483	604	52	0	0	0
Added Vol:	0	8	0	17	6	0	145	6	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	86	256	152	172	166	75	628	610	52	0	0	0
User 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
PHF 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
PHF Volume:	86	256	152	172	166	75	628	610	52	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	86	256	152	172	166	75	628	610	52	0	0	0
PCE 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
MLF 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
FinalVolume:	86	256	152	172	166	75	628	610	52	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.38	0.62	1.00	1.00	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2202	998	1600	1600	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.05	0.16	0.10	0.11	0.08	0.08	0.39	0.38	0.03	0.00	0.00	0.00
Crit Moves:		****		****			****					

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.679
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	48	Level Of Service:	B

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0	1	0	1 1 0
Volume Module:												
Base Vol:	59	99	526	105	223	6	18	84	85	223	509	82
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	61	102	543	108	230	6	19	87	88	230	526	85
Added Vol:	5	0	148	0	0	0	0	24	2	23	113	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	66	102	691	108	230	6	19	111	90	253	639	85
User 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
PHF 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
PHF Volume:	66	102	691	108	230	6	19	111	90	253	639	85
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	102	691	108	230	6	19	111	90	253	639	85
PCE 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
MLF 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
FinalVolume:	66	102	691	108	230	6	19	111	90	253	639	85
OvlAdjVol:			438									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.39	0.61	1.00	0.31	0.67	0.02	1.00	1.00	1.00	1.00	1.77	0.23
Final Sat.:	627	973	1600	503	1068	29	1600	1600	1600	1600	2825	375
Capacity Analysis Module:												
Vol/Sat:	0.04	0.11	0.43	0.07	0.22	0.22	0.01	0.07	0.06	0.16	0.23	0.23
OvlAdjV/S:			0.27									
Crit Moves:			****	****			****				****	

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.510
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	34	Level Of Service:	A

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Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	13	0	9	14	0	13	10	296	4	1	806	150
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	13	0	9	14	0	13	10	306	4	1	832	155
Added Vol:	99	0	8	0	0	0	0	30	125	10	52	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	112	0	17	14	0	13	10	336	129	11	884	155
User 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
PHF 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
PHF Volume:	112	0	17	14	0	13	10	336	129	11	884	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	112	0	17	14	0	13	10	336	129	11	884	155
PCE 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
MLF 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
FinalVolume:	112	0	17	14	0	13	10	336	129	11	884	155
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.44	0.56	1.00	1.70	0.30
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2311	889	1600	2723	477
Capacity Analysis Module:												
Vol/Sat:	0.07	0.00	0.01	0.01	0.00	0.01	0.01	0.15	0.15	0.01	0.32	0.32
Crit Moves:	****					****	****				****	

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Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

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Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

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Cycle (sec):	100	Critical Vol./Cap.(X):	0.664
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	46	Level Of Service:	B

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Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	146	152	147	17	358	37	23	432	235	165	381	2
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	151	157	152	18	370	38	24	446	243	170	393	2
Added Vol:	4	21	33	5	27	0	0	4	3	31	12	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	155	178	185	23	397	38	24	450	246	201	405	4
User 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
PHF 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
PHF Volume:	155	178	185	23	397	38	24	450	246	201	405	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	155	178	185	23	397	38	24	450	246	201	405	4
PCE 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
MLF 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
FinalVolume:	155	178	185	23	397	38	24	450	246	201	405	4
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.29	0.71	1.00	1.98	0.02
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2070	1130	1600	3168	32
Capacity Analysis Module:												
Vol/Sat:	0.10	0.06	0.12	0.01	0.12	0.02	0.01	0.22	0.22	0.13	0.13	0.13
Crit Moves:	****				****			****			****	

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Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	42	Level Of Service:	B

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	1 0	1 0	1	0 1	1 0	1	0 2	1 0
Volume Module:												
Base Vol:	119	227	24	221	416	16	45	317	261	90	449	242
Growth Adj:	1.03	1.06	1.03	1.03	1.05	1.03	1.03	1.03	1.03	1.03	1.05	1.03
Initial Bse:	123	240	25	228	436	17	46	327	270	93	471	250
Added Vol:	20	37	39	2	29	3	3	23	15	19	23	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	143	277	64	230	465	20	49	350	285	112	494	252
User 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
PHF 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
PHF Volume:	143	277	64	230	465	20	49	350	285	112	494	252
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	143	277	64	230	465	20	49	350	285	112	494	252
PCE 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
MLF 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
FinalVolume:	143	277	64	230	465	20	49	350	285	112	494	252
OvlAdjVol:												9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.63	0.37	1.00	1.92	0.08	1.00	1.10	0.90	1.00	2.00	1.00
Final Sat.:	1600	2601	599	1600	3069	131	1600	1766	1434	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.11	0.11	0.14	0.15	0.15	0.03	0.20	0.20	0.07	0.15	0.16
OvlAdjV/S:												0.01
Crit Moves:	****			****			****			****		

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	71	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	0	0 2	1 0	0	0 1!	0 0	0	1 0	0 1
Volume Module:												
Base Vol:	41	412	191	0	920	7	19	4	165	188	14	114
Growth Adj:	1.06	1.06	1.03	1.03	1.06	1.06	1.06	1.03	1.06	1.03	1.03	1.03
Initial Bse:	43	436	197	0	973	7	20	4	175	194	14	118
Added Vol:	154	71	81	0	52	27	21	100	66	21	57	12
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	197	507	278	0	1025	34	41	104	241	215	71	130
User 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
PHF 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
PHF Volume:	197	507	278	0	1025	34	41	104	241	215	71	130
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	197	507	278	0	1025	34	41	104	241	215	71	130
PCE 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
MLF 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
FinalVolume:	197	507	278	0	1025	34	41	104	241	215	71	130
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.90	0.10	0.11	0.27	0.62	0.75	0.25	1.00
Final Sat.:	1600	3200	1600	0	4644	156	170	432	998	1201	399	1600
Capacity Analysis Module:												
Vol/Sat:	0.12	0.16	0.17	0.00	0.22	0.22	0.03	0.24	0.24	0.13	0.18	0.08
Crit Moves:	****				****			****			****	

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.449
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	31	Level Of Service:	A

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	1 0	2 0	2	0 0	1 1	0	0 1	1 0	0	0 2
Volume Module:												
Base Vol:	0	652	8	58	476	0	144	71	158	7	0	44
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.03	1.03	1.03	1.06	1.06	1.06
Initial Bse:	0	690	8	61	503	0	148	73	163	7	0	47
Added Vol:	0	252	0	0	67	0	135	0	21	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	942	8	61	570	0	283	73	184	7	0	47
User 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
PHF 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
PHF Volume:	0	942	8	61	570	0	283	73	184	7	0	47
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	942	8	61	570	0	283	73	184	7	0	47
PCE 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
MLF 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
FinalVolume:	0	942	8	61	570	0	283	73	184	7	0	47
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.97	0.03	2.00	2.00	0.00	1.59	0.41	1.00	1.00	0.00	2.00
Final Sat.:	0	4757	43	2880	3200	0	2543	657	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.20	0.20	0.02	0.18	0.00	0.11	0.11	0.11	0.00	0.00	0.01
Crit Moves:		****		****					****			****

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.719
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	52	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	1 1	0 1	1	0 1	1 0	1	1 1	0 1
Volume Module:												
Base Vol:	3	60	33	373	12	1	6	18	9	86	43	657
Growth Adj:	1.06	1.08	1.06	1.06	1.08	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	3	65	35	395	13	1	6	19	10	91	46	695
Added Vol:	0	5	7	0	8	0	0	0	0	9	0	26
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	70	42	395	21	1	6	19	10	100	46	721
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	70	0	395	21	1	6	19	10	100	46	721
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	3	70	0	395	21	1	6	19	10	100	46	721
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	3	70	0	395	21	1	6	19	10	100	46	721
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.33	0.67	2.00	1.00	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	2133	1067	2880	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.02	0.00	0.14	0.01	0.00	0.00	0.01	0.01	0.03	0.03	0.45
Crit Moves:		****		****				****				****

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.753
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0 1! 0		0	1 0 1! 0		0	1 0 1	1 0	0	0 2	0 2
Volume Module:												
Base Vol:	9	12	9	598	20	78	37	705	21	0	892	1085
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.05	1.03	1.03	1.05	1.03
Initial Bse:	9	12	9	618	21	81	38	740	22	0	936	1121
Added Vol:	0	0	0	4	0	19	42	24	0	0	22	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	12	9	622	21	100	80	764	22	0	958	1126
User 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
PHF 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
PHF Volume:	9	12	9	622	21	100	80	764	22	0	958	1126
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	9	622	21	100	80	764	22	0	958	1126
PCE 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
MLF 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
FinalVolume:	9	12	9	622	21	100	80	764	22	0	958	1126
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.30	0.40	0.30	1.68	0.05	0.27	1.00	1.94	0.06	0.00	2.00	2.00
Final Sat.:	480	640	480	2681	89	429	1600	3112	88	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.23	0.23	0.23	0.05	0.25	0.25	0.00	0.30	0.35
Crit Moves:	****					****	****					****

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

****

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.860
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	83	Level Of Service:	D

****

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	1 0	1	0 1	1 0	0	1 0	0 1	1	0 0	1 1
Volume Module:												
Base Vol:	43	1157	176	196	1278	3	16	13	26	103	22	849
Growth Adj:	1.03	1.05	1.05	1.05	1.05	1.03	1.03	1.05	1.03	1.05	1.05	1.05
Initial Bse:	44	1214	184	205	1341	3	17	14	27	108	23	889
Added Vol:	0	1	5	1	27	0	0	0	0	8	0	26
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	44	1215	189	206	1368	3	17	14	27	116	23	915
User 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
PHF 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
PHF Volume:	44	1215	189	206	1368	3	17	14	27	116	23	915
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	1215	189	206	1368	3	17	14	27	116	23	915
PCE 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
MLF 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
FinalVolume:	44	1215	189	206	1368	3	17	14	27	116	23	915
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.60	0.40	1.00	1.99	0.01	0.55	0.45	1.00	1.00	0.05	1.95
Final Sat.:	1600	4153	647	1600	3193	7	877	723	1600	1600	79	3121
Capacity Analysis Module:												
Vol/Sat:	0.03	0.29	0.29	0.13	0.43	0.43	0.01	0.02	0.02	0.07	0.29	0.29
Crit Moves:	****				****		****				****	

****

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.758
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	58	Level Of Service:	C

