Goodman Industrial Park Fontana III

TRAFFIC IMPACT ANALYSIS

CITY OF FONTANA

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Transportation Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing plus Project
FAR	Floor-to-Area Ratio
HCM	Highway Capacity Manual
HOV	High Occupancy Vehicle
ITE	Institute of Transportation Engineers
LOS	Level of Service
HCS	Highway Capacity Software
N/A	Not Applicable
NCHRP	National Cooperative Highway Research Program
PeMS	Performance Measurement System
PCE	Passenger Car Equivalent
PHF	Peak Hour Factor
Project	Goodman Industrial Park Fontana III
RivTAM	Riverside Transportation Analysis Model
RTP	Regional Transportation Plan
SBCTA	San Bernardino County Transportation Authority
SBTAM	San Bernardino Transportation Analysis Model
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
sf	Square Feet
SHS	State Highway System
TIA	Traffic Impact Analysis
tsf	Thousand Square Feet
vphg	Vehicles Per Hour of Green

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed Goodman Industrial Park Fontana III area ("Project"), which is located north of Jurupa Avenue, between Cypress Avenue and Juniper Avenue, in the City of Fontana, as shown on Exhibit 1-1.

The purpose of this traffic impact analysis is to evaluate the potential impacts to traffic and circulation associated with the proposed establishment of the Goodman Industrial Park Fontana III allowing distribution, logistics, warehousing, and high-cube cold storage warehousing development within the Project boundaries. Based on discussions with City staff, the scope of this TIA is consistent with other recently completed TIAs in the area and follows the City of Fontana's Draft Traffic Study Guidelines and the San Bernardino County Congestion Management Program (CMP). (1) (2)

1.1 SUMMARY OF FINDINGS

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, (10th Edition, 2017). (3) The Project is estimated to generate a net total of 2,018 trip-ends per day (actual vehicles) on a typical weekday with approximately 176 net AM peak hour trips and 195 net PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

Based on the City of Fontana's significance criteria as discussed in Section 2.9 *Thresholds of Significance* and the 50 peak hour trip criteria, the addition of Project traffic is not anticipated to result in a significant impact at any study area intersection for E+P traffic conditions.

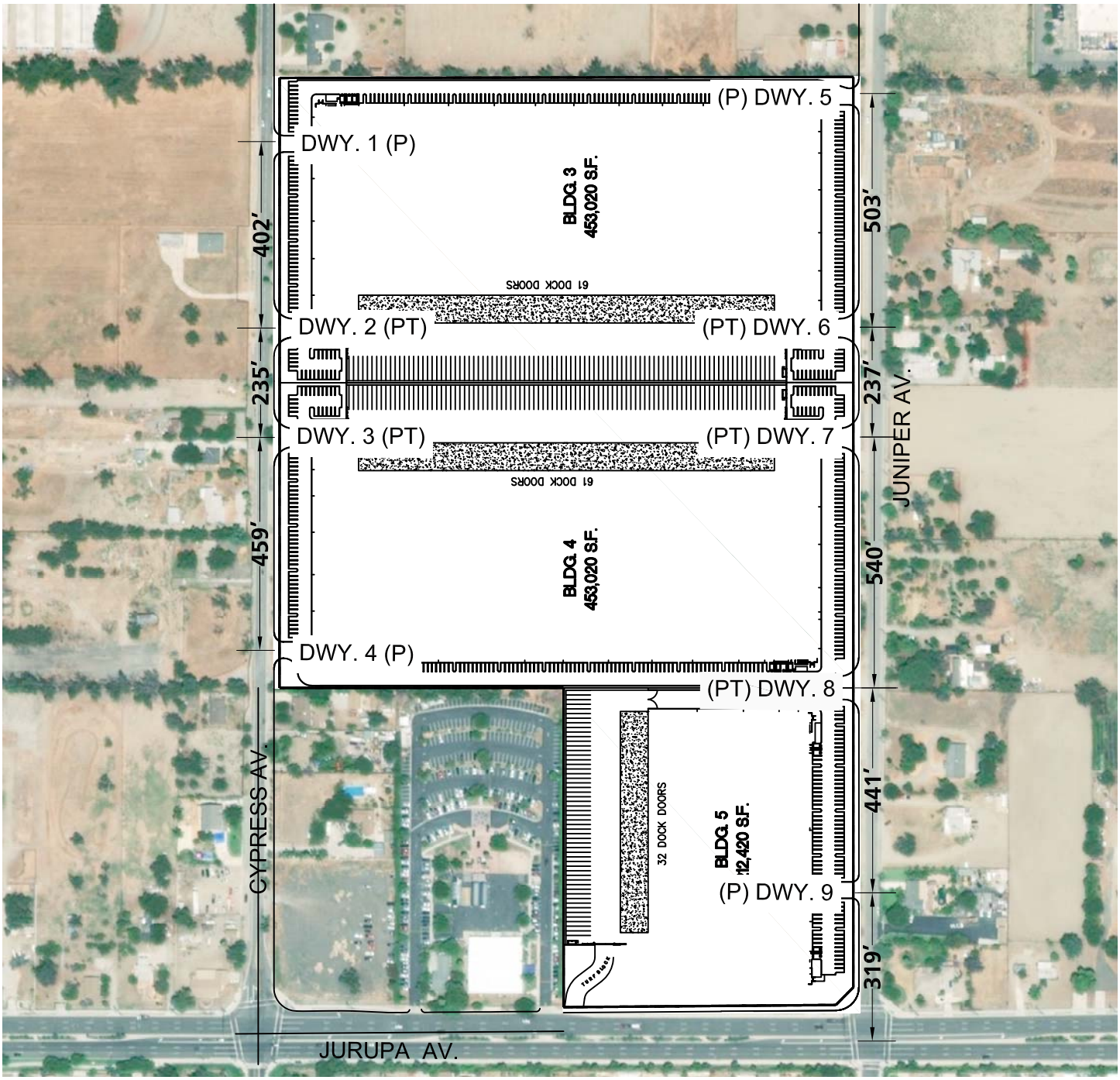
However, the addition of Project traffic is anticipated to result in a cumulative impact for either Opening Year Cumulative (2022) or Horizon Year (2040) traffic conditions at the following locations:

- Citrus Avenue & I-10 Eastbound Ramps (#5) – Opening Year Cumulative (2022) only
- Citrus Avenue & Slover Avenue (#6) – Opening Year Cumulative (2022) and Horizon Year (2040)
- Citrus Avenue & Jurupa Avenue (#8) – Opening Year Cumulative (2022) and Horizon Year (2040)
- Juniper Avenue & Santa Ana Avenue (#15) – Horizon Year (2040) only

The following mitigation measure has been recommended to address cumulative impacts:

Mitigation Measure 1.1 – Prior to the issuance of building permits, the Project Applicant shall participate in the City's Development Impact Fee (DIF) program by paying the requisite DIF fee at the time of building permit; and in addition, shall pay the fair share amount of $148, or as agreed to by the City and Project Applicant, for the improvements not included in a pre-existing fee program.

EXHIBIT 1-1: PRELIMINARY SITE PLAN



LEGEND:

- **P** = PASSENGER CARS ONLY
- **T** = TRUCKS ONLY
- **PT** = PASSENGER CARS AND TRUCKS

N

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URBAN CROSSROADS

The Project will construct its ultimate half-section of Cypress Avenue (Secondary Highway), Juniper Avenue (Collector), and Jurupa Avenue (Modified Major Highway) along the Project's frontage. Access to the Project site will be provided via driveways on Cypress Avenue and Juniper Avenue. There is an emergency vehicle access driveway on Jurupa Avenue. All project driveways are assumed to accommodate full access.

1.2 PROJECT OVERVIEW

Exhibit 1-1 illustrates the preliminary land use plan for the Project. As indicated on Exhibit 1-1, the Project is to consist of 1,118,460 square feet across three buildings:

- 894,768 square feet of warehousing (80% of the total square footage)
- 223,692 square feet of high-cube cold storage warehouse use (20% of the total square footage)

Passenger car and truck access will be provided via the following roadways (see Exhibit 1-1):

- Cypress Avenue via Driveway 1 – full access for passenger cars only
- Cypress Avenue via Driveway 2 – full access for passenger cars and trucks
- Cypress Avenue via Driveway 3 – full access for passenger cars and trucks
- Cypress Avenue via Driveway 4 – full access for passenger cars only
- Juniper Avenue via Driveway 5 – full access for passenger cars only
- Juniper Avenue via Driveway 6 – full access for passenger cars and trucks
- Juniper Avenue via Driveway 7 – full access for passenger cars and trucks
- Juniper Avenue via Driveway 8 – full access for passenger cars and trucks
- Juniper Avenue via Driveway 9 – full access for passenger cars only

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been assessed for each of the following conditions:

- Existing (2019) (1 scenario)
- Existing plus Project (E+P) (1 scenario)
- Opening Year Cumulative (2022) Without and With Project (2 scenarios)
- Horizon Year (2040) Without and With Project (2 scenarios)

1.3.1 EXISTING (2019) CONDITIONS

Information for Existing (2019) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.3.2 EXISTING PLUS PROJECT CONDITIONS

The Existing plus Project (E+P) analysis determines significant traffic impacts that would occur on the existing roadway system with the addition of Project traffic. The E+P analysis is intended to identify the Project-specific impacts associated solely with the development of the Project based on a comparison of the E+P traffic conditions to Existing conditions.

1.3.3 OPENING YEAR CUMULATIVE (2022) CONDITIONS

The Opening Year Cumulative (2022) conditions analysis determines the near-term cumulative traffic impacts based on a comparison of the With Project traffic scenarios to the Without Project traffic scenario. The Opening Year Cumulative (2022) conditions analyses uniquely identifies the specific traffic impacts associated with the proposed Project. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth of 1.38 percent per year compounded over 3 years ($1.38^{3 \text{ years}}$) from Existing conditions is included for Opening Year Cumulative (2022) traffic conditions.

The currently adopted Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (April 2016) growth forecasts for the City of Fontana identifies projected growth in population of 200,200 in 2012 to 280,900 in 2040, or a 40.31% increase over the 28-year period. (4) The change in population equates to roughly a 1.22 percent growth rate compounded annually. Similarly, growth over the same 28-year period in households is projected to increase by 49.19 percent, or 1.44 percent growth rate, compounded annually. Finally, growth in employment over the same 28-year period is projected to increase by 50.6 percent, or a 1.47 percent annual growth rate. The average annual growth rate between population, households, and employment is 1.38 percent per year and has been used for the purposes of this analysis.

1.3.4 HORIZON YEAR (2040) CONDITIONS

Traffic projections for Horizon Year (2040) Without Project conditions were derived from the San Bernardino County Transportation Analysis Model (SBTAM), the sub-regional model for San Bernardino County for the study area intersections located within the County of San Bernardino. The Horizon Year (2040) traffic conditions is utilized to determine long-term cumulative traffic impacts. The initial estimate of the future Horizon Year (2040) Without Project peak hour turning movements were then reviewed by Urban Crossroads for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Project traffic was then added to determine Horizon Year (2040) With Project traffic forecasts.

The Horizon Year (2040) conditions analysis will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the City's Development Impact Fee (DIF) program, or other approved funding mechanisms can accommodate the long-range cumulative traffic at the target level of service (LOS) identified by the City of Fontana (lead agency). It should be noted that the City of Fontana has updated their DIF program to also include appropriate contributions towards regionally significant improvements that have been identified

via the San Bernardino County CMP regional fee program study. If the planned and funded improvements can provide the target LOS, then the Project's payment into established fee programs will be considered as cumulative mitigation. Other improvements needed beyond the "funded" improvements (such as localized improvements to non-DIF facilities) are identified as such.

1.4 STUDY AREA

1.4.1 INTERSECTIONS

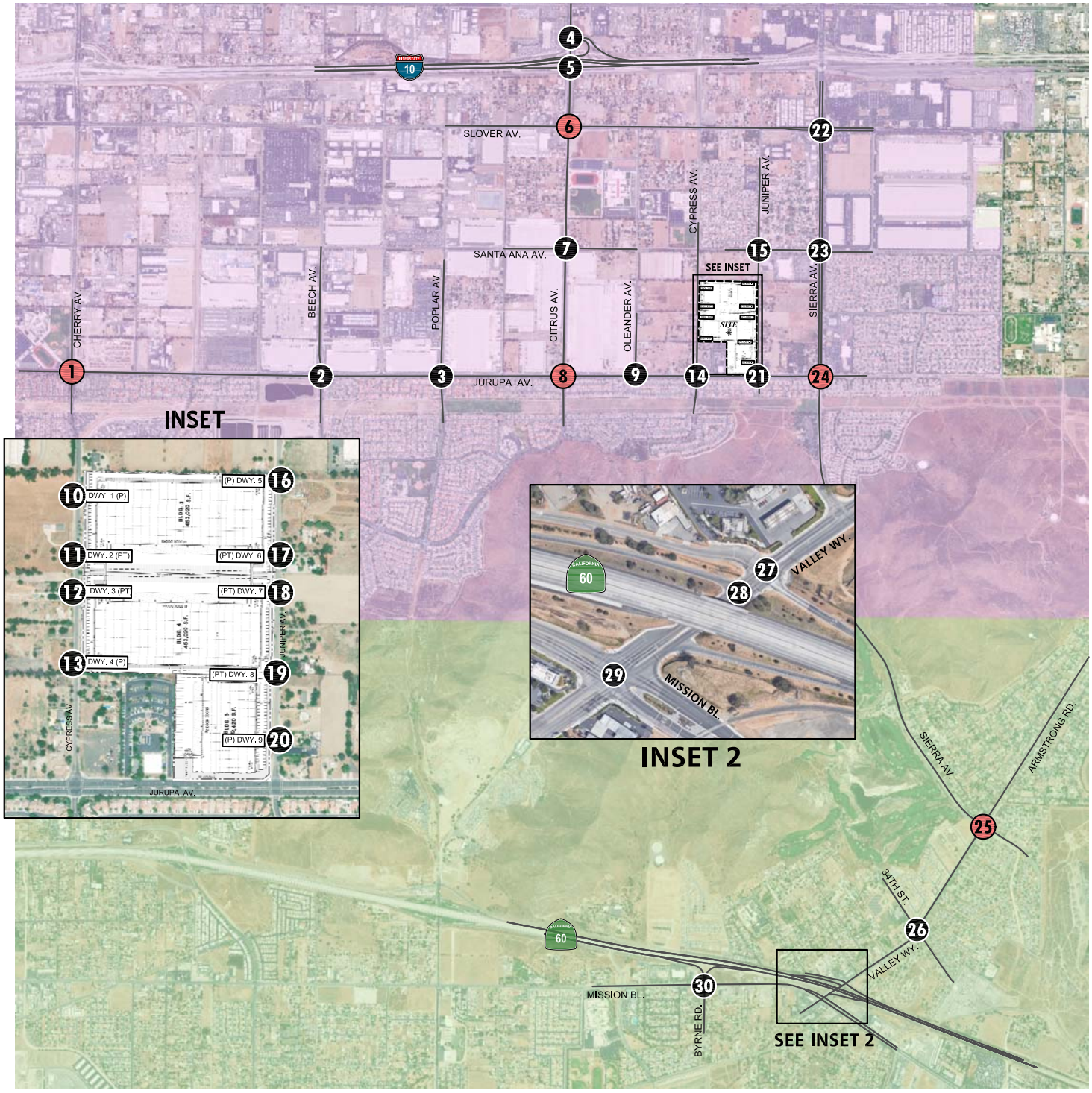
The following 30 study area intersection locations shown on Exhibit 1-2 and listed on Table 1-1 were selected for this TIA based on the City of Fontana's Traffic Study Guidelines and in consultation with the City of Fontana and City of Jurupa Valley staff. Pursuant to the Traffic Study Guidelines, the City requires analysis of intersections where the Project would contribute 50 or more peak-hour trips.[1] The following intersections have been added at the request of City of Jurupa Valley staff, where the Project contributes less than 50 peak hour trips and any impact is considered less than significant:

- Armstrong Road & Sierra Avenue
- Valley Way & 34th Street
- Valley Way & Granite Hill Drive/SR-60 WB Off-Ramp
- Valley Way & SR-60 WB On-Ramp
- Valley Way & Mission Boulevard
- SR-60 EB Ramps & Mission Boulevard

The intent of a CMP is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Counties within California have developed CMPs with varying methods and strategies to meet the intent of the CMP legislation. The County of San Bernardino CMP became effective with the passage of Proposition 111 in 1990 and updated most recently in 2016. The San Bernardino County Transportation Authority (SBCTA) adopted the 2016 CMP for the County of San Bernardino in June 2016. (2) There are 5 study area intersections identified as CMP facilities.

[1] The "50 or more peak hour trips" intersection analytic protocol stipulated in the City's Traffic Study Guidelines is consistent with standard industry practice. It is noted further that the 50 peak hour trip threshold is employed by other agencies throughout southern California including Caltrans, County of Riverside, County of San Bernardino, and the County of Orange.

EXHIBIT 1-2: LOCATION MAP



LEGEND:

- = EXISTING INTERSECTION ANALYSIS LOCATION
- = FUTURE INTERSECTION ANALYSIS LOCATION
- = CMP INTERSECTION

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TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction	CMP?
1	Cherry Avenue & Jurupa Avenue	City of Fontana	Yes
2	Beech Avenue & Jurupa Avenue	City of Fontana	No
3	Poplar Avenue & Jurupa Avenue	City of Fontana	No
4	Citrus Avenue & I-10 WB Ramps	City of Fontana, Caltrans	No
5	Citrus Avenue & I-10 EB Ramps	City of Fontana, Caltrans	No
6	Citrus Avenue & Slover Avenue	City of Fontana	Yes
7	Citrus Avenue & Santa Ana Avenue	City of Fontana	No
8	Citrus Avenue & Jurupa Avenue	City of Fontana	Yes
9	Oleander Avenue & Jurupa Avenue	City of Fontana	No
10	Cypress Avenue & Driveway 1 – Future Intersection	City of Fontana	No
11	Cypress Avenue & Driveway 2 – Future Intersection	City of Fontana	No
12	Cypress Avenue & Driveway 3 – Future Intersection	City of Fontana	No
13	Cypress Avenue & Driveway 4 – Future Intersection	City of Fontana	No
14	Cypress Avenue & Jurupa Avenue	City of Fontana	No
15	Juniper Avenue & Santa Ana Avenue	City of Fontana	No
16	Juniper Avenue & Driveway 5 – Future Intersection	City of Fontana	No
17	Juniper Avenue & Driveway 6 – Future Intersection	City of Fontana	No
18	Juniper Avenue & Driveway 7 – Future Intersection	City of Fontana	No
19	Juniper Avenue & Driveway 8 – Future Intersection	City of Fontana	No
20	Juniper Avenue & Driveway 9 – Future Intersection	City of Fontana	No
21	Juniper Avenue & Jurupa Avenue	City of Fontana	No
22	Sierra Avenue & Slover Avenue	City of Fontana	Yes
23	Sierra Avenue & Santa Ana Avenue	City of Fontana	No
24	Sierra Avenue & Jurupa Avenue	City of Fontana	Yes
25	Armstrong Road & Sierra Avenue	City of Jurupa Valley	Yes
26	Valley Way & 34th Street	City of Jurupa Valley	Yes
27	Valley Way & Granite Hill Drive/SR-60 WB Off-Ramp	City of Jurupa Valley	No
28	Valley Way & SR-60 WB On-Ramp	City of Jurupa Valley	No
29	Valley Way & Mission Boulevard	City of Jurupa Valley	No
30	SR-60 EB Ramps & Mission Boulevard	City of Jurupa Valley	No

1.4.2 ROADWAY SEGMENT ANALYSIS

Pursuant to the request of City staff, a roadway segment analysis has been evaluated for the following 14 study area roadway segments:

TABLE 1-2: ROADWAY SEGMENT ANALYSIS LOCATIONS

ID	Roadway Segment	Jurisdiction
1	Citrus Avenue between I-10 Ramps	Fontana, Caltrans
2	Citrus Avenue between I-10 Ramps & Slover Avenue	Fontana
3	Citrus Avenue between Slover Avenue & Santa Ana Avenue	Fontana
4	Citrus Avenue between Santa Ana Avenue & Jurupa Avenue	Fontana
5	Cypress Avenue between Santa Ana Avenue & Jurupa Avenue	Fontana
6	Sierra Avenue between Slover Avenue & Santa Ana Avenue	Fontana
7	Santa Ana Avenue between Juniper Avenue & Sierra Avenue	Fontana
8	Jurupa Avenue between Cherry Avenue & Beech Avenue	Fontana
9	Jurupa Avenue between Beech Avenue & Poplar Avenue	Fontana
10	Jurupa Avenue between Poplar Avenue & Citrus Avenue	Fontana
11	Jurupa Avenue between Citrus Avenue & Oleander Avenue	Fontana
12	Jurupa Avenue between Oleander Avenue & Cypress Avenue	Fontana
13	Jurupa Avenue between Cypress Avenue & Juniper Avenue	Fontana
14	Jurupa Avenue between Juniper Avenue & Sierra Avenue	Fontana

As stated in the City of Fontana's Traffic Impact Analysis Guidelines, roadway link analysis could be required where the ultimate street cross sections are not constructed. The roadway segment analysis has been conducted for each analysis scenario using the roadway capacities obtained from the City of Fontana General Plan Circulation Element. (1)

1.4.3 FREEWAY MAINLINE AND RAMP JUNCTION ANALYSIS

Caltrans requires the evaluation of freeway facilities where a project is anticipated to contribute 50 or more one-way peak hour trips to their facilities. (5) The San Bernardino County CMP traffic study guidelines also require that freeway mainline analysis locations include the segments where the proposed Project is anticipated to contribute 100 or more two-way peak hour trips (or 50 one-way peak hour trips) within a 5-mile radius. (2) This TIA evaluates the following freeway segments and freeway merge/diverge/ramp junctions although the Project is anticipated to contribute fewer than 50 one-way peak hour trips (see Table 1-3).

TABLE 1-3: FREEWAY FACILITY ANALYSIS LOCATIONS

ID	Freeway Facility
1	I-10 Freeway – Westbound, West of Cherry Avenue (Basic Freeway Segment)
2	I-10 Freeway – Westbound, West of Citrus Avenue (Basic Freeway Segment)
3	I-10 Freeway – Westbound, On-Ramp at Citrus Avenue (Merge Ramp Junction)
4	I-10 Freeway – Westbound, Off-Ramp at Citrus Avenue (Diverge Ramp Junction)
5	I-10 Freeway – Westbound, East of Citrus Avenue (Basic Freeway Segment)
6	I-10 Freeway – Eastbound, West of Cherry Avenue (Basic Freeway Segment)
7	I-10 Freeway – Eastbound, West of Citrus Avenue (Basic Freeway Segment)
8	I-10 Freeway – Eastbound, On-Ramp at Citrus Avenue (Merge Ramp Junction)
9	I-10 Freeway – Eastbound, Off-Ramp at Citrus Avenue (Diverge Ramp Junction)
10	I-10 Freeway – Eastbound, East of Citrus Avenue (Basic Freeway Segment)

1.5 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing, E+P, Opening Year Cumulative (2022), and Horizon Year (2040) traffic conditions.

1.5.1 EXISTING (2019) CONDITIONS

Intersection Operations Analysis

A summary of LOS results for Existing traffic conditions is presented on Exhibit 1-3. For Existing (2019) traffic conditions, the following intersections currently operate at an unacceptable level of service (LOS) (i.e., LOS C/D or worse) during one or more of the peak hours:

- Cherry Avenue & Jurupa Avenue (#1) – LOS D AM peak hour only
- Citrus Avenue & Slover Avenue (#6) – LOS D PM peak hour only
- Sierra Avenue & Slover Avenue (#22) – LOS E PM peak hour only
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – LOS E AM and PM peak hours
- Valley Way & SR-60 Westbound On-Ramp (#28) – LOS E AM peak hour; LOS F PM peak hour
- Valley Way & Mission Boulevard (#29) – LOS E AM peak hour only

EXHIBIT 1-3: SUMMARY OF DEFICIENT INTERSECTIONS BY ANALYSIS SCENARIO

#	Intersection	Existing (2019)	E+P	Opening Year Cumulative (2022) Without Project	Opening Year Cumulative (2022) With Project	Horizon Year (2040) Without Project	Horizon Year (2040) With Project
1	Cherry Av. & Jurupa Av.						
2	Beech Av. & Jurupa Av.						
3	Poplar Av. & Jurupa Av.						
4	Citrus Av. & I-10 WB Ramps						
5	Citrus Av. & I-10 EB Ramps						
6	Citrus Av. & Slover Av.						
7	Citrus Av. & Santa Ana Av.						
8	Citrus Av. & Jurupa Av.						
9	Oleander Av. & Jurupa Av.						
10	Cypress Av. & Dwy. 1	NA		NA		NA	
11	Cypress Av. & Dwy. 2	NA		NA		NA	
12	Cypress Av. & Dwy. 3	NA		NA		NA	
13	Cypress Av. & Dwy. 4	NA		NA		NA	
14	Cypress Av. & Jurupa Av.						
15	Juniper Av. & Santa Ana Av.						
16	Juniper Av. & Dwy. 5	NA		NA		NA	
17	Juniper Av. & Dwy. 6	NA		NA		NA	
18	Juniper Av. & Dwy. 7	NA		NA		NA	
19	Juniper Av. & Dwy. 8	NA		NA		NA	
20	Juniper Av. & Dwy. 9	NA		NA		NA	
21	Juniper Av. & Jurupa Av.						
22	Sierra Av. & Slover Av.						
23	Sierra Av. & Santa Ana Av.						
24	Sierra Av. & Jurupa Av.						
25	Armstrong Rd. & Sierra Av.						
26	Valley Wy. & 34th St.						
27	Valley Wy. & Granite Hill Dr./SR-60 WB Off-Ramp						
28	Valley Wy. & SR-60 WB On-Ramp						
29	Valley Wy. & Mission Bl.						
30	SR-60 EB Ramps & Mission Bl.						

LEGEND:

- = AM PEAK HOUR
- = PM PEAK HOUR
- = LOS A-D
- = LOS D-E
- = LOS F
- NA = NOT AN ANALYSIS LOCATION FOR THIS SCENARIO

Traffic Signal Warrant Analysis

There are no unsignalized intersections that currently meet peak hour volume-based traffic signal warrants under Existing traffic conditions.

Roadway Segment Operations

All of the study area roadway segments are currently operating at acceptable capacities based on the Existing daily volumes and available roadway capacity.

Off-Ramp Queuing Analysis

A queueing analysis was performed for the eastbound and westbound off-ramps at the I-10 Freeway at Citrus Avenue interchanges. The analysis indicates there are no queuing issues anticipated for Existing traffic conditions that may potentially result in "spill back" on to the I-10 Freeway mainline.

Freeway Facilities

For Existing (2019) traffic conditions, the following I-10 Freeway segment is currently operating at an unacceptable LOC (i.e., LOS E or worse) during one or more peak hours:

- I-10 Freeway Westbound, West of Citrus Avenue (#2) – LOS E AM peak hour only

1.5.2 E+P CONDITIONS

Intersection Operations Analysis

As shown in Exhibit 1-3, there are no additional intersections anticipated to operate at an unacceptable LOS for E+P traffic conditions, in addition to the intersections identified for Existing (2019) traffic conditions. Based on the City of Fontana's significance criteria as discussed in Section 2.9 *Thresholds of Significance* and the 50 peak hour trip threshold, the addition of Project traffic is not anticipated to result in a significant impact at any study area intersection.

Traffic Signal Warrant Analysis

There are no study area intersections anticipated to meet planning level (average daily traffic or ADT) or peak hour volume-based traffic signal warrants under E+P traffic conditions.

Roadway Segment Operations

The study area roadway segments are anticipated to operate at an acceptable LOS with the addition of Project traffic for E+P traffic conditions, consistent with Existing (2019) traffic conditions.

Freeway Facilities

There are no additional freeway segments or freeway ramp junctions anticipated to operate at an unacceptable LOS under E+P traffic conditions during the peak hours, in addition to the location previously identified under Existing (2019) traffic conditions.

Impacts and Recommended Improvements

Based on the City of Fontana's significance criteria as discussed in Section 2.9 *Thresholds of Significance*, the addition of Project traffic is not anticipated to result in a significant impact at any study area intersection. As such, no mitigation measures have been identified.

1.5.3 OPENING YEAR CUMULATIVE (2022) CONDITIONS

Intersection Operations Analysis

As shown in Exhibit 1-3, the following intersections are anticipated to operate at an unacceptable LOS for Opening Year Cumulative (2022) Without Project traffic conditions:

- Cherry Avenue & Jurupa Avenue (#1) – LOS D AM peak hour only
- Citrus Avenue & I-10 Eastbound Ramps (#5) – LOS E AM peak hour only
- Citrus Avenue & Slover Avenue (#6) – LOS F AM peak hour; LOS D PM peak hour
- Citrus Avenue & Slover Avenue (#7) – LOS D AM peak hour only
- Juniper Avenue & Santa Ana Avenue (#15) – LOS D PM peak hour only
- Sierra Avenue & Slover Avenue (#22) – LOS E PM peak hour only
- Armstrong Road & Sierra Avenue (#25) – LOS F AM and PM peak hours
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – LOS F AM and PM peak hours
- Valley Way & SR-60 Westbound On-Ramp (#28) – LOS E AM peak hour; LOS F PM peak hour
- Valley Way & Mission Boulevard (#29) – LOS E AM and PM peak hours

The following additional intersection is anticipated to operate at an unacceptable LOS with the addition of Project traffic for Opening Year Cumulative (2022) With Project traffic conditions:

- Citrus Avenue & Jurupa Avenue (#8) – LOS D AM peak hour only

Traffic Signal Warrant Analysis

There are no study area intersections anticipated to meet planning level (average daily traffic or ADT) or peak hour volume-based traffic signal warrants under Opening Year Cumulative (2022) Without and With Project traffic conditions.

Roadway Segment Operations

The study area roadway segments are anticipated to operate at an acceptable LOS for Opening Year Cumulative (2022) Without and With Project traffic conditions.

Freeway Facilities

There are no additional freeway segments or freeway ramp junctions anticipated to operate at an unacceptable LOS under Opening Year Cumulative (2022) traffic conditions during the peak hours, in addition to the location previously identified under Existing (2019) traffic conditions.

Impacts and Recommended Improvements

Based on the City of Fontana's significance criteria as discussed in Section 2.9 *Thresholds of Significance*, the following intersections are anticipated to be significantly impacted by the Project during one or more peak hours:

- Citrus Avenue & I-10 Eastbound Ramps (#5)
- Citrus Avenue & Slover Avenue (#6)
- Citrus Avenue & Jurupa Avenue (#8)

The following improvements have been recommended to address the cumulatively impacted intersections identified above:

Citrus Avenue & I-10 Eastbound Ramps (#5) – The following improvements are necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards restriping the eastbound off-ramp with a left turn lane, one shared left-through-right turn lane, and right turn lane.

Citrus Avenue & Slover Avenue (#6) – The following improvements are necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards restriping the southbound approach to accommodate a 2nd through lane.
- Contribute fair share towards modifying the traffic signal to accommodate right turn overlap phasing on the southbound and westbound right turn lanes.

Citrus Avenue & Jurupa Avenue (#8) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards modifying the cycle length to 130-seconds. No other physical improvements are recommended.

The Project will contribute less than 50 peak hour trips to the following City of Jurupa Valley intersections resulting in a less than significant cumulative impact:

- Armstrong Road & Sierra Avenue (#25)
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27)
- Valley Way & SR-60 Westbound On-Ramp (#28)
- Valley War & Mission Boulevard (#29)

Although the impacts are less than significant, the following improvements have been identified (if feasible) to address peak hour deficiencies. However, since the Project's impact to these locations are less than significant (the Project contributes less than 50 peak hour trips), the Project is not required to contribute payment into any pre-existing fee program or pay fair share contributions towards these improvements.

Armstrong Road & Sierra Avenue (#25) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better:

- Add a 2nd northbound through lane.

Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

Valley Way & SR-60 Westbound On-Ramp (#28) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

Valley Way & Mission Boulevard (#29) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

1.5.4 HORIZON YEAR (2040) CONDITIONS

Intersection Operations

The following study area intersections are anticipated to operate at an unacceptable LOS under Horizon Year (2040) Without Project traffic conditions during one or both peak hours:

- Cherry Avenue & Jurupa Avenue (#1) – LOS D AM peak hour only
- Citrus Avenue & Slover Avenue (#6) – LOS E AM and PM peak hours
- Citrus Avenue & Santa Ana Avenue (#7) – LOS D AM peak hour only
- Citrus Avenue & Jurupa Avenue (#8) – LOS D AM peak hour only
- Juniper Avenue & Santa Ana Avenue (#15) – LOS F PM peak hour only
- Sierra Avenue & Slover Avenue (#22) – LOS E PM peak hour only
- Armstrong Road & Sierra Avenue (#25) – LOS F AM and PM peak hours
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – LOS F AM and PM peak hours
- Valley Way & SR-60 Westbound On-Ramp (#28) – LOS F AM peak hour; LOS E PM peak hour
- Valley Way & Mission Boulevard (#29) – LOS F AM and PM peak hours
- SR-60 Eastbound Ramps & Mission Boulevard (#30) – LOS F AM and PM peak hours

The addition of Project traffic is not anticipated to result in any additional deficiencies at the study area intersections in addition to those previously identified for Horizon Year (2040) Without Project traffic conditions.

Traffic Signal Warrant Analysis

There are no study area intersections anticipated to meet planning level (average daily traffic or ADT) or peak hour volume-based traffic signal warrants under Horizon Year (2040) Without Project traffic conditions. The intersection of Juniper Avenue and Santa Ana Avenue is anticipated to meet a peak hour volume-based traffic signal warrant under Horizon Year (2040) With Project traffic conditions.

Roadway Segment Operations

The following roadway segments are anticipated operate at an unacceptable LOS for Horizon Year (2040) Without Project traffic conditions:

- Citrus Avenue, between I-10 Ramps (#1) – LOS D
- Citrus Avenue, from I-10 Eastbound Rams to Slover Avenue (#2) – LOS D
- Citrus Avenue, from Slover Avenue to Santa Ana Avenue (#3) – LOS D
- Sierra Avenue, from Slover Avenue to Santa Ana Avenue (#6) – LOS D

The addition of Project traffic is not anticipated to result in any additional deficiencies along the study area roadway segments in addition to those previously identified for Horizon Year (2040) Without Project traffic conditions.

Freeway Facilities

All freeway segments and merge/diverge ramp junctions are anticipated to operate at an unacceptable LOS under Horizon Year (2040) Without and With Project traffic conditions during one or more peak hours with the exception of the following location:

- I-10 Freeway – Eastbound, East of Citrus Avenue (#10)

Impacts and Recommended Improvements

Based on the City of Fontana's significance criteria as discussed in Section 2.9 *Thresholds of Significance*, the following intersections are anticipated to be cumulatively impacted by the Project during one or more peak hours:

- Citrus Avenue & Slover Avenue (#6)
- Citrus Avenue & Jurupa Avenue (#8)
- Juniper Avenue & Santa Ana Avenue (#15)

The I-10 Eastbound Ramp on Citrus Avenue was previously impacted under Opening Year Cumulative (2022) traffic conditions, however, with future new interchanges at Beech Avenue and Alder Avenue and volume reduction at the Citrus Avenue interchange, the ramp is anticipated to operate at acceptable LOS during the peak hours.

The following improvements have been recommended to address the cumulatively impacted intersections identified above:

Citrus Avenue & Slover Avenue (#6) – The following improvements are necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards restriping the southbound approach to accommodate a 2nd through lane.
- Contribute fair share towards modifying the traffic signal to accommodate right turn overlap phasing on the southbound and westbound right turn lanes.

Citrus Avenue & Jurupa Avenue (#8) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards modifying the cycle length to 130-seconds. No other physical improvements are recommended.

Juniper Avenue & Santa Ana Avenue (#15) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards a 2nd eastbound through lane.

The Project will contribute less than 50 peak hour trips to the following City of Jurupa Valley intersections resulting in a less than significant cumulative impact:

- Armstrong Road & Sierra Avenue (#25)
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27)
- Valley Way & SR-60 Westbound On-Ramp (#28)
- Valley War & Mission Boulevard (#29)
- SR-60 Eastbound Ramps & Mission Boulevard (#30)

Although the impacts are less than significant, the following improvements have been identified (if feasible) to address peak hour deficiencies. However, since the Project's impact to these locations are less than significant (the Project contributes less than 50 peak hour trips), the Project is not required to contribute payment into any pre-existing fee program or pay fair share contributions towards these improvements.

Armstrong Road & Sierra Avenue (#25) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better:

- Add a 2nd northbound through lane.

Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

Valley Way & SR-60 Westbound On-Ramp (#28) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

Valley Way & Mission Boulevard (#29) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

SR-60 Eastbound Ramps & Mission Boulevard (#30) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better:

- Add a southbound right turn lane.

1.6 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Fontana are funded through a combination of direct project mitigation, development impact fee programs or fair share contributions, such as the City of Fontana DIF program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

1.6.1 MEASURE "I" FUNDS

In 2004, the voters of San Bernardino County approved the 30-year extension of Measure "I", a one-half of one percent sales tax on retail transactions, through the year 2040, for transportation projects including, but not limited to, infrastructure improvements, commuter rail, public transit, and other identified improvements. The Measure "I" extension requires that a regional traffic impact fee be created to ensure development is paying its fair share. A regional Nexus study was prepared by SBCTA and concluded that each jurisdiction should include a regional fee component in their local programs in order to meet the Measure "I" requirement. The regional component assigns specific facilities and cost sharing formulas to each jurisdiction and was most recently updated in May 2018. Revenues collected through these programs are used in tandem with Measure "I" funds to deliver projects identified in the Nexus Study.

While Measure "I" is a self-executing sales tax administered by SBCTA, it bears discussion here because the funds raised through Measure "I" have funded in the past and will continue to fund new transportation facilities in San Bernardino County, including within the City of Fontana.

1.6.2 CITY OF FONTANA DEVELOPMENT IMPACT FEE (DIF)

The City of Fontana adopted the latest update to their DIF program in February 2016. Fees from new residential, commercial and industrial development are collected to fund Measure "I" compliant regional facilities as well as local facilities. Under the City's DIF program, the City may grant to developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the DIF program.

After the City's DIF fees are collected, they are placed in a separate restricted use account pursuant to the requirements of Government Code sections 66000 *et seq*. The timing to use the

DIF fees is established through periodic capital improvement programs which are overseen by the City's Engineering Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of the improvements listed in its facilities list. The City also uses this data to ensure that the improvements listed on the facilities list are constructed before the LOS falls below the LOS performance standards adopted by the City. In this way, the improvements are constructed before the LOS falls below the City's LOS performance thresholds. The City's DIF program establishes a timeline to fund, design, and build the improvements.

1.6.3 FAIR SHARE CONTRIBUTION

Project mitigation may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Table 1-4 lists the incremental improvements that are required by the Horizon Year traffic conditions to mitigate the long-range cumulative impacts. After review of the local and regional transportation impact fee programs as compared to the recommended improvements for each impacted facility, if it is found that the impacted facilities which require improvements include improvements beyond those already identified within one of the City's fee programs, projects may be required to contribute to the intersection or roadway fair-share percentage toward the costs of the recommended improvements. Table 1-5 shows the development project fair share calculations for the study area intersection with a significant impact and recommended improvements that are not included in a pre-existing fee program.

Table 1-4

Summary of Intersection Improvements and Project Fair Share

#	Intersection Location	Jurisdiction	Analysis Scenarios			Improvements included in Fee Program?[1]	Mechanism for Mitigation[2]	Total Cost[3]	Fair Share %[4]	Estimated Fair Share Cost
			E+P	Opening Year Cumulative (2022) With Project	2040 With Project					
5	Citrus Av. & I-10 EB Ramps	Caltrans, Fontana	None	Restripe EB left turn lane to EB shared left-through-right turn lane	Not Applicable	Yes	Fee Payment	$0	N/A	$0
							Total	**$0**		**$0**
6	Citrus Av. & Slover Av.	Fontana	None	Restripe to provide 2 SB through lanes and SB right turn lane	Same	Yes	Fee Payment	$0	N/A	$0
				Modify the traffic signal to implement overlap phasing on the SB and WB right turn lanes	Same	Yes	Fee Payment	$0		$0
				Restrict SB U-turns	Same	Yes	Fee Payment	$0		$0
							Total	**$0**		**$0**
8	Citrus Av. & Jurupa Av.	Fontana	None	Modify cycle length to 130-seconds	Same	No	Fair Share	$1,000	14.8%	$148
							Total	**$1,000**		**$148**
15	Juniper Av. & Santa Ana Av.	Fontana	None	None	Add a 2nd EB through lane	Yes	Fee Payment	$0	N/A	$0
							Total	**$0**		**$0**
25	Armstrong Rd. & Sierra Av.	Jurupa Valley	None	Add 2nd NB through lane	Add 2nd NB through lane	Yes	Not Applicable[7]	$0	N/A	$0
							Total	**$0**		**$0**
27	Valley Wy. & Granite Hill Dr./SR-60 WB Off-ramp	Jurupa Valley, Caltrans	None	No Feasible Improvements[6]	No Feasible Improvements[6]	No	Not Applicable[7]	$0	N/A	$0
							Total	**$0**		**$0**
28	Valley Wy. & SR-60 WB On-ramp	Jurupa Valley, Caltrans	None	No Feasible Improvements[6]	No Feasible Improvements[6]	No	Not Applicable[7]	$0	N/A	$0
							Total	**$0**		**$0**
29	Valley Wy. & Mission Bl.	Jurupa Valley	None	No Feasible Improvements[6]	No Feasible Improvements[6]	No	Not Applicable[7]	$0	N/A	$0
							Total	**$0**		**$0**
30	SR-60 EB Ramps & Mission Bl.	Jurupa Valley, Caltrans	None	None	Add SB right turn lane	No	Not Applicable[7]	$0	N/A	$0
							Total	**$0**		**$0**
Total Costs for Horizon Year (2040) Improvements								**$1,000**		**$148**
Total Project Fair Share Contribution to the City of Fontana (non-DIF)[5]								**$148**		

[1] Improvements are included in the SBCTA Nexus Study Fee program or the SANBAG Measure I Funding.

[2] Identifies the Project's responsibility to construct an improvement or contribute fair share or fee payment towards the implementation of the improvements shown.

[3] Costs have been estimated using the data provided in Appendix G of the San Bernardino County CMP (2016 Update) for preliminary construction costs. Appendix G costs escalated by a factor of 1.484 to reflect 2019 conditions, except for Traffic Signals.

[4] Program improvements constructed may be eligible for fee credit, at discretion of City. See Table 1-6 for Fair Share Calculations.

[5] Total project fair share contribution consists of the improvements which are not already included in the City of Fontana's DIF for those intersections wholly or partially within the City of Fontana.

[6] Improvements would require interchange reconfiguration. Additionally, the Project contributes less than 50 peak hour trips to this intersection. As such, no improvements have been recommended.

[7] Since the Project contributes less than 50 peak hour trips, the cumulative impact is considered less than significant.

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Table 1-5

Project Fair Share Calculations

#	Intersection	Existing	Project	2040 With Project	Total New Traffic	Project % of New Traffic[1]
8	Citrus Av. & Jurupa Av.					
	AM:	2,043	125	2,885	842	**14.8%**
	PM:	2,456	116	3,366	910	12.7%

BOLD = Highest fair share percentage is highlighted.

[1] Project percentage of new traffic between Existing (2019) and Horizon Year (2040) traffic conditions.

The improvements listed on Table 1-4 are comprised of lane additions and signal modifications. Table 1-4 shows the total recommended improvements to mitigate potential long-range cumulative impacts. When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each analysis peak hour, has been provided on Table 1-5 for each of the cumulatively impacted intersections. Improvements included in a defined program and constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate. The fair-share calculations, also presented on Table 1-5, indicate that the Project contributes between 12.7% and 14.8% of new vehicle trips to the cumulatively impacted intersections throughout the study area. The Project's fair share will be determined based on a higher of the AM or PM peak hour percentages in order to utilize the most conservative fair share percentage.

For improvements that do not appear to be in DIF, a fair share contribution based on the Project's percentage contribution may be imposed in order to mitigate the Project's share of impacts in lieu of construction. These fees are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases. Alternatively, minor fair share responsibilities may be waived when collection is infeasible or where other mitigation assignments substantially exceed the Project's demonstrated impacts.

A rough order of magnitude cost has been prepared to determine the appropriate contribution value based upon the Project's fair share of traffic as part of the project approval process. Table 1-4 also summarizes the applicable cost associated with each of the recommended improvements based on the preliminary construction cost estimates found in Appendix G of the San Bernardino County CMP in conjunction with a cost escalation factor of 1.484% to reflect current (2019) costs. The total cost of needed study area intersection improvements is $1,000. Based on the project fair share percentages shown on Table 1-4, the project's fair share cost is estimated at $148. These estimates are a rough order of magnitude only as they are intended only for discussion purposes and do not imply any legal responsibility or formula for contributions or mitigation.

1.7 CUMULATIVE IMPACTS

A summary of the cumulatively impacted study area intersections and recommended mitigation measures to address cumulatively significant impacts are described in detail within Section 6.0 *Horizon Year (2040) Traffic Conditions*. Cumulative impacts are deficiencies that would not be directly caused by the Project. The Project would, however, contribute traffic to these deficient facilities along with other cumulative development projects, resulting in a cumulatively considerable impact. The following mitigation measure is based on the improvements needed for either Opening Year Cumulative (2022) or Horizon Year (2040) traffic conditions.

1.7.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

A summary of off-site improvements needed to address cumulative traffic impacts for Horizon Year (2040) traffic conditions were included on Table 1-4. Improvements found to be included in City of Fontana (lead agency) DIF program have been identified as such. For improvements that are not in the City's DIF program, a fair share financial contribution based on the Project's fair share impact shall be imposed (for City of Fontana facilities) and may be imposed by other jurisdictions in order to mitigate the Project's share of impacts in lieu of construction. Because the City of Fontana does not have plenary control over intersections under other jurisdictions, the City of Fontana cannot guarantee that such improvements will be constructed. These fees (both to the City of Fontana, and as determined, to surrounding agencies as fair-share contributions) are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases. These estimates are a rough order of magnitude only as they are intended only for discussion purposes and do not imply any legal responsibility or formula for contributions or mitigation.

1.7.2 CUMULATIVE MITIGATION MEASURES

Mitigation Measure 1.1 – Prior to the issuance of building permits, the Project Applicant shall participate in the City's DIF program by paying the requisite DIF fee at the time of building permit; and in addition, shall pay the fair share amount of $148, or as agreed to by the City and Project Applicant, for the improvements identified on Table 1-4 which are consistent with the improvements shown on Table 7-5, but not included in a pre-existing fee program.

1.8 ON-SITE ROADWAY IMPROVEMENTS

Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements should be in place prior to occupancy.

1.8.1 SITE ADJACENT ROADWAY IMPROVEMENTS

The recommended site-adjacent roadway improvements for the Project are described below. Exhibit 1-4 illustrates the site-adjacent roadway improvement recommendations. The recommended site-adjacent roadway improvements are described below. These improvements need to be incorporated prior to project approval or imposed as conditions of approval as part of the project approval.

Cypress Avenue – Cypress Avenue is a north-south oriented roadway located along the Project's western boundary. Construct Cypress Avenue at its ultimate half-section width as a secondary highway (92-foot right-of-way) between the Project's northern and southern boundaries. Improvements along the Project's frontage would be those required by final conditions of approval for the proposed Project and applicable City of Fontana standards.

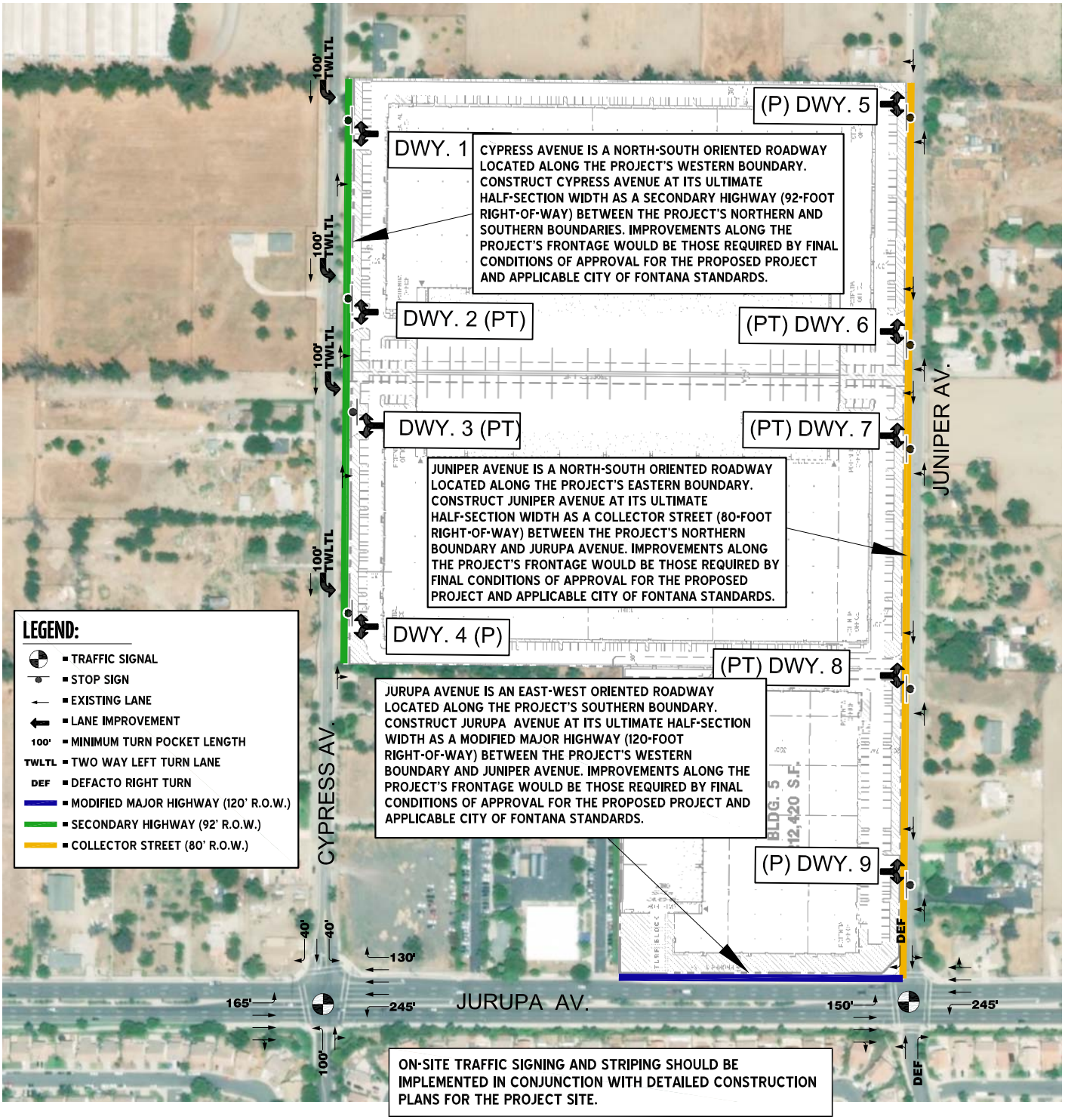
Juniper Avenue – Juniper Avenue is a north-south oriented roadway located along the Project's eastern boundary. Construct Juniper Avenue at its ultimate half-section width as a collector street (80-foot right-of-way) between the project's northern boundary and Jurupa Avenue. Improvements along the Project's frontage would be those required by final conditions of approval for the proposed project and applicable City of Fontana standards.

Jurupa Avenue – Jurupa Avenue is an east-west oriented roadway located along the Project's southern boundary. Construct Jurupa Avenue at its ultimate half-section width as a modified major highway (120-foot right-of-way) between the Project's western boundary and Juniper Avenue. Improvements along the Project's frontage would be those required by Final conditions of approval for the Proposed project and applicable City of Fontana standards.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project site.

Sight distance at each project access point should be reviewed with respect to standards Caltrans and City of Fontana standards at the time of preparation of final grading, landscape and street improvement plans.

EXHIBIT 1-4: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS



1.9 SITE ACCESS IMPROVEMENTS

The recommended site access driveway improvements for the Project are described below. Exhibit 1-4 also illustrates the site access improvements. Construction of on-site and site adjacent improvements shall occur in conjunction with adjacent Project development activity or as needed for Project access purposes.

Cypress Avenue & Driveway 1 **(#10)** – Install a stop control on the westbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared through-right turn lane.
- Southbound Approach: One left turn lane providing a minimum of 100-feet of storage within the two-way left turn lane and one through lane.
- Eastbound: Not Applicable (N/A)
- Westbound Approach: One shared left-right turn lane.

Cypress Avenue & Driveway 2 **(#11)** – Install a stop control on the westbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared through-right turn lane.
- Southbound Approach: One left turn lane providing a minimum of 100-feet of storage within the two-way left turn lane and one through lane.
- Eastbound: N/A
- Westbound Approach: One shared left-right turn lane.

Cypress Avenue & Driveway 3 **(#12)** – Install a stop control on the westbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared through-right turn lane.
- Southbound Approach: One left turn lane providing a minimum of 100-feet of storage within the two-way left turn lane and one through lane.
- Eastbound: N/A
- Westbound Approach: One shared left-right turn lane.

Cypress Avenue & Driveway 4 **(#13)** – Install a stop control on the westbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared through-right turn lane.
- Southbound Approach: One left turn lane providing a minimum of 100-feet of storage within the two-way left turn lane and one through lane.
- Eastbound: N/A
- Westbound Approach: One shared left-right turn lane.

***Juniper Avenue & Driveway 5* (#16)** – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through lane.
- Southbound Approach: One shared through-right turn lane.
- Eastbound Approach: One shared left-right turn lane.
- Westbound: N/A

***Juniper Avenue & Driveway 6* (#17)** – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through lane.
- Southbound Approach: One shared through-right turn lane.
- Eastbound Approach: One shared left-right turn lane.
- Westbound: N/A

***Juniper Avenue & Driveway 7* (#18)** – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through lane.
- Southbound Approach: One shared through-right turn lane.
- Eastbound Approach: One shared left-right turn lane.
- Westbound: N/A

***Juniper Avenue & Driveway 8* (#19)** – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through lane.
- Southbound Approach: One shared through-right turn lane.
- Eastbound Approach: One shared left-right turn lane.
- Westbound: N/A

***Juniper Avenue & Driveway 9* (#20)** – Install a stop control on the eastbound approach and construct the intersection with the following geometrics:

- Northbound Approach: One shared left-through lane.
- Southbound Approach: One shared through-right turn lane.
- Eastbound Approach: One shared left-right turn lane.
- Westbound: N/A

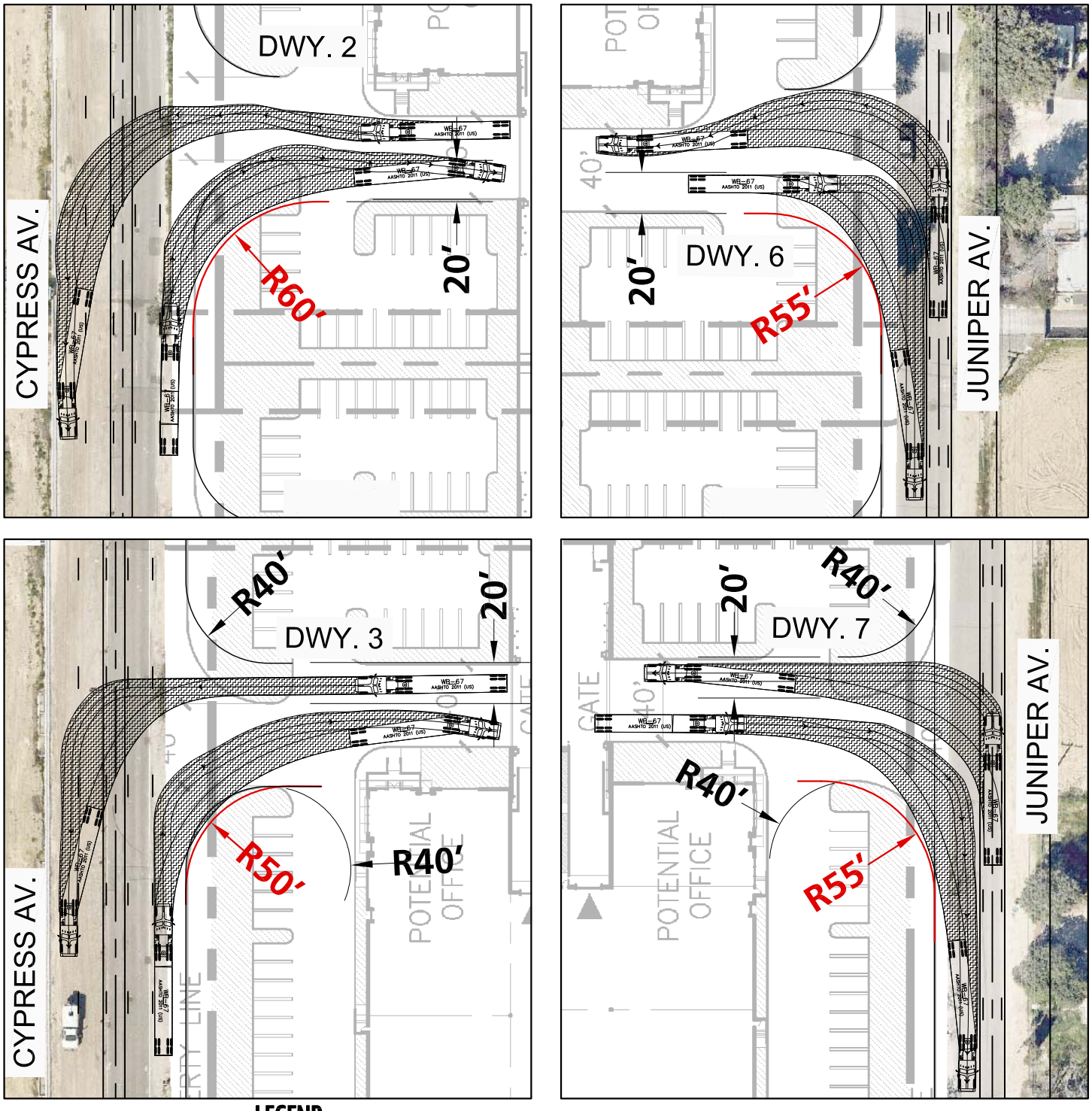
Wherever necessary, roadways adjacent to the Project, site access points and site-adjacent intersections will be constructed to be consistent with the identified roadway classifications and respective cross-sections in the County of Riverside General Plan Circulation Element.

1.10 TRUCK ACCESS

Due to the typical wide turning radius of large trucks, a truck turning template has been overlaid on the site plan at each applicable Project driveway anticipated to be utilized by heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turning maneuvers (see Exhibit 1-5). A WB-67 truck (53-foot trailer) has been utilized for the purposes of this analysis. As shown on Exhibit 1-5, the following curb radius and driveway changes are necessary in order to accommodate the ingress and egress of heavy trucks:

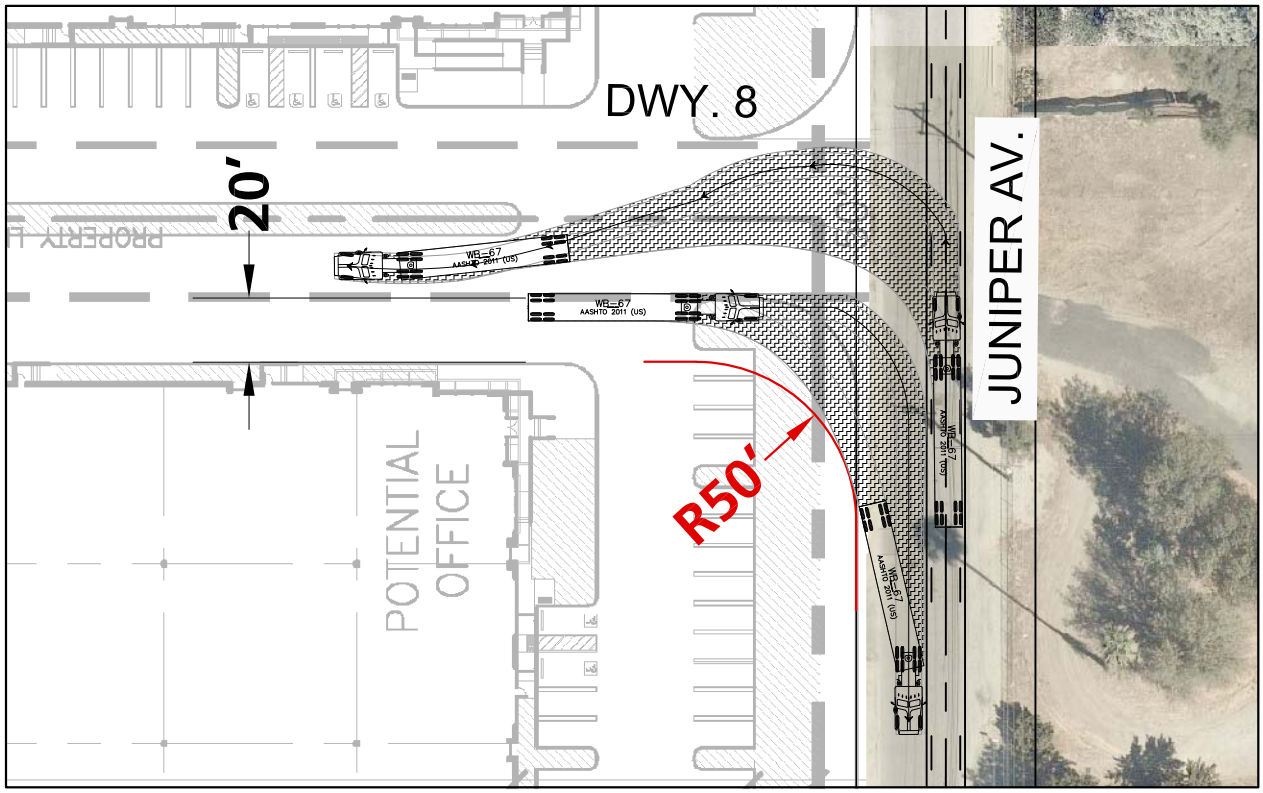
- Driveway 2 on Cypress Avenue should be modified to provide a 60-foot curb radius on the southeast corner. In addition, the landscaped median on the southeast corner would need to be modified by 20-feet to align the driveway with the drive-aisle.
- Driveway 3 on Cypress Avenue should be modified to provide a 50-foot curb radius on the southeast corner. In addition, modify the landscaped median to the northeast corner by 20-feet to align the driveway with the drive-aisle. The existing 40-foot curb radius can be maintained on the northeast corner.
- Driveway 6 on Juniper Avenue should be modified to provide a 55-foot curb radius on the southwest corner. In addition, modify the landscaped median on the southwest corner by 20-feet to align the driveway with the drive-aisle.
- Driveway 7 on Juniper Avenue should be modified to provide a 55-foot curb radius on the southwest corner. In addition, modify the landscaped median to the northwest corner by 20-feet to align the driveway with the drive-aisle. The existing 40-foot curb radius can be maintained on the northwest corner.
- Driveway 8 on Juniper Avenue should be modified to provide a 50-foot curb radius on the southwest corner. In addition, modify the landscaped median to the southwest corner by 20-feet to align the driveway with the drive-aisle.

EXHIBIT 1-5 (1OF2): TRUCK ACCESS

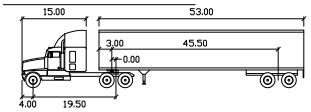


12382 - aturn.dwg

EXHIBIT 1-5 (2OF2): TRUCK ACCESS



LEGEND:



WB-67

	feet		
Tractor Width	8.00	Lock to Lock Time	6.0
Trailer Width	8.50	Steering Angle	28.4
Tractor Track	8.00	Articulating Angle	75.0
Trailer Track	8.50		

N

GRAPHIC SCALE
0 30 60
1"=60'

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with City of Fontana's Traffic Study Guidelines. (1)

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (6) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Fontana and City of Jurupa Valley require signalized intersection operations analysis based on the methodology described in the HCM. (6)

Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described on Table 2-1.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F	F

Source: HCM, 6th Edition

The traffic modeling and signal timing optimization software package Synchro (Version 10) has been utilized to analyze signalized intersections within the study area. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM (6th Edition). (6) Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The LOS and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

The LOS analysis for signalized intersections has been performed using existing signal timing for Existing, E+P, Opening Year Cumulative (2022), and Horizon Year (2040) traffic conditions. Appropriate time for pedestrian crossings has also been considered in the signalized intersection analysis.

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM (6th Edition), PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (6)

Saturation flow rates of 1,900 vehicles per hour of green (vphg) has been utilized, consistent with the recommended values in the City's traffic study guidelines. (1)

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Fontana and City of Jurupa Valley require the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (6) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM, 6th Edition

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 ROADWAY SEGMENT CAPACITY ANALYSIS METHODOLOGY

Roadway segment operations have been evaluated using the applicable average daily traffic (ADT) roadway capacity values provided in the City of Fontana General Plan. The roadway capacities utilized for the purposes of this analysis are considered "rule of thumb" estimates for planning purposes and are affected by such factors as intersections (spacing, configuration and control features), degree of access control, roadway grades, design geometrics (horizontal and vertical alignment standards), sight distance, vehicle mix (truck and bus traffic) and pedestrian bicycle traffic.

While using ADT for planning purposes is suitable with regards to evaluating potential volume to capacity with future forecasts, it is not suitable for operational analysis because it does not account for the factors listed previously. As such, where the ADT based roadway segment analysis indicates a deficiency (unacceptable LOS), a review of the more detailed peak hour intersection analysis and progression analysis are undertaken. The more detailed peak hour intersection analysis explicitly accounts for factors that affect roadway capacity. Therefore, roadway segment widening is typically only recommended if the peak hour intersection analysis indicates the need for additional through lanes.

2.4 FREEWAY OFF-RAMP QUEUING ANALYSIS

The study area for this TIA includes the freeway-to-arterial interchanges of the I-10 Freeway at Citrus Avenue. Consistent with California Department of Transportation (Caltrans) requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing impacts at the freeway ramp intersections on Citrus Avenue. Specifically, the queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-10 Freeway mainline from the off-ramps.

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential impacts/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group.

There are two footnotes which appear on the Synchro outputs. One footnote indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The second footnote indicates whether or not the volume for the 95th percentile queue is metered by an upstream signal. In many cases, the 95th percentile queue will not be experienced and may potentially be less than the 50th percentile queue due to upstream metering. If the upstream intersection is at or near capacity, the 50th percentile queue represents the maximum queue experienced.

A vehicle is considered queued whenever it is traveling at less than 10 feet/second. A vehicle will only become queued when it is either at the stop bar or behind another queued vehicle. Although only the 95th percentile queue has been reported in the tables, the 50th percentile queue can be found in the appendix alongside the 95th percentile queue for each ramp location. The 50th percentile maximum queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. The 50th percentile or average queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations.

2.5 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (7)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (7) Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

Traffic signal warrant analyses were performed for the following study area intersection shown on Table 2-3:

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
10	Cypress Avenue & Driveway 1 – Future Intersection	City of Fontana
11	Cypress Avenue & Driveway 2 – Future Intersection	City of Fontana
12	Cypress Avenue & Driveway 3 – Future Intersection	City of Fontana
13	Cypress Avenue & Driveway 4 – Future Intersection	City of Fontana
15	Juniper Avenue & Santa Ana Avenue	City of Fontana
16	Juniper Avenue & Driveway 5 – Future Intersection	City of Fontana
17	Juniper Avenue & Driveway 6 – Future Intersection	City of Fontana
18	Juniper Avenue & Driveway 7 – Future Intersection	City of Fontana
19	Juniper Avenue & Driveway 8 – Future Intersection	City of Fontana
20	Juniper Avenue & Driveway 9 – Future Intersection	City of Fontana

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Area Conditions* of this report. The traffic signal warrant analyses for future conditions are presented in Section 5 *E+P Traffic Conditions,* Section 6 *Opening Year Cumulative (2022) Traffic Conditions,* and Section 7 *Horizon Year (2040) Traffic Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.6 FREEWAY MAINLINE SEGMENT ANALYSIS METHODOLOGY

Consistent with recent Caltrans guidance and because impacts to freeway segments dissipate with distance from the point of State Highway System (SHS) entry, quantitative study of freeway segments beyond those immediately adjacent to the point of entry is not required. As such, the traffic study has evaluated the freeway segments along the I-10 Freeway where the Project is anticipated to contribute 50 or more one-way peak hour trips. Because impacts to freeway segments dissipate with distance from the point of SHS entry, quantitative evaluation of freeway segments with less than 50 peak hour trips are not necessary.

The freeway system in the study area has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway segments have been evaluated in this TIA based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in the HCM and performed using Highway Capacity Software (HCS) 7 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 2-4 illustrates the freeway segment LOS descriptions for each density range utilized for this analysis.

The number of lanes for existing baseline conditions has been obtained from field observations conducted by Urban Crossroads in March 2019. These existing freeway geometrics have been utilized for Existing, E+P, Opening Year Cumulative, and Horizon Year Without and With Project conditions.

The I-10 Freeway mainline volume data was obtained from the Caltrans Performance Measurement System (PeMS) website for the segments of I-10 Freeway west of Citrus Avenue. The data was obtained from March 12th-14th, 2019. In an effort to conduct a conservative analysis, the maximum value observed within the three-day period was utilized for the morning (AM) and evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and peak hour deficiencies. As such, actual vehicles (as opposed to passenger-car-equivalent volumes) have been utilized for the purposes of the basic freeway segment analysis. (8)

TABLE 2-4: DESCRIPTION OF FREEWAY MAINLINE LOS

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM, 6th Edition

2.7 FREEWAY MERGE/DIVERGE RAMP JUNCTION ANALYSIS

The freeway system in the study area has been broken into segments defined by freeway-to-arterial interchange locations resulting in two existing on and off ramp locations. Although the HCM indicates the influence area for a merge/diverge junction is 1,500 feet, the analysis presented in this traffic study has been performed at all ramp locations with respect to the nearest on or off ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects Urban Crossroads has worked on in the region.

The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS7 software. The measure of effectiveness (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on and off ramps both at the analysis junction and at upstream and downstream locations (if applicable) and acceleration/deceleration lengths at each merge/diverge point. Table 2-5 presents the merge/diverge area level of service descriptions for each density range utilized for this analysis.

TABLE 2-5: DESCRIPTION OF FREEWAY MERGE AND DIVERGE LOS

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM, 6th Edition

Similar to the basic freeway segment analysis, the I-10 Freeway mainline volume data was obtained from the Caltrans PeMS website for the segments of the I-10 Freeway interchange west of Citrus Avenue. The ramp data (per the count data presented in Appendix 3.1) was then utilized to flow conserve the mainline volumes to determine the remaining I-10 Freeway mainline segment volumes. Flow conservation checks ensure that traffic flows from east to west (and vice versa) of the interchange area with no unexplained loss of vehicles. The data was obtained from March 12th-14th, 2019. In an effort to conduct a conservative analysis, the maximum value observed within the three-day period was utilized for the morning (AM) and evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of this analysis in an effort to not overstate traffic volumes and peak hour deficiencies. (9) As such, actual vehicles (as opposed to passenger-car-equivalent volumes) have been utilized for the purposes of the freeway ramp junction (merge/diverge) analysis.

2.8 MINIMUM LEVEL OF SERVICE (LOS)

The definition of an intersection deficiency has been obtained from each of the applicable jurisdictions.

2.8.1 CITY OF FONTANA

The City of Fontana has set the goal for acceptable LOS as LOS C or better, wherever feasible (see City's Traffic Study Guidelines). However, in some instances maintaining the LOS C threshold within a built environment may require extensive roadway widening that could affect existing uses, property rights and substantial costs associated with implementing these improvements. In the event that the improvements required to maintain LOS C is determined to be infeasible, the City of Fontana recognizes that LOS D may be considered the worst acceptable level of service in urbanized areas of the City. Where feasible, LOS C has been utilized as the minimum LOS criteria for intersections located within the City of Fontana. (1)

2.7.5 CITY OF JURUPA VALLEY

Per the City of Jurupa Valley's General Plan Policy ME 1.1, the City of Jurupa Valley utilizes a minimum acceptable LOS of LOS D at all intersections, except where flexibility is warranted based on a multi-modal LOS evaluation, or where LOS E is deemed appropriate to accommodate complete streets/multi-modal facilities. (12)

2.8.2 SAN BERNARDINO COUNTY CMP

The CMP definition of deficiency is based on maintaining a level of service standard of LOS E or better, where feasible, except where an existing LOS F condition is identified in the CMP document. (2) However, for the purposes of this TIA, LOS C has been utilized consistent with the City of Fontana LOS criteria.

2.8.3 CALTRANS

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on SHS facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing LOS should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is LOS D. LOS D will be used as the target LOS for freeway ramps, freeway segments, and freeway merge/diverge ramp junctions.

2.9 THRESHOLDS OF SIGNIFICANCE

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies. For purposes of analyzing California Environmental Quality Act (CEQA) impacts, the E+P scenario will be used to establish direct project impacts.

2.9.1 INTERSECTIONS

City of Fontana:

For the intersections that lie within the City of Fontana, determination of significant impacts will be based on a comparison of without and with project levels of service for each analysis year. A Significant Impact occurs if project traffic increases the average delay at an intersection by more than the thresholds identified on Table 2-6. The thresholds for LOS A, B, and C do not apply to projects consistent with the General Plan.

TABLE 2-6: THRESHOLDS OF SIGNIFICANT IMPACT

Pre-Project LOS	Significant Impact Threshold[1]
A/B	10.0 Seconds
C	8.0 Seconds
D	5.0 Seconds
E	2.0 Seconds
F	1.0 Second

Source: Fontana Traffic Study Guidelines, 2015

[1] Increase in delay

City of Jurupa Valley:

For intersections that lie within the City of Jurupa Valley, the following will be utilized to determine whether the addition of Project traffic (as defined through the comparison of Existing traffic conditions to E+P traffic conditions) at a study intersection would result in a project-specific traffic deficiency:

- When the pre-Project condition is at or better than LOS D (or LOS E for CMP intersections and intersections located in the City of Ontario) (i.e., acceptable LOS), and project-generated traffic, as measured by 50 or more peak hour trips, causes deterioration below LOS D/LOS E (i.e., unacceptable LOS), a deficiency is deemed to occur.

However, when the pre-Project condition is already below LOS D/LOS E (i.e., unacceptable LOS), the Project will be responsible for improving its deficiency to a level of service equal to or better than it was without the Project for intersections that receive 50 or more peak hour project-related trips.

Cumulative traffic deficiencies are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic deficiencies requiring additional improvements to maintain acceptable level of service operations with or without the Project and are defined as the addition of 50 or more peak hour trips, and all facilities that would receive 50 or more peak hour trips from the Project are evaluated in this report.

2.9.2 CALTRANS FACILITIES

To determine whether the addition of project traffic to the SHS freeway segments would result in a deficiency, the following will be utilized:

- The traffic study finds that the LOS of a segment will degrade from D or better to E or F.
- The traffic study finds that the project will exacerbate an already deficient condition by contributing 50 or more one-way peak hour trips. A segment that is operating at or near capacity is deemed to be deficient.

2.9.3 CUMULATIVE IMPACTS:

Cumulative traffic impacts are deficiencies that are not directly caused by the Project, but occur as a result of regional growth combined with that or other nearby cumulative development projects. Cumulative impacts utilize the same thresholds of significant impacts as shown on Table 2-6. The Project's contribution to a particular cumulative transportation deficiency is deemed cumulatively considerable if the Project adds significant traffic to the forecasted deficiency (Per Table 2-6). A Project's contribution to a cumulatively considerable impact can be reduced to less than significant if the Project is required to implement or fund its fair share of improvements designed to alleviate the potential cumulative impact. If full funding of future cumulative improvements is not reasonably assured, a temporary unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed. The I-10 Ramps on Citrus Avenue lie within the jurisdiction of Caltrans.

2.10 PROJECT FAIR SHARE CALCULATION METHODOLOGY

In cases where this TIA identifies that the proposed Project would have a significant cumulative impact to a roadway facility, and the recommended mitigation measure is a fair share monetary contribution, the following methodology was applied to determine the fair share contribution. A project's fair share contribution at an off-site study area intersection is determined based on the following equation, which is the ratio of Project traffic to new traffic, and new traffic is total future traffic subtracts existing baseline traffic:

Project Fair Share % = Project Traffic / (2040 Total Traffic – Existing Baseline Traffic)

The Project fair share contribution calculations are presented in Section 1.6 *Local and Regional Funding Mechanisms* of this TIA.

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3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Fontana, County of San Bernardino, and City of Jurupa Valley General Plan Circulation Networks, and a review of existing peak hour intersection operations, roadway segment operations, traffic signal warrants, and freeway facility operations analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to discussion with City of Fontana staff, the study area includes a total of 30 existing and future intersections as shown previously on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF FONTANA AND CITY OF JURUPA VALLEY GENERAL PLAN CIRCULATION ELEMENTS

As previously noted, the Project site is located within the City of Fontana. Exhibit 3-2 shows the City of Fontana Circulation Master Plan and Exhibit 3-3 illustrates the City of Fontana General Plan roadway cross-sections. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Fontana Circulation Master Plan, are described subsequently. Exhibits 3-4 and 3-5 show the City of Jurupa Valley General Plan Circulation Element and roadway cross-sections, respectively.

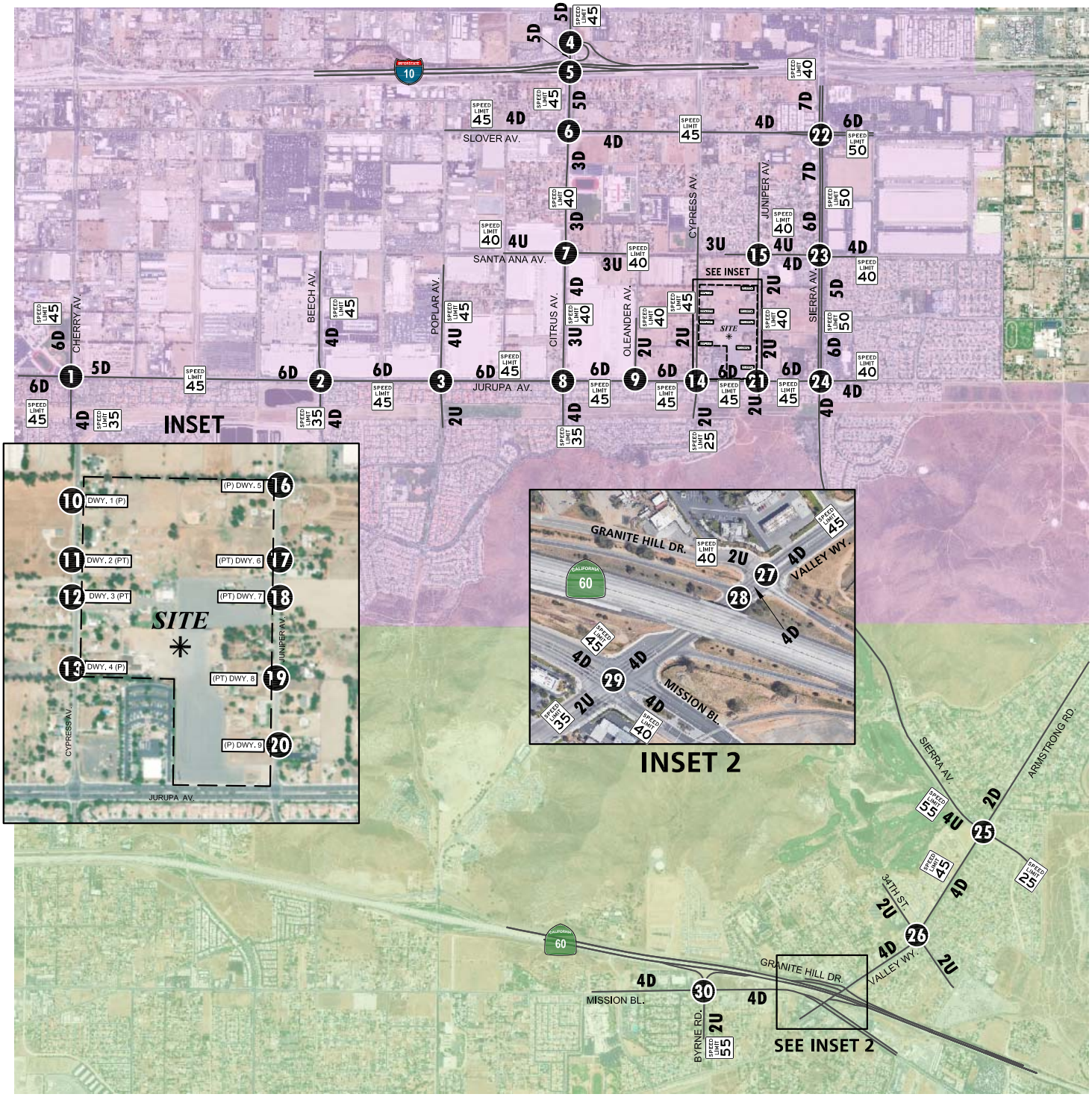
Major Highways can accommodate six or eight travel lanes and may have raised medians. These facilities carry high traffic volumes and are the primary thoroughfares linking Fontana with adjacent cities and the regional highway system. Driveway access to these roadways is typically limited to provide efficient high-volume traffic flow. Right of way (including sidewalks) on these facilities varies between 132 and 156 feet depending on the number of lanes. The following study area roadways within the City of Fontana are classified as Major Highways:

- Cherry Avenue, Jurupa Avenue to Slover Avenue
- Citrus Avenue, Slover Avenue to Valley Boulevard
- Sierra Avenue, Jurupa Avenue to Slover Avenue

Modified Major Highways are adapted streets being brought up to the Major Highway classification from existing and previous conditions. The following study area roadways within the City of Fontana are classified as Modified Major Highways:

- Jurupa Avenue
- Cherry Avenue, Slover Avenue to Valley Boulevard
- Sierra Avenue, Slover Avenue to Valley Boulevard

EXHIBIT 3-1 (1OF2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



LEGEND:

- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- SPEED LIMIT 25 = SPEED LIMIT (MPH)

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EXHIBIT 3-1 (2OF2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

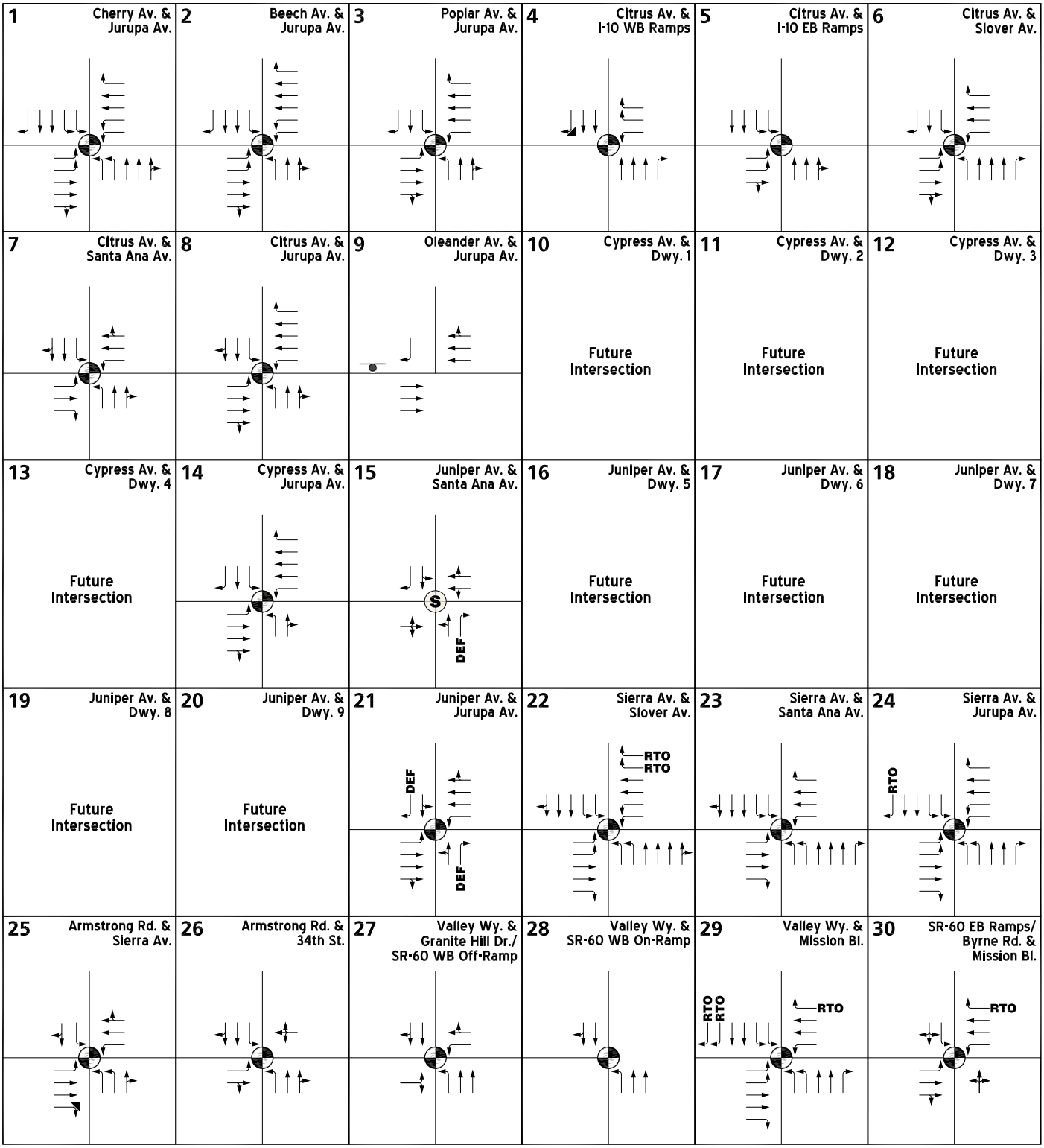

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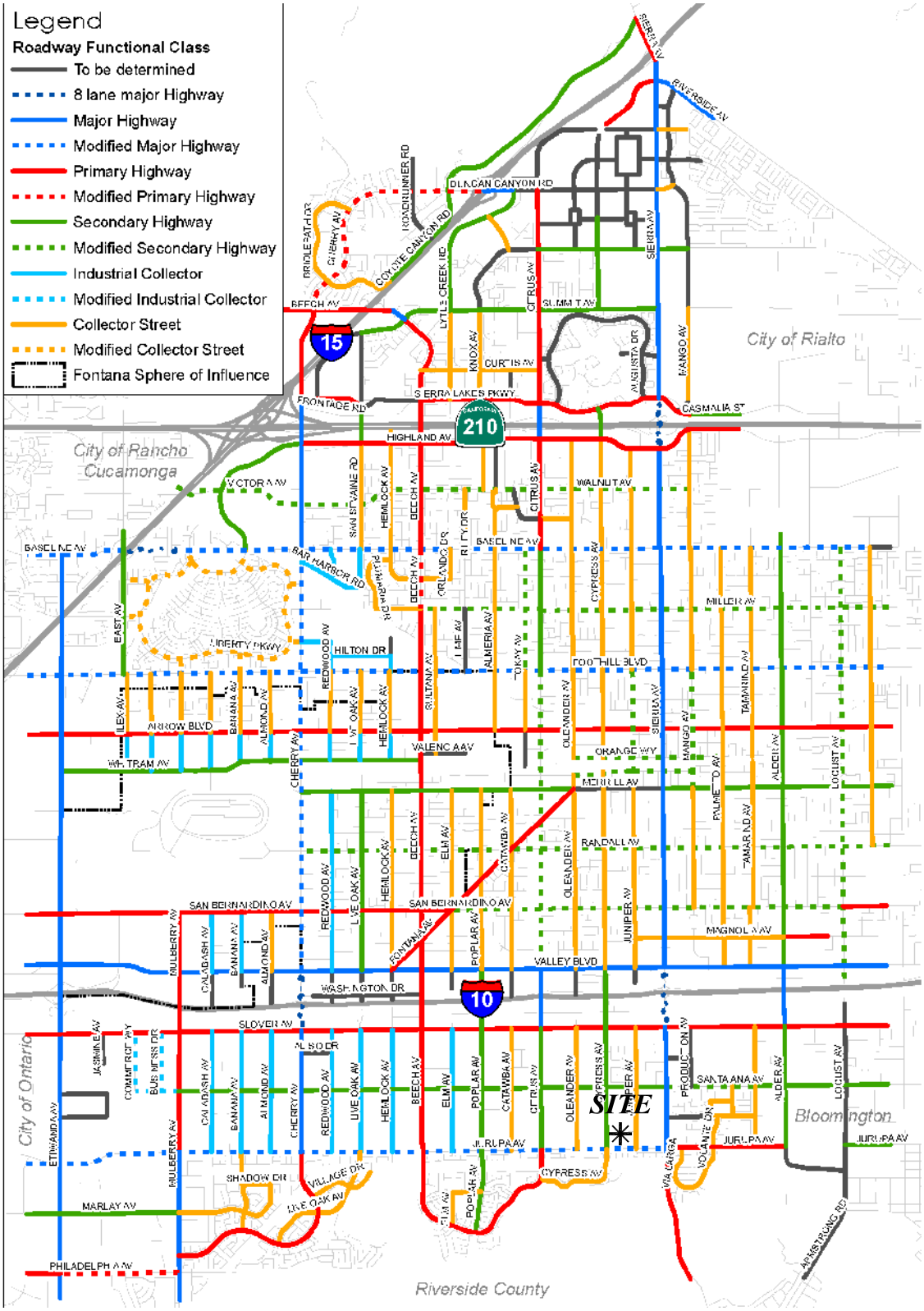
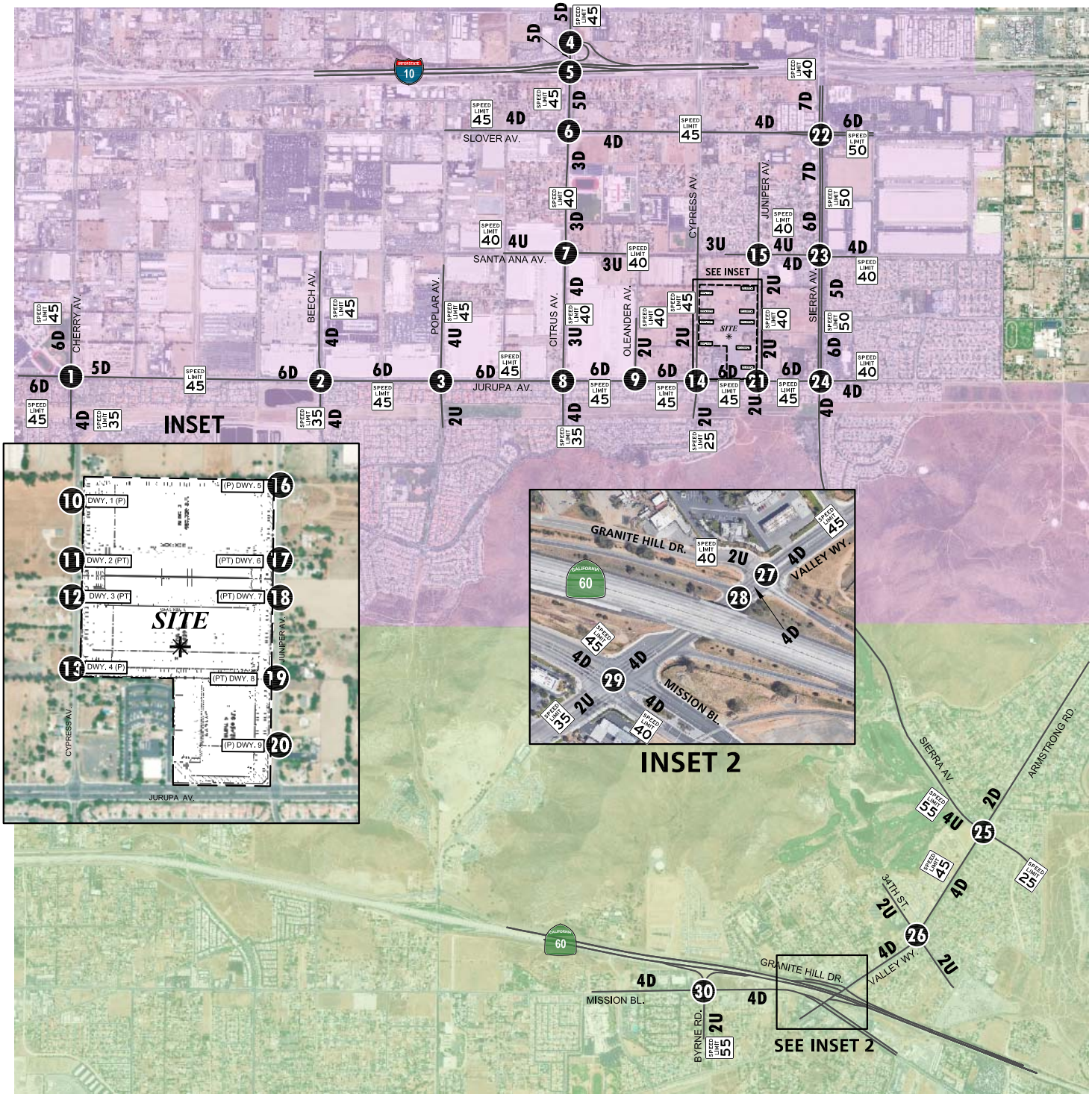
EXHIBIT 3-2: CITY OF FONTANA CIRCULATION MASTER PLAN



Source: City of Fontana
November 2018

EXHIBIT 3-1 (1OF2): EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



LEGEND:

- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- SPEED LIMIT 25 = SPEED LIMIT (MPH)

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EXHIBIT 3-3 (2OF2): CITY OF FONTANA GENERAL PLAN ROADWAY CROSS-SECTIONS

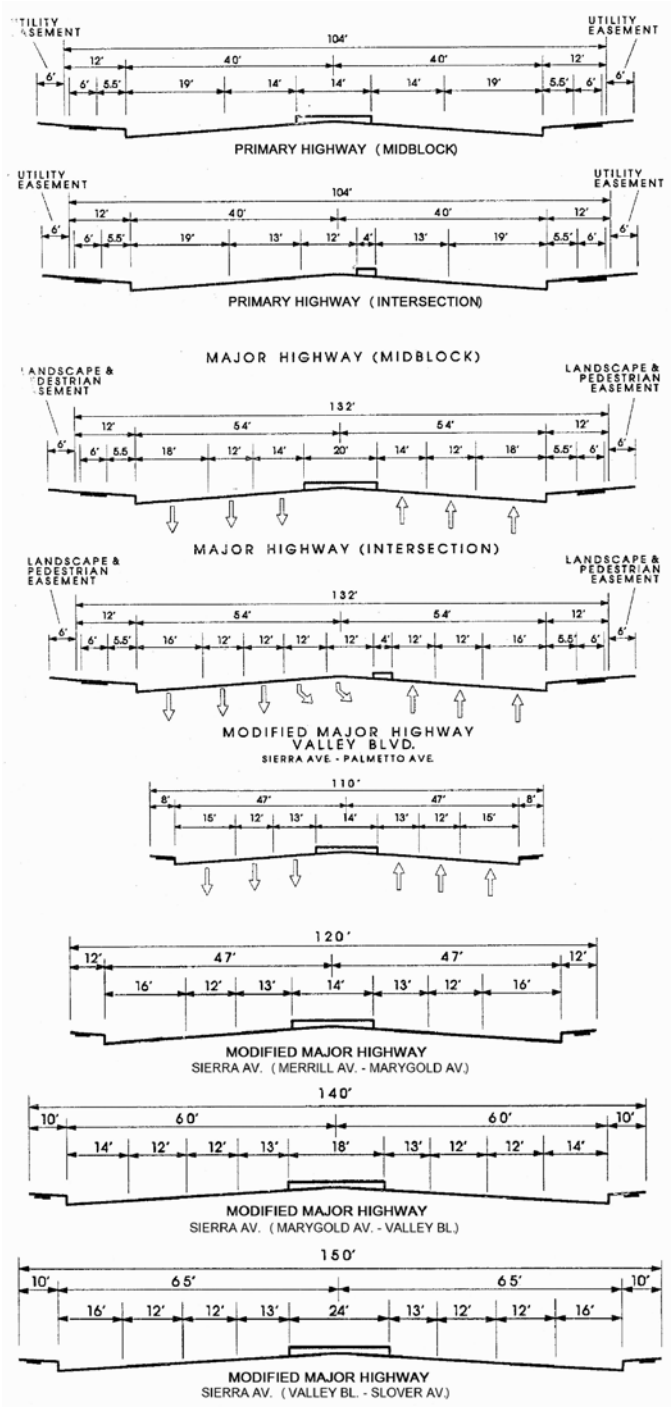


EXHIBIT 3-4: CITY OF JURUPA VALLEY CIRCULATION ELEMENT

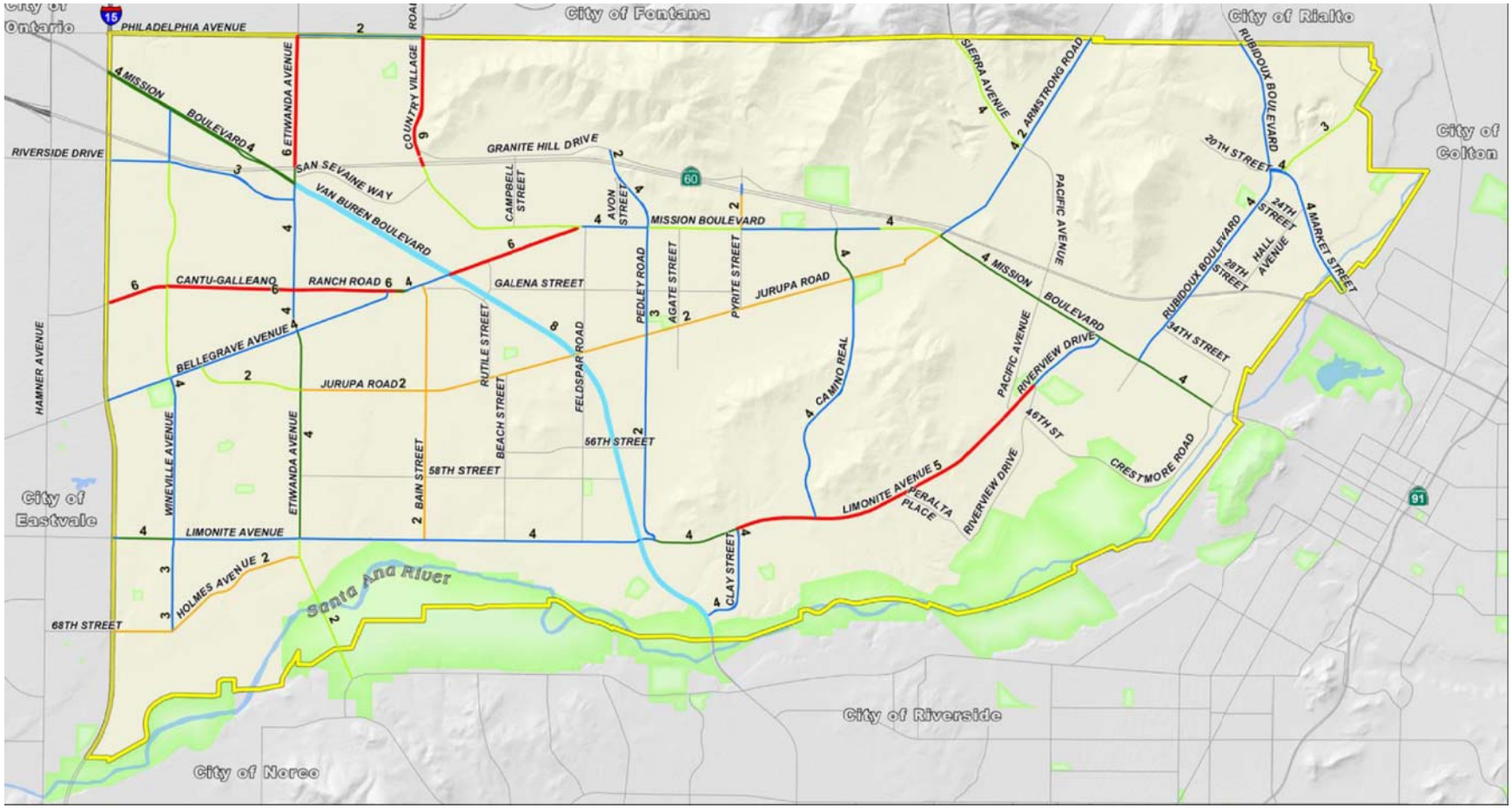


EXHIBIT 3-5: CITY OF JURUPA VALLEY GENERAL PLAN ROADWAY CROSS-SECTIONS

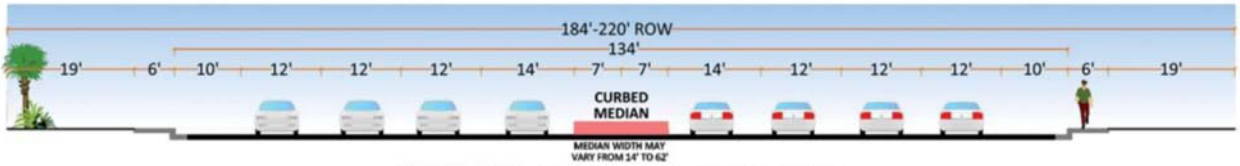


EXHIBIT 1: EXPRESSWAY- 6 TO 8 LANES

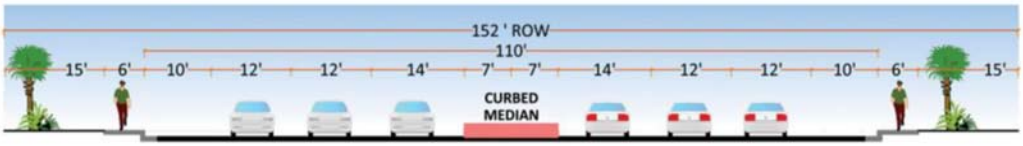


EXHIBIT 2: URBAN ARTERIAL

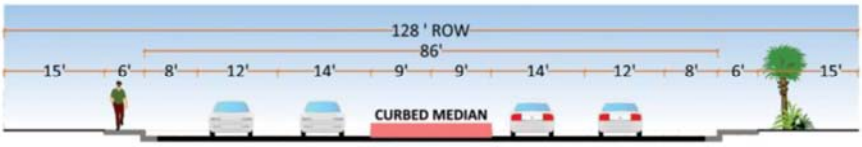


EXHIBIT 3: ARTERIAL

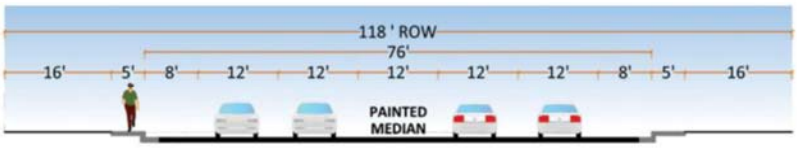


EXHIBIT 4: MAJOR - 4 LANES

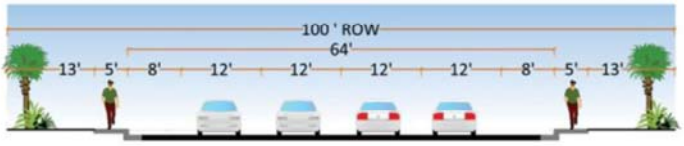


EXHIBIT 5: SECONDARY

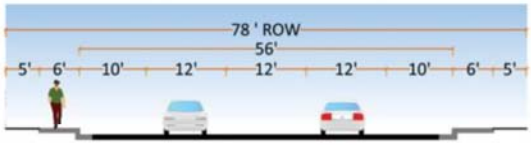


EXHIBIT 6: INDUSTRIAL COLLECTOR

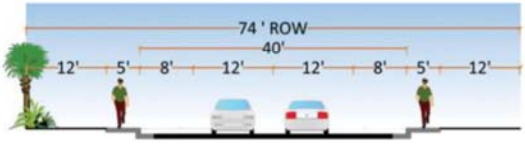


EXHIBIT 7: COLLECTOR

Primary Highways are designed to accommodate four travel lanes with a median, within a typical 104-foot right of way, carry high traffic volumes and provide limited access. Their primary function is to link the major highways to the secondary highways as well as to carry vehicles entering and exiting the City from neighboring areas. Driveway access is also typically limited on these facilities, where feasible. The following study area roadways within the City of Fontana are classified as Primary Highways:

- Slover Avenue
- Beech Avenue

Secondary Highways are typically four-lane streets, providing two lanes in each direction. These highways carry traffic along the perimeters of major developments, provide support to the major and primary highways, and are also through streets enabling traffic to travel uninterrupted for longer distances through the City. Secondary highways have a 92-foot wide right of way, which includes sidewalks. The following study area roadways within the City of Fontana are classified as Secondary Highways:

- Santa Ana Avenue
- Citrus Avenue, Jurupa Avenue to Slover Avenue
- Cypress Avenue, Jurupa Avenue to Valley Boulevard
- Poplar Avenue

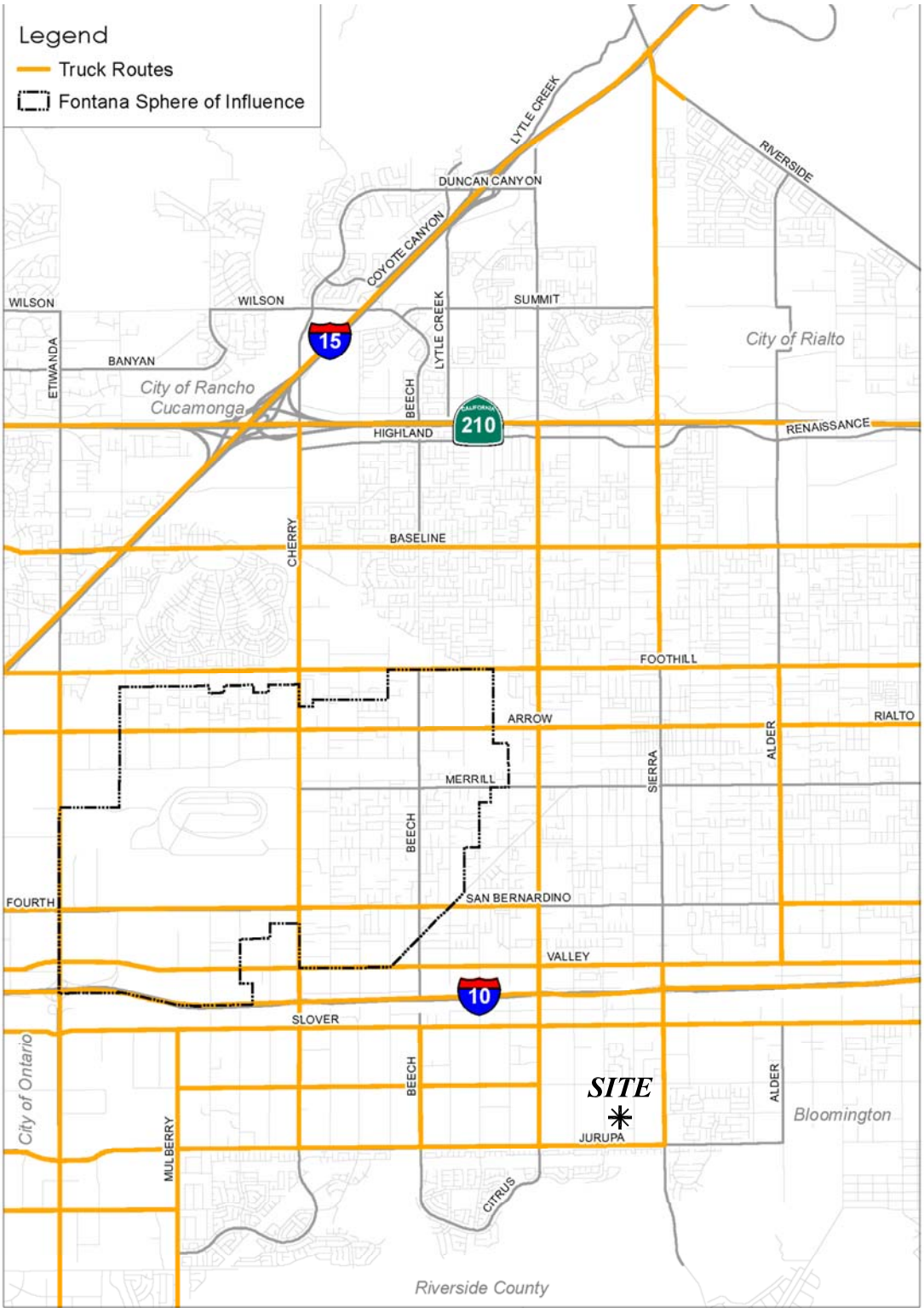
Collector Streets are typically two-lane streets that connect the local streets with the secondary highways allowing local traffic to access the regional transportation facilities. Collector streets have a 68-foot wide right of way and Industrial Collectors have an 80-foot right of way. The following study area roadways within the City of Fontana are classified as Collector Streets:

- Juniper Avenue
- Oleander Avenue

3.3 TRUCK ROUTES

The City of Fontana designated truck route map is shown on Exhibit 3-6. Slover Avenue, Santa Ana Avenue (west of Citrus Avenue), Jurupa Avenue, Cherry Avenue, Beech Avenue, Citrus Avenue, and Sierra Avenue are study area roadways that are identified as existing City of Fontana truck routes. The designated truck route maps have been utilized to route truck traffic from the proposed Project throughout the study area. The truck routes have also been utilized for routing truck traffic for cumulative projects.