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	35	829	41	62	313	723	262	30	131	12	35	70
Growth Adj:	1.06	1.05	1.06	1.06	1.05	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	37	870	43	66	328	765	277	32	139	13	37	74
Added Vol:	1	0	0	0	0	35	6	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	870	43	66	328	800	283	32	140	13	37	74
User 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
PHF 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
PHF Volume:	38	870	43	66	328	800	283	32	140	13	37	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	38	870	43	66	328	800	283	32	140	13	37	74
PCE 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
MLF 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
FinalVolume:	38	870	43	66	328	800	283	32	140	13	37	74
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.90	0.10	1.00	2.00	1.00	1.80	0.20	1.00	0.21	0.79	1.00
Final Sat.:	2880	3048	152	1600	3200	1600	2877	323	1600	328	1272	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.29	0.29	0.04	0.10	0.50	0.10	0.10	0.09	0.04	0.03	0.05
Crit Moves:	****					****		****				****

Mesa Substation
Future With-Project 2019
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #16 Site Access/Potrero Grande Dr

****

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: C[15.8]

****

Street Name:	Potrero Grande Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 1			1 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	310	0	0	832	0
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	0	0	0	0	0	0	0	320	0	0	859	0
Added Vol:	19	0	19	0	0	0	0	137	35	33	118	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	0	19	0	0	0	0	457	35	33	977	0
User 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
PHF 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
PHF Volume:	19	0	19	0	0	0	0	457	35	33	977	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	19	0	19	0	0	0	0	457	35	33	977	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1012	xxxx	229	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	492	xxxx	xxxxx
Potent Cap.:	239	xxxx	780	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1082	xxxx	xxxxx
Move Cap.:	233	xxxx	780	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1082	xxxx	xxxxx
Volume/Cap:	0.08	xxxx	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.3	xxxx	0.1	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	21.8	xxxx	9.7	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx
LOS by Move:	C	*	A	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	15.8			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	C			*			*			*		

****

Note: Queue reported is the number of cars per lane.

****

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	628	610	52	0	0	0	86	256	152	172	166	75
Future Volume (veh/h)	628	610	52	0	0	0	86	256	152	172	166	75
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	675	656	56				92	275	163	185	178	81
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	795	793	710				120	396	336	231	660	289
Arrive On Green	0.44	0.44	0.44				0.07	0.21	0.21	0.13	0.27	0.27
Sat Flow, veh/h	1810	1805	1615				1810	1900	1615	1810	2447	1069
Grp Volume(v), veh/h	675	656	56				92	275	163	185	129	130
Grp Sat Flow(s),veh/h/ln	1810	1805	1615				1810	1900	1615	1810	1805	1711
Q Serve(g_s), s	20.1	19.3	1.2				3.0	8.1	5.3	6.0	3.4	3.6
Cycle Q Clear(g_c), s	20.1	19.3	1.2				3.0	8.1	5.3	6.0	3.4	3.6
Prop In Lane	1.00		1.00				1.00		1.00	1.00		0.62
Lane Grp Cap(c), veh/h	795	793	710				120	396	336	231	487	462
V/C Ratio(X)	0.85	0.83	0.08				0.77	0.69	0.48	0.80	0.27	0.28
Avail Cap(c_a), veh/h	857	855	765				271	584	497	286	570	540
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.1	14.8	9.8				27.6	22.0	21.0	25.5	17.3	17.4
Incr Delay (d2), s/veh	7.6	6.4	0.0				9.8	2.2	1.1	12.3	0.3	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	11.6	10.9	1.5				1.8	4.4	2.5	3.8	1.7	1.7
LnGrp Delay(d),s/veh	22.7	21.2	9.8				37.5	24.2	22.1	37.8	17.6	17.7
LnGrp LOS	C	C	A				D	C	C	D	B	B
Approach Vol, veh/h		1387						530			444	
Approach Delay, s/veh		21.5						25.9			26.0	
Approach LOS		C						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	12.2	17.0		30.9	8.5	20.7		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	9.5	18.5		28.5	9.0	19.0		
Max Q Clear Time (g_c+I1), s	8.0	10.1		22.1	5.0	5.6		
Green Ext Time (p_c), s	0.1	2.5		4.4	0.1	3.2		

Intersection Summary	
HCM 2010 Ctrl Delay	23.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	111	90	253	639	85	66	102	691	108	230	6
Future Volume (veh/h)	19	111	90	253	639	85	66	102	691	108	230	6
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	119	97	272	687	91	71	110	743	116	247	6
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	44	364	309	328	1118	148	271	382	877	201	365	8
Arrive On Green	0.02	0.19	0.19	0.18	0.35	0.35	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	1810	1900	1615	1810	3206	424	478	1057	1615	299	1010	22
Grp Volume(v), veh/h	20	119	97	272	387	391	181	0	743	369	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1825	1535	0	1615	1331	0	0
Q Serve(g_s), s	0.6	2.7	2.6	7.4	9.0	9.0	0.0	0.0	18.4	7.7	0.0	0.0
Cycle Q Clear(g_c), s	0.6	2.7	2.6	7.4	9.0	9.0	3.6	0.0	18.4	11.4	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.23	0.39		1.00	0.31		0.02
Lane Grp Cap(c), veh/h	44	364	309	328	629	636	654	0	877	574	0	0
V/C Ratio(X)	0.46	0.33	0.31	0.83	0.61	0.62	0.28	0.00	0.85	0.64	0.00	0.00
Avail Cap(c_a), veh/h	178	672	572	359	820	829	654	0	877	574	0	0
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	0.00
Uniform Delay (d), s/veh	24.5	17.7	17.7	20.1	13.7	13.7	11.5	0.0	9.8	13.5	0.0	0.0
Incr Delay (d2), s/veh	7.3	0.5	0.6	13.9	1.0	1.0	0.2	0.0	7.8	2.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.5	1.2	4.9	4.6	4.6	1.8	0.0	10.4	4.8	0.0	0.0
LnGrp Delay(d),s/veh	31.7	18.3	18.3	33.9	14.7	14.7	11.7	0.0	17.6	15.9	0.0	0.0
LnGrp LOS	C	B	B	C	B	B	B		B	B		
Approach Vol, veh/h		236			1050			924			369	
Approach Delay, s/veh		19.4			19.7			16.4			15.9	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		22.9	13.7	14.2		22.9	5.7	22.2
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		18.4	10.1	18.0		18.4	5.0	23.1
Max Q Clear Time (g_c+I1), s		20.4	9.4	4.7		13.4	2.6	11.0
Green Ext Time (p_c), s		0.0	0.1	5.0		3.0	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	104	241	215	71	130	197	507	278	0	1025	34
Future Volume (veh/h)	41	104	241	215	71	130	197	507	278	0	1025	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	47	118	274	244	81	148	224	576	316	0	1165	39
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	100	113	188	344	92	646	286	1444	646	0	2062	69
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	283	470	466	230	1615	472	3610	1615	0	5326	173
Grp Volume(v), veh/h	439	0	0	325	0	148	224	576	316	0	781	423
Grp Sat Flow(s),veh/h/ln	752	0	0	697	0	1615	472	1805	1615	0	1729	1870
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	2.4	9.0	4.6	5.8	0.0	7.0	7.0
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	2.4	16.0	4.6	5.8	0.0	7.0	7.0
Prop In Lane	0.11		0.62	0.75		1.00	1.00		1.00	0.00		0.09
Lane Grp Cap(c), veh/h	401	0	0	436	0	646	286	1444	646	0	1383	748
V/C Ratio(X)	1.10	0.00	0.00	0.74	0.00	0.23	0.78	0.40	0.49	0.00	0.56	0.57
Avail Cap(c_a), veh/h	401	0	0	436	0	646	286	1444	646	0	1383	748
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	0.0	0.0	12.7	0.0	7.9	17.9	8.6	9.0	0.0	9.3	9.3
Incr Delay (d2), s/veh	73.3	0.0	0.0	6.8	0.0	0.2	13.2	0.2	0.6	0.0	0.5	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	12.5	0.0	0.0	4.3	0.0	1.1	3.5	2.3	2.6	0.0	3.4	3.7
LnGrp Delay(d),s/veh	83.9	0.0	0.0	19.5	0.0	8.1	31.1	8.7	9.5	0.0	9.8	10.3
LnGrp LOS	F			B		A	C	A	A		A	B
Approach Vol, veh/h		439			473			1116			1204	
Approach Delay, s/veh		83.9			15.9			13.5			10.0	
Approach LOS		F			B			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		9.0		18.0
Green Ext Time (p_c), s		0.0		0.0		6.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	73	184	7	0	47	0	942	8	61	570	0
Future Volume (veh/h)	283	73	184	7	0	47	0	942	8	61	570	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	186	229	192	7	0	49	0	981	8	64	594	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	378	397	337	0	0	0	0	2085	17	223	2050	0
Arrive On Green	0.21	0.21	0.21	0.00	0.00	0.00	0.00	0.39	0.39	0.06	0.57	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5478	43	3510	3705	0
Grp Volume(v), veh/h	186	229	192		0.0		0	639	350	64	594	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1892	1755	1805	0
Q Serve(g_s), s	3.7	4.4	4.3				0.0	5.5	5.6	0.7	3.4	0.0
Cycle Q Clear(g_c), s	3.7	4.4	4.3				0.0	5.5	5.6	0.7	3.4	0.0
Prop In Lane	1.00		1.00				0.00		0.02	1.00		0.00
Lane Grp Cap(c), veh/h	378	397	337				0	1359	743	223	2050	0
V/C Ratio(X)	0.49	0.58	0.57				0.00	0.47	0.47	0.29	0.29	0.00
Avail Cap(c_a), veh/h	812	853	725				0	1784	976	444	2722	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	14.1	14.3	14.3				0.0	9.1	9.1	18.0	4.5	0.0
Incr Delay (d2), s/veh	1.0	1.3	1.5				0.0	0.3	0.5	0.7	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
%ile BackOfQ(50%),veh/ln	1.9	2.4	2.1				0.0	2.6	2.9	0.4	1.7	0.0
LnGrp Delay(d),s/veh	15.1	15.7	15.8				0.0	9.4	9.6	18.7	4.6	0.0
LnGrp LOS	B	B	B					A	A	B	A	
Approach Vol, veh/h		607						989			658	
Approach Delay, s/veh		15.5						9.4			6.0	
Approach LOS		B						A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	7.1	20.3		12.9		27.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.1	20.8		18.1		30.4		
Max Q Clear Time (g_c+I1), s	2.7	7.6		6.4		5.4		
Green Ext Time (p_c), s	0.0	8.3		2.1		12.3		

Intersection Summary	
HCM 2010 Ctrl Delay	10.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	19	10	100	46	721	3	70	42	395	21	1
Future Volume (veh/h)	6	19	10	100	46	721	3	70	42	395	21	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	21	11	109	50	0	3	76	0	429	23	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	83	108	52	423	222	189	142	283	126	759	398	339
Arrive On Green	0.05	0.05	0.05	0.12	0.12	0.00	0.08	0.08	0.00	0.21	0.21	0.00
Sat Flow, veh/h	1810	2361	1143	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	7	16	16	109	50	0	3	76	0	429	23	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1698	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	0.1	0.3	0.3	0.9	0.8	0.0	0.1	0.6	0.0	3.5	0.3	0.0
Cycle Q Clear(g_c), s	0.1	0.3	0.3	0.9	0.8	0.0	0.1	0.6	0.0	3.5	0.3	0.0
Prop In Lane	1.00		0.67	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	83	82	77	423	222	189	142	283	126	759	398	339
V/C Ratio(X)	0.08	0.19	0.21	0.26	0.23	0.00	0.02	0.27	0.00	0.57	0.06	0.00
Avail Cap(c_a), veh/h	995	992	934	1989	1044	888	995	1984	888	1989	1044	888
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.0	15.0	15.1	13.2	13.1	0.0	13.9	14.2	0.0	11.6	10.4	0.0
Incr Delay (d2), s/veh	0.4	1.1	1.3	0.3	0.5	0.0	0.1	0.5	0.0	0.7	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(50%),veh/ln	0.1	0.2	0.2	0.5	0.4	0.0	0.0	0.3	0.0	1.8	0.2	0.0
LnGrp Delay(d),s/veh	15.4	16.1	16.4	13.5	13.6	0.0	14.0	14.7	0.0	12.3	10.4	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		39			159			79			452	
Approach Delay, s/veh		16.1			13.5			14.7			12.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		7.1		6.0		11.4		8.3
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		2.6		2.3		5.5		2.9
Green Ext Time (p_c), s		0.3		0.1		1.4		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	13.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	14	27	116	23	915	44	1215	189	206	1368	3
Future Volume (veh/h)	17	14	27	116	23	915	44	1215	189	206	1368	3
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	15	29	125	0	1001	47	1306	203	222	1471	3
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	133	118	161	497	0	885	79	1710	266	269	1783	4
Arrive On Green	0.27	0.27	0.27	0.27	0.00	0.27	0.04	0.38	0.38	0.15	0.48	0.48
Sat Flow, veh/h	234	432	586	1384	0	3230	1810	4530	704	1810	3696	8
Grp Volume(v), veh/h	62	0	0	125	0	1001	47	997	512	222	718	756
Grp Sat Flow(s),veh/h/ln	1252	0	0	1384	0	1615	1810	1729	1776	1810	1805	1899
Q Serve(g_s), s	0.0	0.0	0.0	2.5	0.0	18.5	1.7	17.0	17.0	8.0	23.1	23.1
Cycle Q Clear(g_c), s	1.8	0.0	0.0	4.3	0.0	18.5	1.7	17.0	17.0	8.0	23.1	23.1
Prop In Lane	0.29		0.47	1.00		1.00	1.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	412	0	0	497	0	885	79	1305	670	269	871	916
V/C Ratio(X)	0.15	0.00	0.00	0.25	0.00	1.13	0.60	0.76	0.76	0.83	0.82	0.82
Avail Cap(c_a), veh/h	412	0	0	497	0	885	134	1317	676	330	883	928
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	0.0	19.2	0.0	24.5	31.7	18.4	18.4	27.9	15.0	15.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	73.0	7.1	2.7	5.1	13.3	6.4	6.1
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	0.9	0.0	0.0	1.9	0.0	17.2	1.0	8.5	9.2	5.0	12.9	13.5
LnGrp Delay(d),s/veh	18.6	0.0	0.0	19.5	0.0	97.5	38.8	21.1	23.5	41.2	21.4	21.1
LnGrp LOS	B			B		F	D	C	C	D	C	C
Approach Vol, veh/h		62			1126			1556			1696	
Approach Delay, s/veh		18.6			88.8			22.4			23.9	
Approach LOS		B			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.5	30.0		23.0	7.4	37.1		23.0
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	12.3	25.7		18.5	5.0	33.0		18.5
Max Q Clear Time (g_c+I1), s	10.0	19.0		3.8	3.7	25.1		20.5
Green Ext Time (p_c), s	0.1	6.3		4.9	0.0	7.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.7
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	32	140	13	37	74	38	870	43	66	328	800
Future Volume (veh/h)	283	32	140	13	37	74	38	870	43	66	328	800
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	333	0	152	14	40	80	41	946	47	72	357	870
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	545	0	243	40	114	132	149	1301	65	111	1409	630
Arrive On Green	0.15	0.00	0.15	0.08	0.08	0.08	0.04	0.37	0.37	0.06	0.39	0.39
Sat Flow, veh/h	3619	0	1615	486	1389	1615	3510	3500	174	1810	3610	1615
Grp Volume(v), veh/h	333	0	152	54	0	80	41	488	505	72	357	870
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1876	0	1615	1755	1805	1869	1810	1805	1615
Q Serve(g_s), s	4.6	0.0	4.7	1.5	0.0	2.6	0.6	12.5	12.5	2.1	3.6	21.0
Cycle Q Clear(g_c), s	4.6	0.0	4.7	1.5	0.0	2.6	0.6	12.5	12.5	2.1	3.6	21.0
Prop In Lane	1.00		1.00	0.26		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	545	0	243	154	0	132	149	671	695	111	1409	630
V/C Ratio(X)	0.61	0.00	0.63	0.35	0.00	0.60	0.27	0.73	0.73	0.65	0.25	1.38
Avail Cap(c_a), veh/h	1211	0	540	627	0	540	326	701	726	172	1409	630
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	0.0	21.4	23.3	0.0	23.9	25.0	14.6	14.6	24.7	11.1	16.4
Incr Delay (d2), s/veh	1.1	0.0	2.6	1.4	0.0	4.4	1.0	3.6	3.5	6.3	0.1	180.9
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	2.4	0.0	2.3	0.8	0.0	1.3	0.3	6.9	7.1	1.2	1.8	40.8
LnGrp Delay(d),s/veh	22.5	0.0	24.1	24.7	0.0	28.2	25.9	18.2	18.1	30.9	11.2	197.3
LnGrp LOS	C		C	C		C	C	B	B	C	B	F
Approach Vol, veh/h		485			134			1034			1299	
Approach Delay, s/veh		23.0			26.8			18.4			136.9	
Approach LOS		C			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.8	24.5		12.6	6.8	25.5		8.9
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	5.1	20.9		18.0	5.0	21.0		18.0
Max Q Clear Time (g_c+I1), s	4.1	14.5		6.7	2.6	23.0		4.6
Green Ext Time (p_c), s	0.0	5.3		1.4	0.0	0.0		0.5

Intersection Summary	
HCM 2010 Ctrl Delay	71.7
HCM 2010 LOS	E

Notes

Intersection: 16: Site Access & E Pomona Blvd

Movement	EB	WB	WB	NB	NB
Directions Served	R	L	T	L	R
Maximum Queue (ft)	2	40	4	43	28
Average Queue (ft)	0	13	0	14	11
95th Queue (ft)	2	39	4	40	31
Link Distance (ft)			400	973	973
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	75	75			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Zone Summary

Zone wide Queuing Penalty: 0

Mesa Substation
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Garfield Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.946
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	130	Level Of Service:	E

Street Name:	Garfield Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	1	0 0	0 0	2	0 1	0 0	0	0 0	0 1	2	0 1
Volume Module:												
Base Vol:	527	760	0	0	733	115	0	0	0	299	984	306
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	544	785	0	0	757	119	0	0	0	309	1016	316
Added Vol:	0	13	0	0	68	12	0	0	0	42	116	70
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	544	798	0	0	825	131	0	0	0	351	1132	386
User 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
PHF 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
PHF Volume:	544	798	0	0	825	131	0	0	0	351	1132	386
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	544	798	0	0	825	131	0	0	0	351	1132	386
PCE 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
MLF 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
FinalVolume:	544	798	0	0	825	131	0	0	0	351	1132	386
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.22	1.78	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.71	2.29	1.00
Final Sat.:	1946	2854	0	0	3200	1600	0	0	0	1135	3665	1600
Capacity Analysis Module:												
Vol/Sat:	0.28	0.28	0.00	0.00	0.26	0.08	0.00	0.00	0.00	0.22	0.31	0.24
Crit Moves:	****			****							****	

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Garfield Avenue/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.132
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Garfield Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	3	0 1	1 1	1	0 0	1 0	2	0 1	1 0	0	0 1
Volume Module:												
Base Vol:	0	1112	331	304	728	0	146	1232	782	23	0	98
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	0	1177	350	322	771	0	155	1304	828	24	0	104
Added Vol:	0	0	29	68	42	0	13	84	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1177	379	390	813	0	168	1388	828	24	0	104
User 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
PHF 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
PHF Volume:	0	1177	379	390	813	0	168	1388	828	24	0	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1177	379	390	813	0	168	1388	828	24	0	104
PCE 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
MLF 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
FinalVolume:	0	1177	379	390	813	0	168	1388	828	24	0	104
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	3.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00	1.00	0.00	1.00
Final Sat.:	0	4800	1600	1600	3200	0	1600	3200	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.24	0.24	0.25	0.00	0.10	0.43	0.52	0.02	0.00	0.06
Crit Moves:		****			****				****	****		

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Wilcox Ave/Pomona Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.760
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	59	Level Of Service:	C

Street Name:	Wilcox Avenue						Pomona Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 0	0	0 1	1 0	0	0 0	0 0	0	1 1	1 0
Volume Module:												
Base Vol:	390	299	0	0	326	22	0	0	0	335	1155	80
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	403	309	0	0	337	23	0	0	0	346	1193	83
Added Vol:	0	0	0	0	35	0	0	0	0	21	228	35
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	403	309	0	0	372	23	0	0	0	367	1421	118
User 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
PHF 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
PHF Volume:	403	309	0	0	372	23	0	0	0	367	1421	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	403	309	0	0	372	23	0	0	0	367	1421	118
PCE 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
MLF 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
FinalVolume:	403	309	0	0	372	23	0	0	0	367	1421	118
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	2.00	0.00	0.00	1.88	0.12	0.00	0.00	0.00	0.58	2.24	0.18
Final Sat.:	2880	3200	0	0	3016	184	0	0	0	924	3579	296
Capacity Analysis Module:												
Vol/Sat:	0.14	0.10	0.00	0.00	0.12	0.12	0.00	0.00	0.00	0.23	0.40	0.40
Crit Moves:	****				****						****	

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Wilcox Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	0.879
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	91	Level Of Service:	D