EXHIBIT 3-6: CITY OF FONTANA EXISTING TRUCK ROUTES



Source: City of Fontana
November 2018

3.4 BICYCLE & PEDESTRIAN FACILITIES

The City of Fontana General Plan Bikeways and Trails are shown on Exhibit 3-7 and 3-8, respectively. As shown on Exhibit 3-7 and 3-8, there are Class II bike lanes existing/proposed along Cherry Avenue, Beech Avenue, Poplar Avenue, Citrus Avenue, Oleander Avenue Bernardino Avenue, Santa Ana Avenue, Citrus Avenue, Cypress Avenue, Sierra Avenue, Jurupa Avenue, and Santa Ana Avenue near the vicinity of the Project. There is a Class I bike path/trail along the Southern California Edison utility corridor south of Jurupa Avenue. Jurupa Hills Trail is another Class I bike path/trail located south of Jurupa Avenue. Existing pedestrian facilities within the study area are shown on Exhibit 3-9. There are existing bike lanes along Citrus Avenue, north of Slover Avenue within the study area. Field observations indicate nominal pedestrian and bicycle activity within the study area.

3.5 TRANSIT SERVICE

The study area is currently served by Omnitrans, a public transit agency serving various jurisdictions within San Bernardino County, with bus service along Jurupa Avenue and Sierra Avenue via Route 82, which would likely serve the Project. Other transit routes within the study area include Omnitrans 290. The existing bus route provided within the area by Omnitrans is shown on Exhibit 3-10. Transit service is reviewed and updated by Omnitrans periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

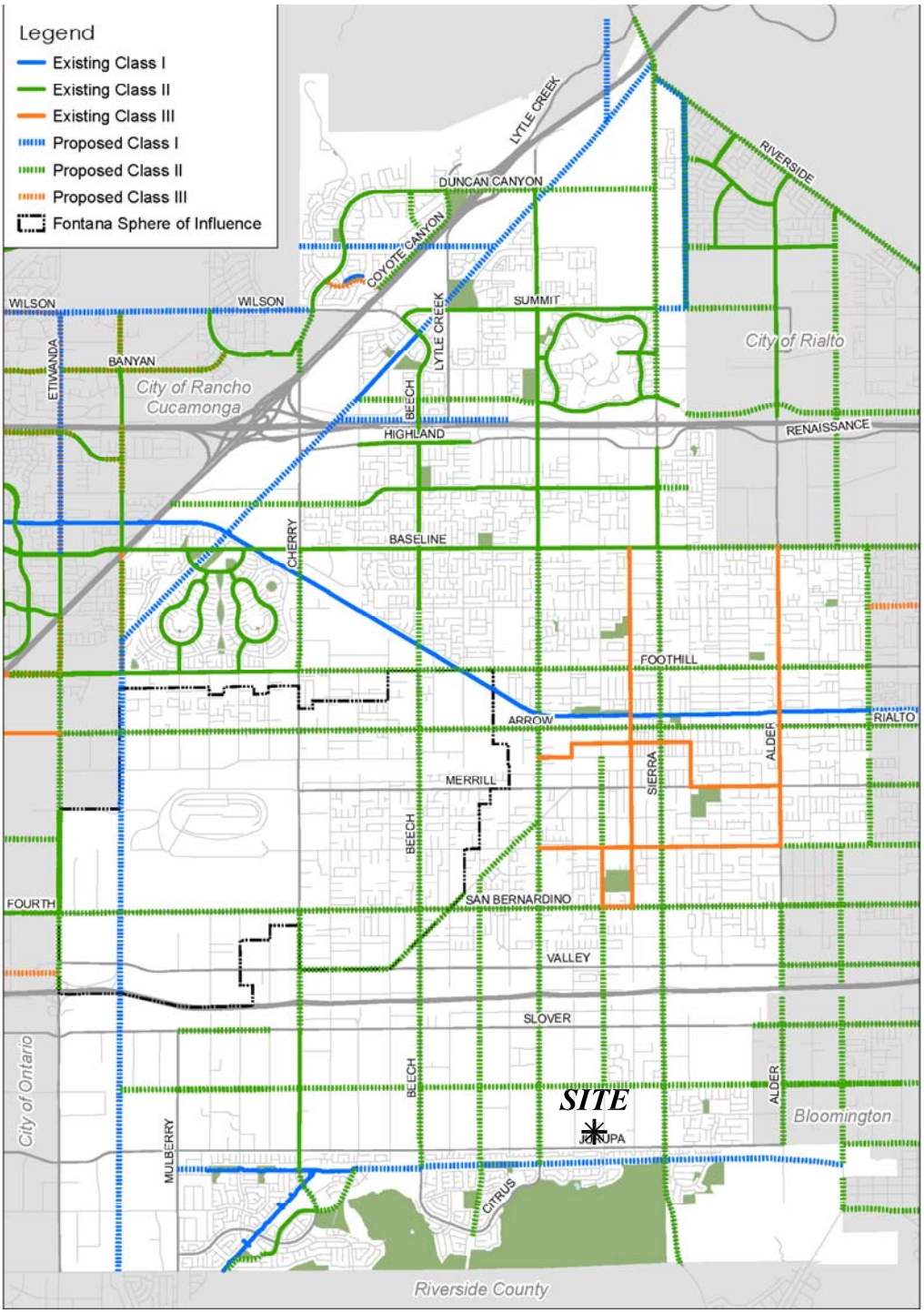
3.6 EXISTING TRAFFIC COUNTS

Manual AM and PM peak hour turning movement counts were conducted in March 2019. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. The traffic counts collected in March 2019 include the following vehicle classifications: Passenger Cars, 2-Axle Trucks, 3-Axle Trucks, and 4 or More Axle Trucks. To represent the impact large trucks, buses and recreational vehicles have on traffic flow; all trucks were converted into passenger-car-equivalent (PCE). By their size alone, these vehicles occupy the same space as two or more passenger cars. In addition, the time it takes for them to accelerate and slow-down is much longer than for passenger cars, and varies depending on the type of vehicle and number of axles. For the purpose of this analysis, a PCE factor of 2.0 has been applied to 2-axle trucks, 2.5 for 3-axle trucks, and 3.0 for 4+-axle trucks to estimate each turning movement. These factors are consistent with the values recommended for use in the City's traffic study guidelines.

Existing average daily traffic (ADT) volumes on arterial highways throughout the study area are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 11.1404 = Leg Volume

EXHIBIT 3-7: CITY OF FONTANA GENERAL PLAN BIKEWAYS



Source: City of Fontana
November 2018

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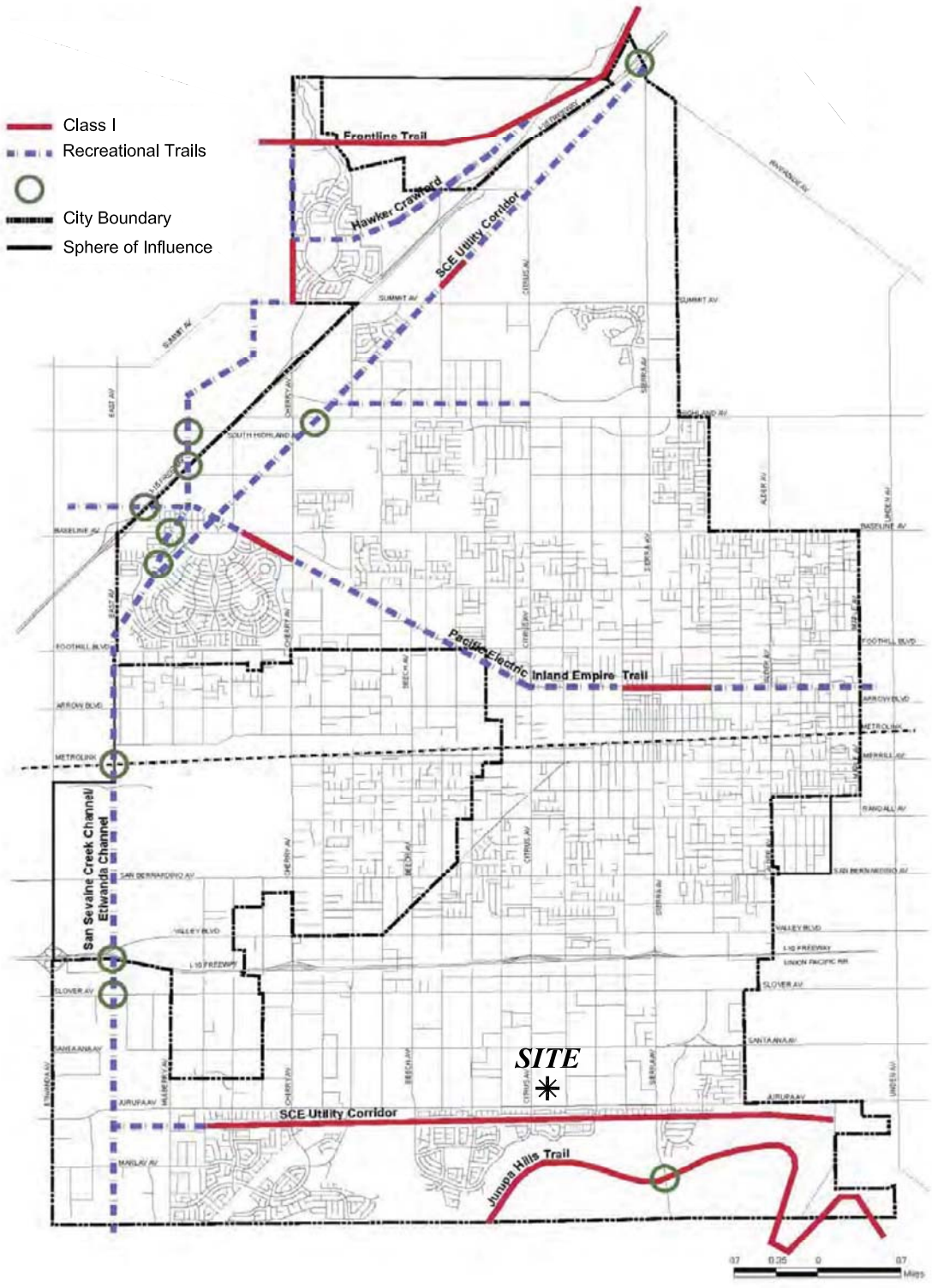
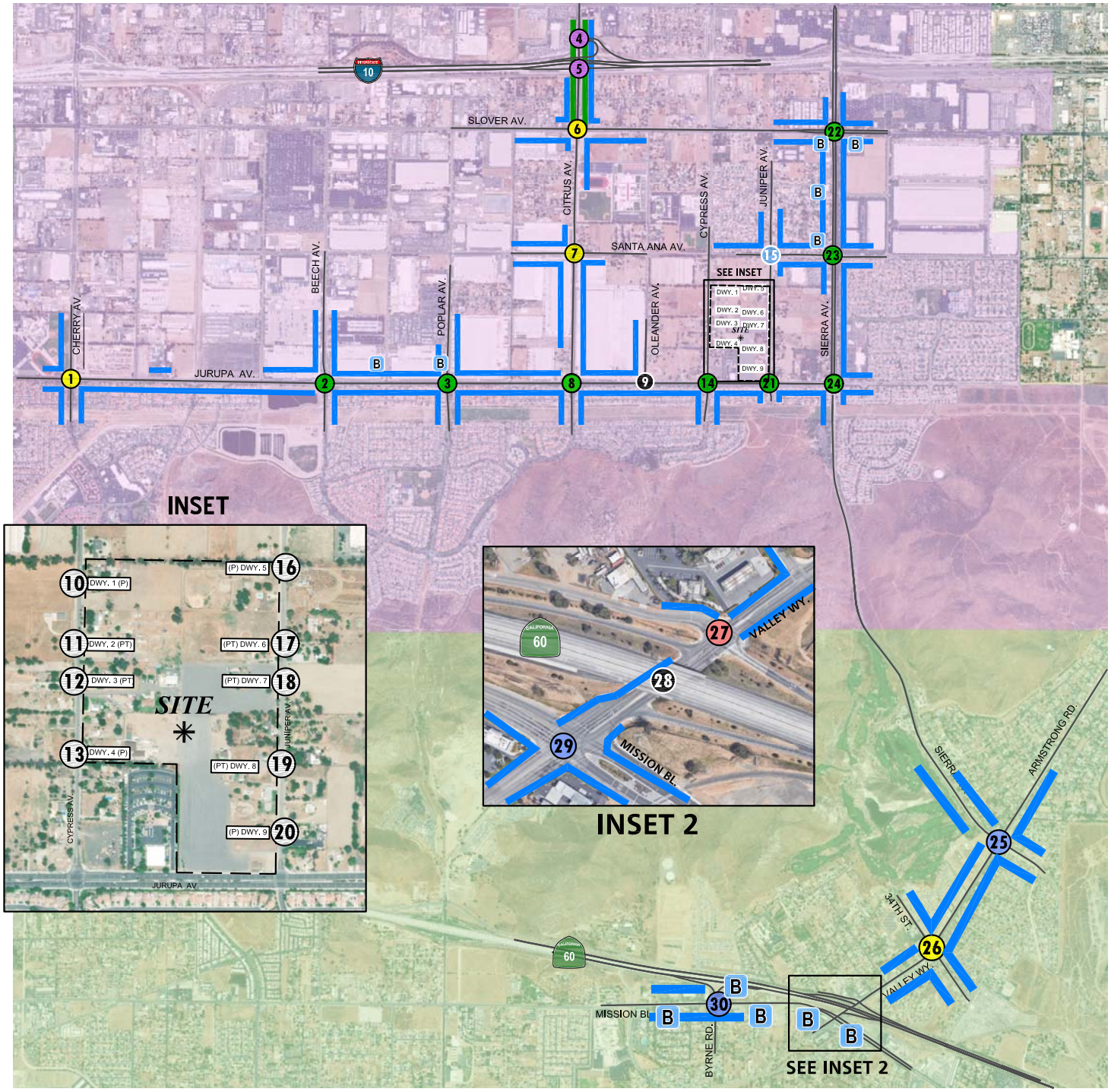
EXHIBIT 3-8: CITY OF FONTANA GENERAL PLAN TRAILS



City of Fontana General Plan

EXHIBIT 3-9: EXISTING PEDESTRIAN FACILITIES



LEGEND:

- SIDEWALK
- BIKE LANE
- B = BUS STOP
- 0 = NO CROSSWALK
- 0 = FUTURE INTERSECTION
- 0 = CROSSWALK ON ALL APPROACHES
- 0 = CROSSWALK ON THREE APPROACHES
- 0 = CROSSWALK ON TWO APPROACHES
- 0 = CROSSWALK ON ONE APPROACH
- 0 = SCHOOL CROSSWALK ON FOUR APPROACHES
- 0 = CROSSWALK ON 1 APPROACH

N

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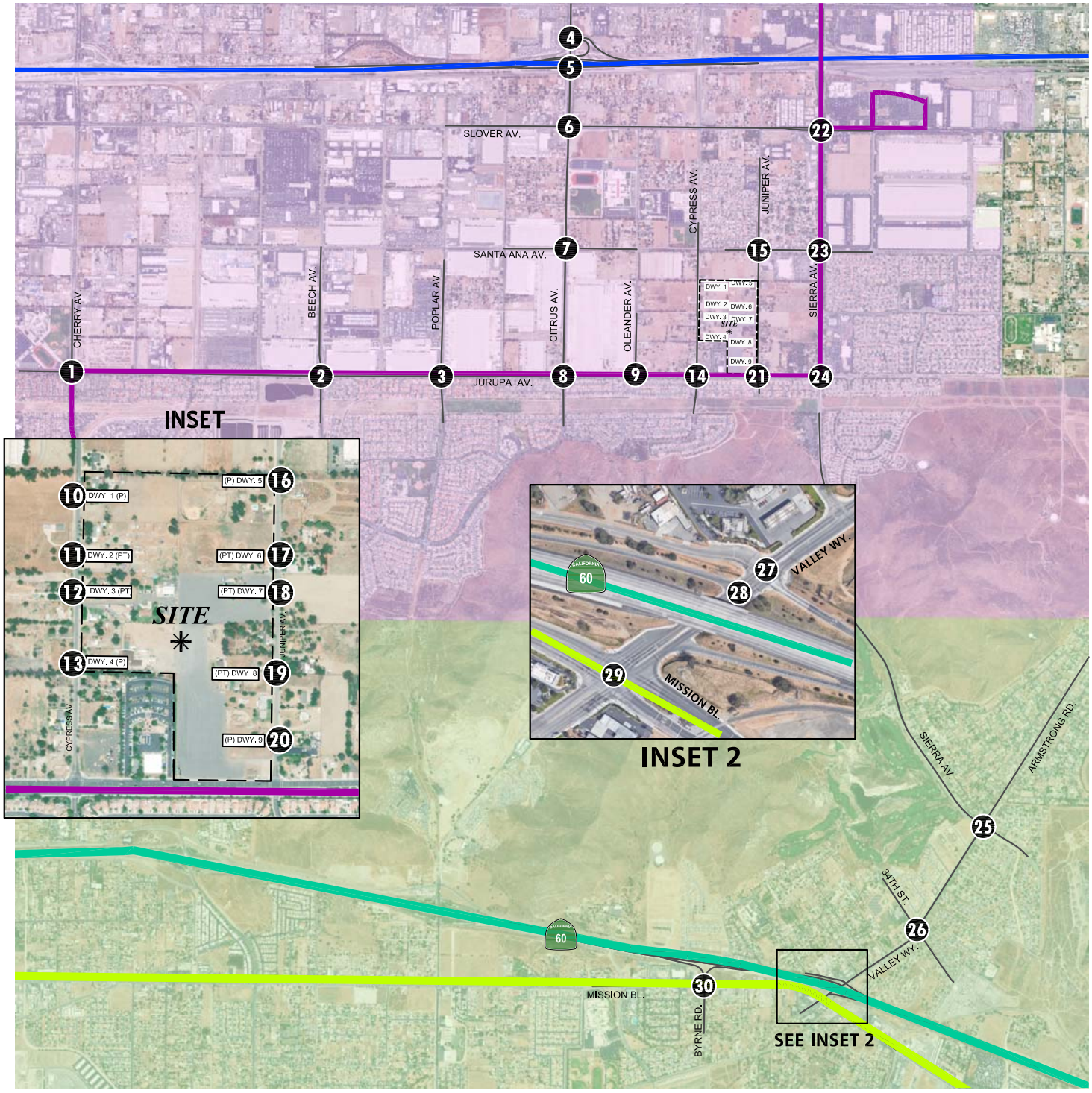
EXHIBIT 3-10: EXISTING TRANSIT ROUTES



LEGEND:

- = OMNITRANS ROUTE 290
- = OMNITRANS ROUTE 82
- = RTA ROUTE 204
- = RTA ROUTE 49

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A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.98 percent. As such, the above equation utilizing a factor of 11.1404 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.98 percent (i.e., 1/0.0898 = 11.1404) and was assumed to sufficiently estimate ADT volumes for planning-level analyses. Existing ADT volumes are shown on Exhibit 3-11, weekday AM and PM peak hour intersection volumes are shown on Exhibit 3-12.

3.7 EXISTING CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing (2019) peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized on Table 3-1 which indicates that the existing study area intersections are currently operating at acceptable LOS, with the exception of the following:

- Cherry Avenue & Jurupa Avenue (#1) – LOS D AM peak hour only
- Citrus Avenue & Slover Avenue (#6) – LOS D PM peak hour only
- Sierra Avenue & Slover Avenue (#22) – LOS E PM peak hour only
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – LOS E AM and PM peak hours
- Valley Way & SR-60 Westbound On-Ramp (#28) – LOS E AM peak hour; LOS F PM peak hour
- Valley Way & Mission Boulevard (#29) – LOS E AM peak hour only

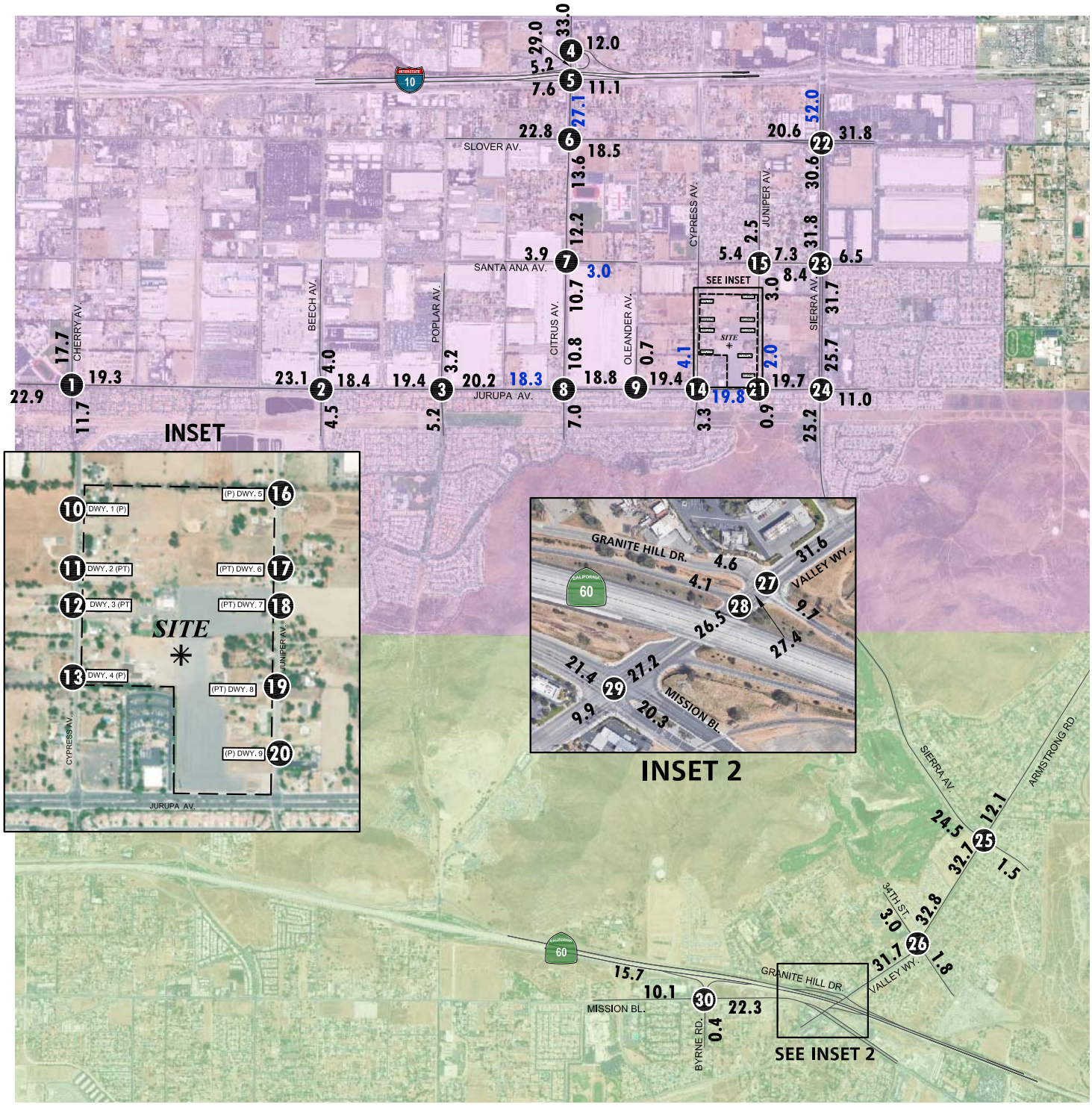
It should be noted, field observations indicate excessive queuing along Valley Way, from 36th Street to Mission Boulevard in both the AM and PM peak hour. The LOS analysis of these intersections is consistent with the field observations.

Consistent with Table 3-1, a summary of the peak hour intersection LOS for Existing conditions are shown on Exhibit 3-13. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.8 EXISTING CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

The traffic signal warrant analysis for Existing traffic conditions are based on existing peak hour intersection turning volumes. There are no unsignalized intersections that meet peak hour volume-based traffic signal warrants under Existing traffic conditions. The traffic signal warrant analysis worksheets are included in Appendix 3.3 of this TIA.

EXHIBIT 3-11: EXISTING (2019) AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

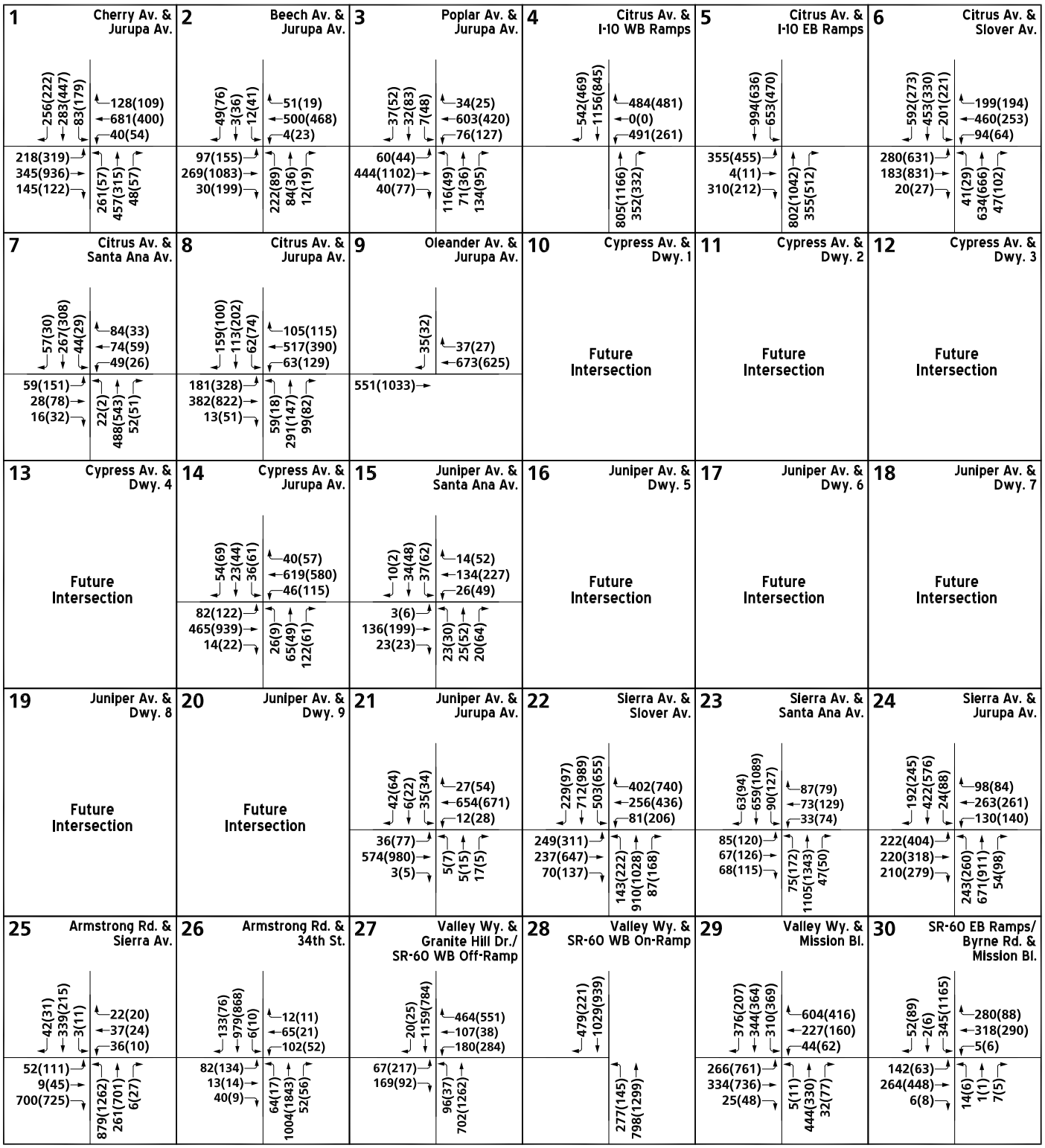


LEGEND:

10.0 = ACTUAL (COUNT-BASED) VEHICLES PER DAY (1000'S)
10.0 = ESTIMATED VEHICLES PER DAY (1000'S)

N

EXHIBIT 3-12: EXISTING (2019) TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

N

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EXHIBIT 3-13: EXISTING (2019) SUMMARY OF LOS

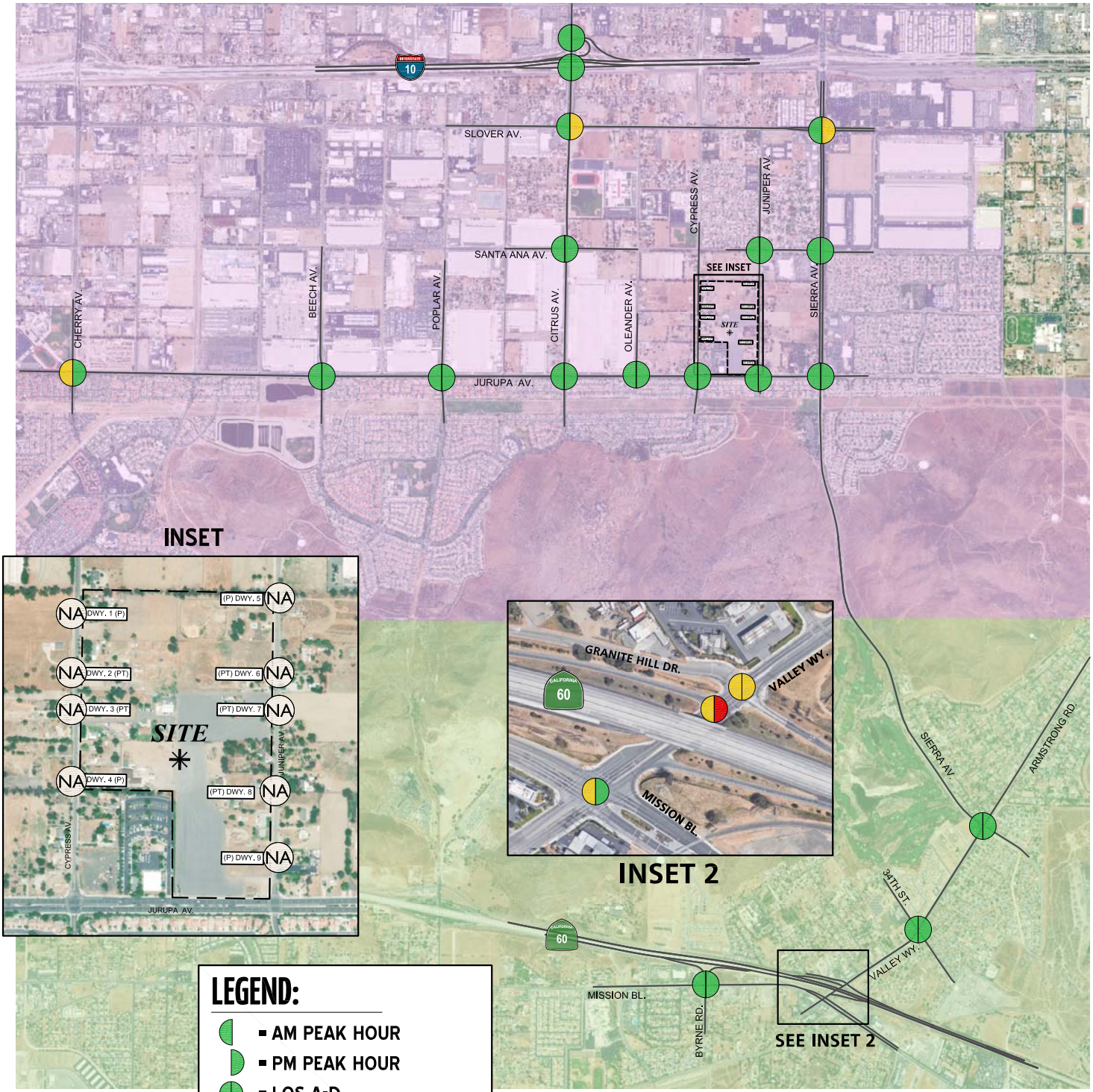


Table 3-1

Intersection Analysis for Existing (2019) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		Acceptable Level of Service
			Northbound			Southbound			Eastbound			Westbound							
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
1	Cherry Av. & Jurupa Av.	TS	2	3	0	2	2	1	2	3	0	2	2	1	**36.5**	21.1	**D**	C	C
2	Beech Av. & Jurupa Av.	TS	1	2	0	1	2	1	2	3	0	2	3	1	19.5	17.5	B	B	C
3	Poplar Av. & Jurupa Av.	TS	1	2	0	1	1	1	1	3	0	1	3	1	12.9	13.8	B	B	C
4	Citrus Av. & I-10 WB Ramps	TS	0	3	1	0	2	1>>	0	0	0	1	0	2	14.7	10.2	B	B	D
5	Citrus Av. & I-10 EB Ramps	TS	0	3	0	2	2	0	2	1	0	0	0	0	20.6	21.7	C	C	D
6	Citrus Av. & Slover Av.	TS	1	3	1	1	1	1	2	2	0	1	2	1	33.3	**35.7**	C	**D**	C
7	Citrus Av. & Santa Ana Av.	TS	1	2	0	1	2	0	1	1	1	1	2	0	17.7	18.5	B	B	C
8	Citrus Av. & Jurupa Av.	TS	1	2	0	1	2	0	1	2	1	1	3	1	20.2	21.0	C	C	C
9	Oleander Av. & Jurupa Av.	CSS	0	0	0	0	0	1	0	3	0	0	3	0	12.2	11.9	B	B	C
10	Cypress Av. & Driveway 1		Future Intersection																C
11	Cypress Av. & Driveway 2		Future Intersection																C
12	Cypress Av. & Driveway 3		Future Intersection																C
13	Cypress Av. & Driveway 4		Future Intersection																C
14	Cypress Av. & Jurupa Av.	TS	1	1	0	1	1	1	1	3	0	1	3	1	12.8	14.4	B	B	C
15	Juniper Av. & Santa Ana Av.	AWS	0	1	d	0	1	1	0	1	0	0	2	0	9.9	11.4	A	B	C
16	Juniper Av. & Driveway 5		Future Intersection																C
17	Juniper Av. & Driveway 6		Future Intersection																C
18	Juniper Av. & Driveway 7		Future Intersection																C
19	Juniper Av. & Driveway 8		Future Intersection																C
20	Juniper Av. & Driveway 9		Future Intersection																C
21	Juniper Av. & Jurupa Av.	TS	0	1	d	0	1	d	1	3	0	1	3	0	11.7	12.5	B	B	C
22	Sierra Av. & Slover Av.	TS	2	4	0	2	3	0	2	2	1	2	2	2>	28.4	**67.8**	C	**E**	C
23	Sierra Av. & Santa Ana Av.	TS	2	3	1	2	3	0	1	2	1	1	2	1	17.8	20.5	B	C	C
24	Sierra Av. & Jurupa Av.	TS	2	2	1	2	2	1>	2	2	1	2	2	1	20.2	25.6	C	C	C
25	Armstrong Rd. & Sierra Av.	TS	2	1	0	1	1	0	1	2	1>>	1	2	0	26.4	30.2	C	C	D
26	Valley Wy. & 34th St.	TS	1	2	0	1	2	0	1	1	0	0	1	0	13.8	12.7	B	B	D
27	Valley Wy. & Granite Hill Dr./SR-60 WB Off-ramp	TS	1	2	0	0	2	0	0	1	0	1	1	0	**77.9**	**73.6**	**E**	**E**	D
28	Valley Wy. & SR-60 WB On-ramp	TS	1	2	0	0	2	0	0	0	0	0	0	0	**66.5**	**93.9**	**E**	**F**	D

Table 3-1

Intersection Analysis for Existing (2019) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		Acceptable Level of Service
			Northbound			Southbound			Eastbound			Westbound							
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
29	Valley Wy. & Mission Bl.	TS	2	2	1	2	2	2>	2	2	1	1	2	1>	**67.8**	50.0	**E**	D	D
30	SR-60 EB Ramps & Mission Bl.	TS	0	1	0	1	1	0	1	2	0	1	2	1>	27.9	34.3	C	C	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes
L = Left; T = Through; R = Right; > = Right Turn Overlap Phasing; >> = Free Right Turn Lane; d = Defacto Right Turn Lan

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. Fo intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

3.9 ROADWAY SEGMENT ANALYSIS

These roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 3-2 provides a summary of the Existing (2019) conditions roadway segment capacity analysis based on the City of Fontana Roadway Segment Capacity Thresholds. As shown on Table 3-2, all study area roadway segments currently operate at an acceptable LOS based on the City's planning level daily roadway capacity thresholds.

3.10 EXISTING CONDITIONS OFF-RAMP QUEUING ANALYSIS

A queueing analysis was performed for eastbound and westbound off-ramps of the I-10 freeway at Citrus Avenue interchange to assess vehicle queues for the off ramps that may impact peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-10 Freeway. Queuing analysis findings are presented on Table 3-3. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 3-3, there are no existing queuing issues at the off-ramps. Worksheets for Existing conditions off-ramp queuing analysis are provided in Appendix 3.4.

3.11 EXISTING CONDITIONS FREEWAY FACILITY ANALYSIS

Existing mainline directional volumes for the AM and PM peak hours are provided on Exhibit 3-14. As shown on Table 3-4, the I-10 Freeway segments and merge/diverge ramp junctions analyzed in this TIA are currently operating at an acceptable LOS (i.e., LOS D or better) during the peak hours, with the exception of the following basic freeway segment:

- I-10 Freeway Westbound, West of Citrus Avenue (#2) – LOS E AM peak hour only

Existing (2019) freeway facility analysis worksheets are provided in Appendix 3.5.

Table 3-2

Roadway Segment Capacity Analysis for Existing (2019) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2019	V/C[2]	LOS[3]	Acceptable LOS
1	Citrus Av.	Between I-10 Ramps	5D	45,000	28,993	0.64	B	C
2		Between I-10 Eastbound Ramps & Slover Av.	5D	45,000	27,129	0.60	B	C
3		Slover Av. & Santa Ana Av.	3D	27,000	13,558	0.50	A	C
4		Santa Ana Av. & Jurupa Av.	4D	36,000	10,745	0.30	A	C
5	Cypress Av.	Santa Ana Av. & Jurupa Av.	2U	18,000	4,073	0.23	A	C
6	Sierra Av.	Slover Av. & Santa Ana Av.	6D	54,000	31,761	0.59	A	C
7	Santa Ana Av.	Juniper Av. & Sierra Av.	4D	36,000	8,411	0.23	A	C
8	Jurupa Av.	Cherry Av. Beech Av.	5D	45,000	23,050	0.51	A	C
9		Beech Av. & Poplar Av.	6D	54,000	19,412	0.36	A	C
10		Poplar Av. & Citrus Av.	6D	54,000	18,332	0.34	A	C
11		Citrus Av. & Oleander Av.	6D	54,000	18,811	0.35	A	C
12		Oleander Av. & Cypress Av.	6D	54,000	19,390	0.36	A	C
13		Cypress Av. & Juniper Av.	6D	54,000	19,790	0.37	A	C
14		Juniper Av. & Sierra Av.	6D	54,000	19,741	0.37	A	C

[1] These maximum roadway capacities assume 9,000 vehicles per lane per day for arterials.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Table 3-3

Peak Hour Freeway Off-Ramp Queuing Summary for Existing (2019) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM
Citrus Av. & I-10 Westbound Ramps	WBR	475	127	196	Yes	Yes
	WBL	1,620	380	233	Yes	Yes
Citrus Av. & I-10 Eastbound Ramps	EBL	1,285	147	196	Yes	Yes
	EBT/R	445	228	67	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

Table 3-4

Freeway Facility Analysis for Existing (2019) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Density[2]		LOS[3]	
				AM	PM	AM	PM
I-10	Westbound	West of Cherry Av.	4	27.1	23.6	D	C
		West of Citrus Av.	4	**38.1**	28.0	**E**	A
		On-Ramp at Citrus Av.	4	40.3	29.8	C	C
		Off-Ramp at Citrus Av.	4	29.9	21.0	D	C
		East of Citrus Av.	5	31.0	21.6	D	C
	Eastbound	West of Cherry Av.	5	18.1	15.2	C	B
		West of Citrus Av.	5	20.5	23.8	C	C
		Off-Ramp at Citrus Av.	5	20.1	23.2	C	C
		On-Ramp at Citrus Av.	4	22.5	25.8	C	C
		East of Citrus Av.	5	21.7	24.9	C	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

EXHIBIT 3-14: EXISTING (2019) FREEWAY MAINLINE VOLUMES

LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. For the purposes of this traffic analysis, the Project is proposed to be developed in a single phase with an anticipated Opening Year of 2022. The Project consists of the development of up to 1,119,460 sf across three buildings:

- 895,568 square feet of warehousing (80% of the total square footage)
- 223,892 square feet of high-cube cold storage warehouse use (20% of the total square footage)

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. Trip generation rates used to estimate Project traffic are shown on Table 4-1. A summary of the Project's trip generation based on actual vehicles and PCE are shown on Table 4-2. The trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation Manual, 10th Edition, 2017. (3)

Brief descriptions of the uses proposed for the Project are provided below:

Warehousing (ITE 150): Warehouses are primarily devoted to the storage of materials, but they may also include office and maintenance areas.

High-Cube Cold Storage Warehouse (ITE 157): High-cube cold storage warehouses include warehouses characterized by the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products.

Although the high-cube fulfillment center use was considered, the proposed buildings are not anticipated to be occupied by a fulfillment user. The site plan, as currently designed, does not lend itself to fulfillment center use due to the lack of employee parking.

The following vehicle mix (passenger cars versus trucks) has been obtained from the ITE's High Cube Warehouse Vehicle Trip Generation Analysis (dated October 2016): (10)

- Cold Storage Warehouses: AM Peak Hour: 69.2% passenger cars and 30.8% trucks; PM Peak Hour: 78.3% passenger cars and 21.7% trucks; Weekday Daily: 67.8% passenger cars and 32.2% trucks

Table 4-1

Project Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.091	0.027	0.118	0.040	0.109	0.149	1.180
2-Axle Trucks (AM-5.14%; PM-3.62%; Daily-5.38%)			0.007	0.002	0.009	0.002	0.005	0.007	0.094
3-Axle Trucks (AM-6.38%; PM-4.49%; Daily-6.67%)			0.008	0.002	0.010	0.002	0.006	0.008	0.116
4-Axle+ Trucks (AM-19.25%; PM-13.56%; Daily-20.13%)			0.025	0.008	0.033	0.007	0.019	0.026	0.350
High-Cube Cold Storage Warehouse[3]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.059	0.018	0.076	0.025	0.069	0.094	1.437
2-Axle Trucks (AM-10.69%; PM-7.53%; Daily-11.17%)			0.009	0.003	0.012	0.002	0.007	0.009	0.237
3-Axle Trucks (AM-3.39%; PM-2.39%; Daily-3.54%)			0.003	0.001	0.004	0.001	0.002	0.003	0.075
4-Axle+ Trucks (AM-16.76%; PM-11.80%; Daily-17.52%)			0.014	0.004	0.018	0.004	0.010	0.014	0.371
Passenger Car Equivalent (PCE) Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.091	0.027	0.118	0.040	0.109	0.149	1.180
2-Axle Trucks (AM-5.14%; PM-3.62%; Daily-5.38%) (PCE = 2.0)			0.013	0.004	0.017	0.004	0.010	0.014	0.187
3-Axle Trucks (AM-6.38%; PM-4.49%; Daily-6.67%) (PCE = 2.5)			0.020	0.006	0.026	0.006	0.015	0.021	0.290
-Axle+ Trucks (AM-19.25%; PM-13.56%; Daily-20.13%) (PCE = 3.0)			0.076	0.023	0.098	0.021	0.056	0.077	1.051
High-Cube Cold Storage Warehouse[3]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.059	0.018	0.076	0.025	0.069	0.094	1.437
2-Axle Trucks (AM-10.69%; PM-7.53%; Daily-11.17%) (PCE = 2.0)			0.018	0.005	0.024	0.005	0.013	0.018	0.474
3-Axle Trucks (AM-3.39%; PM-2.39%; Daily-3.54%) (PCE = 2.5)			0.007	0.002	0.009	0.002	0.005	0.007	0.188
-Axle+ Trucks (AM-16.76%; PM-11.80%; Daily-17.52%) (PCE = 3.0)			0.043	0.013	0.055	0.011	0.031	0.042	1.114

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] TSF = thousand square feet

[2] Vehicle Mix Source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE. PCE rates are per City's TIA Guidelines.
Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type for high-cube warehouse.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks. PCE rates are per SBCTA.

Table 4-2

Project Trip Generation Summary

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles									
Warehousing (80%)	894.768	TSF							
Passenger Cars:			81	24	105	36	97	133	1,056
Truck Trips:									
2-axle:			6	2	8	2	4	6	84
3-axle:			7	2	9	2	5	7	104
4+-axle:			23	7	30	6	17	23	314
- Net Truck Trips			36	11	47	10	26	36	502
WAREHOUSING TOTAL NET TRIPS (Actual Vehicles)[2]			**117**	**35**	**152**	**46**	**123**	**169**	**1,558**
High-Cube Cold Storage Warehouse (20%)	223.692	TSF							
Passenger Cars:			13	4	17	6	15	21	322
Truck Trips:									
2-axle:			2	1	3	1	1	2	54
3-axle:			1	0	1	0	0	0	18
4+-axle:			3	1	4	1	2	3	84
- Net Truck Trips			5	2	7	2	3	5	156
COLD STORAGE TOTAL NET TRIPS (Actual Vehicles)[2]			**18**	**6**	**24**	**8**	**18**	**26**	**478**
TOTAL NET TRIPS (Actual Vehicles)[2]			**135**	**41**	**176**	**54**	**141**	**195**	**2,036**
Passenger Car Equivalent (PCE)									
Warehousing (80%)	894.768	TSF							
Passenger Cars:			81	24	105	36	97	133	1,056
Truck Trips:									
2-axle:			12	4	16	3	9	12	168
3-axle:			18	6	24	5	13	18	260
4+-axle:			68	20	88	19	50	69	940
- Net Truck Trips			98	30	128	27	72	99	1,368
WAREHOUSING TOTAL NET TRIPS (PCE)[2]			**179**	**54**	**233**	**63**	**169**	**232**	**2,424**
High-Cube Cold Storage Warehouse (20%)	223.692	TSF							
Passenger Cars:			13	4	17	6	15	21	322
Truck Trips:									
2-axle:			4	1	5	1	3	4	106
3-axle:			2	0	2	0	1	1	42
4+-axle:			10	3	13	3	7	10	250
- Net Truck Trips			14	4	18	4	10	14	398
COLD STORAGE TOTAL NET TRIPS (PCE)[2]			**27**	**8**	**35**	**10**	**25**	**35**	**720**
TOTAL NET TRIPS (PCE)[2]			**206**	**62**	**268**	**73**	**194**	**267**	**3,144**

[1] TSF = thousand square feet

[2] TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

The above truck percentage was then further broken down by axle type per the following South Coast Air Quality Management District's (SCAQMD) recommended truck mix, for high-cube warehouse uses:

- With Cold Storage: 2-Axle = 34.7%; 3-Axle = 11.0%; 4+-Axle = 54.3%

As noted on Table 4-1 and Table 4-2, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips between passenger cars and trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 2 different truck types: 2-4 axle, and 5+-axle trucks. PCE factors were applied to the trip generation rates for heavy trucks (large 2-4 axles, 5+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in the City's traffic study guidelines: 2.0 for 2-Axle, 2.5 for 3-Axle, and 3.0 for 4+-Axle.

The Project is estimated to generate a net total of 3,102 PCE trip-ends per day on a typical weekday with approximately 268 net AM PCE peak hour trips and 267 net PM PCE peak hour trips, as shown on Table 4-2. The proposed Project's trip generation, based on actual vehicles, has also been included on Table 4-2.

4.2 PROJECT TRIP DISTRIBUTION

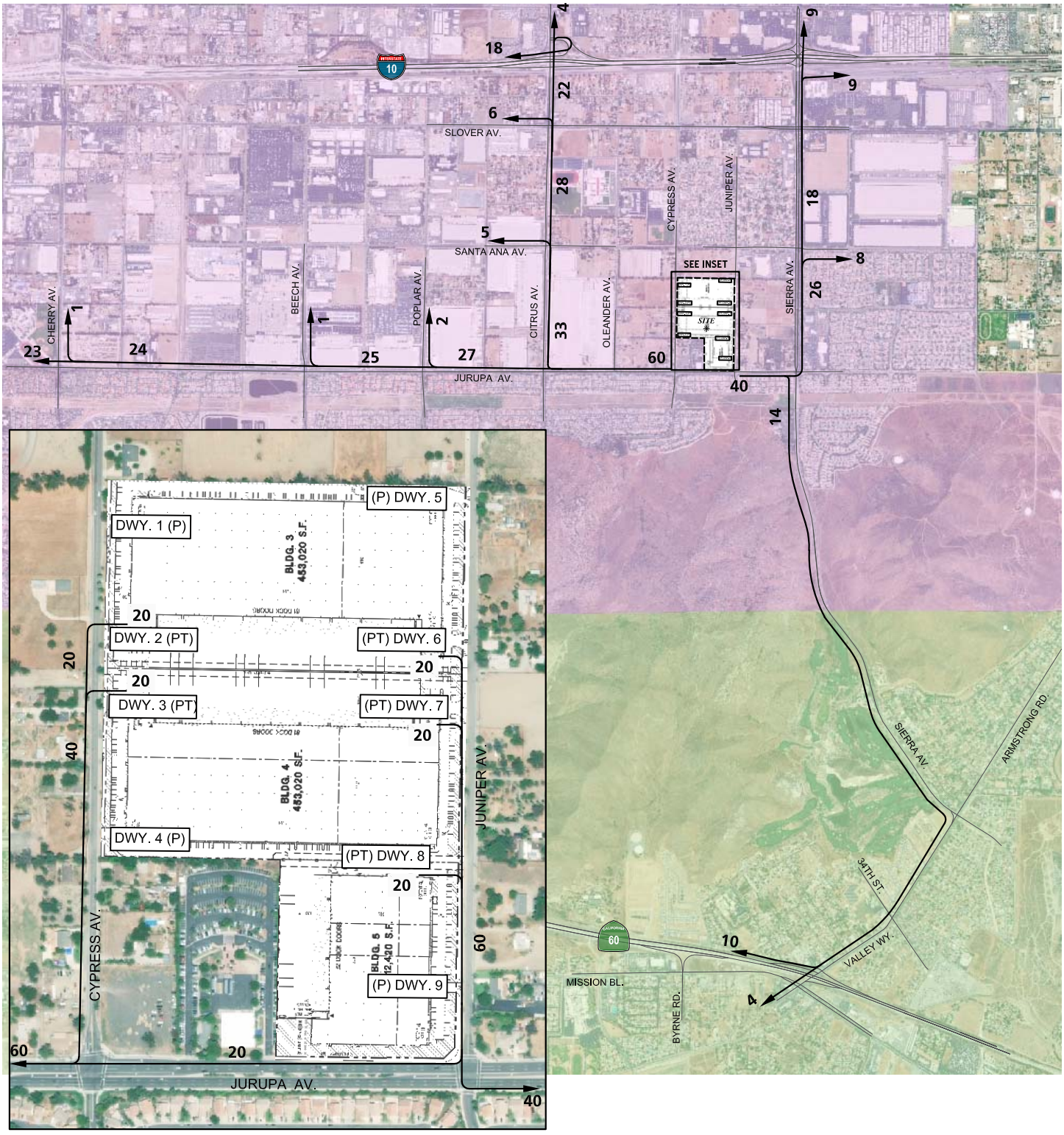
Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute.

The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. The trip distribution pattern for truck traffic is also influenced by the local truck routes approved by the City and other surrounding agencies. Given these differences, separate trip distributions were generated for both passenger cars and truck trips. Exhibit 4-1 shows the trip distributions patterns for heavy trucks. Exhibit 4-2 shows the passenger car trip distribution patterns for the Project.

4.3 MODAL SPLIT

The potential for Project trips (non-truck) to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes (non-truck trips only).

EXHIBIT 4-1: PROJECT (TRUCK) TRIP DISTRIBUTION

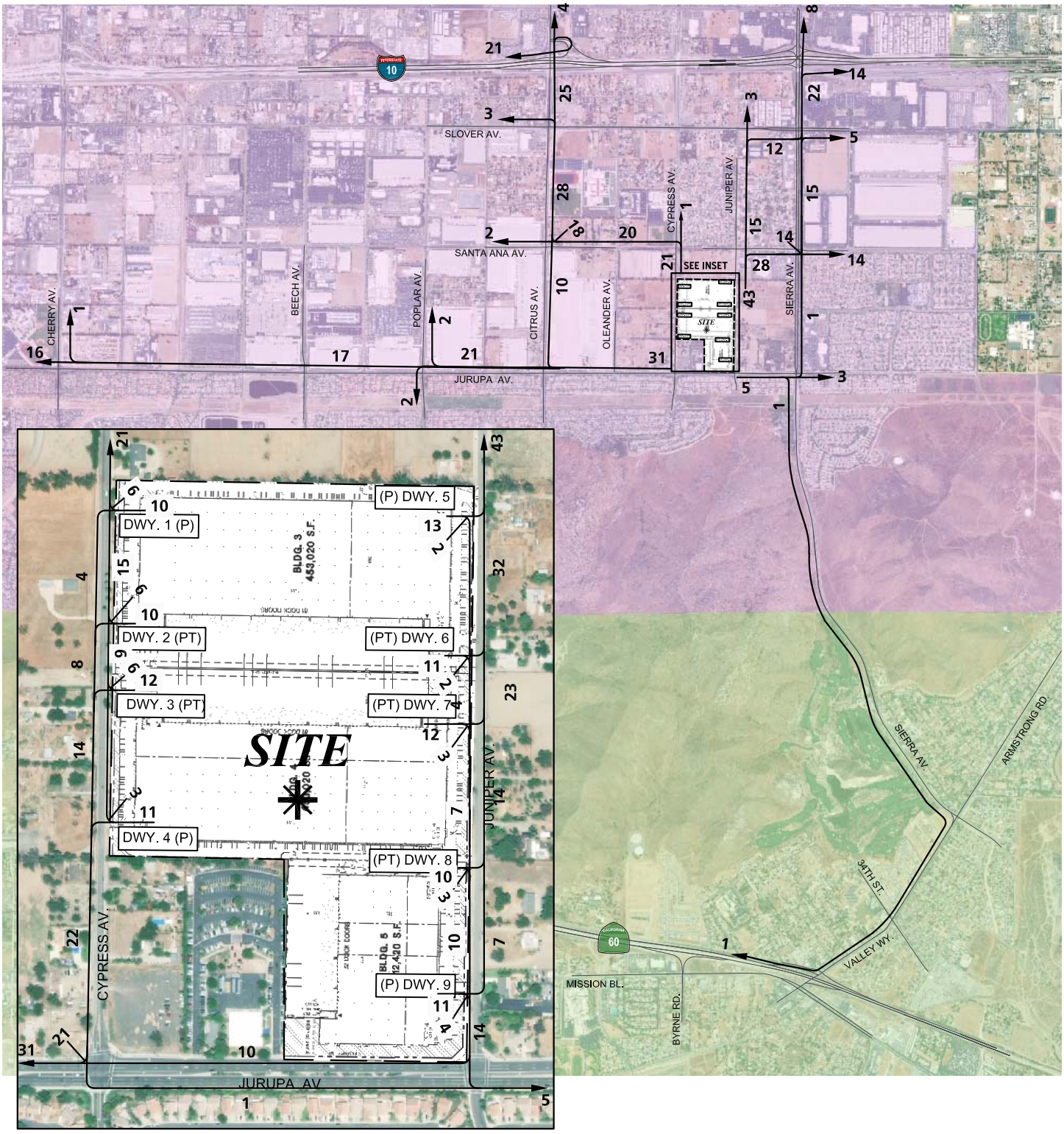


LEGEND:

10 = PERCENT TO/FROM PROJECT

N

EXHIBIT 4-2: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT

N

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4.4 PROJECT TRIP ASSIGNMENT

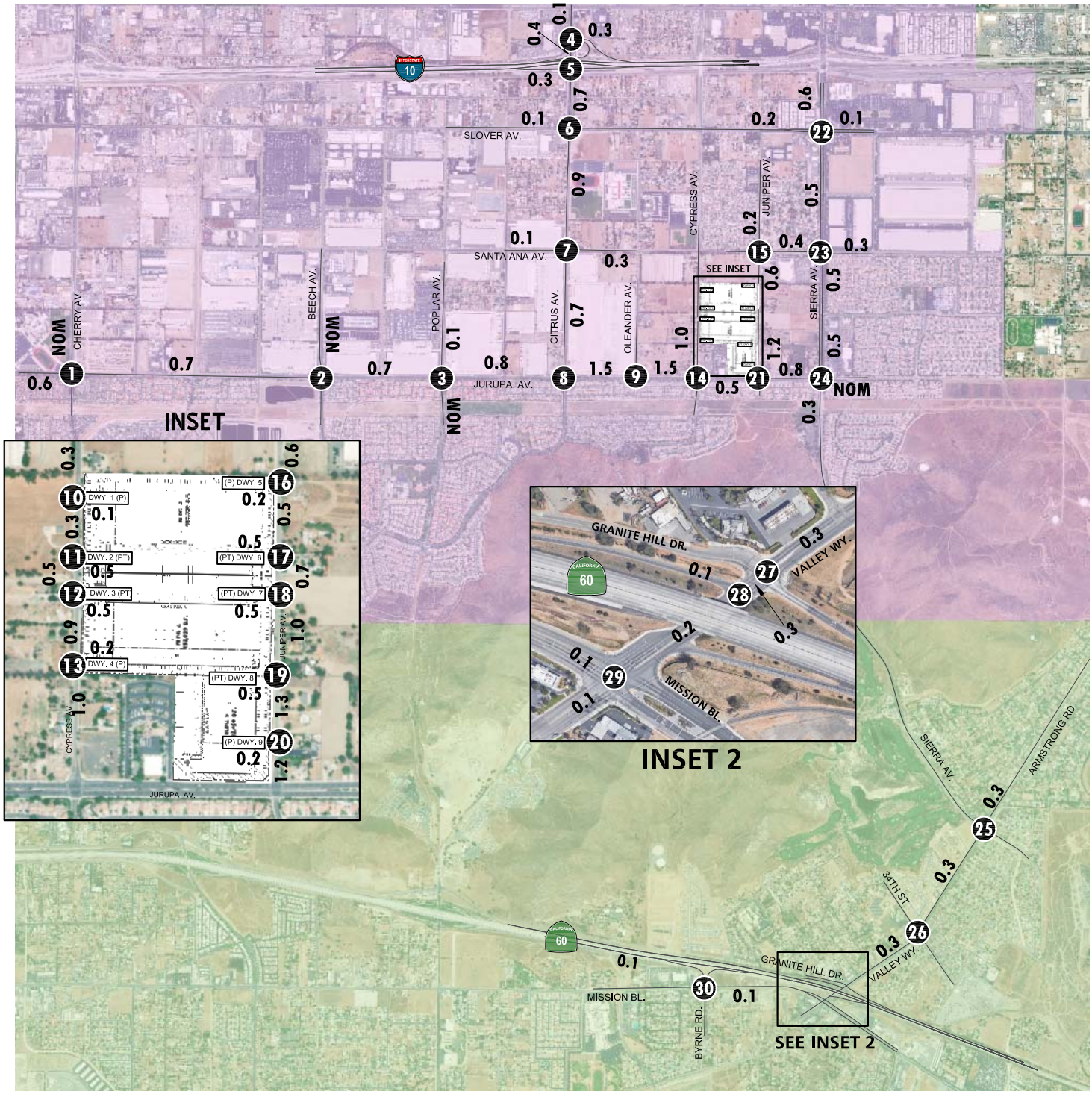
The assignment of traffic from the Project to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADTs are shown on Exhibit 4-3 and AM and PM peak hour traffic volumes are shown on Exhibit 4-4 (in PCE).

4.5 BACKGROUND TRAFFIC

The currently adopted Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan/Strategic Communities Strategy (RTP/SCS) (April 2016) growth forecasts City of Fontana identifies projected growth in population of 200,200 in 2012 to 280,900 in 2040, or a 40.31% increase over the 28-year period. (4) The change in population equates to roughly a 1.22 percent growth rate compounded annually. Similarly, growth over the same 28-year period in households is projected to increase by 49.19 percent, or 1.44 percent growth rate, compounded annually. Finally, growth in employment over the same 28-year period is projected to increase by 50.6 percent, or a 1.47 percent annual growth rate. The average annual growth rate between population, households, and employment is 1.38 percent per year and has been used for the purposes of this analysis.

Based on a comparison of Existing (2019) traffic volumes to the Horizon Year (2040) forecasts, the average growth rate is estimated at approximately 1.97 percent per year, compounded annually between Existing (2019) and Horizon Year (2040) traffic conditions. The annual growth rate at each individual intersection is not lower than 0.94 percent per year to as high as 4.19 percent per year, compounded annually over the same time period. Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Fontana for Horizon Year (2040) traffic conditions. As such, the growth in traffic volumes assumed in this traffic impact analysis would tend to overstate as opposed to understate the potential impacts to traffic and circulation.

EXHIBIT 4-3: PROJECT ONLY AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

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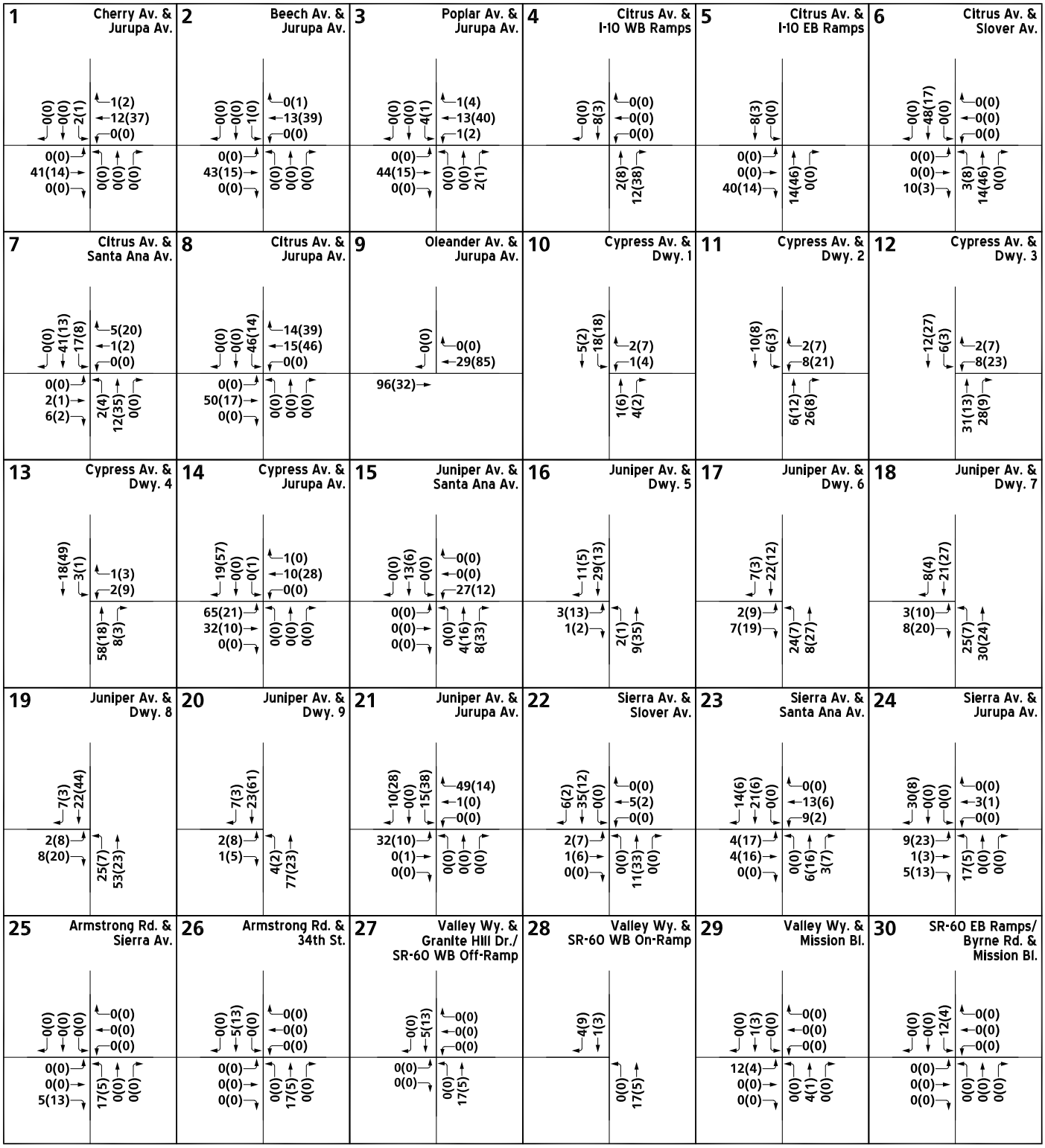
EXHIBIT 4-4: PROJECT ONLY TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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4.6 CUMULATIVE DEVELOPMENT TRAFFIC

California Environmental Quality Act (CEQA) guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Fontana, City of Jurupa Valley, County of San Bernardino, and County of Riverside. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections.

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e. 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate EAPC forecasts. In other words, this list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections are shown on Exhibit 4-5, listed on Table 4-3, and have been considered for inclusion.

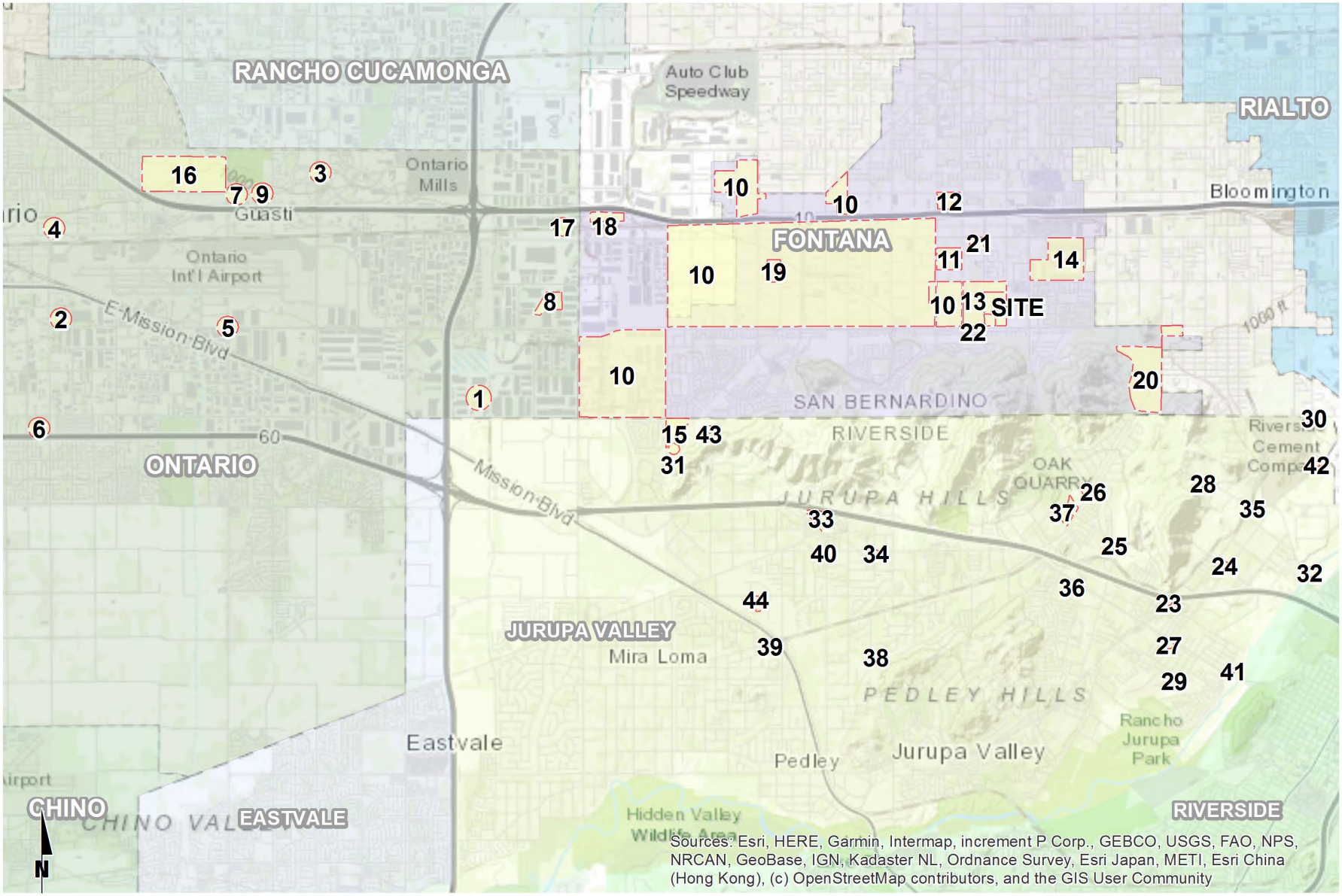
Although it is unlikely that all of these cumulative projects would be fully built and occupied by Year 2022, they have been included in an effort to conduct a conservative analysis and overstate as opposed to understate potential traffic impacts.

Any other cumulative projects located beyond the cumulative study area that are not expected to contribute measurable traffic to study area intersections have not been included since the traffic would dissipate due to the distance from the Project site and study area intersections. Any additional traffic generated by other projects not on the cumulative projects list is accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections as discussed in Section 4.5 *Background Traffic*. Cumulative Only traffic volumes in PCE are shown on Exhibit 4-6 and 4-7.

4.7 HORIZON YEAR (2040) VOLUME DEVELOPMENT

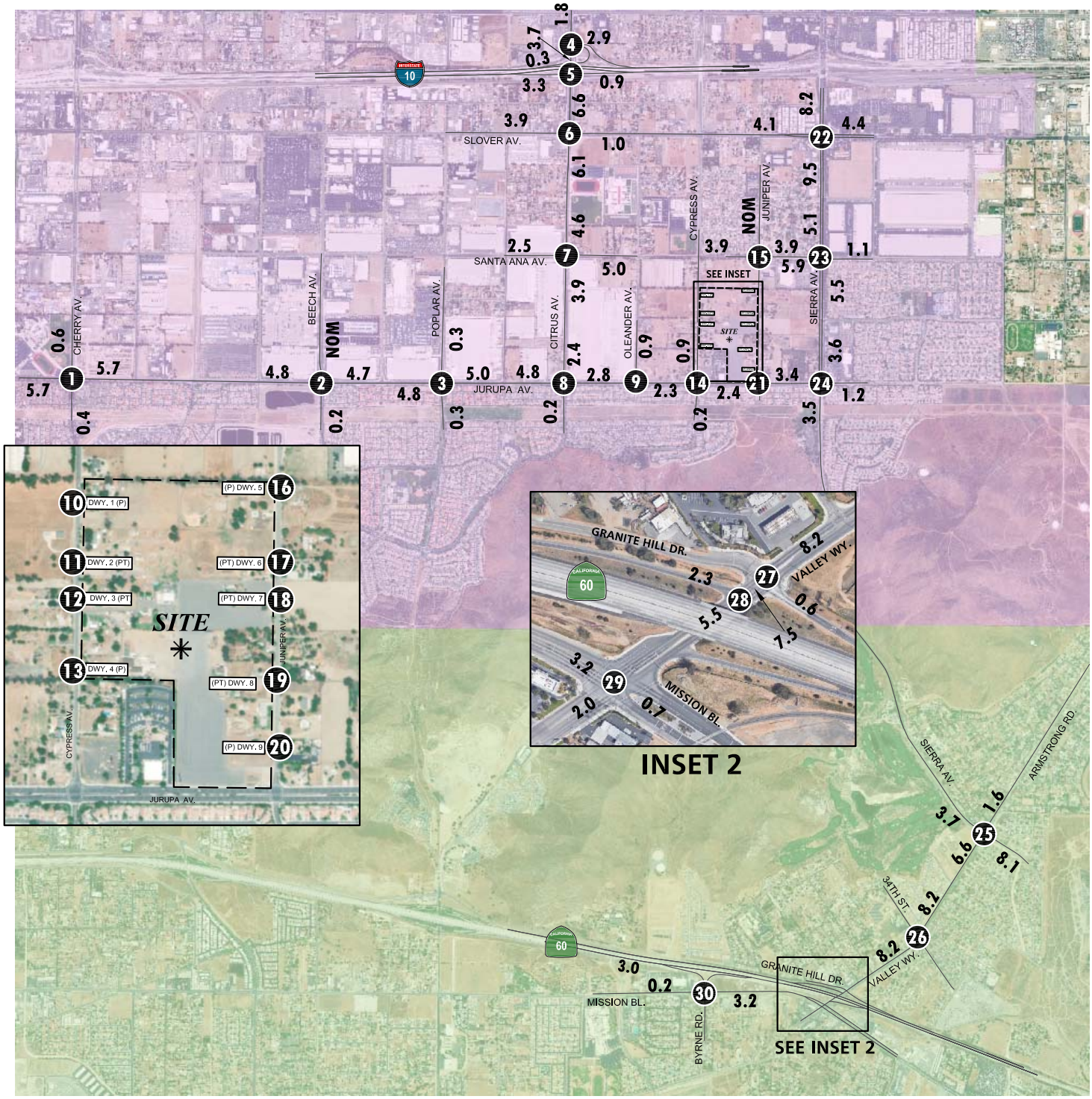
Traffic projections for Horizon Year (2040) without Project conditions were derived from the San Bernardino Transportation Analysis Model (SBTAM) using accepted procedures for model forecast refinement and smoothing for study area intersections located within the City of Fontana.

EXHIBIT 4-5: CUMULATIVE DEVELOPMENT LOCATION MAP



URBAN CROSSROADS

EXHIBIT 4-6: CUMULATIVE ONLY AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

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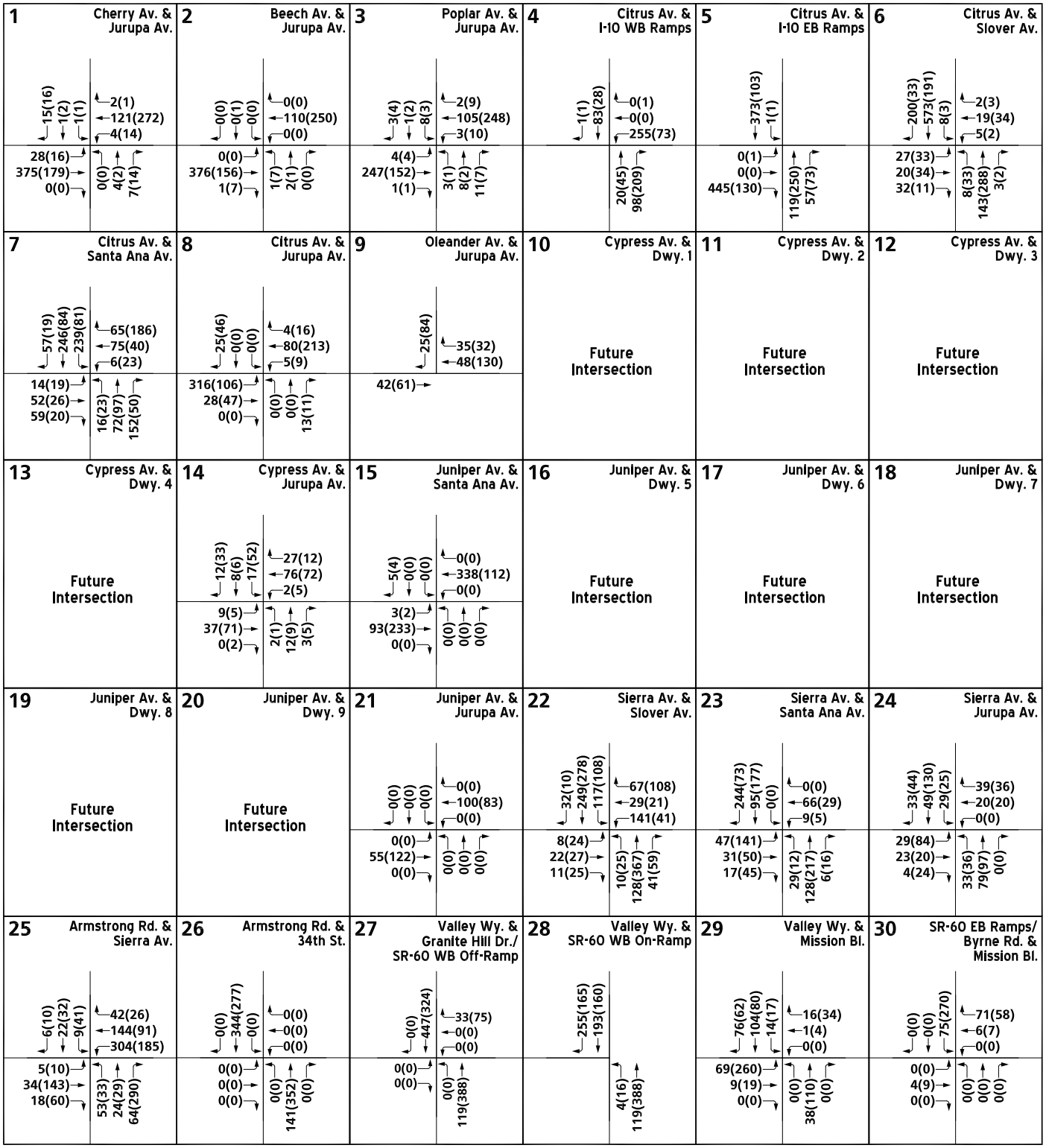
EXHIBIT 4-7: CUMULATIVE ONLY TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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Table 4-3

Cumulative Development Land Use Summary

TAZ	Project	Land Use	Quantity [2]	
1	PDEV14-007	Industrial	910.119	TSF
2	PDEV14-010	Industrial	21.726	TSF
3	PCUP13-034	Hotel	122	RMS
4	PCUP13-028	Body Shop	0.79	AC
5	PDEV13-019	Industrial	569.200	TSF
6	PDEV13-014	Residential Condo	139	DU
7	PDEV13-012	Residential Condo	20	DU
8	PDEV13-007	General Industrial	618.536	TSF
9	PDEV13-008	Residential Condo	52	DU
10	Southwest Industrial Park (SWIP)[1]	Freeway Industrial Commercial (Central)		
		Warehousing	761.067	TSF
		Office	147.786	TSF
		Office Park	152.213	TSF
		Commercial Retail	456.640	TSF
		Freeway Industrial Commercial (East)		
		Warehousing	886.410	TSF
		Office	172.125	TSF
		Office Park	177.282	TSF
		Commercial Retail	531.846	TSF
		Freeway Industrial Commercial (North)		
		Warehousing	335.885	TSF
		Office	65.223	TSF
		Office Park	67.177	TSF
		Commercial Retail	201.531	TSF
		Freeway Industrial Commercial (West)		
		Warehousing	747.959	TSF
		Office	145.241	TSF
		Office Park	149.592	TSF
		Commercial Retail	448.776	TSF
		Jurupa North Research & Development (West)		
		Light Industrial	1344.901	TSF
		Office	478.407	TSF
		Office Park	847.485	TSF
		Research & Development	677.988	TSF
		Jurupa North Research & Development (Central)		
		Light Industrial	964.045	TSF
		Office	342.930	TSF
		Office Park	607.490	TSF
		Research & Development	485.992	TSF

Table 4-3

Cumulative Development Land Use Summary

TAZ	Project	Land Use	Quantity [2]	
10	Southwest Industrial Park (SWIP)[1]	Jurupa North Research & Development (East)		
		Light Industrial	917.459	TSF
		Office	326.358	TSF
		Office Park	578.134	TSF
		Research & Development	462.506	TSF
		Jurupa South Industrial		
		Light Industrial	70.985	TSF
		Warehousing	1799.899	TSF
		Slover Central Manufacturing/Industrial		
		Manufacturing	1113.002	TSF
		Warehousing	2597.004	TSF
		Slover East Industrial		
		Light Industrial	719.464	TSF
		Warehousing	1006.149	TSF
		Office Park	503.074	TSF
		Slover West Industrial		
		Light Industrial	1384.886	TSF
		Warehousing	3518.167	TSF
		Speedway Industrial		
		Light Industrial	930.121	TSF
		Warehousing	762.191	TSF
		Office Park	13.264	TSF
		SWIP Residential Trucking (1,3 and 4)		
		Single Family Detached Residential	84	DU
11	Citrus Center	Office	47.000	TSF
		Retail	44.500	TSF
		Fast Food w/ Drive-Thru	8.658	TSF
12	ASP 16-018	Retail w/ Gas Station	18.800	TSF
13	Southwest Fontana Logistics Center Project	Warehousing	1,628.936	TSF
		City Park	17.45	AC
14	Walmart Shopping Center	Free-Standing Discount Superstore	200.000	TSF
		Specialty Retail Center	9.490	TSF
		Fast Food w/o Drive-Thru	9.490	TSF
15	Country Village Shopping Center	Shopping Center	140.894	TSF
16	PM 19612	Industrial	30000.000	TSF
		Commercial Retail	1130.000	TSF
		Multi-Family	800	DU
		Hotel	600	RMS
17	PDEV16-001	Industrial	109.197	TSF
18	Pacific Freeway Center	High-Cube Warehouse / Distribution Center	477.500	TSF
		Manufacturing	44.500	TSF
19	First Redwood Logistics	High-Cube Warehouse / Distribution Center	360.000	TSF
		General Light Industrial	41.436	TSF
20	West Valley Logistics Center	High-Cube Warehouse / Distribution Center	3,183.100	TSF
		Warehousing	290.590	TSF

Table 4-3

Cumulative Development Land Use Summary

TAZ	Project	Land Use	Quantity [2]	
21	Gateway Logistics Center	High-Cube Warehouse (Cold Storage)	38.558	TSF
		Warehousing	154.232	TSF
22	St. Mary's Catholic Church	Church	19.508	TSF
23	Avalon Court (Tentative Tract 33649)	SFDR	24	DU
24	Emerald Ridge South	SFDR	97	DU
		Condo/Townhomes	118	DU
25	Highland Park	SFDR	398	DU
26	Tentative Tract Map 33373 (KR Land)	SFDR	97	DU
27	Palm Communities	Apartment	49	DU
28	New Rio Vista Specific Plan 243	SFDR	579	DU
		Condo/Townhomes	290	DU
		Apartment	346	DU
		Active Park	22.2	AC
		School (K-8)	600	STU
29	Flabob-River Springs Charter School	7th-12th Grade School	200	STU
30	Inland Empire Cold Storage	Cold Storage Facility	40.800	TSF
31	Country Village Shopping Center	Shopping Center	140.894	TSF
32	Market Street Commercial	High Turnover Sit-down Restaurant	4.750	TSF
		Fast Food w/ Drive-thru	2.860	TSF
		Gas station w/ foot mart and car wash	16	VFP
33	Pedley Crossing Shopping Center	Shopping Center	255.978	TSF
34	Mission Pyrite Plaza	Shopping Center	21.600	TSF
		High Turnover Sit-down Restaurant	3.000	TSF
		Gas/Service Station w/ Food and Car Wash	20	VFP
35	Rubidoux Commercial Development LLC	General Light Industrial	306.894	TSF
36	99-Cent Only Store	Free Standing Discount Store	18.012	TSF
37	Monarch at the Quarry (Armada Armstrong)	SFDR	86	DU
38	Stone Avenue (Tentative Tract 36702)	SFDR	17	DU
39	Karaki-Western States	Gas/Service Station w/ Food and Car Wash	7.246	TSF
40	Boureston Medical Clinic	Medical Clinic	40.000	TSF
41	Northtown Housing Development Group	Apartments	68	DU
		Commercial Retail	31.375	TSF
42	Agua Mansa Commerce Park Specific Plan	High-Cube Warehouse	4277.000	TSF
		General Light Industrial	150.000	TSF
		Commercial Retail	25.000	TSF
43	Philadelphia Subdivision (Tentative Tract 37214)	SFDR	44	DU
44	Galena Business Park Bldg.	General Light Industrial	47.500	TSF

[1] Source: Southwest Industrial Park (SWIP) Project TIA, RBF Consulting, September 29, 2011.

[2] TSF = Thousand Square Feet; RMS = Rooms; AC = Acres; DU = Dwelling Units

The traffic forecasts reflect the area-wide growth anticipated between Existing (2019) conditions and Horizon Year (2040) traffic conditions. In most instances the traffic model zone structure is not designed to provide accurate turning movements along arterial roadways unless refinement and reasonableness checking is performed. Therefore, the Horizon Year (2040) peak hour forecasts were refined using the model derived long range forecasts, base (validation) year model forecasts, along with existing peak hour traffic count data collected at each analysis location in March 2019. The SBTAM has a base (validation) year of 2012 and a horizon (future forecast) year of 2040. The difference in model volumes (2040-2012) defines the growth in traffic over the 28-year period. Similarly, the Riverside Transportation Analysis Model (RivTAM) has a base (validation) year of 2012 and a horizon (future forecast) year of 2040.

The refined future peak hour approach and departure volumes obtained from the model output data are then entered into a spreadsheet program consistent with the National Cooperative Highway Research Program (NCHRP Report 255), along with initial estimates of turning movement proportions. A linear programming algorithm is used to calculate individual turning movements which match the known directional roadway segment forecast volumes computed in the previous step. This program computes a likely set of intersection turning movements from intersection approach counts and the initial turning proportions from each approach leg.

The SBTAM uses an AM peak period-to-peak hour factor of 0.35 and a PM peak period-to-peak hour factor of 0.27. These factors represent the relationship of the highest single AM peak hour to the modeled 3-hour AM peak period (an even distribution would result in a factor of 0.33) and the highest single PM peak hour to the modeled 4-hour PM peak period (an even distribution would result in a factor of 0.25). The model data from RivTAM represents peak hour data and therefore did not require adjustments.

Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Horizon Year traffic conditions. In an effort to conduct a conservative analysis, reductions to traffic forecasts from either Existing or Opening Year Cumulative traffic conditions were not assumed as part of this analysis. As such, in conjunction with the addition of cumulative projects that are not consistent with the General Plan, additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable Horizon Year (2040) forecasts. Horizon Year (2040) turning volumes were compared to Opening Year Cumulative (2022) volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between Opening Year Cumulative (2022) and Horizon Year (2040) traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2019) and Opening Year Cumulative (2022) conditions. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the Horizon Year (2040) peak hour forecasts.

The future Horizon Year (2040) without Project peak hour turning movements were then reviewed by Urban Crossroads, Inc. for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two adjacent driveway locations, is verified in order to make certain that

vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis.

The SBTAM and RivTAM do not include a truck component or has truck data that is unusually low. As such, in an effort to conduct a conservative analysis, the presence of trucks has been accounted for based on the manual volume adjustments made to demonstrate growth above Opening Year Cumulative (2022) traffic forecasts, which are presented and evaluated in PCE (see Section 3.6 *Existing Traffic Counts* for discussion on PCE). As such, the Horizon Year (2040) forecasts are also assumed to be in PCE for the purposes of this analysis. Post-processing worksheets for Horizon Year (2040) Without Project traffic conditions are provided in Appendix 4.1.

5 E+P TRAFFIC CONDITIONS

In an effort to satisfy the CEQA Guideline section 15125(a), an analysis of existing traffic volumes plus traffic generated by the proposed Project (E+P) has been included in this analysis. This section discusses the traffic forecasts for E+P conditions and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations analyses. Project impacts to baseline traffic conditions (i.e., existing conditions) have been identified along with mitigation measures necessary to reduce project-related impacts to less than significant.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1. In other words, no other off-site improvements are assumed to be in place beyond those that currently exist.

5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing (2019) traffic volumes plus Project traffic (as shown on Table 4-2). The ADT volumes and AM and PM peak hour intersection turning movement volumes are shown on Exhibits 5-1 and 5-2, respectively.