Street Name:	Wilcox Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Prot+Permit			Prot+Permit			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	1	0 1	1 0	0	1 1	1 0	0	1 0	1 0
Volume Module:												
Base Vol:	111	596	259	143	520	25	54	1308	454	8	25	61
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	117	631	274	151	550	26	57	1384	481	8	26	65
Added Vol:	0	0	21	35	21	0	0	181	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	631	295	186	571	26	57	1565	481	8	26	65
User 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
PHF 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
PHF Volume:	117	631	295	186	571	26	57	1565	481	8	26	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	631	295	186	571	26	57	1565	481	8	26	65
PCE 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
MLF 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
FinalVolume:	117	631	295	186	571	26	57	1565	481	8	26	65
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	1.91	0.09	0.08	2.23	0.69	0.17	0.83	1.00
Final Sat.:	1600	4800	1600	1600	3058	142	130	3573	1097	272	1328	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.13	0.18	0.12	0.19	0.19	0.44	0.44	0.44	0.03	0.02	0.04
Crit Moves:			****	****					****			****

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Markland Dr-Vail Ave/Via Campo

Cycle (sec):	100	Critical Vol./Cap.(X):	1.037
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Markland Drive-Vail Avenue						Via Campo					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	1	0 1	1 0	0 1	1	0 1	0	0 0	0 0
Volume Module:												
Base Vol:	17	202	120	262	262	71	406	1147	158	0	0	0
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	18	214	127	277	277	75	430	1214	167	0	0	0
Added Vol:	0	13	0	55	14	0	225	12	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	227	127	332	291	75	655	1226	167	0	0	0
User 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
PHF 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
PHF Volume:	18	227	127	332	291	75	655	1226	167	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	227	127	332	291	75	655	1226	167	0	0	0
PCE 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
MLF 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
FinalVolume:	18	227	127	332	291	75	655	1226	167	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.59	0.41	0.70	1.30	1.00	0.00	0.00	0.00
Final Sat.:	1600	1600	1600	1600	2544	656	1114	2086	1600	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.01	0.14	0.08	0.21	0.11	0.11	0.41	0.59	0.10	0.00	0.00	0.00
Crit Moves:		****		****				****				

Mesa Substation
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Markland Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.847
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	79	Level Of Service:	D

Street Name:	Markland Drive						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	0	0	1! 0	0	1 0	1 0	1	0	1 1 0
Volume Module:												
Base Vol:	32	61	568	215	197	5	48	52	147	336	465	80
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	33	63	587	222	203	5	50	54	152	347	480	83
Added Vol:	10	0	232	0	0	0	0	34	3	69	261	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	63	819	222	203	5	50	88	155	416	741	83
User 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
PHF 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
PHF Volume:	43	63	819	222	203	5	50	88	155	416	741	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	63	819	222	203	5	50	88	155	416	741	83
PCE 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
MLF 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
FinalVolume:	43	63	819	222	203	5	50	88	155	416	741	83
OvlAdjVol:			403									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.41	0.59	1.00	0.52	0.47	0.01	1.00	1.00	1.00	1.00	1.80	0.20
Final Sat.:	649	951	1600	825	756	19	1600	1600	1600	1600	2879	321
Capacity Analysis Module:												
Vol/Sat:	0.03	0.07	0.51	0.14	0.27	0.27	0.03	0.05	0.10	0.26	0.26	0.26
OvlAdjV/S:			0.25									
Crit Moves:			****	****					****	****		

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Saturn St-Greenwood Ave/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.639
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	43	Level Of Service:	B

Street Name:	Saturn Street-Greenwood Avenue						Potrero Grande Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1 0	1	1 0	1 0	1	1 0	1 1	0	1 0	1 1	0
Volume Module:												
Base Vol:	3	0	3	175	0	12	17	845	1	8	365	26
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	3	0	3	181	0	12	18	873	1	8	377	27
Added Vol:	223	0	17	0	0	0	0	101	221	17	39	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	226	0	20	181	0	12	18	974	222	25	416	27
User 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
PHF 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
PHF Volume:	226	0	20	181	0	12	18	974	222	25	416	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	0	20	181	0	12	18	974	222	25	416	27
PCE 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
MLF 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
FinalVolume:	226	0	20	181	0	12	18	974	222	25	416	27
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.63	0.37	1.00	1.88	0.12
Final Sat.:	1600	1600	1600	1600	1600	1600	1600	2606	594	1600	3006	194
Capacity Analysis Module:												
Vol/Sat:	0.14	0.00	0.01	0.11	0.00	0.01	0.01	0.37	0.37	0.02	0.14	0.14
Crit Moves:	****					****		****		****		

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Del Mar Ave/Hilll Dr/Potrero Grande Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.675
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	47	Level Of Service:	B

Street Name:	Del Mar Ave/Hilll Dr						Potrero Grande Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	0 2	0 1	1	0 1	1 0	1	0 1	1 0
Volume Module:												
Base Vol:	288	467	116	12	210	33	47	598	167	39	646	13
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	297	482	120	12	217	34	49	618	172	40	667	13
Added Vol:	10	53	59	6	43	0	0	18	6	35	14	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	307	535	179	18	260	34	49	636	178	75	681	21
User 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
PHF 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
PHF Volume:	307	535	179	18	260	34	49	636	178	75	681	21
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	307	535	179	18	260	34	49	636	178	75	681	21
PCE 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
MLF 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
FinalVolume:	307	535	179	18	260	34	49	636	178	75	681	21
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	1.56	0.44	1.00	1.94	0.06
Final Sat.:	1600	3200	1600	1600	3200	1600	1600	2498	702	1600	3102	98
Capacity Analysis Module:												
Vol/Sat:	0.19	0.17	0.11	0.01	0.08	0.02	0.03	0.25	0.25	0.05	0.22	0.22
Crit Moves:	****			****			****			****		

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #9 San Gabriel Blvd-Paramount Blvd/Hill Drive

Cycle (sec):	100	Critical Vol./Cap.(X):	0.778
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	62	Level Of Service:	C

Street Name: San Gabriel Boulevard-Paramount B / Hill Drive

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1	1 0	1 0	1 0	1	1 0	1 0	2	1 0
Volume Module:												
Base Vol:	227	471	62	300	392	32	48	456	211	53	453	263
Growth Adj:	1.03	1.06	1.03	1.03	1.05	1.03	1.03	1.03	1.03	1.03	1.05	1.03
Initial Bse:	234	498	64	310	411	33	50	471	218	55	475	272
Added Vol:	27	53	35	2	60	3	8	41	33	50	26	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	261	551	99	312	471	36	58	512	251	105	501	274
User 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
PHF 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
PHF Volume:	261	551	99	312	471	36	58	512	251	105	501	274
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	261	551	99	312	471	36	58	512	251	105	501	274
PCE 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
MLF 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
FinalVolume:	261	551	99	312	471	36	58	512	251	105	501	274
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.70	0.30	1.14	1.73	0.13	1.00	1.34	0.66	1.00	2.00	1.00
Final Sat.:	1600	2713	487	1823	2765	212	1600	2147	1053	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.17	0.17	0.17	0.04	0.24	0.24	0.07	0.16	0.17
OvlAdjV/S:												0.00
Crit Moves:	****			****				****		****		

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #10 Paramount Blvd/SR-60 WB Ramps-Neil Armstrong

Cycle (sec):	100	Critical Vol./Cap.(X):	1.262
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Paramount Boulevard						SR-60 WB Ramps-Neil Armstrong					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	0 0	2 1	0	0 0	1! 0	0	0 1	0 0	1
Volume Module:												
Base Vol:	104	680	438	0	956	26	6	6	97	438	24	324
Growth Adj:	1.06	1.06	1.03	1.03	1.06	1.06	1.06	1.03	1.06	1.03	1.03	1.03
Initial Bse:	110	719	452	0	1011	28	6	6	103	452	25	334
Added Vol:	271	66	46	0	117	47	48	226	150	87	101	18
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	381	785	498	0	1128	75	54	232	253	539	126	352
User 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
PHF 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
PHF Volume:	381	785	498	0	1128	75	54	232	253	539	126	352
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	381	785	498	0	1128	75	54	232	253	539	126	352
PCE 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
MLF 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
FinalVolume:	381	785	498	0	1128	75	54	232	253	539	126	352
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	0.00	2.81	0.19	0.10	0.43	0.47	0.81	0.19	1.00
Final Sat.:	1600	3200	1600	0	4503	297	161	689	750	1297	303	1600
Capacity Analysis Module:												
Vol/Sat:	0.24	0.25	0.31	0.00	0.25	0.25	0.03	0.34	0.34	0.34	0.42	0.22
Crit Moves:	****				****			****			****	

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #11 Paramount Blvd/SR-60 EB Ramps-Town Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.890
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	95	Level Of Service:	D

Street Name:	Paramount Boulevard						SR-60 EB Ramps-Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 2	1	0	2	0 2	0 0	1 1	0	0 1	1	0 0	0 2
Volume Module:												
Base Vol:	0	940	32	144	889	0	222	320	465	34	0	225
Growth Adj:	1.06	1.06	1.06	1.06	1.06	1.06	1.03	1.03	1.03	1.06	1.06	1.06
Initial Bse:	0	994	34	152	940	0	229	330	480	36	0	238
Added Vol:	0	187	0	0	218	0	242	0	87	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1181	34	152	1158	0	471	330	567	36	0	238
User 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
PHF 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
PHF Volume:	0	1181	34	152	1158	0	471	330	567	36	0	238
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1181	34	152	1158	0	471	330	567	36	0	238
PCE 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
MLF 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
FinalVolume:	0	1181	34	152	1158	0	471	330	567	36	0	238
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	2.92	0.08	2.00	2.00	0.00	1.18	0.82	1.00	1.00	0.00	2.00
Final Sat.:	0	4666	134	2880	3200	0	1882	1318	1600	1600	0	3200
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.05	0.36	0.00	0.25	0.25	0.35	0.02	0.00	0.07
Crit Moves:	****				****				****			****

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #12 Montebello Blvd-SR-60 EB ramps/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.773
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Montebello Boulevard - SR-60 EB R						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 1	1	1 1	0 1	1	0 1	1 0	1	1 1	0 1
Volume Module:												
Base Vol:	4	179	172	364	20	5	109	198	11	162	173	573
Growth Adj:	1.06	1.08	1.06	1.06	1.08	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	4	193	182	385	22	5	115	210	12	171	183	606
Added Vol:	0	7	9	1	7	0	0	0	0	9	0	40
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	200	191	386	29	5	115	210	12	180	183	646
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	200	0	386	29	5	115	210	12	180	183	646
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	200	0	386	29	5	115	210	12	180	183	646
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	200	0	386	29	5	115	210	12	180	183	646
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.89	0.11	1.49	1.51	1.00
Final Sat.:	1600	3200	1600	2880	1600	1600	1600	3032	168	2383	2417	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.00	0.13	0.02	0.00	0.07	0.07	0.07	0.08	0.08	0.40
Crit Moves:		****		****			****					****

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #13 Walnut Grove Ave/San Gabriel Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.811
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	69	Level Of Service:	D

Street Name:	Walnut Gove Ave						San Gabriel Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	1! 0	0	1	0 1! 0	0	1	0 1 1 0	0	0	2 0 2
Volume Module:												
Base Vol:	2	12	7	932	29	54	70	713	29	0	833	802
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.05	1.03	1.03	1.05	1.03
Initial Bse:	2	12	7	963	30	56	72	748	30	0	874	828
Added Vol:	0	0	0	6	0	52	40	35	0	0	28	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	12	7	969	30	108	112	783	30	0	902	835
User 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
PHF 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
PHF Volume:	2	12	7	969	30	108	112	783	30	0	902	835
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	12	7	969	30	108	112	783	30	0	902	835
PCE 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
MLF 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
FinalVolume:	2	12	7	969	30	108	112	783	30	0	902	835
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.57	0.33	1.76	0.05	0.19	1.00	1.93	0.07	0.00	2.00	2.00
Final Sat.:	152	914	533	2802	87	312	1600	3082	118	0	3200	3200
Capacity Analysis Module:												
Vol/Sat:	0.01	0.01	0.01	0.35	0.35	0.35	0.07	0.25	0.25	0.00	0.28	0.26
Crit Moves:	****					****	****				****	

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #14 San Gabriel Blvd/SR 60 WB Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.982
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxx
Optimal Cycle:	169	Level Of Service:	E

Street Name:	San Gabriel Boulevard						SR 60 WB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	1	1	0	0	1	0	0	1	1	0	0	1	1
Volume Module:												
Base Vol:	79	727	112	188	1511	12	19	25	83	202	30	875
Growth Adj:	1.03	1.05	1.05	1.05	1.05	1.03	1.03	1.05	1.03	1.05	1.05	1.05
Initial Bse:	82	763	117	197	1585	12	20	26	86	212	31	917
Added Vol:	0	2	7	1	41	0	0	0	0	7	0	32
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	82	765	124	198	1626	12	20	26	86	219	31	949
User 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
PHF 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
PHF Volume:	82	765	124	198	1626	12	20	26	86	219	31	949
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	82	765	124	198	1626	12	20	26	86	219	31	949
PCE 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
MLF 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
FinalVolume:	82	765	124	198	1626	12	20	26	86	219	31	949
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.58	0.42	1.00	1.98	0.02	0.43	0.57	1.00	1.00	0.06	1.94
Final Sat.:	1600	4129	671	1600	3176	24	685	915	1600	1600	103	3097
Capacity Analysis Module:												
Vol/Sat:	0.05	0.19	0.19	0.12	0.51	0.51	0.01	0.03	0.05	0.14	0.31	0.31
Crit Moves:	****				****		****				****	

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #15 San Gabriel Blvd/Town Center Dr

Cycle (sec):	100	Critical Vol./Cap.(X):	0.950
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	133	Level Of Service:	E

Street Name:	San Gabriel Boulevard						Town Center Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 1	1 0	1	0 2	0 1	1	1 0	0 1	0	1 0	1 0
Volume Module:												
Base Vol:	30	469	14	42	863	854	376	46	321	20	23	46
Growth Adj:	1.06	1.05	1.06	1.06	1.05	1.06	1.06	1.06	1.06	1.06	1.06	1.06
Initial Bse:	32	492	15	44	905	904	398	49	340	21	24	49
Added Vol:	1	0	0	0	0	48	9	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	492	15	44	905	952	407	49	341	21	24	49
User 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
PHF 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
PHF Volume:	33	492	15	44	905	952	407	49	341	21	24	49
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	492	15	44	905	952	407	49	341	21	24	49
PCE 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
MLF 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
FinalVolume:	33	492	15	44	905	952	407	49	341	21	24	49
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	0.90	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.94	0.06	1.00	2.00	1.00	1.79	0.21	1.00	0.45	0.55	1.00
Final Sat.:	2880	3106	94	1600	3200	1600	2858	342	1600	719	881	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.16	0.16	0.03	0.28	0.59	0.14	0.14	0.21	0.03	0.03	0.03
Crit Moves:	****					****			****			****

Mesa Substation
Future 2019 With-Project
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #16 Site Access/Potrero Grande Dr

Average Delay (sec/veh): 5.2 Worst Case Level Of Service: F[62.3]

Street Name:	Potrero Grande Drive						Site Access					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 0 0 1			0 0 0 0 0			0 0 2 0 1			1 0 2 0 0		
Volume Module:												
Base Vol:	0	0	0	0	0	0	0	863	0	0	380	0
Growth Adj:	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
Initial Bse:	0	0	0	0	0	0	0	891	0	0	392	0
Added Vol:	88	0	75	0	0	0	0	247	19	19	243	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	88	0	75	0	0	0	0	1138	19	19	635	0
User 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
PHF 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
PHF Volume:	88	0	75	0	0	0	0	1138	19	19	635	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	88	0	75	0	0	0	0	1138	19	19	635	0
Critical Gap Module:												
Critical Gp:	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	1494	xxxx	569	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1157	xxxx	xxxxx
Potent Cap.:	116	xxxx	470	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	611	xxxx	xxxxx
Move Cap.:	113	xxxx	470	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	611	xxxx	xxxxx
Volume/Cap:	0.78	xxxx	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.03	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	4.4	xxxx	0.6	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	103.4	xxxx	14.1	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	11.1	xxxx	xxxxx
LOS by Move:	F	*	B	*	*	*	*	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	62.3			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	F			*			*			*		

Note: Queue reported is the number of cars per lane.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	655	1226	167	0	0	0	18	227	127	332	291	75
Future Volume (veh/h)	655	1226	167	0	0	0	18	227	127	332	291	75
Number	7	4	14				5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900				1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	689	1291	176				19	239	134	349	306	79
Adj No. of Lanes	0	2	1				1	1	1	1	2	0
Peak Hour Factor	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
Cap, veh/h	663	1361	897				36	275	234	336	886	225
Arrive On Green	0.56	0.56	0.56				0.02	0.14	0.14	0.19	0.31	0.31
Sat Flow, veh/h	1194	2451	1615				1810	1900	1615	1810	2852	725
Grp Volume(v), veh/h	1062	918	176				19	239	134	349	192	193
Grp Sat Flow(s),veh/h/ln	1840	1805	1615				1810	1900	1615	1810	1805	1772
Q Serve(g_s), s	65.5	54.3	6.4				1.2	14.5	9.1	21.9	9.7	9.9
Cycle Q Clear(g_c), s	65.5	54.3	6.4				1.2	14.5	9.1	21.9	9.7	9.9
Prop In Lane	0.65		1.00				1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	1022	1002	897				36	275	234	336	561	550
V/C Ratio(X)	1.04	0.92	0.20				0.53	0.87	0.57	1.04	0.34	0.35
Avail Cap(c_a), veh/h	1022	1002	897				84	308	262	336	561	550
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	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	23.7	13.1				57.3	49.4	47.1	48.0	31.4	31.5
Incr Delay (d2), s/veh	38.9	12.7	0.1				11.9	21.0	2.4	59.5	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
%ile BackOfQ(50%),veh/ln	44.0	30.3	8.3				0.7	9.2	4.2	16.5	4.9	4.9
LnGrp Delay(d),s/veh	65.1	36.5	13.2				69.2	70.3	49.5	107.6	31.7	31.8
LnGrp LOS	F	D	B				E	E	D	F	C	C
Approach Vol, veh/h		2156						392			734	
Approach Delay, s/veh		48.7						63.1			67.8	
Approach LOS		D						E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		
Phs Duration (G+Y+Rc), s	26.4	21.6		70.0	6.8	41.1		
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		
Max Green Setting (Gmax), s	21.9	19.1		65.5	5.5	35.5		
Max Q Clear Time (g_c+I1), s	23.9	16.5		67.5	3.2	11.9		
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	4.3		

Intersection Summary	
HCM 2010 Ctrl Delay	54.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	88	155	416	741	83	43	63	819	222	203	5
Future Volume (veh/h)	50	88	155	416	741	83	43	63	819	222	203	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	93	163	438	780	87	45	66	862	234	214	5
Adj No. of Lanes	1	1	1	1	2	0	0	1	1	0	1	0
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	77	319	271	482	1282	143	266	368	1078	237	175	4
Arrive On Green	0.04	0.17	0.17	0.27	0.39	0.39	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1810	1900	1615	1810	3275	365	509	916	1615	426	435	10
Grp Volume(v), veh/h	53	93	163	438	430	437	111	0	862	453	0	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615	1810	1805	1836	1425	0	1615	870	0	0
Q Serve(g_s), s	2.4	3.5	7.7	19.3	15.6	15.6	0.0	0.0	31.3	29.9	0.0	0.0
Cycle Q Clear(g_c), s	2.4	3.5	7.7	19.3	15.6	15.6	3.1	0.0	31.3	33.0	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.20	0.41		1.00	0.52		0.01
Lane Grp Cap(c), veh/h	77	319	271	482	707	719	634	0	1078	416	0	0
V/C Ratio(X)	0.69	0.29	0.60	0.91	0.61	0.61	0.18	0.00	0.80	1.09	0.00	0.00
Avail Cap(c_a), veh/h	150	416	354	561	806	820	634	0	1078	416	0	0
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	0.00
Uniform Delay (d), s/veh	38.8	29.9	31.6	29.2	20.0	20.0	15.6	0.0	9.7	27.8	0.0	0.0
Incr Delay (d2), s/veh	10.3	0.5	2.1	17.3	1.1	1.0	0.1	0.0	4.4	70.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.9	3.6	11.9	8.0	8.1	1.6	0.0	15.0	17.5	0.0	0.0
LnGrp Delay(d),s/veh	49.1	30.4	33.8	46.5	21.0	21.0	15.8	0.0	14.1	98.1	0.0	0.0
LnGrp LOS	D	C	C	D	C	C	B		B	F		
Approach Vol, veh/h		309			1305			973			453	
Approach Delay, s/veh		35.4			29.6			14.3			98.1	
Approach LOS		D			C			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2	3	4		6	7	8
Phs Duration (G+Y+Rc), s		37.5	26.4	18.3		37.5	8.0	36.7
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5	4.5	4.5
Max Green Setting (Gmax), s		33.0	25.5	18.0		33.0	6.8	36.7
Max Q Clear Time (g_c+I1), s		33.3	21.3	9.7		35.0	4.4	17.6
Green Ext Time (p_c), s		0.0	0.6	4.1		0.0	0.0	6.7