5.3 INTERSECTION OPERATIONS ANALYSIS

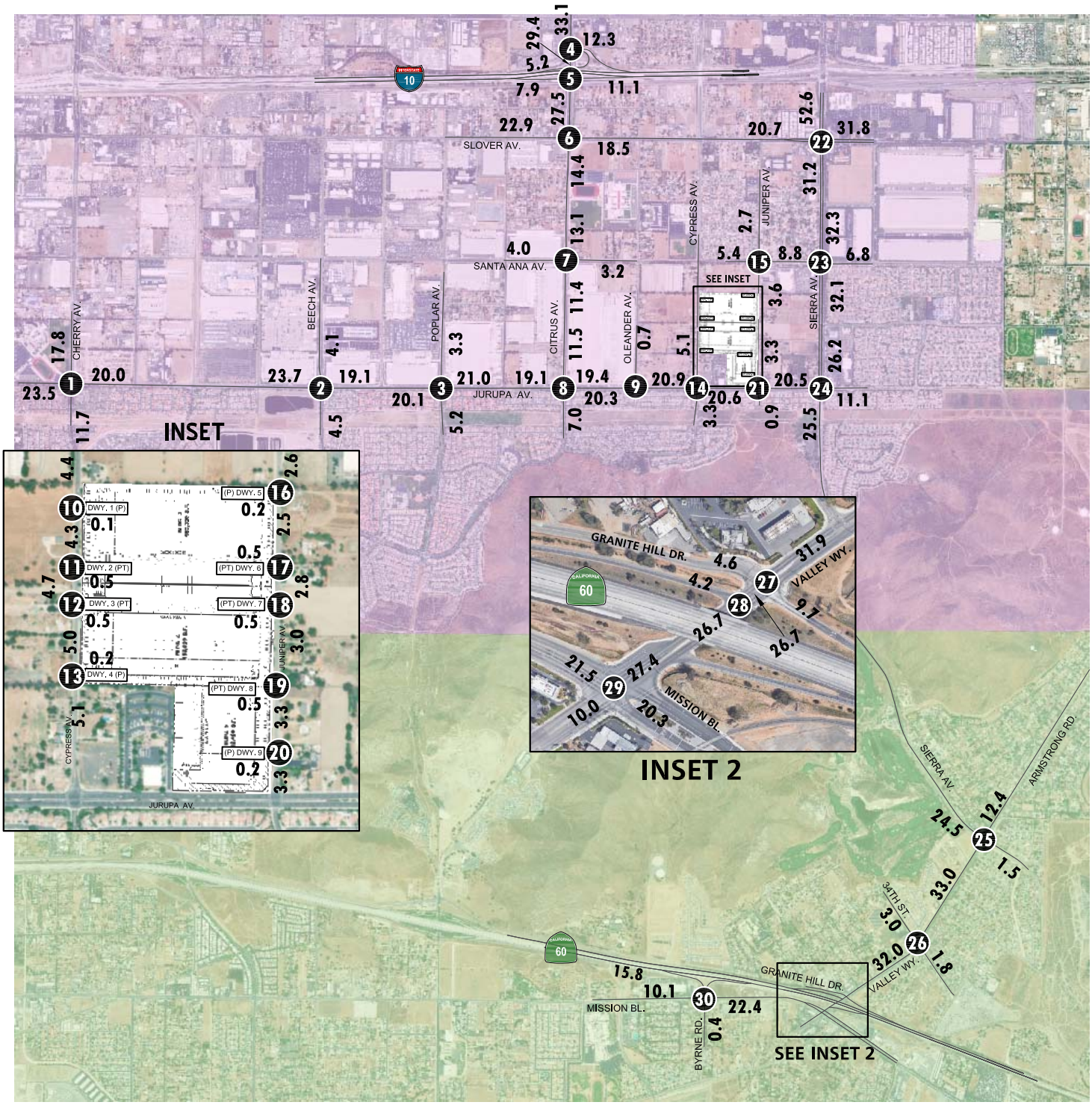
E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. The intersection analysis results are summarized on Table 5-1, which indicates there are no additional study area intersections that are anticipated to operate at a deficient LOS, in addition to those currently operating at a deficient LOS under Existing (2019) traffic conditions.

A summary of the peak hour intersection LOS for E+P conditions are shown on Exhibit 5-3. The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TIA.

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic Signal warrants for E+P traffic conditions are based on existing peak hour intersection turning volumes and the addition of Project traffic. For E+P traffic conditions, no study area intersections are anticipated to meet planning level (average daily traffic or ADT) or peak hour volume-based traffic signal warrants (see Appendix 5.2).

EXHIBIT 5-1: E+P AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

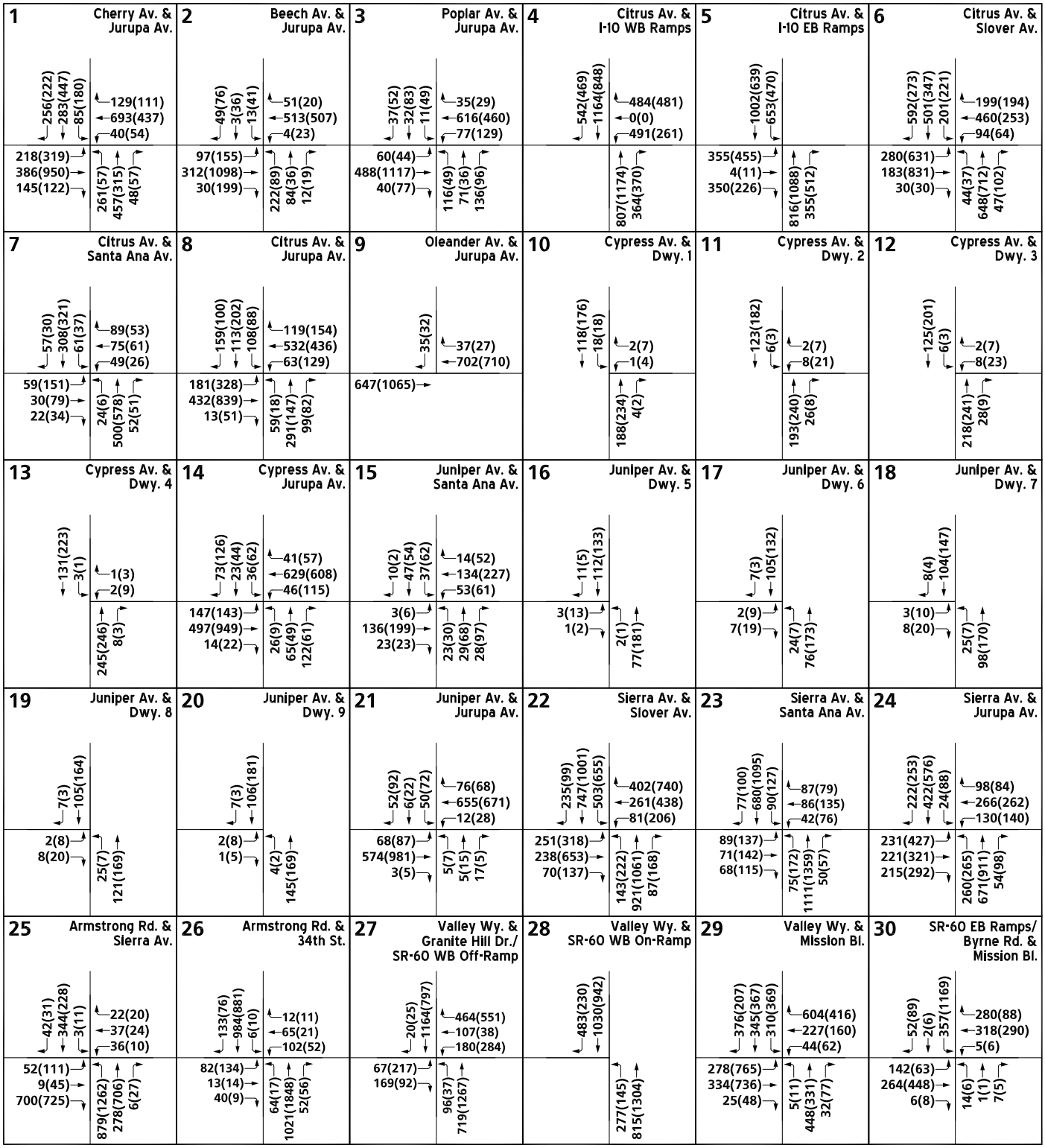


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

N

EXHIBIT 5-2: E+P TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

12382 - vols.dwg

EXHIBIT 5-3: E+P SUMMARY OF LOS

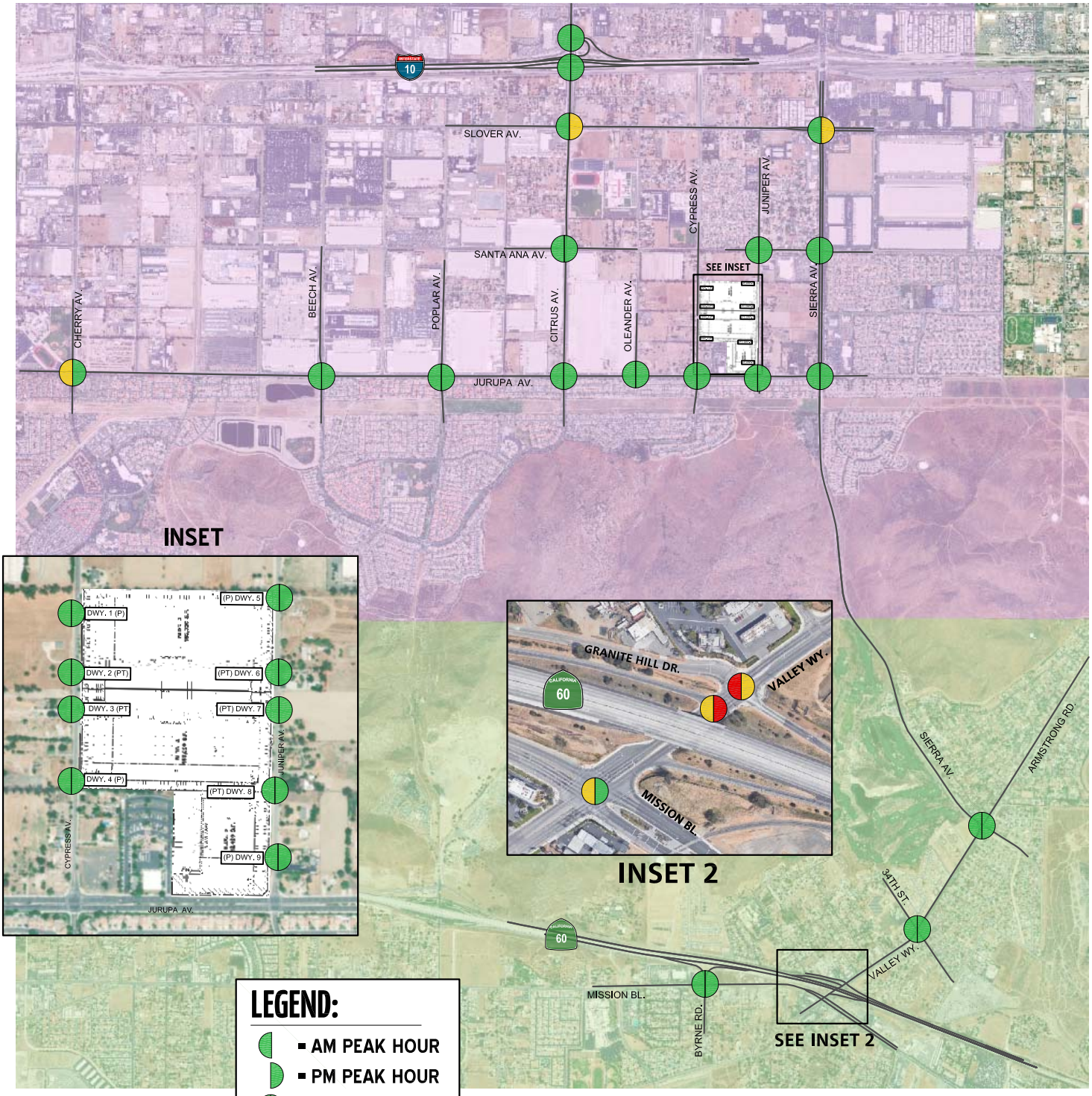


Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2019) Delay[1] (secs.) AM	Existing (2019) Delay[1] (secs.) PM	Existing (2019) Level of Service AM	Existing (2019) Level of Service PM	E+P Delay[1] (secs.) AM	E+P Delay[1] (secs.) PM	E+P Level of Service AM	E+P Level of Service PM	Difference in Delay (sec.) AM	Difference in Delay (sec.) PM	Significant Impact?[3]
1	Cherry Av. & Jurupa Av.	TS	**36.5**	21.1	**D**	C	**36.6**	21.2	**D**	C	0.1	0.1	No
2	Beech Av. & Jurupa Av.	TS	19.5	17.5	B	B	19.5	17.5	B	B	0.0	0.0	No
3	Poplar Av. & Jurupa Av.	TS	12.9	13.8	B	B	12.9	13.8	B	B	0.0	0.0	No
4	Citrus Av. & I-10 WB Ramps	TS	14.7	10.2	B	B	14.8	10.6	B	B	0.1	0.4	No
5	Citrus Av. & I-10 EB Ramps	TS	20.6	21.7	C	C	21.6	21.7	C	C	1.0	0.0	No
6	Citrus Av. & Slover Av.	TS	33.3	**35.7**	C	**D**	33.8	**37.4**	C	**D**	0.5	1.7	No
7	Citrus Av. & Santa Ana Av.	TS	17.7	18.5	B	B	18.1	19.0	B	B	0.4	0.5	No
8	Citrus Av. & Jurupa Av.	TS	20.2	21.0	C	C	21.9	21.5	C	C	1.7	0.5	No
9	Oleander Av. & Jurupa Av.	CSS	12.2	11.9	B	B	12.4	12.5	B	B	0.2	0.6	No
10	Cypress Av. & Driveway 1	**CSS**	Future Intersection				9.7	10.1	A	B	--	--	No
11	Cypress Av. & Driveway 2	**CSS**	Future Intersection				10.2	10.8	B	B	--	--	No
12	Cypress Av. & Driveway 3	**CSS**	Future Intersection				10.4	10.9	B	B	--	--	No
13	Cypress Av. & Driveway 4	**CSS**	Future Intersection				10.3	10.8	B	B	--	--	No
14	Cypress Av. & Jurupa Av.	TS	12.8	14.4	B	B	14.0	14.9	B	B	1.2	0.5	No
15	Juniper Av. & Santa Ana Av.	AWS	9.9	11.4	A	B	10.4	12.0	B	B	0.5	0.6	No
16	Juniper Av. & Driveway 5	**CSS**	Future Intersection				9.5	10.4	A	B	--	--	No
17	Juniper Av. & Driveway 6	**CSS**	Future Intersection				9.1	9.7	A	A	--	--	No
18	Juniper Av. & Driveway 7	**CSS**	Future Intersection				9.3	9.8	A	A	--	--	No
19	Juniper Av. & Driveway 8	**CSS**	Future Intersection				9.2	9.8	A	A	--	--	No
20	Juniper Av. & Driveway 9	**CSS**	Future Intersection				9.7	10.3	A	B	--	--	No
21	Juniper Av. & Jurupa Av.	TS	11.7	12.5	B	B	11.9	12.7	B	B	0.2	0.2	No
22	Sierra Av. & Slover Av.	TS	28.4	**67.8**	C	**E**	28.6	**69.6**	C	**E**	0.2	1.8	No
23	Sierra Av. & Santa Ana Av.	TS	17.8	20.5	B	C	18.1	21.2	B	C	0.3	0.7	No
24	Sierra Av. & Jurupa Av.	TS	20.2	25.6	C	C	20.5	26.2	C	C	0.3	0.6	No
25	Armstrong Rd. & Sierra Av.	TS	26.4	30.2	C	C	27.1	30.3	C	C	0.7	0.1	No
26	Valley Wy. & 34th St.	TS	13.8	12.7	B	B	13.9	12.8	B	B	0.1	0.1	No
27	Valley Wy. & Granite Hill Dr./SR-60 WB Off-ramp	TS	**77.9**	**73.6**	**E**	**E**	**81.9**	**74.1**	**F**	**E**	4.0	0.5	No
28	Valley Wy. & SR-60 WB On-ramp	TS	**66.5**	**93.9**	**E**	**F**	**68.0**	**95.5**	**E**	**F**	1.5	1.6	No

Table 5-1

Intersection Analysis for E+P Conditions

#	Intersection	Traffic Control[2]	Existing (2019) Delay[1] (secs.) AM	Existing (2019) Delay[1] (secs.) PM	Existing (2019) Level of Service AM	Existing (2019) Level of Service PM	E+P Delay[1] (secs.) AM	E+P Delay[1] (secs.) PM	E+P Level of Service AM	E+P Level of Service PM	Difference in Delay (sec.) AM	Difference in Delay (sec.) PM	Significant Impact?[3]
29	Valley Wy. & Mission Bl.	TS	**67.8**	50.0	**E**	D	**68.0**	50.6	**E**	D	0.2	0.6	No
30	SR-60 EB Ramps & Mission Bl.	TS	27.9	34.3	C	C	28.1	35.6	C	D	0.2	1.3	No

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

3 Significant near-term impacts have been identified based on each applicable agency's threshold of significance and if the Project contributes 50 or more peak hour trips.

5.5 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 5-2 provides a summary of the E+P conditions roadway segment capacity analysis based on the City of Fontana Roadway Segment Capacity Thresholds. As shown on Table 5-2, the study area roadway segments are anticipated to continue to operate at an acceptable LOS based on the City's planning level daily roadway capacity thresholds, consistent with Existing (2019) traffic conditions.

5.6 OFF-RAMP QUEUING ANALYSIS

A queueing analysis was performed for eastbound and westbound off-ramps of the I-10 Freeway at Citrus Avenue interchange to assess vehicle queues for the off ramps that may potentially impact peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-10 Freeway. Queuing analysis findings are presented on Table 5-3. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 5-3 and consistent with Existing traffic conditions, there are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or PM peak hours based on the E+P 95th percentile traffic flows. Worksheets for E+P traffic conditions off-ramp queuing analysis are provided in Appendix 5.3.

5.7 FREEWAY FACILITY ANALYSIS

E+P mainline directional volumes for the AM and PM peak hours are provided on Exhibit 5-4. As shown on Table 5-4, there are no additional freeway segments or freeway ramp junctions anticipated to operate at an unacceptable LOS under E+P traffic conditions during the peak hours, in addition to the location previously identified under Existing (2019) traffic conditions. E+P freeway facility analysis worksheets are provided in Appendix 5.4.

Table 5-2

Roadway Segment Capacity Analysis for E+P Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	Existing 2019	V/C[2]	LOS[3]	Acceptable LOS	E+P	V/C[2]	LOS[3]	Acceptable LOS
1	Citrus Av.	Between I-10 Ramps	5D	45,000	28,993	0.64	B	C	29,417	0.65	B	C
2		Between I-10 Eastbound Ramps & Slover Av.	5D	45,000	27,129	0.60	B	C	27,853	0.62	B	C
3		Slover Av. & Santa Ana Av.	3D	27,000	13,558	0.50	A	C	14,426	0.53	A	C
4		Santa Ana Av. & Jurupa Av.	4D	36,000	10,745	0.30	A	C	11,453	0.32	A	C
5	Cypress Av.	Santa Ana Av. & Jurupa Av.	2U	18,000	4,073	0.23	A	C	9,140	0.51	A	C
6	Sierra Av.	Slover Av. & Santa Ana Av.	6D	54,000	31,761	0.59	A	C	32,293	0.60	A	C
7	Santa Ana Av.	Juniper Av. & Sierra Av.	4D	36,000	8,411	0.23	A	C	8,813	0.24	A	C
8	Jurupa Av.	Cherry Av. Beech Av.	5D	45,000	23,050	0.51	A	C	23,700	0.53	A	C
9		Beech Av. & Poplar Av.	6D	54,000	19,412	0.36	A	C	20,078	0.37	A	C
10		Poplar Av. & Citrus Av.	6D	54,000	18,332	0.34	A	C	19,088	0.35	A	C
11		Citrus Av. & Oleander Av.	6D	54,000	18,811	0.35	A	C	20,275	0.38	A	C
12		Oleander Av. & Cypress Av.	6D	54,000	19,390	0.36	A	C	20,854	0.39	A	C
13		Cypress Av. & Juniper Av.	6D	54,000	19,790	0.37	A	C	20,288	0.38	A	C
14		Juniper Av. & Sierra Av.	6D	54,000	19,741	0.37	A	C	20,501	0.38	A	C

[1] These maximum roadway capacities assume 9,000 vehicles per lane per day for arterials.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Table 5-3

Peak Hour Freeway Off-Ramp Queuing Summary for E+P Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2019)				E+P			
			95th Percentile Queue (Feet)		Acceptable? [1]		95th Percentile Queue (Feet)		Acceptable? [1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Citrus Av. & I-10 Westbound Ramps	WBR	475	127	196	Yes	Yes	128	197	Yes	Yes
	WBL	1,620	380	233	Yes	Yes	380	233	Yes	Yes
Citrus Av. & I-10 Eastbound Ramps	EBL	1,285	147	196	Yes	Yes	147	196	Yes	Yes
	EBT/R	445	228	67	Yes	Yes	274 [2]	70	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

Table 5-4

Freeway Facility Analysis for E+P Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Existing (2019)				E+P			
				Density[2]		LOS[3]		Density[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-10	Westbound	West of Cherry Av.	4	27.1	23.6	D	C	28.2	24.0	D	C
		West of Citrus Av.	4	**38.1**	28.0	**E**	A	**38.2**	28.2	**E**	D
		On-Ramp at Citrus Av.	4	40.3	29.8	C	C	40.3	29.9	C	C
		Off-Ramp at Citrus Av.	4	29.9	21.0	D	C	29.9	21.0	D	C
		East of Citrus Av.	5	31.0	21.6	D	C	31.0	21.6	D	C
	Eastbound	West of Cherry Av.	5	18.1	15.2	C	B	18.1	15.2	C	B
		West of Citrus Av.	5	20.5	23.8	C	C	20.6	23.8	C	C
		Off-Ramp at Citrus Av.	5	20.1	23.2	C	C	20.2	23.3	C	C
		On-Ramp at Citrus Av.	4	22.5	25.8	C	C	22.5	25.8	C	C
		East of Citrus Av.	5	21.7	24.9	C	C	21.7	24.9	C	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

EXHIBIT 5-4: E+P FREEWAY MAINLINE VOLUMES

LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

URBAN CROSSROADS

5.8 IMPACTS AND MITIGATION MEASURES

Improvement strategies have been recommended at intersections and freeway segments that have been identified as impacted under E+P traffic conditions in an effort to achieve an acceptable LOS.

5.8.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Based on the City of Fontana's significance criteria as discussed in Section 2.9 *Thresholds of Significance* and the 50 peak hour trip threshold, the addition of Project traffic is not anticipated to result in a significant impact at any study area intersection. As such, no mitigation measures have been identified.

5.8.2 RECOMMENDED IMPROVEMENTS TO ADDRESS ROADWAY SEGMENTS

As shown previously on Table 5-2, there are no roadway segment deficiencies anticipated for E+P traffic conditions. As such, no improvements have been recommended.

5.8.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously on Table 5-3, there are no queuing issues anticipated for E+P traffic conditions. As such, no improvements have been recommended.

5.8.4 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Fontana (or other neighboring jurisdictions) on SHS roadway segments. As such, no improvements have been recommended to address the E+P deficiencies on the SHS, because there is no feasible mitigation available.

6 OPENING YEAR CUMULATIVE (2022) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2022) Without and With Project traffic forecasts, and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway mainline operations analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2022) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project and cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative (2022) traffic conditions.

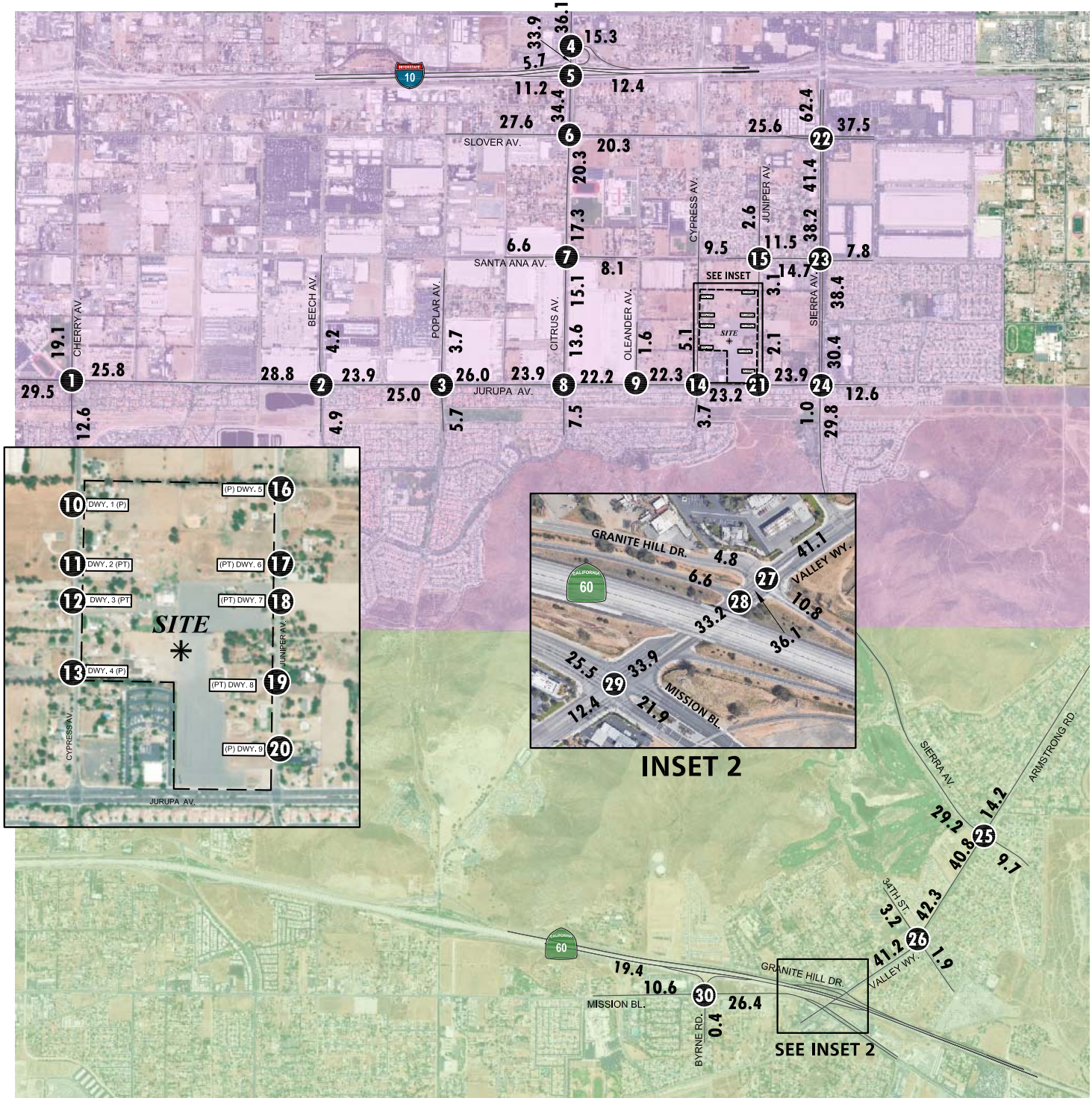
6.2 OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

The weekday ADT and AM and PM peak hour traffic volumes which can be expected for Opening Year Cumulative (2022) Without Project traffic conditions are shown on Exhibit 6-1 and Exhibit 6-2, respectively.

6.3 OPENING YEAR CUMULATIVE (2022) WITH PROJECT TRAFFIC VOLUME FORECASTS

The weekday ADT and AM and PM peak hour traffic volumes which can be expected for Opening Year Cumulative (2022) With Project traffic conditions are shown on Exhibit 6-3 and Exhibit 6-4, respectively.

EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

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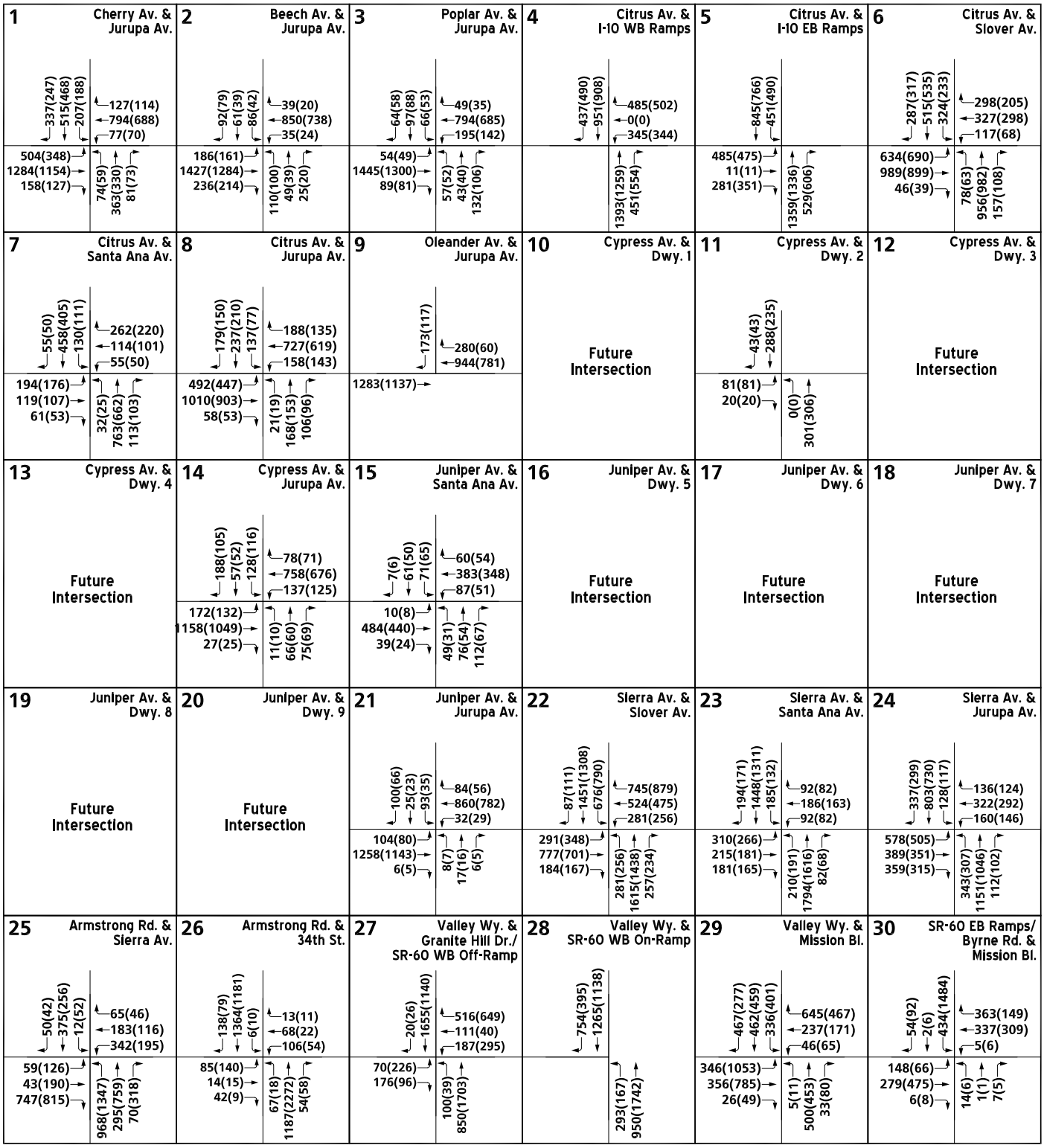
EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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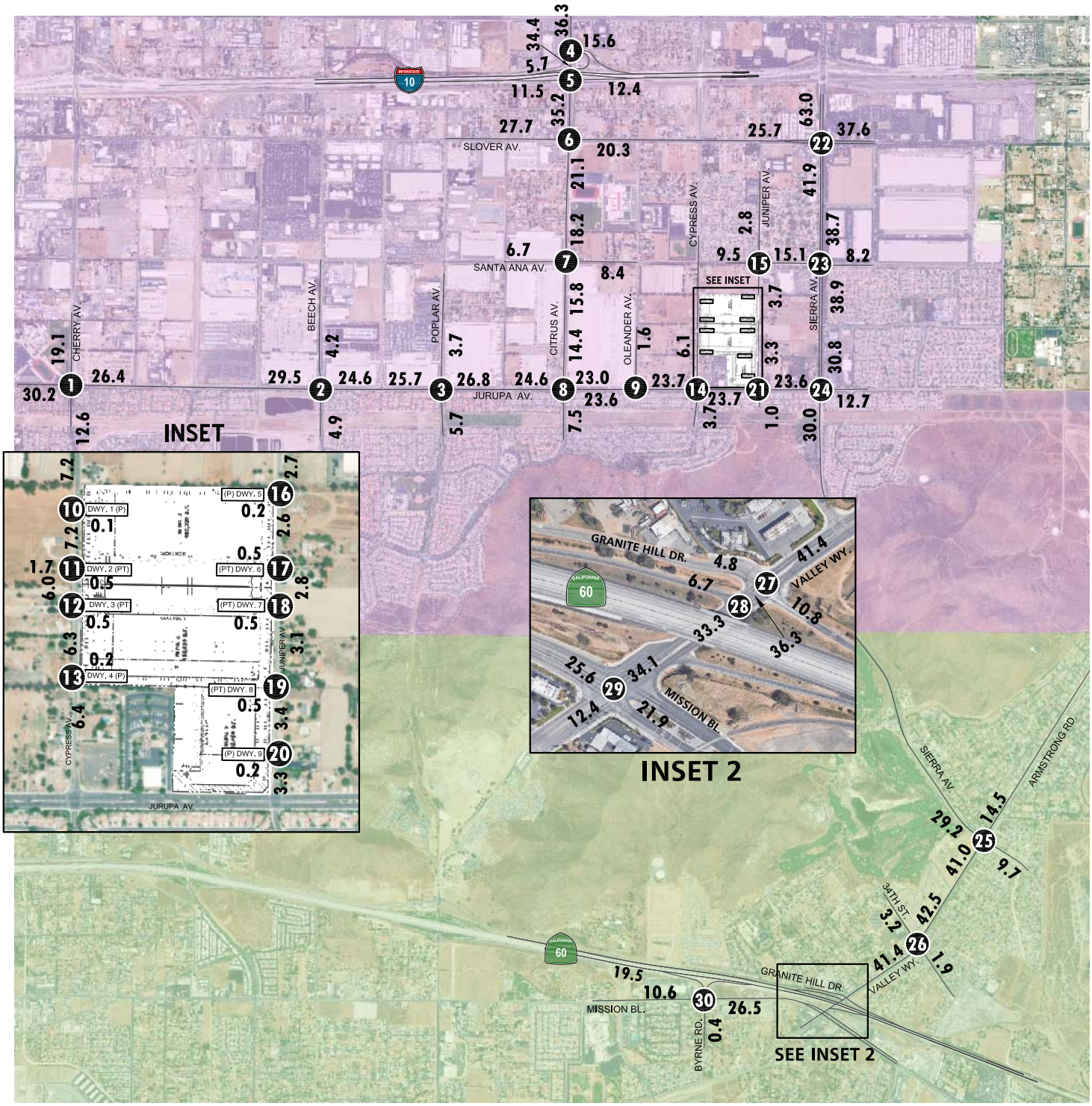
EXHIBIT 6-3: OPENING YEAR CUMULATIVE (2022) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

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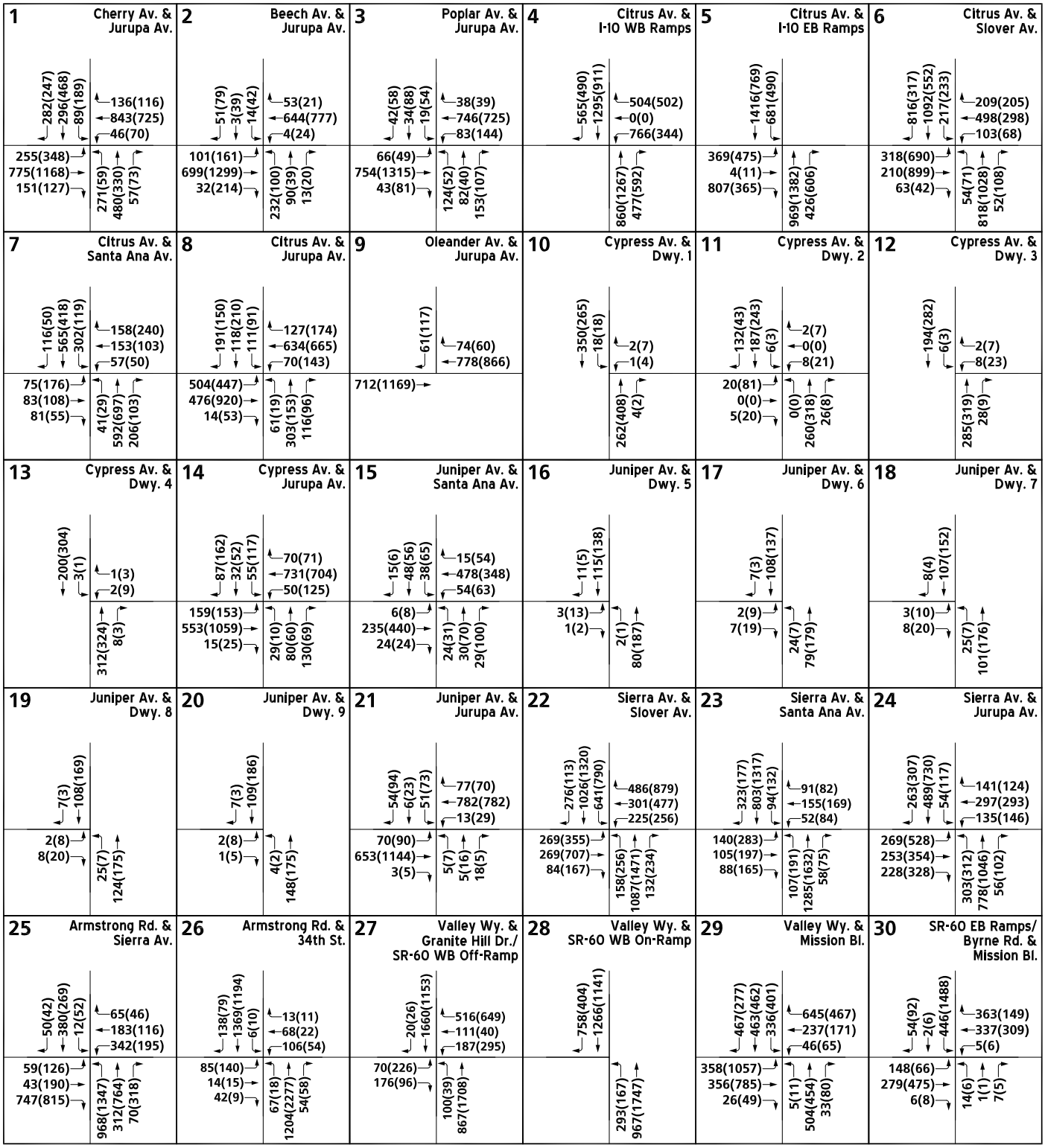
EXHIBIT 6-4: OPENING YEAR CUMULATIVE (2022) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

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6.4 INTERSECTION OPERATIONS ANALYSIS

6.4.1 OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT TRAFFIC CONDITIONS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2022) Without Project conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown on Table 6-1, the following study area intersections are anticipated to operate at a deficient LOS (i.e., LOS D or worse) during one or more peak hours for Opening Year Cumulative (2022) Without Project traffic conditions:

- Cherry Avenue & Jurupa Avenue (#1) – LOS D AM peak hour only
- Citrus Avenue & I-10 Eastbound Ramps (#5) – LOS E AM peak hour only
- Citrus Avenue & Slover Avenue (#6) – LOS F AM peak hour; LOS D PM peak hour
- Citrus Avenue & Slover Avenue (#7) – LOS D AM peak hour only
- Juniper Avenue & Santa Ana Avenue (#15) – LOS D PM peak hour only
- Sierra Avenue & Slover Avenue (#22) – LOS E PM peak hour only
- Armstrong Road & Sierra Avenue (#25) – LOS F AM and PM peak hours
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – LOS F AM and PM peak hours
- Valley Way & SR-60 Westbound On-Ramp (#28) – LOS E AM peak hour; LOS F PM peak hour
- Valley Way & Mission Boulevard (#29) – LOS E AM and PM peak hours

A summary of the peak hour intersection LOS for Opening Year Cumulative (2022) Without Project conditions are shown on Exhibit 6-5. The intersection operations analysis worksheets for Opening Year Cumulative (2022) Without Project traffic conditions are included in Appendix 6.1 of this TIA.

6.4.2 OPENING YEAR CUMULATIVE (2022) WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 6-1 and illustrated on Exhibit 6-6, the addition of Project traffic is anticipated to cause the following additional study area intersection to operate at unacceptable LOS, in addition to those previously identified under Opening Year Cumulative (2022) Without Project conditions:

- Citrus Avenue & Jurupa Avenue (#8) – LOS D AM peak hour only

The intersection operations analysis worksheets for Opening Year Cumulative (2022) With Project conditions are included in Appendix 6.2 of this TIA. Measures to address deficiencies for Opening Year Cumulative (2019) traffic conditions are discussed in Section 6.9 *Opening Year Cumulative (2022) Impacts and Recommended Improvements*.

6.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

There are no study area intersections anticipated to meet planning level (average daily traffic or ADT) or peak hour volume-based traffic signal warrants under Opening Year Cumulative (2022) Without and With Project traffic conditions (see Appendix 6.3 and 6.4).

Table 6-1

Intersection Analysis for Opening Year Cumulative (2022) Conditions

#	Intersection	Traffic Control[2]	2022 Without Project				2022 With Project				Difference in Delay (sec.)	Difference in Delay (sec.)	Significant Impact?[3]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service				
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Cherry Av. & Jurupa Av.	TS	**41.6**	23.4	**D**	C	**42.0**	23.5	**D**	C	0.4	0.1	No
2	Beech Av. & Jurupa Av.	TS	19.7	18.0	B	B	19.7	18.0	B	B	0.0	0.0	No
3	Poplar Av. & Jurupa Av.	TS	13.2	14.0	B	B	13.3	14.0	B	B	0.1	0.0	No
4	Citrus Av. & I-10 WB Ramps	TS	23.5	10.2	C	B	23.6	11.3	C	B	0.1	1.1	No
5	Citrus Av. & I-10 EB Ramps	TS	**56.2**	25.8	**E**	C	**61.3**	26.5	**E**	C	5.1	0.7	**Yes**
6	Citrus Av. & Slover Av.	TS	**92.8**	**41.0**	**F**	**D**	**100.2**	**42.9**	**F**	**D**	7.4	1.9	**Yes**
7	Citrus Av. & Santa Ana Av.	TS	**35.0**	23.5	**D**	C	**37.7**	25.0	**D**	C	2.7	1.5	No
8	Citrus Av. & Jurupa Av.	TS	31.8	24.9	C	C	**37.5**	26.2	**D**	C	5.7	1.3	**Yes**
9	Oleander Av. & Jurupa Av.	CSS	13.5	15.3	B	C	13.7	16.3	B	C	0.2	1.0	No
10	Cypress Av. & Driveway 1	**CSS**	Future Intersection				10.6	11.6	B	B	--	--	No
11	Cypress Av. & Driveway 2	**CSS**	Future Intersection				10.9	11.6	B	B	--	--	No
12	Cypress Av. & Driveway 3	**CSS**	Future Intersection				11.1	11.8	B	B	--	--	No
13	Cypress Av. & Driveway 4	**CSS**	Future Intersection				11.0	11.6	B	B	--	--	No
14	Cypress Av. & Jurupa Av.	TS	13.0	15.0	B	B	14.6	15.7	B	B	1.6	0.7	No
15	Juniper Av. & Santa Ana Av.	AWS	16.0	**30.0**	C	**D**	17.8	**34.1**	C	**D**	1.8	4.1	No
16	Juniper Av. & Driveway 5	**CSS**	Future Intersection				9.5	10.5	A	B	--	--	No
17	Juniper Av. & Driveway 6	**CSS**	Future Intersection				9.1	9.7	A	A	--	--	No
18	Juniper Av. & Driveway 7	**CSS**	Future Intersection				9.3	9.8	A	A	--	--	No
19	Juniper Av. & Driveway 8	**CSS**	Future Intersection				9.2	9.9	A	A	--	--	No
20	Juniper Av. & Driveway 9	**CSS**	Future Intersection				9.7	10.4	A	B	--	--	No
21	Juniper Av. & Jurupa Av.	TS	11.7	12.6	B	B	12.0	12.8	B	B	0.3	0.2	No
22	Sierra Av. & Slover Av.	TS	32.7	**76.0**	C	**E**	33.0	**77.6**	C	**E**	0.3	1.6	No
23	Sierra Av. & Santa Ana Av.	TS	20.3	28.5	C	C	20.6	29.6	C	C	0.3	1.1	No
24	Sierra Av. & Jurupa Av.	TS	21.9	29.0	C	C	22.2	29.7	C	C	0.3	0.7	No
25	Armstrong Rd. & Sierra Av.	TS	**>200.0**	**171.5**	**F**	**F**	**>200.0**	**172.1**	**F**	**F**	--	0.6	No
26	Valley Wy. & 34th St.	TS	16.4	20.3	B	C	16.5	20.5	B	C	0.1	0.2	No
27	Valley Wy. & Granite Hill Dr./SR-60 WB Off-ramp	TS	**128.4**	**153.3**	**F**	**F**	**128.8**	**155.0**	**F**	**F**	0.4	1.7	No
28	Valley Wy. & SR-60 WB On-ramp	TS	**62.2**	**90.4**	**E**	**F**	**63.7**	**92.1**	**E**	**F**	1.5	1.7	No

Table 6-1

Intersection Analysis for Opening Year Cumulative (2022) Conditions

#	Intersection	Traffic Control[2]	2022 Without Project				2022 With Project				Difference in Delay (sec.)	Difference in Delay (sec.)	Significant Impact?[3]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service				
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
29	Valley Wy. & Mission Bl.	TS	**69.5**	**58.0**	**E**	**E**	**69.8**	**58.0**	**E**	**E**	0.3	0.0	No
30	SR-60 EB Ramps & Mission Bl.	TS	29.1	52.7	C	D	29.3	53.2	C	D	0.2	0.5	No

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

3 Significant near-term impacts have been identified based on each applicable agency's threshold of significance and if the Project contributes 50 or more peak hour trips.

EXHIBIT 6-5: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT SUMMARY OF LOS

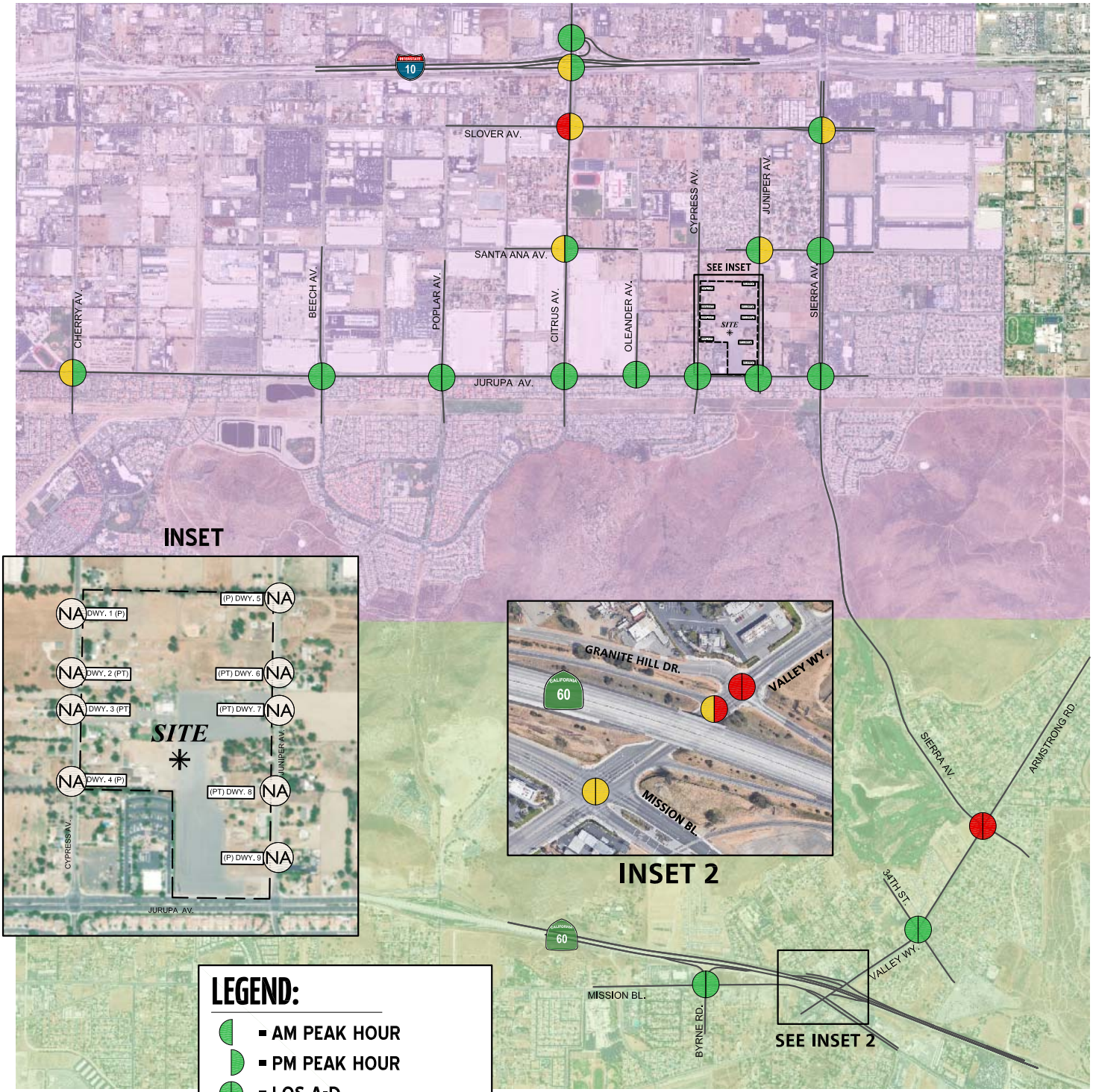

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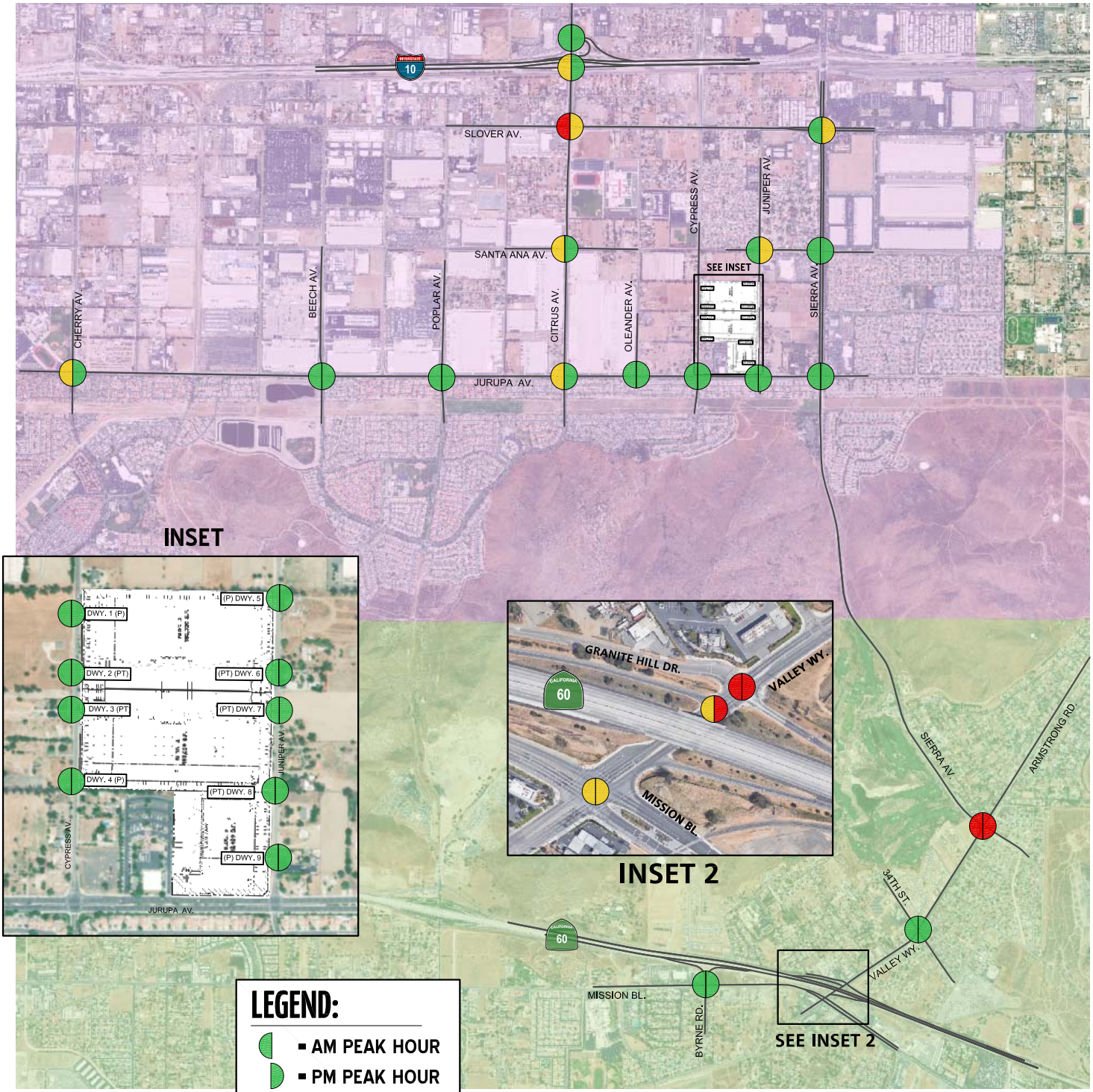
EXHIBIT 6-6: OPENING YEAR CUMULATIVE (2022) WITH PROJECT SUMMARY OF LOS



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6.6 ROADWAY SEGMENT ANALYSIS

The roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 6-2 provides a summary of the Opening Year Cumulative (2022) conditions roadway segment capacity analysis based on the City of Fontana Roadway Segment Capacity Thresholds. As shown on Table 6-2, the study area roadway segments are anticipated to continue to operate at an acceptable LOS based on the City's planning level daily roadway capacity thresholds, consistent with Existing (2019) traffic conditions.

6.7 OFF-RAMP QUEUING ANALYSIS

A queueing analysis was performed for eastbound and westbound off-ramps of the I-10 Freeway at Citrus Avenue interchange to assess vehicle queues for the off ramps that may potentially impact peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-10 Freeway. Queuing analysis findings are presented on Table 6-3. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 6-3 and consistent with Existing traffic conditions, there are no movements that are anticipated to experience off-ramp queuing issues during the weekday AM or PM peak hours based on the Opening Year Cumulative (2022) 95th percentile traffic flows. Worksheets for Opening Year Cumulative (2022) Without and With Project traffic conditions off-ramp queuing analysis are provided in Appendix 6.5 and Appendix 6.6.

6.8 FREEWAY FACILITY ANALYSIS

Opening Year Cumulative (2022) Without and With Project mainline directional volumes for the AM and PM peak hours are provided on Exhibit 6-7 and Exhibit 6-8, respectively. As shown on Table 6-4, there are no additional freeway segments or freeway ramp junctions anticipated to operate at an unacceptable LOS under Opening Year Cumulative (2022) traffic conditions during the peak hours, in addition to the location previously identified under Existing (2019) traffic conditions. Opening Year Cumulative (2022) Without and With Project freeway facility analysis worksheets are provided in Appendix 6.7 and Appendix 6.8, respectively.

Table 6-2

Roadway Segment Capacity Analysis for Opening Year Cumulative (2022) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2022 NP	V/C[2]	LOS[3]	2022 WP	V/C[2]	LOS[3]	Acceptable LOS
1	Citrus Av.	Between I-10 Ramps	5D	45,000	33,922	0.75	C	34,346	0.76	C	C
2		Between I-10 Eastbound Ramps & Slover Av.	5D	45,000	34,820	0.77	C	35,544	0.79	C	C
3		Slover Av. & Santa Ana Av.	3D	27,000	20,260	0.75	C	21,128	0.78	C	C
4		Santa Ana Av. & Jurupa Av.	4D	36,000	15,138	0.42	A	15,846	0.44	A	C
5	Cypress Av.	Santa Ana Av. & Jurupa Av.	2U	18,000	5,112	0.28	A	10,179	0.57	A	C
6	Sierra Av.	Slover Av. & Santa Ana Av.	6D	54,000	42,560	0.79	C	43,092	0.80	C	C
7	Santa Ana Av.	Juniper Av. & Sierra Av.	4D	36,000	14,691	0.41	A	15,093	0.42	A	C
8	Jurupa Av.	Cherry Av. Beech Av.	5D	45,000	29,663	0.66	B	30,313	0.67	B	C
9		Beech Av. & Poplar Av.	6D	54,000	24,948	0.46	A	25,614	0.47	A	C
10		Poplar Av. & Citrus Av.	6D	54,000	24,050	0.45	A	24,806	0.46	A	C
11		Citrus Av. & Oleander Av.	6D	54,000	22,437	0.42	A	23,901	0.44	A	C
12		Oleander Av. & Cypress Av.	6D	54,000	22,451	0.42	A	23,915	0.44	A	C
13		Cypress Av. & Juniper Av.	6D	54,000	23,023	0.43	A	23,521	0.44	A	C
14		Juniper Av. & Sierra Av.	6D	54,000	22,824	0.42	A	23,584	0.44	A	C

[1] These maximum roadway capacities assume 9,000 vehicles per lane per day for arterials.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Table 6-3

Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year Cumulative (2022) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2022 Without Project				2022 With Project			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Citrus Av. & I-10 Westbound Ramps	WBR	475	137	197	Yes	Yes	137	197	Yes	Yes
	WBL	1,620	727 [2]	289	Yes	Yes	727 [2]	289	Yes	Yes
Citrus Av. & I-10 Eastbound Ramps	EBL	1,285	118	206	Yes	Yes	118	206	Yes	Yes
	EBT/R	445	895 [2]	186	Yes	Yes	956 [2]	200	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

Table 6-4

Freeway Facility Analysis for Opening Year Cumulative (2022) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	2022 Without Project				2022 With Project			
				Density[2]		LOS[3]		Density[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-10	Westbound	West of Cherry Av.	4	30.7	26.2	D	D	30.8	26.3	D	D
		West of Citrus Av.	4	**40.3**	30.4	**E**	D	**40.3**	31.0	**E**	D
		On-Ramp at Citrus Av.	4	42.9	32.0	D	C	42.9	32.4	D	D
		Off-Ramp at Citrus Av.	4	32.3	22.2	D	C	32.3	22.2	D	C
		East of Citrus Av.	5	33.5	22.8	D	C	33.5	22.8	D	C
	Eastbound	West of Cherry Av.	5	20.5	16.3	C	B	20.5	16.3	C	B
		West of Citrus Av.	5	23.0	25.3	C	C	23.0	25.4	C	C
		Off-Ramp at Citrus Av.	5	22.5	24.7	C	C	22.6	24.8	C	C
		On-Ramp at Citrus Av.	4	23.5	26.9	C	D	23.5	26.9	C	D
		East of Citrus Av.	5	22.8	26.3	C	D	22.8	26.3	C	D

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

EXHIBIT 6-7: OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES

LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

EXHIBIT 6-8: OPENING YEAR CUMULATIVE (2022) WITH PROJECT FREEWAY MAINLINE VOLUMES

LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

6.9 OPENING YEAR CUMULATIVE (2022) IMPACTS AND RECOMMENDED IMPROVEMENTS

Improvement strategies have been recommended at intersections, roadway segments, and freeway facility that have been identified as impacted under Opening Year Cumulative (2022) traffic conditions in an effort to achieve an acceptable LOS.

6.9.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Based on the City of Fontana's significance criteria as discussed in Section 2.9 *Thresholds of Significance*, the following intersections are anticipated to be significantly impacted by the Project during one or more peak hours:

- Citrus Avenue & I-10 Eastbound Ramps (#5)
- Citrus Avenue & Slover Avenue (#6)
- Citrus Avenue & Jurupa Avenue (#8)

The effectiveness of the recommended improvements to address Opening Year Cumulative (2022) traffic impacts are presented on Table 6-5. Improvement strategies identified on Table 6-5 have been recommended at intersections that have been identified as cumulatively impacted to reduce each location's peak hour delay to acceptable levels.

Citrus Avenue & I-10 Eastbound Ramps (#5) – The following improvements are necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards restriping the eastbound off-ramp with a left turn lane, one shared left-through-right turn lane, and right turn lane.

Citrus Avenue & Slover Avenue (#6) – The following improvements are necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards restriping the southbound approach to accommodate a 2nd through lane.
- Contribute fair share towards modifying the traffic signal to accommodate right turn overlap phasing on the southbound and westbound right turn lanes.

Citrus Avenue & Jurupa Avenue (#8) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards modifying the cycle length to 130-seconds. No other physical improvements are recommended.

Table 6-5

Intersection Analysis for Opening Year Cumulative (2022) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
5	Citrus Av. & I-10 EB Ramps																	
	- *Without Improvements*	TS	0	3	0	2	2	0	2	1	0	0	0	0	**61.3**	26.5	**E**	C
	- *With Improvements*[4]	TS	0	3	0	2	2	0	**1**	1	**1**	0	0	0	27.2	24.8	C	C
6	Citrus Av. & Slover Av.																	
	- *Without Improvements*	TS	1	3	1	1	1	1	2	2	0	1	2	1	**100.2**	**42.9**	**F**	**D**
	- *With Improvements*[5]	TS	1	3	1	1	**2**	**1>**	2	2	0	1	2	**1>**	**40.1**	**40.0**	**D**	**D**
8	Citrus Av. & Jurupa Av.																	
	- *Without Improvements*	TS	1	2	0	1	2	0	1	2	1	1	3	1	**37.5**	26.2	**D**	C
	- *With Improvements*[6]	TS	1	2	0	1	2	0	1	2	1	1	3	1	33.9	25.0	C	C
25	Armstrong Rd. & Sierra Av.																	
	- *Without Improvements*	TS	2	**2**	0	1	1	0	1	2	1>>	1	2	0	**>200.0**	**172.1**	**F**	**F**
	- *With Improvements*	TS	2	**2**	0	1	1	0	1	2	1>>	1	2	0	54.5	40.9	D	D
27	Valley Wy. & Granite Hill Dr./SR-60 WB Off-ramp																	
	- *Without Improvements*	TS	1	2	0	0	2	0	0	1	0	1	1	0	**128.8**	**155.0**	**F**	**F**
	- *With Improvements*		No Feasible Improvements[7]															
28	Valley Wy. & SR-60 WB On-ramp																	
	- *Without Improvements*	TS	1	2	0	0	2	0	0	0	0	0	0	0	**63.7**	**92.1**	**E**	**F**
	- *With Improvements*		No Feasible Improvements[7]															
29	Valley Wy. & Mission Bl.																	
	- *Without Improvements*	TS	2	2	1	2	2	2>	2	2	1	1	2	1>	**69.8**	**58.0**	**E**	**E**
	- *With Improvements*		No Feasible Improvements[7]															

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

[4] Improvement consists of restriping only.

[5] Improvement consists of restriping and signal modification to accommodate the recommended overlap phasing.

[6] Improvement consists of modifying the cycle length to 130-seconds. No other physical improvements are recommended.

[7] Improvements would require interchange reconfiguration. Additionally, the Project contributes less than 50 peak hour trips to this intersection. As such, no improvements have been recommended.

The Project will contribute less than 50 peak hour trips to the following City of Jurupa Valley intersections resulting in a less than significant cumulative impact:

- Armstrong Road & Sierra Avenue (#25)
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27)
- Valley Way & SR-60 Westbound On-Ramp (#28)
- Valley War & Mission Boulevard (#29)

Although the impacts are less than significant, the following improvements have been identified (if feasible) to address peak hour deficiencies. However, since the Project's impact to these locations are less than significant (the Project contributes less than 50 peak hour trips), the Project is not required to contribute payment into any pre-existing fee program or pay fair share contributions towards these improvements.

Armstrong Road & Sierra Avenue (#25) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better:

- Add a 2nd northbound through lane.

Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

Valley Way & SR-60 Westbound On-Ramp (#28) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

Valley Way & Mission Boulevard (#29) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

The intersection operations analysis worksheets for Opening Year Cumulative (2022) With Project traffic conditions, with improvements, are included in Appendix 6.9 of this TIA.

6.9.2 RECOMMENDED IMPROVEMENTS TO ADDRESS ROADWAY SEGMENTS

As shown previously on Table 6-2, there are no roadway segment deficiencies anticipated for Opening Year Cumulative (2022) traffic conditions. As such, no improvements have been recommended.

6.9.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

As shown previously on Table 6-3, there are no queuing issues anticipated for Opening Year Cumulative (2022) traffic conditions. As such, no improvements have been recommended.

6.9.4 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Fontana (or other neighboring jurisdictions) on SHS roadway segments. As such, no improvements have been recommended to address the Opening Year Cumulative (2022) deficiencies on the SHS, because there is no feasible mitigation available.

7 HORIZON YEAR (2040) TRAFFIC CONDITIONS

This section discusses the methods used to develop Horizon Year (2040) Without and With Project traffic forecasts, and the resulting intersection operations, roadway segment, traffic signal warrant, and freeway facility operations analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year (2040) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project and cumulative developments to provide site access are also assumed to be in place for Horizon Year (2040) traffic conditions.

Although not evaluated, other future regional infrastructure improvements have also been assumed to be in place. The Horizon Year (2040) forecasts are based on the SBTAM or the RivTAM traffic model which assumes future facilities such as the interchange connections at the I-10 Freeway and Beech Avenue and I-10 Freeway and Alder Avenue. These new regional connections will likely result in reduced traffic volumes at other adjacent interchanges, such as the I-10 Freeway and Citrus Avenue interchange.

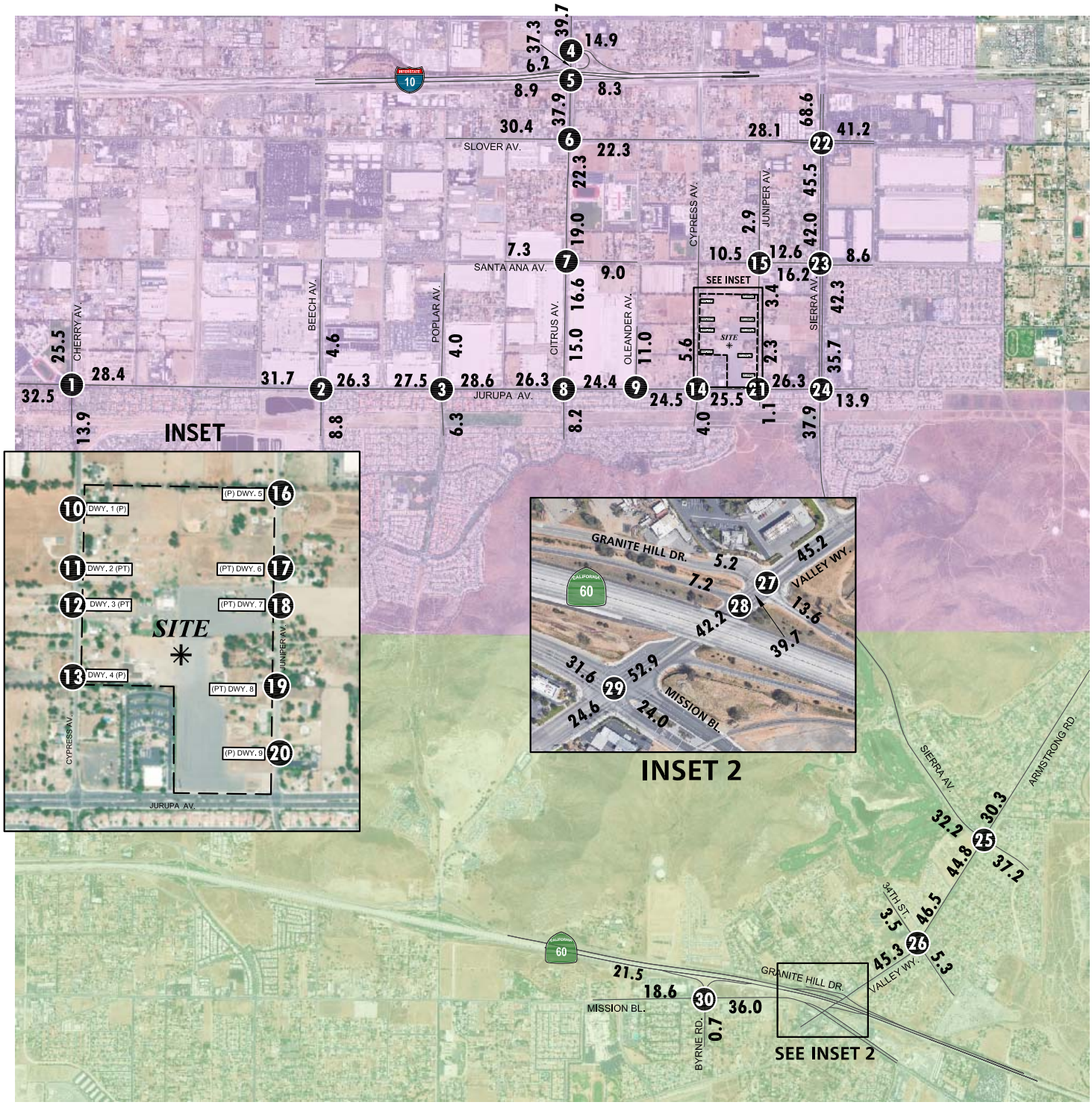
7.2 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-process volumes obtained from the SBTAM or the RivTAM (see Section 4.7 *Horizon Year (2040) Volume Development* of this TIA for a detailed discussion on the post-processing methodology). The ADT volumes for Horizon Year (2040) Without Project traffic conditions are shown on Exhibit 7-1. AM and PM peak hour volumes which can be expected for Horizon Year (2040) Without Project traffic conditions are shown on Exhibit 7-2.

7.3 HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-process volumes obtained from the SBTAM or the RivTAM, plus Project traffic. The ADT volumes for Horizon Year (2040) With Project traffic conditions are shown on Exhibit 7-3. AM and PM peak hour volumes which can be expected for Horizon Year (2040) With Project traffic conditions are shown on Exhibit 7-4.

EXHIBIT 7-1: HORIZON YEAR (2040) WITHOUT PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

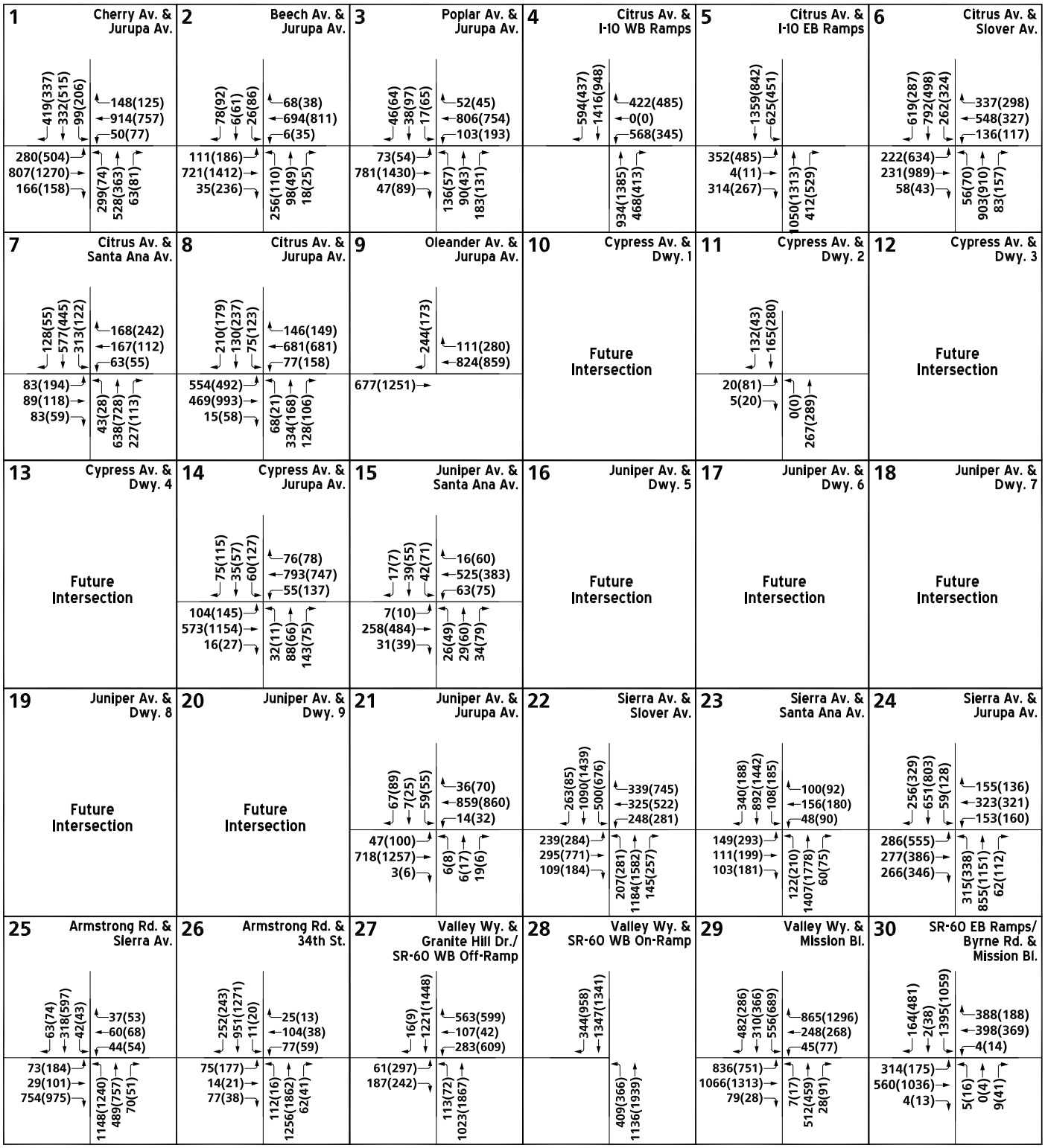


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

12382 - adt.dwg

EXHIBIT 7-2: HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

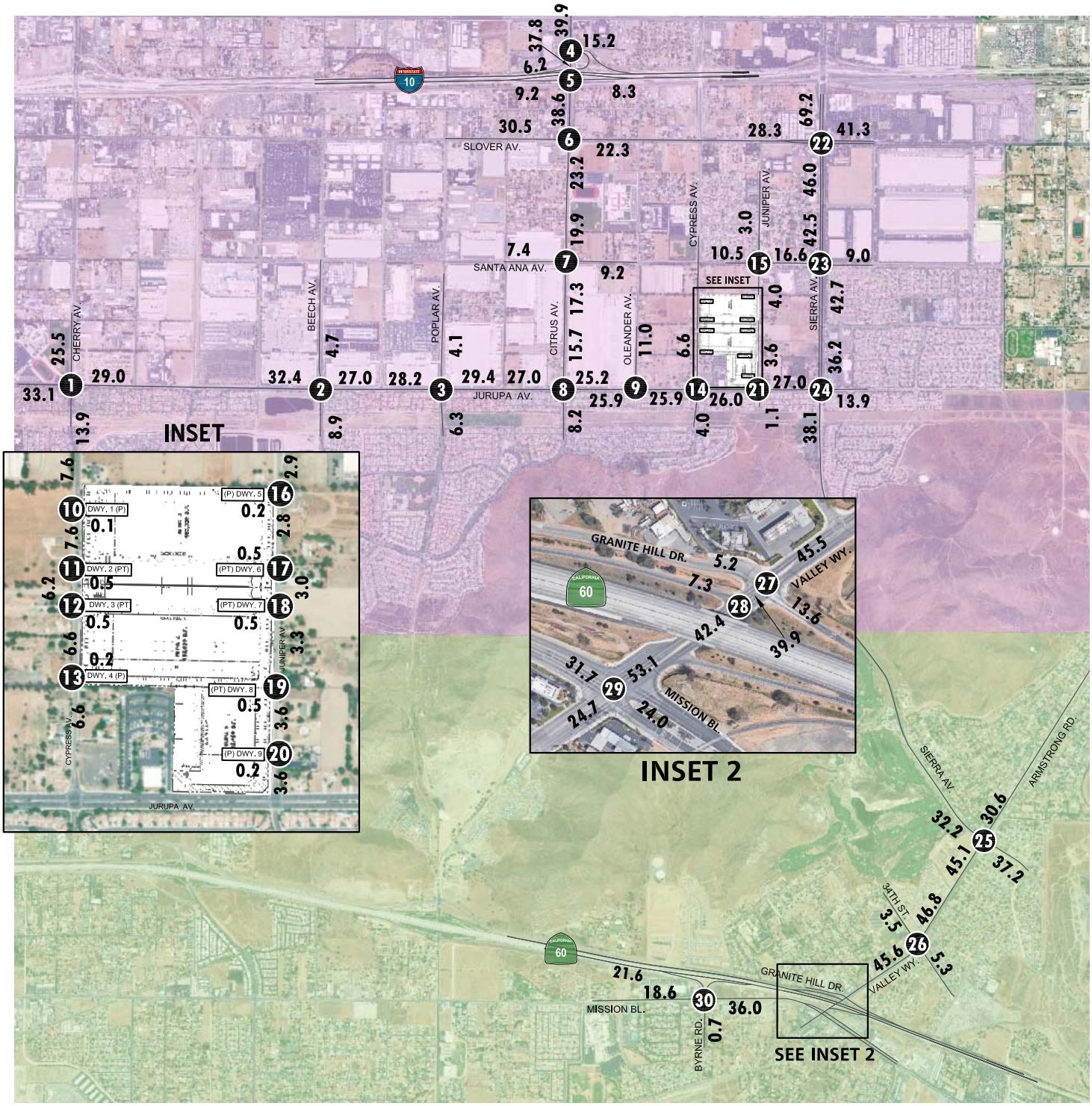
10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

N

12382 - vols.dwg

URBAN CROSSROADS

EXHIBIT 7-3: HORIZON YEAR (2040) WITH PROJECT AVERAGE DAILY TRAFFIC (ADT) (IN PCE)

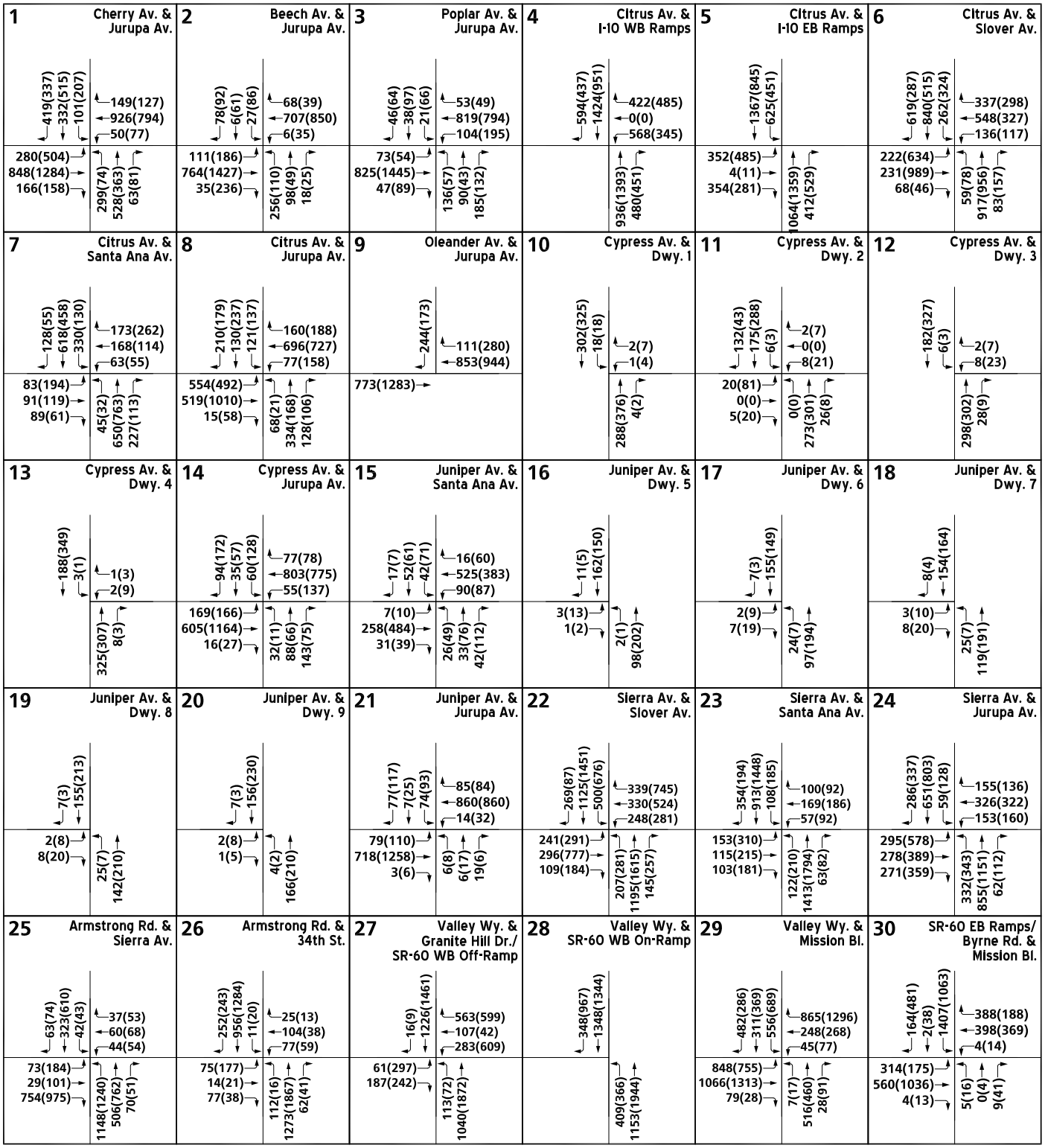


LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

12382 - adt.dwg

EXHIBIT 7-4: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES (IN PCE)



LEGEND:

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

N

12382 - vols.dwg

URBAN CROSSROADS

7.4 INTERSECTION OPERATIONS ANALYSIS

7.4.1 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC CONDITIONS

LOS calculations were conducted for the study intersections to evaluate their operations under Horizon Year (2040) Without Project conditions with roadway and intersection geometrics consistent with Section 7.1 *Roadway Improvements*. As shown on Table 7-1, the following intersections are anticipated to operate at an unacceptable LOS during the peak hours under Horizon Year (2040) Without Project traffic conditions:

- Cherry Avenue & Jurupa Avenue (#1) – LOS D AM peak hour only
- Citrus Avenue & Slover Avenue (#6) – LOS E AM and PM peak hours
- Citrus Avenue & Santa Ana Avenue (#7) – LOS D AM peak hour only
- Citrus Avenue & Jurupa Avenue (#8) – LOS D AM peak hour only
- Juniper Avenue & Santa Ana Avenue (#15) – LOS F PM peak hour only
- Sierra Avenue & Slover Avenue (#22) – LOS E PM peak hour only
- Armstrong Road & Sierra Avenue (#25) – LOS F AM and PM peak hours
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – LOS F AM and PM peak hours
- Valley Way & SR-60 Westbound On-Ramp (#28) – LOS F AM peak hour; LOS E PM peak hour
- Valley Way & Mission Boulevard (#29) – LOS F AM and PM peak hours
- SR-60 Eastbound Ramps & Mission Boulevard (#30) – LOS F AM and PM peak hours

A summary of the peak hour intersection LOS for Horizon Year (2040) Without Project conditions are shown on Exhibit 7-5. The intersection operations analysis worksheets for Horizon Year (2040) Without Project traffic conditions are included in Appendix 7.1 of this TIA.

7.4.2 HORIZON YEAR (2040) WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 7-1 and illustrated on Exhibit 7-6, there are no additional intersections anticipated to operate at an unacceptable LOS with the addition of Project traffic, in addition to those intersections previously identified under Horizon Year (2040) Without Project conditions. The intersection operations analysis worksheets for Horizon Year (2040) With Project conditions are included in Appendix 7.2 of this TIA. Measures to address deficiencies for Horizon Year (2040) traffic conditions are discussed in Section 7.9 *Horizon Year (2040) Impacts and Recommended Improvements*.

Table 7-1

Intersection Analysis for Horizon Year (2040) Conditions

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project				Difference in Delay (sec.)	Difference in Delay (sec.)	Significant Impact?[3]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service				
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
1	Cherry Av. & Jurupa Av.	TS	**50.9**	28.5	**D**	C	**51.7**	29.0	**D**	C	0.8	0.5	No
2	Beech Av. & Jurupa Av.	TS	20.6	19.6	C	B	20.7	19.7	C	B	0.1	0.1	No
3	Poplar Av. & Jurupa Av.	TS	13.6	15.5	B	B	13.6	15.5	B	B	0.0	0.0	No
4	Citrus Av. & I-10 WB Ramps	TS	16.2	10.0	B	B	16.2	10.8	B	B	0.0	0.8	No
5	Citrus Av. & I-10 EB Ramps	TS	25.2	22.0	C	C	25.8	22.4	C	C	0.6	0.4	No
6	Citrus Av. & Slover Av.	TS	**57.2**	**58.7**	**E**	**E**	**61.8**	**61.2**	**E**	**E**	4.6	2.5	**Yes**
7	Citrus Av. & Santa Ana Av.	TS	**46.6**	26.5	**D**	C	**49.7**	28.7	**D**	C	3.1	2.2	No
8	Citrus Av. & Jurupa Av.	TS	**39.3**	31.1	**D**	C	**47.4**	33.4	**D**	C	8.1	2.3	**Yes**
9	Oleander Av. & Jurupa Av.	CSS	23.6	24.0	C	C	24.6	26.7	C	D	1.0	2.7	No
10	Cypress Av. & Driveway 1	**CSS**	Future Intersection				10.6	11.5	B	B	--	--	No
11	Cypress Av. & Driveway 2	**CSS**	Future Intersection				10.9	11.7	B	B	--	--	No
12	Cypress Av. & Driveway 3	**CSS**	Future Intersection				11.1	11.9	B	B	--	--	No
13	Cypress Av. & Driveway 4	**CSS**	Future Intersection				11.0	11.8	B	B	--	--	No
14	Cypress Av. & Jurupa Av.	TS	13.2	16.2	B	B	15.1	18.2	B	B	1.9	2.0	No
15	Juniper Av. & Santa Ana Av.	AWS	21.6	**51.1**	C	**F**	**26.6**	**57.7**	**D**	**F**	5.0	6.6	**Yes**
16	Juniper Av. & Driveway 5	**CSS**	Future Intersection				9.9	10.7	A	B	--	--	No
17	Juniper Av. & Driveway 6	**CSS**	Future Intersection				9.5	9.8	A	A	--	--	No
18	Juniper Av. & Driveway 7	**CSS**	Future Intersection				9.6	10.0	A	B	--	--	No
19	Juniper Av. & Driveway 8	**CSS**	Future Intersection				9.5	10.3	A	B	--	--	No
20	Juniper Av. & Driveway 9	**CSS**	Future Intersection				10.2	11.0	B	B	--	--	No
21	Juniper Av. & Jurupa Av.	TS	11.7	12.9	B	B	16.3	13.2	B	B	4.6	0.3	No
22	Sierra Av. & Slover Av.	TS	30.9	**68.4**	C	**E**	31.3	**69.7**	C	**E**	0.4	1.3	No
23	Sierra Av. & Santa Ana Av.	TS	21.6	34.2	C	C	21.9	35.8	C	D	0.3	1.6	No
24	Sierra Av. & Jurupa Av.	TS	23.7	34.3	C	C	24.2	35.5	C	D	0.5	1.2	No
25	Armstrong Rd. & Sierra Av.	TS	**106.3**	**107.2**	**F**	**F**	**111.1**	**108.2**	**F**	**F**	4.8	1.0	No
26	Valley Wy. & 34th St.	TS	16.5	17.1	B	B	16.6	17.2	B	B	0.1	0.1	No
27	Valley Wy. & Granite Hill Dr./SR-60 WB Off-ramp	TS	**94.3**	**>200.0**	**F**	**F**	**94.3**	**>200.0**	**F**	**F**	0.0	--	No
28	Valley Wy. & SR-60 WB On-ramp	TS	**143.3**	**>200.0**	**F**	**E**	**144.2**	**>200.0**	**F**	**E**	0.9	--	No

Table 7-1

Intersection Analysis for Horizon Year (2040) Conditions

#	Intersection	Traffic Control[2]	2040 Without Project				2040 With Project				Difference in Delay (sec.)	Difference in Delay (sec.)	Significant Impact?[3]
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service				
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
29	Valley Wy. & Mission Bl.	TS	**102.2**	**>200.0**	**F**	**F**	**105.9**	**>200.0**	**F**	**F**	3.7	--	No
30	SR-60 EB Ramps & Mission Bl.	TS	**198.5**	**92.1**	**F**	**F**	**>200.0**	**92.9**	**F**	**F**	--	0.8	No

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; AWS = All-Way Stop; TS = Traffic Signal

[3] Significant near-term impacts have been identified based on each applicable agency's threshold of significance and if the Project contributes 50 or more peak hour trips.

EXHIBIT 7-5: HORIZON YEAR (2040) WITHOUT PROJECT SUMMARY OF LOS

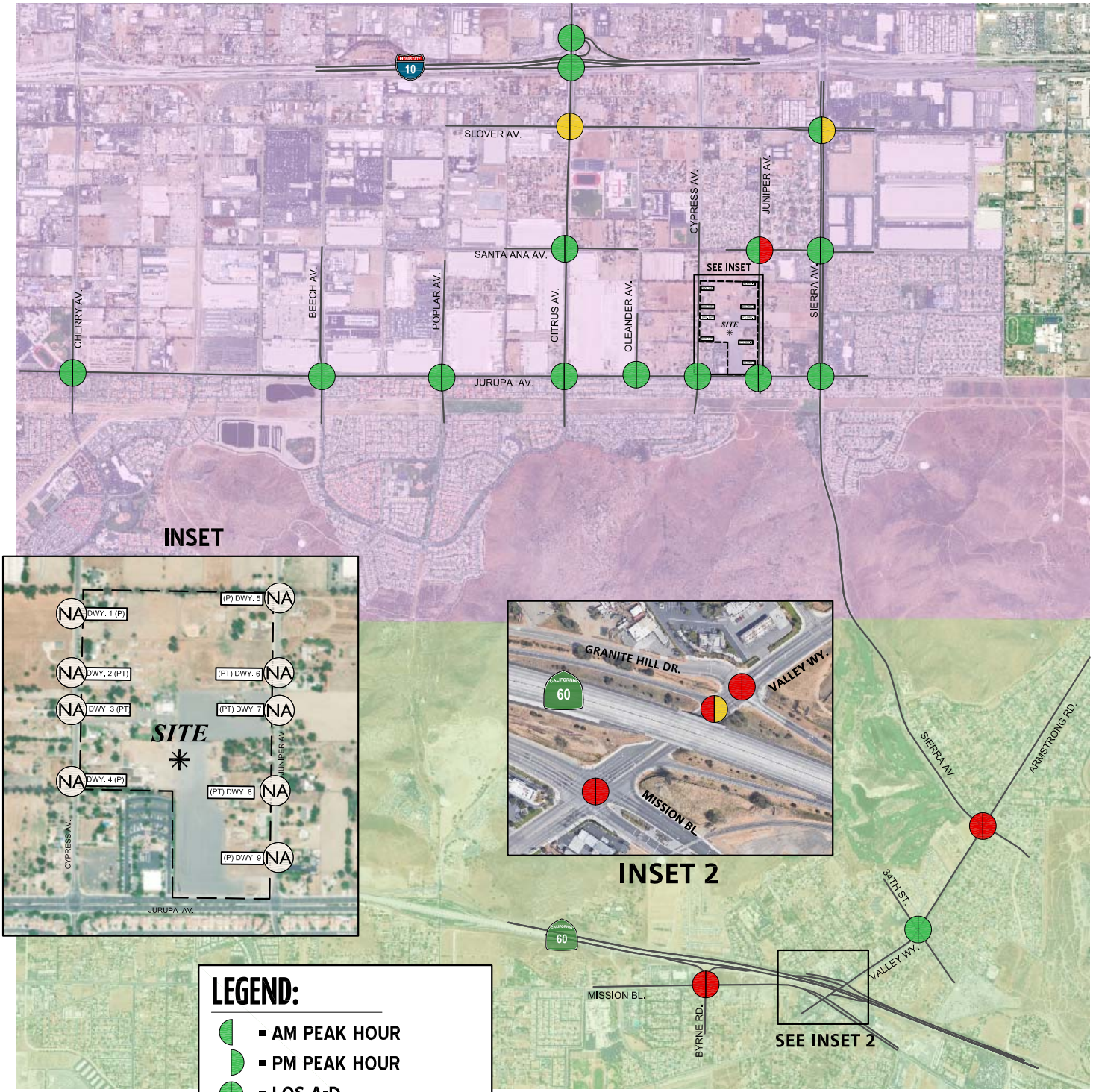
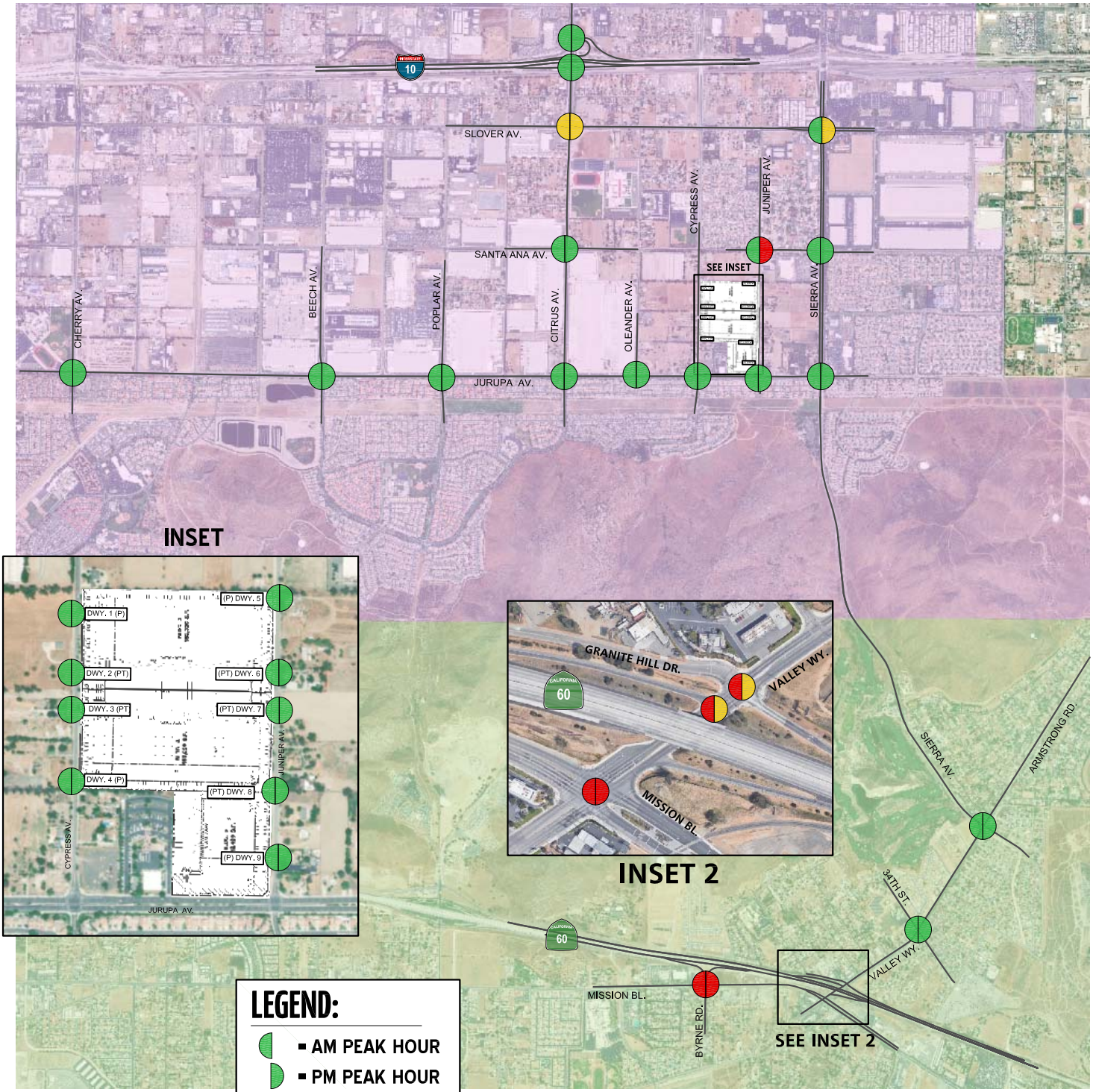


EXHIBIT 7-6: HORIZON YEAR (2040) WITH PROJECT SUMMARY OF LOS



7.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

7.5.1 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC CONDITIONS

There are no study area intersections anticipated to meet planning level (average daily traffic or ADT) or peak hour volume-based traffic signal warrants under Horizon Year (2040) Without Project traffic conditions (see Appendix 7.3). The intersection of Juniper Avenue and Santa Ana Avenue is anticipated to meet a peak hour volume-based traffic signal warrant under Horizon Year (2040) With Project traffic conditions (see Appendix 7.4).

7.6 ROADWAY SEGMENT ANALYSIS

7.6.1 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC CONDITIONS

The roadway segment capacities are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet traffic demand. Table 7-2 provides a summary of the Horizon Year (2040) Without Project conditions roadway segment capacity analysis based on the City of Fontana Roadway Segment Capacity Thresholds. As shown on Table 7-2, the following roadway segments are anticipated to operate at an unacceptable LOS based on the City's planning level daily roadway capacity thresholds for Horizon Year (2040) Without Project traffic conditions:

- Citrus Avenue, between I-10 Ramps (#1) – LOS D
- Citrus Avenue, from I-10 Eastbound Rams to Slover Avenue (#2) – LOS D
- Citrus Avenue, from Slover Avenue to Santa Ana Avenue (#3) – LOS D
- Sierra Avenue, from Slover Avenue to Santa Ana Avenue (#6) – LOS D

7.6.2 HORIZON YEAR (2040) WITH PROJECT TRAFFIC CONDITIONS

The addition of Project traffic is not anticipated to result in any additional deficiencies along the study area roadway segments in addition to those previously identified for Horizon Year (2040) Without Project traffic conditions.