Intersection Summary	
HCM 2010 Ctrl Delay	35.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	232	253	539	126	352	381	785	498	0	1128	75
Future Volume (veh/h)	54	232	253	539	126	352	381	785	498	0	1128	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	0	1900	1900
Adj Flow Rate, veh/h	59	255	278	592	138	387	419	863	547	0	1240	82
Adj No. of Lanes	0	1	0	0	1	1	1	2	1	0	3	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	146	129	354	45	646	265	1444	646	0	1989	131
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.40	0.40
Sat Flow, veh/h	0	365	323	478	111	1615	422	3610	1615	0	5142	329
Grp Volume(v), veh/h	592	0	0	730	0	387	419	863	547	0	862	460
Grp Sat Flow(s),veh/h/ln	688	0	0	589	0	1615	422	1805	1615	0	1729	1842
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	7.6	8.0	7.5	12.3	0.0	8.0	8.0
Cycle Q Clear(g_c), s	16.0	0.0	0.0	16.0	0.0	7.6	16.0	7.5	12.3	0.0	8.0	8.0
Prop In Lane	0.10		0.47	0.81		1.00	1.00		1.00	0.00		0.18
Lane Grp Cap(c), veh/h	374	0	0	399	0	646	265	1444	646	0	1383	737
V/C Ratio(X)	1.58	0.00	0.00	1.83	0.00	0.60	1.58	0.60	0.85	0.00	0.62	0.62
Avail Cap(c_a), veh/h	374	0	0	399	0	646	265	1444	646	0	1383	737
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	0.0	0.0	15.3	0.0	9.5	18.7	9.5	10.9	0.0	9.6	9.6
Incr Delay (d2), s/veh	274.4	0.0	0.0	383.5	0.0	1.5	280.0	0.7	10.2	0.0	0.9	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	32.6	0.0	0.0	46.8	0.0	3.6	23.4	3.9	7.1	0.0	3.9	4.3
LnGrp Delay(d),s/veh	284.9	0.0	0.0	398.7	0.0	11.0	298.7	10.1	21.1	0.0	10.5	11.2
LnGrp LOS	F			F		B	F	B	C		B	B
Approach Vol, veh/h		592			1117			1829			1322	
Approach Delay, s/veh		284.9			264.4			79.5			10.7	
Approach LOS		F			F			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.0		20.0		20.0		20.0
Change Period (Y+Rc), s		4.0		4.0		4.0		4.0
Max Green Setting (Gmax), s		16.0		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		18.0		18.0		10.0		18.0
Green Ext Time (p_c), s		0.0		0.0		5.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	128.3
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	471	330	567	36	0	238	0	1181	34	152	1158	0
Future Volume (veh/h)	471	330	567	36	0	238	0	1181	34	152	1158	0
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	0	1900	0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	418	447	591	38	0	248	0	1230	35	158	1206	0
Adj No. of Lanes	1	1	1	1	0	2	0	3	0	2	2	0
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	649	681	579	0	0	0	0	1884	54	253	1819	0
Arrive On Green	0.36	0.36	0.36	0.00	0.00	0.00	0.00	0.36	0.36	0.07	0.50	0.00
Sat Flow, veh/h	1810	1900	1615		0		0	5355	148	3510	3705	0
Grp Volume(v), veh/h	418	447	591		0.0		0	820	445	158	1206	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1615				0	1729	1874	1755	1805	0
Q Serve(g_s), s	12.6	12.9	23.5				0.0	13.0	13.0	2.9	16.3	0.0
Cycle Q Clear(g_c), s	12.6	12.9	23.5				0.0	13.0	13.0	2.9	16.3	0.0
Prop In Lane	1.00		1.00				0.00		0.08	1.00		0.00
Lane Grp Cap(c), veh/h	649	681	579				0	1256	681	253	1819	0
V/C Ratio(X)	0.64	0.66	1.02				0.00	0.65	0.65	0.63	0.66	0.00
Avail Cap(c_a), veh/h	649	681	579				0	1319	715	295	1928	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)	1.00	1.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.5	17.6	21.0				0.0	17.4	17.4	29.5	12.1	0.0
Incr Delay (d2), s/veh	2.2	2.3	42.6				0.0	1.1	2.0	3.2	0.8	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	6.7	7.1	17.2				0.0	6.3	7.0	1.5	8.2	0.0
LnGrp Delay(d),s/veh	19.7	19.9	63.6				0.0	18.5	19.4	32.7	12.9	0.0
LnGrp LOS	B	B	F					B	B	C	B	
Approach Vol, veh/h		1456						1265			1364	
Approach Delay, s/veh		37.6						18.8			15.2	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	9.2	28.3		28.0		37.5		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	5.5	25.0		23.5		35.0		
Max Q Clear Time (g_c+I1), s	4.9	15.0		25.5		18.3		
Green Ext Time (p_c), s	0.0	8.8		0.0		13.9		

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	115	210	12	180	183	646	4	200	191	386	29	5
Future Volume (veh/h)	115	210	12	180	183	646	4	200	191	386	29	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	121	221	13	214	158	0	4	211	0	406	31	0
Adj No. of Lanes	1	2	0	2	1	1	1	2	1	2	1	1
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	249	476	28	549	288	245	208	416	186	651	342	290
Arrive On Green	0.14	0.14	0.14	0.15	0.15	0.00	0.12	0.12	0.00	0.18	0.18	0.00
Sat Flow, veh/h	1810	3466	203	3619	1900	1615	1810	3610	1615	3619	1900	1615
Grp Volume(v), veh/h	121	114	120	214	158	0	4	211	0	406	31	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1864	1810	1900	1615	1810	1805	1615	1810	1900	1615
Q Serve(g_s), s	2.7	2.5	2.6	2.3	3.3	0.0	0.1	2.4	0.0	4.5	0.6	0.0
Cycle Q Clear(g_c), s	2.7	2.5	2.6	2.3	3.3	0.0	0.1	2.4	0.0	4.5	0.6	0.0
Prop In Lane	1.00		0.11	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	248	256	549	288	245	208	416	186	651	342	290
V/C Ratio(X)	0.49	0.46	0.47	0.39	0.55	0.00	0.02	0.51	0.00	0.62	0.09	0.00
Avail Cap(c_a), veh/h	753	751	775	1505	790	672	753	1502	672	1505	790	672
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.3	17.2	17.2	16.5	17.0	0.0	17.0	18.0	0.0	16.4	14.8	0.0
Incr Delay (d2), s/veh	1.5	1.3	1.3	0.5	1.6	0.0	0.0	1.0	0.0	1.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.3	1.4	1.2	1.9	0.0	0.0	1.2	0.0	2.3	0.3	0.0
LnGrp Delay(d),s/veh	18.7	18.5	18.5	17.0	18.6	0.0	17.0	19.0	0.0	17.4	14.9	0.0
LnGrp LOS	B	B	B	B	B		B	B		B	B	
Approach Vol, veh/h		355			372			215			437	
Approach Delay, s/veh		18.6			17.7			18.9			17.2	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		9.5		10.4		12.3		11.1
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.4		4.7		6.5		5.3
Green Ext Time (p_c), s		1.0		1.4		1.3		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	26	86	219	31	949	82	765	124	198	1626	12
Future Volume (veh/h)	20	26	86	219	31	949	82	765	124	198	1626	12
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	27	89	226	0	999	85	789	128	204	1676	12
Adj No. of Lanes	0	1	0	1	0	2	1	3	0	1	2	0
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	80	101	235	416	0	787	110	1995	321	249	1911	14
Arrive On Green	0.24	0.24	0.24	0.24	0.00	0.24	0.06	0.44	0.44	0.14	0.52	0.52
Sat Flow, veh/h	106	414	964	1296	0	3230	1810	4504	726	1810	3674	26
Grp Volume(v), veh/h	137	0	0	226	0	999	85	604	313	204	823	865
Grp Sat Flow(s),veh/h/ln	1485	0	0	1296	0	1615	1810	1729	1772	1810	1805	1895
Q Serve(g_s), s	0.0	0.0	0.0	6.7	0.0	18.7	3.6	9.1	9.2	8.4	30.9	30.9
Cycle Q Clear(g_c), s	5.1	0.0	0.0	11.8	0.0	18.7	3.6	9.1	9.2	8.4	30.9	30.9
Prop In Lane	0.15		0.65	1.00		1.00	1.00		0.41	1.00		0.01
Lane Grp Cap(c), veh/h	416	0	0	416	0	787	110	1531	785	249	939	986
V/C Ratio(X)	0.33	0.00	0.00	0.54	0.00	1.27	0.78	0.39	0.40	0.82	0.88	0.88
Avail Cap(c_a), veh/h	416	0	0	416	0	787	130	1531	785	403	995	1044
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	0.0	26.3	0.0	29.0	35.5	14.4	14.5	32.2	16.3	16.3
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.5	0.0	131.4	21.6	0.2	0.3	6.8	8.6	8.3
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	2.5	0.0	0.0	4.5	0.0	22.7	2.4	4.3	4.5	4.7	17.3	18.4
LnGrp Delay(d),s/veh	24.3	0.0	0.0	27.8	0.0	160.4	57.1	14.6	14.8	39.0	24.9	24.6
LnGrp LOS	C			C		F	E	B	B	D	C	C
Approach Vol, veh/h		137			1225			1002			1892	
Approach Delay, s/veh		24.3			135.9			18.3			26.3	
Approach LOS		C			F			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	15.1	38.5		23.2	9.1	44.4		23.2
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	17.1	30.7		18.7	5.5	42.3		18.7
Max Q Clear Time (g_c+I1), s	10.4	11.2		7.1	5.6	32.9		20.7
Green Ext Time (p_c), s	0.3	16.5		5.1	0.0	7.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	55.9
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	407	49	341	21	24	49	33	492	15	44	905	952
Future Volume (veh/h)	407	49	341	21	24	49	33	492	15	44	905	952
Number	7	4	14	3	8	18	5	2	12	1	6	16
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
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	465	0	359	22	25	52	35	518	16	46	953	1002
Adj No. of Lanes	2	0	1	0	2	0	2	2	0	1	2	1
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	881	0	393	51	58	95	122	1476	46	75	1514	678
Arrive On Green	0.24	0.00	0.24	0.06	0.06	0.06	0.03	0.41	0.41	0.04	0.42	0.42
Sat Flow, veh/h	3619	0	1615	869	988	1615	3510	3575	110	1810	3610	1615
Grp Volume(v), veh/h	465	0	359	47	0	52	35	261	273	46	953	1002
Grp Sat Flow(s),veh/h/ln	1810	0	1615	1857	0	1615	1755	1805	1881	1810	1805	1615
Q Serve(g_s), s	8.2	0.0	16.0	1.8	0.0	2.3	0.7	7.3	7.4	1.8	15.4	31.0
Cycle Q Clear(g_c), s	8.2	0.0	16.0	1.8	0.0	2.3	0.7	7.3	7.4	1.8	15.4	31.0
Prop In Lane	1.00		1.00	0.47		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	881	0	393	109	0	95	122	745	776	75	1514	678
V/C Ratio(X)	0.53	0.00	0.91	0.43	0.00	0.55	0.29	0.35	0.35	0.61	0.63	1.48
Avail Cap(c_a), veh/h	882	0	393	452	0	393	238	745	776	159	1514	678
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	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	0.0	27.2	33.6	0.0	33.8	34.8	14.9	14.9	34.8	16.9	21.4
Incr Delay (d2), s/veh	0.6	0.0	25.2	2.7	0.0	4.8	1.3	0.3	0.3	7.9	0.8	223.4
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	4.2	0.0	9.8	1.0	0.0	1.2	0.4	3.7	3.8	1.1	7.7	55.6
LnGrp Delay(d),s/veh	24.9	0.0	52.4	36.2	0.0	38.7	36.1	15.2	15.2	42.8	17.8	244.9
LnGrp LOS	C		D	D		D	D	B	B	D	B	F
Approach Vol, veh/h		824			99			569			2001	
Approach Delay, s/veh		36.9			37.5			16.5			132.1	
Approach LOS		D			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	35.0		22.5	7.1	35.5		8.8
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s	6.5	29.5		18.0	5.0	31.0		18.0
Max Q Clear Time (g_c+I1), s	3.8	9.4		18.0	2.7	33.0		4.3
Green Ext Time (p_c), s	0.0	15.0		0.0	0.0	0.0		0.4

Intersection Summary		
HCM 2010 Ctrl Delay		88.1
HCM 2010 LOS		F

Notes

Intersection: 16: Site Access & E Pomona Blvd

Movement	EB	WB	NB	NB
Directions Served	R	L	L	R
Maximum Queue (ft)	4	50	190	72
Average Queue (ft)	0	13	73	32
95th Queue (ft)	2	40	162	59
Link Distance (ft)			3608	3608
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	75	75		
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Zone Summary

Zone wide Queuing Penalty: 0

Appendix C: HCS Worksheets

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Dennis Pascua
Agency/Co:	City of Monterey Park
Date:	7/17/2015
Analysis Period:	AM Peak Hour
Highway:	Potrero Grande Drive
From/To:	Markland Dr to Greenwood Ave
Jurisdiction:	City of Monterey Park
Analysis Year:	Existing 2015
Project ID:	SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	310	vph	832	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	84		226	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	172	pcphpl	463	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	172	pcphpl	463	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	A		A	
Density, D	3.4	pc/mi/ln	8.4	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp		55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	168.5	452.2
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	2.77	3.27
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Dennis Pascua
Agency/Co:	City of Monterey Park
Date:	7/17/2015
Analysis Period:	PM Peak Hour
Highway:	Potrero Grande Drive
From/To:	Markland Dr to Greenwood Ave
Jurisdiction:	City of Monterey Park
Analysis Year:	Existing 2015
Project ID:	SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	863	vph	380	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	235		103	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	480	pcphpl	211	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	480	pcphpl	211	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	A		A	
Density, D	9.6	pc/mi/ln	3.8	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	469.0	206.5
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	3.29	2.88
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: AM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2016
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	448	vph	957	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	122		260	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	249	pcphpl	533	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	249	pcphpl	533	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	A		A	
Density, D	5.0	pc/mi/ln	9.7	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	243.5	520.1
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	2.96	3.34
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Dennis Pascua
Agency/Co:	City of Monterey Park
Date:	7/17/2015
Analysis Period:	PM Peak Hour
Highway:	Potrero Grande Drive
From/To:	Markland Dr to Greenwood Ave
Jurisdiction:	City of Monterey Park
Analysis Year:	Future 2016
Project ID:	SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	1117	vph	626	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	304		170	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	622	pcphpl	348	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	622	pcphpl	348	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	B		A	
Density, D	12.4	pc/mi/ln	6.3	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	607.1	340.2
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	3.42	3.13
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: AM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2016 + Phase 1
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	479	vph	1022	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	130		278	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	266	pcphpl	569	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	266	pcphpl	569	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	A		A	
Density, D	5.3	pc/mi/ln	10.3	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	260.3	555.4
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	2.99	3.38
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: PM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2016 + Phase 1
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	1296	vph	657	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	352		179	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	721	pcphpl	365	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	721	pcphpl	365	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	B		A	
Density, D	14.4	pc/mi/ln	6.6	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	704.3	357.1
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	3.50	3.15
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: AM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2018
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	453	vph	970	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	123		264	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	252	pcphpl	540	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	252	pcphpl	540	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	A		A	
Density, D	5.0	pc/mi/ln	9.8	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	246.2	527.2
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	2.96	3.35
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: PM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2018
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	1131	vph	632	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	307		172	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	630	pcphpl	352	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	630	pcphpl	352	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	B		A	
Density, D	12.6	pc/mi/ln	6.4	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	614.7	343.5
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	3.43	3.13
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: AM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2018 + Phase 2
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	459	vph	998	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	125		271	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	255	pcphpl	555	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	255	pcphpl	555	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	A		A	
Density, D	5.1	pc/mi/ln	10.1	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	249.5	542.4
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	2.97	3.36
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: PM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2018 + Phase 2
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	1224	vph	638	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	333		173	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	681	pcphpl	355	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	681	pcphpl	355	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	B		A	
Density, D	13.6	pc/mi/ln	6.5	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	665.2	346.7
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	3.47	3.14
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Dennis Pascua
Agency/Co:	City of Monterey Park
Date:	7/17/2015
Analysis Period:	AM Peak Hour
Highway:	Potrero Grande Drive
From/To:	Markland Dr to Greenwood Ave
Jurisdiction:	City of Monterey Park
Analysis Year:	Future 2019
Project ID:	SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	456	vph	976	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	124		265	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	254	pcphpl	543	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	254	pcphpl	543	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	A		A	
Density, D	5.1	pc/mi/ln	9.9	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	247.8	530.4
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	2.97	3.35
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Dennis Pascua
Agency/Co:	City of Monterey Park
Date:	7/17/2015
Analysis Period:	PM Peak Hour
Highway:	Potrero Grande Drive
From/To:	Markland Dr to Greenwood Ave
Jurisdiction:	City of Monterey Park
Analysis Year:	Future 2019
Project ID:	SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	1139	vph	635	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	310		173	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	634	pcphpl	353	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	634	pcphpl	353	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	B		A	
Density, D	12.7	pc/mi/ln	6.4	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	619.0	345.1
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	3.43	3.14
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: AM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2019 + Phase 3
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	475	vph	1009	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	129		274	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	264	pcphpl	562	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	264	pcphpl	562	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	A		A	
Density, D	5.3	pc/mi/ln	10.2	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	258.2	548.4
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	2.99	3.37
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua
Agency/Co: City of Monterey Park
Date: 7/17/2015
Analysis Period: PM Peak Hour
Highway: Potrero Grande Drive
From/To: Markland Dr to Greenwood Ave
Jurisdiction: City of Monterey Park
Analysis Year: Future 2019 + Phase 3
Project ID: SCE Mesa Substation

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	5		9	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	50.0	mph	55.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	1.3	mph	2.3	mph
Free-flow speed	48.8	mph	52.8	mph

VOLUME

Direction	1		2	
Volume, V	1214	vph	654	vph
Peak-hour factor, PHF	0.92		0.92	
Peak 15-minute volume, v15	330		178	
Trucks and buses	5	%	5	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Grade	
Grade	2.00	%	-2.00	%
Segment length	0.65	mi	0.65	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	1.2		1.2	
Heavy vehicle adjustment, fHV	0.976		0.976	
Flow rate, vp	676	pcphpl	364	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	676	pcphpl	364	pcphpl
Free-flow speed, FFS	48.8	mph	52.8	mph
Avg. passenger-car travel speed, S	50.0	mph	55.0	mph
Level of service, LOS	B		A	
Density, D	13.5	pc/mi/ln	6.6	pc/mi/ln

Bicycle Level of Service

Posted speed limit, Sp	55	55
Percent of segment with occupied on-highway parking	0	0
Pavement rating, P	3	3
Flow rate in outside lane, vOL	659.8	355.4
Effective width of outside lane, We	24.00	24.00
Effective speed factor, St	4.79	4.79
Bicycle LOS Score, BLOS	3.46	3.15
Bicycle LOS	C	C