7.7 OFF-RAMP QUEUING ANALYSIS

7.7.1 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC CONDITIONS

A queueing analysis was performed for eastbound and westbound off-ramps of the I-10 freeway at Citrus Avenue interchange to assess vehicle queues for the off ramps that may potentially impact peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-10 Freeway. Queuing analysis findings are presented on Table 7-3. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 7-3, there are no queuing issues anticipated for Horizon Year (2040) Without Project conditions. Worksheets for Horizon Year (2040) Without Project conditions off-ramp queuing analysis are provided in Appendix 7.5 of this TIA.

Table 7-2

Roadway Segment Capacity Analysis for Horizon Year (2040) Conditions

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2040 NP	V/C[2]	LOS[3]	2040 WP	V/C[2]	LOS[3]	Acceptable LOS
1	Citrus Av.	Between I-10 Ramps	5D	45,000	**37,314**	**0.83**	**D**	**37,738**	**0.84**	**D**	C
2		Between I-10 Eastbound Ramps & Slover Av.	5D	45,000	**37,872**	**0.84**	**D**	**38,596**	**0.86**	**D**	C
3		Slover Av. & Santa Ana Av.	3D	27,000	**22,286**	**0.83**	**D**	**23,154**	**0.86**	**D**	C
4		Santa Ana Av. & Jurupa Av.	4D	36,000	16,613	0.46	A	17,321	0.48	A	C
5	Cypress Av.	Santa Ana Av. & Jurupa Av.	2U	18,000	5,624	0.31	A	10,691	0.59	A	C
6	Sierra Av.	Slover Av. & Santa Ana Av.	6D	54,000	**45,508**	**0.84**	**D**	**46,040**	**0.85**	**D**	C
7	Santa Ana Av.	Juniper Av. & Sierra Av.	4D	36,000	16,160	0.45	A	16,562	0.46	A	C
8	Jurupa Av.	Cherry Av. Beech Av.	5D	45,000	31,721	0.70	C	32,371	0.72	C	C
9		Beech Av. & Poplar Av.	6D	54,000	27,496	0.51	A	28,162	0.52	A	C
10		Poplar Av. & Citrus Av.	6D	54,000	28,632	0.53	A	29,388	0.54	A	C
11		Citrus Av. & Oleander Av.	6D	54,000	24,395	0.45	A	25,859	0.48	A	C
12		Oleander Av. & Cypress Av.	6D	54,000	24,479	0.45	A	25,943	0.48	A	C
13		Cypress Av. & Juniper Av.	6D	54,000	25,508	0.47	A	26,006	0.48	A	C
14		Juniper Av. & Sierra Av.	6D	54,000	25,106	0.46	A	25,866	0.48	A	C

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] These maximum roadway capacities assume 9,000 vehicles per lane per day for arterials.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

Table 7-3

Peak Hour Freeway Off-Ramp Queuing Summary for Horizon Year (2040) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	2040 Without Project				2040 With Project			
			95th Percentile Queue (Feet)		Acceptable?[1]		95th Percentile Queue (Feet)		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM	AM Peak Hour	PM Peak Hour	AM	PM
Citrus Av. & I-10 Westbound Ramps	WBR	475	117	195	Yes	Yes	117	195	Yes	Yes
	WBL	1,620	418	289	Yes	Yes	418	289	Yes	Yes
Citrus Av. & I-10 Eastbound Ramps	EBL	1,285	126	210	Yes	Yes	120	210	Yes	Yes
	EBT/R	445	261	127	Yes	Yes	288	141	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

7.7.2 HORIZON YEAR (2040) WITH PROJECT TRAFFIC CONDITIONS

As shown on Table 7-3, there are no queuing issues anticipated for Horizon Year (2040) With Project traffic conditions. Worksheets for Horizon Year (2040) With Project conditions off-ramp queuing analysis are provided in Appendix 7.6.

7.8 FREEWAY FACILITY ANALYSIS

7.8.1 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC CONDITIONS

Horizon Year (2040) Without Project mainline directional volumes for the AM and PM peak hours are provided on Exhibit 7-7. As shown on Table 7-4, all freeway segments and merge/diverge ramp junctions are anticipated to operate at an unacceptable LOS under Horizon Year (2040) Without Project traffic conditions during one or more peak hours with the exception of the following location:

- I-10 Freeway Westbound, West of Cherry Avenue (#1) – LOS E AM peak hour only
- I-10 Freeway Westbound, West of Citrus Avenue (#2) – LOS E AM and PM peak hours

Horizon Year (2040) Without Project basic freeway segment analysis worksheets are provided in Appendix 7.7.

7.8.2 HORIZON YEAR (2040) WITH PROJECT TRAFFIC CONDITIONS

Horizon Year (2040) With Project mainline directional volumes for the AM and PM peak hours are provided on Exhibit 7-8. As shown on Table 7-4, there are no additional freeway mainline segments anticipated to operate at an unacceptable LOS with the addition of Project traffic. Horizon Year (2040) With Project basic freeway segment analysis worksheets are provided in Appendix 7.8.

Table 7-4

Freeway Facility Analysis for Horizon Year (2040) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	2040 Without Project				2040 With Project			
				Density[2]		LOS[3]		Density[2]		LOS[3]	
				AM	PM	AM	PM	AM	PM	AM	PM
I-10	Westbound	West of Cherry Av.	4	--[5]	**41.0**	**F**	**E**	--[5]	**41.4**	**F**	**E**
		West of Citrus Av.	4	**41.0**	**38.4**	**F**	**F**	**40.0**	**38.4**	**F**	**F**
		On-Ramp at Citrus Av.	4	**57.6**	**55.7**	**F**	**F**	**57.6**	**55.7**	**F**	**F**
		Off-Ramp at Citrus Av.	4	**70.6**	**60.7**	**F**	**F**	**70.7**	**61.7**	**F**	**F**
		East of Citrus Av.	5	**40.4**	33.0	**E**	D	**40.4**	33.0	**E**	D
	Eastbound	West of Cherry Av.	5	17.4	**40.4**	B	**E**	17.7	**40.5**	B	**E**
		West of Citrus Av.	5	21.8	**38.5**	C	**E**	22.1	**38.6**	C	**E**
		Off-Ramp at Citrus Av.	5	21.4	**77.5**	C	**F**	21.7	**77.4**	C	**F**
		On-Ramp at Citrus Av.	4	23.8	**43.2**	C	**F**	23.8	**43.2**	C	**F**
		East of Citrus Av.	5	23.3	30.5	C	D	23.3	30.5	C	D

* **BOLD** = Unacceptable Level of Service

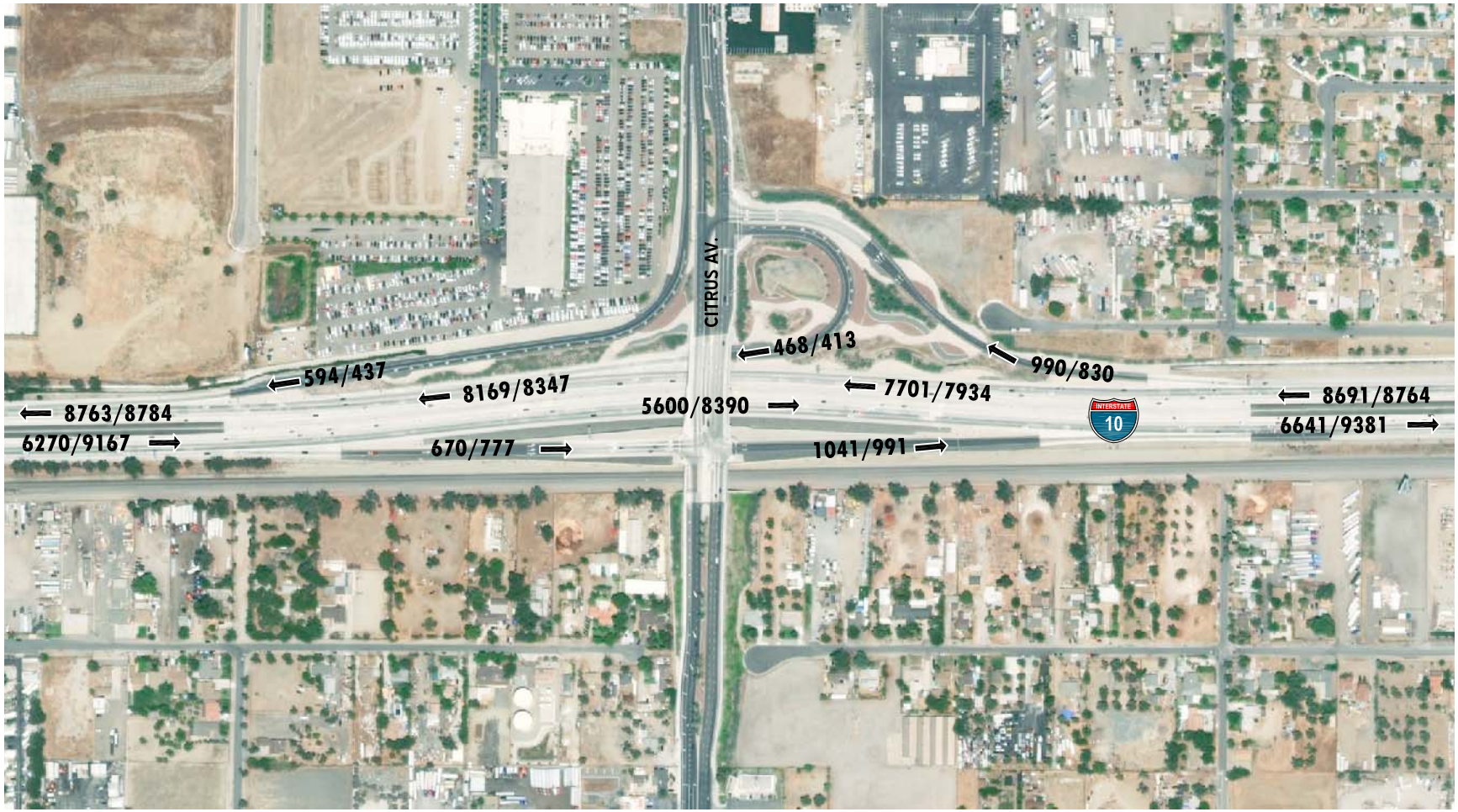
[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

[5] HCS7 does not report density for freeway facility operating at LOS F

EXHIBIT 7-7: HORIZON YEAR (2040) WITHOUT PROJECT FREEWAY MAINLINE VOLUMES



LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

EXHIBIT 7-8: HORIZON YEAR (2040) WITH PROJECT FREEWAY MAINLINE VOLUMES

LEGEND:

⟵ 100/200 = AM/PM PEAK HOUR VOLUMES

NOTE: VOLUMES IN ACTUAL VEHICLES (NOT PCE)

N

7.9 HORIZON YEAR (2040) CUMULATIVE IMPACTS AND RECOMMENDED IMPROVEMENTS

Improvement strategies have been recommended at intersections, roadway segments, and freeway facility that have been identified as impacted under Horizon Year (2040) traffic conditions in an effort to achieve an acceptable LOS.

7.9.1 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES AT INTERSECTIONS

Based on the City of Fontana's significance criteria as discussed in Section 2.9 *Thresholds of Significance*, the following intersections are anticipated to be cumulatively impacted by the Project during one or more peak hours:

- Citrus Avenue & Slover Avenue (#6)
- Citrus Avenue & Jurupa Avenue (#8)
- Juniper Avenue & Santa Ana Avenue (#15)

The I-10 Eastbound Ramp on Citrus Avenue was previously impacted under Opening Year Cumulative (2022) traffic conditions, however, with future new interchanges at Beech Avenue and Alder Avenue and volume reduction at the Citrus Avenue interchange, the ramp is anticipated to operate at acceptable LOS during the peak hours.

The effectiveness of the recommended improvements to address Horizon Year (2040) traffic impacts are presented on Table 7-5. Improvement strategies identified on Table 7-5 have been recommended at intersections that have been identified as cumulatively impacted to reduce each location's peak hour delay to acceptable levels.

Citrus Avenue & Slover Avenue (#6) – The following improvements are necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards restriping the southbound approach to accommodate a 2nd through lane.
- Contribute fair share towards modifying the traffic signal to accommodate right turn overlap phasing on the southbound and westbound right turn lanes.

Citrus Avenue & Jurupa Avenue (#8) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards modifying the cycle length to 130-seconds. No other physical improvements are recommended.

Juniper Avenue & Santa Ana Avenue (#15) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better, thus reducing the cumulative impact to less than significant:

- Contribute fair share towards a 2nd eastbound through lane.

Table 7-5

Intersection Analysis for Horizon Year (2040) Conditions With Improvements

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
6	Citrus Av. & Slover Av.																	
	- *Without Improvements*	TS	1	3	1	1	1	1	2	2	0	1	2	1	**61.8**	**61.2**	**E**	**E**
	- *With Improvements*[4]	TS	1	3	1	1	**2**	**1>**	2	2	0	1	2	**1>**	32.7	**53.7**	C	**D**
8	Citrus Av. & Jurupa Av.																	
	- *Without Improvements*	TS	1	2	0	1	2	0	1	2	1	1	3	1	**47.4**	33.4	**D**	C
	- *With Improvements*[5]	TS	1	2	0	1	2	0	1	2	1	1	3	1	**40.5**	29.7	**D**	C
15	Juniper Av. & Santa Ana Av.																	
	- *Without Improvements*	AWS	0	1	d	0	1	1	0	1	0	0	2	0	**26.6**	**57.7**	**D**	**F**
	- *With Improvements*	AWS	0	1	d	0	1	1	0	**2**	0	0	2	0	22.9	19.0	C	C
25	Armstrong Rd. & Sierra Av.																	
	- *Without Improvements*	TS	2	**2**	0	1	1	0	1	2	1>>	1	2	0	**111.1**	**108.2**	**F**	**F**
	- *With Improvements*	TS	2	**2**	0	1	1	0	1	2	1>>	1	2	0	32.4	54.8	C	D
27	Valley Wy. & Granite Hill Dr./SR-60 WB Off-ramp																	
	- *Without Improvements*	TS	1	2	0	0	2	0	0	1	0	1	1	0	**94.3**	**>200.0**	**F**	**F**
	- *With Improvements*		No Feasible Improvements[6]															
28	Valley Wy. & SR-60 WB On-ramp																	
	- *Without Improvements*	TS	1	2	0	0	2	0	0	0	0	0	0	0	**144.2**	**>200.0**	**F**	**E**
	- *With Improvements*		No Feasible Improvements[6]															
29	Valley Wy. & Mission Bl.																	
	- *Without Improvements*	TS	2	2	1	2	2	2>	2	2	1	1	2	1>	**105.9**	**>200.0**	**F**	**F**
	- *With Improvements*		No Feasible Improvements[6]															
30	SR-60 EB Ramps & Mission Bl.																	
	- *Without Improvements*	TS	0	1	0	1	1	**1**	1	2	0	1	2	1>	**>200.0**	**92.9**	**F**	**E**
	- *With Improvements*	TS	0	1	0	1	1	**1**	1	2	0	1	2	1>	54.0	40.6	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane; **1** = Improvement

[2] Per the Highway Capacity Manual 6th Edition, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] AWS = All-Way Stop; TS = Traffic Signal; **TS** = Improvement

[4] Improvement consists of restriping and signal modification to accommodate the recommended overlap phasing.

[5] Improvement consists of modifying the cycle length to 130-seconds. No other physical improvements are recommended.

[6] Improvements would require interchange reconfiguration. Additionally, the Project contributes less than 50 peak hour trips to this intersection. As such, no improvements have been recommended.

The Project will contribute less than 50 peak hour trips to the following City of Jurupa Valley intersections resulting in a less than significant cumulative impact:

- Armstrong Road & Sierra Avenue (#25)
- Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27)
- Valley Way & SR-60 Westbound On-Ramp (#28)
- Valley War & Mission Boulevard (#29)
- SR-60 Eastbound Ramps & Mission Boulevard (#30)

Although the impacts are less than significant, the following improvements have been identified (if feasible) to address peak hour deficiencies. However, since the Project's impact to these locations are less than significant (the Project contributes less than 50 peak hour trips), the Project is not required to contribute payment into any pre-existing fee program or pay fair share contributions towards these improvements.

Armstrong Road & Sierra Avenue (#25) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better:

- Add a 2nd northbound through lane.

Valley Way & Granite Hill Drive/SR-60 Westbound Off-Ramp (#27) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

Valley Way & SR-60 Westbound On-Ramp (#28) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

Valley Way & Mission Boulevard (#29) – Improvements would require reconfiguration of the interchange. As such, any improvements are considered infeasible. Therefore, no improvements have been recommended.

SR-60 Eastbound Ramps & Mission Boulevard (#30) – The following improvement is necessary to improve the intersection's peak hour operations to pre-project conditions or better:

- Add a southbound right turn lane.

The intersection operations analysis worksheets for Horizon Year (2040) With Project, with improvements, traffic conditions are included in Appendix 7.9 of this TIA.

7.9.2 RECOMMENDED IMPROVEMENTS TO ADDRESS ROADWAY SEGMENTS

Citrus Avenue is currently a 3 to 5-lane divided roadway between the I-10 Freeway and Santa Ana Avenue and is classified as a secondary highway in the City of Fontana General Plan (4-lane roadway). As shown on Table 7-6, Citrus Avenue would need to be widened to 6-lanes between the I-10 Freeway and Slover Avenue to accommodate future long-range traffic. However, the peak hour intersection operations analysis indicates that the intersections would be able to process peak hour traffic flows without the additional roadway widening. Widening of Citrus Avenue between Slover Avenue and Santa Ana Avenue is consistent with the City's General Plan classification for a secondary highway and would improve the segment's LOS to acceptable levels. Sierra Avenue is currently a 6-lane divided roadway between Slover Avenue and Santa Ana Avenue, which is consistent with its General Plan classification as a major highway. As shown on Table 7-6, an 8-lane facility would improve the segment's LOS to acceptable levels, however, the peak hour intersection operations analysis shown on Tables 7-1 and 7-5 indicate additional roadway widening may not be necessary as the intersections can process the peak hour traffic flows without the additional widening.

7.9.3 RECOMMENDED IMPROVEMENTS TO ADDRESS OFF-RAMP QUEUES

There are no off-ramp queuing issues under Horizon Year (2040) traffic conditions (see Table 7-3). As such, no improvements are recommended.

7.9.4 RECOMMENDED IMPROVEMENTS TO ADDRESS DEFICIENCIES ON FREEWAY FACILITIES

There are 3 alternatives being considered by SBCTA for the I-10 Project: Alternative 1 is no build; Alternative 2 is the addition of a carpool or high occupancy vehicle (HOV) lane in each direction of travel; and Alternative 3 includes 2 tolled express lanes in each direction of travel on the I-10 Freeway between Haven Avenue in the City of Ontario and Ford Street in the City of Redlands. (11) According to the website, the I-10 Project is a long-term project and is not anticipated for completion until Year 2024.

For the purposes of this analysis, Alternative 2 has been evaluated. Caltrans typically assumes a reduction of 14 percent to the freeway mainline through volumes in this region to account for vehicles utilizing the HOV lanes. The reduction to the I-10 Freeway mainline volumes has been applied to account for the proposed HOV lanes. The analysis has been performed assuming same on and off-ramp configurations as existing baseline conditions at the I-10 Freeway and Citrus Avenue interchange.

Table 7-6

Roadway Segment Capacity Analysis for Horizon Year (2040) Conditions With Improvements

#	Roadway	Segment Limits	Roadway Section	LOS Capacity[1]	2040 WP	V/C[2]	LOS[3]	Acceptable LOS
1	Citrus Av.	Between I-10 Ramps	6D	54,000	37,738	0.70	B	C
2		Between I-10 Eastbound Ramps & Slover Av.	6D	54,000	38,596	0.71	C	C
3		Slover Av. & Santa Ana Av.	6D	54,000	23,154	0.43	A	C
6	Sierra Av.	Slover Av. & Santa Ana Av.	8D	72,000	46,040	0.64	B	C

[1] These maximum roadway capacities assume 9,000 vehicles per lane per day for arterials.

[2] V/C = Volume to Capacity Ratio

[3] LOS = Level of Service

As shown on Table 7-7, the I-10 Freeway mainline segment operations are anticipated to improve, however, the following facilities are anticipated to continue to operate at an unacceptable LOS with the improvements discussed above during both peak hours:

- I-10 Freeway Westbound, West of Cherry Avenue (#1) – LOS E AM peak hour only
- I-10 Freeway Westbound, West of Citrus Avenue (#2) – LOS E AM and PM peak hours

Worksheets for Horizon Year (2040) With Project conditions freeway mainline level of service analysis, with improvements, are provided in Appendix 7.10.

No mitigation measures have been identified as no other improvements beyond those planned by the I-10 Freeway Project have been evaluated. Neither Caltrans or the State have adopted a fee program that can ensure that locally-contributed impact fees will be tied to improvements to freeway mainline, and only Caltrans has the jurisdiction over freeway mainline improvements. Because Caltrans has exclusive control over state highway improvements, ensuring that fair share contributions to mainline improvements are actually part of a program tied to implementation is within the jurisdiction of Caltrans.

Table 7-7

Freeway Facility Analysis for Horizon Year (2040) Conditions With Improvements

Freeway	Direction[1]	Mainline Segment	Lanes[2]	2040 With Project			
				Density[3]		LOS[4]	
				AM	PM	AM	PM
I-10	WB	West of Cherry Av.	4	**36.5**	31.4	**E**	D
		West of Citrus Av.	4	**43.8**	**37.4**	**E**	**E**
		On-Ramp at Citrus Av.	4	47.3	37.5	D	D
		Off-Ramp at Citrus Av.	4	33.4	26.4	D	D
		East of Citrus Av.	5	34.7	27.0	D	D
	EB	West of Cherry Av.	5	15.0	30.5	B	D
		West of Citrus Av.	5	19.0	32.6	C	D
		Off-Ramp at Citrus Av.	5	18.7	31.8	C	D
		On-Ramp at Citrus Av.	4	20.1	36.3	C	E
		East of Citrus Av.	5	20.3	33.4	C	D

* **BOLD** = Unacceptable Level of Service

[1] EB = Eastbound; WB = Westbound

[2] Number of lanes are in the specified direction and is based on the SBCTA I-10 Project (additional carpool lane).

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[4] LOS = Level of Service

8 REFERENCES

1. **City of Fontana.** *Draft Traffic Study Guidelines.* City of Fontana : s.n., March 30, 2015.
2. **San Bernardino Associated Governments.** *Congestion Management Program for County of San Bernardino.* County of San Bernardino : s.n., Updated June 2016.
3. **Institute of Transportation Engineers.** *Trip Generation.* 10th Edition. 2017.
4. **Southern California Association of Governments.** *2016 Regional Transportation Plan.* April 2016.
5. **California Department of Transportation.** *Guide for the Preparation of Traffic Impact Studies.* December 2002.
6. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
7. **California Department of Transportation.** California Manual on Uniform Traffic Control Devices (CA MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CA MUTCD).* 2014.
8. —. *Freeway Performance Measurement (PeMS).* [Online] http://pems.dot.ca.gov/.
9. —. *Freeway Performance Measurement (PeMS).* [Online] http://pems.dot.ca.gov/.
10. **The City of Jurupa Valley.** *2017 General Plan.* Jurupa Valley : s.n., September 2017.
11. **Institute of Transportation Engineers.** *High Cube Warehouse Vehicle Trip Generation Analysis.* Washington, DC : ITE, October 2016.
12. **San Bernardino Associated Governments.** I-10 Corridor Project. *The I-10 & I-15 Corridor Projects.* [Online] www.1015projects.com.

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APPENDIX 1.1:

APPROVED SCOPING AGREEMENT

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EXHIBIT B

SCOPING AGREEMENT FOR TRAFFIC IMPACT ANALYSIS

This letter acknowledges the City of Fontana Engineering Department requirements for traffic impact analysis of the following project. The analysis must follow the SBCTA Traffic Study Guidelines, Updated 2016.

Case No. ZCA 19-01, DR 19-05, TPM 19-02
Related Cases-
SP No. SPA 19-02
EIR No.
GPA No. GPA 19-01
CZ No.
Project Name: Goodman Industrial Park Fontana
Project Address: North of Jurupa Avenue, between Cypress Avenue and Juniper Avenue
Project Description: 895,568 sf of warehouse use and 223,892 sf of high-cube cold storage warehouse use warehouse use

	Consultant	Developer Representative
Name:	Urban Crossroads Inc.	T&B Planning
Address:	260 E. Baker Street, Suite 200	17542 17th Street, Suite 100
	Costa Mesa, CA 92626	Tustin, CA 92780
Telephone:	(949) 336-5982	(714) 505-6360
Fax:		

A. Trip Generation Source: ITE 10th Edition (2017) (See Table 1)

Current GP Land Use: R-PC — Proposed Land Use: Industrial
Current Zoning: R-PC — Proposed Zoning: Industrial

	Current Trip Generation			Proposed Trip Generation (In PCE)		
	In	Out	Total	In	Out	Total
AM Trips	**0**	**0**	**0**	**206**	**62**	**268**
PM Trips	**0**	**0**	**0**	**73**	**195**	**268**

Internal Trip Allowance ☐ Yes ■ No (0 % Trip Discount)
Pass-By Trip Allowance ☐ Yes ■ No (0 % Trip Discount)

The pass-by trips at adjacent study area intersections and project driveways shall be indicated on a report figure.

B. Trip Geographic Distribution: (See attached Exhibits 3 and 4 for detailed assignment)
N **Varies** % S **Varies** % E **Varies** % W **Varies** %

C. Background Traffic
Project Build-out Year: 2022 Annual Ambient Growth Rate: 1.38 %
Phase Year(s) No Phasing

Other area Projects to be analyzed: See Exhibit 5 and Table 3 - provide updates if applicable
Model/Forecast Methodology: Existing, E+P, OYC (2022) Without and With Project, 2040 Without and With Project, cumulative projects: SBTAM

Exhibit B - Scoping Agreement - Page 2

D. Study Intersections: *(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments from other agencies).* (See Exhibit 2)

1. Cherry Av. & Jurupa Av.
2. Beech Av. & Jurupa Av.
3. Poplar Av. & Jurupa Av.
4. Citrus Av. & I-10 WB Ramps
5. Citrus Av. & I-10 EB Ramps
6. Citrus Av. & Slover Av.
7. Citrus Av. & Santa Ana Av.
8. Citrus Av. & Jurupa Av.
9. Oleander Av. & Jurupa Av.
10. Cypress Av. & Dwy 1 - Future Intersection
11. Cypress Av. & Dwy 2 - Future Intersection
12. Cypress Av. & Dwy 3 - Future Intersection
13. Cypress Av. & Dwy 4 - Future Intersection
14. Cypress Av. & Jurupa Av.
15. Juniper Av. & Santa Ana Av.
16. Juniper Av. & Dwy 5 - Future Interseciton
17. Juniper Av. & Dwy 6 - Future Interseciton
18. Juniper Av. & Dwy 7 - Future Interseciton
19. Juniper Av. & Dwy 8 - Future Interseciton
20. Juniper Av. & Dwy 9 - Future Interseciton
21. Juniper Av. & Jurupa Av.
22. Sierra Av. & Slover Av.
23. Sierra Av. & Santa Ana Av.
24. Sierra Av. & Jurupa Av.
25.
26.

E. Study Roadway Segments: *(NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments form other agencies).*

1. Citrus Av. Between I-10 Ramps
2. Citrus Av. Between I-10 EB Ramps & Slover Av.
3. Citrus Av. Between Slover Av. & Santa Ana Av.
4. Citrus Av. Between Santa Ana Av. & Jurupa Av.
5. Cypress Av. Between Santa Ana Av. & Jurupa Av.
6. Siera Av. Between Slover Av. & Santa Ana Av.
7. Santa Ana Av. Between Juniper Av. & Sierra Av.
8. Jurupa Av. Between Cherry Av. & Beech Av.
9. Jurupa Av. Between Beech Av. & Poplar Av.
10. Jurupa Av. Between Poplar Av. & Citrus Av.
11. Jurupa Av. Between Citrus Av. & Oleander Av.
12. Jurupa Av. Between Oleander Av. & Cypress Av.
13. Jurupa Av. Between Cypress Av. & Juniper Av.
14. Jurupa Av. Between Juniper Av. & Sierra Av.

F. Other Jurisdictional Impacts

Is this project within a City's Sphere of Influence or one-mile radius of City boundaries? ■ Yes ☐ No

If so, name of City Jurisdiction: Caltrans (I-10 Freeway @ Citrus Avenue)

G. Site Plan (please attach reduced copy) (see Exhibit 1)

H. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Engineering Department)

I. Existing Conditions

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.

Date of counts

Recommended by:

Charlene So

3/5/2019

Consultant's Representative — Date

Approved Scoping Agreement:

City of Fontana Project Engineer — Date

Scoping Agreement Revised on 3/11/2019

URBAN CROSSROADS

260 E. Baker St. | Suite 200 | Costa Mesa, CA 92626 | (949) 660-1994
urbanxroads.com

March 11, 2019

Ms. Kathy Raasch
City of Fontana
8353 Sierra Avenue
Fontana, CA 92335

SUBJECT: SCOPING AGREEMENT FOR THE GOODMAN INDUSTRIAL PARK FONTANA III TRAFFIC IMPACT ANALYSIS

Dear Ms. Kathy Raasch:

The firm of Urban Crossroads, Inc. is pleased to submit this letter documenting the recommended Scope of Work for the proposed Goodman Industrial Park Fontana III ("Project") which is located north of Jurupa Avenue, between Cypress Avenue and Juniper Avenue, in the City of Fontana. It is our understanding that the Project is to consist of 895,568 square feet of warehousing (80% of the total square footage) and 223,892 square feet of high-cube cold storage warehouse use (20% of the total square footage) within three buildings.

A preliminary site plan for the proposed Project is shown on Exhibit 1. Exhibit 2 depicts the location of the proposed Project in relation to the existing roadway network. It is anticipated that the Project would be developed in a single phase for the purposes of the traffic impact analysis and would have an opening year of 2022. As indicated on Exhibit 1, access to the Project site will be provided to Cypress Avenue (via Driveways 1, 2, 3, and 4) and Juniper Avenue (via Driveways 5, 7, 8, and 9). All driveways are proposed to allow for full access. All driveways are to serve passenger cars and trucks are to be served by Driveways 2, 3, 6, and 7. There is also an emergency access only driveway on Jurupa Avenue.

Our goal is to obtain comments from City of Fontana staff, to ensure that the traffic study fully addresses the potential impacts of the proposed Project. The remainder of this letter describes the draft proposed analysis methodology, project trip generation, trip distribution, and project traffic assignment/project trips on the surrounding roadway network, which have been used to establish the draft proposed project study area and analysis locations.

STUDY AREA

Per the City of Fontana traffic study guidelines, intersections where the Project is expected to add at least 50 peak hour trips should be analyzed. Based on this criterion, and the anticipated trip generation and trip distribution patterns (presented subsequently), the following study area intersections are proposed to be evaluated. Exhibit 2 presents the study area intersection analysis locations. Study area intersections will be evaluated using the HCM 6th Edition methodology. Count data will be conducted during the weekday AM and weekday PM peak hours.

ANALYSIS SCENARIOS

The analysis of peak hour operations at study area intersections and roadway segments will be provided for the following analysis scenarios:

- Existing (2019) Conditions
- Existing plus Project (E+P) Conditions
- Opening Year Cumulative (2022) Without Project Conditions
- Opening Year Cumulative (2022) With Project Conditions
- Horizon Year (2040) Without Project
- Horizon Year (2040) With Project

AMBIENT GROWTH ASSUMPTIONS

An ambient growth rate of 1.38 percent per year is proposed for the study area intersections, which will be compounded for each year to the Project's Opening Year of 2022. The growth rate is based on the average growth for population (1.21% per year), households (1.44% per year), and employment (1.47% per year) between 2012 and 2040 in the 2016 SCAG RTP/SCS for the City of Fontana.

TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development and is based upon the specific land uses planned for a given project. Trip generation rates for the Project are shown in Table 1 based on actual vehicles and passenger car equivalent (PCE). The trip generation summary for the proposed Project in both actual vehicles and PCE are shown on Table 2. The trip generation rates used for this analysis are based upon trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10^{th} Edition, 2017) have been utilized. Brief descriptions of the proposed uses are provided below:

Warehousing (ITE 150): Warehouses are primarily devoted to the storage of materials, but they may also include office and maintenance areas.

High-Cube Cold Storage Warehouse (ITE 157): High-cube cold storage warehouses include warehouses characterized by the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products.

Although the high-cube fulfillment center use was considered, the proposed buildings are not anticipated to be occupied by a fulfillment user. The site plan, as currently designed, does not lend

itself to fulfillment center use due to the lack of employee parking.

The following vehicle mix (passenger cars versus trucks) has been obtained from the ITE's High Cube Warehouse Vehicle Trip Generation Analysis (dated October 2016):

- Cold Storage Warehouses: AM Peak Hour: 69.2% passenger cars and 30.8% trucks; PM Peak Hour: 78.3% passenger cars and 21.7% trucks; Weekday Daily: 67.8% passenger cars and 32.2% trucks

The above truck percentage was then further broken down by axle type per the following South Coast Air Quality Management District's (SCAQMD) recommended truck mix, for high-cube warehouse uses:

- With Cold Storage: 2-Axle = 34.7%; 3-Axle = 11.0%; 4+-Axle = 54.3%

Finally, PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in the City's traffic study guidelines: 2.0 for 2-Axle, 2.5 for 3-Axle, and 3.0 for 4+-Axle.

As shown on Table 2, the Project is anticipated to generate a net total of 3,106 PCE trip-ends per day with 268 PCE AM peak hour trips and 268 PCE PM peak hour trips.

TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. The trip distribution pattern for truck traffic is also influenced by the local truck routes approved by the City of Fontana. Given these differences, separate trip distributions were generated for both passenger cars and truck trips.

Exhibit 3 illustrates the passenger car trip distribution patterns which is based on a select zone run of the Project from the San Bernardino Transportation Analysis Model (SBTAM). Exhibit 4 illustrates the truck trip distribution patterns. Truck trip distribution patterns have been derived based on the City's truck routes within the study area.

LEVEL OF SERVICE (LOS) CRITERIA

The City of Fontana has set the goal for acceptable LOS as LOS C or better, wherever feasible (see Goal #1, Policy #12 of the City of Fontana General Plan Circulation Element). However, in some instances maintaining the LOS C threshold within a built environment may require extensive roadway widening that could affect existing uses, property rights and substantial costs associated with implementing these improvements. In the event that the improvements required to maintain LOS C is determined to be infeasible, the City of Fontana recognizes that LOS D may be considered the worst acceptable level of service in urbanized areas of the City.

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on SHS facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing LOS should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is LOS D. As such, LOS D will be used as the target LOS for freeway ramps, freeway segments, and freeway merge/diverge ramp junctions.

THRESHOLDS OF SIGNIFICANCE – INTERSECTIONS

For the intersections that lie within the City of Fontana, determination of significant impacts will be based on a comparison of without and with project levels of service for each analysis year. A Significant Impact occurs if project traffic increases the average delay at an intersection by more than the thresholds identified on the table below. The thresholds for LOS A, B, and C do not apply to projects consistent with the General Plan.

THRESHOLDS OF SIGNIFICANT IMPACT

Pre-Project LOS	Significant Impact Threshold[1]
A/B	10.0 Seconds
C	8.0 Seconds
D	5.0 Seconds
E	2.0 Seconds
F	1.0 Second

[1] Increase in delay

EXISTING COUNT DATA

Intersection turning movement counts will be conducted at the study area intersection locations for **weekday AM** (7-9AM) and **weekday PM** (4-6PM). Counts will be conducted when local schools are in session and operating on normal bell schedules.

CUMULATIVE DEVELOPMENT PROJECTS

Table 3 and Exhibit 5 show a list of cumulative projects. If necessary, it is requested that the City of Fontana provide Urban Crossroads with any new cumulative development projects to be included in the traffic study for cumulative traffic conditions in addition to those shown on Table 4 or any other additional changes.

SPECIAL ISSUES

The following special issues will also be addressed as part of the TIA:

- Truck turning templates will be used to address how Project truck traffic (e.g., large trucks such as a WB-67) would enter and exit applicable Project driveways.
- Conduct a queuing analysis at Project driveways.

FEE PROGRAM

It is requested that the City provide a list of facilities that are included in the City's fee program.

SIGNAL TIMING

It is requested that the City of Fontana provide existing signal timing for intersections within their jurisdiction. If existing signal timing is not available, default values consistent with the most current CA MUTCD guidelines will be utilized.

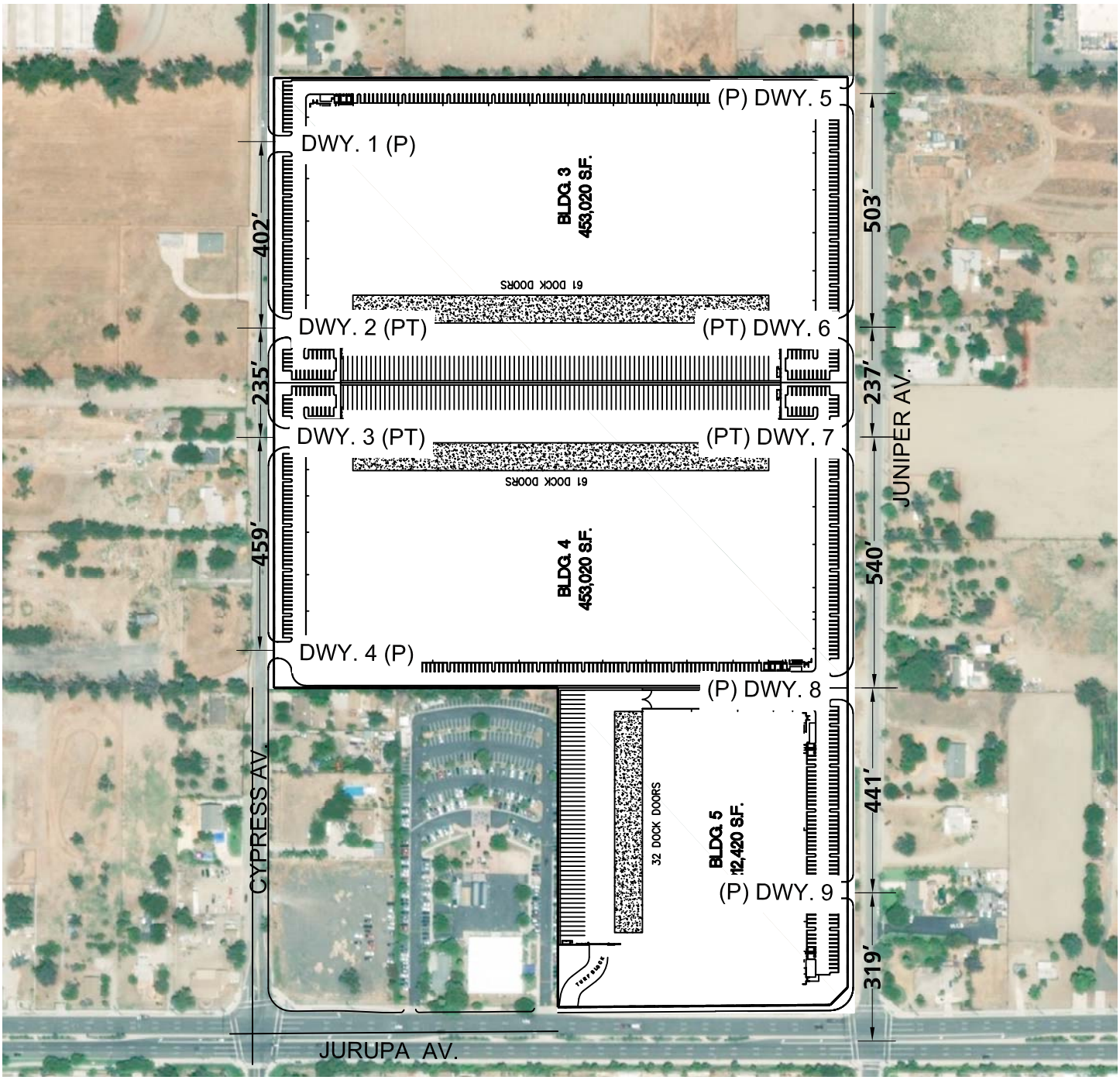
If you have any questions, please contact me directly at (949) 336-5982.

Respectfully submitted,

Charlene So

Charlene So, PE
Senior Associate

EXHIBIT 1: PRELIMINARY SITE PLAN



LEGEND:

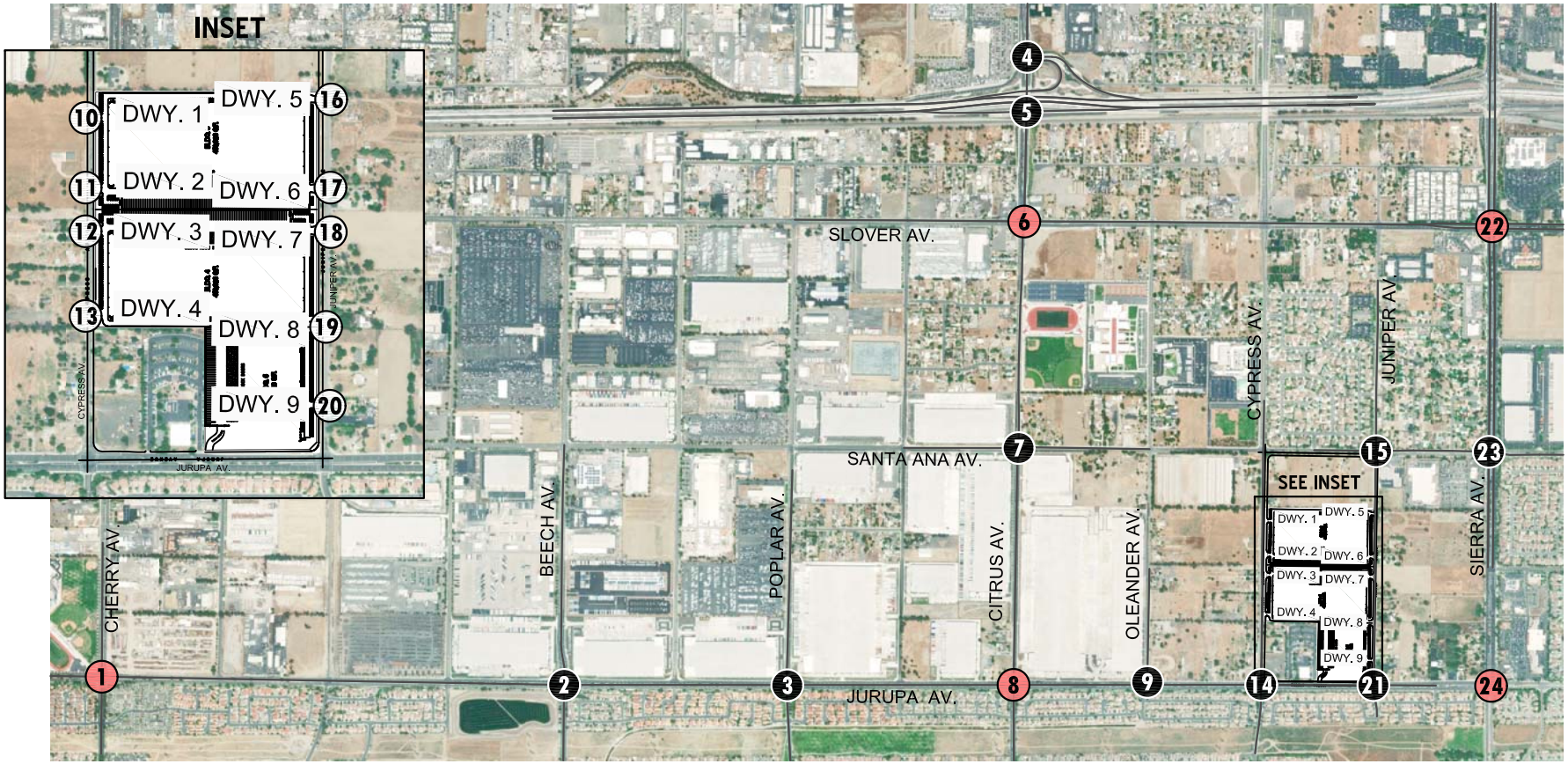
- **P** = PASSENGER CARS ONLY
- **T** = TRUCKS ONLY
- **PT** = PASSENGER CARS AND TRUCKS

N

12382 - siteplan.dwg

URBAN CROSSROADS

EXHIBIT 2: LOCATION MAP



LEGEND:

0 = EXISTING INTERSECTION ANALYSIS LOCATION

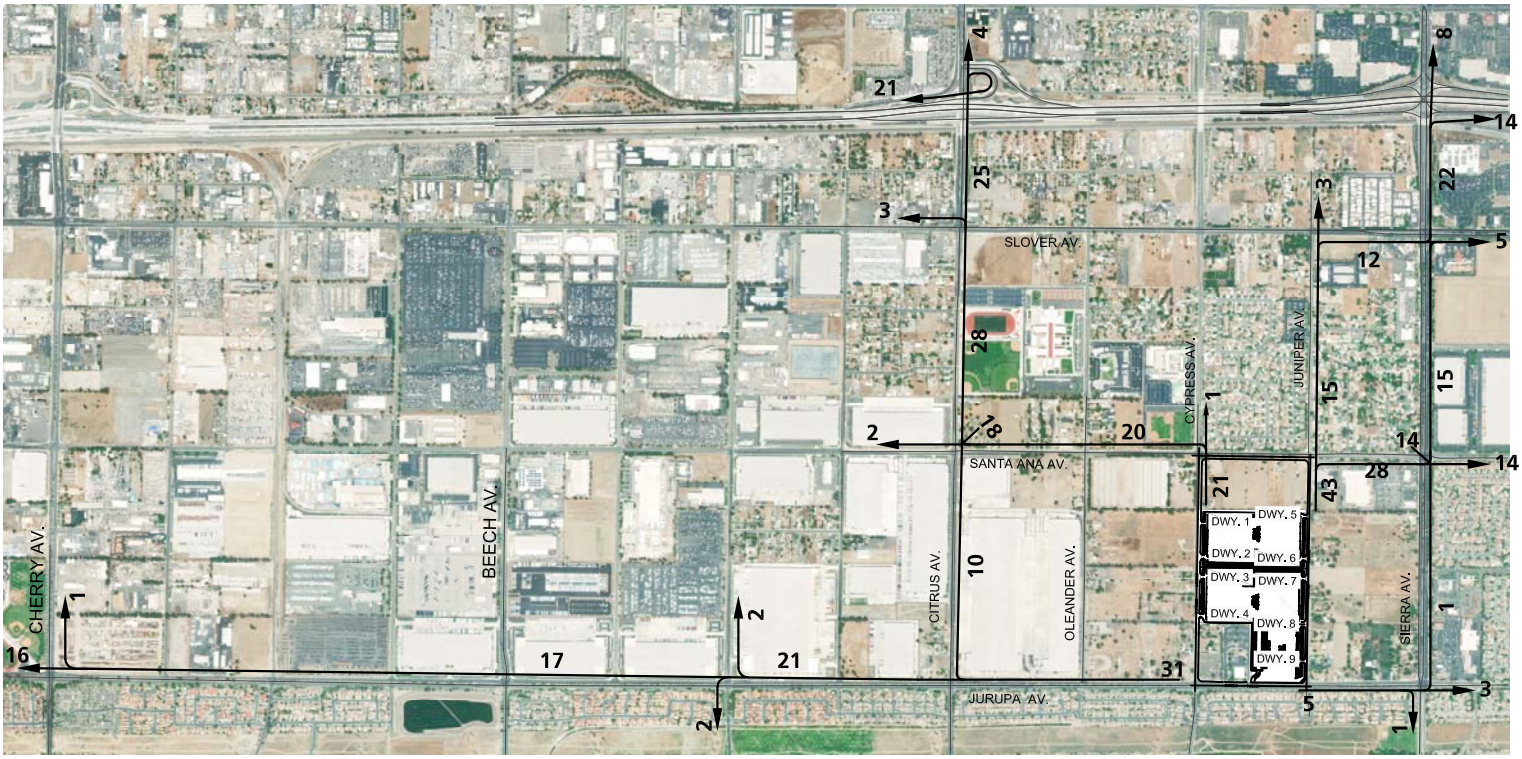
0 = FUTURE INTERSECTION ANALYSIS LOCATION

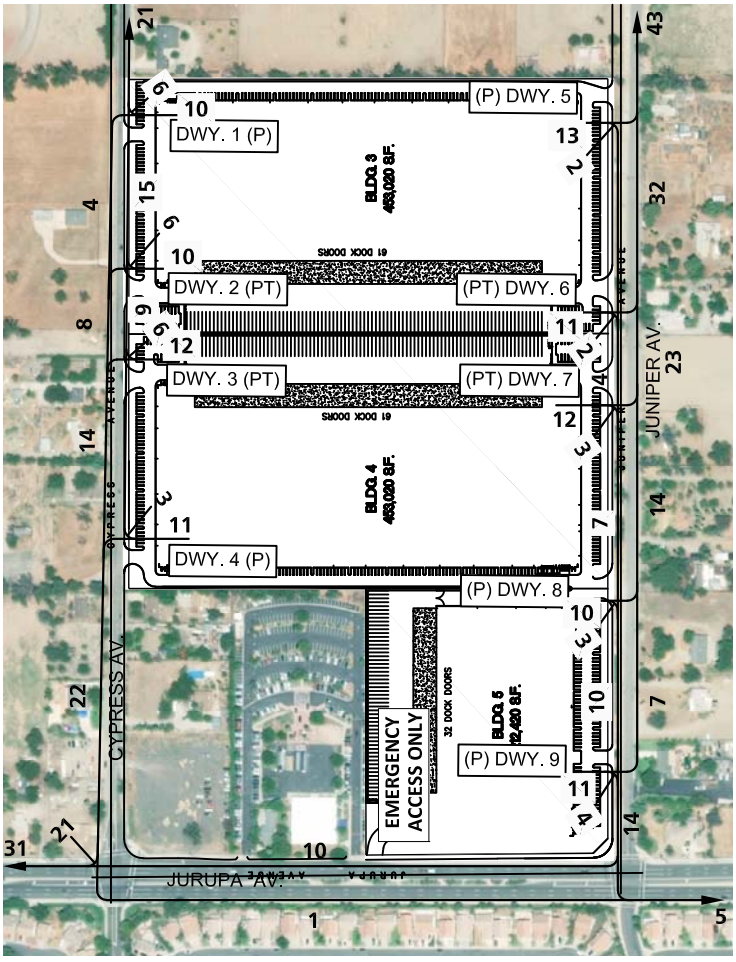
0 = CMP INTERSECTION

N

URBAN CROSSROADS

EXHIBIT 3: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



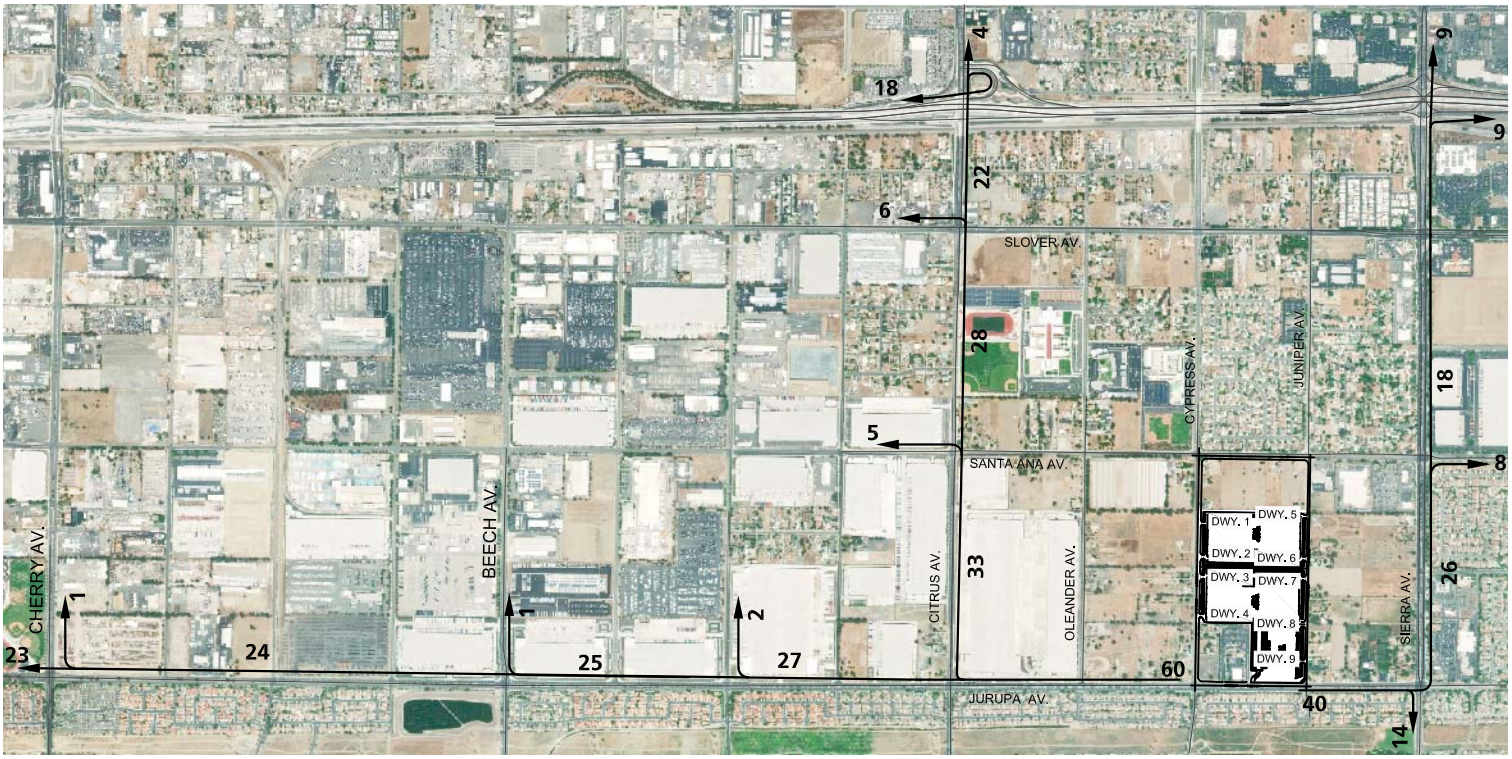


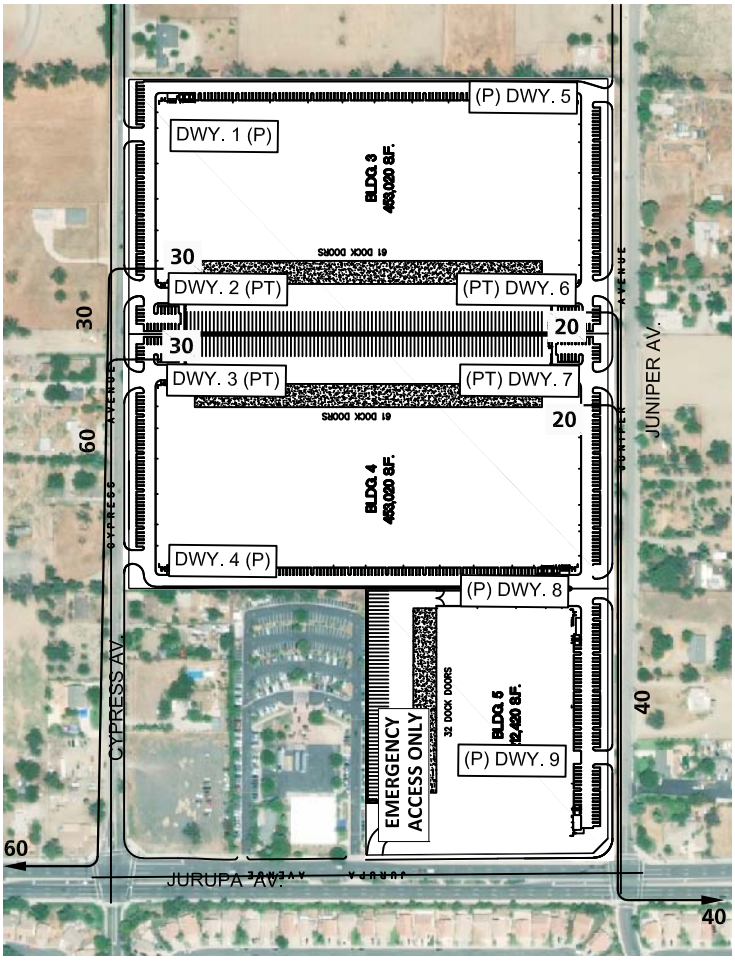
LEGEND:

10 = PERCENT TO/FROM PROJECT

N

EXHIBIT 4: PROJECT (TRUCK) TRIP DISTRIBUTION

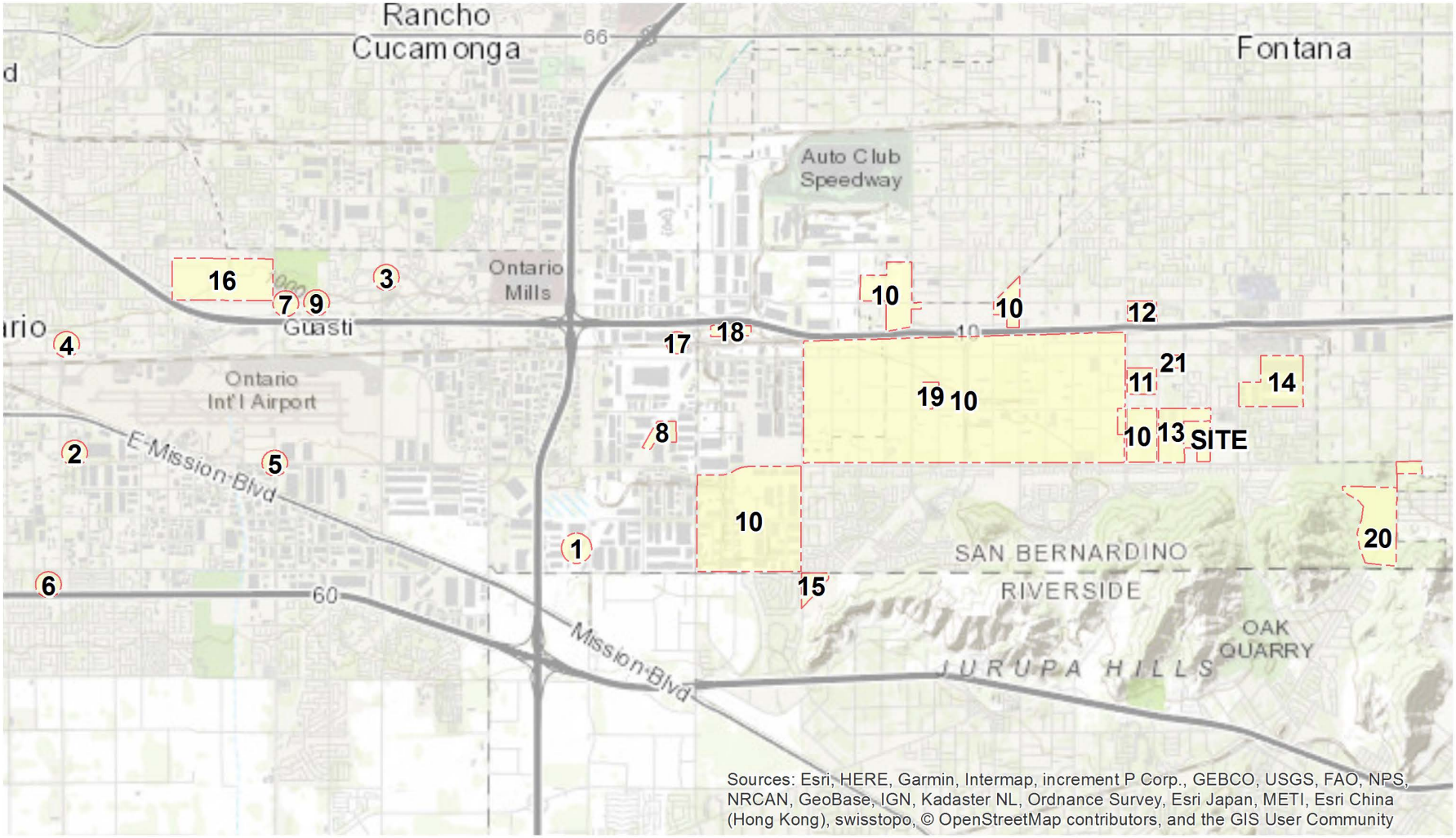




LEGEND:

10 = PERCENT TO/FROM PROJECT

EXHIBIT 5: CUMULATIVE DEVELOPMENT LOCATION MAP



LEGEND:

= CUMULATIVE DEVELOPMENT

N

Table 1

Project Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.091	0.027	0.118	0.040	0.109	0.149	1.180
2-Axle Trucks (AM-5.14%; PM-3.62%; Daily-5.38%)			0.007	0.002	0.009	0.002	0.005	0.007	0.094
3-Axle Trucks (AM-6.38%; PM-4.49%; Daily-6.67%)			0.008	0.002	0.010	0.002	0.006	0.008	0.116
4-Axle+ Trucks (AM-19.25%; PM-13.56%; Daily-20.13%)			0.025	0.008	0.033	0.007	0.019	0.026	0.350
High-Cube Cold Storage Warehouse[3]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.059	0.018	0.076	0.025	0.069	0.094	1.437
2-Axle Trucks (AM-10.69%; PM-7.53%; Daily-11.17%)			0.009	0.003	0.012	0.002	0.007	0.009	0.237
3-Axle Trucks (AM-3.39%; PM-2.39%; Daily-3.54%)			0.003	0.001	0.004	0.001	0.002	0.003	0.075
4-Axle+ Trucks (AM-16.76%; PM-11.80%; Daily-17.52%)			0.014	0.004	0.018	0.004	0.010	0.014	0.371
Passenger Car Equivalent (PCE) Trip Generation Rates									
Warehousing[3]	TSF	150	0.131	0.039	0.170	0.051	0.139	0.190	1.740
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.091	0.027	0.118	0.040	0.109	0.149	1.180
2-Axle Trucks (AM-5.14%; PM-3.62%; Daily-5.38%) (PCE = 2.0)			0.013	0.004	0.017	0.004	0.010	0.014	0.187
3-Axle Trucks (AM-6.38%; PM-4.49%; Daily-6.67%) (PCE = 2.5)			0.020	0.006	0.026	0.006	0.015	0.021	0.290
4-Axle+ Trucks (AM-19.25%; PM-13.56%; Daily-20.13%) (PCE = 3.0)			0.076	0.023	0.098	0.021	0.056	0.077	1.051
High-Cube Cold Storage Warehouse[3]	TSF	157	0.085	0.025	0.110	0.032	0.088	0.120	2.120
Passenger Cars (AM-69.2%; PM-78.3%; Daily-67.8%)			0.059	0.018	0.076	0.025	0.069	0.094	1.437
2-Axle Trucks (AM-10.69%; PM-7.53%; Daily-11.17%) (PCE = 2.0)			0.018	0.005	0.024	0.005	0.013	0.018	0.474
3-Axle Trucks (AM-3.39%; PM-2.39%; Daily-3.54%) (PCE = 2.5)			0.007	0.002	0.009	0.002	0.005	0.007	0.188
4-Axle+ Trucks (AM-16.76%; PM-11.80%; Daily-17.52%) (PCE = 3.0)			0.043	0.013	0.055	0.011	0.031	0.042	1.114

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] TSF = thousand square feet

[2] Vehicle Mix Source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE. PCE rates are per City's TIA Guidelines.
Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type for high-cube warehouse.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks. PCE rates are per SBCTA.

Table 2

Project Trip Generation Summary

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles									
Warehousing (80%)	895.568	TSF							
Passenger Cars:			81	24	105	36	97	133	1,058
Truck Trips:									
2-axle:			6	2	8	2	5	7	84
3-axle:			7	2	9	2	5	7	104
4+-axle:			23	7	30	6	17	23	314
- Net Truck Trips			36	11	47	10	27	37	502
WAREHOUSING TOTAL NET TRIPS (Actual Vehicles) [2]			**117**	**35**	**152**	**46**	**124**	**170**	**1,560**
High-Cube Cold Storage Warehouse (20%)	223.892	TSF							
Passenger Cars:			13	4	17	6	15	21	322
Truck Trips:									
2-axle:			2	1	3	1	1	2	54
3-axle:			1	0	1	0	0	0	18
4+-axle:			3	1	4	1	2	3	84
- Net Truck Trips			5	2	7	2	3	5	138
COLD STORAGE TOTAL NET TRIPS (Actual Vehicles) [2]			**18**	**6**	**24**	**8**	**18**	**26**	**460**
TOTAL NET TRIPS (Actual Vehicles) [2]			**135**	**41**	**176**	**54**	**142**	**196**	**2,020**
Passenger Care Equivalent (PCE)									
Warehousing (80%)	895.568	TSF							
Passenger Cars:			81	24	105	36	97	133	1,058
Truck Trips:									
2-axle:			12	4	16	3	9	12	168
3-axle:			18	6	24	5	13	18	260
4+-axle:			68	20	88	19	51	70	942
- Net Truck Trips			98	30	128	27	73	100	1,370
WAREHOUSING TOTAL NET TRIPS (PCE) [2]			**179**	**54**	**233**	**63**	**170**	**233**	**2,428**
High-Cube Cold Storage Warehouse (20%)	223.892	TSF							
Passenger Cars:			13	4	17	6	15	21	322
Truck Trips:									
2-axle:			4	1	5	1	3	4	106
3-axle:			2	0	2	0	1	1	42
4+-axle:			10	3	13	3	7	10	250
- Net Truck Trips			14	4	18	4	10	14	356
COLD STORAGE TOTAL NET TRIPS (PCE) [2]			**27**	**8**	**35**	**10**	**25**	**35**	**678**
TOTAL NET TRIPS (PCE) [2]			**206**	**62**	**268**	**73**	**195**	**268**	**3,106**

[1] TSF = thousand square feet

[2] TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

Table 3

Cumulative Development Land Use Summary

TAZ	Project	Land Use	Quantity [2]	
1	PDEV14-007	Industrial	910.119	TSF
2	PDEV14-010	Industrial	21.726	TSF
3	PCUP13-034	Hotel	122	RMS
4	PCUP13-028	Body Shop	0.79	AC
5	PDEV13-019	Industrial	569.200	TSF
6	PDEV13-014	Residential Condo	139	DU
7	PDEV13-012	Residential Condo	20	DU
8	PDEV13-007	General Industrial	618.536	TSF
9	PDEV13-008	Residential Condo	52	DU
10	Southwest Industrial Park (SWIP)[1]	Freeway Industrial Commercial (Central)		
		Warehousing	761.067	TSF
		Office	147.786	TSF
		Office Park	152.213	TSF
		Commercial Retail	456.640	TSF
		Freeway Industrial Commercial (East)		
		Warehousing	886.410	TSF
		Office	172.125	TSF
		Office Park	177.282	TSF
		Commercial Retail	531.846	TSF
		Freeway Industrial Commercial (North)		
		Warehousing	335.885	TSF
		Office	65.223	TSF
		Office Park	67.177	TSF
		Commercial Retail	201.531	TSF
		Freeway Industrial Commercial (West)		
		Warehousing	747.959	TSF
		Office	145.241	TSF
		Office Park	149.592	TSF
		Commercial Retail	448.776	TSF
		Jurupa North Research & Development (West)		
		Light Industrial	1344.901	TSF
		Office	478.407	TSF
		Office Park	847.485	TSF
		Research & Development	677.988	TSF
		Jurupa North Research & Development (Central)		
		Light Industrial	964.045	TSF
		Office	342.930	TSF
		Office Park	607.490	TSF
		Research & Development	485.992	TSF

Cumulative Development Land Use Summary

TAZ	Project	Land Use	Quantity [2]	
10	Southwest Industrial Park (SWIP)[1]	Jurupa North Research & Development (East)		
		Light Industrial	917.459	TSF
		Office	326.358	TSF
		Office Park	578.134	TSF
		Research & Development	462.506	TSF
		Jurupa South Industrial		
		Light Industrial	70.985	TSF
		Warehousing	1799.899	TSF
		Slover Central Manufacturing/Industrial		
		Manufacturing	1113.002	TSF
		Warehousing	2597.004	TSF
		Slover East Industrial		
		Light Industrial	719.464	TSF
		Warehousing	1006.149	TSF
		Office Park	503.074	TSF
		Slover West Industrial		
		Light Industrial	1384.886	TSF
		Warehousing	3518.167	TSF
		Speedway Industrial		
		Light Industrial	930.121	TSF
		Warehousing	762.191	TSF
		Office Park	13.264	TSF
		SWIP Residential Trucking (1,3 and 4)		
		Single Family Detached Residential	84	DU
11	Citrus Center	Office	47.000	TSF
		Retail	44.500	TSF
		Fast Food w/ Drive-Thru	8.658	TSF
12	ASP 16-018	Retail w/ Gas Station	18.800	TSF
13	Southwest Fontana Logistics Center Project	Warehousing	1,628.936	TSF
		City Park	17.45	AC
14	Walmart Shopping Center	Free-Standing Discount Superstore	200.000	TSF
		Specialty Retail Center	9.490	TSF
		Fast Food w/o Drive-Thru	9.490	TSF
15	Country Village Shopping Center	Shopping Center	140.894	TSF
16	PM 19612	Industrial	30000.000	TSF
		Commercial Retail	1130.000	TSF
		Multi-Family	800	DU
		Hotel	600	RMS
17	PDEV16-001	Industrial	109.197	TSF
18	Pacific Freeway Center	High-Cube Warehouse / Distribution Center	477.500	TSF
		Manufacturing	44.500	TSF
19	First Redwood Logistics	High-Cube Warehouse / Distribution Center	360.000	TSF
		General Light Industrial	41.436	TSF
20	West Valley Logistics Center	High-Cube Warehouse / Distribution Center	3,183.100	TSF
		Warehousing	290.590	TSF
21	Gateway Logistics Center	High-Cube Warehouse (Cold Storage)	38.558	TSF
		Warehousing	154.232	TSF

[1] Source: Southwest Industrial Park (SWIP) Project TIA, RBF Consulting, September 29, 2011.

[2] TSF = Thousand Square Feet; RMS = Rooms; AC = Acres; DU = Dwelling Units

APPENDIX 1.2:

SITE ADJACENT QUEUING ANALYSIS WORKSHEETS

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Intersection: 10: Cypress Av. & Driveway 1

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	30	22
Average Queue (ft)	4	2
95th Queue (ft)	20	13
Link Distance (ft)	78	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Cypress Av. & Driveway 2

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	35	22
Average Queue (ft)	8	2
95th Queue (ft)	31	13
Link Distance (ft)	120	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Cypress Av. & Driveway 3

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	34	28
Average Queue (ft)	8	2
95th Queue (ft)	29	12
Link Distance (ft)	331	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Cypress Av. & Driveway 4

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	30	5
Average Queue (ft)	4	0
95th Queue (ft)	21	4
Link Distance (ft)	609	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 14: Cypress Av. & Jurupa Av.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	TR	L	T	T	T	R	L	TR	L
Maximum Queue (ft)	212	236	190	94	99	164	192	184	60	78	155	78
Average Queue (ft)	114	104	59	18	42	93	106	88	25	21	70	29
95th Queue (ft)	205	212	130	54	81	150	173	159	53	58	120	63
Link Distance (ft)		1277	1277	1277		1232	1232	1232			1045	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	165				245				130	100		40
Storage Blk Time (%)	9	1						2		0	3	7
Queuing Penalty (veh)	18	1						1		0	1	9

Intersection: 14: Cypress Av. & Jurupa Av.

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	70	59
Average Queue (ft)	18	20
95th Queue (ft)	49	44
Link Distance (ft)	706	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		40
Storage Blk Time (%)	1	1
Queuing Penalty (veh)	2	1

Intersection: 16: Juniper Av. & Driveway 5

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	30	6
Average Queue (ft)	5	0
95th Queue (ft)	23	6
Link Distance (ft)	225	453
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Juniper Av. & Driveway 6

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	53
Average Queue (ft)	8	5
95th Queue (ft)	30	27
Link Distance (ft)	156	161
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Juniper Av. & Driveway 7

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	33
Average Queue (ft)	9	3
95th Queue (ft)	31	18
Link Distance (ft)	140	480
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Juniper Av. & Driveway 8

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	31	38
Average Queue (ft)	8	4
95th Queue (ft)	30	21
Link Distance (ft)	233	378
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Juniper Av. & Driveway 9

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	18
Average Queue (ft)	3	1
95th Queue (ft)	16	9
Link Distance (ft)	72	222
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: Juniper Av. & Jurupa Av.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	LT	R
Maximum Queue (ft)	100	104	122	114	32	172	141	126	36	30	86	57
Average Queue (ft)	40	40	49	41	10	103	68	43	8	9	37	26
95th Queue (ft)	83	86	104	93	30	159	130	92	30	31	72	48
Link Distance (ft)		1232	1232	1232		1290	1290	1290	281	281	222	222
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150				245							
Storage Blk Time (%)	0											
Queuing Penalty (veh)	0											

Network Summary

Network wide Queuing Penalty: 34

Intersection: 10: Cypress Av. & Driveway 1

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	35	29
Average Queue (ft)	10	4
95th Queue (ft)	34	20
Link Distance (ft)	78	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Cypress Av. & Driveway 2

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	48	5
Average Queue (ft)	19	0
95th Queue (ft)	45	4
Link Distance (ft)	120	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: Cypress Av. & Driveway 3

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	48	17
Average Queue (ft)	19	1
95th Queue (ft)	44	7
Link Distance (ft)	331	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Cypress Av. & Driveway 4

Movement	WB
Directions Served	LR
Maximum Queue (ft)	35
Average Queue (ft)	10
95th Queue (ft)	34
Link Distance (ft)	609
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 14: Cypress Av. & Jurupa Av.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	L	T	T	TR	L	T	T	T	R	L	TR	L
Maximum Queue (ft)	240	682	645	424	168	232	249	228	66	50	113	89
Average Queue (ft)	189	374	330	131	83	95	110	96	24	8	48	50
95th Queue (ft)	303	712	668	314	147	170	186	174	53	32	95	84
Link Distance (ft)		1277	1277	1277		1232	1232	1232			1045	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	165				245				130	100		40
Storage Blk Time (%)	57	7				0		4			1	18
Queuing Penalty (veh)	222	12				0		3			0	41

Intersection: 14: Cypress Av. & Jurupa Av.

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	158	90
Average Queue (ft)	39	39
95th Queue (ft)	104	80
Link Distance (ft)	706	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		40
Storage Blk Time (%)	4	4
Queuing Penalty (veh)	13	8

Intersection: 16: Juniper Av. & Driveway 5

Movement	EB
Directions Served	LR
Maximum Queue (ft)	30
Average Queue (ft)	11
95th Queue (ft)	35
Link Distance (ft)	225
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Juniper Av. & Driveway 6

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	44	24
Average Queue (ft)	19	1
95th Queue (ft)	45	11
Link Distance (ft)	156	161
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 18: Juniper Av. & Driveway 7

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	45	17
Average Queue (ft)	19	1
95th Queue (ft)	45	9
Link Distance (ft)	140	480
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Juniper Av. & Driveway 8

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	45	28
Average Queue (ft)	19	2
95th Queue (ft)	46	13
Link Distance (ft)	233	378
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Juniper Av. & Driveway 9

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	27	17
Average Queue (ft)	9	1
95th Queue (ft)	30	9
Link Distance (ft)	72	222
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 21: Juniper Av. & Jurupa Av.

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	LT	R	LT	R
Maximum Queue (ft)	124	197	225	234	63	205	174	112	45	30	102	61
Average Queue (ft)	53	73	91	98	21	113	66	42	15	4	53	32
95th Queue (ft)	101	162	186	202	48	181	138	91	41	19	91	57
Link Distance (ft)		1232	1232	1232		1290	1290	1290	281	281	222	222
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	150				245							
Storage Blk Time (%)	0	1				0						
Queuing Penalty (veh)	0	1				0						

Network Summary

Network wide Queuing Penalty: 300

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – MARCH 2019

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Counts Unlimited
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(951) 268-6268

City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	9	82	61	32	152	7	139	27	14	173	73	107	14	3	194	49	49	34	23	132	72	651	723
07:15 AM	29	78	57	33	164	10	200	36	16	246	98	111	8	1	217	56	89	47	29	192	79	819	898
07:30 AM	21	58	56	30	135	13	130	26	14	169	49	126	12	4	187	53	98	48	12	199	60	690	750
07:45 AM	9	60	40	22	109	8	131	23	13	162	38	104	13	6	155	39	58	13	7	110	48	536	584
Total	68	278	214	117	560	38	600	112	57	750	258	448	47	14	753	197	294	142	71	633	259	2696	2955
08:00 AM	10	46	37	27	93	12	103	27	15	142	22	79	12	5	113	24	64	9	3	97	50	445	495
08:15 AM	16	51	54	19	121	6	108	21	8	135	36	91	5	1	132	39	68	9	4	116	32	504	536
08:30 AM	21	47	58	25	126	5	67	21	15	93	18	81	9	5	108	34	80	15	3	129	48	456	504
08:45 AM	7	45	39	23	91	7	87	28	22	122	13	69	9	4	91	40	49	5	3	94	52	398	450
Total	54	189	188	94	431	30	365	97	60	492	89	320	35	15	444	137	261	38	13	436	182	1803	1985
Grand Total	122	467	402	211	991	68	965	209	117	1242	347	768	82	29	1197	334	555	180	84	1069	441	4499	4940
Apprch %	12.3	47.1	40.6			5.5	77.7	16.8			29	64.2	6.9			31.2	51.9	16.8					
Total %	2.7	10.4	8.9		22	1.5	21.4	4.6		27.6	7.7	17.1	1.8		26.6	7.4	12.3	4		23.8	8.9	91.1	
Passenger Vehicles	109	454	335		1077	65	853	188		1214	344	749	80		1202	306	480	175		1043	0	0	4536
% Passenger Vehicles	89.3	97.2	83.3	84.8	89.6	95.6	88.4	90	92.3	89.3	99.1	97.5	97.6	100	98	91.6	86.5	97.2	97.6	90.5	0	0	91.8
Large 2 Axle Vehicles	4	11	19		47	3	34	6		46	2	16	2		20	9	22	5		38	0	0	151
% Large 2 Axle Vehicles	3.3	2.4	4.7	6.2	3.9	4.4	3.5	2.9	2.6	3.4	0.6	2.1	2.4	0	1.6	2.7	4	2.8	2.4	3.3	0	0	3.1
3 Axle Vehicles	1	2	7		12	0	13	3		19	1	2	0		3	4	12	0		16	0	0	50
% 3 Axle Vehicles	0.8	0.4	1.7	0.9	1	0	1.3	1.4	2.6	1.4	0.3	0.3	0	0	0.2	1.2	2.2	0	0	1.4	0	0	1
4+ Axle Trucks	8	0	41		66	0	65	12		80	0	1	0		1	15	41	0		56	0	0	203
% 4+ Axle Trucks	6.6	0	10.2	8.1	5.5	0	6.7	5.7	2.6	5.9	0	0.1	0	0	0.1	4.5	7.4	0	0	4.9	0	0	4.1

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 07:00 AM																	
07:00 AM	9	**82**	**61**	152	7	139	27	173	73	107	**14**	194	49	49	34	132	651
07:15 AM	**29**	78	57	**164**	10	**200**	**36**	**246**	**98**	111	8	**217**	**56**	89	47	192	**819**
07:30 AM	21	58	56	135	**13**	130	26	169	49	**126**	12	187	53	**98**	**48**	**199**	690
07:45 AM	9	60	40	109	8	131	23	162	38	104	13	155	39	58	13	110	536
Total Volume	68	278	214	560	38	600	112	750	258	448	47	753	197	294	142	633	2696
% App. Total	12.1	49.6	38.2		5.1	80	14.9		34.3	59.5	6.2		31.1	46.4	22.4		
PHF	.586	.848	.877	.854	.731	.750	.778	.762	.658	.889	.839	.868	.879	.750	.740	.795	.823

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E/W: Jurupa Avenue
Weather: Clear

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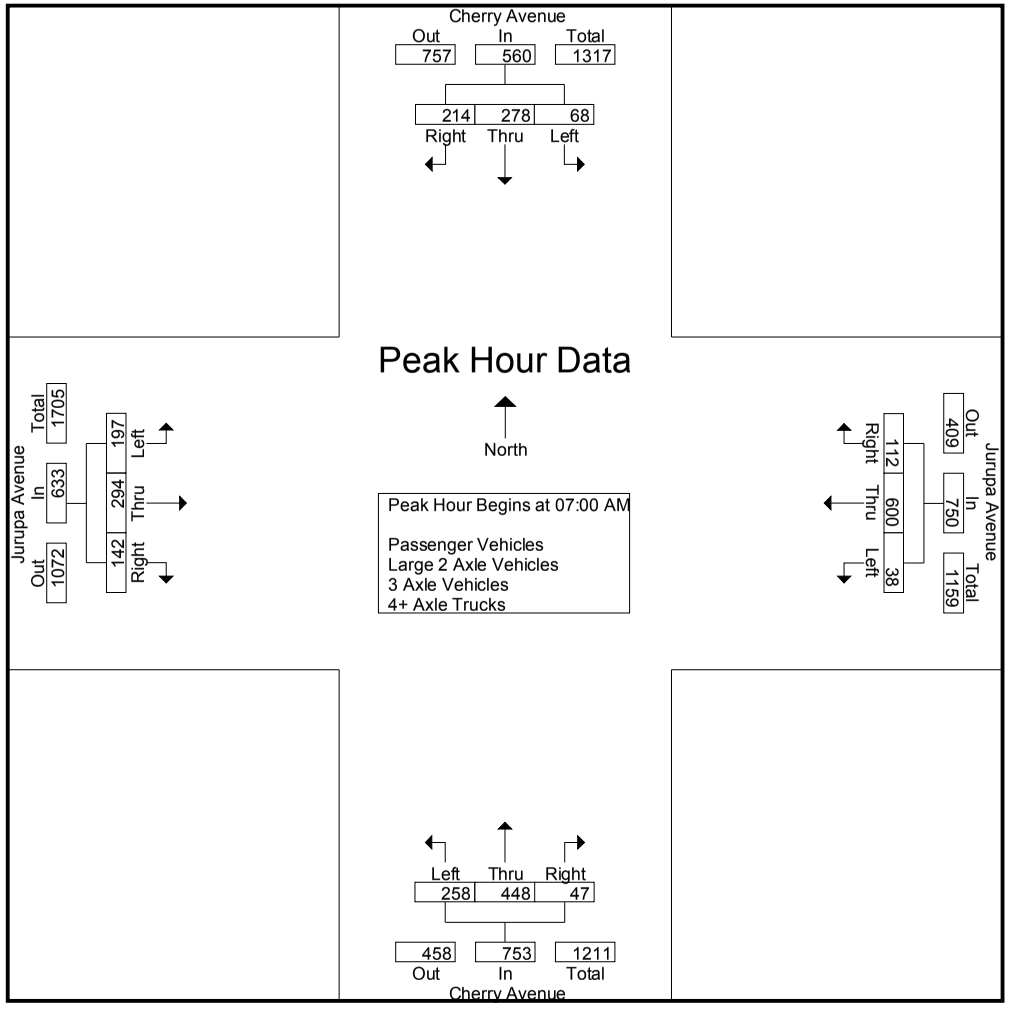
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cherry Avenue
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File Name : 01_FON_Cherry_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	9	**82**	**61**	152	7	139	27	173	73	107	**14**	194	49	49	34	132	
+15 mins.	**29**	78	57	**164**	10	**200**	**36**	**246**	**98**	111	8	**217**	**56**	89	47	192	
+30 mins.	21	58	56	135	**13**	130	26	169	49	**126**	12	187	53	**98**	**48**	**199**	
+45 mins.	9	60	40	109	8	131	23	162	38	104	13	155	39	58	13	110	
Total Volume	68	278	214	560	38	600	112	750	258	448	47	753	197	294	142	633	
% App. Total	12.1	49.6	38.2		5.1	80	14.9		34.3	59.5	6.2		31.1	46.4	22.4		
PHF	.586	.848	.877	.854	.731	.750	.778	.762	.658	.889	.839	.868	.879	.750	.740	.795	

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File Name : 01_FON_Cherry_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	6	81	53	30	140	7	129	25	14	161	73	106	14	3	193	45	47	33	23	125	70	619	689
07:15 AM	27	78	52	29	157	9	184	33	15	226	98	110	7	1	215	55	77	47	29	179	74	777	851
07:30 AM	19	57	50	26	126	12	119	24	13	155	48	121	12	4	181	50	88	46	11	184	54	646	700
07:45 AM	8	57	31	17	96	8	117	21	12	146	37	103	13	6	153	35	51	13	7	99	42	494	536
Total	60	273	186	102	519	36	549	103	54	688	256	440	46	14	742	185	263	139	70	587	240	2536	2776
08:00 AM	9	44	29	20	82	12	91	22	13	125	22	77	12	5	111	23	53	8	2	84	40	402	442
08:15 AM	15	48	43	16	106	5	91	20	8	116	36	86	4	1	126	36	58	9	4	103	29	451	480
08:30 AM	18	47	49	23	114	5	56	19	14	80	18	78	9	5	105	28	71	14	3	113	45	412	457
08:45 AM	7	42	28	18	77	7	66	24	19	97	12	68	9	4	89	34	35	5	3	74	44	337	381
Total	49	181	149	77	379	29	304	85	54	418	88	309	34	15	431	121	217	36	12	374	158	1602	1760
Grand Total	109	454	335	179	898	65	853	188	108	1106	344	749	80	29	1173	306	480	175	82	961	398	4138	4536
Apprch %	12.1	50.6	37.3			5.9	77.1	17			29.3	63.9	6.8			31.8	49.9	18.2					
Total %	2.6	11	8.1		21.7	1.6	20.6	4.5		26.7	8.3	18.1	1.9		28.3	7.4	11.6	4.2		23.2	8.8	91.2	

3.1-4

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	6	**81**	**53**	140	7	129	25	161	73	106	**14**	193	45	47	33	125	619
07:15 AM	**27**	78	52	**157**	9	**184**	**33**	**226**	**98**	110	7	**215**	**55**	77	**47**	179	**777**
07:30 AM	19	57	50	126	**12**	119	24	155	48	**121**	12	181	50	**88**	46	**184**	646
07:45 AM	8	57	31	96	8	117	21	146	37	103	13	153	35	51	13	99	494
Total Volume	60	273	186	519	36	549	103	688	256	440	46	742	185	263	139	587	2536
% App. Total	11.6	52.6	35.8		5.2	79.8	15		34.5	59.3	6.2		31.5	44.8	23.7		
PHF	.556	.843	.877	.826	.750	.746	.780	.761	.653	.909	.821	.863	.841	.747	.739	.798	.816

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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

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Site Code : 05119181
Start Date : 3/14/2019
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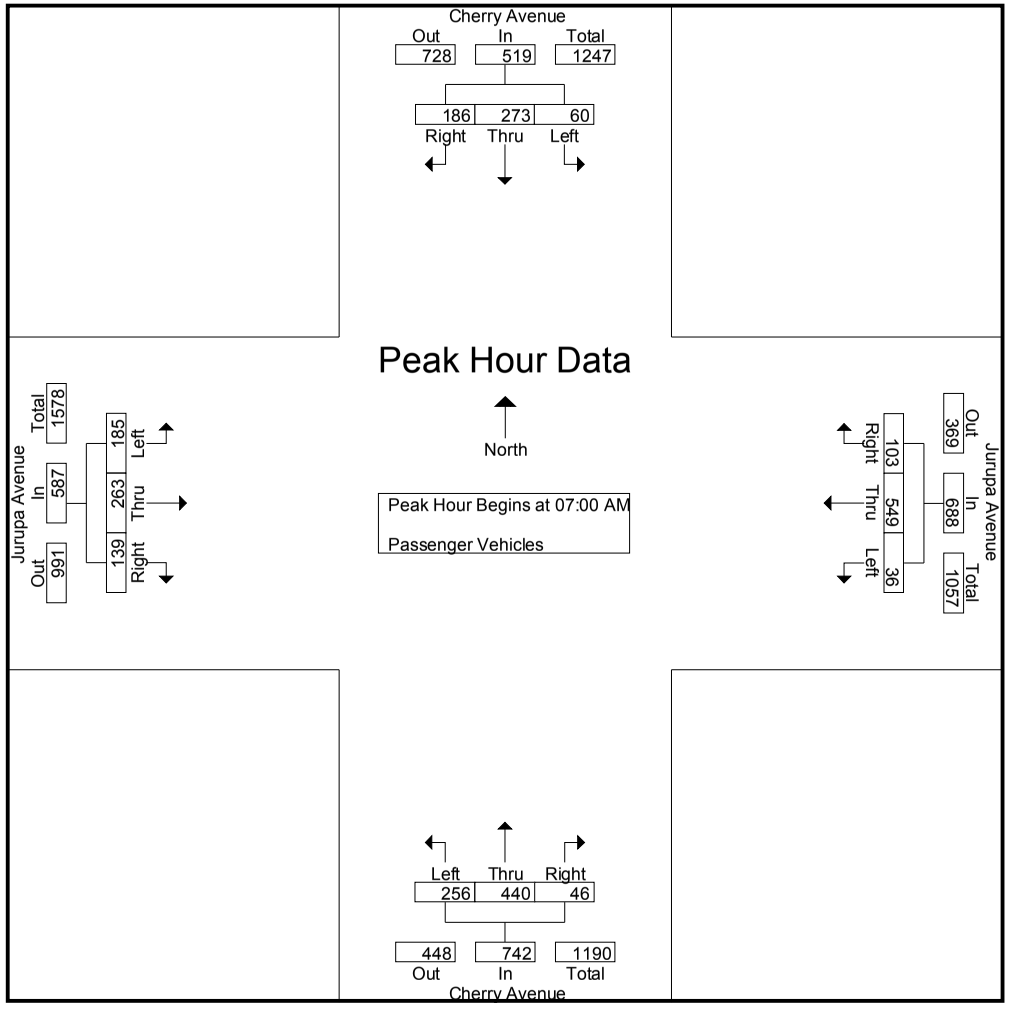

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City of Fontana
N/S: Cherry Avenue
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File Name : 01_FON_Cherry_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	6	**81**	**53**	140	7	129	25	161	73	106	**14**	193	45	47	33	125	
+15 mins.	**27**	78	52	**157**	9	**184**	**33**	**226**	**98**	110	7	**215**	**55**	77	**47**	179	
+30 mins.	19	57	50	126	**12**	119	24	155	48	**121**	12	181	50	**88**	46	**184**	
+45 mins.	8	57	31	96	8	117	21	146	37	103	13	153	35	51	13	99	
Total Volume	60	273	186	519	36	549	103	688	256	440	46	742	185	263	139	587	
% App. Total	11.6	52.6	35.8		5.2	79.8	15		34.5	59.3	6.2		31.5	44.8	23.7		
PHF	.556	.843	.877	.826	.750	.746	.780	.761	.653	.909	.821	.863	.841	.747	.739	.798	

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Groups Printed- Large 2 Axle Vehicles

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	6	2	7	0	2	0	0	2	0	1	0	0	1	1	0	1	0	2	2	12	14
07:15 AM	1	0	1	1	2	1	8	1	0	10	0	1	1	0	2	0	4	0	0	4	1	18	19
07:30 AM	0	1	2	2	3	1	3	0	0	4	0	4	0	0	4	1	2	2	1	5	3	16	19
07:45 AM	0	3	3	3	6	0	4	1	0	5	1	1	0	0	2	1	3	0	0	4	3	17	20
Total	1	5	12	8	18	2	17	2	0	21	1	7	1	0	9	3	9	3	1	15	9	63	72
08:00 AM	1	2	4	4	7	0	5	2	1	7	0	2	0	0	2	1	1	1	1	3	6	19	25
08:15 AM	1	2	2	1	5	1	3	0	0	4	0	3	1	0	4	2	5	0	0	7	1	20	21
08:30 AM	1	0	0	0	1	0	3	1	1	4	0	3	0	0	3	2	3	1	0	6	1	14	15
08:45 AM	0	2	1	0	3	0	6	1	1	7	1	1	0	0	2	1	4	0	0	5	1	17	18
Total	3	6	7	5	16	1	17	4	3	22	1	9	1	0	11	6	13	2	1	21	9	70	79
Grand Total	4	11	19	13	34	3	34	6	3	43	2	16	2	0	20	9	22	5	2	36	18	133	151
Apprch %	11.8	32.4	55.9			7	79.1	14			10	80	10			25	61.1	13.9					
Total %	3	8.3	14.3		25.6	2.3	25.6	4.5		32.3	1.5	12	1.5		15	6.8	16.5	3.8		27.1	11.9	88.1	

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	**6**	**7**	0	2	0	2	0	1	0	1	**1**	0	1	2	12
07:15 AM	**1**	0	1	2	**1**	**8**	**1**	**10**	0	1	**1**	2	0	**4**	0	4	**18**
07:30 AM	0	1	2	3	1	3	0	4	0	**4**	0	**4**	1	2	**2**	**5**	16
07:45 AM	0	**3**	3	6	0	4	1	5	**1**	1	0	2	1	3	0	4	17
Total Volume	1	5	12	18	2	17	2	21	1	7	1	9	3	9	3	15	63
% App. Total	5.6	27.8	66.7		9.5	81	9.5		11.1	77.8	11.1		20	60	20		
PHF	.250	.417	.500	.643	.500	.531	.500	.525	.250	.438	.250	.563	.750	.563	.375	.750	.875

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City of Fontana
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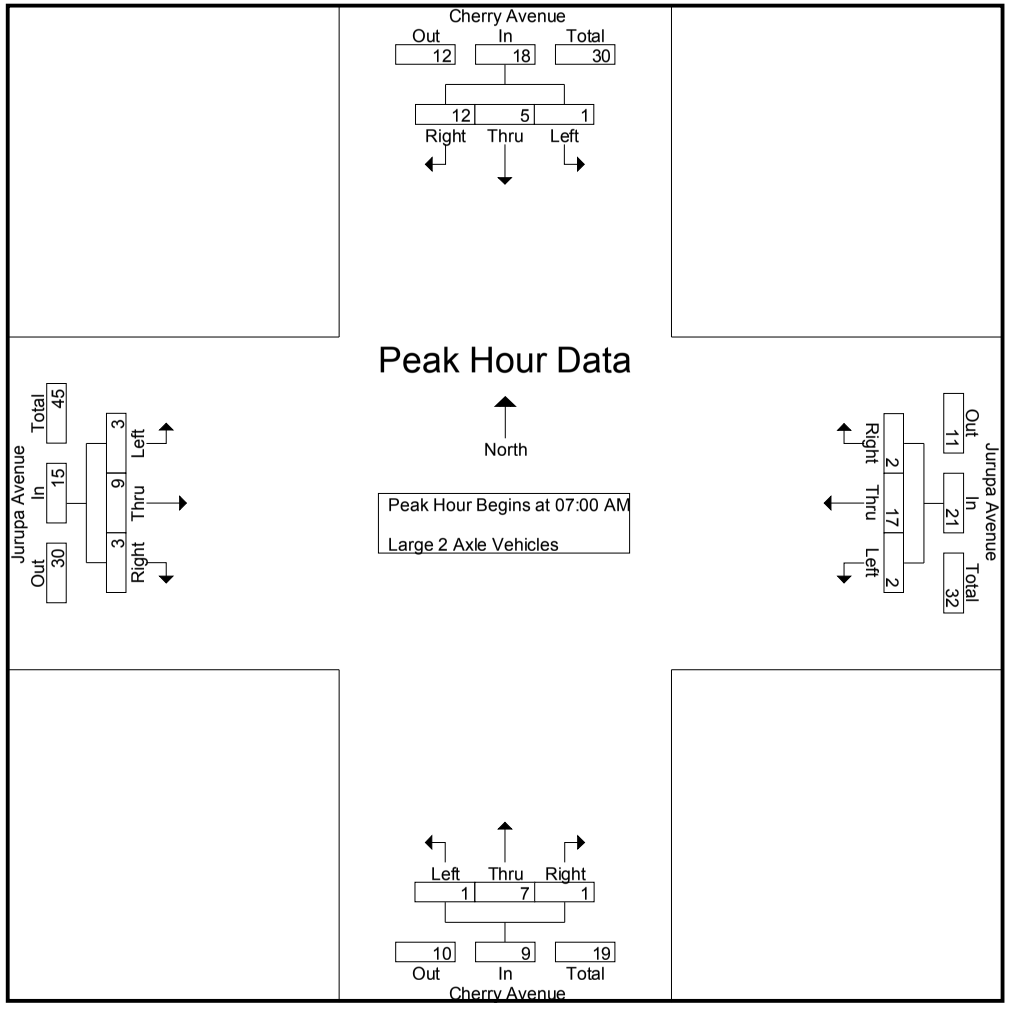

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	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	1	**6**	**7**	0	2	0	2	0	1	0	1	**1**	0	1	2	
+15 mins.	**1**	0	1	2	**1**	**8**	**1**	**10**	0	1	**1**	2	0	**4**	0	4	
+30 mins.	0	1	2	3	1	3	0	4	0	**4**	0	**4**	1	2	**2**	**5**	
+45 mins.	0	**3**	3	6	0	4	1	5	**1**	1	0	2	1	3	0	4	
Total Volume	1	5	12	18	2	17	2	21	1	7	1	9	3	9	3	15	
% App. Total	5.6	27.8	66.7		9.5	81	9.5		11.1	77.8	11.1		20	60	20		
PHF	.250	.417	.500	.643	.500	.531	.500	.525	.250	.438	.250	.563	.750	.563	.375	.750	

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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	5	5
07:15 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	4	4
07:30 AM	0	0	1	0	1	0	1	0	0	1	1	1	0	0	2	0	1	0	0	1	0	5	5
07:45 AM	0	0	2	1	2	0	4	1	1	5	0	0	0	0	0	0	1	0	0	1	2	8	10
Total	1	0	4	1	5	0	8	1	1	9	1	1	0	0	2	1	5	0	0	6	2	22	24
08:00 AM	0	0	2	1	2	0	2	1	1	3	0	0	0	0	0	0	1	0	0	1	2	6	8
08:15 AM	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	0	5	5
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
08:45 AM	0	1	0	0	1	0	2	1	1	3	0	0	0	0	0	2	3	0	0	5	1	9	10
Total	0	2	3	1	5	0	5	2	2	7	0	1	0	0	1	3	7	0	0	10	3	23	26
Grand Total	1	2	7	2	10	0	13	3	3	16	1	2	0	0	3	4	12	0	0	16	5	45	50
Apprch %	10	20	70			0	81.2	18.8			33.3	66.7	0			25	75	0					
Total %	2.2	4.4	15.6		22.2	0	28.9	6.7		35.6	2.2	4.4	0		6.7	8.9	26.7	0		35.6	10	90	

3.1-10

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	2	0	2	0	0	0	0	**1**	1	0	**2**	5
07:15 AM	**1**	0	0	1	0	1	0	1	0	0	0	0	0	**2**	0	2	4
07:30 AM	0	0	1	1	0	1	0	1	**1**	**1**	0	**2**	0	1	0	1	5
07:45 AM	0	0	**2**	**2**	0	**4**	**1**	**5**	0	0	0	0	0	1	0	1	**8**
Total Volume	1	0	4	5	0	8	1	9	1	1	0	2	1	5	0	6	22
% App. Total	20	0	80		0	88.9	11.1		50	50	0		16.7	83.3	0		
PHF	.250	.000	.500	.625	.000	.500	.250	.450	.250	.250	.000	.250	.250	.625	.000	.750	.688

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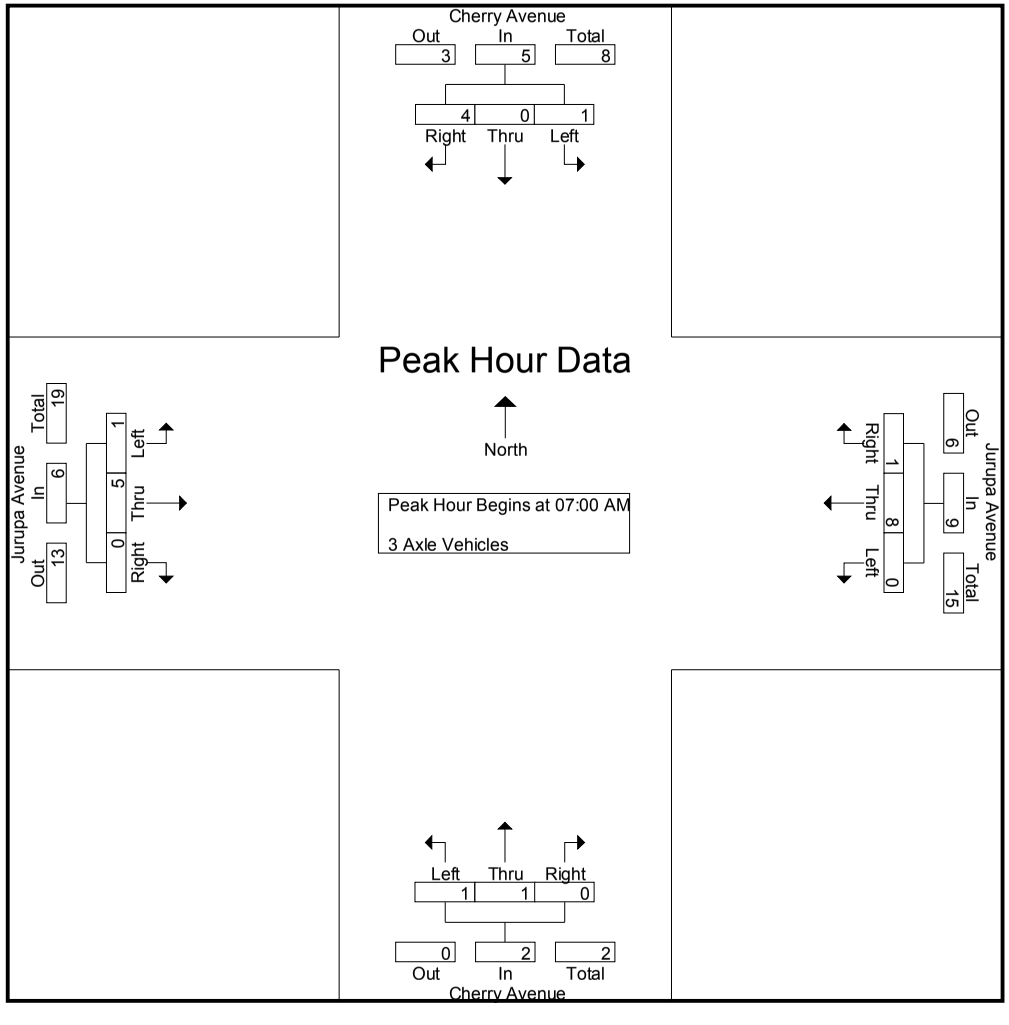

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City of Fontana
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File Name : 01_FON_Cherry_Jurupa AM
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	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	1	1	0	2	0	2	0	0	0	0	**1**	1	0	**2**	
+15 mins.	**1**	0	0	1	0	1	0	1	0	0	0	0	0	**2**	0	2	
+30 mins.	0	0	1	1	0	1	0	1	**1**	**1**	0	**2**	0	1	0	1	
+45 mins.	0	0	**2**	**2**	0	**4**	**1**	**5**	0	0	0	0	0	1	0	1	
Total Volume	1	0	4	5	0	8	1	9	1	1	0	2	1	5	0	6	
% App. Total	20	0	80		0	88.9	11.1		50	50	0		16.7	83.3	0		
PHF	.250	.000	.500	.625	.000	.500	.250	.450	.250	.250	.000	.250	.250	.625	.000	.750	

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Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- 4+ Axle Trucks

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	0	1	0	4	0	6	2	0	8	0	0	0	0	0	2	1	0	0	3	0	15	15
07:15 AM	0	0	4	3	4	0	7	2	1	9	0	0	0	0	0	1	6	0	0	7	4	20	24
07:30 AM	2	0	3	2	5	0	7	2	1	9	0	0	0	0	0	2	7	0	0	9	3	23	26
07:45 AM	1	0	4	1	5	0	6	0	0	6	0	0	0	0	0	3	3	0	0	6	1	17	18
Total	6	0	12	6	18	0	26	6	2	32	0	0	0	0	0	8	17	0	0	25	8	75	83
08:00 AM	0	0	2	2	2	0	5	2	0	7	0	0	0	0	0	0	9	0	0	9	2	18	20
08:15 AM	0	0	8	2	8	0	14	1	0	15	0	1	0	0	1	0	4	0	0	4	2	28	30
08:30 AM	2	0	9	2	11	0	7	1	0	8	0	0	0	0	0	4	4	0	0	8	2	27	29
08:45 AM	0	0	10	5	10	0	13	2	1	15	0	0	0	0	0	3	7	0	0	10	6	35	41
Total	2	0	29	11	31	0	39	6	1	45	0	1	0	0	1	7	24	0	0	31	12	108	120
Grand Total	8	0	41	17	49	0	65	12	3	77	0	1	0	0	1	15	41	0	0	56	20	183	203
Apprch %	16.3	0	83.7			0	84.4	15.6			0	100	0			26.8	73.2	0					
Total %	4.4	0	22.4		26.8	0	35.5	6.6		42.1	0	0.5	0		0.5	8.2	22.4	0		30.6	9.9	90.1	

3.1-13

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**3**	0	1	4	0	6	**2**	8	0	0	0	0	2	1	0	3	15
07:15 AM	0	0	**4**	4	0	**7**	2	**9**	0	0	0	0	1	6	0	7	20
07:30 AM	2	0	3	**5**	0	7	2	9	0	0	0	0	2	**7**	0	**9**	**23**
07:45 AM	1	0	4	5	0	6	0	6	0	0	0	0	**3**	3	0	6	17
Total Volume	6	0	12	18	0	26	6	32	0	0	0	0	8	17	0	25	75
% App. Total	33.3	0	66.7		0	81.2	18.8		0	0	0		32	68	0		
PHF	.500	.000	.750	.900	.000	.929	.750	.889	.000	.000	.000	.000	.667	.607	.000	.694	.815

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Site Code : 05119181
Start Date : 3/14/2019
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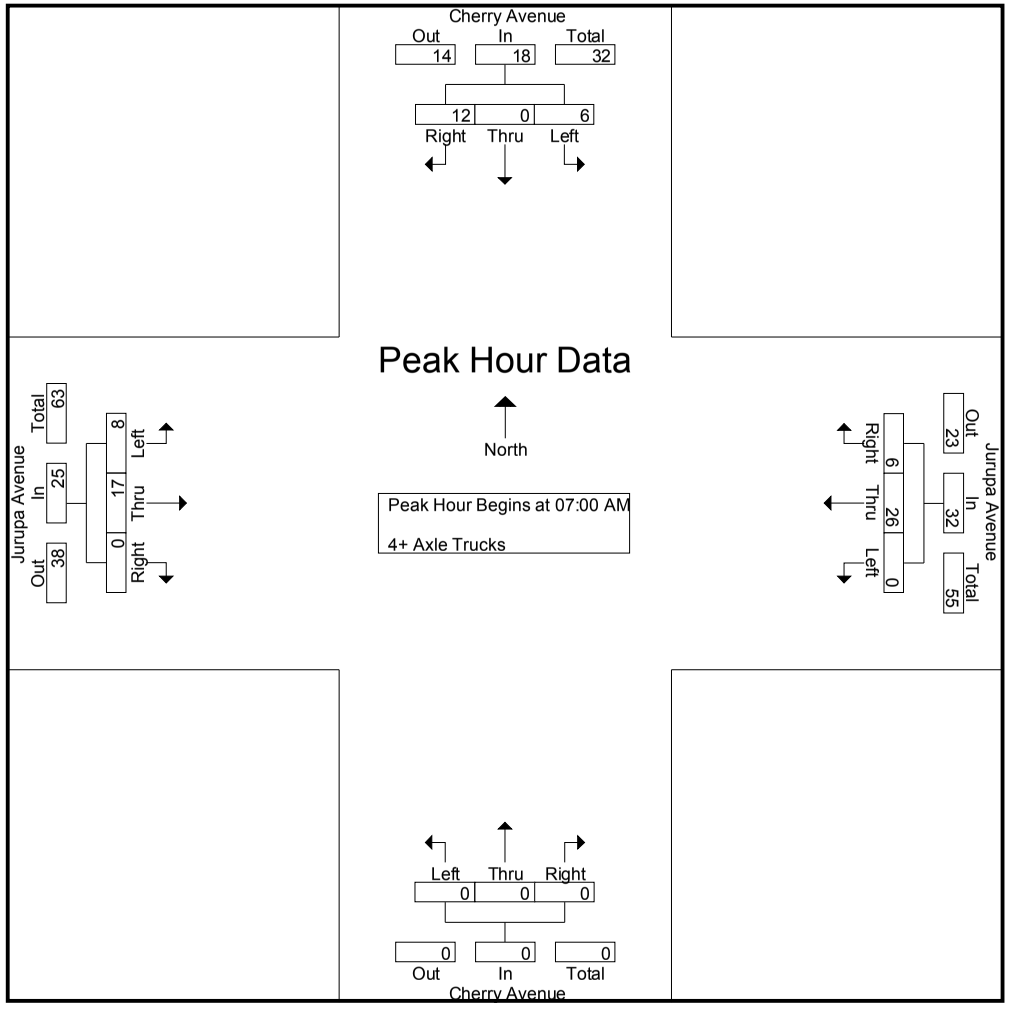

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Start Date : 3/14/2019
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	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**3**	0	1	4	0	6	**2**	8	0	0	0	0	2	1	0	3	
+15 mins.	0	0	**4**	4	0	**7**	2	**9**	0	0	0	0	1	6	0	7	
+30 mins.	2	0	3	**5**	0	7	2	9	0	0	0	0	2	**7**	0	**9**	
+45 mins.	1	0	4	5	0	6	0	6	0	0	0	0	**3**	3	0	6	
Total Volume	6	0	12	18	0	26	6	32	0	0	0	0	8	17	0	25	
% App. Total	33.3	0	66.7		0	81.2	18.8		0	0	0		32	68	0		
PHF	.500	.000	.750	.900	.000	.929	.750	.889	.000	.000	.000	.000	.667	.607	.000	.694	

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Site Code : 05119181
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	35	111	44	24	190	12	73	15	5	100	12	86	9	2	107	81	206	31	1	318	32	715	747
04:15 PM	36	120	48	17	204	15	86	20	6	121	11	70	18	10	99	48	201	35	5	284	38	708	746
04:30 PM	43	103	48	29	194	17	80	20	7	117	20	85	11	7	116	63	202	19	3	284	46	711	757
04:45 PM	43	112	38	16	193	9	65	23	14	97	12	73	16	4	101	95	235	31	6	361	40	752	792
Total	157	446	178	86	781	53	304	78	32	435	55	314	54	23	423	287	844	116	15	1247	156	2886	3042
05:00 PM	48	109	51	23	208	11	89	23	9	123	14	80	10	4	104	76	183	35	13	294	49	729	778
05:15 PM	51	100	47	31	198	16	77	21	13	114	12	80	11	0	103	62	195	22	8	279	52	694	746
05:30 PM	35	117	45	25	197	9	68	14	8	91	12	80	19	6	111	60	186	24	8	270	47	669	716
05:45 PM	51	132	34	21	217	15	60	22	12	97	8	73	10	6	91	52	170	15	3	237	42	642	684
Total	185	458	177	100	820	51	294	80	42	425	46	313	50	16	409	250	734	96	32	1080	190	2734	2924
Grand Total	342	904	355	186	1601	104	598	158	74	860	101	627	104	39	832	537	1578	212	47	2327	346	5620	5966
Apprch %	21.4	56.5	22.2			12.1	69.5	18.4			12.1	75.4	12.5			23.1	67.8	9.1					
Total %	6.1	16.1	6.3		28.5	1.9	10.6	2.8		15.3	1.8	11.2	1.9		14.8	9.6	28.1	3.8		41.4	5.8	94.2	
Passenger Vehicles	333	893	322		1723	100	509	134		812	101	619	101		859	490	1425	209		2171	0	0	5565
% Passenger Vehicles	97.4	98.8	90.7	94.1	96.4	96.2	85.1	84.8	93.2	86.9	100	98.7	97.1	97.4	98.6	91.2	90.3	98.6	100	91.4	0	0	93.3
Large 2 Axle Vehicles	2	11	8		23	3	28	4		37	0	7	3		11	12	41	2		55	0	0	126
% Large 2 Axle Vehicles	0.6	1.2	2.3	1.1	1.3	2.9	4.7	2.5	2.7	4	0	1.1	2.9	2.6	1.3	2.2	2.6	0.9	0	2.3	0	0	2.1
3 Axle Vehicles	1	0	6		10	1	12	8		22	0	0	0		0	11	16	1		28	0	0	60
% 3 Axle Vehicles	0.3	0	1.7	1.6	0.6	1	2	5.1	1.4	2.4	0	0	0	0	0	2	1	0.5	0	1.2	0	0	1
4+ Axle Trucks	6	0	19		31	0	49	12		63	0	1	0		1	24	96	0		120	0	0	215
% 4+ Axle Trucks	1.8	0	5.4	3.2	1.7	0	8.2	7.6	2.7	6.7	0	0.2	0	0	0.1	4.5	6.1	0	0	5.1	0	0	3.6

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM																	
04:15 PM	36	**120**	48	204	15	86	20	121	11	70	**18**	99	48	201	**35**	284	708
04:30 PM	43	103	48	194	**17**	80	20	117	**20**	**85**	11	**116**	63	202	19	284	711
04:45 PM	43	112	38	193	9	65	**23**	97	12	73	16	101	**95**	**235**	31	**361**	**752**
05:00 PM	**48**	109	**51**	**208**	11	**89**	23	**123**	14	80	10	104	76	183	35	294	729
Total Volume	170	444	185	799	52	320	86	458	57	308	55	420	282	821	120	1223	2900
% App. Total	21.3	55.6	23.2		11.4	69.9	18.8		13.6	73.3	13.1		23.1	67.1	9.8		
PHF	.885	.925	.907	.960	.765	.899	.935	.931	.713	.906	.764	.905	.742	.873	.857	.847	.964

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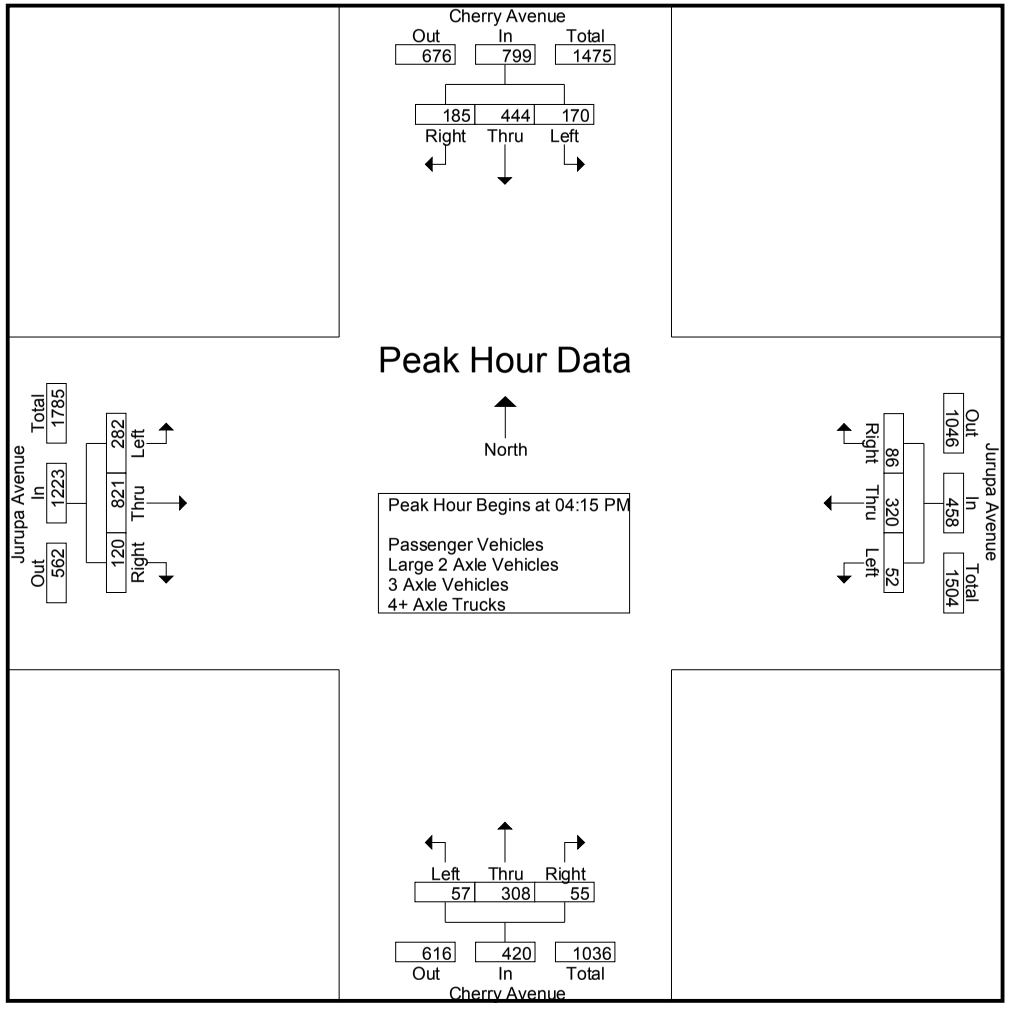

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	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:15 PM				04:30 PM				04:00 PM				
+0 mins.	48	109	**51**	208	15	86	20	121	**20**	**85**	11	**116**	81	206	31	318	
+15 mins.	**51**	100	47	198	**17**	80	20	117	12	73	**16**	101	48	201	**35**	284	
+30 mins.	35	117	45	197	9	65	**23**	97	14	80	10	104	63	202	19	284	
+45 mins.	51	**132**	34	**217**	11	**89**	23	**123**	12	80	11	103	**95**	**235**	31	**361**	
Total Volume	185	458	177	820	52	320	86	458	58	318	48	424	287	844	116	1247	
% App. Total	22.6	55.9	21.6		11.4	69.9	18.8		13.7	75	11.3		23	67.7	9.3		
PHF	.907	.867	.868	.945	.765	.899	.935	.931	.725	.935	.750	.914	.755	.898	.829	.864	

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Groups Printed- Passenger Vehicles

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	35	110	43	23	188	12	60	11	4	83	12	85	9	2	106	72	186	29	1	287	30	664	694
04:15 PM	36	120	41	15	197	14	75	14	6	103	11	67	17	9	95	46	181	34	5	261	35	656	691
04:30 PM	40	100	46	28	186	16	71	19	6	106	20	84	11	7	115	57	191	19	3	267	44	674	718
04:45 PM	41	112	31	14	184	9	52	20	12	81	12	71	15	4	98	87	215	31	6	333	36	696	732
Total	152	442	161	80	755	51	258	64	28	373	55	307	52	22	414	262	773	113	15	1148	145	2690	2835
05:00 PM	48	109	45	21	202	11	74	20	9	105	14	80	10	4	104	70	165	35	13	270	47	681	728
05:15 PM	49	100	44	30	193	14	67	17	12	98	12	80	10	0	102	58	166	22	8	246	50	639	689
05:30 PM	35	115	41	23	191	9	56	13	8	78	12	80	19	6	111	52	168	24	8	244	45	624	669
05:45 PM	49	127	31	21	207	15	54	20	12	89	8	72	10	6	90	48	153	15	3	216	42	602	644
Total	181	451	161	95	793	49	251	70	41	370	46	312	49	16	407	228	652	96	32	976	184	2546	2730
Grand Total	333	893	322	175	1548	100	509	134	69	743	101	619	101	38	821	490	1425	209	47	2124	329	5236	5565
Apprch %	21.5	57.7	20.8			13.5	68.5	18			12.3	75.4	12.3			23.1	67.1	9.8					
Total %	6.4	17.1	6.1		29.6	1.9	9.7	2.6		14.2	1.9	11.8	1.9		15.7	9.4	27.2	4		40.6	5.9	94.1	

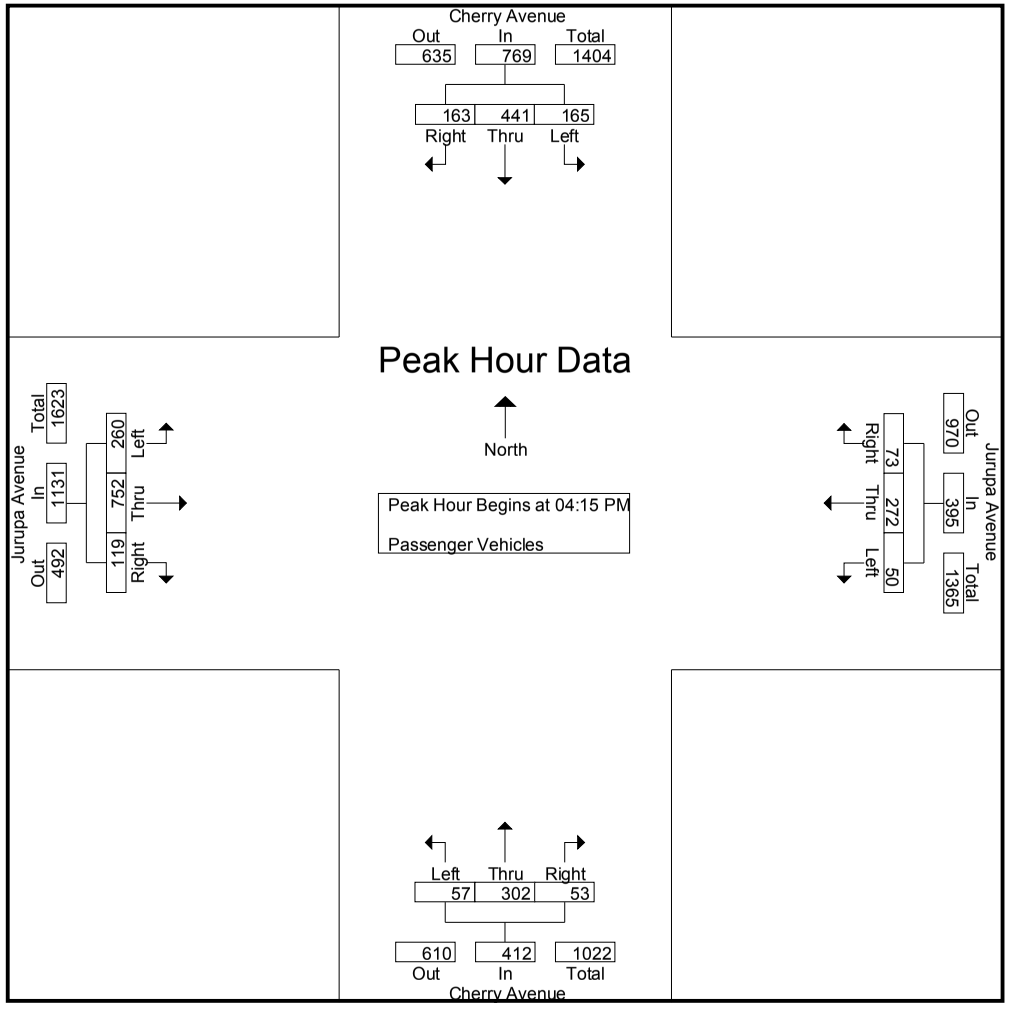
3.1-19

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	36	**120**	41	197	14	**75**	14	103	11	67	**17**	95	46	181	34	261	656
04:30 PM	40	100	**46**	186	**16**	71	19	**106**	**20**	**84**	11	**115**	57	191	19	267	674
04:45 PM	41	112	31	184	9	52	**20**	81	12	71	15	98	**87**	**215**	31	**333**	**696**
05:00 PM	**48**	109	45	**202**	11	74	20	105	14	80	10	104	70	165	**35**	270	681
Total Volume	165	441	163	769	50	272	73	395	57	302	53	412	260	752	119	1131	2707
% App. Total	21.5	57.3	21.2		12.7	68.9	18.5		13.8	73.3	12.9		23	66.5	10.5		
PHF	.859	.919	.886	.952	.781	.907	.913	.932	.713	.899	.779	.896	.747	.874	.850	.849	.972

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

City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	36	**120**	41	197	14	**75**	14	103	11	67	**17**	95	46	181	34	261	
+15 mins.	40	100	**46**	186	**16**	71	19	**106**	**20**	**84**	11	**115**	57	191	19	267	
+30 mins.	41	112	31	184	9	52	**20**	81	12	71	15	98	**87**	**215**	31	**333**	
+45 mins.	**48**	109	45	**202**	11	74	20	105	14	80	10	104	70	165	**35**	270	
Total Volume	165	441	163	769	50	272	73	395	57	302	53	412	260	752	119	1131	
% App. Total	21.5	57.3	21.2		12.7	68.9	18.5		13.8	73.3	12.9		23	66.5	10.5		
PHF	.859	.919	.886	.952	.781	.907	.913	.932	.713	.899	.779	.896	.747	.874	.850	.849	

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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	0	5	2	1	7	0	1	0	0	1	3	8	2	0	13	1	22	23
04:15 PM	0	0	3	1	3	1	3	0	0	4	0	2	1	1	3	0	5	0	0	5	2	15	17
04:30 PM	1	3	0	0	4	1	3	0	0	4	0	1	0	0	1	4	4	0	0	8	0	17	17
04:45 PM	0	0	2	0	2	0	3	0	0	3	0	2	1	0	3	1	5	0	0	6	0	14	14
Total	1	4	5	1	10	2	14	2	1	18	0	6	2	1	8	8	22	2	0	32	3	68	71
05:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	8	8
05:15 PM	0	0	1	0	1	1	4	2	1	7	0	0	1	0	1	1	6	0	0	7	1	16	17
05:30 PM	0	2	2	1	4	0	3	0	0	3	0	0	0	0	0	3	6	0	0	9	1	16	17
05:45 PM	1	5	0	0	6	0	3	0	0	3	0	1	0	0	1	0	3	0	0	3	0	13	13
Total	1	7	3	1	11	1	14	2	1	17	0	1	1	0	2	4	19	0	0	23	2	53	55
Grand Total	2	11	8	2	21	3	28	4	2	35	0	7	3	1	10	12	41	2	0	55	5	121	126
Apprch %	9.5	52.4	38.1			8.6	80	11.4			0	70	30			21.8	74.5	3.6					
Total %	1.7	9.1	6.6		17.4	2.5	23.1	3.3		28.9	0	5.8	2.5		8.3	9.9	33.9	1.7		45.5	4	96	

3.1-22

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	**3**	3	**1**	3	0	**4**	0	**2**	**1**	**3**	0	**5**	0	5	15
04:30 PM	**1**	**3**	0	**4**	1	3	0	4	0	1	0	1	**4**	4	0	**8**	**17**
04:45 PM	0	0	2	2	0	3	0	3	0	2	1	3	1	5	0	6	14
05:00 PM	0	0	0	0	0	**4**	0	4	0	0	0	0	0	4	0	4	8
Total Volume	1	3	5	9	2	13	0	15	0	5	2	7	5	18	0	23	54
% App. Total	11.1	33.3	55.6		13.3	86.7	0		0	71.4	28.6		21.7	78.3	0		
PHF	.250	.250	.417	.563	.500	.813	.000	.938	.000	.625	.500	.583	.313	.900	.000	.719	.794

Counts Unlimited
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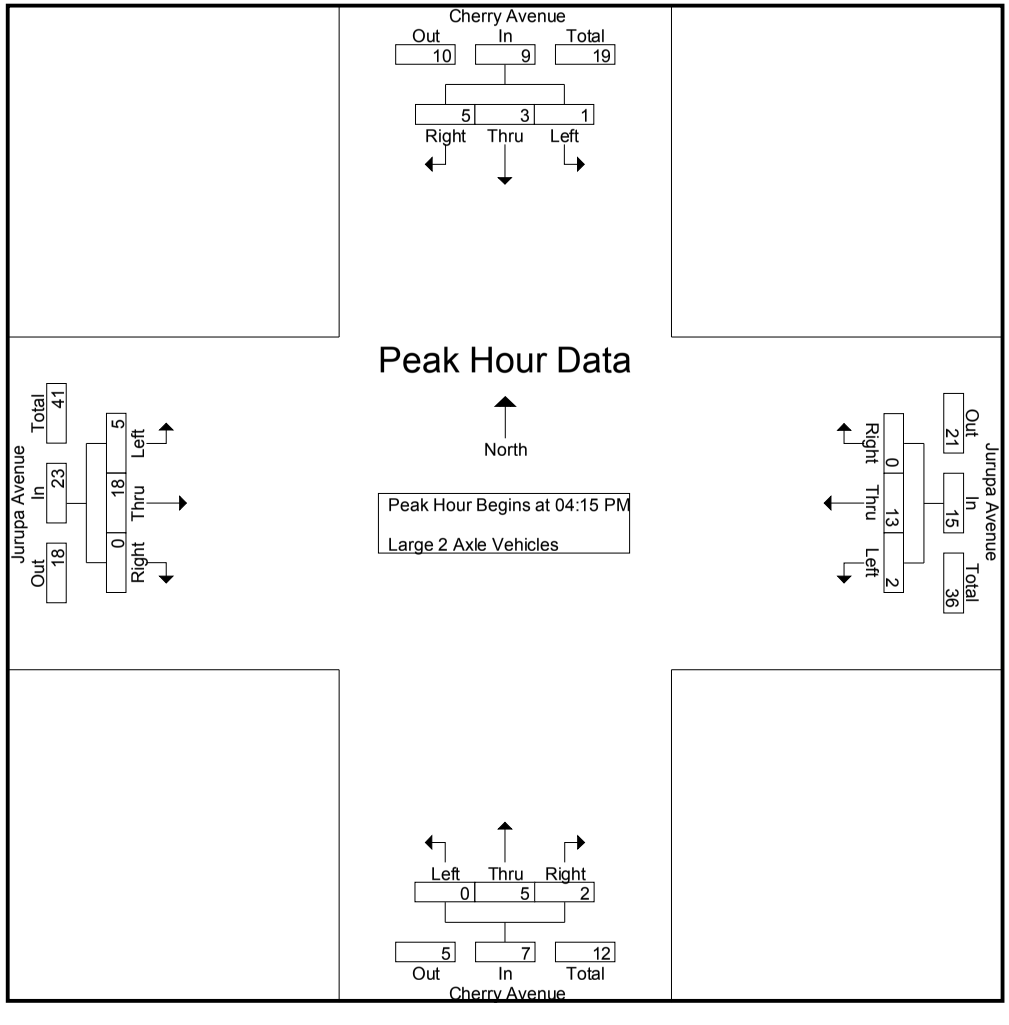
City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	**3**	3	**1**	3	0	**4**	0	**2**	**1**	**3**	0	**5**	0	5	
+15 mins.	**1**	**3**	0	**4**	1	3	0	4	0	1	0	1	**4**	4	0	**8**	
+30 mins.	0	0	2	2	0	3	0	3	0	2	1	3	1	5	0	6	
+45 mins.	0	0	0	0	0	**4**	0	4	0	0	0	0	0	4	0	4	
Total Volume	1	3	5	9	2	13	0	15	0	5	2	7	5	18	0	23	
% App. Total	11.1	33.3	55.6		13.3	86.7	0		0	71.4	28.6		21.7	78.3	0		
PHF	.250	.250	.417	.563	.500	.813	.000	.938	.000	.625	.500	.583	.313	.900	.000	.719	

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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	2	1	2	0	3	4	0	7	0	0	0	0	0	1	4	1	0	6	1	15	16
04:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	2	2
04:45 PM	0	0	0	0	0	0	1	2	1	3	0	0	0	0	0	2	3	0	0	5	1	8	9
Total	0	0	2	1	2	0	5	6	1	11	0	0	0	0	0	4	7	1	0	12	2	25	27
05:00 PM	0	0	2	1	2	0	2	1	0	3	0	0	0	0	0	1	3	0	0	4	1	9	10
05:15 PM	1	0	0	0	1	1	1	1	0	3	0	0	0	0	0	2	4	0	0	6	0	10	10
05:30 PM	0	0	1	1	1	0	4	0	0	4	0	0	0	0	0	3	1	0	0	4	1	9	10
05:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	3	3
Total	1	0	4	2	5	1	7	2	0	10	0	0	0	0	0	7	9	0	0	16	2	31	33
Grand Total	1	0	6	3	7	1	12	8	1	21	0	0	0	0	0	11	16	1	0	28	4	56	60
Apprch %	14.3	0	85.7			4.8	57.1	38.1			0	0	0			39.3	57.1	3.6					
Total %	1.8	0	10.7		12.5	1.8	21.4	14.3		37.5	0	0	0		0	19.6	28.6	1.8		50	6.7	93.3	

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	**2**	**2**	0	**3**	**4**	**7**	0	0	0	0	1	**4**	**1**	**6**	**15**
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	2
04:45 PM	0	0	0	0	0	1	2	3	0	0	0	0	**2**	3	0	5	8
05:00 PM	0	0	2	2	0	2	1	3	0	0	0	0	1	3	0	4	9
Total Volume	0	0	4	4	0	7	7	14	0	0	0	0	5	10	1	16	34
% App. Total	0	0	100		0	50	50		0	0	0		31.2	62.5	6.2		
PHF	.000	.000	.500	.500	.000	.583	.438	.500	.000	.000	.000	.000	.625	.625	.250	.667	.567

Counts Unlimited
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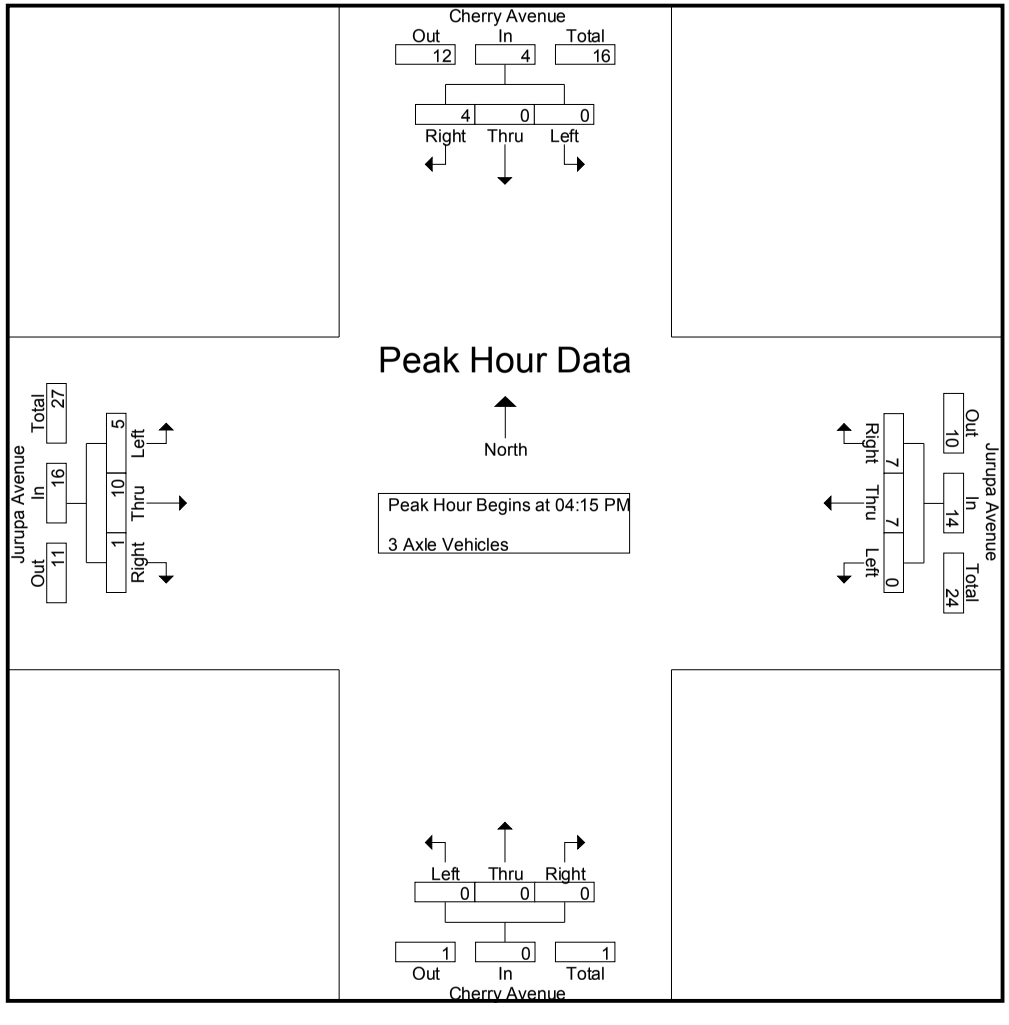
City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	**2**	**2**	0	**3**	**4**	**7**	0	0	0	0	1	**4**	**1**	**6**	
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	
+30 mins.	0	0	0	0	0	1	2	3	0	0	0	0	**2**	3	0	5	
+45 mins.	0	0	2	2	0	2	1	3	0	0	0	0	1	3	0	4	
Total Volume	0	0	4	4	0	7	7	14	0	0	0	0	5	10	1	16	
% App. Total	0	0	100		0	50	50		0	0	0		31.2	62.5	6.2		
PHF	.000	.000	.500	.500	.000	.583	.438	.500	.000	.000	.000	.000	.625	.625	.250	.667	

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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Cherry Avenue Southbound					Jurupa Avenue Westbound					Cherry Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	1	1	0	8	2	0	10	0	0	0	0	0	6	12	0	0	18	1	29	30
04:15 PM	0	0	2	0	2	0	5	2	0	7	0	1	0	0	1	1	11	0	0	12	0	22	22
04:30 PM	2	0	2	1	4	0	5	1	1	6	0	0	0	0	0	1	7	0	0	8	2	18	20
04:45 PM	2	0	5	2	7	0	9	1	1	10	0	0	0	0	0	5	12	0	0	17	3	34	37
Total	4	0	10	4	14	0	27	6	2	33	0	1	0	0	1	13	42	0	0	55	6	103	109
05:00 PM	0	0	4	1	4	0	9	2	0	11	0	0	0	0	0	5	11	0	0	16	1	31	32
05:15 PM	1	0	2	1	3	0	5	1	0	6	0	0	0	0	0	1	19	0	0	20	1	29	30
05:30 PM	0	0	1	0	1	0	5	1	0	6	0	0	0	0	0	2	11	0	0	13	0	20	20
05:45 PM	1	0	2	0	3	0	3	2	0	5	0	0	0	0	0	3	13	0	0	16	0	24	24
Total	2	0	9	2	11	0	22	6	0	28	0	0	0	0	0	11	54	0	0	65	2	104	106
Grand Total	6	0	19	6	25	0	49	12	2	61	0	1	0	0	1	24	96	0	0	120	8	207	215
Apprch %	24	0	76			0	80.3	19.7			0	100	0			20	80	0					
Total %	2.9	0	9.2		12.1	0	23.7	5.8		29.5	0	0.5	0		0.5	11.6	46.4	0		58	3.7	96.3	

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	2	2	0	5	**2**	7	0	**1**	0	**1**	1	11	0	12	22
04:30 PM	**2**	0	2	4	0	5	1	6	0	0	0	0	1	7	0	8	18
04:45 PM	2	0	**5**	**7**	0	**9**	1	10	0	0	0	0	**5**	**12**	0	**17**	**34**
05:00 PM	0	0	4	4	0	9	2	**11**	0	0	0	0	5	11	0	16	31
Total Volume	4	0	13	17	0	28	6	34	0	1	0	1	12	41	0	53	105
% App. Total	23.5	0	76.5		0	82.4	17.6		0	100	0		22.6	77.4	0		
PHF	.500	.000	.650	.607	.000	.778	.750	.773	.000	.250	.000	.250	.600	.854	.000	.779	.772

Counts Unlimited
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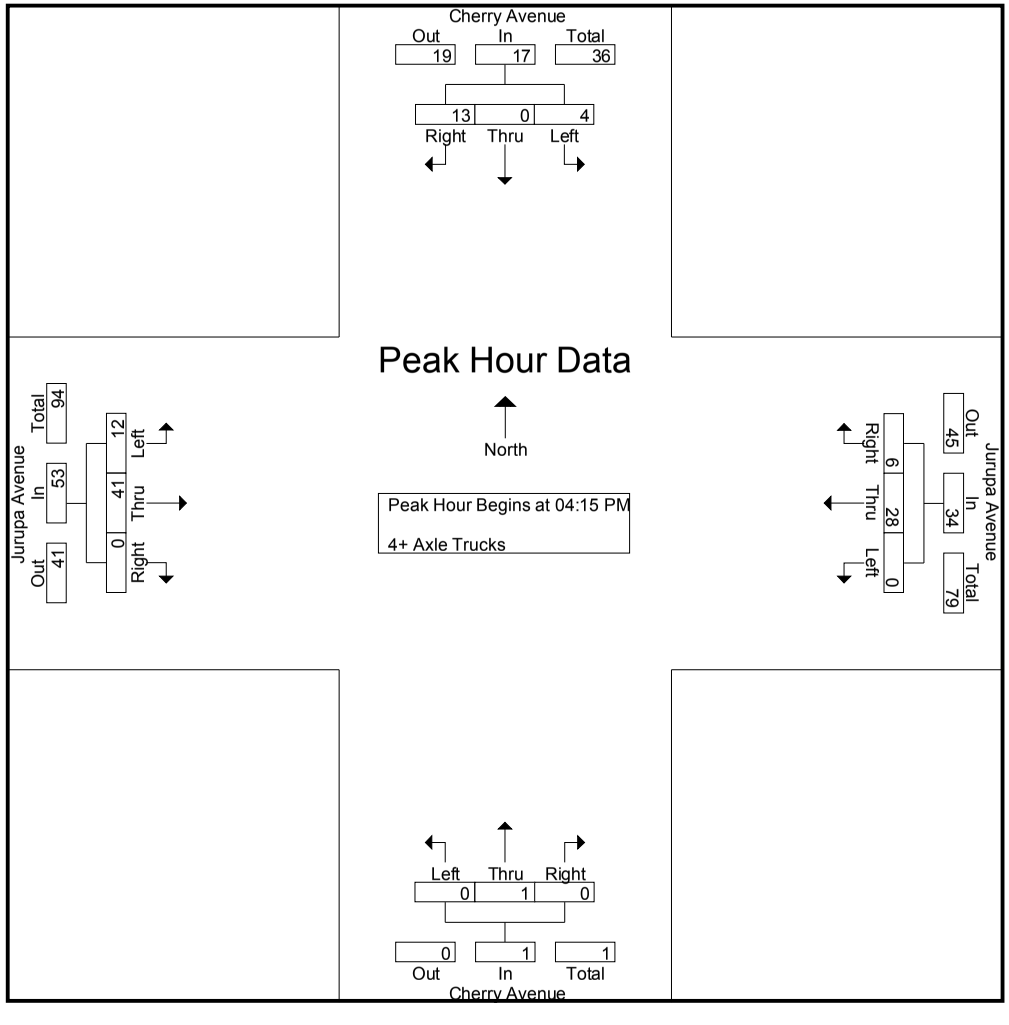
City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 01_FON_Cherry_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cherry Avenue Southbound				Jurupa Avenue Westbound				Cherry Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	2	2	0	5	**2**	7	0	**1**	0	**1**	1	11	0	12	
+15 mins.	**2**	0	2	4	0	5	1	6	0	0	0	0	1	7	0	8	
+30 mins.	2	0	**5**	**7**	0	**9**	1	10	0	0	0	0	**5**	**12**	0	**17**	
+45 mins.	0	0	4	4	0	9	2	**11**	0	0	0	0	5	11	0	16	
Total Volume	4	0	13	17	0	28	6	34	0	1	0	1	12	41	0	53	
% App. Total	23.5	0	76.5		0	82.4	17.6		0	100	0		22.6	77.4	0		
PHF	.500	.000	.650	.607	.000	.778	.750	.773	.000	.250	.000	.250	.600	.854	.000	.779	

Location: Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Cherry Avenue	East Leg Jurupa Avenue	South Leg Cherry Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	15	0	5	39	59
7:15 AM	34	24	11	74	143
7:30 AM	5	3	1	10	19
7:45 AM	0	0	2	3	5
8:00 AM	0	1	1	0	2
8:15 AM	0	2	0	0	2
8:30 AM	0	1	0	1	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	54	31	20	127	232

	North Leg Cherry Avenue	East Leg Jurupa Avenue	South Leg Cherry Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	3	3
4:15 PM	0	0	1	1	2
4:30 PM	1	0	1	2	4
4:45 PM	0	0	0	3	3
5:00 PM	1	0	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	2	0	2	10	14

Location: Fontana
N/S: Cherry Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Cherry Avenue			Westbound Jurupa Avenue			Northbound Cherry Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	0	0	1	0	0	0	0	0	3

	Southbound Cherry Avenue			Westbound Jurupa Avenue			Northbound Cherry Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	1	4	3	8	1	101	16	10	118	64	23	7	4	94	29	46	5	0	80	17	300	317
07:15 AM	0	1	11	8	12	1	98	11	5	110	56	30	1	0	87	15	52	5	2	72	15	281	296
07:30 AM	3	0	9	9	12	1	121	13	9	135	44	21	4	2	69	14	67	12	1	93	21	309	330
07:45 AM	1	1	5	3	7	1	117	6	0	124	57	10	0	0	67	23	78	7	1	108	4	306	310
Total	7	3	29	23	39	4	437	46	24	487	221	84	12	6	317	81	243	29	4	353	57	1196	1253
08:00 AM	5	1	11	6	17	0	79	8	4	87	39	17	1	0	57	22	73	11	2	106	12	267	279
08:15 AM	3	1	7	7	11	4	76	12	5	92	38	10	3	1	51	29	67	17	6	113	19	267	286
08:30 AM	1	0	13	8	14	3	69	10	6	82	25	10	2	2	37	29	69	19	2	117	18	250	268
08:45 AM	4	1	11	6	16	1	56	6	2	63	29	6	3	3	38	17	90	16	2	123	13	240	253
Total	13	3	42	27	58	8	280	36	17	324	131	43	9	6	183	97	299	63	12	459	62	1024	1086
Grand Total	20	6	71	50	97	12	717	82	41	811	352	127	21	12	500	178	542	92	16	812	119	2220	2339
Apprch %	20.6	6.2	73.2			1.5	88.4	10.1			70.4	25.4	4.2			21.9	66.7	11.3					
Total %	0.9	0.3	3.2		4.4	0.5	32.3	3.7		36.5	15.9	5.7	0.9		22.5	8	24.4	4.1		36.6	5.1	94.9	
Passenger Vehicles	10	6	35		81	11	639	72		761	349	127	21		509	151	494	90		749	0	0	2100
% Passenger Vehicles	50	100	49.3	60	55.1	91.7	89.1	87.8	95.1	89.3	99.1	100	100	100	99.4	84.8	91.1	97.8	87.5	90.5	0	0	89.8
Large 2 Axle Vehicles	1	0	11		17	1	25	3		29	2	0	0		2	13	23	1		38	0	0	86
% Large 2 Axle Vehicles	5	0	15.5	10	11.6	8.3	3.5	3.7	0	3.4	0.6	0	0	0	0.4	7.3	4.2	1.1	6.2	4.6	0	0	3.7
3 Axle Vehicles	0	0	2		3	0	22	2		26	1	0	0		1	3	9	1		14	0	0	44
% 3 Axle Vehicles	0	0	2.8	2	2	0	3.1	2.4	4.9	3.1	0.3	0	0	0	0.2	1.7	1.7	1.1	6.2	1.7	0	0	1.9
4+ Axle Trucks	9	0	23		46	0	31	5		36	0	0	0		0	11	16	0		27	0	0	109
% 4+ Axle Trucks	45	0	32.4	28	31.3	0	4.3	6.1	0	4.2	0	0	0	0	0	6.2	3	0	0	3.3	0	0	4.7

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 07:00 AM																	
07:00 AM	**3**	**1**	4	8	**1**	101	**16**	118	**64**	23	**7**	**94**	**29**	46	5	80	300
07:15 AM	0	1	**11**	**12**	1	98	11	110	56	**30**	1	87	15	52	5	72	281
07:30 AM	3	0	9	12	1	**121**	13	**135**	44	21	4	69	14	67	**12**	93	**309**
07:45 AM	1	1	5	7	1	117	6	124	57	10	0	67	23	**78**	7	**108**	306
Total Volume	7	3	29	39	4	437	46	487	221	84	12	317	81	243	29	353	1196
% App. Total	17.9	7.7	74.4		0.8	89.7	9.4		69.7	26.5	3.8		22.9	68.8	8.2		
PHF	.583	.750	.659	.813	1.00	.903	.719	.902	.863	.700	.429	.843	.698	.779	.604	.817	.968

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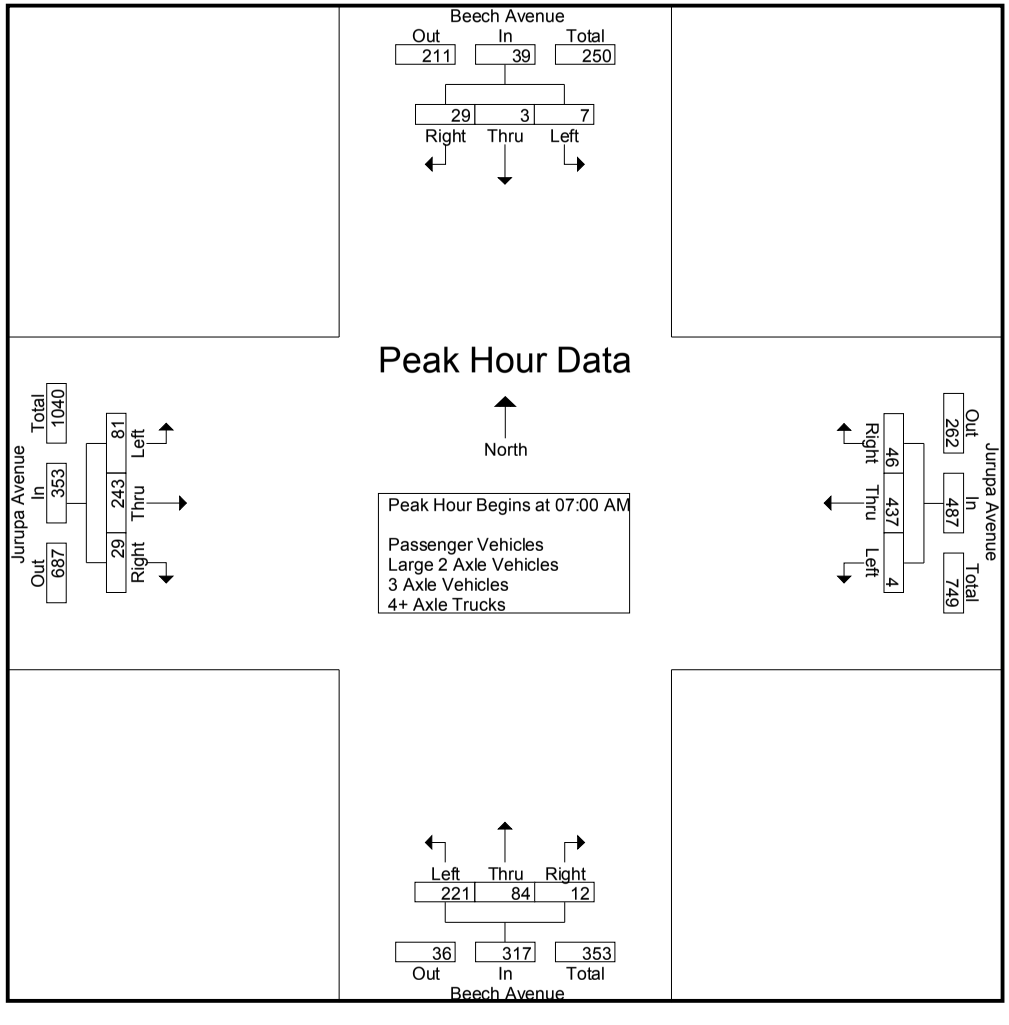
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Beech Avenue
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File Name : 02_FON_Beech_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	08:00 AM				07:00 AM				07:00 AM				08:00 AM				
+0 mins.	**5**	**1**	11	**17**	**1**	101	**16**	118	**64**	23	**7**	**94**	22	73	11	106	
+15 mins.	3	1	7	11	1	98	11	110	56	**30**	1	87	**29**	67	17	113	
+30 mins.	1	0	**13**	14	1	**121**	13	**135**	44	21	4	69	29	69	**19**	117	
+45 mins.	4	1	11	16	1	117	6	124	57	10	0	67	17	**90**	16	**123**	
Total Volume	13	3	42	58	4	437	46	487	221	84	12	317	97	299	63	459	
% App. Total	22.4	5.2	72.4		0.8	89.7	9.4		69.7	26.5	3.8		21.1	65.1	13.7		
PHF	.650	.750	.808	.853	1.000	.903	.719	.902	.863	.700	.429	.843	.836	.831	.829	.933	

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City of Fontana
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Weather: Clear

File Name : 02_FON_Beech_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	1	3	3	6	1	93	16	10	110	64	23	7	4	94	24	43	5	0	72	17	282	299
07:15 AM	0	1	4	4	5	1	95	10	5	106	55	30	1	0	86	13	47	5	2	65	11	262	273
07:30 AM	1	0	6	6	7	1	108	11	9	120	44	21	4	2	69	13	62	12	1	87	18	283	301
07:45 AM	1	1	3	2	5	1	101	6	0	108	57	10	0	0	67	21	72	6	0	99	2	279	281
Total	4	3	16	15	23	4	397	43	24	444	220	84	12	6	316	71	224	28	3	323	48	1106	1154
08:00 AM	2	1	6	4	9	0	67	6	4	73	39	17	1	0	57	17	64	11	2	92	10	231	241
08:15 AM	2	1	2	2	5	4	64	9	5	77	38	10	3	1	51	28	62	16	5	106	13	239	252
08:30 AM	1	0	7	5	8	2	62	9	5	73	25	10	2	2	37	22	64	19	2	105	14	223	237
08:45 AM	1	1	4	4	6	1	49	5	1	55	27	6	3	3	36	13	80	16	2	109	10	206	216
Total	6	3	19	15	28	7	242	29	15	278	129	43	9	6	181	80	270	62	11	412	47	899	946
Grand Total	10	6	35	30	51	11	639	72	39	722	349	127	21	12	497	151	494	90	14	735	95	2005	2100
Apprch %	19.6	11.8	68.6			1.5	88.5	10			70.2	25.6	4.2			20.5	67.2	12.2					
Total %	0.5	0.3	1.7		2.5	0.5	31.9	3.6		36	17.4	6.3	1		24.8	7.5	24.6	4.5		36.7	4.5	95.5	

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**2**	**1**	3	6	**1**	93	**16**	110	**64**	23	**7**	**94**	**24**	43	5	72	282
07:15 AM	0	1	4	5	1	95	10	106	55	**30**	1	86	13	47	5	65	262
07:30 AM	1	0	**6**	**7**	1	**108**	11	**120**	44	21	4	69	13	62	**12**	87	**283**
07:45 AM	1	1	3	5	1	101	6	108	57	10	0	67	21	**72**	6	**99**	279
Total Volume	4	3	16	23	4	397	43	444	220	84	12	316	71	224	28	323	1106
% App. Total	17.4	13	69.6		0.9	89.4	9.7		69.6	26.6	3.8		22	69.3	8.7		
PHF	.500	.750	.667	.821	1.00	.919	.672	.925	.859	.700	.429	.840	.740	.778	.583	.816	.977

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City of Fontana
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Weather: Clear

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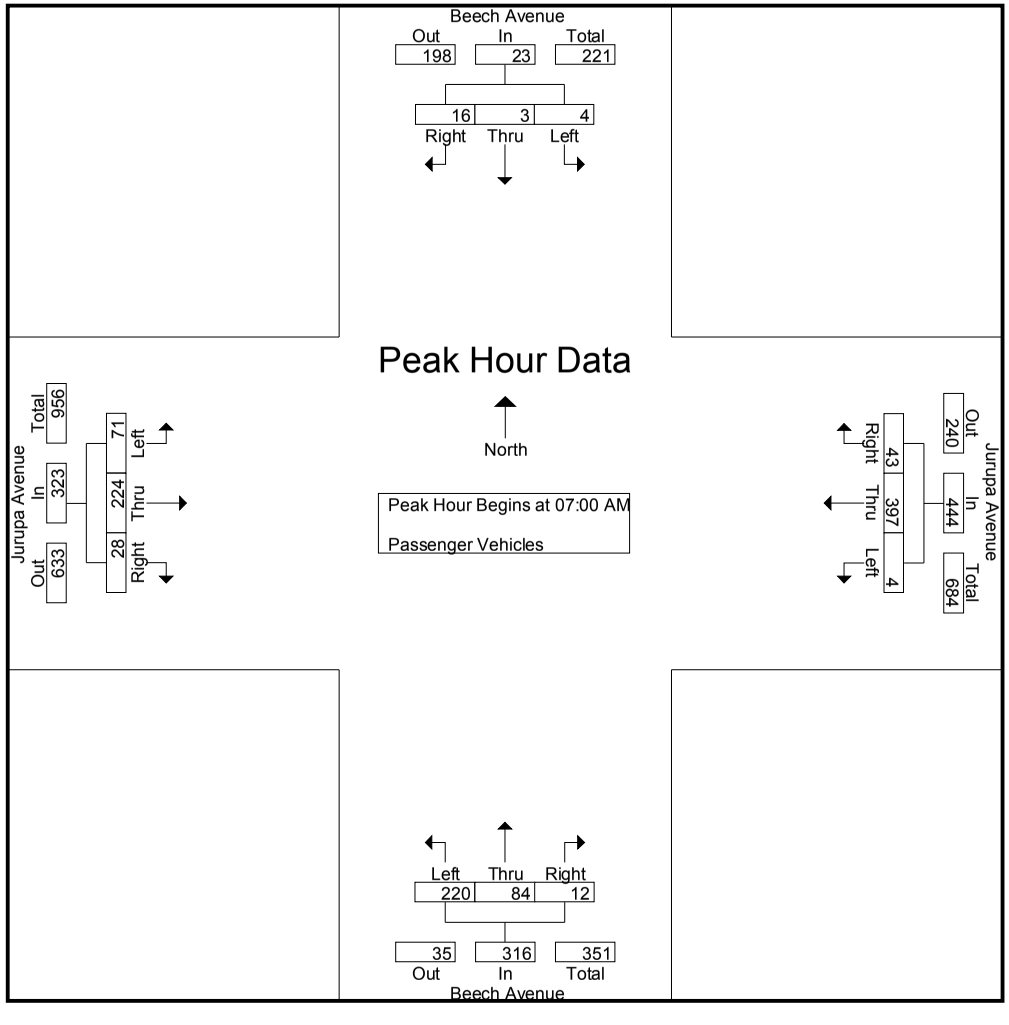
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Beech Avenue
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File Name : 02_FON_Beech_Jurupa AM
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Start Date : 3/14/2019
Page No : 3

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**2**	**1**	3	6	**1**	93	**16**	110	**64**	23	**7**	**94**	**24**	43	5	72	
+15 mins.	0	1	4	5	1	95	10	106	55	**30**	1	86	13	47	5	65	
+30 mins.	1	0	**6**	**7**	1	**108**	11	**120**	44	21	4	69	13	62	**12**	87	
+45 mins.	1	1	3	5	1	101	6	108	57	10	0	67	21	**72**	6	**99**	
Total Volume	4	3	16	23	4	397	43	444	220	84	12	316	71	224	28	323	
% App. Total	17.4	13	69.6		0.9	89.4	9.7		69.6	26.6	3.8		22	69.3	8.7		
PHF	.500	.750	.667	.821	1.000	.919	.672	.925	.859	.700	.429	.840	.740	.778	.583	.816	

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N/S: Beech Avenue
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Weather: Clear

File Name : 02_FON_Beech_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019

Groups Printed- Large 2 Axle Vehicles

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	1	0	2	0	3	0	0	3	0	0	0	0	0	1	2	0	0	3	0	8	8
07:15 AM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2	0	5	5
07:30 AM	0	0	2	2	2	0	4	1	0	5	0	0	0	0	0	0	3	0	0	3	2	10	12
07:45 AM	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	2	3	1	1	6	1	11	12
Total	1	0	6	2	7	0	11	1	0	12	1	0	0	0	1	3	10	1	1	14	3	34	37
08:00 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	1	5	0	0	6	0	8	8
08:15 AM	0	0	1	1	1	0	8	1	0	9	0	0	0	0	0	1	3	0	0	4	1	14	15
08:30 AM	0	0	2	1	2	1	2	0	0	3	0	0	0	0	0	6	1	0	0	7	1	12	13
08:45 AM	0	0	2	1	2	0	3	0	0	3	1	0	0	0	1	2	4	0	0	6	1	12	13
Total	0	0	5	3	5	1	14	2	0	17	1	0	0	0	1	10	13	0	0	23	3	46	49
Grand Total	1	0	11	5	12	1	25	3	0	29	2	0	0	0	2	13	23	1	1	37	6	80	86
Apprch %	8.3	0	91.7			3.4	86.2	10.3			100	0	0			35.1	62.2	2.7					
Total %	1.2	0	13.8		15	1.2	31.2	3.8		36.2	2.5	0	0		2.5	16.2	28.8	1.2		46.2	7	93	

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	0	1	**2**	0	3	0	3	0	0	0	0	1	2	0	3	8
07:15 AM	0	0	**2**	2	0	0	0	0	**1**	0	0	**1**	0	2	0	2	5
07:30 AM	0	0	2	2	0	**4**	**1**	**5**	0	0	0	0	0	**3**	0	3	10
07:45 AM	0	0	1	1	0	4	0	4	0	0	0	0	**2**	3	**1**	**6**	**11**
Total Volume	1	0	6	7	0	11	1	12	1	0	0	1	3	10	1	14	34
% App. Total	14.3	0	85.7		0	91.7	8.3		100	0	0		21.4	71.4	7.1		
PHF	.250	.000	.750	.875	.000	.688	.250	.600	.250	.000	.000	.250	.375	.833	.250	.583	.773

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File Name : 02_FON_Beech_Jurupa AM
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Start Date : 3/14/2019
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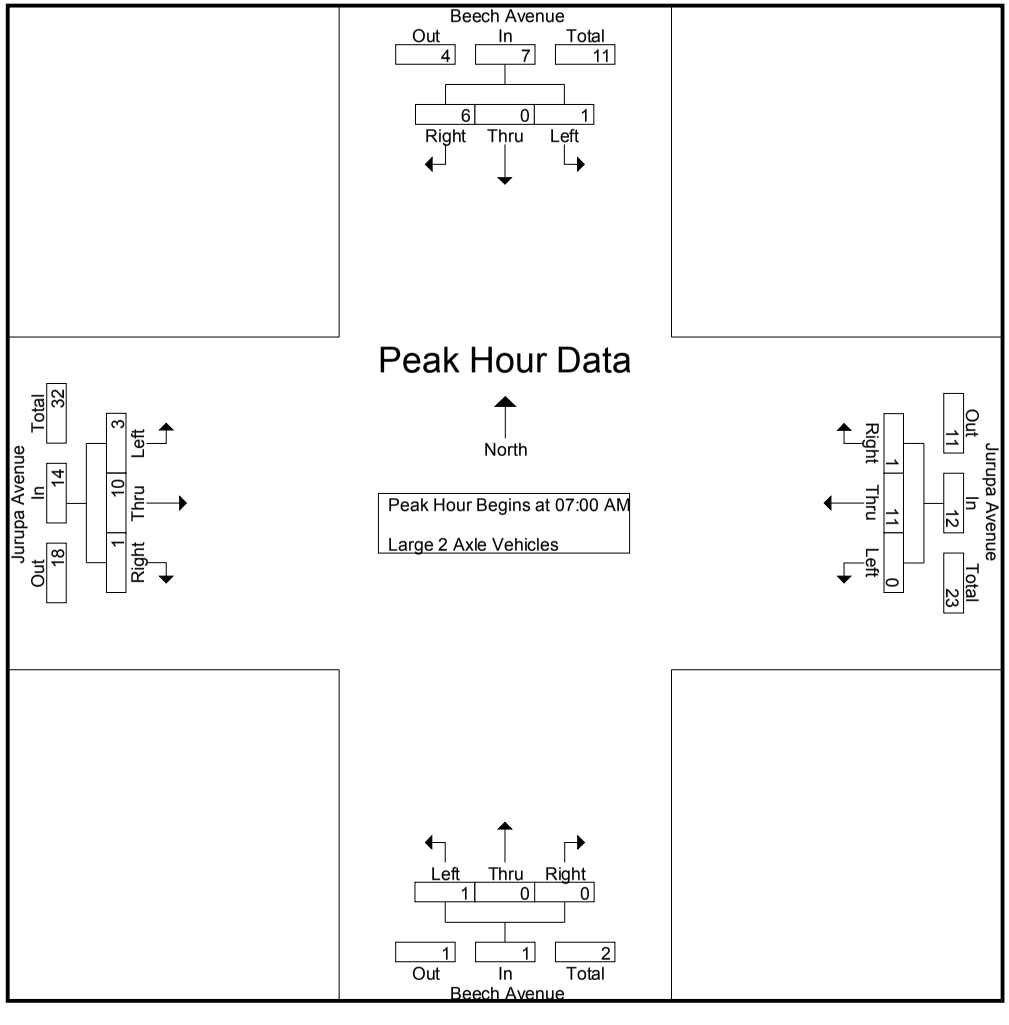

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City of Fontana
N/S: Beech Avenue
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File Name : 02_FON_Beech_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**1**	0	1	**2**	0	3	0	3	0	0	0	0	1	2	0	3	
+15 mins.	0	0	**2**	2	0	0	0	0	**1**	0	0	**1**	0	2	0	2	
+30 mins.	0	0	2	2	0	**4**	**1**	**5**	0	0	0	0	0	**3**	0	3	
+45 mins.	0	0	1	1	0	4	0	4	0	0	0	0	**2**	3	**1**	**6**	
Total Volume	1	0	6	7	0	11	1	12	1	0	0	1	3	10	1	14	
% App. Total	14.3	0	85.7		0	91.7	8.3		100	0	0		21.4	71.4	7.1		
PHF	.250	.000	.750	.875	.000	.688	.250	.600	.250	.000	.000	.250	.375	.833	.250	.583	

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E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	2	1	0	0	3	0	7	7
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
07:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
07:45 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	1	0	0	1	0	7	7
Total	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	2	5	0	0	7	0	19	19
08:00 AM	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	1	2	0	0	3	0	10	10
08:15 AM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	1	1	1	2	3	5
08:30 AM	0	0	0	0	0	0	1	1	1	2	0	0	0	0	0	0	1	0	0	1	1	3	4
08:45 AM	0	0	1	0	1	0	1	1	1	2	1	0	0	0	1	0	1	0	0	1	1	5	6
Total	0	0	2	1	2	0	10	2	2	12	1	0	0	0	1	1	4	1	1	6	4	21	25
Grand Total	0	0	2	1	2	0	22	2	2	24	1	0	0	0	1	3	9	1	1	13	4	40	44
Apprch %	0	0	100			0	91.7	8.3			100	0	0			23.1	69.2	7.7					
Total %	0	0	5		5	0	55	5		60	2.5	0	0		2.5	7.5	22.5	2.5		32.5	9.1	90.9	

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	4	0	4	0	0	0	0	**2**	1	0	**3**	**7**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	**2**	0	2	4
07:45 AM	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	1	0	1	7
Total Volume	0	0	0	0	0	12	0	12	0	0	0	0	2	5	0	7	19
% App. Total	0	0	0		0	100	0		0	0	0		28.6	71.4	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.250	.625	.000	.583	.679

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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa AM
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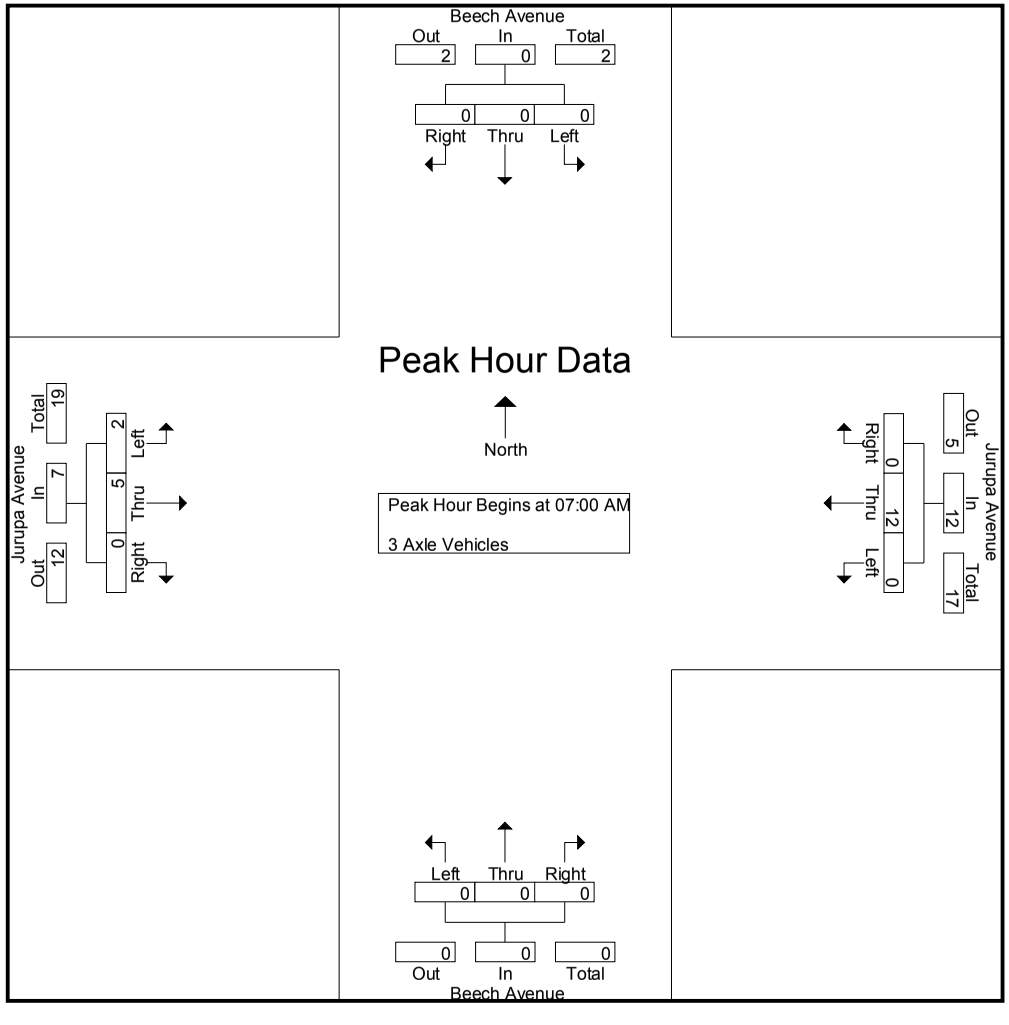

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City of Fontana
N/S: Beech Avenue
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File Name : 02_FON_Beech_Jurupa AM
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Start Date : 3/14/2019
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	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	4	0	4	0	0	0	0	**2**	1	0	**3**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	**2**	0	2	
+45 mins.	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	1	0	1	
Total Volume	0	0	0	0	0	12	0	12	0	0	0	0	2	5	0	7	
% App. Total	0	0	0		0	100	0		0	0	0		28.6	71.4	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.250	.625	.000	.583	

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City of Fontana
N/S: Beech Avenue
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Weather: Clear

File Name : 02_FON_Beech_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	3	3
07:15 AM	0	0	5	4	5	0	3	1	0	4	0	0	0	0	0	2	2	0	0	4	4	13	17
07:30 AM	2	0	1	1	3	0	7	1	0	8	0	0	0	0	0	1	0	0	0	1	1	12	13
07:45 AM	0	0	1	1	1	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	1	9	10
Total	2	0	7	6	9	0	17	2	0	19	0	0	0	0	0	5	4	0	0	9	6	37	43
08:00 AM	3	0	5	2	8	0	4	1	0	5	0	0	0	0	0	3	2	0	0	5	2	18	20
08:15 AM	1	0	3	3	4	0	3	2	0	5	0	0	0	0	0	0	2	0	0	2	3	11	14
08:30 AM	0	0	4	2	4	0	4	0	0	4	0	0	0	0	0	1	3	0	0	4	2	12	14
08:45 AM	3	0	4	1	7	0	3	0	0	3	0	0	0	0	0	2	5	0	0	7	1	17	18
Total	7	0	16	8	23	0	14	3	0	17	0	0	0	0	0	6	12	0	0	18	8	58	66
Grand Total	9	0	23	14	32	0	31	5	0	36	0	0	0	0	0	11	16	0	0	27	14	95	109
Apprch %	28.1	0	71.9			0	86.1	13.9			0	0	0			40.7	59.3	0					
Total %	9.5	0	24.2		33.7	0	32.6	5.3		37.9	0	0	0		0	11.6	16.8	0		28.4	12.8	87.2	

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	**2**	0	0	2	3
07:15 AM	0	0	**5**	**5**	0	3	**1**	4	0	0	0	0	2	**2**	0	**4**	**13**
07:30 AM	**2**	0	1	3	0	**7**	1	**8**	0	0	0	0	1	0	0	1	12
07:45 AM	0	0	1	1	0	6	0	6	0	0	0	0	0	2	0	2	9
Total Volume	2	0	7	9	0	17	2	19	0	0	0	0	5	4	0	9	37
% App. Total	22.2	0	77.8		0	89.5	10.5		0	0	0		55.6	44.4	0		
PHF	.250	.000	.350	.450	.000	.607	.500	.594	.000	.000	.000	.000	.625	.500	.000	.563	.712

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Weather: Clear

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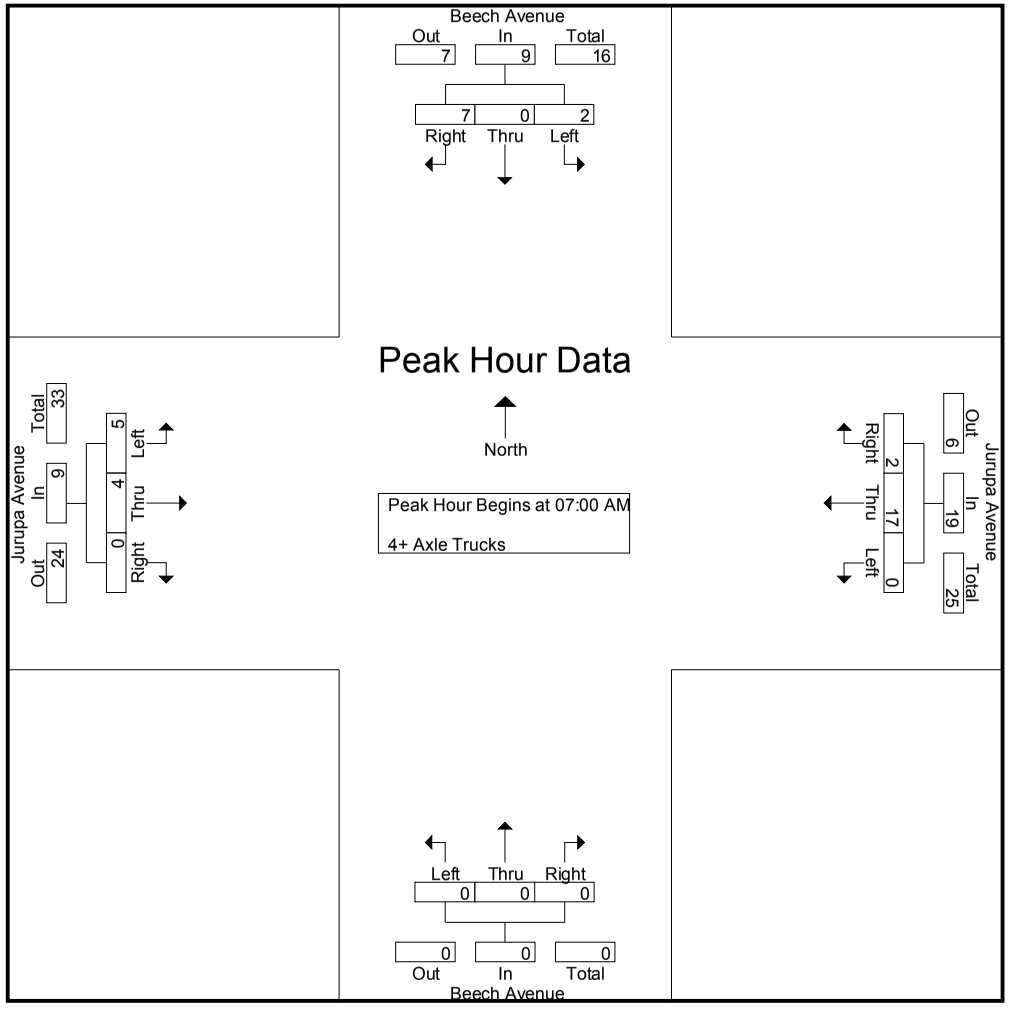

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	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	**2**	0	0	2	
+15 mins.	0	0	**5**	**5**	0	3	**1**	4	0	0	0	0	2	**2**	0	**4**	
+30 mins.	**2**	0	1	3	0	**7**	1	**8**	0	0	0	0	1	0	0	1	
+45 mins.	0	0	1	1	0	6	0	6	0	0	0	0	0	2	0	2	
Total Volume	2	0	7	9	0	17	2	19	0	0	0	0	5	4	0	9	
% App. Total	22.2	0	77.8		0	89.5	10.5		0	0	0		55.6	44.4	0		
PHF	.250	.000	.350	.450	.000	.607	.500	.594	.000	.000	.000	.000	.625	.500	.000	.563	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	6	16	18	14	40	1	104	3	1	108	27	2	2	1	31	29	255	47	10	331	26	510	536
04:15 PM	6	14	18	7	38	3	99	5	1	107	20	6	1	1	27	23	237	58	6	318	15	490	505
04:30 PM	10	12	13	9	35	5	124	4	0	133	21	9	3	1	33	29	235	43	4	307	14	508	522
04:45 PM	6	6	14	13	26	2	109	1	0	112	27	12	4	1	43	30	293	49	2	372	16	553	569
Total	28	48	63	43	139	11	436	13	2	460	95	29	10	4	134	111	1020	197	22	1328	71	2061	2132
05:00 PM	14	8	21	12	43	9	83	5	0	97	22	5	6	3	33	30	240	61	10	331	25	504	529
05:15 PM	6	10	12	14	28	6	112	5	3	123	18	10	5	1	33	13	271	45	6	329	24	513	537
05:30 PM	8	12	12	9	32	4	80	9	3	93	26	4	2	0	32	19	253	63	6	335	18	492	510
05:45 PM	6	9	15	12	30	4	91	3	2	98	21	7	4	2	32	17	221	62	11	300	27	460	487
Total	34	39	60	47	133	23	366	22	8	411	87	26	17	6	130	79	985	231	33	1295	94	1969	2063
Grand Total	62	87	123	90	272	34	802	35	10	871	182	55	27	10	264	190	2005	428	55	2623	165	4030	4195
Apprch %	22.8	32	45.2			3.9	92.1	4			68.9	20.8	10.2			7.2	76.4	16.3					
Total %	1.5	2.2	3.1		6.7	0.8	19.9	0.9		21.6	4.5	1.4	0.7		6.6	4.7	49.8	10.6		65.1	3.9	96.1	
Passenger Vehicles	59	87	100		323	33	754	24		816	180	55	26		271	132	1953	426		2565	0	0	3975
% Passenger Vehicles	95.2	100	81.3	85.6	89.2	97.1	94	68.6	50	92.6	98.9	100	96.3	100	98.9	69.5	97.4	99.5	98.2	95.8	0	0	94.8
Large 2 Axle Vehicles	1	0	10		15	1	17	7		28	2	0	1		3	17	21	2		41	0	0	87
% Large 2 Axle Vehicles	1.6	0	8.1	4.4	4.1	2.9	2.1	20	30	3.2	1.1	0	3.7	0	1.1	8.9	1	0.5	1.8	1.5	0	0	2.1
3 Axle Vehicles	1	0	6		8	0	4	4		10	0	0	0		0	4	6	0		10	0	0	28
% 3 Axle Vehicles	1.6	0	4.9	1.1	2.2	0	0.5	11.4	20	1.1	0	0	0	0	0	2.1	0.3	0	0	0.4	0	0	0.7
4+ Axle Trucks	1	0	7		16	0	27	0		27	0	0	0		0	37	25	0		62	0	0	105
% 4+ Axle Trucks	1.6	0	5.7	8.9	4.4	0	3.4	0	0	3.1	0	0	0	0	0	19.5	1.2	0	0	2.3	0	0	2.5

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM																	
04:30 PM	10	**12**	13	35	5	**124**	4	**133**	21	9	3	33	29	235	43	307	508
04:45 PM	6	6	14	26	2	109	1	112	**27**	**12**	4	**43**	**30**	**293**	49	**372**	**553**
05:00 PM	**14**	8	**21**	**43**	**9**	83	**5**	97	22	5	**6**	33	30	240	**61**	331	504
05:15 PM	6	10	12	28	6	112	5	123	18	10	5	33	13	271	45	329	513
Total Volume	36	36	60	132	22	428	15	465	88	36	18	142	102	1039	198	1339	2078
% App. Total	27.3	27.3	45.5		4.7	92	3.2		62	25.4	12.7		7.6	77.6	14.8		
PHF	.643	.750	.714	.767	.611	.863	.750	.874	.815	.750	.750	.826	.850	.887	.811	.900	.939

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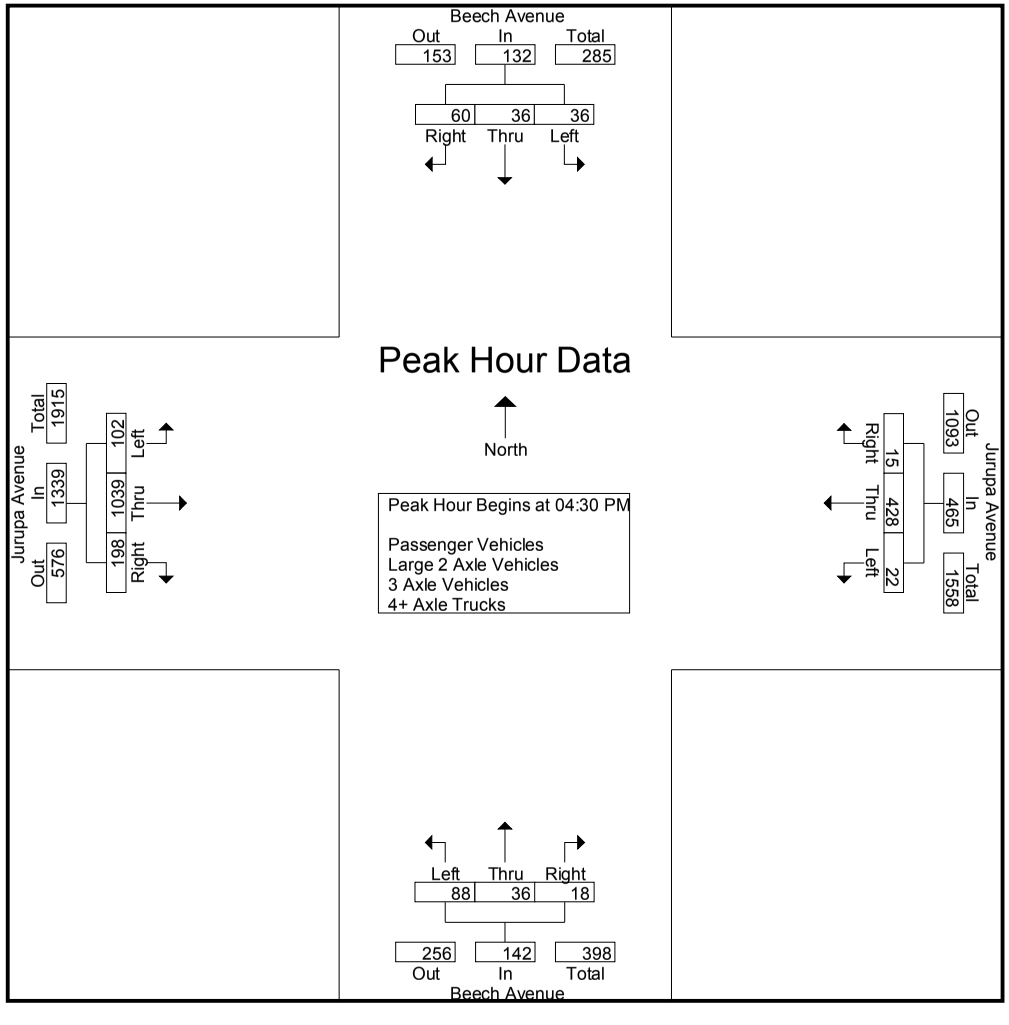

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	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:30 PM				04:30 PM				04:45 PM				
+0 mins.	6	**14**	18	38	5	**124**	4	**133**	21	9	3	33	**30**	**293**	49	**372**	
+15 mins.	10	12	13	35	2	109	1	112	**27**	**12**	4	**43**	30	240	61	331	
+30 mins.	6	6	14	26	**9**	83	**5**	97	22	5	**6**	33	13	271	45	329	
+45 mins.	**14**	8	**21**	**43**	6	112	5	123	18	10	5	33	19	253	**63**	335	
Total Volume	36	40	66	142	22	428	15	465	88	36	18	142	92	1057	218	1367	
% App. Total	25.4	28.2	46.5		4.7	92	3.2		62	25.4	12.7		6.7	77.3	15.9		
PHF	.643	.714	.786	.826	.611	.863	.750	.874	.815	.750	.750	.826	.767	.902	.865	.919	

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Groups Printed- Passenger Vehicles

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	6	16	14	12	36	1	98	1	0	100	26	2	2	1	30	23	251	47	10	321	23	487	510
04:15 PM	6	14	11	7	31	3	91	5	1	99	20	6	1	1	27	15	233	58	6	306	15	463	478
04:30 PM	10	12	9	7	31	5	117	4	0	126	21	9	2	1	32	20	229	43	4	292	12	481	493
04:45 PM	5	6	13	12	24	2	102	0	0	104	27	12	4	1	43	24	286	48	2	358	15	529	544
Total	27	48	47	38	122	11	408	10	1	429	94	29	9	4	132	82	999	196	22	1277	65	1960	2025
05:00 PM	12	8	17	10	37	9	78	3	0	90	22	5	6	3	33	18	232	61	10	311	23	471	494
05:15 PM	6	10	11	10	27	5	105	4	2	114	17	10	5	1	32	7	264	45	6	316	19	489	508
05:30 PM	8	12	11	8	31	4	75	7	2	86	26	4	2	0	32	12	244	63	6	319	16	468	484
05:45 PM	6	9	14	11	29	4	88	0	0	92	21	7	4	2	32	13	214	61	10	288	23	441	464
Total	32	39	53	39	124	22	346	14	4	382	86	26	17	6	129	50	954	230	32	1234	81	1869	1950
Grand Total	59	87	100	77	246	33	754	24	5	811	180	55	26	10	261	132	1953	426	54	2511	146	3829	3975
Apprch %	24	35.4	40.7			4.1	93	3			69	21.1	10			5.3	77.8	17					
Total %	1.5	2.3	2.6		6.4	0.9	19.7	0.6		21.2	4.7	1.4	0.7		6.8	3.4	51	11.1		65.6	3.7	96.3	

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	10	**12**	9	31	5	**117**	**4**	**126**	21	9	2	32	20	229	43	292	481
04:45 PM	5	6	13	24	2	102	0	104	**27**	**12**	4	**43**	**24**	**286**	48	**358**	**529**
05:00 PM	**12**	8	**17**	**37**	**9**	78	3	90	22	5	**6**	33	18	232	**61**	311	471
05:15 PM	6	10	11	27	5	105	4	114	17	10	5	32	7	264	45	316	489
Total Volume	33	36	50	119	21	402	11	434	87	36	17	140	69	1011	197	1277	1970
% App. Total	27.7	30.3	42		4.8	92.6	2.5		62.1	25.7	12.1		5.4	79.2	15.4		
PHF	.688	.750	.735	.804	.583	.859	.688	.861	.806	.750	.708	.814	.719	.884	.807	.892	.931

Counts Unlimited
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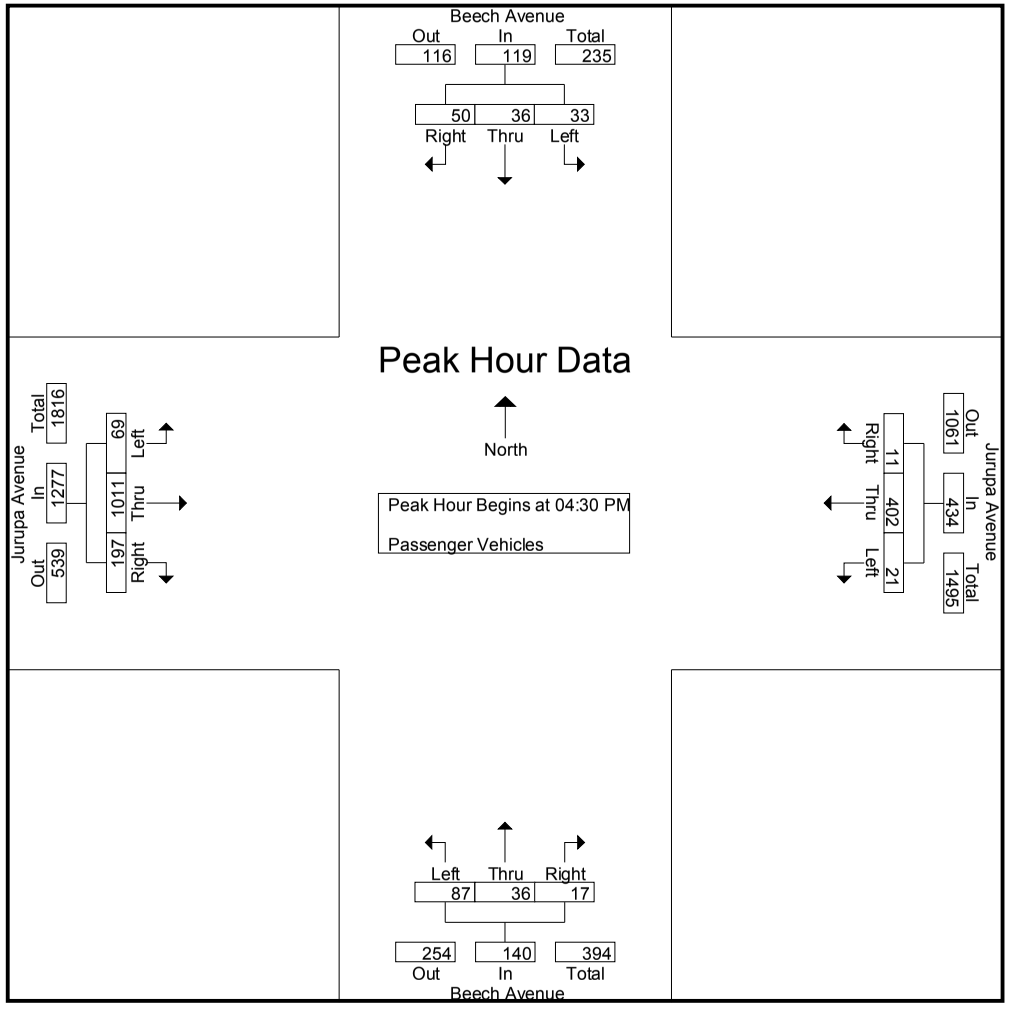
(951) 268-6268

City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	10	**12**	9	31	5	**117**	**4**	**126**	21	9	2	32	20	229	43	292	
+15 mins.	5	6	13	24	2	102	0	104	**27**	**12**	4	**43**	**24**	**286**	48	**358**	
+30 mins.	**12**	8	**17**	**37**	**9**	78	3	90	22	5	**6**	33	18	232	**61**	311	
+45 mins.	6	10	11	27	5	105	4	114	17	10	5	32	7	264	45	316	
Total Volume	33	36	50	119	21	402	11	434	87	36	17	140	69	1011	197	1277	
% App. Total	27.7	30.3	42		4.8	92.6	2.5		62.1	25.7	12.1		5.4	79.2	15.4		
PHF	.688	.750	.735	.804	.583	.859	.688	.861	.806	.750	.708	.814	.719	.884	.807	.892	

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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	4	1	4	0	1	0	0	1	1	0	0	0	1	1	2	0	0	3	1	9	10
04:15 PM	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	1	3	0	0	4	0	8	8
04:30 PM	0	0	2	1	2	0	3	0	0	3	0	0	1	0	1	2	0	0	0	2	1	8	9
04:45 PM	0	0	1	0	1	0	3	1	0	4	0	0	0	0	0	3	3	1	0	7	0	12	12
Total	0	0	8	2	8	0	10	1	0	11	1	0	1	0	2	7	8	1	0	16	2	37	39
05:00 PM	1	0	0	0	1	0	2	2	0	4	0	0	0	0	0	4	3	0	0	7	0	12	12
05:15 PM	0	0	0	0	0	1	3	1	1	5	1	0	0	0	1	3	4	0	0	7	1	13	14
05:30 PM	0	0	1	1	1	0	1	1	1	2	0	0	0	0	0	2	4	0	0	6	2	9	11
05:45 PM	0	0	1	1	1	0	1	2	1	3	0	0	0	0	0	1	2	1	1	4	3	8	11
Total	1	0	2	2	3	1	7	6	3	14	1	0	0	0	1	10	13	1	1	24	6	42	48
Grand Total	1	0	10	4	11	1	17	7	3	25	2	0	1	0	3	17	21	2	1	40	8	79	87
Apprch %	9.1	0	90.9			4	68	28			66.7	0	33.3			42.5	52.5	5					
Total %	1.3	0	12.7		13.9	1.3	21.5	8.9		31.6	2.5	0	1.3		3.8	21.5	26.6	2.5		50.6	9.2	90.8	

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	**2**	**2**	0	**3**	0	3	0	0	**1**	**1**	2	0	0	2	8
04:45 PM	0	0	1	1	0	3	1	4	0	0	0	0	3	3	**1**	**7**	12
05:00 PM	**1**	0	0	1	0	2	**2**	4	0	0	0	0	**4**	3	0	7	12
05:15 PM	0	0	0	0	**1**	3	1	**5**	**1**	0	0	1	3	**4**	0	7	**13**
Total Volume	1	0	3	4	1	11	4	16	1	0	1	2	12	10	1	23	45
% App. Total	25	0	75		6.2	68.8	25		50	0	50		52.2	43.5	4.3		
PHF	.250	.000	.375	.500	.250	.917	.500	.800	.250	.000	.250	.500	.750	.625	.250	.821	.865

Counts Unlimited
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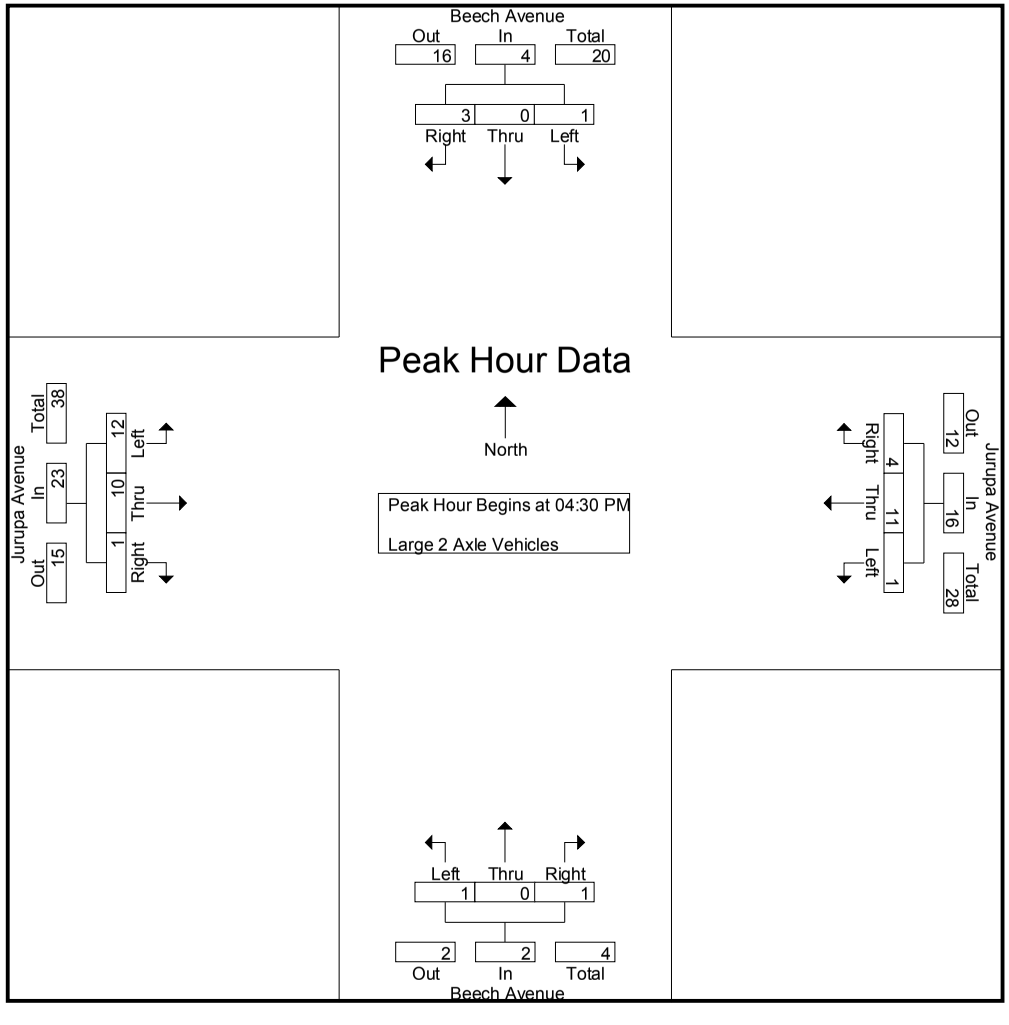
City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	**2**	**2**	0	**3**	0	3	0	0	**1**	**1**	2	0	0	2	
+15 mins.	0	0	1	1	0	3	1	4	0	0	0	0	3	3	**1**	**7**	
+30 mins.	**1**	0	0	1	0	2	**2**	4	0	0	0	0	**4**	3	0	7	
+45 mins.	0	0	0	0	**1**	3	1	**5**	**1**	0	0	1	3	**4**	0	7	
Total Volume	1	0	3	4	1	11	4	16	1	0	1	2	12	10	1	23	
% App. Total	25	0	75		6.2	68.8	25		50	0	50		52.2	43.5	4.3		
PHF	.250	.000	.375	.500	.250	.917	.500	.800	.250	.000	.250	.500	.750	.625	.250	.821	