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6700	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1782	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1826	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1826	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.4	mi/h
Number of lanes, N	4	
Density, D	29.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6740	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1793	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1837	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1837	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	4	
Density, D	29.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6792	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1806	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1852	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1852	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.1	mi/h
Number of lanes, N	4	
Density, D	29.8	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6740	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1793	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1837	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1837	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	4	
Density, D	29.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6759	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1798	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1843	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1843	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.2	mi/h
Number of lanes, N	4	
Density, D	29.6	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6740	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1793	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1837	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1837	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	4	
Density, D	29.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6767	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1800	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1845	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1845	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.2	mi/h
Number of lanes, N	4	
Density, D	29.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9500	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2527	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2590	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2590	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	44.9	mi/h
Number of lanes, N	4	
Density, D	57.7	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9543	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2538	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2601	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2601	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	44.5	mi/h
Number of lanes, N	4	
Density, D	58.4	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9574	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2546	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2610	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2610	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	44.2	mi/h
Number of lanes, N	4	
Density, D	59.0	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9543	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2538	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2601	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2601	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	44.5	mi/h
Number of lanes, N	4	
Density, D	58.4	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9549	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2540	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2603	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2603	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	44.5	mi/h
Number of lanes, N	4	
Density, D	58.5	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9543	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2538	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2601	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2601	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	44.5	mi/h
Number of lanes, N	4	
Density, D	58.4	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9562	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2543	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2607	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2607	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	44.3	mi/h
Number of lanes, N	4	
Density, D	58.8	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7700	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2048	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2099	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2099	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	58.1	mi/h
Number of lanes, N	4	
Density, D	36.1	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7779	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2069	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2121	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2121	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.6	mi/h
Number of lanes, N	4	
Density, D	36.8	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7810	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2077	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2129	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2129	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.5	mi/h
Number of lanes, N	4	
Density, D	37.0	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7779	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2069	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2121	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2121	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.6	mi/h
Number of lanes, N	4	
Density, D	36.8	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7785	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2070	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2122	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2122	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.6	mi/h
Number of lanes, N	4	
Density, D	36.8	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7779	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2069	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2121	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2121	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.6	mi/h
Number of lanes, N	4	
Density, D	36.8	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7797	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2074	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2126	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2126	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	57.5	mi/h
Number of lanes, N	4	
Density, D	37.0	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8500	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2261	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2317	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2317	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	53.1	mi/h
Number of lanes, N	4	
Density, D	43.7	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8574	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2280	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2337	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2337	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	52.6	mi/h
Number of lanes, N	4	
Density, D	44.5	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8698	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2313	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2371	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2371	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	51.6	mi/h
Number of lanes, N	4	
Density, D	45.9	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8574	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2280	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2337	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2337	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	52.6	mi/h
Number of lanes, N	4	
Density, D	44.5	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8635	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2297	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2354	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2354	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	52.1	mi/h
Number of lanes, N	4	
Density, D	45.2	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8574	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2280	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2337	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2337	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	52.6	mi/h
Number of lanes, N	4	
Density, D	44.5	pc/mi/ln
Level of service, LOS	E	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Westbound
From/To:	West of Garfield
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8628	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2295	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2352	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2352	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	52.1	mi/h
Number of lanes, N	4	
Density, D	45.1	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6300	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1676	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1374	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1374	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6494	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1727	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1416	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1416	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.8	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6494	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1727	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1416	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1416	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.8	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6525	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1735	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1423	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1423	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6525	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1735	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1423	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1423	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6540	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1739	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1426	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1426	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6540	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1739	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1426	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1426	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9000	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2394	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1963	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1963	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	60.5	mi/h
Number of lanes, N	5	
Density, D	32.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9205	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2448	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2007	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2007	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.8	mi/h
Number of lanes, N	5	
Density, D	33.6	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9216	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2451	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2010	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2010	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.7	mi/h
Number of lanes, N	5	
Density, D	33.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9210	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2449	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2009	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2009	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.7	mi/h
Number of lanes, N	5	
Density, D	33.6	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9217	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2451	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2010	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2010	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.7	mi/h
Number of lanes, N	5	
Density, D	33.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9215	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2451	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2010	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2010	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.7	mi/h
Number of lanes, N	5	
Density, D	33.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9220	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2452	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2011	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2011	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.7	mi/h
Number of lanes, N	5	
Density, D	33.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7200	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1915	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1570	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1570	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.6	mi/h
Number of lanes, N	5	
Density, D	24.3	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7609	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2024	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1659	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1659	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.0	mi/h
Number of lanes, N	5	
Density, D	25.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7656	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2036	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1670	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1670	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.0	mi/h
Number of lanes, N	5	
Density, D	26.1	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7667	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2039	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1672	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1672	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.0	mi/h
Number of lanes, N	5	
Density, D	26.1	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7695	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2047	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1678	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1678	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.9	mi/h
Number of lanes, N	5	
Density, D	26.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7699	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2048	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1679	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1679	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.9	mi/h
Number of lanes, N	5	
Density, D	26.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7717	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2052	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1683	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1683	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.9	mi/h
Number of lanes, N	5	
Density, D	26.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8100	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2154	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1766	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1766	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.1	mi/h
Number of lanes, N	5	
Density, D	28.0	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8413	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2238	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1835	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1835	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	5	
Density, D	29.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8413	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2238	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1835	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1835	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	5	
Density, D	29.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8425	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2241	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1837	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1837	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	5	
Density, D	29.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8425	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2241	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1837	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1837	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	5	
Density, D	29.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8432	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2243	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1839	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1839	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	5	
Density, D	29.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Garfield to Paramount
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8432	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2243	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1839	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1839	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	5	
Density, D	29.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6200	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1649	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1352	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1352	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	20.8	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6267	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1667	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1367	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1367	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.0	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6277	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1669	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1369	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1369	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6279	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1670	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1369	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1369	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6281	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1670	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1370	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1370	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6285	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1672	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1371	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1371	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6291	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1673	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1372	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1372	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	21.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8700	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2314	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1897	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1897	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.5	mi/h
Number of lanes, N	5	
Density, D	30.8	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8795	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2339	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1918	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1918	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.2	mi/h
Number of lanes, N	5	
Density, D	31.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8807	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2342	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1921	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1921	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.2	mi/h
Number of lanes, N	5	
Density, D	31.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8809	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2343	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1921	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1921	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.2	mi/h
Number of lanes, N	5	
Density, D	31.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8813	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2344	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1922	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1922	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.1	mi/h
Number of lanes, N	5	
Density, D	31.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8817	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2345	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1923	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1923	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.1	mi/h
Number of lanes, N	5	
Density, D	31.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8824	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2347	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1924	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1924	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	61.1	mi/h
Number of lanes, N	5	
Density, D	31.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7224	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1921	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1575	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1575	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.6	mi/h
Number of lanes, N	5	
Density, D	24.4	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7248	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1928	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1581	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1581	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.5	mi/h
Number of lanes, N	5	
Density, D	24.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7248	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1928	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1581	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1581	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.5	mi/h
Number of lanes, N	5	
Density, D	24.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7236	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1924	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1578	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1578	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.6	mi/h
Number of lanes, N	5	
Density, D	24.4	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7246	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1927	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1580	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1580	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.5	mi/h
Number of lanes, N	5	
Density, D	24.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7242	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1926	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1579	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1579	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.5	mi/h
Number of lanes, N	5	
Density, D	24.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7253	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1929	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1582	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1582	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.5	mi/h
Number of lanes, N	5	
Density, D	24.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7800	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2074	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1701	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1701	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.7	mi/h
Number of lanes, N	5	
Density, D	26.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8017	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2132	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1748	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1748	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.3	mi/h
Number of lanes, N	5	
Density, D	27.6	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8027	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2135	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1751	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1751	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.3	mi/h
Number of lanes, N	5	
Density, D	27.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8039	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2138	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1753	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1753	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.2	mi/h
Number of lanes, N	5	
Density, D	27.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8041	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2139	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1754	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1754	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.2	mi/h
Number of lanes, N	5	
Density, D	27.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8048	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2140	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1755	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1755	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.2	mi/h
Number of lanes, N	5	
Density, D	27.8	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	Paramount to San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8054	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2142	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1756	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1756	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	63.2	mi/h
Number of lanes, N	5	
Density, D	27.8	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6600	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1755	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1439	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1439	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	22.1	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6629	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1763	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1446	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1446	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	22.3	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016 + PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6651	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1769	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1450	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1450	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	22.3	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6650	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1769	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1450	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1450	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	22.3	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6655	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1770	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1451	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1451	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	22.3	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6661	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1772	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1453	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1453	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	22.4	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	6674	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1775	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1455	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1455	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	65.0	mi/h
Number of lanes, N	5	
Density, D	22.4	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9300	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2473	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2028	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2028	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.4	mi/h
Number of lanes, N	5	
Density, D	34.1	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016 + PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9358	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2489	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2041	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2041	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.2	mi/h
Number of lanes, N	5	
Density, D	34.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9329	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2481	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2035	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2035	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.3	mi/h
Number of lanes, N	5	
Density, D	34.3	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9362	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2490	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2042	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2042	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.2	mi/h
Number of lanes, N	5	
Density, D	34.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9353	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2488	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2040	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2040	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.2	mi/h
Number of lanes, N	5	
Density, D	34.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9364	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2490	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2042	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2042	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.2	mi/h
Number of lanes, N	5	
Density, D	34.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9364	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2490	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2042	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2042	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.2	mi/h
Number of lanes, N	5	
Density, D	34.5	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	9380	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2495	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	2046	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	2046	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	59.1	mi/h
Number of lanes, N	5	
Density, D	34.6	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7500	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	1995	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1636	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1636	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.2	mi/h
Number of lanes, N	5	
Density, D	25.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7535	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2004	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1643	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1643	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.2	mi/h
Number of lanes, N	5	
Density, D	25.6	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016 + PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7587	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2018	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1655	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1655	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.1	mi/h
Number of lanes, N	5	
Density, D	25.8	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7562	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2011	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1649	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1649	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.1	mi/h
Number of lanes, N	5	
Density, D	25.7	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7584	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2017	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1654	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1654	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.1	mi/h
Number of lanes, N	5	
Density, D	25.8	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7575	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2015	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1652	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1652	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.1	mi/h
Number of lanes, N	5	
Density, D	25.8	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 Eastbound
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	7600	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2021	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1657	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1657	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	64.1	mi/h
Number of lanes, N	5	
Density, D	25.9	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2015
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8400	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2234	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1832	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1832	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.4	mi/h
Number of lanes, N	5	
Density, D	29.4	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	AM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016 + PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8460	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2250	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1845	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1845	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.2	mi/h
Number of lanes, N	5	
Density, D	29.7	pc/mi/ln
Level of service, LOS	D	

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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2016
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8438	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2244	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1840	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1840	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.3	mi/h
Number of lanes, N	5	
Density, D	29.6	pc/mi/ln
Level of service, LOS	D	

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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8469	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2252	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1847	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1847	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.2	mi/h
Number of lanes, N	5	
Density, D	29.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2018
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8465	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2251	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1846	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1846	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.2	mi/h
Number of lanes, N	5	
Density, D	29.7	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

Phone: Fax:
E-mail:

Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8479	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2255	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1849	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1849	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.1	mi/h
Number of lanes, N	5	
Density, D	29.8	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst:	RJG
Agency or Company:	Transpo Group
Date Performed:	8/24/2015
Analysis Time Period:	PM Peak Hour
Freeway/Direction:	SR 60 WB
From/To:	E/O San Gabriel
Jurisdiction:	Caltrans D7
Analysis Year:	2019+PROJ
Description:	Mesa Substation

Flow Inputs and Adjustments

Volume, V	8492	veh/h
Peak-hour factor, PHF	0.94	
Peak 15-min volume, v15	2259	v
Trucks and buses	5	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	-	%
Segment length	-	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.976	
Driver population factor, fp	1.00	
Flow rate, vp	1852	pc/h/ln

Speed Inputs and Adjustments

Lane width	-	ft
Right-side lateral clearance	-	ft
Total ramp density, TRD	-	ramps/mi
Number of lanes, N	5	
Free-flow speed:	Measured	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	-	mi/h
Lateral clearance adjustment, fLC	-	mi/h
TRD adjustment	-	mi/h
Free-flow speed, FFS	65.0	mi/h

LOS and Performance Measures

Flow rate, vp	1852	pc/h/ln
Free-flow speed, FFS	65.0	mi/h
Average passenger-car speed, S	62.1	mi/h
Number of lanes, N	5	
Density, D	29.8	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.