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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	1	2	3
04:15 PM	0	0	4	0	4	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	5
04:30 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	0	6	6
04:45 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	1	0	5	0	6	0	3	2	1	5	0	0	0	0	0	1	3	0	0	4	1	15	16
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	3	3
05:15 PM	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2	3
05:30 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
05:45 PM	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	1	0	0	2	1	3	4
Total	0	0	1	1	1	0	1	2	1	3	0	0	0	0	0	3	3	0	0	6	2	10	12
Grand Total	1	0	6	1	7	0	4	4	2	8	0	0	0	0	0	4	6	0	0	10	3	25	28
Apprch %	14.3	0	85.7			0	50	50			0	0	0			40	60	0					
Total %	4	0	24		28	0	16	16		32	0	0	0		0	16	24	0		40	10.7	89.3	

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0	1	**3**	0	**4**	**6**
04:45 PM	**1**	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	**2**	1	0	3	3
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total Volume	1	0	2	3	0	2	0	2	0	0	0	0	3	5	0	8	13
% App. Total	33.3	0	66.7		0	100	0		0	0	0		37.5	62.5	0		
PHF	.250	.000	.500	.750	.000	.500	.000	.500	.000	.000	.000	.000	.375	.417	.000	.500	.542

Counts Unlimited
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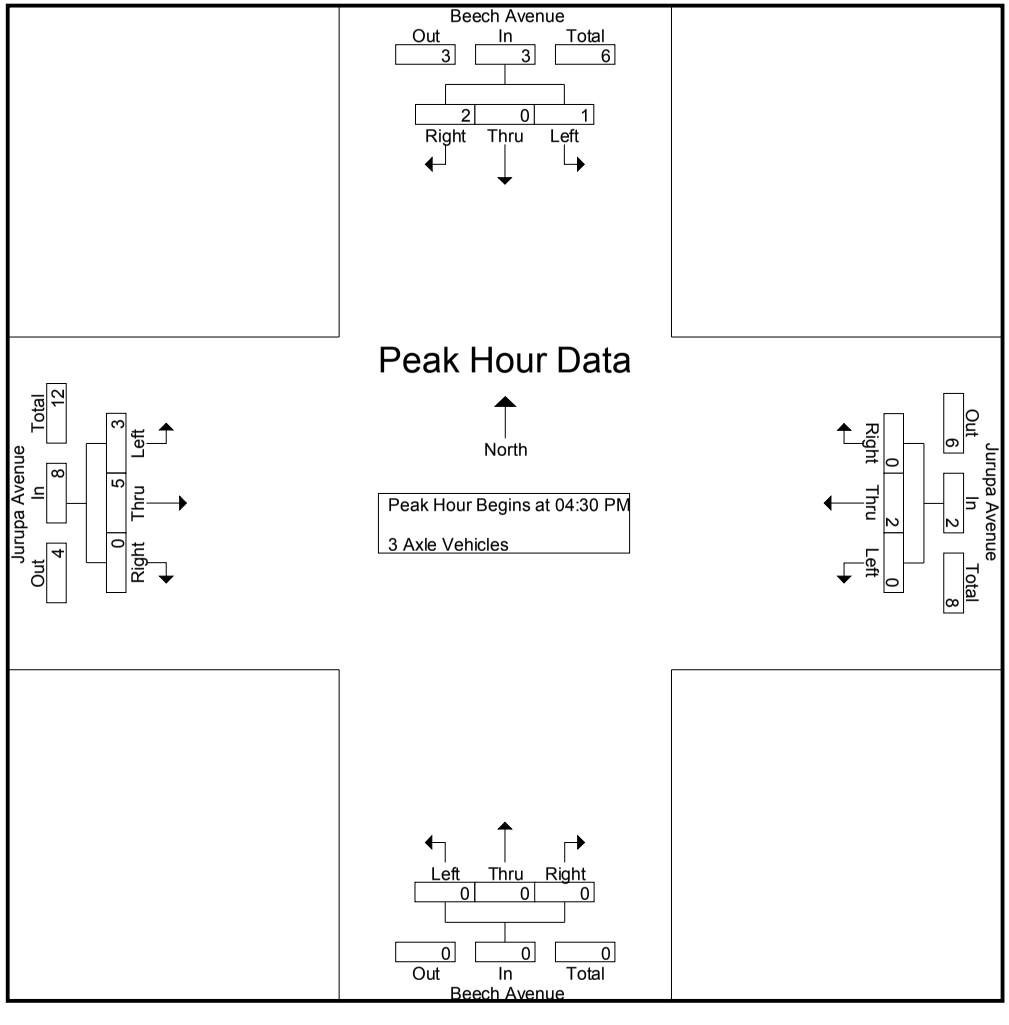
City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	**1**	**1**	0	**1**	0	**1**	0	0	0	0	1	**3**	0	**4**	
+15 mins.	**1**	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	**2**	1	0	3	
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	
Total Volume	1	0	2	3	0	2	0	2	0	0	0	0	3	5	0	8	
% App. Total	33.3	0	66.7		0	100	0		0	0	0		37.5	62.5	0		
PHF	.250	.000	.500	.750	.000	.500	.000	.500	.000	.000	.000	.000	.375	.417	.000	.500	

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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Beech Avenue Southbound					Jurupa Avenue Westbound					Beech Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	1	0	0	5	0	0	5	0	0	0	0	0	5	2	0	0	7	1	12	13
04:15 PM	0	0	2	0	2	0	4	0	0	4	0	0	0	0	0	7	1	0	0	8	0	14	14
04:30 PM	0	0	1	1	1	0	3	0	0	3	0	0	0	0	0	6	3	0	0	9	1	13	14
04:45 PM	0	0	0	1	0	0	3	0	0	3	0	0	0	0	0	3	4	0	0	7	1	10	11
Total	0	0	3	3	3	0	15	0	0	15	0	0	0	0	0	21	10	0	0	31	3	49	52
05:00 PM	1	0	4	2	5	0	3	0	0	3	0	0	0	0	0	6	4	0	0	10	2	18	20
05:15 PM	0	0	0	3	0	0	4	0	0	4	0	0	0	0	0	3	2	0	0	5	3	9	12
05:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5	5	0	0	10	0	13	13
05:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	4	0	0	6	0	8	8
Total	1	0	4	5	5	0	12	0	0	12	0	0	0	0	0	16	15	0	0	31	5	48	53
Grand Total	1	0	7	8	8	0	27	0	0	27	0	0	0	0	0	37	25	0	0	62	8	97	105
Apprch %	12.5	0	87.5			0	100	0			0	0	0			59.7	40.3	0					
Total %	1	0	7.2		8.2	0	27.8	0		27.8	0	0	0		0	38.1	25.8	0		63.9	7.6	92.4	

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	1	1	0	3	0	3	0	0	0	0	**6**	3	0	9	13
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	3	**4**	0	7	10
05:00 PM	**1**	0	**4**	**5**	0	3	0	3	0	0	0	0	6	4	0	**10**	**18**
05:15 PM	0	0	0	0	0	**4**	0	**4**	0	0	0	0	3	2	0	5	9
Total Volume	1	0	5	6	0	13	0	13	0	0	0	0	18	13	0	31	50
% App. Total	16.7	0	83.3		0	100	0		0	0	0		58.1	41.9	0		
PHF	.250	.000	.313	.300	.000	.813	.000	.813	.000	.000	.000	.000	.750	.813	.000	.775	.694

Counts Unlimited
PO Box 1178
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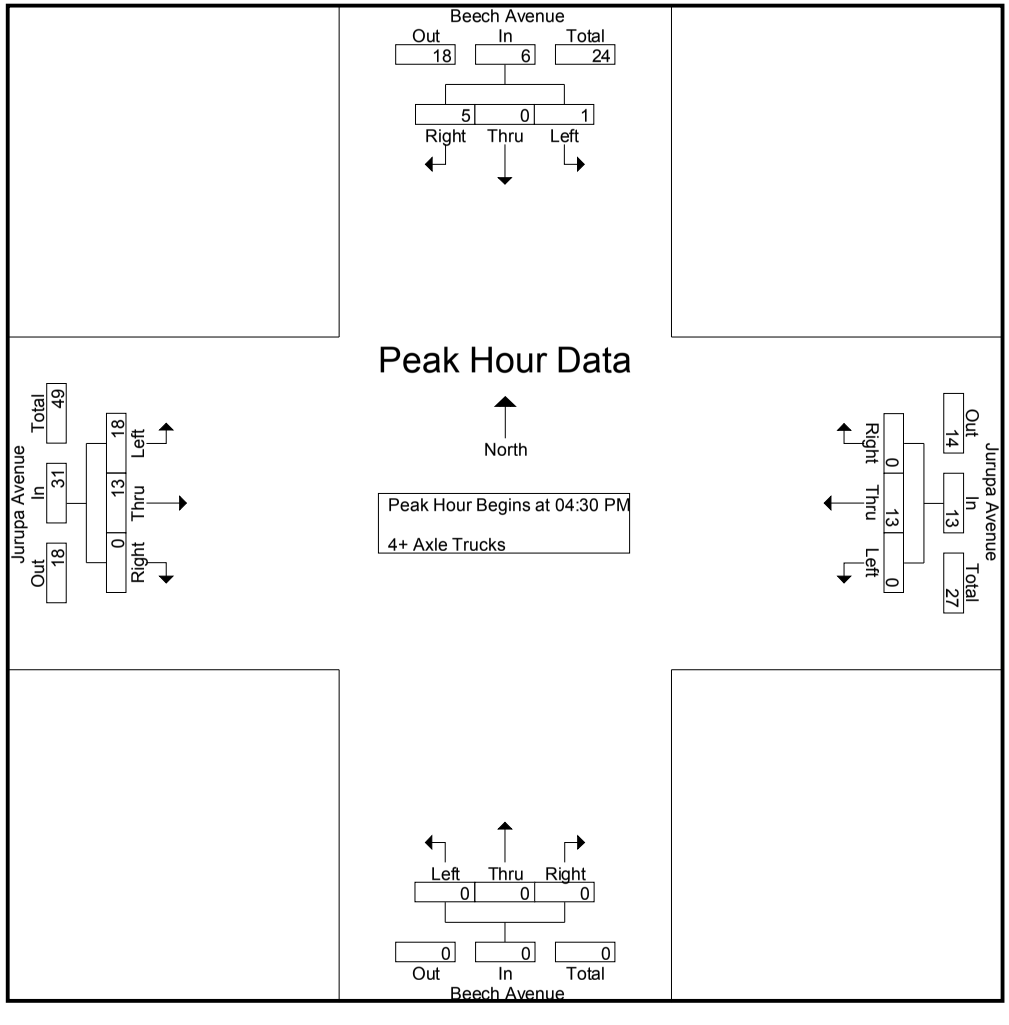
City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 02_FON_Beech_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Beech Avenue Southbound				Jurupa Avenue Westbound				Beech Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	1	1	0	3	0	3	0	0	0	0	**6**	3	0	9	
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	3	**4**	0	7	
+30 mins.	**1**	0	**4**	**5**	0	3	0	3	0	0	0	0	6	4	0	**10**	
+45 mins.	0	0	0	0	0	**4**	0	**4**	0	0	0	0	3	2	0	5	
Total Volume	1	0	5	6	0	13	0	13	0	0	0	0	18	13	0	31	
% App. Total	16.7	0	83.3		0	100	0		0	0	0		58.1	41.9	0		
PHF	.250	.000	.313	.300	.000	.813	.000	.813	.000	.000	.000	.000	.750	.813	.000	.775	

Location: Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Beech Avenue	East Leg Jurupa Avenue	South Leg Beech Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1
7:30 AM	0	0	1	0	1
7:45 AM	0	0	2	1	3
8:00 AM	1	0	0	0	1
8:15 AM	0	0	1	0	1
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	2	4	1	8

	North Leg Beech Avenue	East Leg Jurupa Avenue	South Leg Beech Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	2	1	3
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	1	3

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

Location: Fontana
N/S: Beech Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Beech Avenue			Westbound Jurupa Avenue			Northbound Beech Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0	1

	Southbound Beech Avenue			Westbound Jurupa Avenue			Northbound Beech Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	1	0	1

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City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	10	5	3	18	13	154	9	3	176	33	16	38	22	87	8	93	5	0	106	28	387	415
07:15 AM	1	6	9	5	16	17	135	9	5	161	32	17	36	21	85	18	117	15	2	150	33	412	445
07:30 AM	1	8	4	4	13	24	128	2	0	154	32	21	21	11	74	18	118	10	2	146	17	387	404
07:45 AM	1	7	8	7	16	15	142	8	2	165	19	16	31	24	66	9	75	10	3	94	36	341	377
Total	6	31	26	19	63	69	559	28	10	656	116	70	126	78	312	53	403	40	7	496	114	1527	1641
08:00 AM	1	6	7	1	14	15	94	8	3	117	13	10	28	17	51	13	82	10	2	105	23	287	310
08:15 AM	3	10	7	6	20	24	121	6	3	151	18	11	28	16	57	12	79	7	4	98	29	326	355
08:30 AM	2	6	5	2	13	22	78	3	2	103	18	8	34	27	60	13	93	9	3	115	34	291	325
08:45 AM	2	18	3	2	23	27	71	7	4	105	25	15	44	30	84	7	67	10	2	84	38	296	334
Total	8	40	22	11	70	88	364	24	12	476	74	44	134	90	252	45	321	36	11	402	124	1200	1324
Grand Total	14	71	48	30	133	157	923	52	22	1132	190	114	260	168	564	98	724	76	18	898	238	2727	2965
Apprch %	10.5	53.4	36.1			13.9	81.5	4.6			33.7	20.2	46.1			10.9	80.6	8.5					
Total %	0.5	2.6	1.8		4.9	5.8	33.8	1.9		41.5	7	4.2	9.5		20.7	3.6	26.5	2.8		32.9	8	92	
Passenger Vehicles	12	70	32		135	149	848	45		1063	189	113	249		711	89	669	73		847	0	0	2756
% Passenger Vehicles	85.7	98.6	66.7	70	82.8	94.9	91.9	86.5	95.5	92.1	99.5	99.1	95.8	95.2	97.1	90.8	92.4	96.1	88.9	92.5	0	0	93
Large 2 Axle Vehicles	1	1	6		12	8	44	1		53	1	1	10		19	1	33	3		39	0	0	123
% Large 2 Axle Vehicles	7.1	1.4	12.5	13.3	7.4	5.1	4.8	1.9	0	4.6	0.5	0.9	3.8	4.2	2.6	1	4.6	3.9	11.1	4.3	0	0	4.1
3 Axle Vehicles	1	0	0		1	0	8	3		11	0	0	0		0	1	7	0		8	0	0	20
% 3 Axle Vehicles	7.1	0	0	0	0.6	0	0.9	5.8	0	1	0	0	0	0	0	1	1	0	0	0.9	0	0	0.7
4+ Axle Trucks	0	0	10		15	0	23	3		27	0	0	1		2	7	15	0		22	0	0	66
% 4+ Axle Trucks	0	0	20.8	16.7	9.2	0	2.5	5.8	4.5	2.3	0	0	0.4	0.6	0.3	7.1	2.1	0	0	2.4	0	0	2.2

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 07:00 AM																	
07:00 AM	**3**	**10**	5	**18**	13	**154**	**9**	**176**	**33**	16	**38**	**87**	8	93	5	106	387
07:15 AM	1	6	**9**	16	17	135	9	161	32	17	36	85	**18**	117	**15**	**150**	**412**
07:30 AM	1	8	4	13	**24**	128	2	154	32	**21**	21	74	18	**118**	10	146	387
07:45 AM	1	7	8	16	15	142	8	165	19	16	31	66	9	75	10	94	341
Total Volume	6	31	26	63	69	559	28	656	116	70	126	312	53	403	40	496	1527
% App. Total	9.5	49.2	41.3		10.5	85.2	4.3		37.2	22.4	40.4		10.7	81.2	8.1		
PHF	.500	.775	.722	.875	.719	.907	.778	.932	.879	.833	.829	.897	.736	.854	.667	.827	.927

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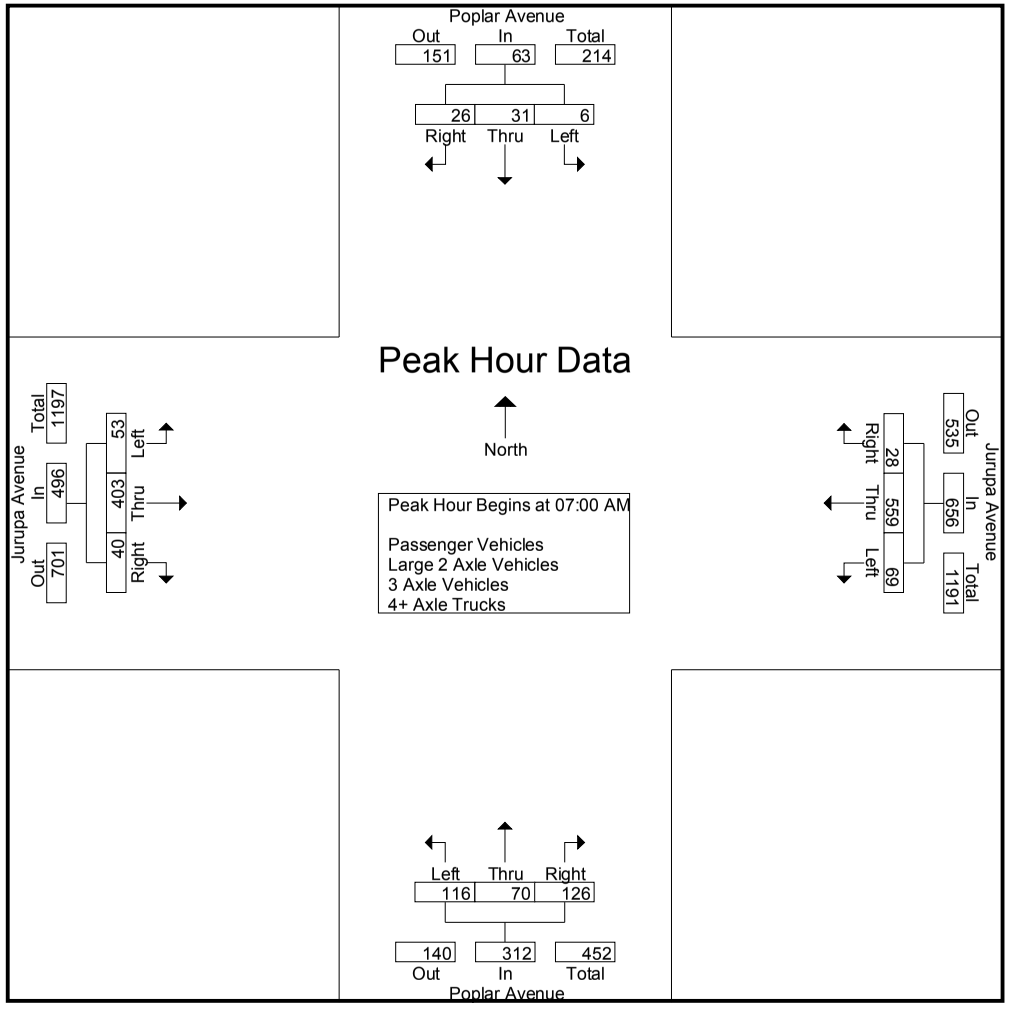
City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
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Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	08:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	1	6	**7**	14	13	**154**	**9**	**176**	**33**	16	**38**	**87**	8	93	5	106	
+15 mins.	**3**	10	7	20	17	135	9	161	32	17	36	85	**18**	117	**15**	**150**	
+30 mins.	2	6	5	13	**24**	128	2	154	32	**21**	21	74	18	**118**	10	146	
+45 mins.	2	**18**	3	**23**	15	142	8	165	19	16	31	66	9	75	10	94	
Total Volume	8	40	22	70	69	559	28	656	116	70	126	312	53	403	40	496	
% App. Total	11.4	57.1	31.4		10.5	85.2	4.3		37.2	22.4	40.4		10.7	81.2	8.1		
PHF	.667	.556	.786	.761	.719	.907	.778	.932	.879	.833	.829	.897	.736	.854	.667	.827	

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City of Fontana
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File Name : 03_FON_Poplar_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	9	4	3	16	10	147	8	3	165	33	16	36	20	85	8	85	5	0	98	26	364	390
07:15 AM	1	6	8	5	15	15	126	8	4	149	32	16	35	20	83	16	104	15	2	135	31	382	413
07:30 AM	0	8	1	1	9	23	122	2	0	147	32	21	19	11	72	18	112	10	2	140	14	368	382
07:45 AM	1	7	6	6	14	14	132	7	2	153	19	16	29	22	64	7	71	10	3	88	33	319	352
Total	5	30	19	15	54	62	527	25	9	614	116	69	119	73	304	49	372	40	7	461	104	1433	1537
08:00 AM	1	6	5	1	12	15	83	8	3	106	13	10	27	16	50	10	73	8	1	91	21	259	280
08:15 AM	3	10	4	3	17	24	108	5	3	137	18	11	26	15	55	11	73	7	4	91	25	300	325
08:30 AM	2	6	3	2	11	22	63	2	2	87	17	8	33	26	58	12	89	8	2	109	32	265	297
08:45 AM	1	18	1	0	20	26	67	5	4	98	25	15	44	30	84	7	62	10	2	79	36	281	317
Total	7	40	13	6	60	87	321	20	12	428	73	44	130	87	247	40	297	33	9	370	114	1105	1219
Grand Total	12	70	32	21	114	149	848	45	21	1042	189	113	249	160	551	89	669	73	16	831	218	2538	2756
Apprch %	10.5	61.4	28.1			14.3	81.4	4.3			34.3	20.5	45.2			10.7	80.5	8.8					
Total %	0.5	2.8	1.3		4.5	5.9	33.4	1.8		41.1	7.4	4.5	9.8		21.7	3.5	26.4	2.9		32.7	7.9	92.1	

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**3**	**9**	4	**16**	10	**147**	**8**	**165**	**33**	16	**36**	**85**	8	85	5	98	364
07:15 AM	1	6	**8**	15	15	126	8	149	32	16	35	83	16	104	**15**	135	**382**
07:30 AM	0	8	1	9	**23**	122	2	147	32	**21**	19	72	**18**	**112**	10	**140**	368
07:45 AM	1	7	6	14	14	132	7	153	19	16	29	64	7	71	10	88	319
Total Volume	5	30	19	54	62	527	25	614	116	69	119	304	49	372	40	461	1433
% App. Total	9.3	55.6	35.2		10.1	85.8	4.1		38.2	22.7	39.1		10.6	80.7	8.7		
PHF	.417	.833	.594	.844	.674	.896	.781	.930	.879	.821	.826	.894	.681	.830	.667	.823	.938

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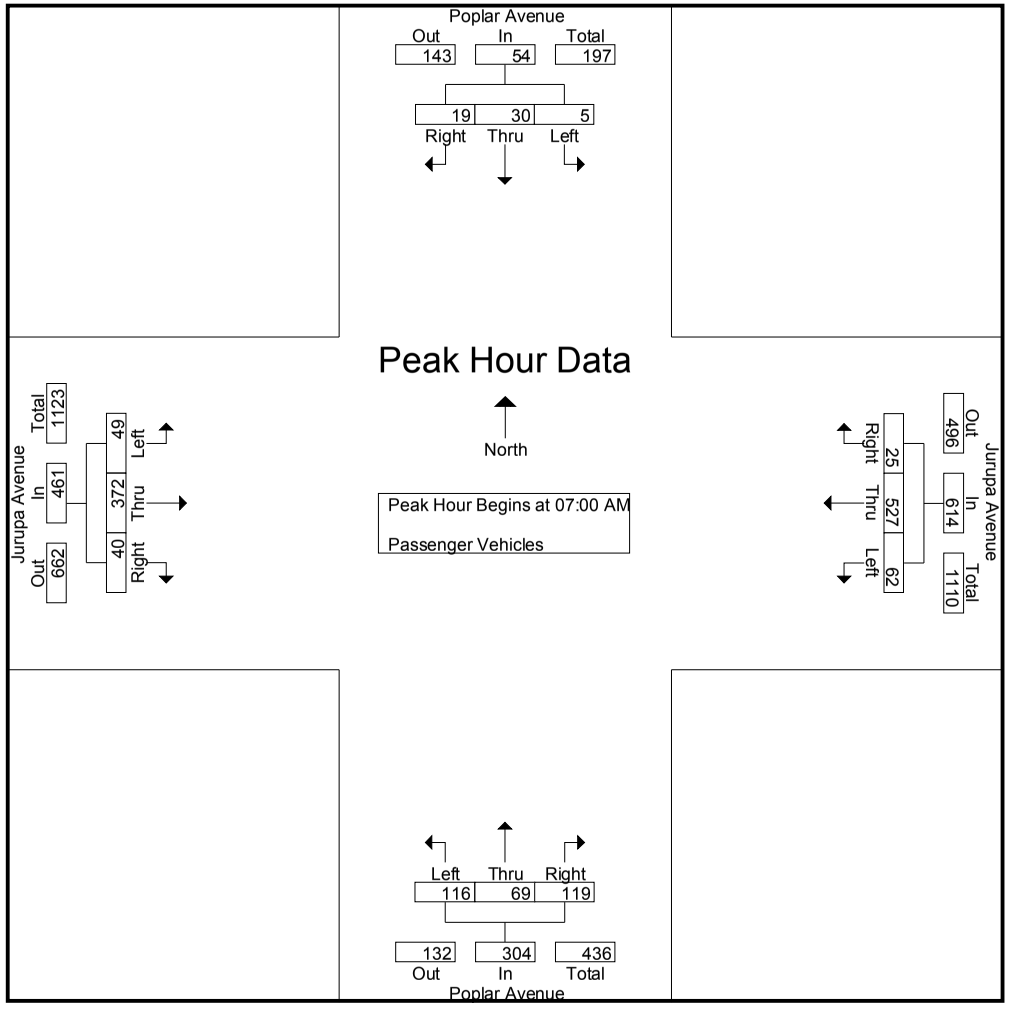
City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Poplar Avenue
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Page No : 3

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**3**	**9**	4	**16**	10	**147**	**8**	**165**	**33**	16	**36**	**85**	8	85	5	98	
+15 mins.	1	6	**8**	15	15	126	8	149	32	16	35	83	16	104	**15**	135	
+30 mins.	0	8	1	9	**23**	122	2	147	32	**21**	19	72	**18**	**112**	10	**140**	
+45 mins.	1	7	6	14	14	132	7	153	19	16	29	64	7	71	10	88	
Total Volume	5	30	19	54	62	527	25	614	116	69	119	304	49	372	40	461	
% App. Total	9.3	55.6	35.2		10.1	85.8	4.1		38.2	22.7	39.1		10.6	80.7	8.7		
PHF	.417	.833	.594	.844	.674	.896	.781	.930	.879	.821	.826	.894	.681	.830	.667	.823	

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Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	0	1	3	4	0	0	7	0	0	1	1	1	0	5	0	0	5	1	14	15
07:15 AM	0	0	1	0	1	2	4	0	0	6	0	1	1	1	2	1	9	0	0	10	1	19	20
07:30 AM	1	0	2	2	3	1	4	0	0	5	0	0	2	0	2	0	5	0	0	5	2	15	17
07:45 AM	0	0	0	0	0	1	6	0	0	7	0	0	2	2	2	0	1	0	0	1	2	10	12
Total	1	1	3	2	5	7	18	0	0	25	0	1	6	4	7	1	20	0	0	21	6	58	64
08:00 AM	0	0	0	0	0	0	8	0	0	8	0	0	1	1	1	0	5	2	1	7	2	16	18
08:15 AM	0	0	1	1	1	0	8	1	0	9	0	0	2	1	2	0	6	0	0	6	2	18	20
08:30 AM	0	0	1	0	1	0	8	0	0	8	1	0	1	1	2	0	2	1	1	3	2	14	16
08:45 AM	0	0	1	1	1	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	1	4	5
Total	0	0	3	2	3	1	26	1	0	28	1	0	4	3	5	0	13	3	2	16	7	52	59
Grand Total	1	1	6	4	8	8	44	1	0	53	1	1	10	7	12	1	33	3	2	37	13	110	123
Apprch %	12.5	12.5	75			15.1	83	1.9			8.3	8.3	83.3			2.7	89.2	8.1					
Total %	0.9	0.9	5.5		7.3	7.3	40	0.9		48.2	0.9	0.9	9.1		10.9	0.9	30	2.7		33.6	10.6	89.4	

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**1**	0	1	**3**	4	0	**7**	0	0	1	1	0	5	0	5	14
07:15 AM	0	0	1	1	2	4	0	6	0	**1**	1	**2**	**1**	**9**	0	**10**	**19**
07:30 AM	**1**	0	**2**	**3**	1	4	0	5	0	0	**2**	2	0	5	0	5	15
07:45 AM	0	0	0	0	1	**6**	0	7	0	0	2	2	0	1	0	1	10
Total Volume	1	1	3	5	7	18	0	25	0	1	6	7	1	20	0	21	58
% App. Total	20	20	60		28	72	0		0	14.3	85.7		4.8	95.2	0		
PHF	.250	.250	.375	.417	.583	.750	.000	.893	.000	.250	.750	.875	.250	.556	.000	.525	.763

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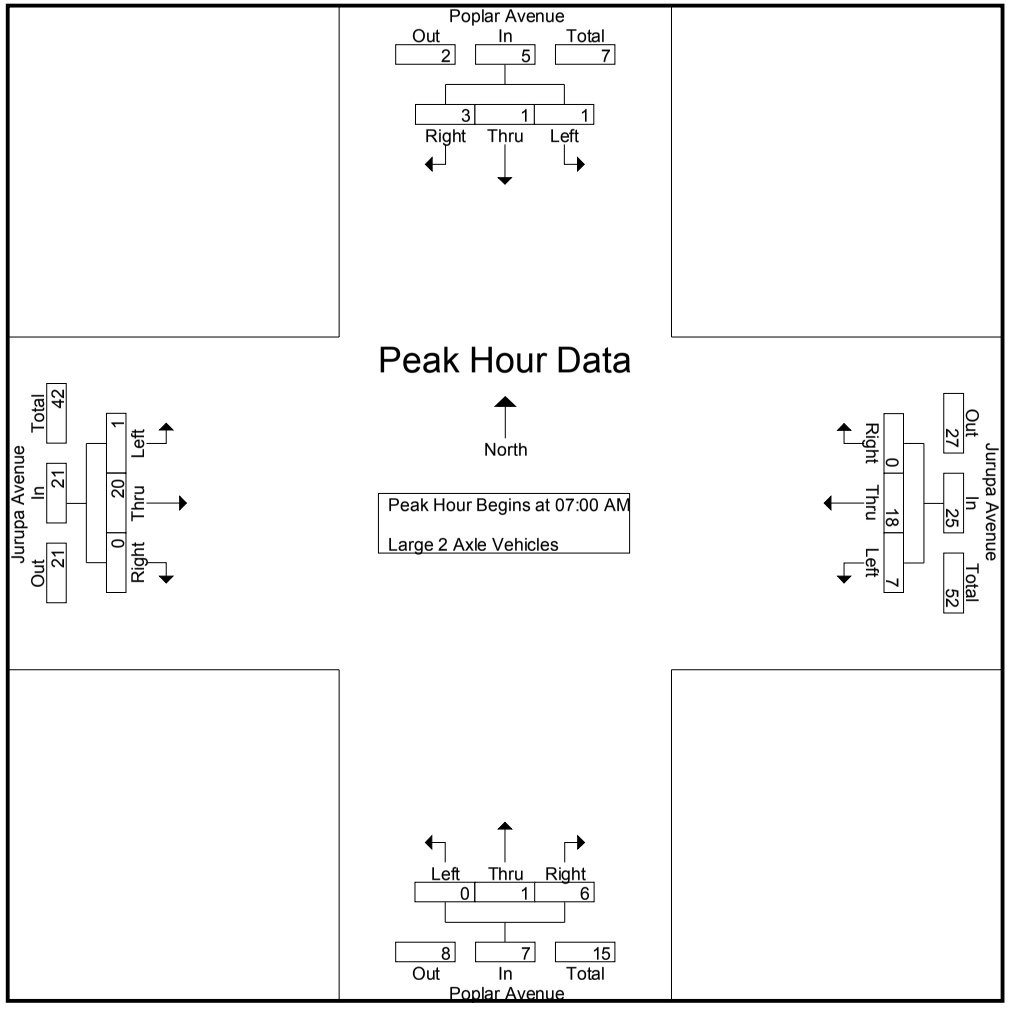

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	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	**1**	0	1	**3**	4	0	**7**	0	0	1	1	0	5	0	5	
+15 mins.	0	0	1	1	2	4	0	6	0	**1**	1	**2**	**1**	**9**	0	**10**	
+30 mins.	**1**	0	**2**	**3**	1	4	0	5	0	0	**2**	2	0	5	0	5	
+45 mins.	0	0	0	0	1	**6**	0	7	0	0	2	2	0	1	0	1	
Total Volume	1	1	3	5	7	18	0	25	0	1	6	7	1	20	0	21	
% App. Total	20	20	60		28	72	0		0	14.3	85.7		4.8	95.2	0		
PHF	.250	.250	.375	.417	.583	.750	.000	.893	.000	.250	.750	.875	.250	.556	.000	.525	

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Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
07:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	0	3	3
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	1	2	0	0	3	0	8	8
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
08:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
08:45 AM	1	0	0	0	1	0	0	2	0	2	0	0	0	0	0	0	3	0	0	3	0	6	6
Total	1	0	0	0	1	0	3	3	0	6	0	0	0	0	0	0	5	0	0	5	0	12	12
Grand Total	1	0	0	0	1	0	8	3	0	11	0	0	0	0	0	1	7	0	0	8	0	20	20
Apprch %	100	0	0			0	72.7	27.3			0	0	0			12.5	87.5	0					
Total %	5	0	0		5	0	40	15		55	0	0	0		0	5	35	0		40	0	100	

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	2
07:15 AM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**1**	0	0	1	**3**
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	5	0	5	0	0	0	0	1	2	0	3	8
% App. Total	0	0	0		0	100	0		0	0	0		33.3	66.7	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.250	.250	.000	.375	.667

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City of Fontana
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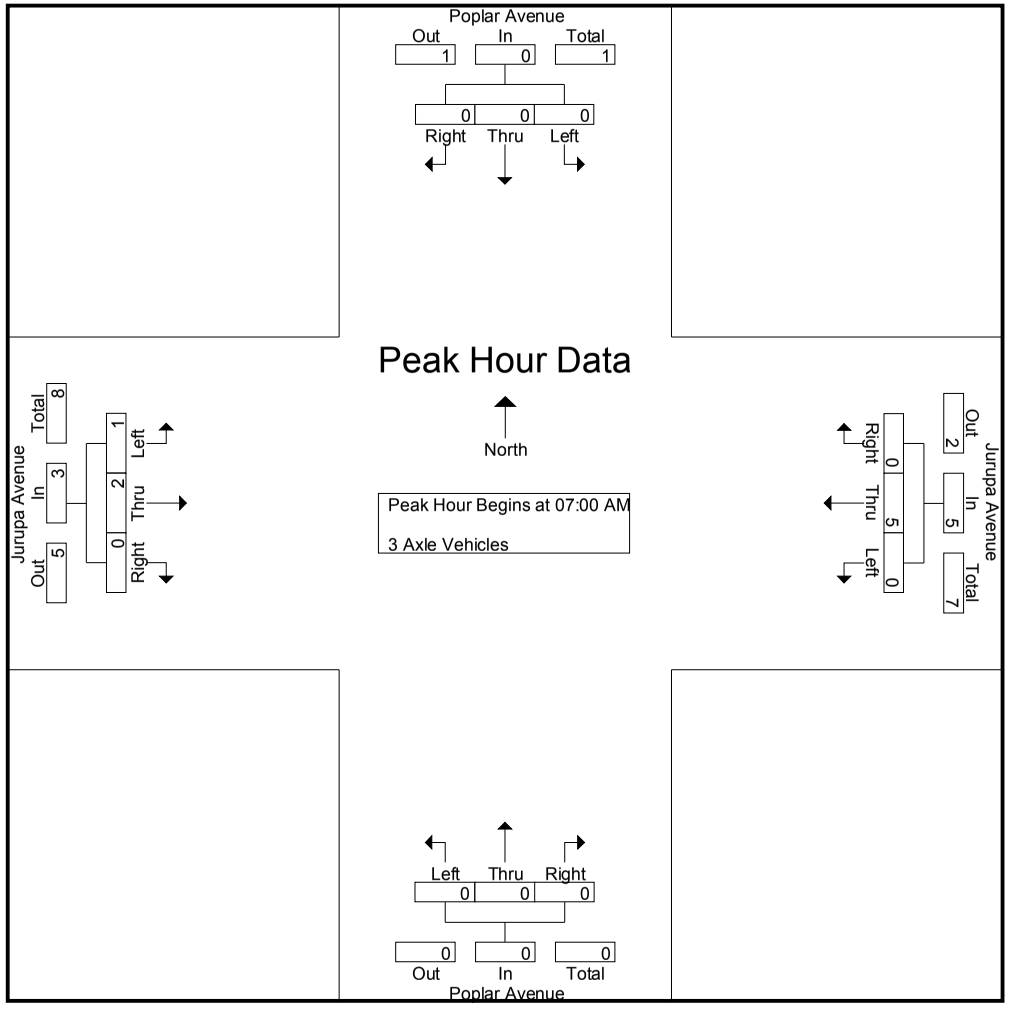
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
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File Name : 03_FON_Poplar_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
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	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	
+15 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**1**	0	0	1	
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	5	0	5	0	0	0	0	1	2	0	3	
% App. Total	0	0	0		0	100	0		0	0	0		33.3	66.7	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.250	.250	.000	.375	

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File Name : 03_FON_Poplar_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	0	1	0	3	1	0	4	0	0	1	1	1	0	1	0	0	1	1	7	8
07:15 AM	0	0	0	0	0	0	3	1	1	4	0	0	0	0	0	0	4	0	0	4	1	8	9
07:30 AM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	3	4
07:45 AM	0	0	2	1	2	0	2	1	0	3	0	0	0	0	0	2	3	0	0	5	1	10	11
Total	0	0	4	2	4	0	9	3	1	12	0	0	1	1	1	2	9	0	0	11	4	28	32
08:00 AM	0	0	2	0	2	0	2	0	0	2	0	0	0	0	0	3	3	0	0	6	0	10	10
08:15 AM	0	0	2	2	2	0	3	0	0	3	0	0	0	0	0	1	0	0	0	1	2	6	8
08:30 AM	0	0	1	0	1	0	7	0	0	7	0	0	0	0	0	1	1	0	0	2	0	10	10
08:45 AM	0	0	1	1	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	1	5	6
Total	0	0	6	3	6	0	14	0	0	14	0	0	0	0	0	5	6	0	0	11	3	31	34
Grand Total	0	0	10	5	10	0	23	3	1	26	0	0	1	1	1	7	15	0	0	22	7	59	66
Apprch %	0	0	100			0	88.5	11.5			0	0	100			31.8	68.2	0					
Total %	0	0	16.9		16.9	0	39	5.1		44.1	0	0	1.7		1.7	11.9	25.4	0		37.3	10.6	89.4	

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	**3**	**1**	**4**	0	0	**1**	**1**	0	1	0	1	7
07:15 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	**4**	0	4	8
07:30 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
07:45 AM	0	0	**2**	**2**	0	2	1	3	0	0	0	0	**2**	3	0	**5**	**10**
Total Volume	0	0	4	4	0	9	3	12	0	0	1	1	2	9	0	11	28
% App. Total	0	0	100		0	75	25		0	0	100		18.2	81.8	0		
PHF	.000	.000	.500	.500	.000	.750	.750	.750	.000	.000	.250	.250	.250	.563	.000	.550	.700

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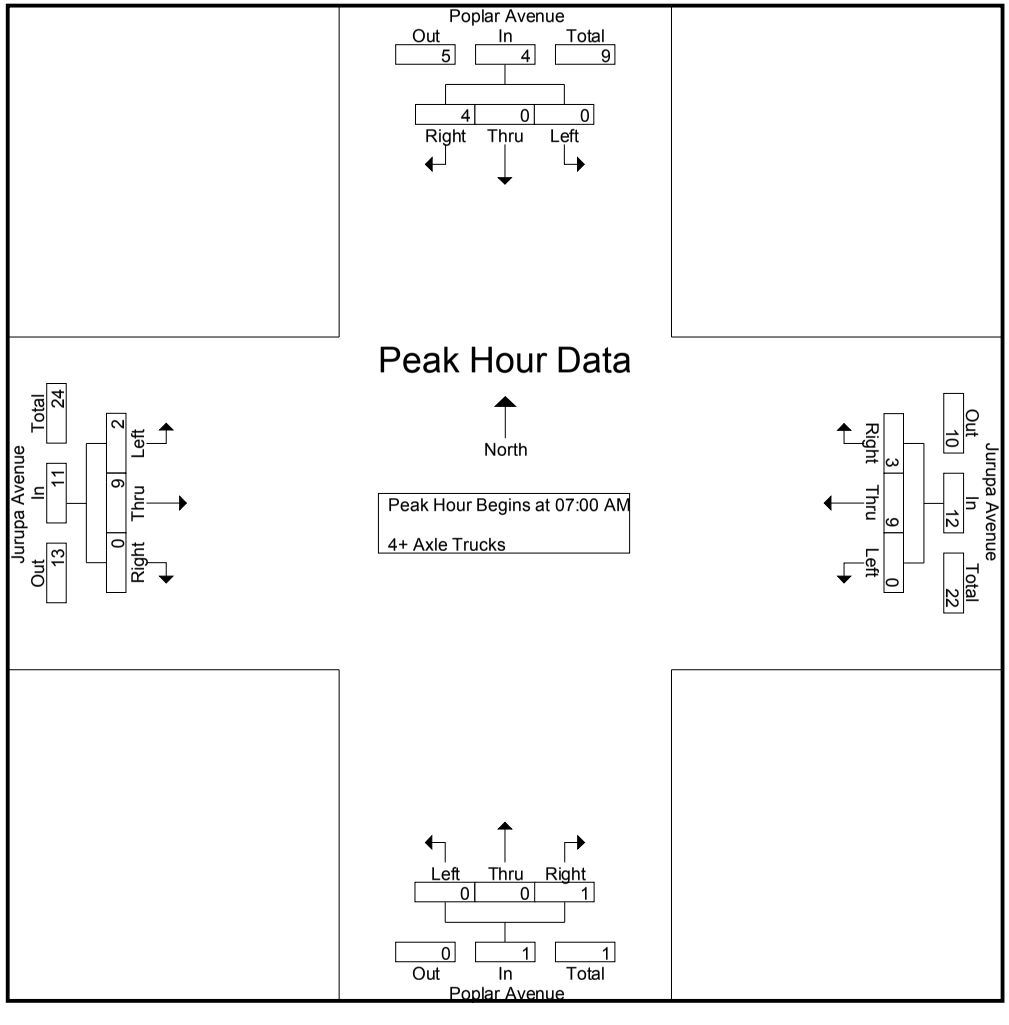
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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Page No : 3

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	1	1	0	**3**	**1**	**4**	0	0	**1**	**1**	0	1	0	1	
+15 mins.	0	0	0	0	0	3	1	4	0	0	0	0	0	**4**	0	4	
+30 mins.	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	
+45 mins.	0	0	**2**	**2**	0	2	1	3	0	0	0	0	**2**	3	0	**5**	
Total Volume	0	0	4	4	0	9	3	12	0	0	1	1	2	9	0	11	
% App. Total	0	0	100		0	75	25		0	0	100		18.2	81.8	0		
PHF	.000	.000	.500	.500	.000	.750	.750	.750	.000	.000	.250	.250	.250	.563	.000	.550	

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File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	6	13	9	5	28	26	90	2	0	118	8	9	23	16	40	14	232	23	1	269	22	455	477
04:15 PM	6	20	8	3	34	26	92	3	0	121	13	14	19	10	46	9	246	16	1	271	14	472	486
04:30 PM	25	18	10	4	53	34	95	9	3	138	15	7	18	9	40	8	252	18	0	278	16	509	525
04:45 PM	7	17	8	3	32	29	94	5	0	128	15	7	26	11	48	9	276	18	6	303	20	511	531
Total	44	68	35	15	147	115	371	19	3	505	51	37	86	46	174	40	1006	75	8	1121	72	1947	2019
05:00 PM	9	27	8	4	44	36	100	3	0	139	6	8	30	20	44	9	255	22	4	286	28	513	541
05:15 PM	4	19	10	5	33	45	81	0	0	126	10	14	30	18	54	16	219	24	8	259	31	472	503
05:30 PM	7	27	7	4	41	37	78	0	0	115	16	9	25	13	50	12	221	26	4	259	21	465	486
05:45 PM	5	18	8	4	31	35	88	1	0	124	12	13	27	18	52	10	190	35	2	235	24	442	466
Total	25	91	33	17	149	153	347	4	0	504	44	44	112	69	200	47	885	107	18	1039	104	1892	1996
Grand Total	69	159	68	32	296	268	718	23	3	1009	95	81	198	115	374	87	1891	182	26	2160	176	3839	4015
Apprch %	23.3	53.7	23			26.6	71.2	2.3			25.4	21.7	52.9			4	87.5	8.4					
Total %	1.8	4.1	1.8		7.7	7	18.7	0.6		26.3	2.5	2.1	5.2		9.7	2.3	49.3	4.7		56.3	4.4	95.6	
Passenger Vehicles	67	157	50		298	262	668	20		952	95	81	194		484	70	1791	180		2066	0	0	3800
% Passenger Vehicles	97.1	98.7	73.5	75	90.9	97.8	93	87	66.7	94.1	100	100	98	99.1	99	80.5	94.7	98.9	96.2	94.5	0	0	94.6
Large 2 Axle Vehicles	1	2	1		5	6	24	1		32	0	0	4		5	8	52	1		62	0	0	104
% Large 2 Axle Vehicles	1.4	1.3	1.5	3.1	1.5	2.2	3.3	4.3	33.3	3.2	0	0	2	0.9	1	9.2	2.7	0.5	3.8	2.8	0	0	2.6
3 Axle Vehicles	0	0	1		2	0	10	0		10	0	0	0		0	1	7	0		8	0	0	20
% 3 Axle Vehicles	0	0	1.5	3.1	0.6	0	1.4	0	0	1	0	0	0	0	0	1.1	0.4	0	0	0.4	0	0	0.5
4+ Axle Trucks	1	0	16		23	0	16	2		18	0	0	0		0	8	41	1		50	0	0	91
% 4+ Axle Trucks	1.4	0	23.5	18.8	7	0	2.2	8.7	0	1.8	0	0	0	0	0	9.2	2.2	0.5	0	2.3	0	0	2.3

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM																	
04:15 PM	6	20	8	34	26	92	3	121	13	**14**	19	46	**9**	246	16	271	472
04:30 PM	**25**	18	**10**	**53**	34	95	**9**	138	**15**	7	18	40	8	252	18	278	509
04:45 PM	7	17	8	32	29	94	5	128	15	7	26	**48**	9	**276**	18	**303**	511
05:00 PM	9	**27**	8	44	**36**	**100**	3	**139**	6	8	**30**	44	9	255	**22**	286	**513**
Total Volume	47	82	34	163	125	381	20	526	49	36	93	178	35	1029	74	1138	2005
% App. Total	28.8	50.3	20.9		23.8	72.4	3.8		27.5	20.2	52.2		3.1	90.4	6.5		
PHF	.470	.759	.850	.769	.868	.953	.556	.946	.817	.643	.775	.927	.972	.932	.841	.939	.977

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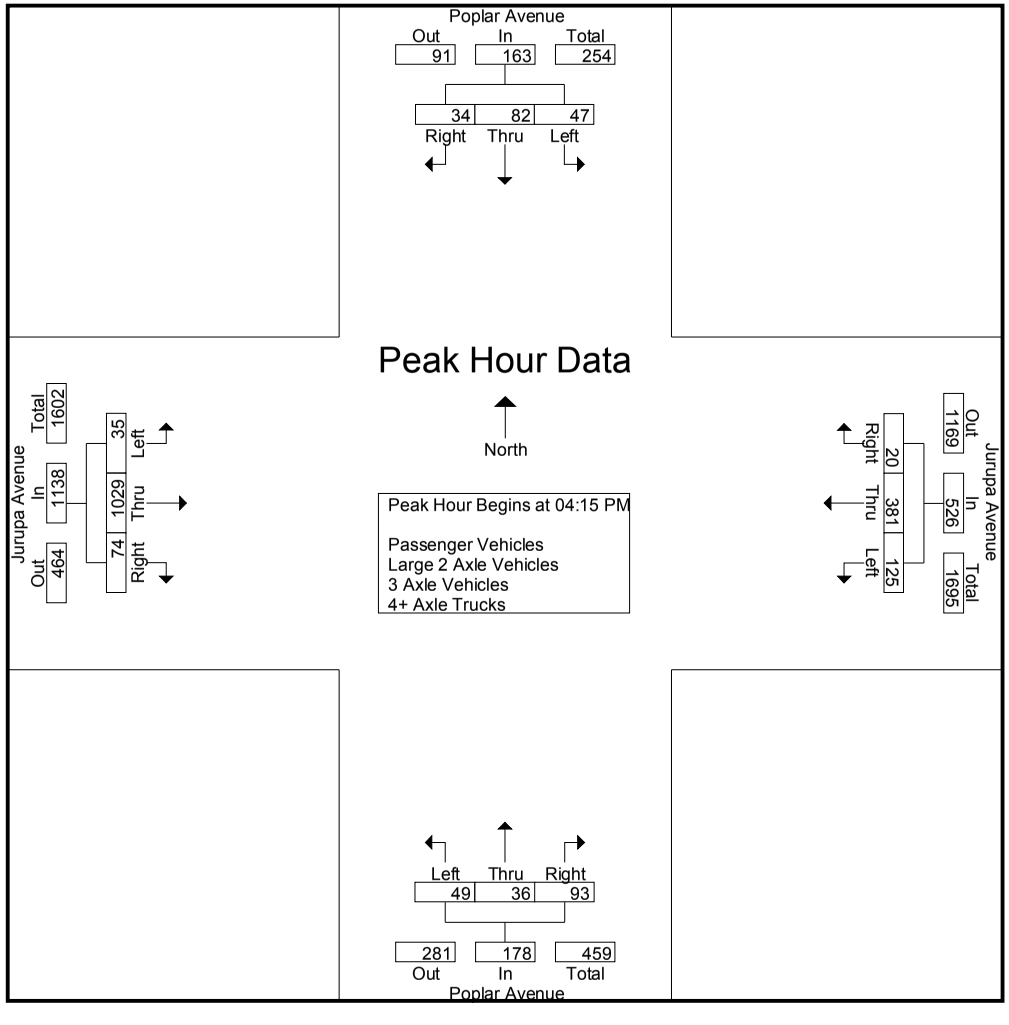

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	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:30 PM				05:00 PM				04:15 PM				
+0 mins.	6	20	8	34	34	95	**9**	138	6	8	**30**	44	**9**	246	16	271	
+15 mins.	**25**	18	**10**	**53**	29	94	5	128	10	**14**	30	**54**	8	252	18	278	
+30 mins.	7	17	8	32	36	**100**	3	**139**	**16**	9	25	50	9	**276**	18	**303**	
+45 mins.	9	**27**	8	44	**45**	81	0	126	12	13	27	52	9	255	**22**	286	
Total Volume	47	82	34	163	144	370	17	531	44	44	112	200	35	1029	74	1138	
% App. Total	28.8	50.3	20.9		27.1	69.7	3.2		22	22	56		3.1	90.4	6.5		
PHF	.470	.759	.850	.769	.800	.925	.472	.955	.688	.786	.933	.926	.972	.932	.841	.939	

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File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	5	13	5	3	23	24	82	2	0	108	8	9	22	16	39	10	218	23	1	251	20	421	441
04:15 PM	5	20	5	1	30	26	86	3	0	115	13	14	17	10	44	7	235	15	1	257	12	446	458
04:30 PM	25	18	9	4	52	33	91	8	2	132	15	7	18	9	40	6	238	18	0	262	15	486	501
04:45 PM	7	17	5	2	29	29	85	5	0	119	15	7	26	11	48	8	259	17	5	284	18	480	498
Total	42	68	24	10	134	112	344	18	2	474	51	37	83	46	171	31	950	73	7	1054	65	1833	1898
05:00 PM	9	26	6	3	41	35	91	1	0	127	6	8	30	20	44	8	245	22	4	275	27	487	514
05:15 PM	4	19	8	5	31	43	75	0	0	118	10	14	30	18	54	12	202	24	8	238	31	441	472
05:30 PM	7	26	4	2	37	37	74	0	0	111	16	9	25	13	50	9	214	26	4	249	19	447	466
05:45 PM	5	18	8	4	31	35	84	1	0	120	12	13	26	17	51	10	180	35	2	225	23	427	450
Total	25	89	26	14	140	150	324	2	0	476	44	44	111	68	199	39	841	107	18	987	100	1802	1902
Grand Total	67	157	50	24	274	262	668	20	2	950	95	81	194	114	370	70	1791	180	25	2041	165	3635	3800
Apprch %	24.5	57.3	18.2			27.6	70.3	2.1			25.7	21.9	52.4			3.4	87.8	8.8					
Total %	1.8	4.3	1.4		7.5	7.2	18.4	0.6		26.1	2.6	2.2	5.3		10.2	1.9	49.3	5		56.1	4.3	95.7	

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	5	20	5	30	26	86	3	115	13	**14**	17	44	7	235	15	257	446
04:30 PM	**25**	18	**9**	**52**	33	**91**	**8**	**132**	**15**	7	18	40	6	238	18	262	486
04:45 PM	7	17	5	29	29	85	5	119	15	7	26	**48**	**8**	**259**	17	**284**	480
05:00 PM	9	**26**	6	41	**35**	91	1	127	6	8	**30**	44	8	245	**22**	275	**487**
Total Volume	46	81	25	152	123	353	17	493	49	36	91	176	29	977	72	1078	1899
% App. Total	30.3	53.3	16.4		24.9	71.6	3.4		27.8	20.5	51.7		2.7	90.6	6.7		
PHF	.460	.779	.694	.731	.879	.970	.531	.934	.817	.643	.758	.917	.906	.943	.818	.949	.975

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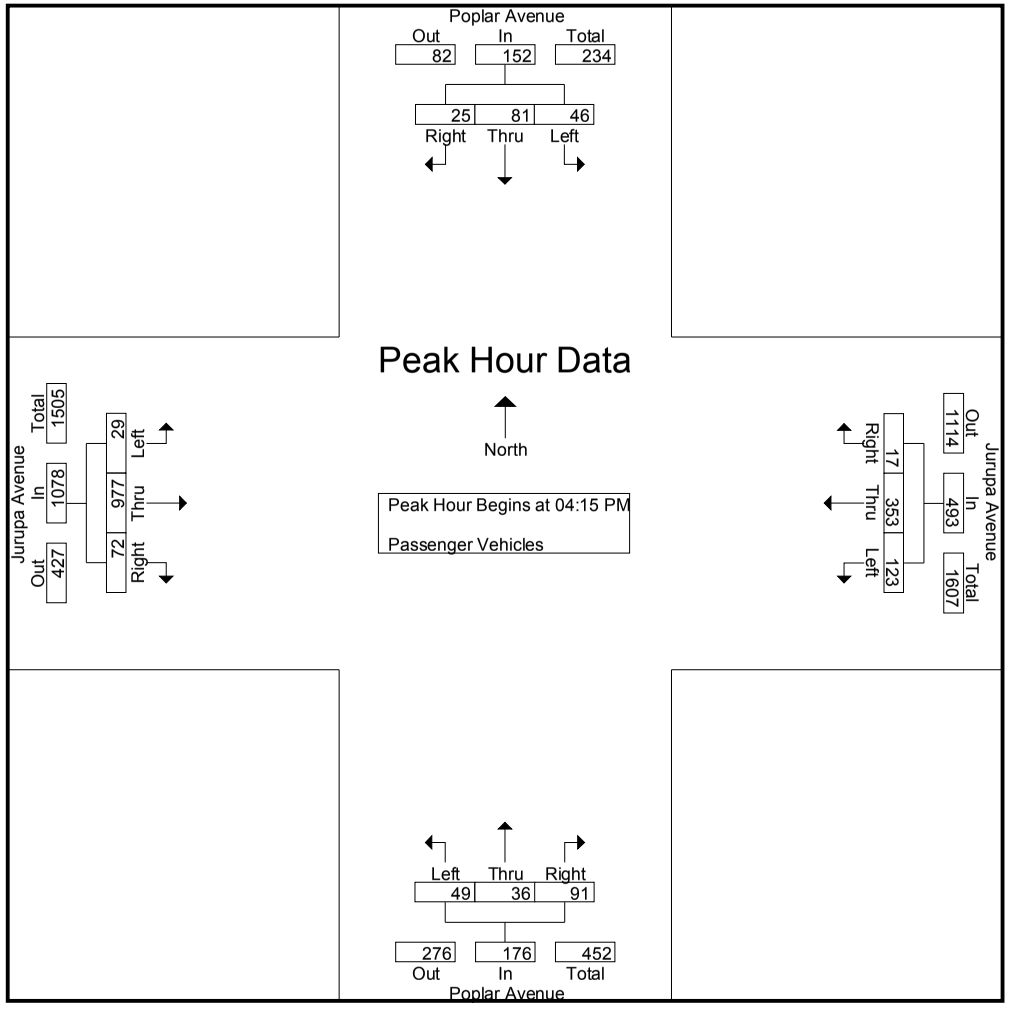
(951) 268-6268

City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	5	20	5	30	26	86	3	115	13	**14**	17	44	7	235	15	257	
+15 mins.	**25**	18	**9**	**52**	33	**91**	**8**	**132**	**15**	7	18	40	6	238	18	262	
+30 mins.	7	17	5	29	29	85	5	119	15	7	26	**48**	**8**	**259**	17	**284**	
+45 mins.	9	**26**	6	41	**35**	91	1	127	6	8	**30**	44	8	245	**22**	275	
Total Volume	46	81	25	152	123	353	17	493	49	36	91	176	29	977	72	1078	
% App. Total	30.3	53.3	16.4		24.9	71.6	3.4		27.8	20.5	51.7		2.7	90.6	6.7		
PHF	.460	.779	.694	.731	.879	.970	.531	.934	.817	.643	.758	.917	.906	.943	.818	.949	

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City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	1	1	2	3	0	0	5	0	0	1	0	1	2	7	0	0	9	1	16	17
04:15 PM	1	0	0	0	1	0	3	0	0	3	0	0	2	0	2	1	6	0	0	7	0	13	13
04:30 PM	0	0	0	0	0	1	2	1	1	4	0	0	0	0	0	1	11	0	0	12	1	16	17
04:45 PM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9	1	1	10	1	16	17
Total	1	0	1	1	2	3	14	1	1	18	0	0	3	0	3	4	33	1	1	38	3	61	64
05:00 PM	0	1	0	0	1	1	4	0	0	5	0	0	0	0	0	1	4	0	0	5	0	11	11
05:15 PM	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	1	7	0	0	8	0	12	12
05:30 PM	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	2	4	0	0	6	0	10	10
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	1	1	1	0	4	0	0	4	1	6	7
Total	0	2	0	0	2	3	10	0	0	13	0	0	1	1	1	4	19	0	0	23	1	39	40
Grand Total	1	2	1	1	4	6	24	1	1	31	0	0	4	1	4	8	52	1	1	61	4	100	104
Apprch %	25	50	25			19.4	77.4	3.2			0	0	100			13.1	85.2	1.6					
Total %	1	2	1		4	6	24	1		31	0	0	4		4	8	52	1		61	3.8	96.2	

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**1**	0	0	**1**	0	3	0	3	0	0	**2**	**2**	**1**	6	0	7	13
04:30 PM	0	0	0	0	**1**	2	**1**	4	0	0	0	0	1	**11**	0	**12**	**16**
04:45 PM	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	9	**1**	10	16
05:00 PM	0	**1**	0	1	1	4	0	5	0	0	0	0	1	4	0	5	11
Total Volume	1	1	0	2	2	15	1	18	0	0	2	2	3	30	1	34	56
% App. Total	50	50	0		11.1	83.3	5.6		0	0	100		8.8	88.2	2.9		
PHF	.250	.250	.000	.500	.500	.625	.250	.750	.000	.000	.250	.250	.750	.682	.250	.708	.875

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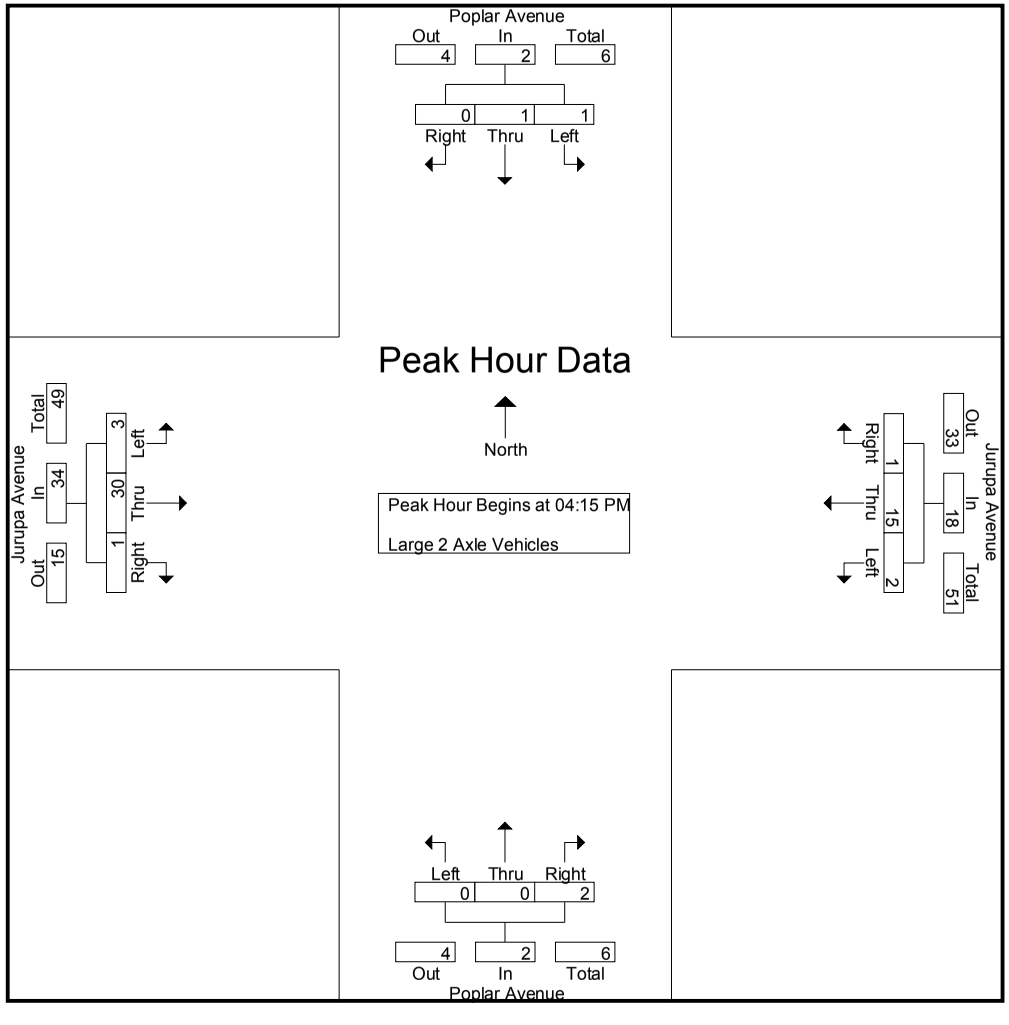
City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	**1**	0	0	**1**	0	3	0	3	0	0	**2**	**2**	**1**	6	0	7	
+15 mins.	0	0	0	0	**1**	2	**1**	4	0	0	0	0	1	**11**	0	**12**	
+30 mins.	0	0	0	0	0	**6**	0	**6**	0	0	0	0	0	9	**1**	10	
+45 mins.	0	**1**	0	1	1	4	0	5	0	0	0	0	1	4	0	5	
Total Volume	1	1	0	2	2	15	1	18	0	0	2	2	3	30	1	34	
% App. Total	50	50	0		11.1	83.3	5.6		0	0	100		8.8	88.2	2.9		
PHF	.250	.250	.000	.500	.500	.625	.250	.750	.000	.000	.250	.250	.750	.682	.250	.708	

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City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	3	0	0	4	0	6	6
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	1	3	0	0	4	0	8	8
05:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
05:15 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	6	6
05:30 PM	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
Total	0	0	1	1	1	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	1	11	12
Grand Total	0	0	1	1	1	0	10	0	0	10	0	0	0	0	0	1	7	0	0	8	1	19	20
Apprch %	0	0	100			0	100	0			0	0	0			12.5	87.5	0					
Total %	0	0	5.3		5.3	0	52.6	0		52.6	0	0	0		0	5.3	36.8	0		42.1	5	95	

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**1**	**3**	0	**4**	**6**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total Volume	0	0	0	0	0	5	0	5	0	0	0	0	1	3	0	4	9
% App. Total	0	0	0		0	100	0		0	0	0		25	75	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.250	.250	.000	.250	.375

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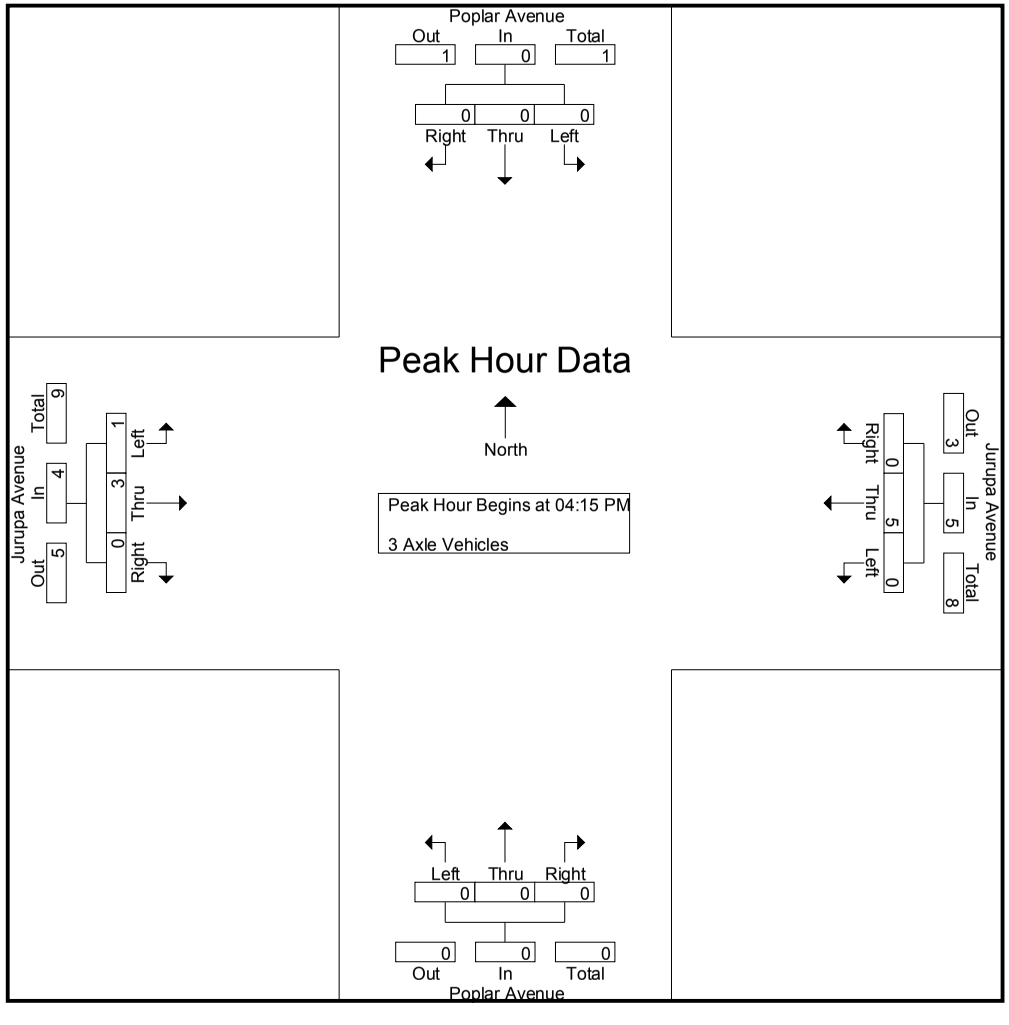
City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**1**	**3**	0	**4**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	5	0	5	0	0	0	0	1	3	0	4	
% App. Total	0	0	0		0	100	0		0	0	0		25	75	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.250	.250	.000	.250	

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City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Poplar Avenue Southbound					Jurupa Avenue Westbound					Poplar Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	3	1	4	0	4	0	0	4	0	0	0	0	0	2	7	0	0	9	1	17	18
04:15 PM	0	0	3	2	3	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	2	7	9
04:30 PM	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	1	3	0	0	4	0	7	7
04:45 PM	0	0	3	1	3	0	2	0	0	2	0	0	0	0	0	1	8	0	0	9	1	14	15
Total	1	0	10	4	11	0	9	0	0	9	0	0	0	0	0	4	20	1	0	25	4	45	49
05:00 PM	0	0	2	1	2	0	3	2	0	5	0	0	0	0	0	0	6	0	0	6	1	13	14
05:15 PM	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	3	7	0	0	10	0	13	13
05:30 PM	0	0	2	1	2	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	1	7	8
05:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	0	7	7
Total	0	0	6	2	6	0	7	2	0	9	0	0	0	0	0	4	21	0	0	25	2	40	42
Grand Total	1	0	16	6	17	0	16	2	0	18	0	0	0	0	0	8	41	1	0	50	6	85	91
Apprch %	5.9	0	94.1			0	88.9	11.1			0	0	0			16	82	2					
Total %	1.2	0	18.8		20	0	18.8	2.4		21.2	0	0	0		0	9.4	48.2	1.2		58.8	6.6	93.4	

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	**3**	**3**	0	1	0	1	0	0	0	0	0	2	**1**	3	7
04:30 PM	0	0	1	1	0	2	0	2	0	0	0	0	**1**	3	0	4	7
04:45 PM	0	0	3	3	0	2	0	2	0	0	0	0	1	**8**	0	**9**	**14**
05:00 PM	0	0	2	2	0	**3**	**2**	**5**	0	0	0	0	0	6	0	6	13
Total Volume	0	0	9	9	0	8	2	10	0	0	0	0	2	19	1	22	41
% App. Total	0	0	100		0	80	20		0	0	0		9.1	86.4	4.5		
PHF	.000	.000	.750	.750	.000	.667	.250	.500	.000	.000	.000	.000	.500	.594	.250	.611	.732

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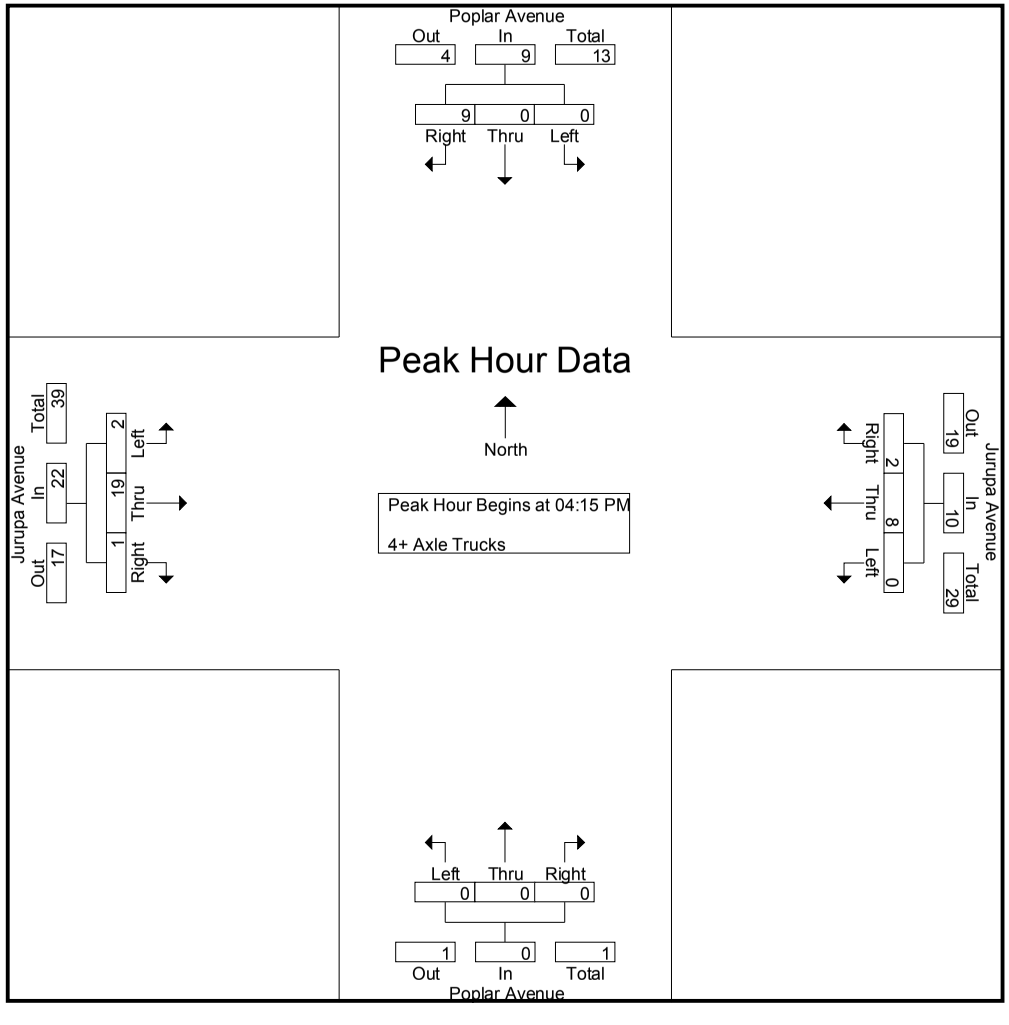
City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 03_FON_Poplar_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Poplar Avenue Southbound				Jurupa Avenue Westbound				Poplar Avenue Northbound				Jurupa 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				04:15 PM				04:15 PM				04:15 PM				
+0 mins.	0	0	**3**	**3**	0	1	0	1	0	0	0	0	0	2	**1**	3	
+15 mins.	0	0	1	1	0	2	0	2	0	0	0	0	**1**	3	0	4	
+30 mins.	0	0	3	3	0	2	0	2	0	0	0	0	1	**8**	0	**9**	
+45 mins.	0	0	2	2	0	**3**	**2**	**5**	0	0	0	0	0	6	0	6	
Total Volume	0	0	9	9	0	8	2	10	0	0	0	0	2	19	1	22	
% App. Total	0	0	100		0	80	20		0	0	0		9.1	86.4	4.5		
PHF	.000	.000	.750	.750	.000	.667	.250	.500	.000	.000	.000	.000	.500	.594	.250	.611	

Location: Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Poplar Avenue	East Leg Jurupa Avenue	South Leg Poplar Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	1

	North Leg Poplar Avenue	East Leg Jurupa Avenue	South Leg Poplar Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	1	1
4:45 PM	1	0	0	0	1
5:00 PM	0	0	2	0	2
5:15 PM	0	0	0	1	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	2	2	5

Location: Fontana
N/S: Poplar Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Poplar Avenue			Westbound Jurupa Avenue			Northbound Poplar Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	1	0	1

	Southbound Poplar Avenue			Westbound Jurupa Avenue			Northbound Poplar Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	2	0	0	0	0	0	3

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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	260	159	0	419	121	0	108	52	229	0	196	68	1	264	0	0	0	0	0	53	912	965
07:15 AM	0	310	115	0	425	91	0	115	44	206	0	230	78	3	308	0	0	0	0	0	47	939	986
07:30 AM	0	274	122	0	396	85	0	102	48	187	0	176	84	5	260	0	0	0	0	0	53	843	896
07:45 AM	0	232	130	0	362	115	0	125	50	240	0	154	60	0	214	0	0	0	0	0	50	816	866
Total	0	1076	526	0	1602	412	0	450	194	862	0	756	290	9	1046	0	0	0	0	0	203	3510	3713
08:00 AM	0	223	128	0	351	85	0	104	59	189	0	147	40	3	187	0	0	0	0	0	62	727	789
08:15 AM	0	189	111	0	300	85	0	90	35	175	0	113	28	0	141	0	0	0	0	0	35	616	651
08:30 AM	0	202	79	0	281	65	0	85	29	150	0	129	40	1	169	0	0	0	0	0	30	600	630
08:45 AM	0	163	84	0	247	74	0	85	35	159	0	140	43	4	183	0	0	0	0	0	39	589	628
Total	0	777	402	0	1179	309	0	364	158	673	0	529	151	8	680	0	0	0	0	0	166	2532	2698
Grand Total	0	1853	928	0	2781	721	0	814	352	1535	0	1285	441	17	1726	0	0	0	0	0	369	6042	6411
Apprch %	0	66.6	33.4			47	0	53			0	74.4	25.6			0	0	0					
Total %	0	30.7	15.4		46	11.9	0	13.5		25.4	0	21.3	7.3		28.6	0	0	0		0	5.8	94.2	
Passenger Vehicles	0	1714	890		2604	645	0	751		1724	0	1210	378		1601	0	0	0		0	0	0	5929
% Passenger Vehicles	0	92.5	95.9	0	93.6	89.5	0	92.3	93.2	91.4	0	94.2	85.7	76.5	91.9	0	0	0	0	0	0	0	92.5
Large 2 Axle Vehicles	0	70	24		94	22	0	26		59	0	39	21		63	0	0	0		0	0	0	216
% Large 2 Axle Vehicles	0	3.8	2.6	0	3.4	3.1	0	3.2	3.1	3.1	0	3	4.8	17.6	3.6	0	0	0	0	0	0	0	3.4
3 Axle Vehicles	0	29	5		34	11	0	9		23	0	18	7		25	0	0	0		0	0	0	82
% 3 Axle Vehicles	0	1.6	0.5	0	1.2	1.5	0	1.1	0.9	1.2	0	1.4	1.6	0	1.4	0	0	0	0	0	0	0	1.3
4+ Axle Trucks	0	40	9		49	43	0	28		81	0	18	35		54	0	0	0		0	0	0	184
% 4+ Axle Trucks	0	2.2	1	0	1.8	6	0	3.4	2.8	4.3	0	1.4	7.9	5.9	3.1	0	0	0	0	0	0	0	2.9

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	260	**159**	419	**121**	0	108	229	0	196	68	264	0	0	0	0	912
07:15 AM	0	**310**	115	**425**	91	0	115	206	0	**230**	78	**308**	0	0	0	0	**939**
07:30 AM	0	274	122	396	85	0	102	187	0	176	**84**	260	0	0	0	0	843
07:45 AM	0	232	130	362	115	0	**125**	**240**	0	154	60	214	0	0	0	0	816
Total Volume	0	1076	526	1602	412	0	450	862	0	756	290	1046	0	0	0	0	3510
% App. Total	0	67.2	32.8		47.8	0	52.2		0	72.3	27.7		0	0	0		
PHF	.000	.868	.827	.942	.851	.000	.900	.898	.000	.822	.863	.849	.000	.000	.000	.000	.935

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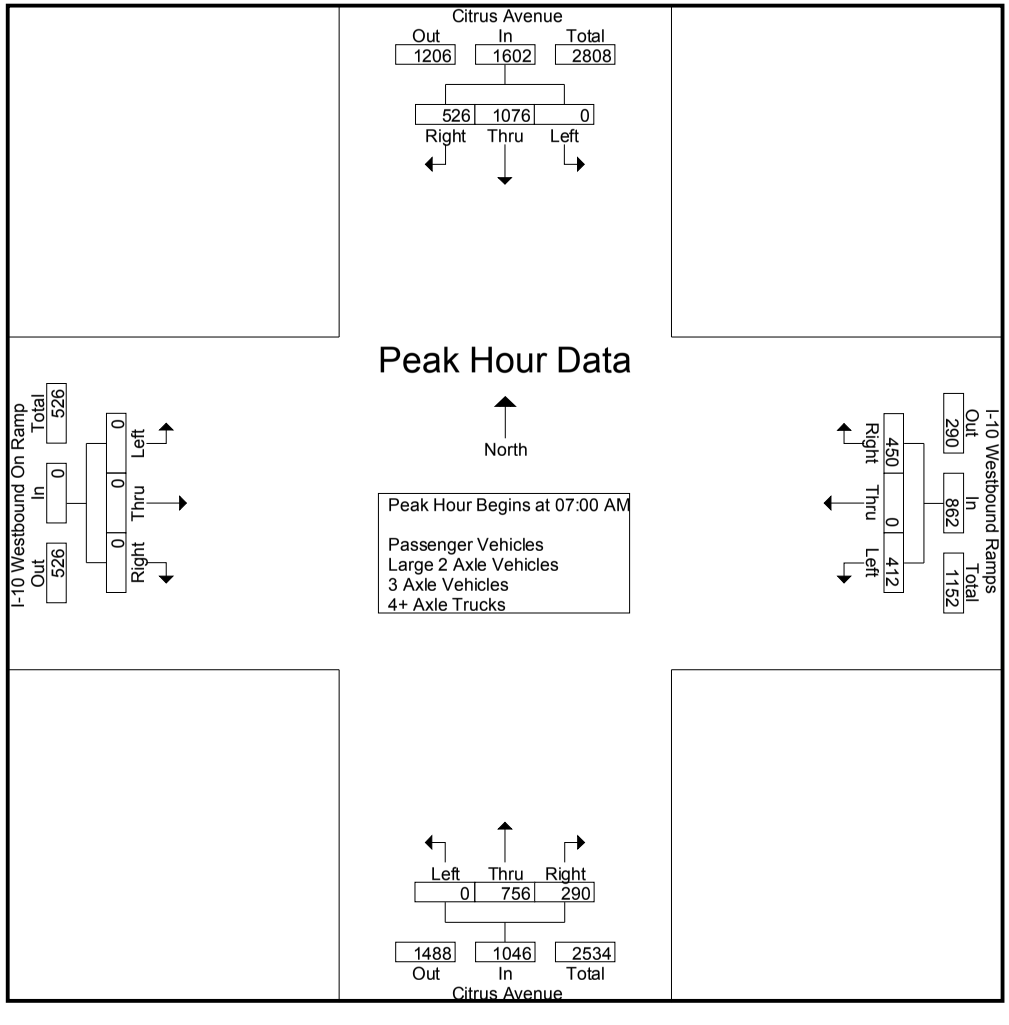
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
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File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	260	**159**	419	**121**	0	108	229	0	196	68	264	0	0	0	0	
+15 mins.	0	**310**	115	**425**	91	0	115	206	0	**230**	78	**308**	0	0	0	0	
+30 mins.	0	274	122	396	85	0	102	187	0	176	**84**	260	0	0	0	0	
+45 mins.	0	232	130	362	115	0	**125**	**240**	0	154	60	214	0	0	0	0	
Total Volume	0	1076	526	1602	412	0	450	862	0	756	290	1046	0	0	0	0	
% App. Total	0	67.2	32.8		47.8	0	52.2		0	72.3	27.7		0	0	0		
PHF	.000	.868	.827	.942	.851	.000	.900	.898	.000	.822	.863	.849	.000	.000	.000	.000	

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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	252	153	0	405	113	0	102	50	215	0	182	60	1	242	0	0	0	0	0	51	862	913
07:15 AM	0	298	113	0	411	78	0	107	42	185	0	224	70	3	294	0	0	0	0	0	45	890	935
07:30 AM	0	257	122	0	379	78	0	98	46	176	0	172	71	4	243	0	0	0	0	0	50	798	848
07:45 AM	0	217	127	0	344	99	0	120	48	219	0	143	54	0	197	0	0	0	0	0	48	760	808
Total	0	1024	515	0	1539	368	0	427	186	795	0	721	255	8	976	0	0	0	0	0	194	3310	3504
08:00 AM	0	208	123	0	331	77	0	94	55	171	0	135	30	2	165	0	0	0	0	0	57	667	724
08:15 AM	0	159	101	0	260	77	0	77	32	154	0	105	27	0	132	0	0	0	0	0	32	546	578
08:30 AM	0	180	76	0	256	59	0	78	26	137	0	118	35	1	153	0	0	0	0	0	27	546	573
08:45 AM	0	143	75	0	218	64	0	75	29	139	0	131	31	2	162	0	0	0	0	0	31	519	550
Total	0	690	375	0	1065	277	0	324	142	601	0	489	123	5	612	0	0	0	0	0	147	2278	2425
Grand Total	0	1714	890	0	2604	645	0	751	328	1396	0	1210	378	13	1588	0	0	0	0	0	341	5588	5929
Apprch %	0	65.8	34.2			46.2	0	53.8			0	76.2	23.8			0	0	0					
Total %	0	30.7	15.9		46.6	11.5	0	13.4		25	0	21.7	6.8		28.4	0	0	0		0	5.8	94.2	

3.1-100

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	252	**153**	405	**113**	0	102	215	0	182	60	242	0	0	0	0	862
07:15 AM	0	**298**	113	**411**	78	0	107	185	0	**224**	70	**294**	0	0	0	0	**890**
07:30 AM	0	257	122	379	78	0	98	176	0	172	**71**	243	0	0	0	0	798
07:45 AM	0	217	127	344	99	0	**120**	**219**	0	143	54	197	0	0	0	0	760
Total Volume	0	1024	515	1539	368	0	427	795	0	721	255	976	0	0	0	0	3310
% App. Total	0	66.5	33.5		46.3	0	53.7		0	73.9	26.1		0	0	0		
PHF	.000	.859	.842	.936	.814	.000	.890	.908	.000	.805	.898	.830	.000	.000	.000	.000	.930

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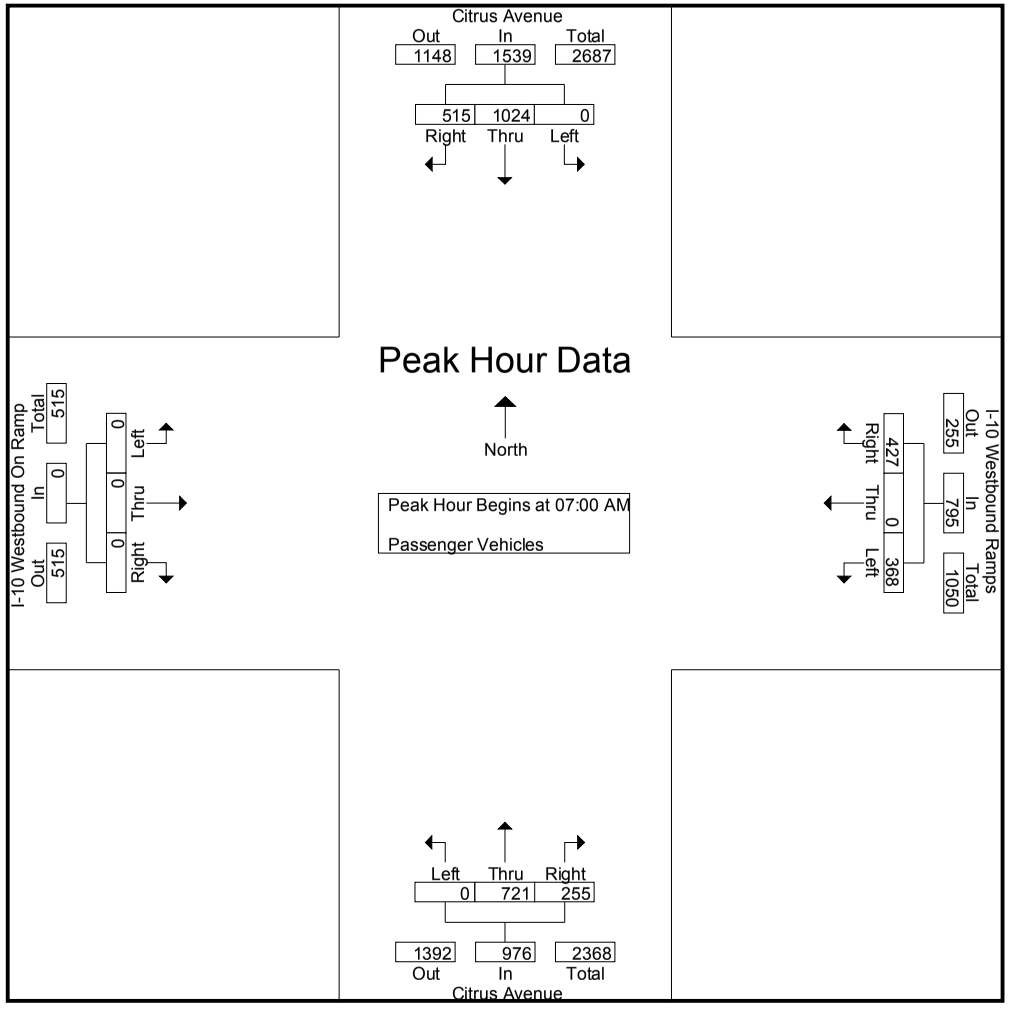
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	252	**153**	405	**113**	0	102	215	0	182	60	242	0	0	0	0	
+15 mins.	0	**298**	113	**411**	78	0	107	185	0	**224**	70	**294**	0	0	0	0	
+30 mins.	0	257	122	379	78	0	98	176	0	172	**71**	243	0	0	0	0	
+45 mins.	0	217	127	344	99	0	**120**	**219**	0	143	54	197	0	0	0	0	
Total Volume	0	1024	515	1539	368	0	427	795	0	721	255	976	0	0	0	0	
% App. Total	0	66.5	33.5		46.3	0	53.7		0	73.9	26.1		0	0	0		
PHF	.000	.859	.842	.936	.814	.000	.890	.908	.000	.805	.898	.830	.000	.000	.000	.000	

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City of Fontana
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File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	4	4	0	8	1	0	3	1	4	0	10	4	0	14	0	0	0	0	0	1	26	27
07:15 AM	0	4	1	0	5	4	0	2	0	6	0	3	2	0	5	0	0	0	0	0	0	16	16
07:30 AM	0	11	0	0	11	2	0	2	2	4	0	1	1	0	2	0	0	0	0	0	2	17	19
07:45 AM	0	5	1	0	6	4	0	3	2	7	0	6	0	0	6	0	0	0	0	0	2	19	21
Total	0	24	6	0	30	11	0	10	5	21	0	20	7	0	27	0	0	0	0	0	5	78	83
08:00 AM	0	8	2	0	10	2	0	4	2	6	0	4	6	1	10	0	0	0	0	0	3	26	29
08:15 AM	0	20	9	0	29	4	0	6	2	10	0	5	0	0	5	0	0	0	0	0	2	44	46
08:30 AM	0	11	2	0	13	0	0	2	0	2	0	4	1	0	5	0	0	0	0	0	0	20	20
08:45 AM	0	7	5	0	12	5	0	4	2	9	0	6	7	2	13	0	0	0	0	0	4	34	38
Total	0	46	18	0	64	11	0	16	6	27	0	19	14	3	33	0	0	0	0	0	9	124	133
Grand Total	0	70	24	0	94	22	0	26	11	48	0	39	21	3	60	0	0	0	0	0	14	202	216
Apprch %	0	74.5	25.5			45.8	0	54.2			0	65	35			0	0	0					
Total %	0	34.7	11.9		46.5	10.9	0	12.9		23.8	0	19.3	10.4		29.7	0	0	0		0	6.5	93.5	

3.1-103

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	4	**4**	8	1	0	**3**	4	0	**10**	**4**	**14**	0	0	0	0	**26**
07:15 AM	0	4	1	5	**4**	0	2	6	0	3	2	5	0	0	0	0	16
07:30 AM	0	**11**	0	**11**	2	0	2	4	0	1	1	2	0	0	0	0	17
07:45 AM	0	5	1	6	4	0	3	**7**	0	6	0	6	0	0	0	0	19
Total Volume	0	24	6	30	11	0	10	21	0	20	7	27	0	0	0	0	78
% App. Total	0	80	20		52.4	0	47.6		0	74.1	25.9		0	0	0		
PHF	.000	.545	.375	.682	.688	.000	.833	.750	.000	.500	.438	.482	.000	.000	.000	.000	.750

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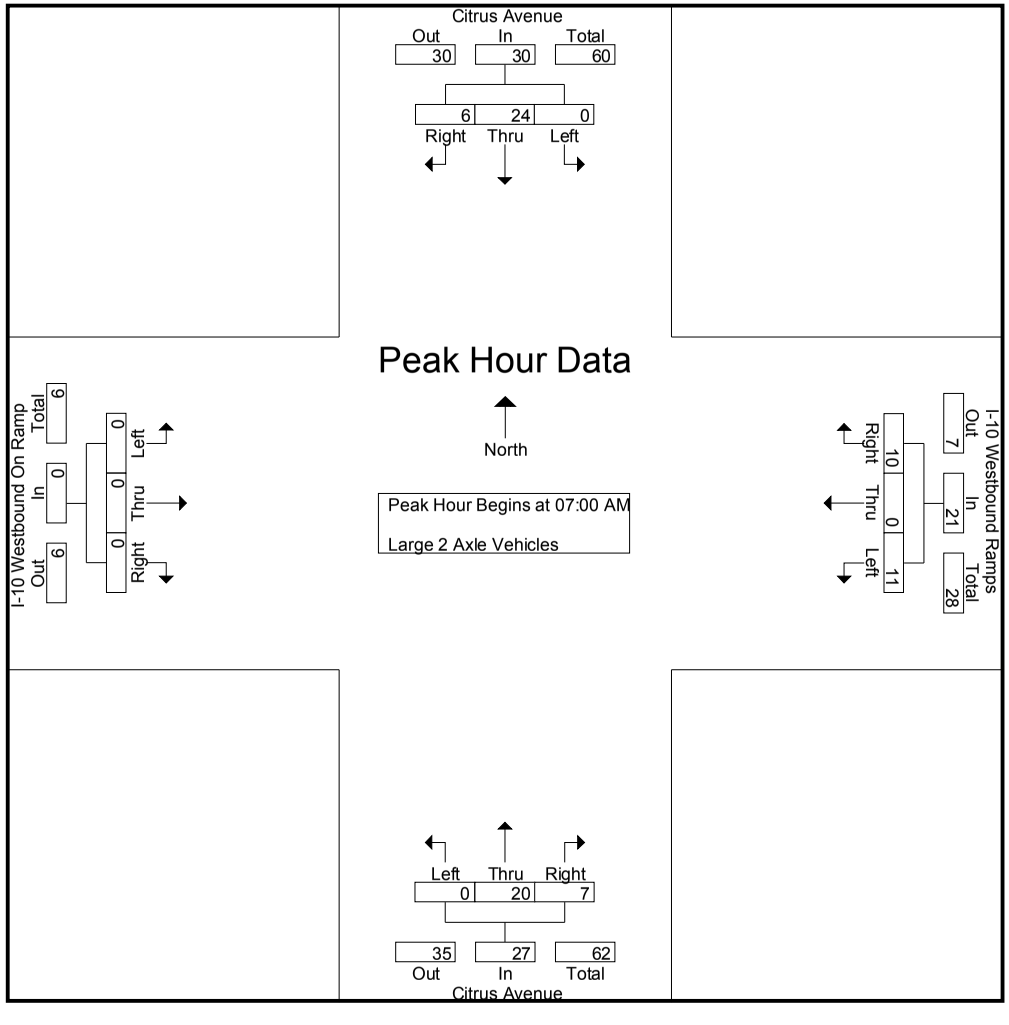
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
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File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	4	**4**	8	1	0	**3**	4	0	**10**	**4**	**14**	0	0	0	0	
+15 mins.	0	4	1	5	**4**	0	2	6	0	3	2	5	0	0	0	0	
+30 mins.	0	**11**	0	**11**	2	0	2	4	0	1	1	2	0	0	0	0	
+45 mins.	0	5	1	6	4	0	3	**7**	0	6	0	6	0	0	0	0	
Total Volume	0	24	6	30	11	0	10	21	0	20	7	27	0	0	0	0	
% App. Total	0	80	20		52.4	0	47.6		0	74.1	25.9		0	0	0		
PHF	.000	.545	.375	.682	.688	.000	.833	.750	.000	.500	.438	.482	.000	.000	.000	.000	

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File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	3	0	0	3	2	0	2	1	4	0	0	0	0	0	0	0	0	0	0	1	7	8
07:15 AM	0	3	1	0	4	3	0	1	0	4	0	2	0	0	2	0	0	0	0	0	0	10	10
07:30 AM	0	1	0	0	1	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	0	5	5
07:45 AM	0	2	0	0	2	3	0	1	0	4	0	2	1	0	3	0	0	0	0	0	0	9	9
Total	0	9	1	0	10	9	0	4	1	13	0	6	2	0	8	0	0	0	0	0	1	31	32
08:00 AM	0	5	2	0	7	0	0	2	1	2	0	5	1	0	6	0	0	0	0	0	1	15	16
08:15 AM	0	4	1	0	5	1	0	1	1	2	0	1	1	0	2	0	0	0	0	0	1	9	10
08:30 AM	0	6	0	0	6	1	0	1	0	2	0	3	2	0	5	0	0	0	0	0	0	13	13
08:45 AM	0	5	1	0	6	0	0	1	0	1	0	3	1	0	4	0	0	0	0	0	0	11	11
Total	0	20	4	0	24	2	0	5	2	7	0	12	5	0	17	0	0	0	0	0	2	48	50
Grand Total	0	29	5	0	34	11	0	9	3	20	0	18	7	0	25	0	0	0	0	0	3	79	82
Apprch %	0	85.3	14.7			55	0	45			0	72	28			0	0	0					
Total %	0	36.7	6.3		43	13.9	0	11.4		25.3	0	22.8	8.9		31.6	0	0	0		0	3.7	96.3	

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**3**	0	3	2	0	**2**	**4**	0	0	0	0	0	0	0	0	7
07:15 AM	0	3	**1**	**4**	**3**	0	1	4	0	**2**	0	2	0	0	0	0	**10**
07:30 AM	0	1	0	1	1	0	0	1	0	2	**1**	**3**	0	0	0	0	5
07:45 AM	0	2	0	2	3	0	1	4	0	2	1	3	0	0	0	0	9
Total Volume	0	9	1	10	9	0	4	13	0	6	2	8	0	0	0	0	31
% App. Total	0	90	10		69.2	0	30.8		0	75	25		0	0	0		
PHF	.000	.750	.250	.625	.750	.000	.500	.813	.000	.750	.500	.667	.000	.000	.000	.000	.775

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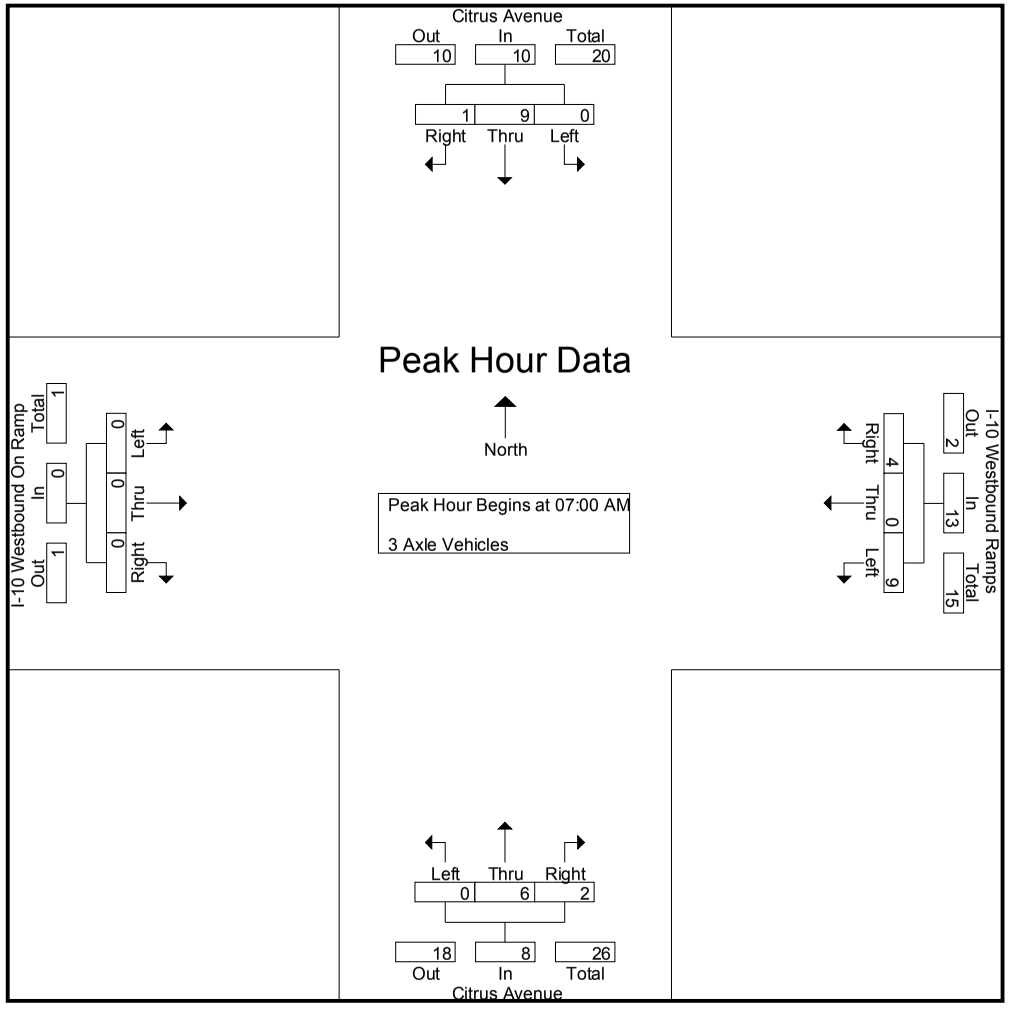
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
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	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	**3**	0	3	2	0	**2**	**4**	0	0	0	0	0	0	0	0	
+15 mins.	0	3	**1**	**4**	**3**	0	1	4	0	**2**	0	2	0	0	0	0	
+30 mins.	0	1	0	1	1	0	0	1	0	2	**1**	**3**	0	0	0	0	
+45 mins.	0	2	0	2	3	0	1	4	0	2	1	3	0	0	0	0	
Total Volume	0	9	1	10	9	0	4	13	0	6	2	8	0	0	0	0	
% App. Total	0	90	10		69.2	0	30.8		0	75	25		0	0	0		
PHF	.000	.750	.250	.625	.750	.000	.500	.813	.000	.750	.500	.667	.000	.000	.000	.000	

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City of Fontana
N/S: Citrus Avenue
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Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	2	0	3	5	0	1	0	6	0	4	4	0	8	0	0	0	0	0	0	17	17
07:15 AM	0	5	0	0	5	6	0	5	2	11	0	1	6	0	7	0	0	0	0	0	2	23	25
07:30 AM	0	5	0	0	5	4	0	2	0	6	0	1	11	1	12	0	0	0	0	0	1	23	24
07:45 AM	0	8	2	0	10	9	0	1	0	10	0	3	5	0	8	0	0	0	0	0	0	28	28
Total	0	19	4	0	23	24	0	9	2	33	0	9	26	1	35	0	0	0	0	0	3	91	94
08:00 AM	0	2	1	0	3	6	0	4	1	10	0	3	3	0	6	0	0	0	0	0	1	19	20
08:15 AM	0	6	0	0	6	3	0	6	0	9	0	2	0	0	2	0	0	0	0	0	0	17	17
08:30 AM	0	5	1	0	6	5	0	4	3	9	0	4	2	0	6	0	0	0	0	0	3	21	24
08:45 AM	0	8	3	0	11	5	0	5	4	10	0	0	4	0	4	0	0	0	0	0	4	25	29
Total	0	21	5	0	26	19	0	19	8	38	0	9	9	0	18	0	0	0	0	0	8	82	90
Grand Total	0	40	9	0	49	43	0	28	10	71	0	18	35	1	53	0	0	0	0	0	11	173	184
Apprch %	0	81.6	18.4			60.6	0	39.4			0	34	66			0	0	0					
Total %	0	23.1	5.2		28.3	24.9	0	16.2		41	0	10.4	20.2		30.6	0	0	0		0	6	94	

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	**2**	3	5	0	1	6	0	**4**	4	8	0	0	0	0	17
07:15 AM	0	5	0	5	6	0	**5**	**11**	0	1	6	7	0	0	0	0	23
07:30 AM	0	5	0	5	4	0	2	6	0	1	**11**	**12**	0	0	0	0	23
07:45 AM	0	**8**	2	**10**	**9**	0	1	10	0	3	5	8	0	0	0	0	**28**
Total Volume	0	19	4	23	24	0	9	33	0	9	26	35	0	0	0	0	91
% App. Total	0	82.6	17.4		72.7	0	27.3		0	25.7	74.3		0	0	0		
PHF	.000	.594	.500	.575	.667	.000	.450	.750	.000	.563	.591	.729	.000	.000	.000	.000	.813

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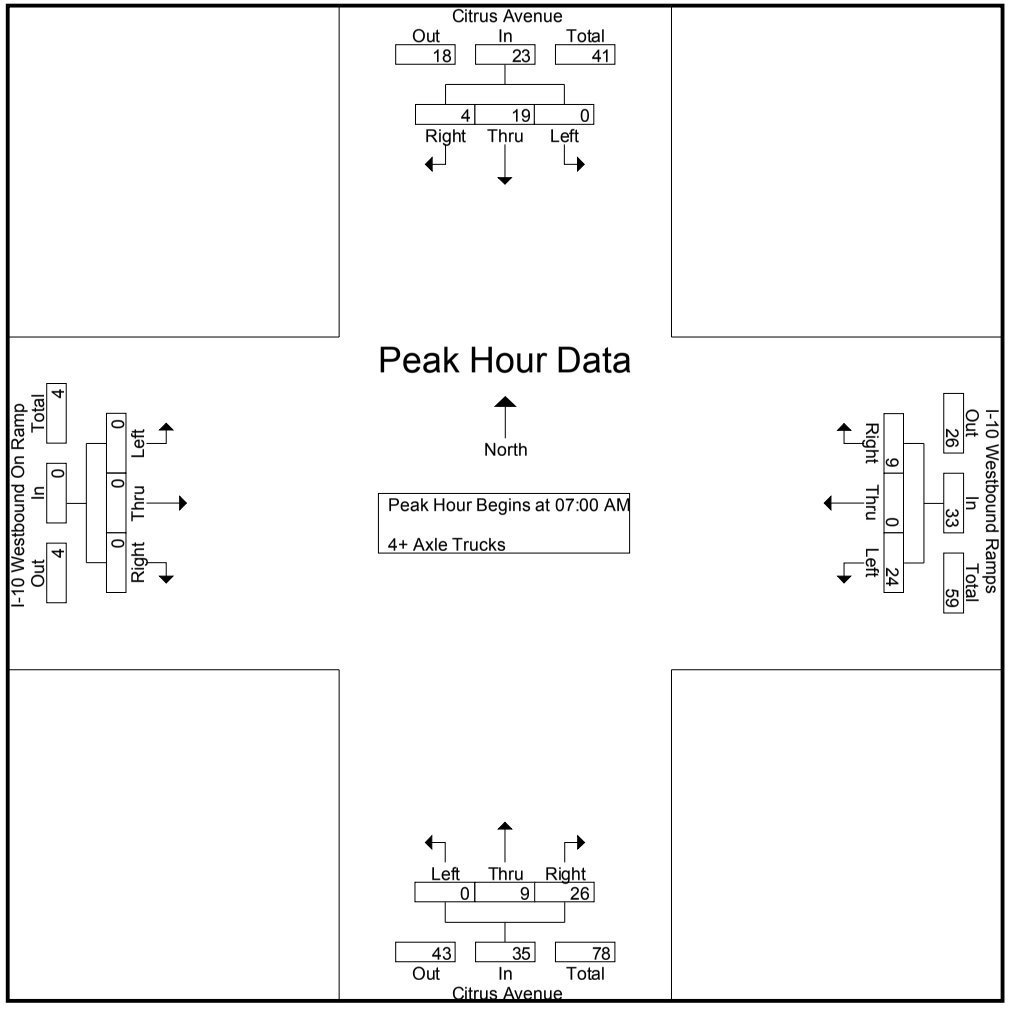
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	1	**2**	3	5	0	1	6	0	**4**	4	8	0	0	0	0	
+15 mins.	0	5	0	5	6	0	**5**	**11**	0	1	6	7	0	0	0	0	
+30 mins.	0	5	0	5	4	0	2	6	0	1	**11**	**12**	0	0	0	0	
+45 mins.	0	**8**	2	**10**	**9**	0	1	10	0	3	5	8	0	0	0	0	
Total Volume	0	19	4	23	24	0	9	33	0	9	26	35	0	0	0	0	
% App. Total	0	82.6	17.4		72.7	0	27.3		0	25.7	74.3		0	0	0		
PHF	.000	.594	.500	.575	.667	.000	.450	.750	.000	.563	.591	.729	.000	.000	.000	.000	

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Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	221	103	0	324	52	0	96	23	148	0	273	68	11	341	0	0	0	0	0	34	813	847
04:15 PM	0	196	121	0	317	42	0	104	50	146	0	242	58	3	300	0	0	0	0	0	53	763	816
04:30 PM	0	215	135	0	350	46	0	113	29	159	0	275	84	12	359	0	0	0	0	0	41	868	909
04:45 PM	0	181	105	0	286	54	0	99	41	153	0	282	83	5	365	0	0	0	0	0	46	804	850
Total	0	813	464	0	1277	194	0	412	143	606	0	1072	293	31	1365	0	0	0	0	0	174	3248	3422
05:00 PM	0	212	111	0	323	52	0	102	23	154	0	291	71	7	362	0	0	0	0	0	30	839	869
05:15 PM	0	180	105	0	285	56	0	122	27	178	0	276	59	9	335	0	0	0	0	0	36	798	834
05:30 PM	0	174	108	0	282	52	0	109	32	161	0	230	64	1	294	0	0	0	0	0	33	737	770
05:45 PM	0	169	101	0	270	50	0	93	26	143	0	278	50	2	328	0	0	0	0	0	28	741	769
Total	0	735	425	0	1160	210	0	426	108	636	0	1075	244	19	1319	0	0	0	0	0	127	3115	3242
Grand Total	0	1548	889	0	2437	404	0	838	251	1242	0	2147	537	50	2684	0	0	0	0	0	301	6363	6664
Apprch %	0	63.5	36.5			32.5	0	67.5			0	80	20			0	0	0					
Total %	0	24.3	14		38.3	6.3	0	13.2		19.5	0	33.7	8.4		42.2	0	0	0		0	4.5	95.5	
Passenger Vehicles	0	1468	858		2326	342	0	773		1355	0	2095	501		2643	0	0	0		0	0	0	6324
% Passenger Vehicles	0	94.8	96.5	0	95.4	84.7	0	92.2	95.6	90.8	0	97.6	93.3	94	96.7	0	0	0	0	0	0	0	94.9
Large 2 Axle Vehicles	0	39	17		56	22	0	31		59	0	26	11		38	0	0	0		0	0	0	153
% Large 2 Axle Vehicles	0	2.5	1.9	0	2.3	5.4	0	3.7	2.4	4	0	1.2	2	2	1.4	0	0	0	0	0	0	0	2.3
3 Axle Vehicles	0	21	5		26	8	0	11		22	0	12	6		18	0	0	0		0	0	0	66
% 3 Axle Vehicles	0	1.4	0.6	0	1.1	2	0	1.3	1.2	1.5	0	0.6	1.1	0	0.7	0	0	0	0	0	0	0	1
4+ Axle Trucks	0	20	9		29	32	0	23		57	0	14	19		35	0	0	0		0	0	0	121
% 4+ Axle Trucks	0	1.3	1	0	1.2	7.9	0	2.7	0.8	3.8	0	0.7	3.5	4	1.3	0	0	0	0	0	0	0	1.8

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**215**	**135**	**350**	46	0	113	159	0	275	**84**	359	0	0	0	0	**868**
04:45 PM	0	181	105	286	54	0	99	153	0	282	83	**365**	0	0	0	0	804
05:00 PM	0	212	111	323	52	0	102	154	0	**291**	71	362	0	0	0	0	839
05:15 PM	0	180	105	285	**56**	0	**122**	**178**	0	276	59	335	0	0	0	0	798
Total Volume	0	788	456	1244	208	0	436	644	0	1124	297	1421	0	0	0	0	3309
% App. Total	0	63.3	36.7		32.3	0	67.7		0	79.1	20.9		0	0	0		
PHF	.000	.916	.844	.889	.929	.000	.893	.904	.000	.966	.884	.973	.000	.000	.000	.000	.953

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City of Fontana
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File Name : 04_FON_Citrus_10W PM
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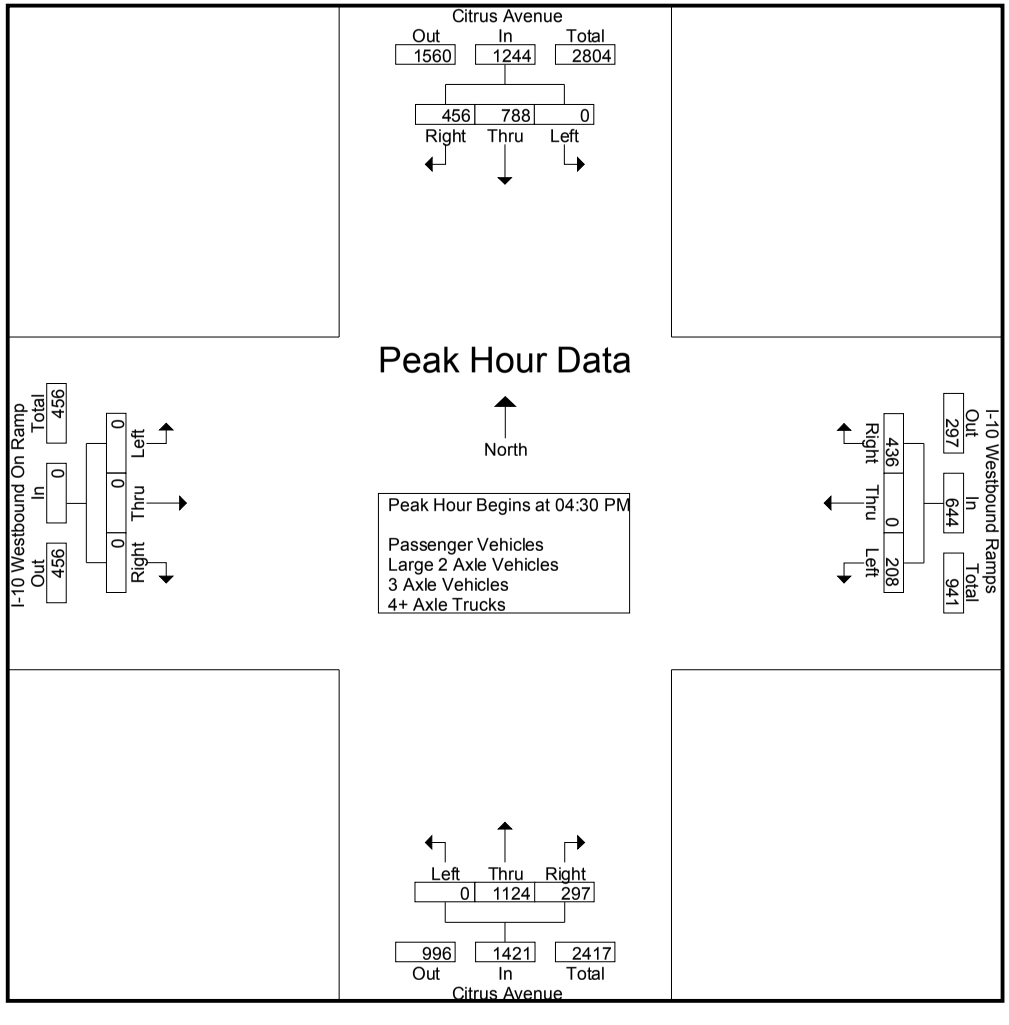
Start Date : 3/14/2019
Page No : 2



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	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:45 PM				04:30 PM				04:00 PM				
+0 mins.	0	**221**	103	324	54	0	99	153	0	275	**84**	359	0	0	0	0	
+15 mins.	0	196	121	317	52	0	102	154	0	282	83	**365**	0	0	0	0	
+30 mins.	0	215	**135**	**350**	**56**	0	**122**	**178**	0	**291**	71	362	0	0	0	0	
+45 mins.	0	181	105	286	52	0	109	161	0	276	59	335	0	0	0	0	
Total Volume	0	813	464	1277	214	0	432	646	0	1124	297	1421	0	0	0	0	
% App. Total	0	63.7	36.3		33.1	0	66.9		0	79.1	20.9		0	0	0		
PHF	.000	.920	.859	.912	.955	.000	.885	.907	.000	.966	.884	.973	.000	.000	.000	.000	

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File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	205	97	0	302	43	0	89	22	132	0	266	63	11	329	0	0	0	0	0	33	763	796
04:15 PM	0	183	114	0	297	36	0	90	46	126	0	233	54	2	287	0	0	0	0	0	48	710	758
04:30 PM	0	195	134	0	329	38	0	104	28	142	0	270	81	10	351	0	0	0	0	0	38	822	860
04:45 PM	0	176	101	0	277	44	0	93	40	137	0	277	77	5	354	0	0	0	0	0	45	768	813
Total	0	759	446	0	1205	161	0	376	136	537	0	1046	275	28	1321	0	0	0	0	0	164	3063	3227
05:00 PM	0	206	109	0	315	42	0	94	23	136	0	282	65	7	347	0	0	0	0	0	30	798	828
05:15 PM	0	174	101	0	275	50	0	114	25	164	0	270	52	9	322	0	0	0	0	0	34	761	795
05:30 PM	0	167	104	0	271	46	0	97	30	143	0	224	62	1	286	0	0	0	0	0	31	700	731
05:45 PM	0	162	98	0	260	43	0	92	26	135	0	273	47	2	320	0	0	0	0	0	28	715	743
Total	0	709	412	0	1121	181	0	397	104	578	0	1049	226	19	1275	0	0	0	0	0	123	2974	3097
Grand Total	0	1468	858	0	2326	342	0	773	240	1115	0	2095	501	47	2596	0	0	0	0	0	287	6037	6324
Apprch %	0	63.1	36.9			30.7	0	69.3			0	80.7	19.3			0	0	0					
Total %	0	24.3	14.2		38.5	5.7	0	12.8		18.5	0	34.7	8.3		43	0	0	0		0	4.5	95.5	

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	195	**134**	**329**	38	0	104	142	0	270	**81**	351	0	0	0	0	**822**
04:45 PM	0	176	101	277	44	0	93	137	0	277	77	**354**	0	0	0	0	768
05:00 PM	0	**206**	109	315	42	0	94	136	0	**282**	65	347	0	0	0	0	798
05:15 PM	0	174	101	275	**50**	0	**114**	**164**	0	270	52	322	0	0	0	0	761
Total Volume	0	751	445	1196	174	0	405	579	0	1099	275	1374	0	0	0	0	3149
% App. Total	0	62.8	37.2		30.1	0	69.9		0	80	20		0	0	0		
PHF	.000	.911	.830	.909	.870	.000	.888	.883	.000	.974	.849	.970	.000	.000	.000	.000	.958

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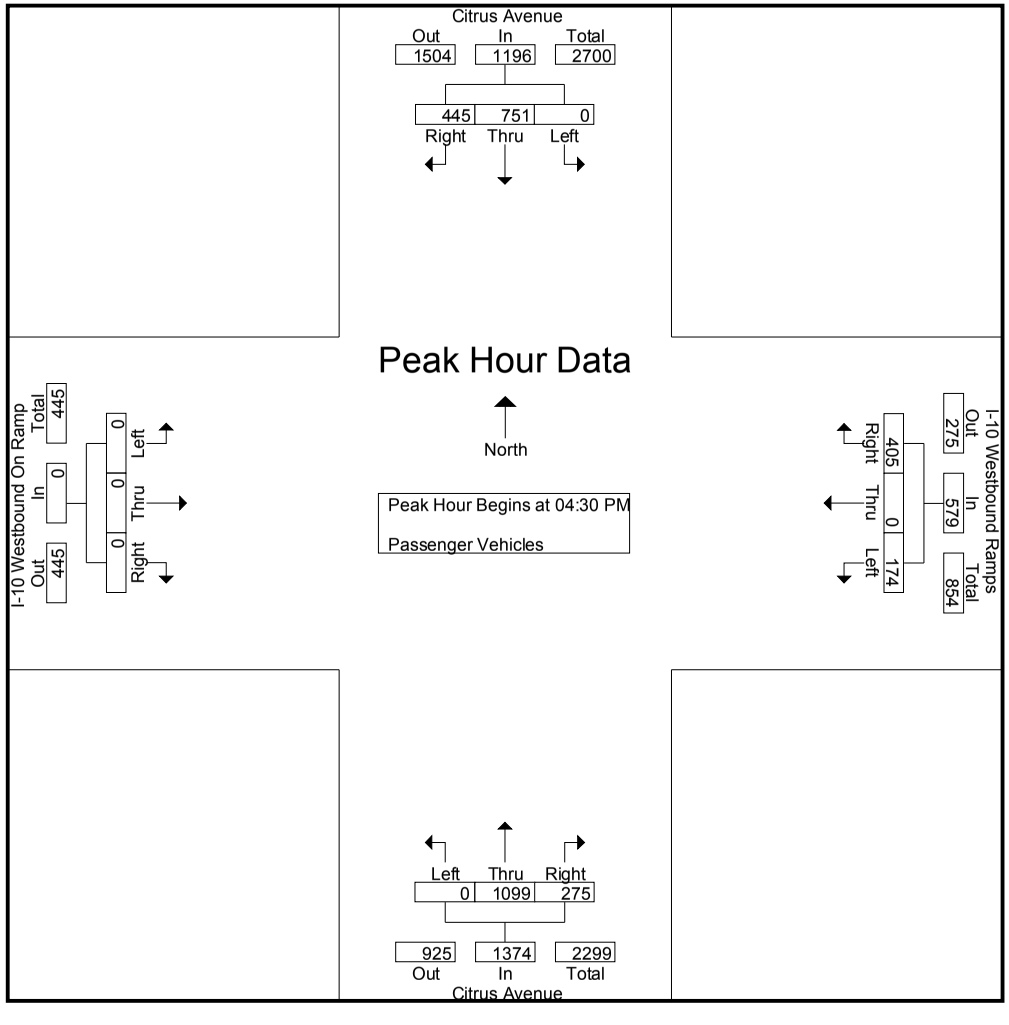
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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Corona, CA 92878
(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	195	**134**	**329**	38	0	104	142	0	270	**81**	351	0	0	0	0	
+15 mins.	0	176	101	277	44	0	93	137	0	277	77	**354**	0	0	0	0	
+30 mins.	0	**206**	109	315	42	0	94	136	0	**282**	65	347	0	0	0	0	
+45 mins.	0	174	101	275	**50**	0	**114**	**164**	0	270	52	322	0	0	0	0	
Total Volume	0	751	445	1196	174	0	405	579	0	1099	275	1374	0	0	0	0	
% App. Total	0	62.8	37.2		30.1	0	69.9		0	80	20		0	0	0		
PHF	.000	.911	.830	.909	.870	.000	.888	.883	.000	.974	.849	.970	.000	.000	.000	.000	

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City of Fontana
N/S: Citrus Avenue
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File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	11	1	0	12	4	0	3	0	7	0	5	1	0	6	0	0	0	0	0	0	25	25
04:15 PM	0	6	2	0	8	2	0	8	3	10	0	8	2	0	10	0	0	0	0	0	3	28	31
04:30 PM	0	7	1	0	8	3	0	5	1	8	0	1	1	1	2	0	0	0	0	0	2	18	20
04:45 PM	0	2	3	0	5	6	0	4	1	10	0	1	2	0	3	0	0	0	0	0	1	18	19
Total	0	26	7	0	33	15	0	20	5	35	0	15	6	1	21	0	0	0	0	0	6	89	95
05:00 PM	0	2	2	0	4	4	0	4	0	8	0	4	2	0	6	0	0	0	0	0	0	18	18
05:15 PM	0	1	3	0	4	1	0	2	0	3	0	2	3	0	5	0	0	0	0	0	0	12	12
05:30 PM	0	4	3	0	7	1	0	4	1	5	0	3	0	0	3	0	0	0	0	0	1	15	16
05:45 PM	0	6	2	0	8	1	0	1	0	2	0	2	0	0	2	0	0	0	0	0	0	12	12
Total	0	13	10	0	23	7	0	11	1	18	0	11	5	0	16	0	0	0	0	0	1	57	58
Grand Total	0	39	17	0	56	22	0	31	6	53	0	26	11	1	37	0	0	0	0	0	7	146	153
Apprch %	0	69.6	30.4			41.5	0	58.5			0	70.3	29.7			0	0	0					
Total %	0	26.7	11.6		38.4	15.1	0	21.2		36.3	0	17.8	7.5		25.3	0	0	0		0	4.6	95.4	

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**7**	1	**8**	3	0	**5**	8	0	1	1	2	0	0	0	0	**18**
04:45 PM	0	2	**3**	5	**6**	0	4	**10**	0	1	2	3	0	0	0	0	18
05:00 PM	0	2	2	4	4	0	4	8	0	**4**	2	**6**	0	0	0	0	18
05:15 PM	0	1	3	4	1	0	2	3	0	2	**3**	5	0	0	0	0	12
Total Volume	0	12	9	21	14	0	15	29	0	8	8	16	0	0	0	0	66
% App. Total	0	57.1	42.9		48.3	0	51.7		0	50	50		0	0	0		
PHF	.000	.429	.750	.656	.583	.000	.750	.725	.000	.500	.667	.667	.000	.000	.000	.000	.917

Counts Unlimited
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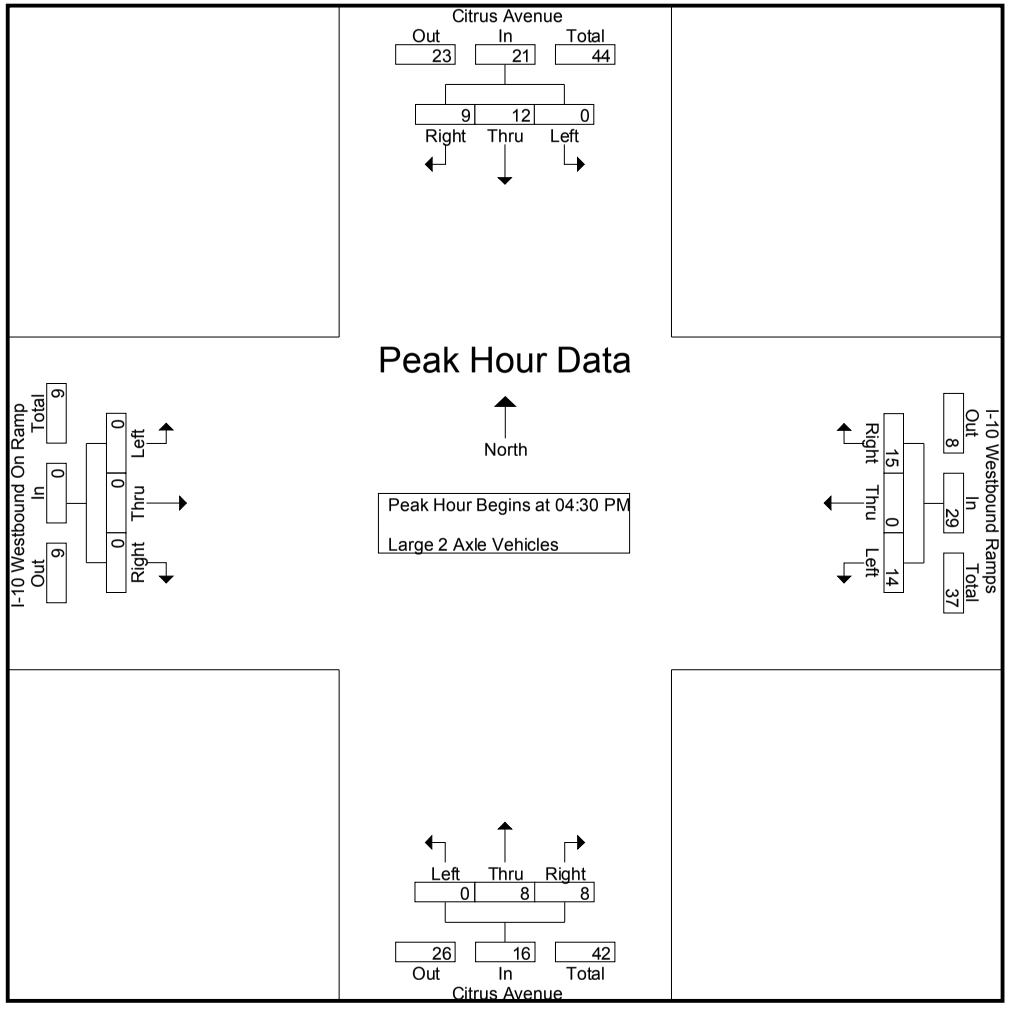
Corona, CA 92878
(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	**7**	1	**8**	3	0	**5**	8	0	1	1	2	0	0	0	0	
+15 mins.	0	2	**3**	5	**6**	0	4	**10**	0	1	2	3	0	0	0	0	
+30 mins.	0	2	2	4	4	0	4	8	0	**4**	2	**6**	0	0	0	0	
+45 mins.	0	1	3	4	1	0	2	3	0	2	**3**	5	0	0	0	0	
Total Volume	0	12	9	21	14	0	15	29	0	8	8	16	0	0	0	0	
% App. Total	0	57.1	42.9		48.3	0	51.7		0	50	50		0	0	0		
PHF	.000	.429	.750	.656	.583	.000	.750	.725	.000	.500	.667	.667	.000	.000	.000	.000	

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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	2	2	0	4	0	0	2	1	2	0	1	1	0	2	0	0	0	0	0	1	8	9
04:15 PM	0	3	2	0	5	2	0	2	1	4	0	1	0	0	1	0	0	0	0	0	1	10	11
04:30 PM	0	7	0	0	7	0	0	2	0	2	0	3	0	0	3	0	0	0	0	0	0	12	12
04:45 PM	0	2	0	0	2	1	0	0	0	1	0	1	1	0	2	0	0	0	0	0	0	5	5
Total	0	14	4	0	18	3	0	6	2	9	0	6	2	0	8	0	0	0	0	0	2	35	37
05:00 PM	0	2	0	0	2	2	0	0	0	2	0	2	1	0	3	0	0	0	0	0	0	7	7
05:15 PM	0	3	0	0	3	0	0	2	1	2	0	1	1	0	2	0	0	0	0	0	1	7	8
05:30 PM	0	1	1	0	2	2	0	3	0	5	0	1	1	0	2	0	0	0	0	0	0	9	9
05:45 PM	0	1	0	0	1	1	0	0	0	1	0	2	1	0	3	0	0	0	0	0	0	5	5
Total	0	7	1	0	8	5	0	5	1	10	0	6	4	0	10	0	0	0	0	0	1	28	29
Grand Total	0	21	5	0	26	8	0	11	3	19	0	12	6	0	18	0	0	0	0	0	3	63	66
Apprch %	0	80.8	19.2			42.1	0	57.9			0	66.7	33.3			0	0	0					
Total %	0	33.3	7.9		41.3	12.7	0	17.5		30.2	0	19	9.5		28.6	0	0	0		0	4.5	95.5	

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**7**	0	**7**	0	0	**2**	**2**	0	**3**	0	**3**	0	0	0	0	**12**
04:45 PM	0	2	0	2	1	0	0	1	0	1	**1**	2	0	0	0	0	5
05:00 PM	0	2	0	2	**2**	0	0	2	0	2	1	3	0	0	0	0	7
05:15 PM	0	3	0	3	0	0	2	2	0	1	1	2	0	0	0	0	7
Total Volume	0	14	0	14	3	0	4	7	0	7	3	10	0	0	0	0	31
% App. Total	0	100	0		42.9	0	57.1		0	70	30		0	0	0		
PHF	.000	.500	.000	.500	.375	.000	.500	.875	.000	.583	.750	.833	.000	.000	.000	.000	.646

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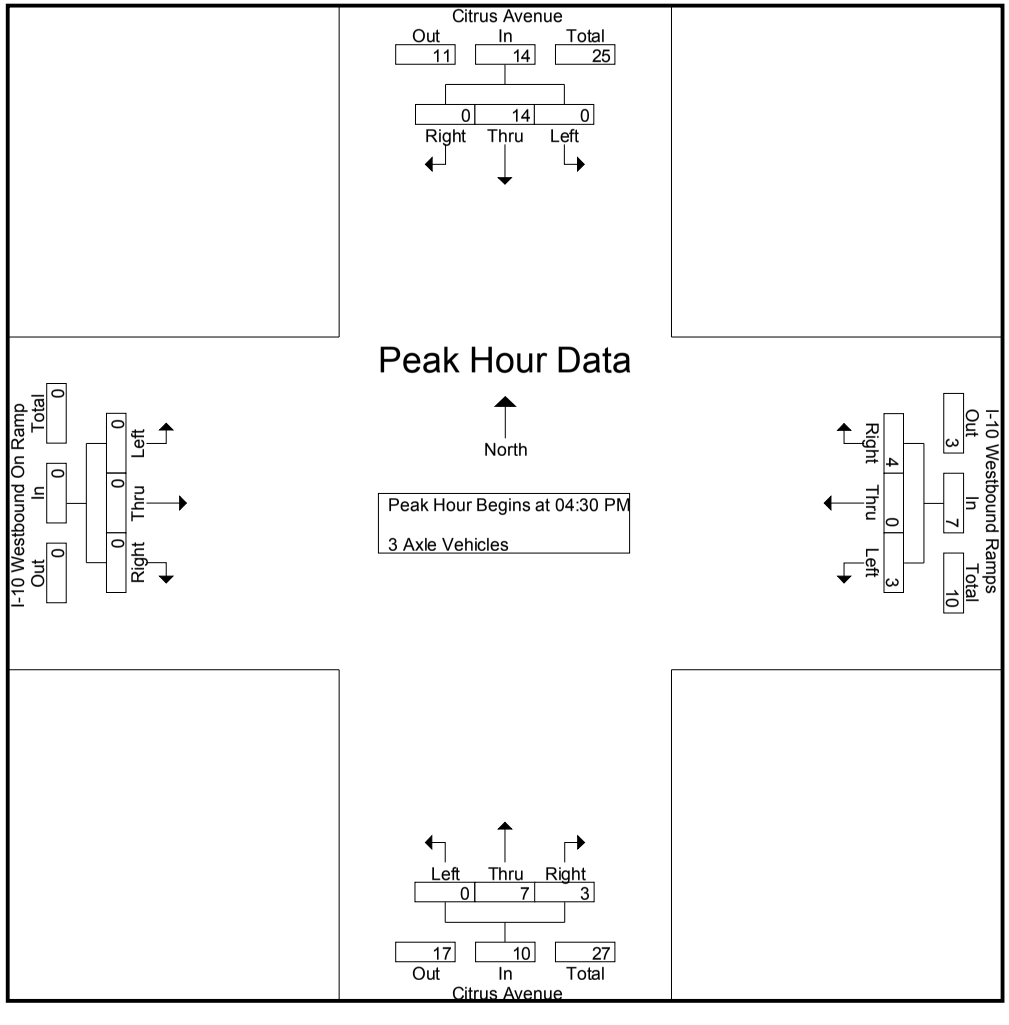
(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	**7**	0	**7**	0	0	**2**	**2**	0	**3**	0	**3**	0	0	0	0	
+15 mins.	0	2	0	2	1	0	0	1	0	1	**1**	2	0	0	0	0	
+30 mins.	0	2	0	2	**2**	0	0	2	0	2	1	3	0	0	0	0	
+45 mins.	0	3	0	3	0	0	2	2	0	1	1	2	0	0	0	0	
Total Volume	0	14	0	14	3	0	4	7	0	7	3	10	0	0	0	0	
% App. Total	0	100	0		42.9	0	57.1		0	70	30		0	0	0		
PHF	.000	.500	.000	.500	.375	.000	.500	.875	.000	.583	.750	.833	.000	.000	.000	.000	

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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					I-10 Westbound Ramps Westbound					Citrus Avenue Northbound					I-10 Westbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	3	3	0	6	5	0	2	0	7	0	1	3	0	4	0	0	0	0	0	0	17	17
04:15 PM	0	4	3	0	7	2	0	4	0	6	0	0	2	1	2	0	0	0	0	0	1	15	16
04:30 PM	0	6	0	0	6	5	0	2	0	7	0	1	2	1	3	0	0	0	0	0	1	16	17
04:45 PM	0	1	1	0	2	3	0	2	0	5	0	3	3	0	6	0	0	0	0	0	0	13	13
Total	0	14	7	0	21	15	0	10	0	25	0	5	10	2	15	0	0	0	0	0	2	61	63
05:00 PM	0	2	0	0	2	4	0	4	0	8	0	3	3	0	6	0	0	0	0	0	0	16	16
05:15 PM	0	2	1	0	3	5	0	4	1	9	0	3	3	0	6	0	0	0	0	0	1	18	19
05:30 PM	0	2	0	0	2	3	0	5	1	8	0	2	1	0	3	0	0	0	0	0	1	13	14
05:45 PM	0	0	1	0	1	5	0	0	0	5	0	1	2	0	3	0	0	0	0	0	0	9	9
Total	0	6	2	0	8	17	0	13	2	30	0	9	9	0	18	0	0	0	0	0	2	56	58
Grand Total	0	20	9	0	29	32	0	23	2	55	0	14	19	2	33	0	0	0	0	0	4	117	121
Apprch %	0	69	31			58.2	0	41.8			0	42.4	57.6			0	0	0					
Total %	0	17.1	7.7		24.8	27.4	0	19.7		47	0	12	16.2		28.2	0	0	0		0	3.3	96.7	

	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	**6**	0	**6**	**5**	0	2	7	0	1	2	3	0	0	0	0	16
04:45 PM	0	1	**1**	2	3	0	2	5	0	**3**	**3**	**6**	0	0	0	0	13
05:00 PM	0	2	0	2	4	0	**4**	8	0	3	3	6	0	0	0	0	16
05:15 PM	0	2	1	3	5	0	4	**9**	0	3	3	6	0	0	0	0	**18**
Total Volume	0	11	2	13	17	0	12	29	0	10	11	21	0	0	0	0	63
% App. Total	0	84.6	15.4		58.6	0	41.4		0	47.6	52.4		0	0	0		
PHF	.000	.458	.500	.542	.850	.000	.750	.806	.000	.833	.917	.875	.000	.000	.000	.000	.875

Counts Unlimited
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City of Fontana
N/S: Citrus Avenue
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File Name : 04_FON_Citrus_10W PM
Site Code : 05119181
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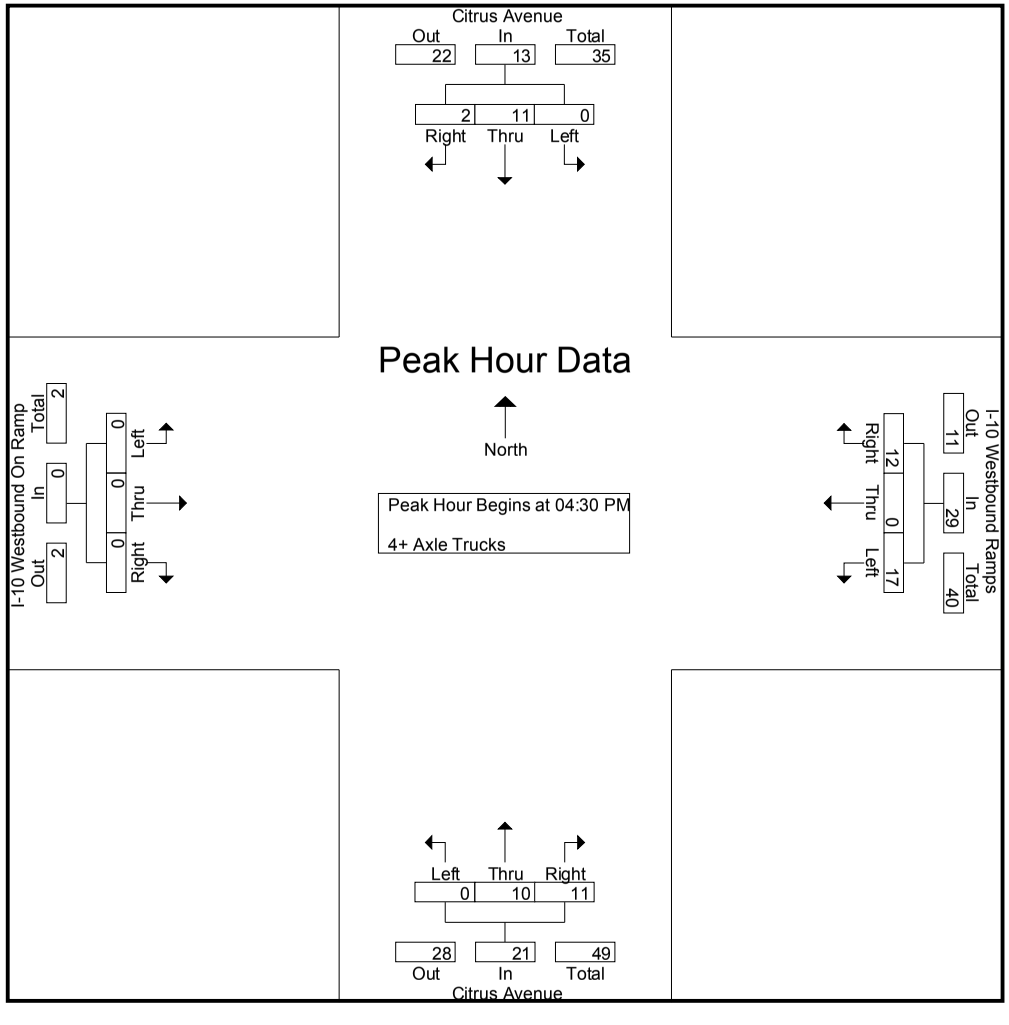

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City of Fontana
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	Citrus Avenue Southbound				I-10 Westbound Ramps Westbound				Citrus Avenue Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	**6**	0	**6**	**5**	0	2	7	0	1	2	3	0	0	0	0	
+15 mins.	0	1	**1**	2	3	0	2	5	0	**3**	**3**	**6**	0	0	0	0	
+30 mins.	0	2	0	2	4	0	**4**	8	0	3	3	6	0	0	0	0	
+45 mins.	0	2	1	3	5	0	4	**9**	0	3	3	6	0	0	0	0	
Total Volume	0	11	2	13	17	0	12	29	0	10	11	21	0	0	0	0	
% App. Total	0	84.6	15.4		58.6	0	41.4		0	47.6	52.4		0	0	0		
PHF	.000	.458	.500	.542	.850	.000	.750	.806	.000	.833	.917	.875	.000	.000	.000	.000	

Location: Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Citrus Avenue	East Leg I-10 Westbound Ramps	South Leg Citrus Avenue	West Leg I-10 Westbound Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	3	0	0	3
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	3	0	0	3

	North Leg Citrus Avenue	East Leg I-10 Westbound Ramps	South Leg Citrus Avenue	West Leg I-10 Westbound Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	1	0	0	1
5:15 PM	0	2	0	0	2
5:30 PM	0	1	0	0	1
5:45 PM	0	1	0	0	1
TOTAL VOLUMES:	0	6	0	0	6

Location: Fontana
N/S: Citrus Avenue
E/W: I-10 Westbound Ramps

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Citrus Avenue			Westbound I-10 Westbound Ramps			Northbound Citrus Avenue			Eastbound I-10 Westbound Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	1	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	0	0	0	2	0	0	0	0	3

	Southbound Citrus Avenue			Westbound I-10 Westbound Ramps			Northbound Citrus Avenue			Eastbound I-10 Westbound Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	0	0	1

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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	129	247	0	0	376	0	0	0	0	0	0	172	66	21	238	86	2	74	23	162	44	776	820
07:15 AM	132	262	0	0	394	0	0	0	0	0	0	215	83	37	298	86	1	50	17	137	54	829	883
07:30 AM	183	174	0	0	357	0	0	0	0	0	0	175	108	32	283	75	0	48	29	123	61	763	824
07:45 AM	146	213	0	0	359	0	0	0	0	0	0	136	47	23	183	74	1	72	22	147	45	689	734
Total	590	896	0	0	1486	0	0	0	0	0	0	698	304	113	1002	321	4	244	91	569	204	3057	3261
08:00 AM	143	174	0	0	317	0	0	0	0	0	0	91	50	24	141	90	2	46	21	138	45	596	641
08:15 AM	95	181	0	0	276	0	0	0	0	0	0	67	55	29	122	76	1	46	25	123	54	521	575
08:30 AM	121	153	0	0	274	0	0	0	0	0	0	106	65	10	171	64	1	40	19	105	29	550	579
08:45 AM	93	139	0	0	232	0	0	0	0	0	0	100	69	23	169	85	0	45	24	130	47	531	578
Total	452	647	0	0	1099	0	0	0	0	0	0	364	239	86	603	315	4	177	89	496	175	2198	2373
Grand Total	1042	1543	0	0	2585	0	0	0	0	0	0	1062	543	199	1605	636	8	421	180	1065	379	5255	5634
Apprch %	40.3	59.7	0			0	0	0			0	66.2	33.8			59.7	0.8	39.5					
Total %	19.8	29.4	0		49.2	0	0	0		0	0	20.2	10.3		30.5	12.1	0.2	8		20.3	6.7	93.3	
Passenger Vehicles	943	1421	0		2364	0	0	0		0	0	957	463		1605	603	8	352		1126	0	0	5095
% Passenger Vehicles	90.5	92.1	0	0	91.5	0	0	0	0	0	0	90.1	85.3	93	89	94.8	100	83.6	90.6	90.4	0	0	90.4
Large 2 Axle Vehicles	48	45	0		93	0	0	0		0	0	40	14		55	17	0	26		48	0	0	196
% Large 2 Axle Vehicles	4.6	2.9	0	0	3.6	0	0	0	0	0	0	3.8	2.6	0.5	3	2.7	0	6.2	2.8	3.9	0	0	3.5
3 Axle Vehicles	17	20	0		37	0	0	0		0	0	20	12		34	8	0	3		12	0	0	83
% 3 Axle Vehicles	1.6	1.3	0	0	1.4	0	0	0	0	0	0	1.9	2.2	1	1.9	1.3	0	0.7	0.6	1	0	0	1.5
4+ Axle Trucks	34	57	0		91	0	0	0		0	0	45	54		110	8	0	40		59	0	0	260
% 4+ Axle Trucks	3.3	3.7	0	0	3.5	0	0	0	0	0	0	4.2	9.9	5.5	6.1	1.3	0	9.5	6.1	4.7	0	0	4.6

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:00 AM																	
07:00 AM	129	247	0	376	0	0	0	0	0	172	66	238	**86**	**2**	**74**	**162**	776
07:15 AM	132	**262**	0	**394**	0	0	0	0	0	**215**	83	**298**	86	1	50	137	**829**
07:30 AM	**183**	174	0	357	0	0	0	0	0	175	**108**	283	75	0	48	123	763
07:45 AM	146	213	0	359	0	0	0	0	0	136	47	183	74	1	72	147	689
Total Volume	590	896	0	1486	0	0	0	0	0	698	304	1002	321	4	244	569	3057
% App. Total	39.7	60.3	0		0	0	0		0	69.7	30.3		56.4	0.7	42.9		
PHF	.806	.855	.000	.943	.000	.000	.000	.000	.000	.812	.704	.841	.933	.500	.824	.878	.922

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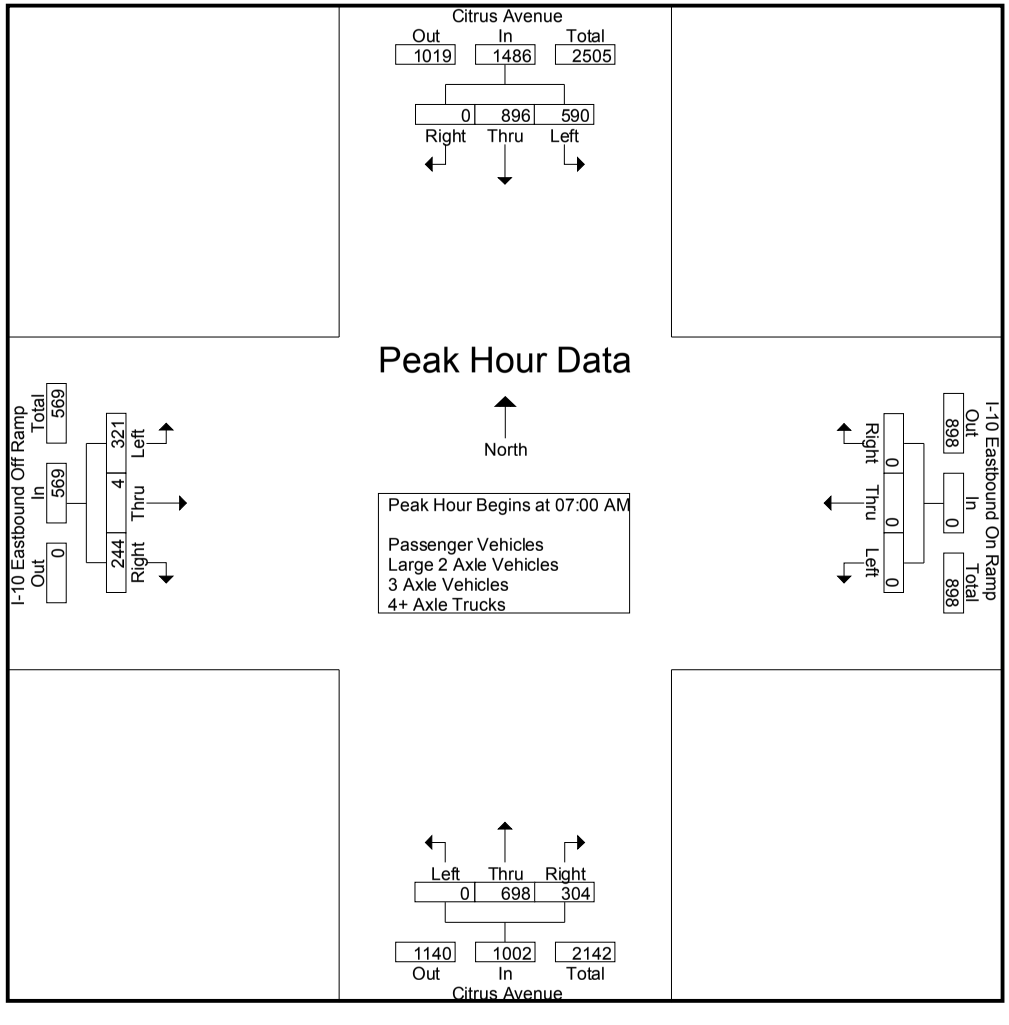
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	129	247	0	376	0	0	0	0	0	172	66	238	**86**	**2**	**74**	**162**	
+15 mins.	132	**262**	0	**394**	0	0	0	0	0	**215**	83	**298**	86	1	50	137	
+30 mins.	**183**	174	0	357	0	0	0	0	0	175	**108**	283	75	0	48	123	
+45 mins.	146	213	0	359	0	0	0	0	0	136	47	183	74	1	72	147	
Total Volume	590	896	0	1486	0	0	0	0	0	698	304	1002	321	4	244	569	
% App. Total	39.7	60.3	0		0	0	0		0	69.7	30.3		56.4	0.7	42.9		
PHF	.806	.855	.000	.943	.000	.000	.000	.000	.000	.812	.704	.841	.933	.500	.824	.878	

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City of Fontana
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Weather: Clear

File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	123	235	0	0	358	0	0	0	0	0	0	157	60	21	217	79	2	58	21	139	42	714	756
07:15 AM	124	245	0	0	369	0	0	0	0	0	0	205	76	36	281	83	1	42	15	126	51	776	827
07:30 AM	168	167	0	0	335	0	0	0	0	0	0	163	96	30	259	71	0	40	27	111	57	705	762
07:45 AM	133	192	0	0	325	0	0	0	0	0	0	122	43	23	165	71	1	62	20	134	43	624	667
Total	548	839	0	0	1387	0	0	0	0	0	0	647	275	110	922	304	4	202	83	510	193	2819	3012
08:00 AM	130	162	0	0	292	0	0	0	0	0	0	74	39	22	113	86	2	41	21	129	43	534	577
08:15 AM	77	163	0	0	240	0	0	0	0	0	0	62	47	28	109	72	1	37	21	110	49	459	508
08:30 AM	108	135	0	0	243	0	0	0	0	0	0	92	46	8	138	60	1	34	17	95	25	476	501
08:45 AM	80	122	0	0	202	0	0	0	0	0	0	82	56	17	138	81	0	38	21	119	38	459	497
Total	395	582	0	0	977	0	0	0	0	0	0	310	188	75	498	299	4	150	80	453	155	1928	2083
Grand Total	943	1421	0	0	2364	0	0	0	0	0	0	957	463	185	1420	603	8	352	163	963	348	4747	5095
Apprch %	39.9	60.1	0			0	0	0			0	67.4	32.6			62.6	0.8	36.6					
Total %	19.9	29.9	0		49.8	0	0	0		0	0	20.2	9.8		29.9	12.7	0.2	7.4		20.3	6.8	93.2	

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	123	235	0	358	0	0	0	0	0	157	60	217	79	**2**	58	**139**	714
07:15 AM	124	**245**	0	**369**	0	0	0	0	0	**205**	76	**281**	**83**	1	42	126	**776**
07:30 AM	**168**	167	0	335	0	0	0	0	0	163	**96**	259	71	0	40	111	705
07:45 AM	133	192	0	325	0	0	0	0	0	122	43	165	71	1	**62**	134	624
Total Volume	548	839	0	1387	0	0	0	0	0	647	275	922	304	4	202	510	2819
% App. Total	39.5	60.5	0		0	0	0		0	70.2	29.8		59.6	0.8	39.6		
PHF	.815	.856	.000	.940	.000	.000	.000	.000	.000	.789	.716	.820	.916	.500	.815	.917	.908

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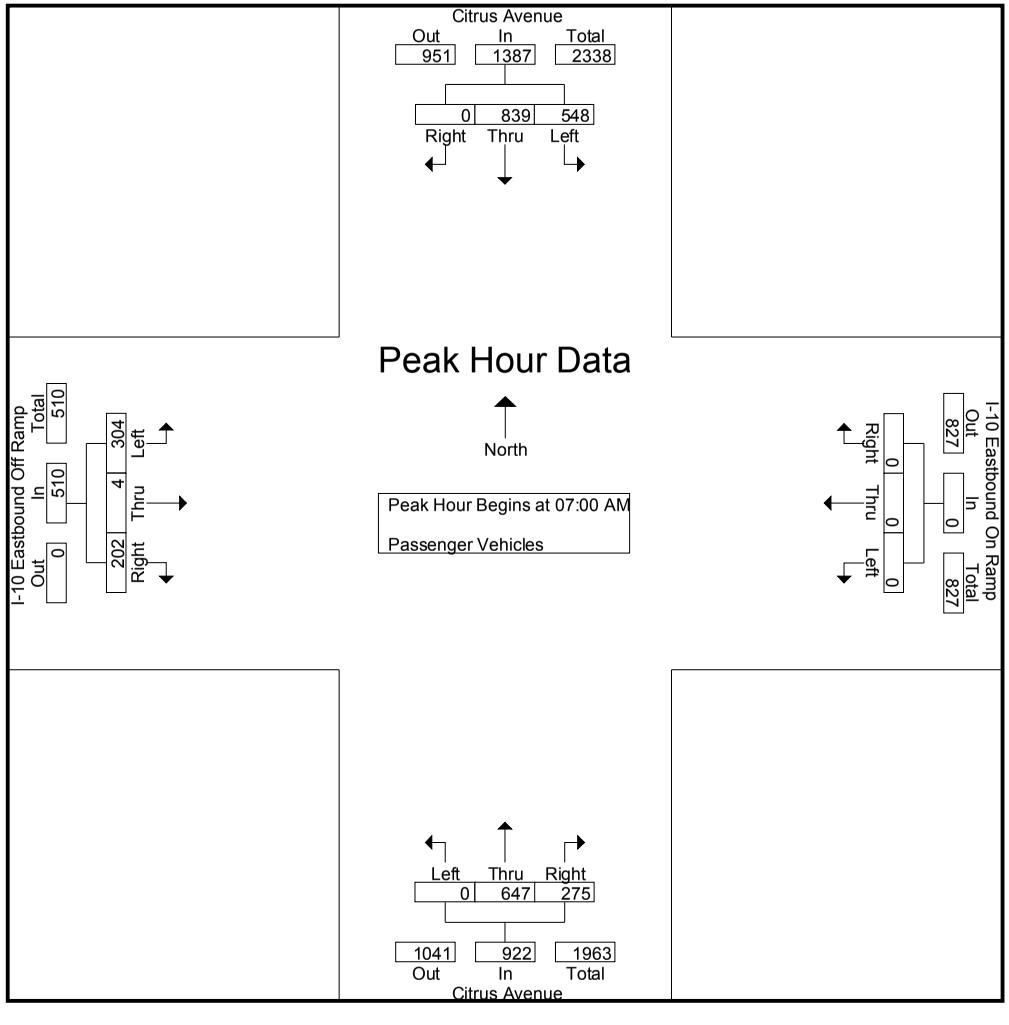
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	123	235	0	358	0	0	0	0	0	157	60	217	79	**2**	58	**139**	
+15 mins.	124	**245**	0	**369**	0	0	0	0	0	**205**	76	**281**	**83**	1	42	126	
+30 mins.	**168**	167	0	335	0	0	0	0	0	163	**96**	259	71	0	40	111	
+45 mins.	133	192	0	325	0	0	0	0	0	122	43	165	71	1	**62**	134	
Total Volume	548	839	0	1387	0	0	0	0	0	647	275	922	304	4	202	510	
% App. Total	39.5	60.5	0		0	0	0		0	70.2	29.8		59.6	0.8	39.6		
PHF	.815	.856	.000	.940	.000	.000	.000	.000	.000	.789	.716	.820	.916	.500	.815	.917	

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City of Fontana
N/S: Citrus Avenue
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File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	4	0	0	6	0	0	0	0	0	0	9	0	0	9	4	0	6	0	10	0	25	25
07:15 AM	1	5	0	0	6	0	0	0	0	0	0	4	1	0	5	0	0	2	0	2	0	13	13
07:30 AM	10	2	0	0	12	0	0	0	0	0	0	1	2	0	3	1	0	4	1	5	1	20	21
07:45 AM	5	6	0	0	11	0	0	0	0	0	0	3	2	0	5	2	0	6	2	8	2	24	26
Total	18	17	0	0	35	0	0	0	0	0	0	17	5	0	22	7	0	18	3	25	3	82	85
08:00 AM	8	3	0	0	11	0	0	0	0	0	0	7	3	0	10	3	0	2	0	5	0	26	26
08:15 AM	12	10	0	0	22	0	0	0	0	0	0	3	1	1	4	2	0	2	1	4	2	30	32
08:30 AM	6	7	0	0	13	0	0	0	0	0	0	4	5	0	9	1	0	2	0	3	0	25	25
08:45 AM	4	8	0	0	12	0	0	0	0	0	0	9	0	0	9	4	0	2	1	6	1	27	28
Total	30	28	0	0	58	0	0	0	0	0	0	23	9	1	32	10	0	8	2	18	3	108	111
Grand Total	48	45	0	0	93	0	0	0	0	0	0	40	14	1	54	17	0	26	5	43	6	190	196
Apprch %	51.6	48.4	0			0	0	0			0	74.1	25.9			39.5	0	60.5					
Total %	25.3	23.7	0		48.9	0	0	0		0	0	21.1	7.4		28.4	8.9	0	13.7		22.6	3.1	96.9	

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	4	0	6	0	0	0	0	0	**9**	0	**9**	**4**	0	**6**	**10**	**25**
07:15 AM	1	5	0	6	0	0	0	0	0	4	1	5	0	0	2	2	13
07:30 AM	**10**	2	0	**12**	0	0	0	0	0	1	**2**	3	1	0	4	5	20
07:45 AM	5	**6**	0	11	0	0	0	0	0	3	2	5	2	0	6	8	24
Total Volume	18	17	0	35	0	0	0	0	0	17	5	22	7	0	18	25	82
% App. Total	51.4	48.6	0		0	0	0		0	77.3	22.7		28	0	72		
PHF	.450	.708	.000	.729	.000	.000	.000	.000	.000	.472	.625	.611	.438	.000	.750	.625	.820

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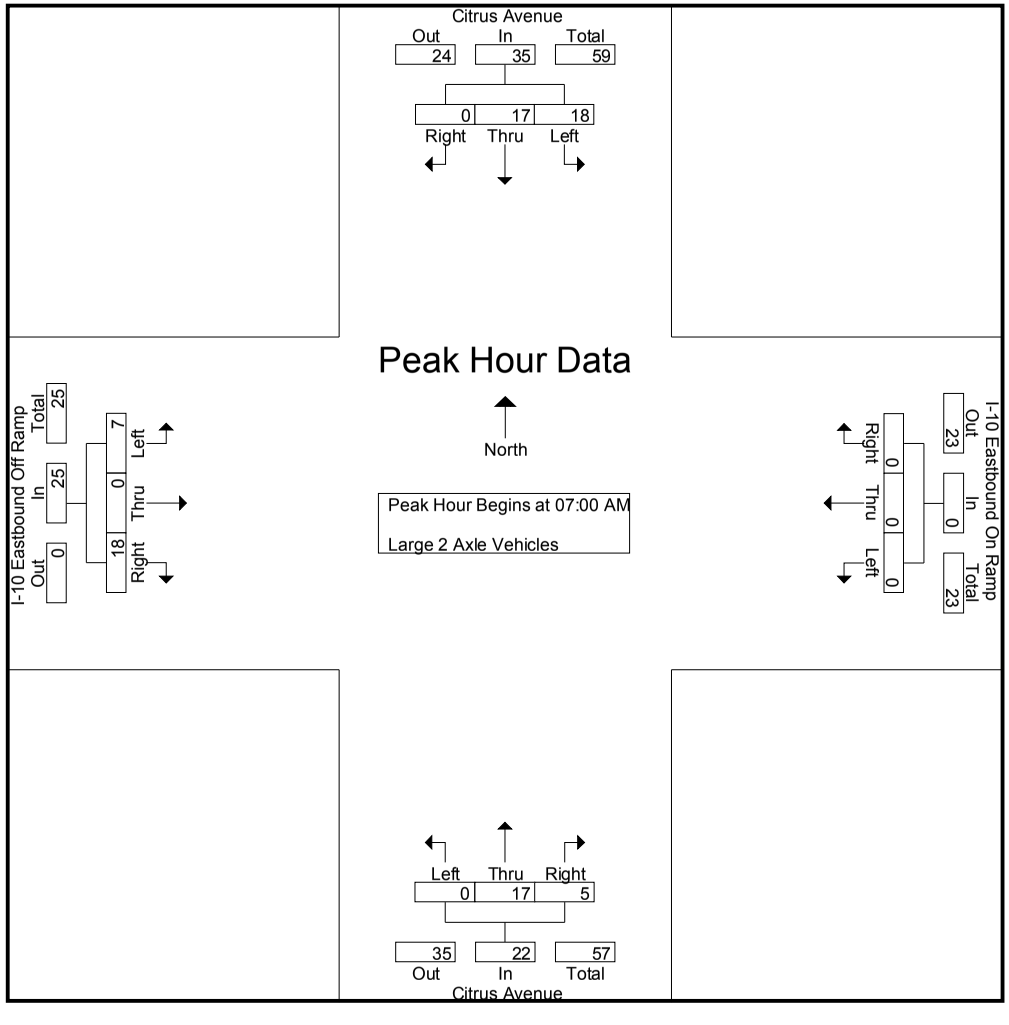
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
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File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	2	4	0	6	0	0	0	0	0	**9**	0	**9**	**4**	0	**6**	**10**	
+15 mins.	1	5	0	6	0	0	0	0	0	4	1	5	0	0	2	2	
+30 mins.	**10**	2	0	**12**	0	0	0	0	0	1	**2**	3	1	0	4	5	
+45 mins.	5	**6**	0	11	0	0	0	0	0	3	2	5	2	0	6	8	
Total Volume	18	17	0	35	0	0	0	0	0	17	5	22	7	0	18	25	
% App. Total	51.4	48.6	0		0	0	0		0	77.3	22.7		28	0	72		
PHF	.450	.708	.000	.729	.000	.000	.000	.000	.000	.472	.625	.611	.438	.000	.750	.625	

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File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	2	0	0	5	0	0	0	0	0	0	0	2	0	2	0	0	1	0	1	0	8	8
07:15 AM	1	4	0	0	5	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	0	8	8
07:30 AM	1	1	0	0	2	0	0	0	0	0	0	1	2	1	3	2	0	0	0	2	1	7	8
07:45 AM	2	2	0	0	4	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	8	8
Total	7	9	0	0	16	0	0	0	0	0	0	4	5	1	9	5	0	1	0	6	1	31	32
08:00 AM	4	1	0	0	5	0	0	0	0	0	0	5	1	1	6	1	0	0	0	1	1	12	13
08:15 AM	1	4	0	0	5	0	0	0	0	0	0	1	3	0	4	1	0	2	1	3	1	12	13
08:30 AM	2	5	0	0	7	0	0	0	0	0	0	6	2	0	8	1	0	0	0	1	0	16	16
08:45 AM	3	1	0	0	4	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	9	9
Total	10	11	0	0	21	0	0	0	0	0	0	16	7	1	23	3	0	2	1	5	2	49	51
Grand Total	17	20	0	0	37	0	0	0	0	0	0	20	12	2	32	8	0	3	1	11	3	80	83
Apprch %	45.9	54.1	0			0	0	0			0	62.5	37.5			72.7	0	27.3					
Total %	21.2	25	0		46.2	0	0	0		0	0	25	15		40	10	0	3.8		13.8	3.6	96.4	

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**3**	2	0	**5**	0	0	0	0	0	0	**2**	2	0	0	**1**	1	**8**
07:15 AM	1	**4**	0	5	0	0	0	0	0	0	1	1	**2**	0	0	**2**	8
07:30 AM	1	1	0	2	0	0	0	0	0	1	2	**3**	2	0	0	2	7
07:45 AM	2	2	0	4	0	0	0	0	0	**3**	0	3	1	0	0	1	8
Total Volume	7	9	0	16	0	0	0	0	0	4	5	9	5	0	1	6	31
% App. Total	43.8	56.2	0		0	0	0		0	44.4	55.6		83.3	0	16.7		
PHF	.583	.563	.000	.800	.000	.000	.000	.000	.000	.333	.625	.750	.625	.000	.250	.750	.969

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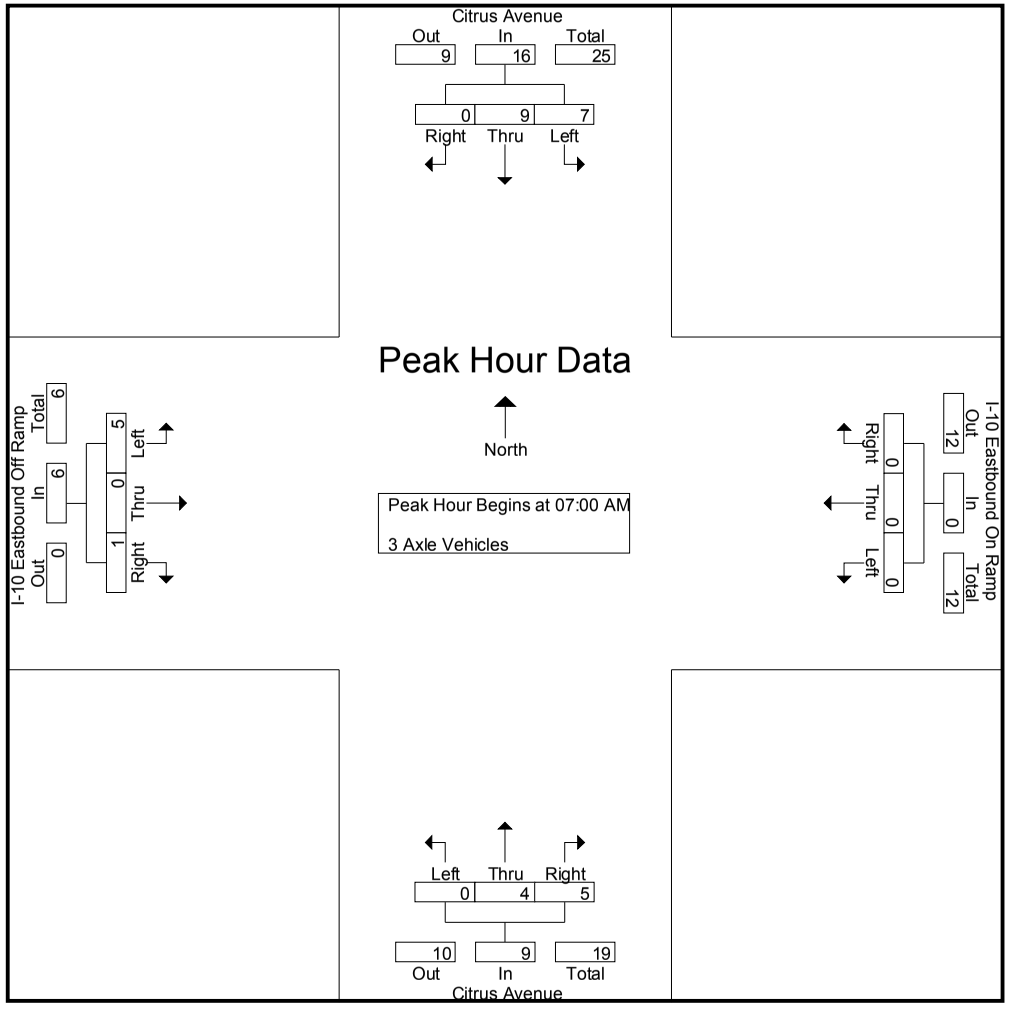
City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**3**	2	0	**5**	0	0	0	0	0	0	**2**	2	0	0	**1**	1	
+15 mins.	1	**4**	0	5	0	0	0	0	0	0	1	1	**2**	0	0	**2**	
+30 mins.	1	1	0	2	0	0	0	0	0	1	2	**3**	2	0	0	2	
+45 mins.	2	2	0	4	0	0	0	0	0	**3**	0	3	1	0	0	1	
Total Volume	7	9	0	16	0	0	0	0	0	4	5	9	5	0	1	6	
% App. Total	43.8	56.2	0		0	0	0		0	44.4	55.6		83.3	0	16.7		
PHF	.583	.563	.000	.800	.000	.000	.000	.000	.000	.333	.625	.750	.625	.000	.250	.750	

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File Name : 05_FON_Citrus_10E AM
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Start Date : 3/14/2019
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Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	6	0	0	7	0	0	0	0	0	0	6	4	0	10	3	0	9	2	12	2	29	31
07:15 AM	6	8	0	0	14	0	0	0	0	0	0	6	5	1	11	1	0	6	2	7	3	32	35
07:30 AM	4	4	0	0	8	0	0	0	0	0	0	10	8	1	18	1	0	4	1	5	2	31	33
07:45 AM	6	13	0	0	19	0	0	0	0	0	0	8	2	0	10	0	0	4	0	4	0	33	33
Total	17	31	0	0	48	0	0	0	0	0	0	30	19	2	49	5	0	23	5	28	7	125	132
08:00 AM	1	8	0	0	9	0	0	0	0	0	0	5	7	1	12	0	0	3	0	3	1	24	25
08:15 AM	5	4	0	0	9	0	0	0	0	0	0	1	4	0	5	1	0	5	2	6	2	20	22
08:30 AM	5	6	0	0	11	0	0	0	0	0	0	4	12	2	16	2	0	4	2	6	4	33	37
08:45 AM	6	8	0	0	14	0	0	0	0	0	0	5	12	6	17	0	0	5	2	5	8	36	44
Total	17	26	0	0	43	0	0	0	0	0	0	15	35	9	50	3	0	17	6	20	15	113	128
Grand Total	34	57	0	0	91	0	0	0	0	0	0	45	54	11	99	8	0	40	11	48	22	238	260
Apprch %	37.4	62.6	0			0	0	0			0	45.5	54.5			16.7	0	83.3					
Total %	14.3	23.9	0		38.2	0	0	0		0	0	18.9	22.7		41.6	3.4	0	16.8		20.2	8.5	91.5	

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	6	0	7	0	0	0	0	0	6	4	10	**3**	0	**9**	**12**	29
07:15 AM	**6**	8	0	14	0	0	0	0	0	6	5	11	1	0	6	7	32
07:30 AM	4	4	0	8	0	0	0	0	0	**10**	**8**	**18**	1	0	4	5	31
07:45 AM	6	**13**	0	**19**	0	0	0	0	0	8	2	10	0	0	4	4	**33**
Total Volume	17	31	0	48	0	0	0	0	0	30	19	49	5	0	23	28	125
% App. Total	35.4	64.6	0		0	0	0		0	61.2	38.8		17.9	0	82.1		
PHF	.708	.596	.000	.632	.000	.000	.000	.000	.000	.750	.594	.681	.417	.000	.639	.583	.947

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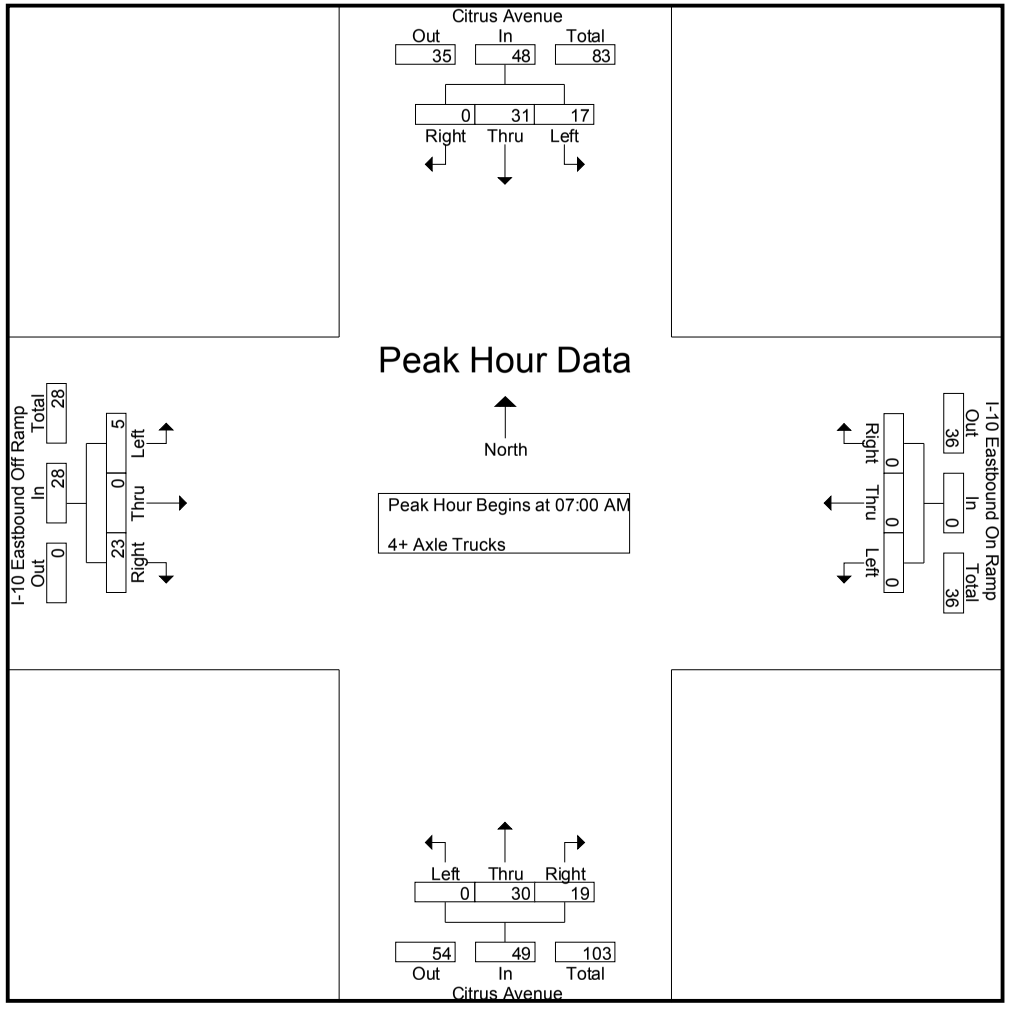
File Name : 05_FON_Citrus_10E AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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Start Date : 3/14/2019

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	1	6	0	7	0	0	0	0	0	6	4	10	**3**	0	**9**	**12**	
+15 mins.	**6**	8	0	14	0	0	0	0	0	6	5	11	1	0	6	7	
+30 mins.	4	4	0	8	0	0	0	0	0	**10**	**8**	**18**	1	0	4	5	
+45 mins.	6	**13**	0	**19**	0	0	0	0	0	8	2	10	0	0	4	4	
Total Volume	17	31	0	48	0	0	0	0	0	30	19	49	5	0	23	28	
% App. Total	35.4	64.6	0		0	0	0		0	61.2	38.8		17.9	0	82.1		
PHF	.708	.596	.000	.632	.000	.000	.000	.000	.000	.750	.594	.681	.417	.000	.639	.583	

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File Name : 05_FON_Citrus_10E PM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	128	149	0	0	277	0	0	0	0	0	0	240	147	58	387	94	5	46	22	145	80	809	889
04:15 PM	113	131	0	0	244	0	0	0	0	0	0	202	109	37	311	103	3	40	17	146	54	701	755
04:30 PM	117	139	0	0	256	0	0	0	0	0	0	252	119	42	371	112	2	38	14	152	56	779	835
04:45 PM	109	123	0	0	232	0	0	0	0	0	0	240	107	36	347	121	5	49	21	175	57	754	811
Total	467	542	0	0	1009	0	0	0	0	0	0	934	482	173	1416	430	15	173	74	618	247	3043	3290
05:00 PM	115	149	0	0	264	0	0	0	0	0	0	256	129	54	385	103	1	48	22	152	76	801	877
05:15 PM	92	144	0	0	236	0	0	0	0	0	0	227	111	42	338	101	3	52	15	156	57	730	787
05:30 PM	101	129	0	0	230	0	0	0	0	0	0	213	125	37	338	82	7	42	16	131	53	699	752
05:45 PM	97	130	0	0	227	0	0	0	0	0	0	189	110	34	299	132	1	35	19	168	53	694	747
Total	405	552	0	0	957	0	0	0	0	0	0	885	475	167	1360	418	12	177	72	607	239	2924	3163
Grand Total	872	1094	0	0	1966	0	0	0	0	0	0	1819	957	340	2776	848	27	350	146	1225	486	5967	6453
Apprch %	44.4	55.6	0			0	0	0			0	65.5	34.5			69.2	2.2	28.6					
Total %	14.6	18.3	0		32.9	0	0	0		0	0	30.5	16		46.5	14.2	0.5	5.9		20.5	7.5	92.5	
Passenger Vehicles	821	1003	0		1824	0	0	0		0	0	1747	900		2968	832	26	321		1317	0	0	6109
% Passenger Vehicles	94.2	91.7	0	0	92.8	0	0	0	0	0	0	96	94	94.4	95.3	98.1	96.3	91.7	94.5	96.1	0	0	94.7
Large 2 Axle Vehicles	26	36	0		62	0	0	0		0	0	28	16		51	8	0	8		18	0	0	131
% Large 2 Axle Vehicles	3	3.3	0	0	3.2	0	0	0	0	0	0	1.5	1.7	2.1	1.6	0.9	0	2.3	1.4	1.3	0	0	2
3 Axle Vehicles	11	18	0		29	0	0	0		0	0	20	6		27	1	0	2		4	0	0	60
% 3 Axle Vehicles	1.3	1.6	0	0	1.5	0	0	0	0	0	0	1.1	0.6	0.3	0.9	0.1	0	0.6	0.7	0.3	0	0	0.9
4+ Axle Trucks	14	37	0		51	0	0	0		0	0	24	35		70	7	1	19		32	0	0	153
% 4+ Axle Trucks	1.6	3.4	0	0	2.6	0	0	0	0	0	0	1.3	3.7	3.2	2.2	0.8	3.7	5.4	3.4	2.3	0	0	2.4

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**117**	139	0	256	0	0	0	0	0	252	119	371	112	2	38	152	779
04:45 PM	109	123	0	232	0	0	0	0	0	240	107	347	**121**	**5**	49	**175**	754
05:00 PM	115	**149**	0	**264**	0	0	0	0	0	**256**	**129**	**385**	103	1	48	152	**801**
05:15 PM	92	144	0	236	0	0	0	0	0	227	111	338	101	3	**52**	156	730
Total Volume	433	555	0	988	0	0	0	0	0	975	466	1441	437	11	187	635	3064
% App. Total	43.8	56.2	0		0	0	0		0	67.7	32.3		68.8	1.7	29.4		
PHF	.925	.931	.000	.936	.000	.000	.000	.000	.000	.952	.903	.936	.903	.550	.899	.907	.956

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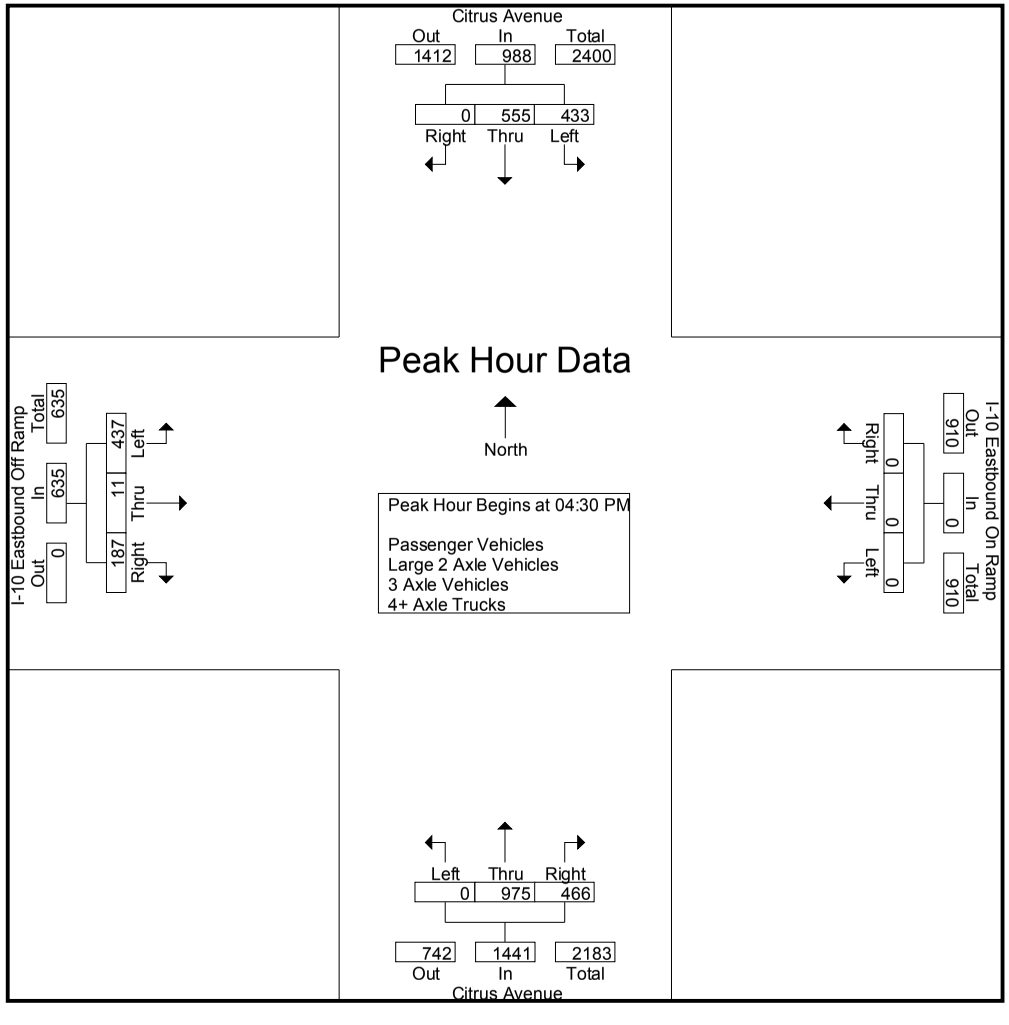

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	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:30 PM				04:30 PM				
+0 mins.	**128**	**149**	0	**277**	0	0	0	0	0	252	119	371	112	2	38	152	
+15 mins.	113	131	0	244	0	0	0	0	0	240	107	347	**121**	**5**	49	**175**	
+30 mins.	117	139	0	256	0	0	0	0	0	**256**	**129**	**385**	103	1	48	152	
+45 mins.	109	123	0	232	0	0	0	0	0	227	111	338	101	3	**52**	156	
Total Volume	467	542	0	1009	0	0	0	0	0	975	466	1441	437	11	187	635	
% App. Total	46.3	53.7	0		0	0	0		0	67.7	32.3		68.8	1.7	29.4		
PHF	.912	.909	.000	.911	.000	.000	.000	.000	.000	.952	.903	.936	.903	.550	.899	.907	

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Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	121	133	0	0	254	0	0	0	0	0	0	229	137	56	366	93	5	40	19	138	75	758	833
04:15 PM	100	123	0	0	223	0	0	0	0	0	0	193	101	34	294	101	2	38	17	141	51	658	709
04:30 PM	104	124	0	0	228	0	0	0	0	0	0	244	112	40	356	111	2	34	12	147	52	731	783
04:45 PM	105	111	0	0	216	0	0	0	0	0	0	231	103	35	334	119	5	46	21	170	56	720	776
Total	430	491	0	0	921	0	0	0	0	0	0	897	453	165	1350	424	14	158	69	596	234	2867	3101
05:00 PM	112	135	0	0	247	0	0	0	0	0	0	244	124	51	368	100	1	43	22	144	73	759	832
05:15 PM	90	136	0	0	226	0	0	0	0	0	0	216	100	39	316	98	3	49	14	150	53	692	745
05:30 PM	96	119	0	0	215	0	0	0	0	0	0	206	120	36	326	79	7	38	16	124	52	665	717
05:45 PM	93	122	0	0	215	0	0	0	0	0	0	184	103	30	287	131	1	33	17	165	47	667	714
Total	391	512	0	0	903	0	0	0	0	0	0	850	447	156	1297	408	12	163	69	583	225	2783	3008
Grand Total	821	1003	0	0	1824	0	0	0	0	0	0	1747	900	321	2647	832	26	321	138	1179	459	5650	6109
Apprch %	45	55	0			0	0	0			0	66	34			70.6	2.2	27.2					
Total %	14.5	17.8	0		32.3	0	0	0		0	0	30.9	15.9		46.8	14.7	0.5	5.7		20.9	7.5	92.5	

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	104	124	0	228	0	0	0	0	0	**244**	112	356	111	2	34	147	731
04:45 PM	105	111	0	216	0	0	0	0	0	231	103	334	**119**	**5**	46	**170**	720
05:00 PM	**112**	135	0	**247**	0	0	0	0	0	244	**124**	**368**	100	1	43	144	**759**
05:15 PM	90	**136**	0	226	0	0	0	0	0	216	100	316	98	3	**49**	150	692
Total Volume	411	506	0	917	0	0	0	0	0	935	439	1374	428	11	172	611	2902
% App. Total	44.8	55.2	0		0	0	0		0	68	32		70	1.8	28.2		
PHF	.917	.930	.000	.928	.000	.000	.000	.000	.000	.958	.885	.933	.899	.550	.878	.899	.956

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Start Date : 3/14/2019
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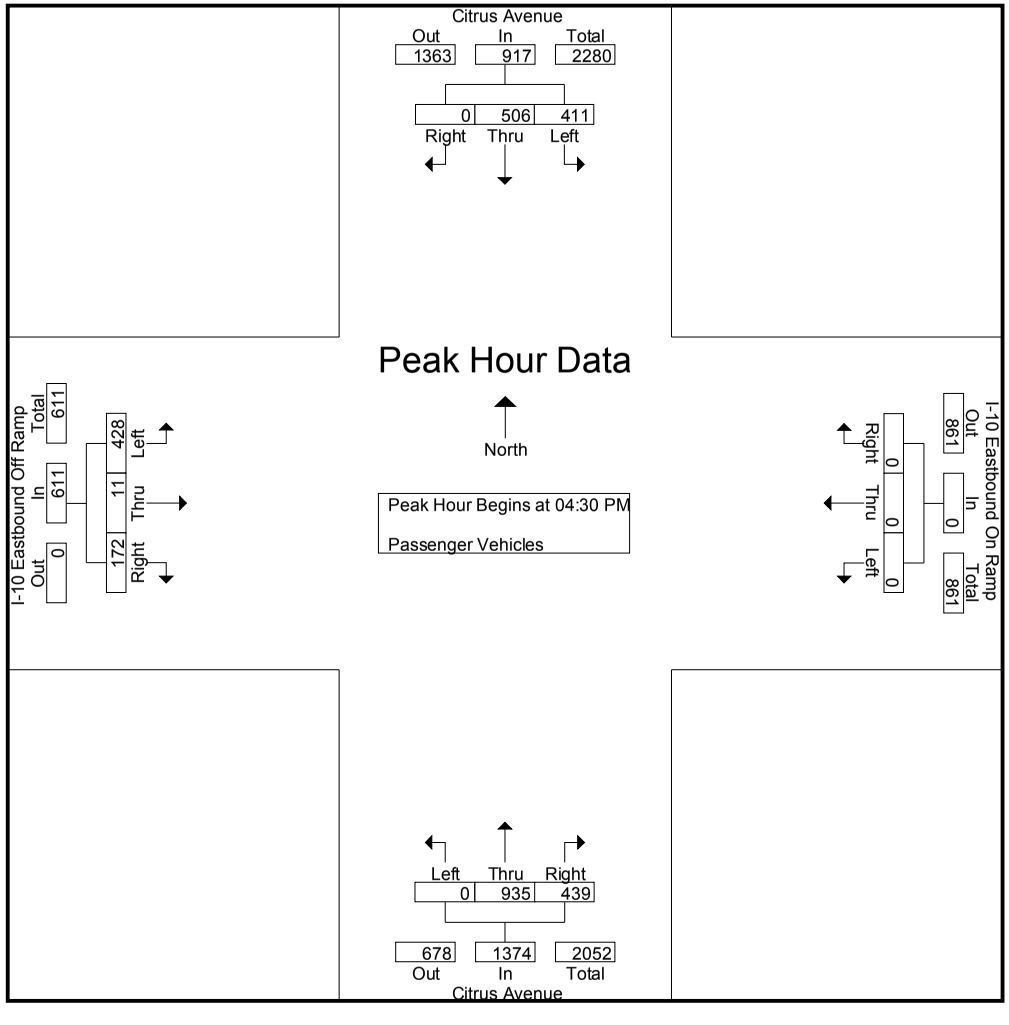

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	104	124	0	228	0	0	0	0	0	**244**	112	356	111	2	34	147	
+15 mins.	105	111	0	216	0	0	0	0	0	231	103	334	**119**	**5**	46	**170**	
+30 mins.	**112**	135	0	**247**	0	0	0	0	0	244	**124**	**368**	100	1	43	144	
+45 mins.	90	**136**	0	226	0	0	0	0	0	216	100	316	98	3	**49**	150	
Total Volume	411	506	0	917	0	0	0	0	0	935	439	1374	428	11	172	611	
% App. Total	44.8	55.2	0		0	0	0		0	68	32		70	1.8	28.2		
PHF	.917	.930	.000	.928	.000	.000	.000	.000	.000	.958	.885	.933	.899	.550	.878	.899	

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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

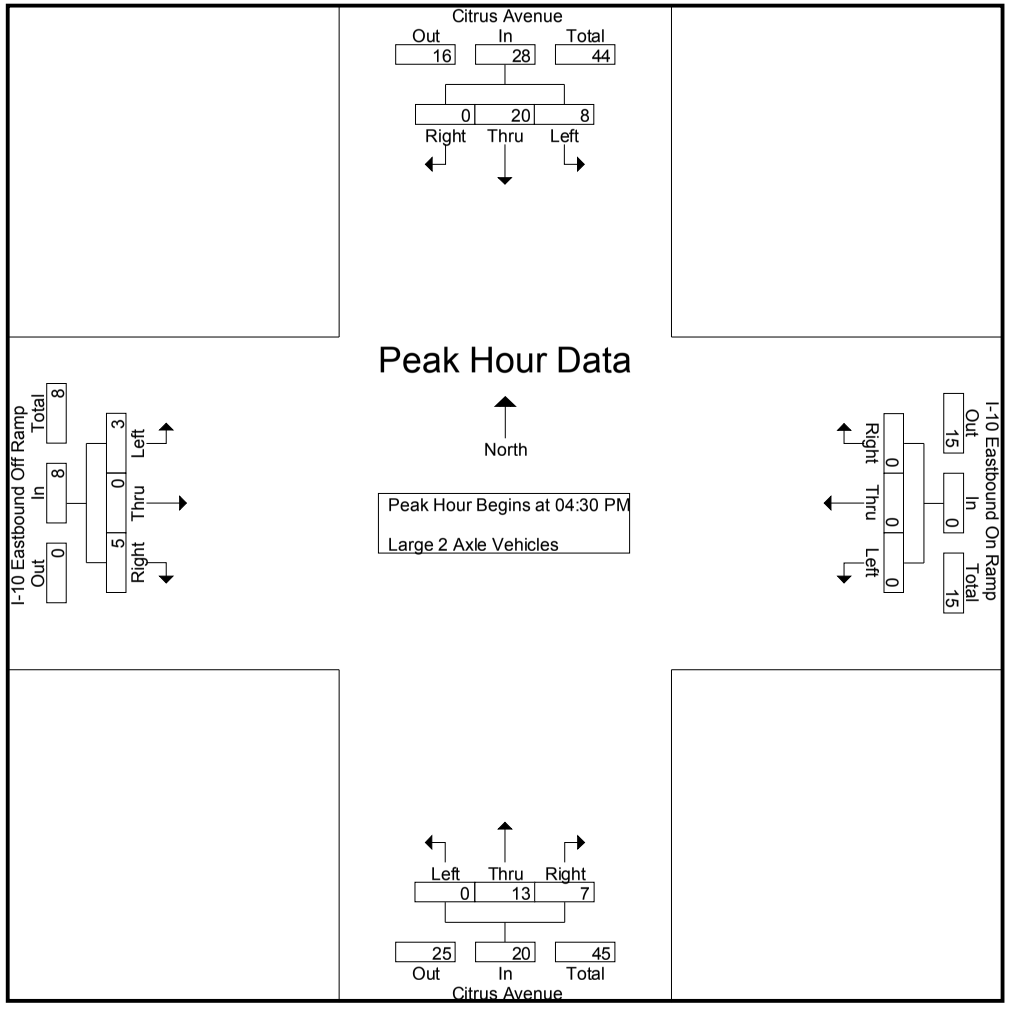
	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	5	8	0	0	13	0	0	0	0	0	0	5	3	1	8	1	0	1	0	2	1	23	24
04:15 PM	8	3	0	0	11	0	0	0	0	0	0	7	3	1	10	2	0	0	0	2	1	23	24
04:30 PM	4	6	0	0	10	0	0	0	0	0	0	2	3	1	5	0	0	1	0	1	1	16	17
04:45 PM	2	7	0	0	9	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	14	14
Total	19	24	0	0	43	0	0	0	0	0	0	18	9	3	27	3	0	3	0	6	3	76	79
05:00 PM	1	5	0	0	6	0	0	0	0	0	0	4	2	2	6	2	0	2	0	4	2	16	18
05:15 PM	1	2	0	0	3	0	0	0	0	0	0	3	2	0	5	1	0	1	0	2	0	10	10
05:30 PM	2	2	0	0	4	0	0	0	0	0	0	2	1	1	3	2	0	0	0	2	1	9	10
05:45 PM	3	3	0	0	6	0	0	0	0	0	0	1	2	1	3	0	0	2	2	2	3	11	14
Total	7	12	0	0	19	0	0	0	0	0	0	10	7	4	17	5	0	5	2	10	6	46	52
Grand Total	26	36	0	0	62	0	0	0	0	0	0	28	16	7	44	8	0	8	2	16	9	122	131
Apprch %	41.9	58.1	0			0	0	0			0	63.6	36.4			50	0	50					
Total %	21.3	29.5	0		50.8	0	0	0		0	0	23	13.1		36.1	6.6	0	6.6		13.1	6.9	93.1	

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**4**	6	0	**10**	0	0	0	0	0	2	**3**	5	0	0	1	1	**16**
04:45 PM	2	**7**	0	9	0	0	0	0	0	**4**	0	4	0	0	1	1	14
05:00 PM	1	5	0	6	0	0	0	0	0	4	2	**6**	**2**	0	**2**	**4**	16
05:15 PM	1	2	0	3	0	0	0	0	0	3	2	5	1	0	1	2	10
Total Volume	8	20	0	28	0	0	0	0	0	13	7	20	3	0	5	8	56
% App. Total	28.6	71.4	0		0	0	0		0	65	35		37.5	0	62.5		
PHF	.500	.714	.000	.700	.000	.000	.000	.000	.000	.813	.583	.833	.375	.000	.625	.500	.875

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

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	**4**	6	0	**10**	0	0	0	0	0	2	**3**	5	0	0	1	1	
+15 mins.	2	**7**	0	9	0	0	0	0	0	**4**	0	4	0	0	1	1	
+30 mins.	1	5	0	6	0	0	0	0	0	4	2	**6**	**2**	0	**2**	**4**	
+45 mins.	1	2	0	3	0	0	0	0	0	3	2	5	1	0	1	2	
Total Volume	8	20	0	28	0	0	0	0	0	13	7	20	3	0	5	8	
% App. Total	28.6	71.4	0		0	0	0		0	65	35		37.5	0	62.5		
PHF	.500	.714	.000	.700	.000	.000	.000	.000	.000	.813	.583	.833	.375	.000	.625	.500	

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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

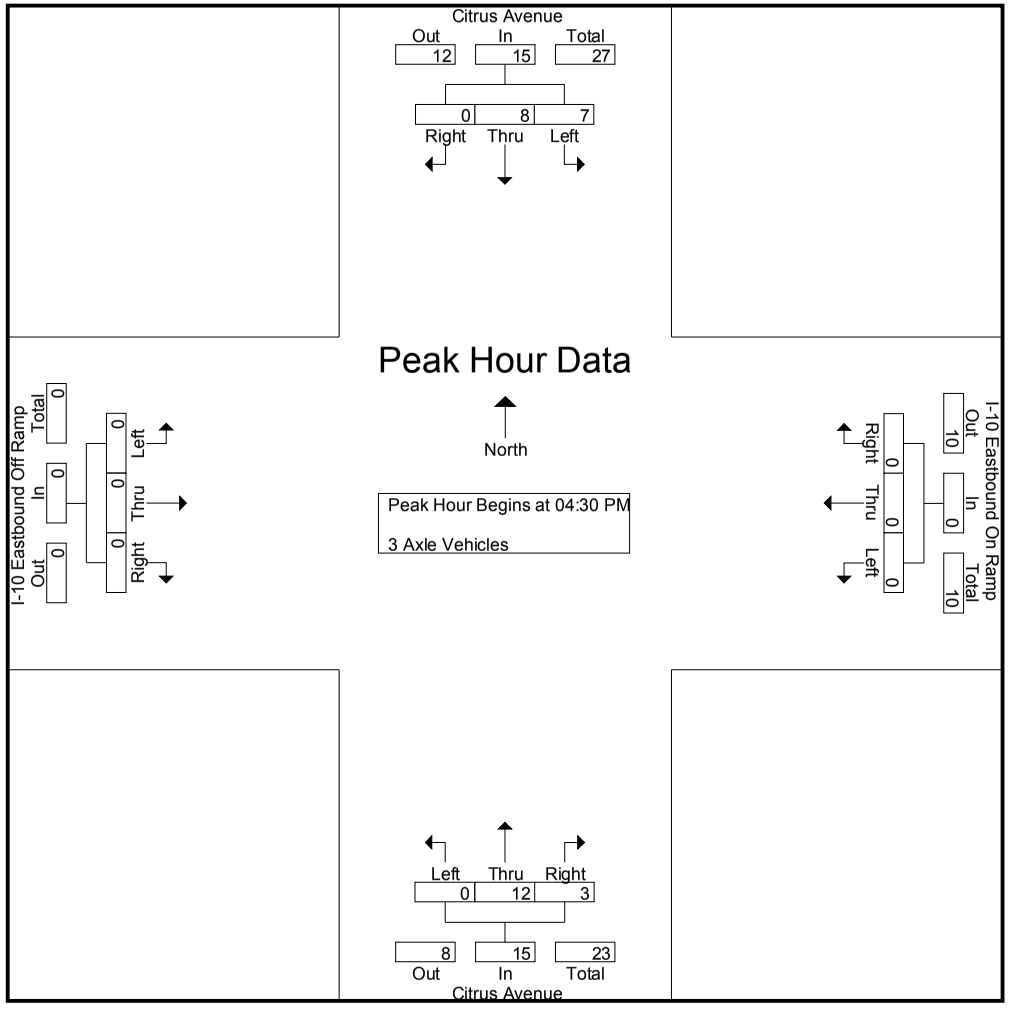
	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	2	0	0	3	0	0	0	0	0	0	3	3	0	6	0	0	1	1	1	1	10	11
04:15 PM	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	6	6
04:30 PM	4	3	0	0	7	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	11	11
04:45 PM	2	1	0	0	3	0	0	0	0	0	0	2	1	1	3	0	0	0	0	0	1	6	7
Total	8	10	0	0	18	0	0	0	0	0	0	8	5	1	13	0	0	2	1	2	2	33	35
05:00 PM	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	6	6
05:15 PM	1	1	0	0	2	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	7	7
05:30 PM	1	4	0	0	5	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	8	8
05:45 PM	1	0	0	0	1	0	0	0	0	0	0	2	0	0	2	1	0	0	0	1	0	4	4
Total	3	8	0	0	11	0	0	0	0	0	0	12	1	0	13	1	0	0	0	1	0	25	25
Grand Total	11	18	0	0	29	0	0	0	0	0	0	20	6	1	26	1	0	2	1	3	2	58	60
Apprch %	37.9	62.1	0			0	0	0			0	76.9	23.1			33.3	0	66.7					
Total %	19	31	0		50	0	0	0		0	0	34.5	10.3		44.8	1.7	0	3.4		5.2	3.3	96.7	

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**4**	**3**	0	**7**	0	0	0	0	0	3	**1**	4	0	0	0	0	**11**
04:45 PM	2	1	0	3	0	0	0	0	0	2	1	3	0	0	0	0	6
05:00 PM	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	6
05:15 PM	1	1	0	2	0	0	0	0	0	**4**	1	**5**	0	0	0	0	7
Total Volume	7	8	0	15	0	0	0	0	0	12	3	15	0	0	0	0	30
% App. Total	46.7	53.3	0		0	0	0		0	80	20		0	0	0		
PHF	.438	.667	.000	.536	.000	.000	.000	.000	.000	.750	.750	.750	.000	.000	.000	.000	.682

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

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	**4**	**3**	0	**7**	0	0	0	0	0	3	**1**	4	0	0	0	0	
+15 mins.	2	1	0	3	0	0	0	0	0	2	1	3	0	0	0	0	
+30 mins.	0	3	0	3	0	0	0	0	0	3	0	3	0	0	0	0	
+45 mins.	1	1	0	2	0	0	0	0	0	**4**	1	**5**	0	0	0	0	
Total Volume	7	8	0	15	0	0	0	0	0	12	3	15	0	0	0	0	
% App. Total	46.7	53.3	0		0	0	0		0	80	20		0	0	0		
PHF	.438	.667	.000	.536	.000	.000	.000	.000	.000	.750	.750	.750	.000	.000	.000	.000	

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

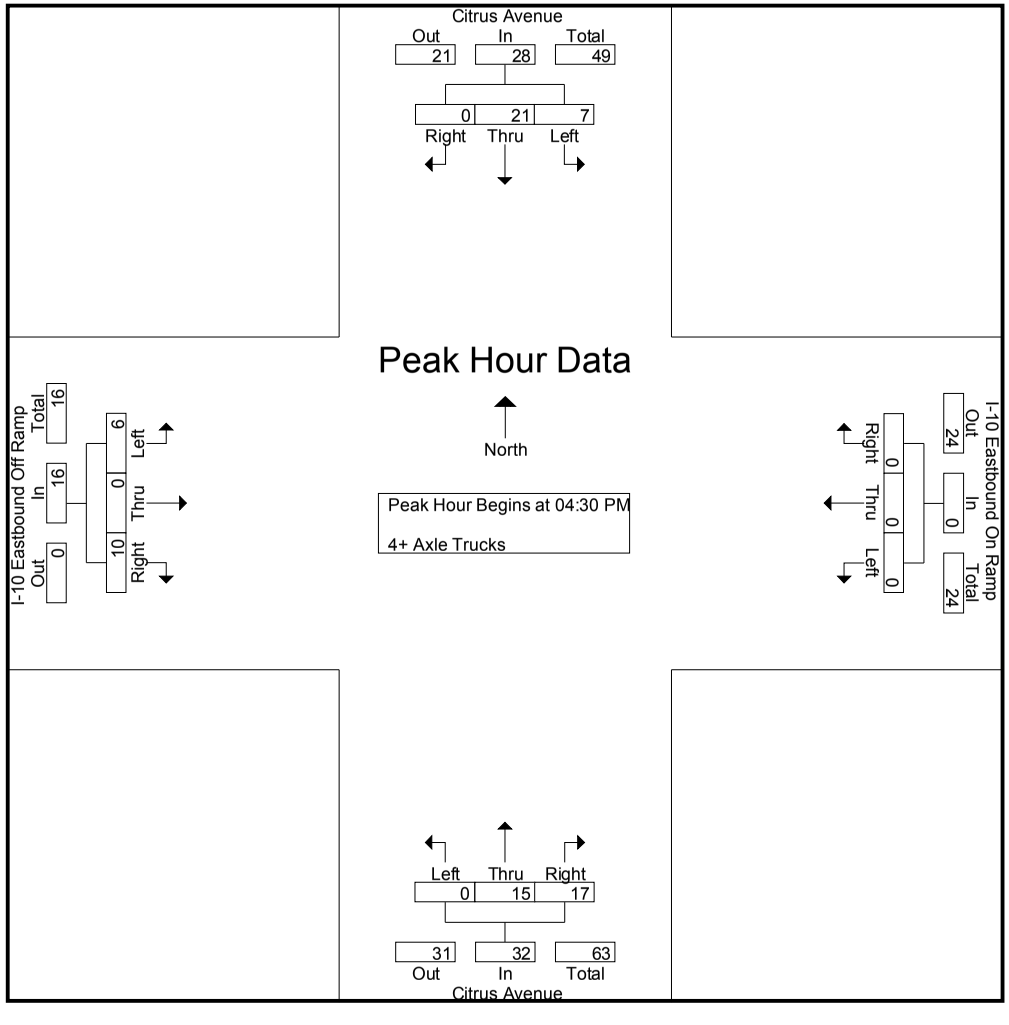
	Citrus Avenue Southbound					I-10 Eastbound On Ramp Westbound					Citrus Avenue Northbound					I-10 Eastbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	6	0	0	7	0	0	0	0	0	0	3	4	1	7	0	0	4	2	4	3	18	21
04:15 PM	4	1	0	0	5	0	0	0	0	0	0	2	5	2	7	0	1	1	0	2	2	14	16
04:30 PM	5	6	0	0	11	0	0	0	0	0	0	3	3	1	6	1	0	3	2	4	3	21	24
04:45 PM	0	4	0	0	4	0	0	0	0	0	0	3	3	0	6	2	0	2	0	4	0	14	14
Total	10	17	0	0	27	0	0	0	0	0	0	11	15	4	26	3	1	10	4	14	8	67	75
05:00 PM	2	6	0	0	8	0	0	0	0	0	0	5	3	1	8	1	0	3	0	4	1	20	21
05:15 PM	0	5	0	0	5	0	0	0	0	0	0	4	8	3	12	2	0	2	1	4	4	21	25
05:30 PM	2	4	0	0	6	0	0	0	0	0	0	2	4	0	6	1	0	4	0	5	0	17	17
05:45 PM	0	5	0	0	5	0	0	0	0	0	0	2	5	3	7	0	0	0	0	0	3	12	15
Total	4	20	0	0	24	0	0	0	0	0	0	13	20	7	33	4	0	9	1	13	8	70	78
Grand Total	14	37	0	0	51	0	0	0	0	0	0	24	35	11	59	7	1	19	5	27	16	137	153
Apprch %	27.5	72.5	0			0	0	0			0	40.7	59.3			25.9	3.7	70.4					
Total %	10.2	27	0		37.2	0	0	0		0	0	17.5	25.5		43.1	5.1	0.7	13.9		19.7	10.5	89.5	

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**5**	**6**	0	**11**	0	0	0	0	0	3	3	6	1	0	**3**	**4**	**21**
04:45 PM	0	4	0	4	0	0	0	0	0	3	3	6	**2**	0	2	4	14
05:00 PM	2	6	0	8	0	0	0	0	0	**5**	3	8	1	0	3	4	20
05:15 PM	0	5	0	5	0	0	0	0	0	4	**8**	**12**	2	0	2	4	21
Total Volume	7	21	0	28	0	0	0	0	0	15	17	32	6	0	10	16	76
% App. Total	25	75	0		0	0	0		0	46.9	53.1		37.5	0	62.5		
PHF	.350	.875	.000	.636	.000	.000	.000	.000	.000	.750	.531	.667	.750	.000	.833	1.00	.905

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

City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 05_FON_Citrus_10E PM
Site Code : 05119181
Start Date : 3/14/2019

	Citrus Avenue Southbound				I-10 Eastbound On Ramp Westbound				Citrus Avenue Northbound				I-10 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	**5**	**6**	0	**11**	0	0	0	0	0	3	3	6	1	0	**3**	**4**	
+15 mins.	0	4	0	4	0	0	0	0	0	3	3	6	**2**	0	2	4	
+30 mins.	2	6	0	8	0	0	0	0	0	**5**	3	8	1	0	3	4	
+45 mins.	0	5	0	5	0	0	0	0	0	4	**8**	**12**	2	0	2	4	
Total Volume	7	21	0	28	0	0	0	0	0	15	17	32	6	0	10	16	
% App. Total	25	75	0		0	0	0		0	46.9	53.1		37.5	0	62.5		
PHF	.350	.875	.000	.636	.000	.000	.000	.000	.000	.750	.531	.667	.750	.000	.833	1.000	

Location: Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Citrus Avenue	East Leg I-10 Eastbound Ramps	South Leg Citrus Avenue	West Leg I-10 Eastbound Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	2	0	0	2
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	2

	North Leg Citrus Avenue	East Leg I-10 Eastbound Ramps	South Leg Citrus Avenue	West Leg I-10 Eastbound Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1
4:45 PM	0	1	0	0	1
5:00 PM	0	1	0	0	1
5:15 PM	0	1	0	1	2
5:30 PM	0	1	0	0	1
5:45 PM	0	1	0	0	1
TOTAL VOLUMES:	0	6	0	1	7

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-0268

Location: Fontana
N/S: Citrus Avenue
E/W: I-10 Eastbound Ramps

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Citrus Avenue			Westbound I-10 Eastbound Ramps			Northbound Citrus Avenue			Eastbound I-10 Eastbound Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	1	1	0	0	0	0	0	2	0	0	0	0	4

	Southbound Citrus Avenue			Westbound I-10 Eastbound Ramps			Northbound Citrus Avenue			Eastbound I-10 Eastbound Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	0	0	1

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City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	50	120	133	32	303	20	105	43	14	168	5	136	12	8	153	44	29	3	1	76	55	700	755
07:15 AM	68	128	112	28	308	35	87	63	17	185	22	200	15	12	237	47	30	12	4	89	61	819	880
07:30 AM	28	70	110	40	208	17	102	37	5	156	8	169	13	5	190	66	49	3	0	118	50	672	722
07:45 AM	45	82	143	16	270	15	128	38	11	181	3	87	4	2	94	49	48	1	0	98	29	643	672
Total	191	400	498	116	1089	87	422	181	47	690	38	592	44	27	674	206	156	19	5	381	195	2834	3029
08:00 AM	33	53	127	28	213	12	78	17	5	107	6	72	9	5	87	45	33	0	0	78	38	485	523
08:15 AM	31	65	119	13	215	10	64	19	2	93	2	62	8	6	72	38	47	3	0	88	21	468	489
08:30 AM	31	64	99	13	194	8	50	24	4	82	2	82	8	4	92	64	21	2	0	87	21	455	476
08:45 AM	30	59	89	13	178	11	56	21	4	88	5	89	9	5	103	55	34	4	2	93	24	462	486
Total	125	241	434	67	800	41	248	81	15	370	15	305	34	20	354	202	135	9	2	346	104	1870	1974
Grand Total	316	641	932	183	1889	128	670	262	62	1060	53	897	78	47	1028	408	291	28	7	727	299	4704	5003
Apprch %	16.7	33.9	49.3			12.1	63.2	24.7			5.2	87.3	7.6			56.1	40	3.9					
Total %	6.7	13.6	19.8		40.2	2.7	14.2	5.6		22.5	1.1	19.1	1.7		21.9	8.7	6.2	0.6		15.5	6	94	
Passenger Vehicles	303	582	810		1866	117	623	237		1036	46	846	73		1010	293	249	26		574	0	0	4486
% Passenger Vehicles	95.9	90.8	86.9	93.4	90.1	91.4	93	90.5	95.2	92.3	86.8	94.3	93.6	95.7	94	71.8	85.6	92.9	85.7	78.2	0	0	89.7
Large 2 Axle Vehicles	7	30	39		81	8	19	13		41	2	19	3		26	31	26	2		60	0	0	208
% Large 2 Axle Vehicles	2.2	4.7	4.2	2.7	3.9	6.2	2.8	5	1.6	3.7	3.8	2.1	3.8	4.3	2.4	7.6	8.9	7.1	14.3	8.2	0	0	4.2
3 Axle Vehicles	2	4	23		30	1	11	3		15	3	2	0		5	28	7	0		35	0	0	85
% 3 Axle Vehicles	0.6	0.6	2.5	0.5	1.4	0.8	1.6	1.1	0	1.3	5.7	0.2	0	0	0.5	6.9	2.4	0	0	4.8	0	0	1.7
4+ Axle Trucks	4	25	60		95	2	17	9		30	2	30	2		34	56	9	0		65	0	0	224
% 4+ Axle Trucks	1.3	3.9	6.4	3.3	4.6	1.6	2.5	3.4	3.2	2.7	3.8	3.3	2.6	0	3.2	13.7	3.1	0	0	8.9	0	0	4.5

Page 1 of 1

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 07:00 AM																	
07:00 AM	50	120	133	303	20	105	43	168	5	136	12	153	44	29	3	76	700
07:15 AM	**68**	**128**	112	**308**	**35**	87	**63**	**185**	**22**	**200**	**15**	**237**	47	30	**12**	89	**819**
07:30 AM	28	70	110	208	17	102	37	156	8	169	13	190	**66**	**49**	3	**118**	672
07:45 AM	45	82	**143**	270	15	**128**	38	181	3	87	4	94	49	48	1	98	643
Total Volume	191	400	498	1089	87	422	181	690	38	592	44	674	206	156	19	381	2834
% App. Total	17.5	36.7	45.7		12.6	61.2	26.2		5.6	87.8	6.5		54.1	40.9	5		
PHF	.702	.781	.871	.884	.621	.824	.718	.932	.432	.740	.733	.711	.780	.796	.396	.807	.865

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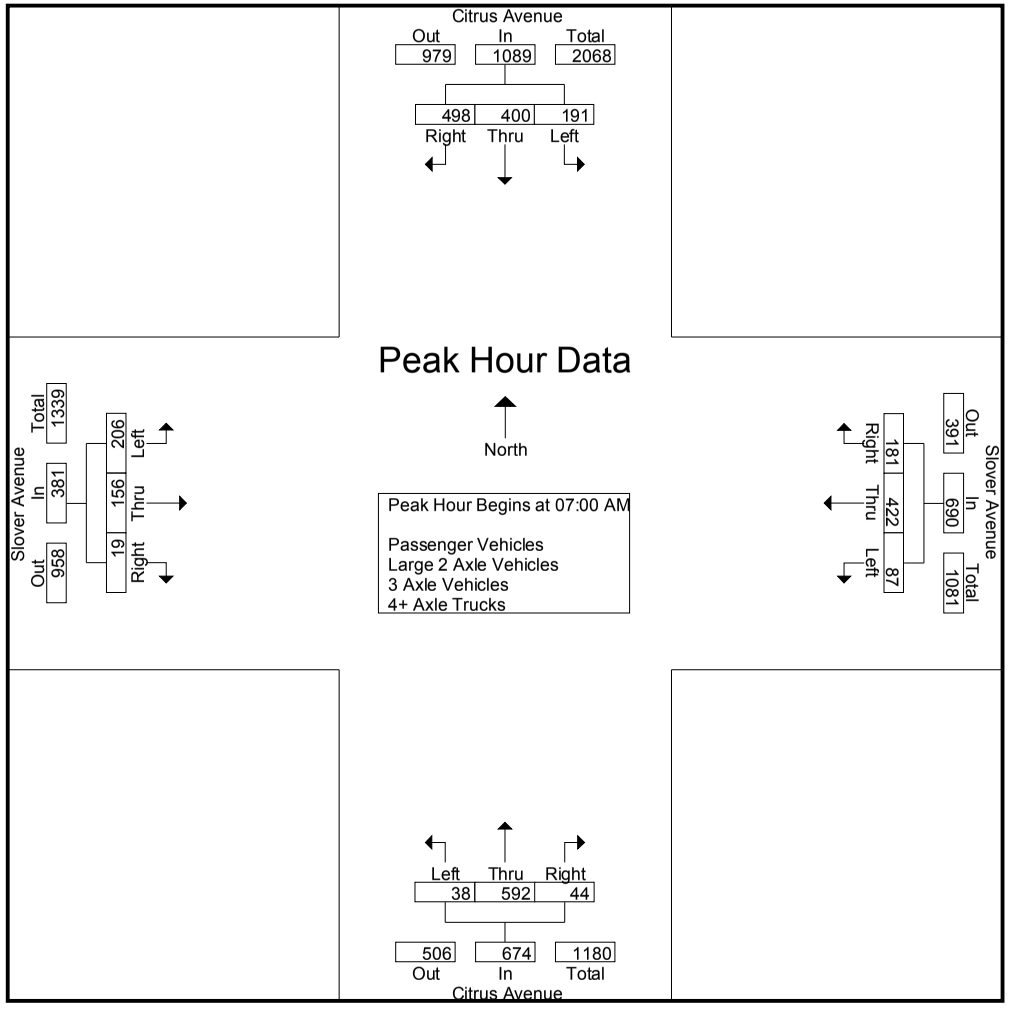
File Name : 06_FON_Citrus_Slover AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:15 AM				
+0 mins.	50	120	133	303	20	105	43	168	5	136	12	153	47	30	**12**	89	
+15 mins.	**68**	**128**	112	**308**	**35**	87	**63**	**185**	**22**	**200**	**15**	**237**	**66**	**49**	3	**118**	
+30 mins.	28	70	110	208	17	102	37	156	8	169	13	190	49	48	1	98	
+45 mins.	45	82	**143**	270	15	**128**	38	181	3	87	4	94	45	33	0	78	
Total Volume	191	400	498	1089	87	422	181	690	38	592	44	674	207	160	16	383	
% App. Total	17.5	36.7	45.7		12.6	61.2	26.2		5.6	87.8	6.5		54	41.8	4.2		
PHF	.702	.781	.871	.884	.621	.824	.718	.932	.432	.740	.733	.711	.784	.816	.333	.811	

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Page No : 1

Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	48	108	117	29	273	19	96	37	12	152	5	129	12	8	146	37	26	3	1	66	50	637	687
07:15 AM	67	121	96	24	284	35	81	59	17	175	20	194	15	12	229	39	25	11	3	75	56	763	819
07:30 AM	25	65	104	39	194	14	97	34	4	145	8	162	13	5	183	50	42	3	0	95	48	617	665
07:45 AM	45	71	123	14	239	13	121	38	11	172	3	81	2	1	86	38	43	1	0	82	26	579	605
Total	185	365	440	106	990	81	395	168	44	644	36	566	42	26	644	164	136	18	4	318	180	2596	2776
08:00 AM	32	49	113	28	194	10	72	13	5	95	3	66	8	4	77	27	28	0	0	55	37	421	458
08:15 AM	30	60	99	12	189	10	61	16	2	87	2	58	8	6	68	26	42	2	0	70	20	414	434
08:30 AM	27	58	83	12	168	8	48	22	4	78	2	77	7	4	86	39	18	2	0	59	20	391	411
08:45 AM	29	50	75	13	154	8	47	18	4	73	3	79	8	5	90	37	25	4	2	66	24	383	407
Total	118	217	370	65	705	36	228	69	15	333	10	280	31	19	321	129	113	8	2	250	101	1609	1710
Grand Total	303	582	810	171	1695	117	623	237	59	977	46	846	73	45	965	293	249	26	6	568	281	4205	4486
Apprch %	17.9	34.3	47.8			12	63.8	24.3			4.8	87.7	7.6			51.6	43.8	4.6					
Total %	7.2	13.8	19.3		40.3	2.8	14.8	5.6		23.2	1.1	20.1	1.7		22.9	7	5.9	0.6		13.5	6.3	93.7	

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	48	108	117	273	19	96	37	152	5	129	12	146	37	26	3	66	637
07:15 AM	**67**	**121**	96	**284**	**35**	81	**59**	**175**	**20**	**194**	**15**	**229**	39	25	**11**	75	**763**
07:30 AM	25	65	104	194	14	97	34	145	8	162	13	183	**50**	42	3	**95**	617
07:45 AM	45	71	**123**	239	13	**121**	38	172	3	81	2	86	38	**43**	1	82	579
Total Volume	185	365	440	990	81	395	168	644	36	566	42	644	164	136	18	318	2596
% App. Total	18.7	36.9	44.4		12.6	61.3	26.1		5.6	87.9	6.5		51.6	42.8	5.7		
PHF	.690	.754	.894	.871	.579	.816	.712	.920	.450	.729	.700	.703	.820	.791	.409	.837	.851

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Weather: Clear

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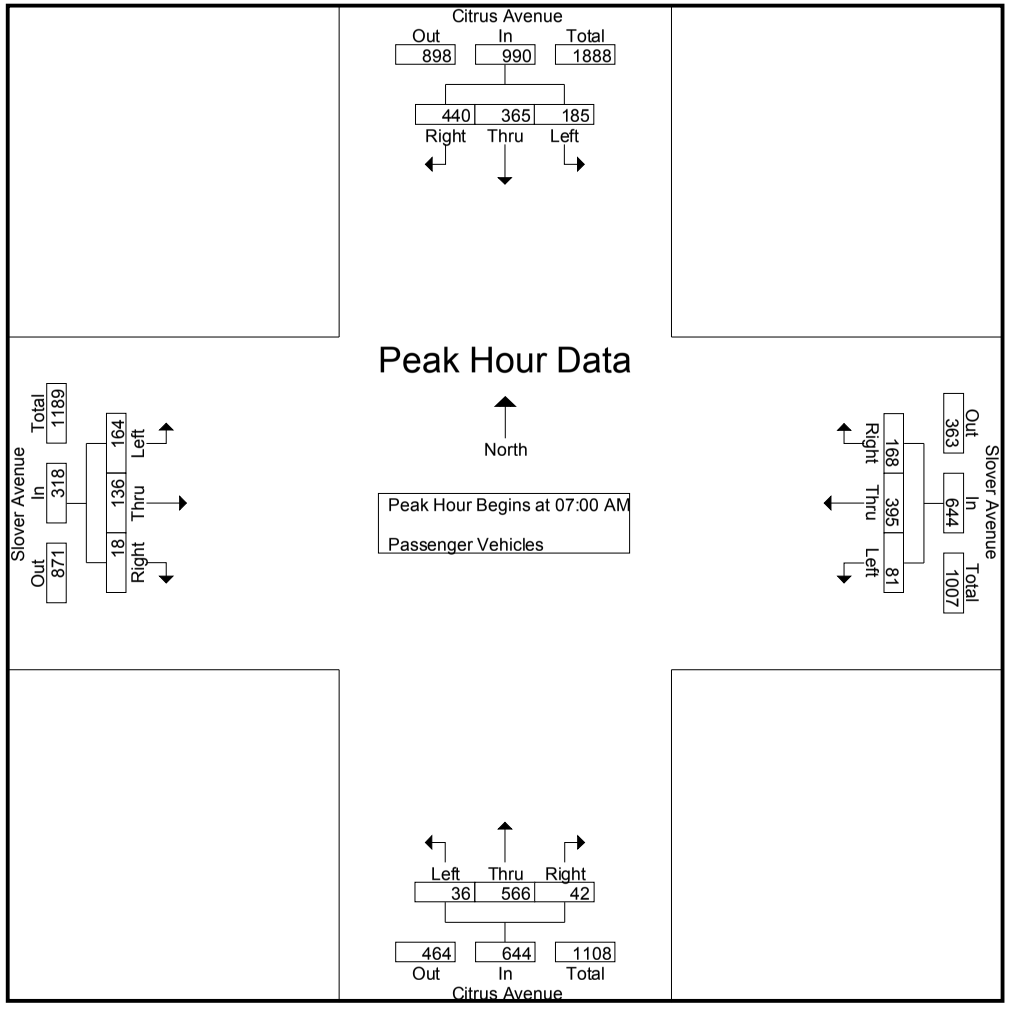
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
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File Name : 06_FON_Citrus_Slover AM
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Start Date : 3/14/2019
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	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	48	108	117	273	19	96	37	152	5	129	12	146	37	26	3	66	
+15 mins.	**67**	**121**	96	**284**	**35**	81	**59**	**175**	**20**	**194**	**15**	**229**	39	25	**11**	75	
+30 mins.	25	65	104	194	14	97	34	145	8	162	13	183	**50**	42	3	**95**	
+45 mins.	45	71	**123**	239	13	**121**	38	172	3	81	2	86	38	**43**	1	82	
Total Volume	185	365	440	990	81	395	168	644	36	566	42	644	164	136	18	318	
% App. Total	18.7	36.9	44.4		12.6	61.3	26.1		5.6	87.9	6.5		51.6	42.8	5.7		
PHF	.690	.754	.894	.871	.579	.816	.712	.920	.450	.729	.700	.703	.820	.791	.409	.837	

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Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	5	6	2	12	1	4	5	1	10	0	5	0	0	5	0	2	0	0	2	3	29	32
07:15 AM	0	4	3	1	7	0	1	2	0	3	1	2	0	0	3	1	3	1	1	5	2	18	20
07:30 AM	1	2	3	0	6	3	3	1	0	7	0	0	0	0	0	3	4	0	0	7	0	20	20
07:45 AM	0	5	6	1	11	1	5	0	0	6	0	3	1	1	4	3	3	0	0	6	2	27	29
Total	2	16	18	4	36	5	13	8	1	26	1	10	1	1	12	7	12	1	1	20	7	94	101
08:00 AM	1	3	3	0	7	1	2	2	0	5	1	3	1	1	5	6	4	0	0	10	1	27	28
08:15 AM	0	3	8	1	11	0	1	1	0	2	0	1	0	0	1	5	4	1	0	10	1	24	25
08:30 AM	3	3	5	0	11	0	0	1	0	1	0	0	1	0	1	7	1	0	0	8	0	21	21
08:45 AM	1	5	5	0	11	2	3	1	0	6	0	5	0	0	5	6	5	0	0	11	0	33	33
Total	5	14	21	1	40	3	6	5	0	14	1	9	2	1	12	24	14	1	0	39	2	105	107
Grand Total	7	30	39	5	76	8	19	13	1	40	2	19	3	2	24	31	26	2	1	59	9	199	208
Apprch %	9.2	39.5	51.3			20	47.5	32.5			8.3	79.2	12.5			52.5	44.1	3.4					
Total %	3.5	15.1	19.6		38.2	4	9.5	6.5		20.1	1	9.5	1.5		12.1	15.6	13.1	1		29.6	4.3	95.7	

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	**5**	**6**	**12**	1	4	**5**	**10**	0	**5**	0	**5**	0	2	0	2	**29**
07:15 AM	0	4	3	7	0	1	2	3	**1**	2	0	3	1	3	**1**	5	18
07:30 AM	1	2	3	6	**3**	3	1	7	0	0	0	0	**3**	**4**	0	**7**	20
07:45 AM	0	5	6	11	1	**5**	0	6	0	3	**1**	4	3	3	0	6	27
Total Volume	2	16	18	36	5	13	8	26	1	10	1	12	7	12	1	20	94
% App. Total	5.6	44.4	50		19.2	50	30.8		8.3	83.3	8.3		35	60	5		
PHF	.500	.800	.750	.750	.417	.650	.400	.650	.250	.500	.250	.600	.583	.750	.250	.714	.810

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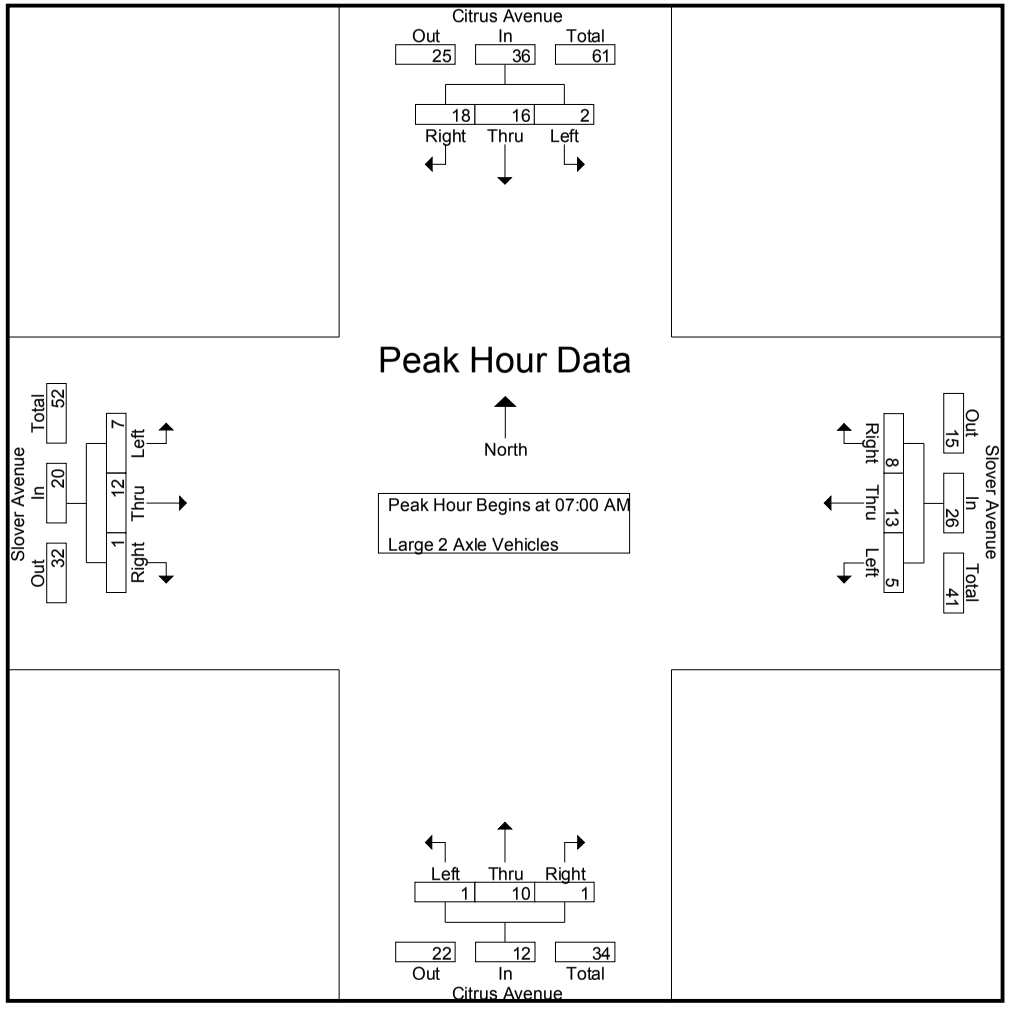

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	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**1**	**5**	**6**	**12**	1	4	**5**	**10**	0	**5**	0	**5**	0	2	0	2	
+15 mins.	0	4	3	7	0	1	2	3	**1**	2	0	3	1	3	**1**	5	
+30 mins.	1	2	3	6	**3**	3	1	7	0	0	0	0	**3**	**4**	0	**7**	
+45 mins.	0	5	6	11	1	**5**	0	6	0	3	**1**	4	3	3	0	6	
Total Volume	2	16	18	36	5	13	8	26	1	10	1	12	7	12	1	20	
% App. Total	5.6	44.4	50		19.2	50	30.8		8.3	83.3	8.3		35	60	5		
PHF	.500	.800	.750	.750	.417	.650	.400	.650	.250	.500	.250	.600	.583	.750	.250	.714	

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Page No : 1

Groups Printed- 3 Axle Vehicles

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	3	0	3	0	4	0	0	4	0	0	0	0	0	2	0	0	0	2	0	9	9
07:15 AM	1	1	3	0	5	0	1	0	0	1	0	0	0	0	0	1	1	0	0	2	0	8	8
07:30 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	2	2	0	0	4	0	6	6
07:45 AM	0	2	2	1	4	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	1	7	8
Total	1	3	9	1	13	0	7	0	0	7	0	0	0	0	0	7	3	0	0	10	1	30	31
08:00 AM	0	0	1	0	1	1	1	1	0	3	2	0	0	0	2	7	0	0	0	7	0	13	13
08:15 AM	0	0	6	0	6	0	0	1	0	1	0	2	0	0	2	3	0	0	0	3	0	12	12
08:30 AM	1	0	6	0	7	0	1	0	0	1	0	0	0	0	0	8	2	0	0	10	0	18	18
08:45 AM	0	1	1	0	2	0	2	1	0	3	1	0	0	0	1	3	2	0	0	5	0	11	11
Total	1	1	14	0	16	1	4	3	0	8	3	2	0	0	5	21	4	0	0	25	0	54	54
Grand Total	2	4	23	1	29	1	11	3	0	15	3	2	0	0	5	28	7	0	0	35	1	84	85
Apprch %	6.9	13.8	79.3			6.7	73.3	20			60	40	0			80	20	0					
Total %	2.4	4.8	27.4		34.5	1.2	13.1	3.6		17.9	3.6	2.4	0		6	33.3	8.3	0		41.7	1.2	98.8	

3.1-170

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**3**	3	0	**4**	0	**4**	0	0	0	0	**2**	0	0	2	**9**
07:15 AM	**1**	1	3	**5**	0	1	0	1	0	0	0	0	1	1	0	2	8
07:30 AM	0	0	1	1	0	1	0	1	0	0	0	0	2	**2**	0	**4**	6
07:45 AM	0	**2**	2	4	0	1	0	1	0	0	0	0	2	0	0	2	7
Total Volume	1	3	9	13	0	7	0	7	0	0	0	0	7	3	0	10	30
% App. Total	7.7	23.1	69.2		0	100	0		0	0	0		70	30	0		
PHF	.250	.375	.750	.650	.000	.438	.000	.438	.000	.000	.000	.000	.875	.375	.000	.625	.833

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E/W: Slover Avenue
Weather: Clear

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Site Code : 05119181
Start Date : 3/14/2019
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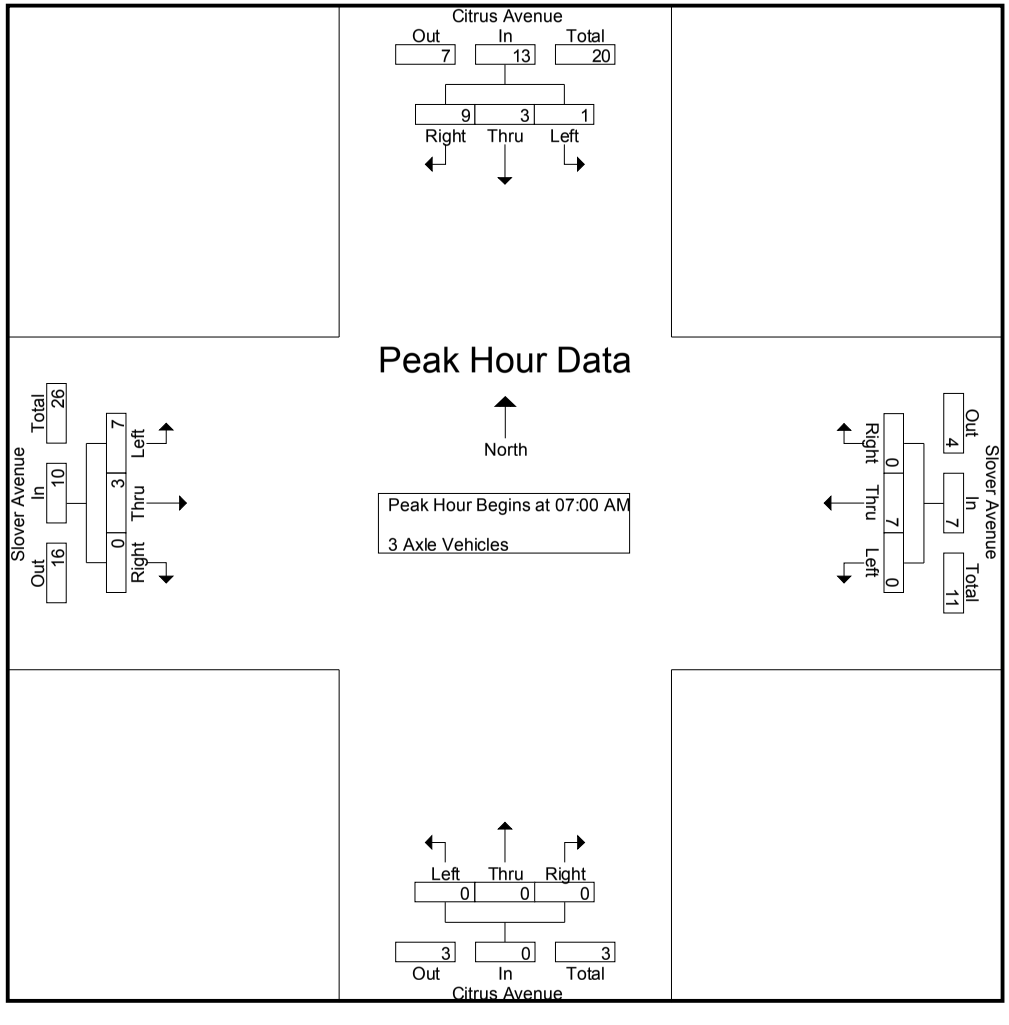

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	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	**3**	3	0	**4**	0	**4**	0	0	0	0	**2**	0	0	2	
+15 mins.	**1**	1	3	**5**	0	1	0	1	0	0	0	0	1	1	0	2	
+30 mins.	0	0	1	1	0	1	0	1	0	0	0	0	2	**2**	0	**4**	
+45 mins.	0	**2**	2	4	0	1	0	1	0	0	0	0	2	0	0	2	
Total Volume	1	3	9	13	0	7	0	7	0	0	0	0	7	3	0	10	
% App. Total	7.7	23.1	69.2		0	100	0		0	0	0		70	30	0		
PHF	.250	.375	.750	.650	.000	.438	.000	.438	.000	.000	.000	.000	.875	.375	.000	.625	

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Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	7	7	1	15	0	1	1	1	2	0	2	0	0	2	5	1	0	0	6	2	25	27
07:15 AM	0	2	10	3	12	0	4	2	0	6	1	4	0	0	5	6	1	0	0	7	3	30	33
07:30 AM	2	3	2	1	7	0	1	2	1	3	0	7	0	0	7	11	1	0	0	12	2	29	31
07:45 AM	0	4	12	0	16	1	1	0	0	2	0	3	1	0	4	6	2	0	0	8	0	30	30
Total	3	16	31	5	50	1	7	5	2	13	1	16	1	0	18	28	5	0	0	33	7	114	121
08:00 AM	0	1	10	0	11	0	3	1	0	4	0	3	0	0	3	5	1	0	0	6	0	24	24
08:15 AM	1	2	6	0	9	0	2	1	0	3	0	1	0	0	1	4	1	0	0	5	0	18	18
08:30 AM	0	3	5	1	8	0	1	1	0	2	0	5	0	0	5	10	0	0	0	10	1	25	26
08:45 AM	0	3	8	0	11	1	4	1	0	6	1	5	1	0	7	9	2	0	0	11	0	35	35
Total	1	9	29	1	39	1	10	4	0	15	1	14	1	0	16	28	4	0	0	32	1	102	103
Grand Total	4	25	60	6	89	2	17	9	2	28	2	30	2	0	34	56	9	0	0	65	8	216	224
Apprch %	4.5	28.1	67.4			7.1	60.7	32.1			5.9	88.2	5.9			86.2	13.8	0					
Total %	1.9	11.6	27.8		41.2	0.9	7.9	4.2		13	0.9	13.9	0.9		15.7	25.9	4.2	0		30.1	3.6	96.4	

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	**7**	7	15	0	1	1	2	0	2	0	2	5	1	0	6	25
07:15 AM	0	2	10	12	0	**4**	**2**	**6**	**1**	4	0	5	6	1	0	7	**30**
07:30 AM	**2**	3	2	7	0	1	2	3	0	**7**	0	**7**	**11**	1	0	**12**	29
07:45 AM	0	4	**12**	**16**	**1**	1	0	2	0	3	**1**	4	6	**2**	0	8	30
Total Volume	3	16	31	50	1	7	5	13	1	16	1	18	28	5	0	33	114
% App. Total	6	32	62		7.7	53.8	38.5		5.6	88.9	5.6		84.8	15.2	0		
PHF	.375	.571	.646	.781	.250	.438	.625	.542	.250	.571	.250	.643	.636	.625	.000	.688	.950

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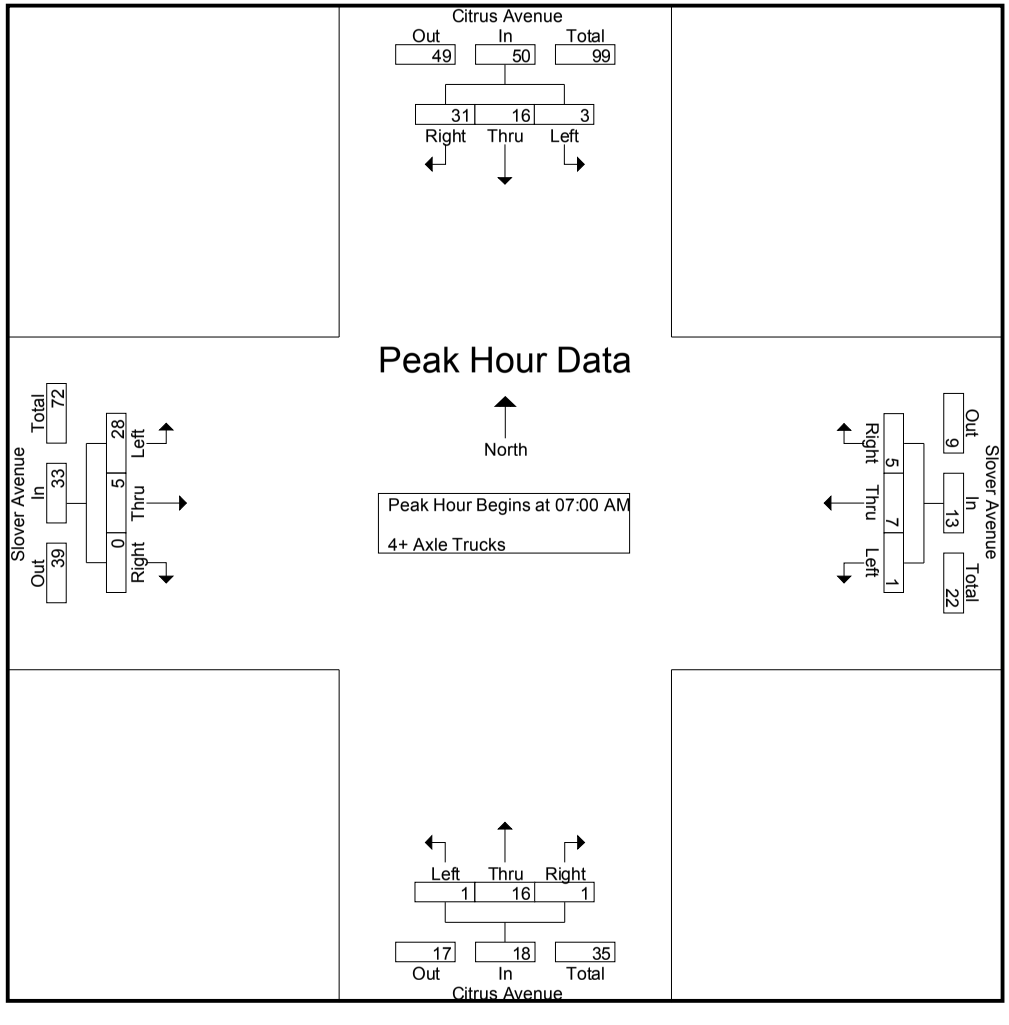

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	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	1	**7**	7	15	0	1	1	2	0	2	0	2	5	1	0	6	
+15 mins.	0	2	10	12	0	**4**	**2**	**6**	**1**	4	0	5	6	1	0	7	
+30 mins.	**2**	3	2	7	0	1	2	3	0	**7**	0	**7**	**11**	1	0	**12**	
+45 mins.	0	4	**12**	**16**	**1**	1	0	2	0	3	**1**	4	6	**2**	0	8	
Total Volume	3	16	31	50	1	7	5	13	1	16	1	18	28	5	0	33	
% App. Total	6	32	62		7.7	53.8	38.5		5.6	88.9	5.6		84.8	15.2	0		
PHF	.375	.571	.646	.781	.250	.438	.625	.542	.250	.571	.250	.643	.636	.625	.000	.688	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	50	77	49	10	176	12	54	30	6	96	7	160	31	12	198	150	200	7	0	357	28	827	855
04:15 PM	58	74	49	22	181	13	51	36	11	100	1	141	16	8	158	125	170	4	0	299	41	738	779
04:30 PM	52	61	70	28	183	15	49	45	16	109	4	145	30	20	179	156	183	6	0	345	64	816	880
04:45 PM	45	72	53	22	170	10	54	51	8	115	8	186	25	16	219	114	174	5	0	293	46	797	843
Total	205	284	221	82	710	50	208	162	41	420	20	632	102	56	754	545	727	22	0	1294	179	3178	3357
05:00 PM	56	97	44	17	197	15	50	45	9	110	7	167	28	14	202	157	178	7	0	342	40	851	891
05:15 PM	51	82	45	20	178	17	56	38	9	111	2	131	15	11	148	147	203	7	0	357	40	794	834
05:30 PM	56	80	39	10	175	23	44	42	3	109	3	161	20	10	184	125	163	5	0	293	23	761	784
05:45 PM	46	77	36	11	159	22	57	44	16	123	6	126	23	10	155	93	116	9	1	218	38	655	693
Total	209	336	164	58	709	77	207	169	37	453	18	585	86	45	689	522	660	28	1	1210	141	3061	3202
Grand Total	414	620	385	140	1419	127	415	331	78	873	38	1217	188	101	1443	1067	1387	50	1	2504	320	6239	6559
Apprch %	29.2	43.7	27.1			14.5	47.5	37.9			2.6	84.3	13			42.6	55.4	2					
Total %	6.6	9.9	6.2		22.7	2	6.7	5.3		14	0.6	19.5	3		23.1	17.1	22.2	0.8		40.1	4.9	95.1	
Passenger Vehicles	387	592	314		1420	122	356	317		872	33	1168	179		1478	997	1271	47		2316	0	0	6086
% Passenger Vehicles	93.5	95.5	81.6	90.7	91.1	96.1	85.8	95.8	98.7	91.7	86.8	96	95.2	97	95.7	93.4	91.6	94	100	92.5	0	0	92.8
Large 2 Axle Vehicles	13	11	28		58	2	24	7		34	2	18	4		25	25	43	3		71	0	0	188
% Large 2 Axle Vehicles	3.1	1.8	7.3	4.3	3.7	1.6	5.8	2.1	1.3	3.6	5.3	1.5	2.1	1	1.6	2.3	3.1	6	0	2.8	0	0	2.9
3 Axle Vehicles	5	3	11		21	1	13	2		16	0	9	1		11	14	29	0		43	0	0	91
% 3 Axle Vehicles	1.2	0.5	2.9	1.4	1.3	0.8	3.1	0.6	0	1.7	0	0.7	0.5	1	0.7	1.3	2.1	0	0	1.7	0	0	1.4
4+ Axle Trucks	9	14	32		60	2	22	5		29	3	22	4		30	31	44	0		75	0	0	194
% 4+ Axle Trucks	2.2	2.3	8.3	3.6	3.8	1.6	5.3	1.5	0	3	7.9	1.8	2.1	1	1.9	2.9	3.2	0	0	3	0	0	3

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM																	
04:30 PM	52	61	**70**	183	15	49	45	109	4	145	**30**	179	156	183	6	345	816
04:45 PM	45	72	53	170	10	54	**51**	**115**	**8**	**186**	25	**219**	114	174	5	293	797
05:00 PM	**56**	**97**	44	**197**	15	50	45	110	7	167	28	202	**157**	178	**7**	342	**851**
05:15 PM	51	82	45	178	**17**	**56**	38	111	2	131	15	148	147	**203**	7	**357**	794
Total Volume	204	312	212	728	57	209	179	445	21	629	98	748	574	738	25	1337	3258
% App. Total	28	42.9	29.1		12.8	47	40.2		2.8	84.1	13.1		42.9	55.2	1.9		
PHF	.911	.804	.757	.924	.838	.933	.877	.967	.656	.845	.817	.854	.914	.909	.893	.936	.957

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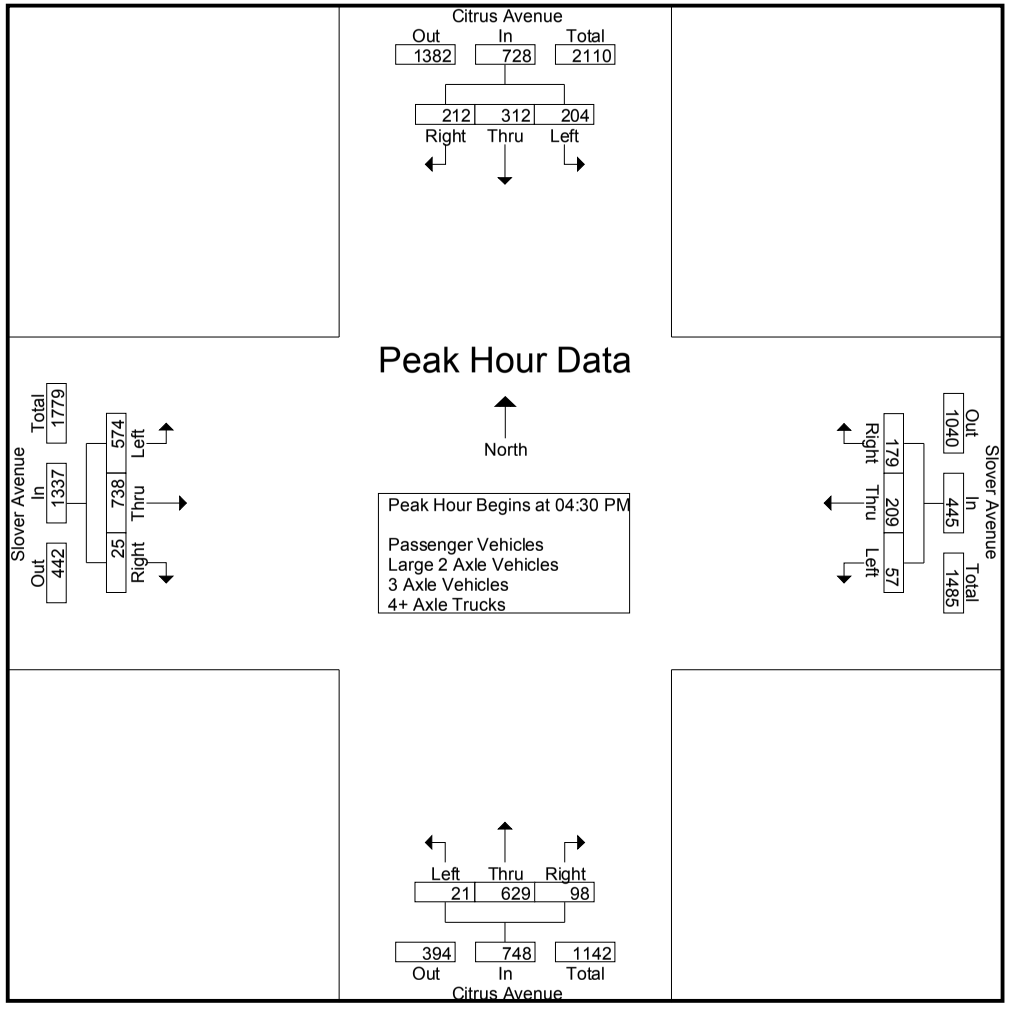

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	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				05:00 PM				04:15 PM				04:30 PM				
+0 mins.	**58**	74	49	181	15	50	**45**	110	1	141	16	158	156	183	6	345	
+15 mins.	52	61	**70**	183	17	56	38	111	4	145	**30**	179	114	174	5	293	
+30 mins.	45	72	53	170	**23**	44	42	109	**8**	**186**	25	**219**	**157**	178	**7**	342	
+45 mins.	56	**97**	44	**197**	22	**57**	44	**123**	7	167	28	202	147	**203**	7	**357**	
Total Volume	211	304	216	731	77	207	169	453	20	639	99	758	574	738	25	1337	
% App. Total	28.9	41.6	29.5		17	45.7	37.3		2.6	84.3	13.1		42.9	55.2	1.9		
PHF	.909	.784	.771	.928	.837	.908	.939	.921	.625	.859	.825	.865	.914	.909	.893	.936	

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Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	45	70	41	9	156	12	43	30	6	85	7	153	27	11	187	136	181	6	0	323	26	751	777
04:15 PM	55	71	40	20	166	13	48	35	11	96	1	133	15	7	149	114	149	4	0	267	38	678	716
04:30 PM	47	59	57	26	163	14	39	42	15	95	2	137	30	20	169	150	174	6	0	330	61	757	818
04:45 PM	42	70	44	21	156	8	46	49	8	103	8	181	25	16	214	112	154	4	0	270	45	743	788
Total	189	270	182	76	641	47	176	156	40	379	18	604	97	54	719	512	658	20	0	1190	170	2929	3099
05:00 PM	54	90	32	14	176	14	44	42	9	100	4	161	26	14	191	145	162	6	0	313	37	780	817
05:15 PM	50	81	38	17	169	17	51	36	9	104	2	126	14	10	142	132	189	7	0	328	36	743	779
05:30 PM	51	79	32	10	162	23	37	40	3	100	3	157	20	10	180	118	156	5	0	279	23	721	744
05:45 PM	43	72	30	10	145	21	48	43	16	112	6	120	22	10	148	90	106	9	1	205	37	610	647
Total	198	322	132	51	652	75	180	161	37	416	15	564	82	44	661	485	613	27	1	1125	133	2854	2987
Grand Total	387	592	314	127	1293	122	356	317	77	795	33	1168	179	98	1380	997	1271	47	1	2315	303	5783	6086
Apprch %	29.9	45.8	24.3			15.3	44.8	39.9			2.4	84.6	13			43.1	54.9	2					
Total %	6.7	10.2	5.4		22.4	2.1	6.2	5.5		13.7	0.6	20.2	3.1		23.9	17.2	22	0.8		40	5	95	

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	47	59	**57**	163	14	39	42	95	2	137	**30**	169	**150**	174	6	**330**	757
04:45 PM	42	70	44	156	8	46	**49**	103	**8**	**181**	25	**214**	112	154	4	270	743
05:00 PM	**54**	**90**	32	**176**	14	44	42	100	4	161	26	191	145	162	6	313	**780**
05:15 PM	50	81	38	169	**17**	**51**	36	**104**	2	126	14	142	132	**189**	**7**	328	743
Total Volume	193	300	171	664	53	180	169	402	16	605	95	716	539	679	23	1241	3023
% App. Total	29.1	45.2	25.8		13.2	44.8	42		2.2	84.5	13.3		43.4	54.7	1.9		
PHF	.894	.833	.750	.943	.779	.882	.862	.966	.500	.836	.792	.836	.898	.898	.821	.940	.969

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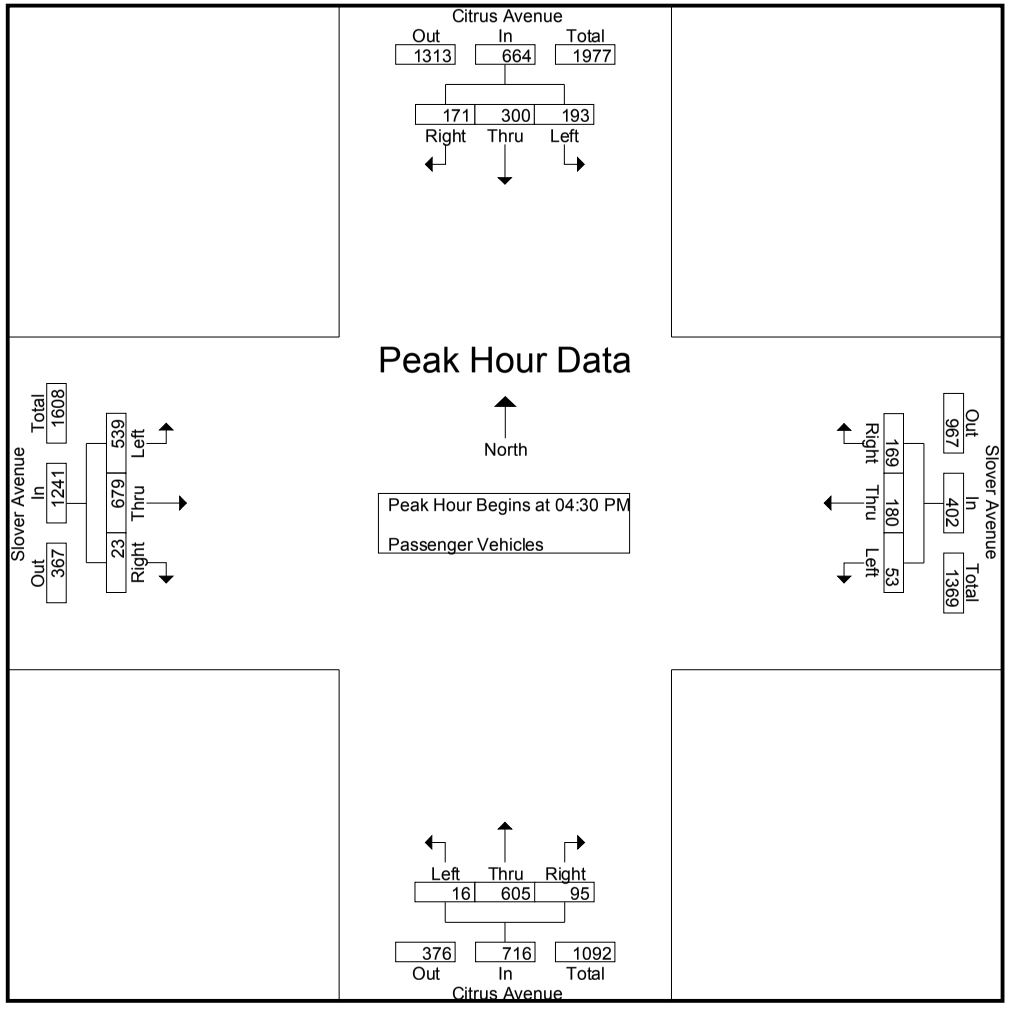
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	47	59	**57**	163	14	39	42	95	2	137	**30**	169	**150**	174	6	**330**	
+15 mins.	42	70	44	156	8	46	**49**	103	**8**	**181**	25	**214**	112	154	4	270	
+30 mins.	**54**	**90**	32	**176**	14	44	42	100	4	161	26	191	145	162	6	313	
+45 mins.	50	81	38	169	**17**	**51**	36	**104**	2	126	14	142	132	**189**	**7**	328	
Total Volume	193	300	171	664	53	180	169	402	16	605	95	716	539	679	23	1241	
% App. Total	29.1	45.2	25.8		13.2	44.8	42		2.2	84.5	13.3		43.4	54.7	1.9		
PHF	.894	.833	.750	.943	.779	.882	.862	.966	.500	.836	.792	.836	.898	.898	.821	.940	

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City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	1	4	1	7	0	5	0	0	5	0	2	1	0	3	6	10	1	0	17	1	32	33
04:15 PM	3	1	5	1	9	0	2	1	0	3	0	6	1	1	7	6	9	0	0	15	2	34	36
04:30 PM	2	2	4	0	8	0	5	2	1	7	1	3	0	0	4	2	4	0	0	6	1	25	26
04:45 PM	1	2	6	1	9	0	3	1	0	4	0	2	0	0	2	0	6	1	0	7	1	22	23
Total	8	6	19	3	33	0	15	4	1	19	1	13	2	1	16	14	29	2	0	45	5	113	118
05:00 PM	0	2	7	2	9	1	1	1	0	3	1	2	2	0	5	4	6	1	0	11	2	28	30
05:15 PM	1	0	1	1	2	0	2	1	0	3	0	1	0	0	1	3	2	0	0	5	1	11	12
05:30 PM	1	1	1	0	3	0	3	1	0	4	0	0	0	0	0	3	3	0	0	6	0	13	13
05:45 PM	3	2	0	0	5	1	3	0	0	4	0	2	0	0	2	1	3	0	0	4	0	15	15
Total	5	5	9	3	19	2	9	3	0	14	1	5	2	0	8	11	14	1	0	26	3	67	70
Grand Total	13	11	28	6	52	2	24	7	1	33	2	18	4	1	24	25	43	3	0	71	8	180	188
Apprch %	25	21.2	53.8			6.1	72.7	21.2			8.3	75	16.7			35.2	60.6	4.2					
Total %	7.2	6.1	15.6		28.9	1.1	13.3	3.9		18.3	1.1	10	2.2		13.3	13.9	23.9	1.7		39.4	4.3	95.7	

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**2**	**2**	4	8	0	**5**	**2**	**7**	**1**	**3**	0	4	2	4	0	6	25
04:45 PM	1	2	6	**9**	0	3	1	4	0	2	0	2	0	**6**	**1**	7	22
05:00 PM	0	2	**7**	9	**1**	1	1	3	1	2	**2**	**5**	**4**	6	1	**11**	**28**
05:15 PM	1	0	1	2	0	2	1	3	0	1	0	1	3	2	0	5	11
Total Volume	4	6	18	28	1	11	5	17	2	8	2	12	9	18	2	29	86
% App. Total	14.3	21.4	64.3		5.9	64.7	29.4		16.7	66.7	16.7		31	62.1	6.9		
PHF	.500	.750	.643	.778	.250	.550	.625	.607	.500	.667	.250	.600	.563	.750	.500	.659	.768

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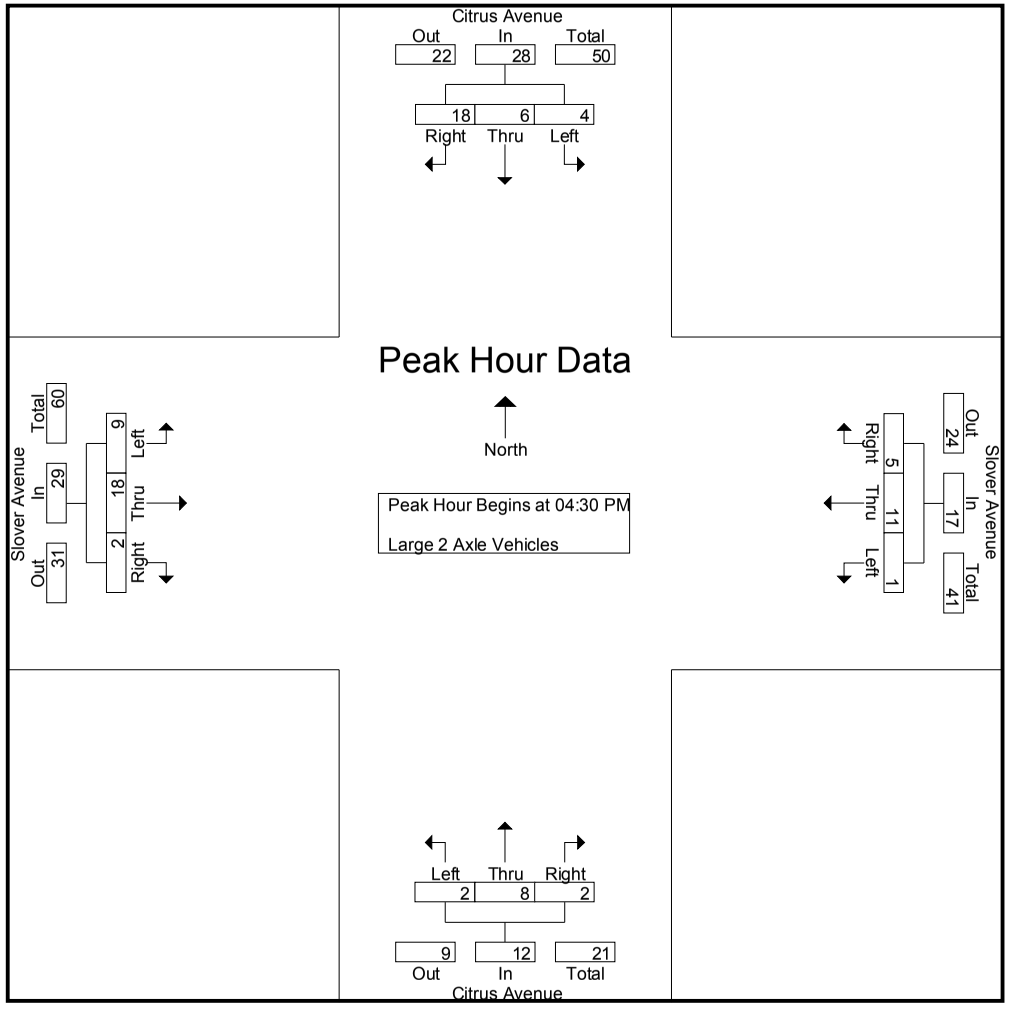
City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	**2**	**2**	4	8	0	**5**	**2**	**7**	**1**	**3**	0	4	2	4	0	6	
+15 mins.	1	2	6	**9**	0	3	1	4	0	2	0	2	0	**6**	**1**	7	
+30 mins.	0	2	**7**	9	**1**	1	1	3	1	2	**2**	**5**	**4**	6	1	**11**	
+45 mins.	1	0	1	2	0	2	1	3	0	1	0	1	3	2	0	5	
Total Volume	4	6	18	28	1	11	5	17	2	8	2	12	9	18	2	29	
% App. Total	14.3	21.4	64.3		5.9	64.7	29.4		16.7	66.7	16.7		31	62.1	6.9		
PHF	.500	.750	.643	.778	.250	.550	.625	.607	.500	.667	.250	.600	.563	.750	.500	.659	

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City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	2	0	0	2	0	2	0	0	2	0	2	0	0	2	3	4	0	0	7	0	13	13
04:15 PM	0	1	2	0	3	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	0	9	9
04:30 PM	2	0	2	1	4	0	1	0	0	1	0	3	0	0	3	2	1	0	0	3	1	11	12
04:45 PM	0	0	0	0	0	1	2	1	0	4	0	1	0	0	1	0	7	0	0	7	0	12	12
Total	2	3	4	1	9	1	6	1	0	8	0	6	0	0	6	5	17	0	0	22	1	45	46
05:00 PM	1	0	3	1	4	0	1	0	0	1	0	1	0	0	1	3	3	0	0	6	1	12	13
05:15 PM	0	0	1	0	1	0	2	0	0	2	0	1	1	1	2	4	4	0	0	8	1	13	14
05:30 PM	2	0	2	0	4	0	2	0	0	2	0	1	0	0	1	1	1	0	0	2	0	9	9
05:45 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	1	4	0	0	5	0	9	9
Total	3	0	7	1	10	0	7	1	0	8	0	3	1	1	4	9	12	0	0	21	2	43	45
Grand Total	5	3	11	2	19	1	13	2	0	16	0	9	1	1	10	14	29	0	0	43	3	88	91
Apprch %	26.3	15.8	57.9			6.2	81.2	12.5			0	90	10			32.6	67.4	0				
Total %	5.7	3.4	12.5		21.6	1.1	14.8	2.3		18.2	0	10.2	1.1		11.4	15.9	33	0		48.9	3.3	96.7	

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**2**	0	2	**4**	0	1	0	1	0	**3**	0	**3**	2	1	0	3	11
04:45 PM	0	0	0	0	**1**	**2**	**1**	**4**	0	1	0	1	0	**7**	0	7	12
05:00 PM	1	0	**3**	4	0	1	0	1	0	1	0	1	3	3	0	6	12
05:15 PM	0	0	1	1	0	2	0	2	0	1	**1**	2	**4**	4	0	**8**	**13**
Total Volume	3	0	6	9	1	6	1	8	0	6	1	7	9	15	0	24	48
% App. Total	33.3	0	66.7		12.5	75	12.5		0	85.7	14.3		37.5	62.5	0		
PHF	.375	.000	.500	.563	.250	.750	.250	.500	.000	.500	.250	.583	.563	.536	.000	.750	.923

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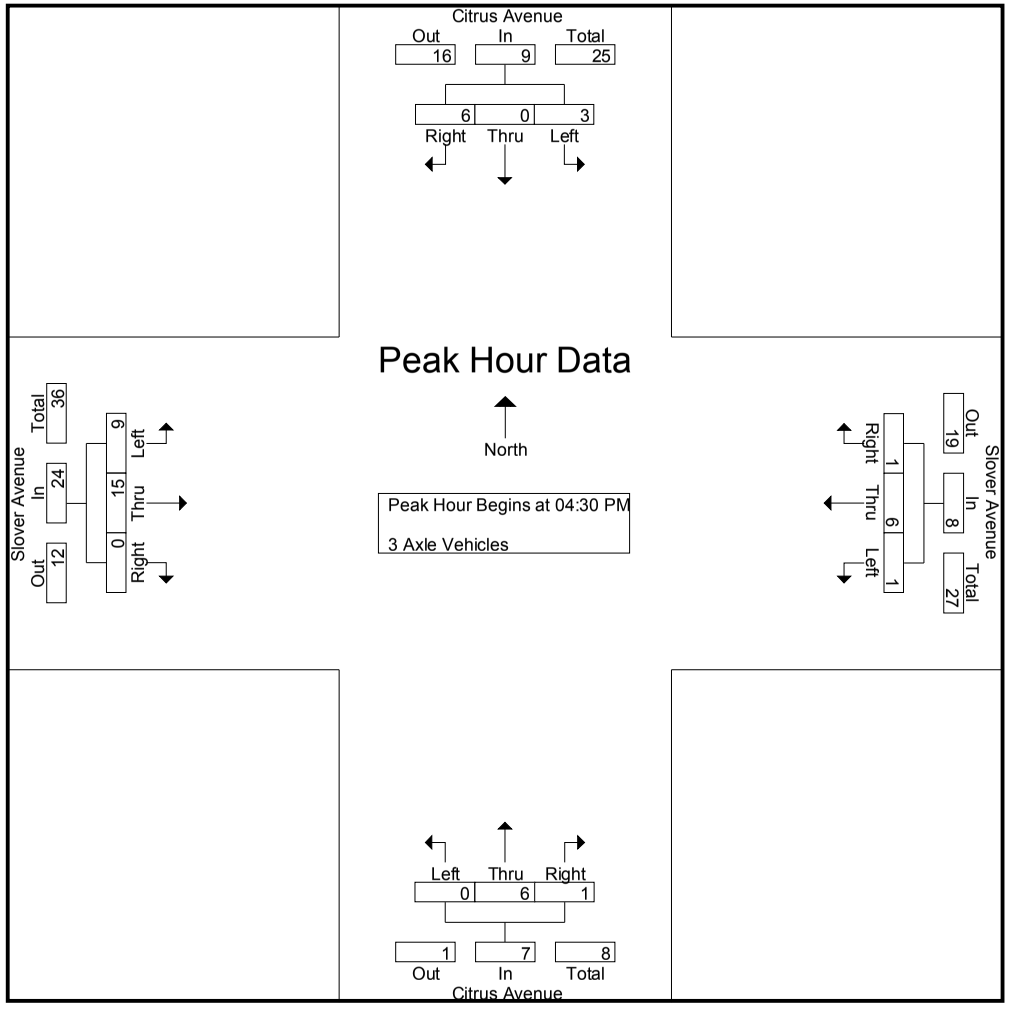
City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	**2**	0	2	**4**	0	1	0	1	0	**3**	0	**3**	2	1	0	3	
+15 mins.	0	0	0	0	**1**	**2**	**1**	**4**	0	1	0	1	0	**7**	0	7	
+30 mins.	1	0	**3**	4	0	1	0	1	0	1	0	1	3	3	0	6	
+45 mins.	0	0	1	1	0	2	0	2	0	1	**1**	2	**4**	4	0	**8**	
Total Volume	3	0	6	9	1	6	1	8	0	6	1	7	9	15	0	24	
% App. Total	33.3	0	66.7		12.5	75	12.5		0	85.7	14.3		37.5	62.5	0		
PHF	.375	.000	.500	.563	.250	.750	.250	.500	.000	.500	.250	.583	.563	.536	.000	.750	

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City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					Slover Avenue Westbound					Citrus Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	3	4	4	0	11	0	4	0	0	4	0	3	3	1	6	5	5	0	0	10	1	31	32
04:15 PM	0	1	2	1	3	0	0	0	0	0	0	2	0	0	2	5	7	0	0	12	1	17	18
04:30 PM	1	0	7	1	8	1	4	1	0	6	1	2	0	0	3	2	4	0	0	6	1	23	24
04:45 PM	2	0	3	0	5	1	3	0	0	4	0	2	0	0	2	2	7	0	0	9	0	20	20
Total	6	5	16	2	27	2	11	1	0	14	1	9	3	1	13	14	23	0	0	37	3	91	94
05:00 PM	1	5	2	0	8	0	4	2	0	6	2	3	0	0	5	5	7	0	0	12	0	31	31
05:15 PM	0	1	5	2	6	0	1	1	0	2	0	3	0	0	3	8	8	0	0	16	2	27	29
05:30 PM	2	0	4	0	6	0	2	1	0	3	0	3	0	0	3	3	3	0	0	6	0	18	18
05:45 PM	0	3	5	1	8	0	4	0	0	4	0	4	1	0	5	1	3	0	0	4	1	21	22
Total	3	9	16	3	28	0	11	4	0	15	2	13	1	0	16	17	21	0	0	38	3	97	100
Grand Total	9	14	32	5	55	2	22	5	0	29	3	22	4	1	29	31	44	0	0	75	6	188	194
Apprch %	16.4	25.5	58.2			6.9	75.9	17.2			10.3	75.9	13.8			41.3	58.7	0					
Total %	4.8	7.4	17		29.3	1.1	11.7	2.7		15.4	1.6	11.7	2.1		15.4	16.5	23.4	0		39.9	3.1	96.9	

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	0	**7**	**8**	**1**	**4**	1	**6**	1	2	0	3	2	4	0	6	23
04:45 PM	**2**	0	3	5	1	3	0	4	0	2	0	2	2	7	0	9	20
05:00 PM	1	**5**	2	8	0	4	**2**	6	**2**	**3**	0	**5**	5	7	0	12	**31**
05:15 PM	0	1	5	6	0	1	1	2	0	3	0	3	**8**	**8**	0	**16**	27
Total Volume	4	6	17	27	2	12	4	18	3	10	0	13	17	26	0	43	101
% App. Total	14.8	22.2	63		11.1	66.7	22.2		23.1	76.9	0		39.5	60.5	0		
PHF	.500	.300	.607	.844	.500	.750	.500	.750	.375	.833	.000	.650	.531	.813	.000	.672	.815

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City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
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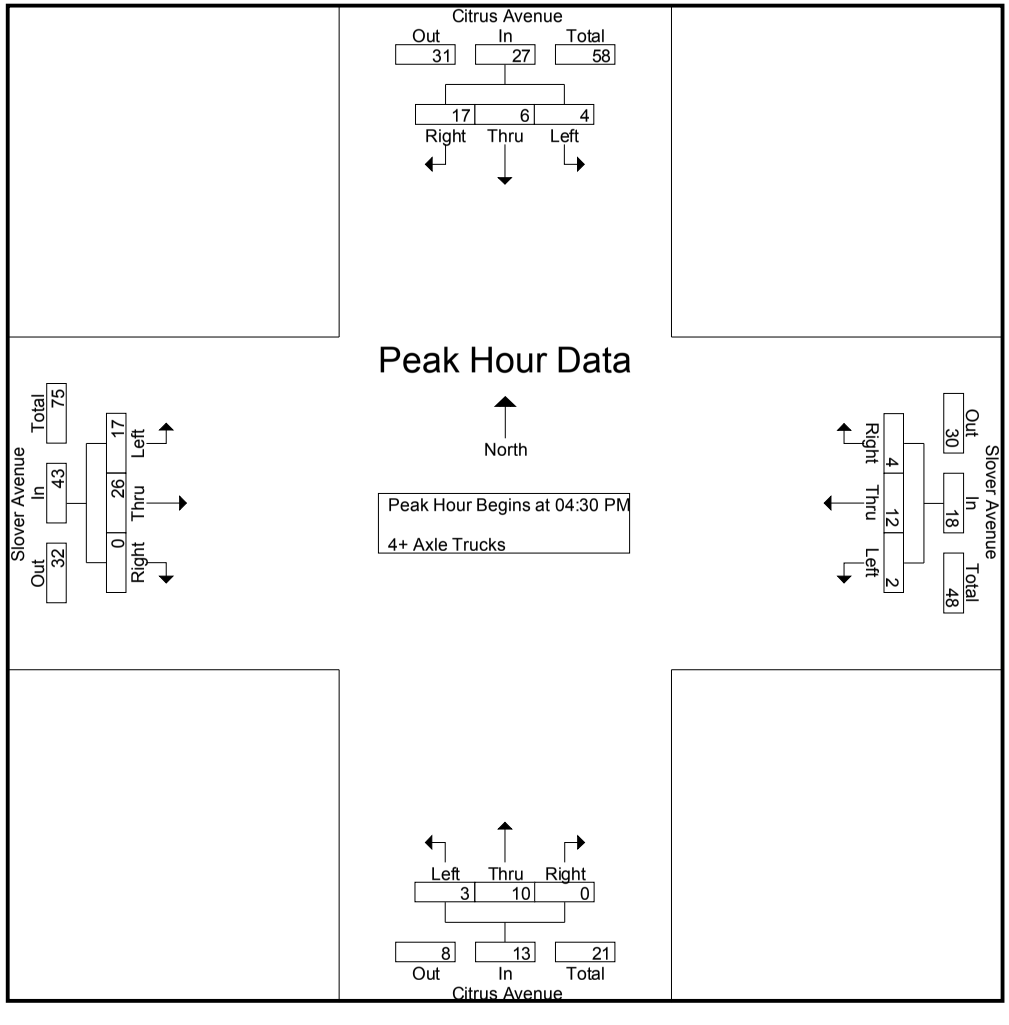

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City of Fontana
N/S: Citrus Avenue
E/W: Slover Avenue
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File Name : 06_FON_Citrus_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Slover Avenue Westbound				Citrus Avenue Northbound				Slover 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	1	0	**7**	**8**	**1**	**4**	1	**6**	1	2	0	3	2	4	0	6	
+15 mins.	**2**	0	3	5	1	3	0	4	0	2	0	2	2	7	0	9	
+30 mins.	1	**5**	2	8	0	4	**2**	6	**2**	**3**	0	**5**	5	7	0	12	
+45 mins.	0	1	5	6	0	1	1	2	0	3	0	3	**8**	**8**	0	**16**	
Total Volume	4	6	17	27	2	12	4	18	3	10	0	13	17	26	0	43	
% App. Total	14.8	22.2	63		11.1	66.7	22.2		23.1	76.9	0		39.5	60.5	0		
PHF	.500	.300	.607	.844	.500	.750	.500	.750	.375	.833	.000	.650	.531	.813	.000	.672	

Location: Fontana
N/S: Citrus Avenue
E/W: Slover Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Citrus Avenue	East Leg Slover Avenue	South Leg Citrus Avenue	West Leg Slover Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	4	6	3	0	13
7:15 AM	0	2	0	0	2
7:30 AM	2	0	0	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	6	8	3	0	17

	North Leg Citrus Avenue	East Leg Slover Avenue	South Leg Citrus Avenue	West Leg Slover Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	3	0	0	3
4:15 PM	2	0	0	0	2
4:30 PM	0	0	1	0	1
4:45 PM	1	0	1	0	2
5:00 PM	0	4	0	0	4
5:15 PM	0	1	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	2	1	0	0	3
TOTAL VOLUMES:	5	9	2	0	16

Location: Fontana
N/S: Citrus Avenue
E/W: Slover Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Citrus Avenue			Westbound Slover Avenue			Northbound Citrus Avenue			Eastbound Slover Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	0	1	0	0	0	0	0	0	0	2
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	1	2	0	0	1	0	0	1	0	0	0	0	5

	Southbound Citrus Avenue			Westbound Slover Avenue			Northbound Citrus Avenue			Eastbound Slover Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	3	0	4

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City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	12	50	16	7	78	10	24	12	5	46	3	117	10	3	130	13	7	4	4	24	19	278	297
07:15 AM	11	54	5	1	70	21	17	47	28	85	4	165	28	5	197	19	7	3	0	29	34	381	415
07:30 AM	7	57	7	1	71	11	15	10	5	36	3	102	5	1	110	12	7	4	3	23	10	240	250
07:45 AM	3	77	15	3	95	3	16	7	4	26	7	79	7	2	93	4	4	0	0	8	9	222	231
Total	33	238	43	12	314	45	72	76	42	193	17	463	50	11	530	48	25	11	7	84	72	1121	1193
08:00 AM	3	38	19	7	60	4	9	2	2	15	3	73	7	3	83	15	4	2	1	21	13	179	192
08:15 AM	3	62	14	5	79	5	12	2	1	19	3	62	9	2	74	10	5	4	1	19	9	191	200
08:30 AM	6	60	6	3	72	8	6	9	7	23	2	79	8	0	89	7	3	2	0	12	10	196	206
08:45 AM	5	57	8	0	70	1	9	4	2	14	1	100	3	1	104	10	5	1	1	16	4	204	208
Total	17	217	47	15	281	18	36	17	12	71	9	314	27	6	350	42	17	9	3	68	36	770	806
Grand Total	50	455	90	27	595	63	108	93	54	264	26	777	77	17	880	90	42	20	10	152	108	1891	1999
Apprch %	8.4	76.5	15.1			23.9	40.9	35.2			3	88.3	8.8			59.2	27.6	13.2					
Total %	2.6	24.1	4.8		31.5	3.3	5.7	4.9		14	1.4	41.1	4.1		46.5	4.8	2.2	1.1		8	5.4	94.6	
Passenger Vehicles	39	419	75		557	59	103	83		294	22	747	71		856	73	37	13		130	0	0	1837
% Passenger Vehicles	78	92.1	83.3	88.9	89.5	93.7	95.4	89.2	90.7	92.5	84.6	96.1	92.2	94.1	95.4	81.1	88.1	65	70	80.2	0	0	91.9
Large 2 Axle Vehicles	6	23	4		35	2	5	6		16	0	8	2		10	5	2	0		7	0	0	68
% Large 2 Axle Vehicles	12	5.1	4.4	7.4	5.6	3.2	4.6	6.5	5.6	5	0	1	2.6	0	1.1	5.6	4.8	0	0	4.3	0	0	3.4
3 Axle Vehicles	0	3	0		3	0	0	1		2	2	3	2		8	2	1	3		9	0	0	22
% 3 Axle Vehicles	0	0.7	0	0	0.5	0	0	1.1	1.9	0.6	7.7	0.4	2.6	5.9	0.9	2.2	2.4	15	30	5.6	0	0	1.1
4+ Axle Trucks	5	10	11		27	2	0	3		6	2	19	2		23	10	2	4		16	0	0	72
% 4+ Axle Trucks	10	2.2	12.2	3.7	4.3	3.2	0	3.2	1.9	1.9	7.7	2.4	2.6	0	2.6	11.1	4.8	20	0	9.9	0	0	3.6

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 07:00 AM																	
07:00 AM	**12**	50	**16**	78	10	**24**	12	46	3	117	10	130	13	**7**	**4**	24	278
07:15 AM	11	54	5	70	**21**	17	**47**	**85**	4	**165**	**28**	**197**	**19**	7	3	**29**	**381**
07:30 AM	7	57	7	71	11	15	10	36	3	102	5	110	12	7	4	23	240
07:45 AM	3	**77**	15	**95**	3	16	7	26	**7**	79	7	93	4	4	0	8	222
Total Volume	33	238	43	314	45	72	76	193	17	463	50	530	48	25	11	84	1121
% App. Total	10.5	75.8	13.7		23.3	37.3	39.4		3.2	87.4	9.4		57.1	29.8	13.1		
PHF	.688	.773	.672	.826	.536	.750	.404	.568	.607	.702	.446	.673	.632	.893	.688	.724	.736

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City of Fontana
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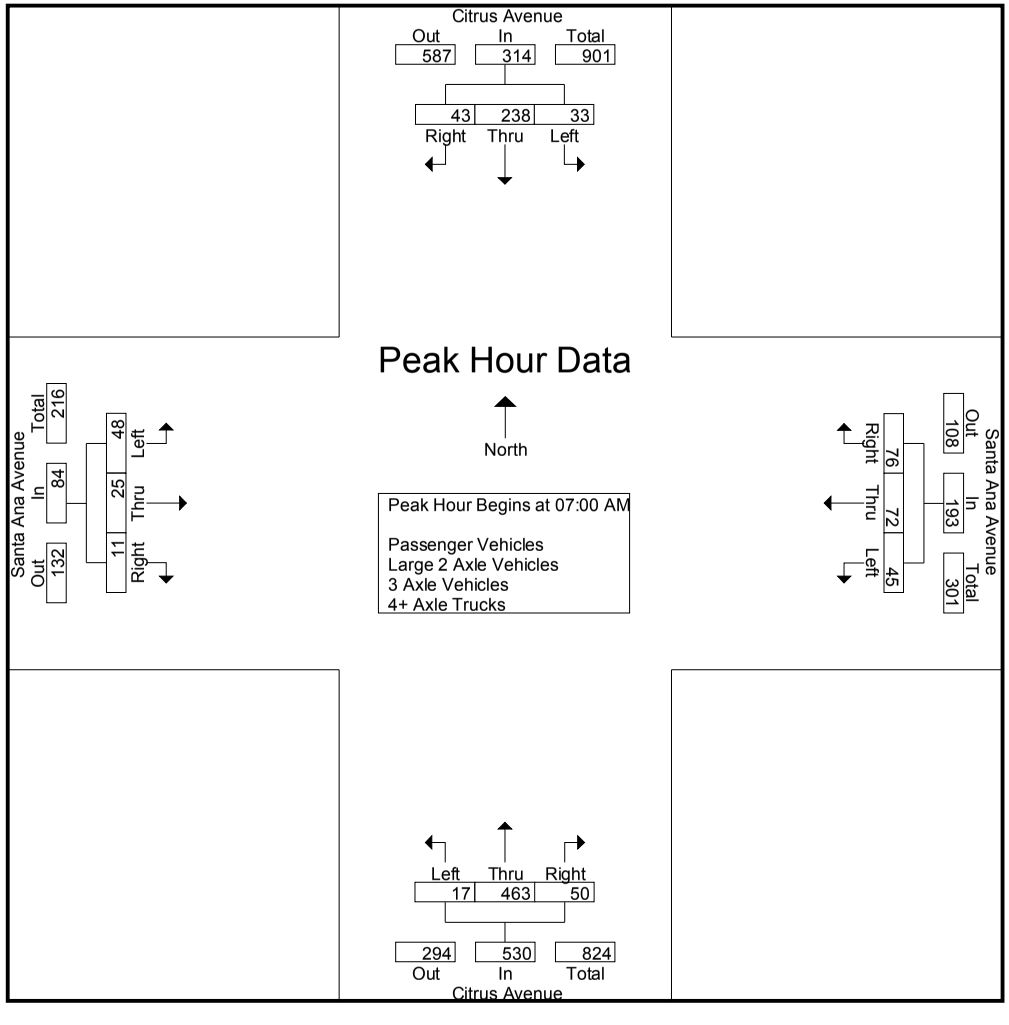
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
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File Name : 07_FON_Citrus_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**12**	50	**16**	78	10	**24**	12	46	3	117	10	130	13	**7**	**4**	24	
+15 mins.	11	54	5	70	**21**	17	**47**	**85**	4	**165**	**28**	**197**	**19**	7	3	**29**	
+30 mins.	7	57	7	71	11	15	10	36	3	102	5	110	12	7	4	23	
+45 mins.	3	**77**	15	**95**	3	16	7	26	**7**	79	7	93	4	4	0	8	
Total Volume	33	238	43	314	45	72	76	193	17	463	50	530	48	25	11	84	
% App. Total	10.5	75.8	13.7		23.3	37.3	39.4		3.2	87.4	9.4		57.1	29.8	13.1		
PHF	.688	.773	.672	.826	.536	.750	.404	.568	.607	.702	.446	.673	.632	.893	.688	.724	

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City of Fontana
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File Name : 07_FON_Citrus_Santa Ana AM
Site Code : 05119181
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Page No : 1

Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	9	45	13	6	67	10	23	11	4	44	3	113	10	3	126	10	6	2	2	18	15	255	270
07:15 AM	9	47	5	1	61	21	17	44	27	82	3	162	28	5	193	18	6	3	0	27	33	363	396
07:30 AM	6	55	6	1	67	10	15	10	5	35	1	98	3	1	102	10	7	3	2	20	9	224	233
07:45 AM	2	69	11	3	82	2	15	5	4	22	7	76	7	2	90	3	4	0	0	7	9	201	210
Total	26	216	35	11	277	43	70	70	40	183	14	449	48	11	511	41	23	8	4	72	66	1043	1109
08:00 AM	3	37	17	6	57	3	6	1	1	10	3	70	4	2	77	12	4	1	1	17	10	161	171
08:15 AM	2	58	13	4	73	5	12	2	1	19	3	59	9	2	71	8	4	3	1	15	8	178	186
08:30 AM	5	57	4	3	66	7	6	8	6	21	1	78	7	0	86	5	3	0	0	8	9	181	190
08:45 AM	3	51	6	0	60	1	9	2	1	12	1	91	3	1	95	7	3	1	1	11	3	178	181
Total	13	203	40	13	256	16	33	13	9	62	8	298	23	5	329	32	14	5	3	51	30	698	728
Grand Total	39	419	75	24	533	59	103	83	49	245	22	747	71	16	840	73	37	13	7	123	96	1741	1837
Apprch %	7.3	78.6	14.1			24.1	42	33.9			2.6	88.9	8.5			59.3	30.1	10.6					
Total %	2.2	24.1	4.3		30.6	3.4	5.9	4.8		14.1	1.3	42.9	4.1		48.2	4.2	2.1	0.7		7.1	5.2	94.8	

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**9**	45	**13**	67	10	**23**	11	44	3	113	10	126	10	6	2	18	255
07:15 AM	9	47	5	61	**21**	17	**44**	**82**	3	**162**	**28**	**193**	**18**	6	**3**	**27**	**363**
07:30 AM	6	55	6	67	10	15	10	35	1	98	3	102	10	**7**	3	20	224
07:45 AM	2	**69**	11	**82**	2	15	5	22	**7**	76	7	90	3	4	0	7	201
Total Volume	26	216	35	277	43	70	70	183	14	449	48	511	41	23	8	72	1043
% App. Total	9.4	78	12.6		23.5	38.3	38.3		2.7	87.9	9.4		56.9	31.9	11.1		
PHF	.722	.783	.673	.845	.512	.761	.398	.558	.500	.693	.429	.662	.569	.821	.667	.667	.718

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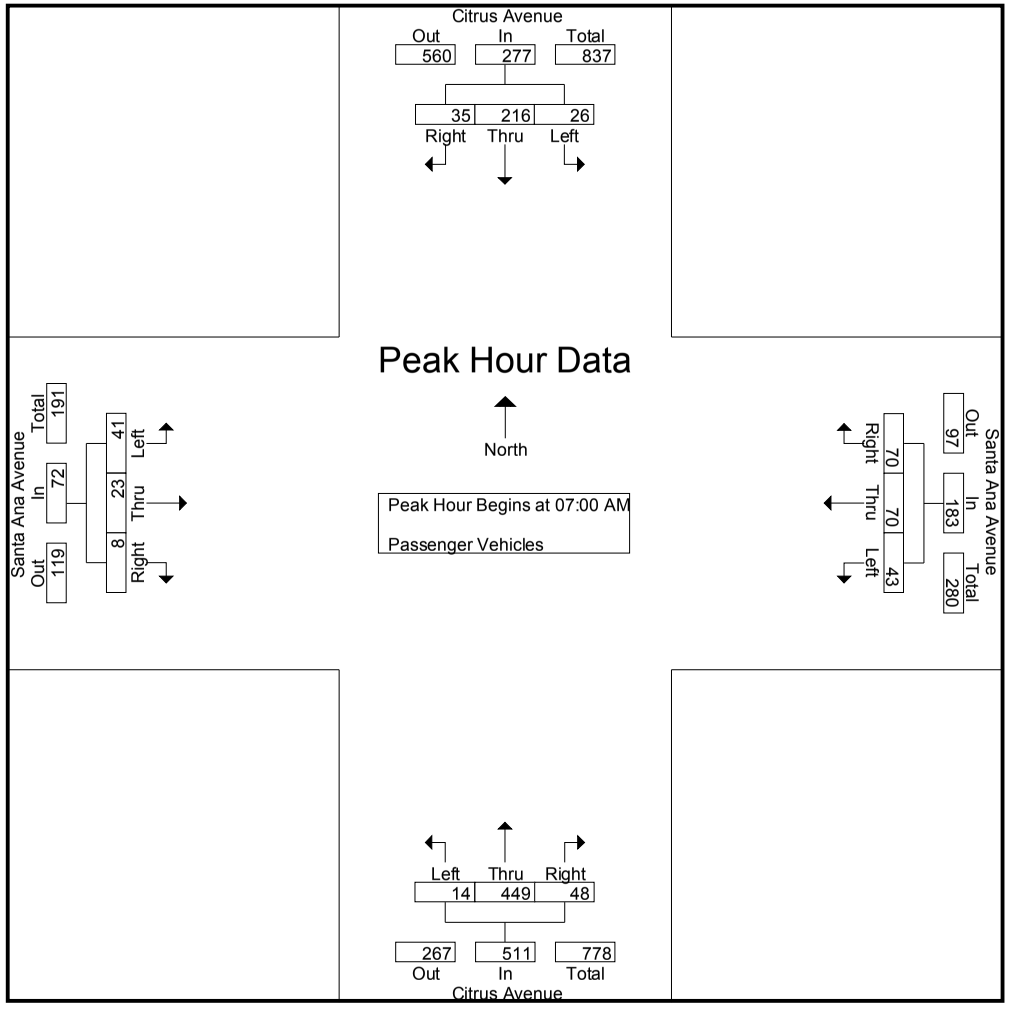
City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
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Weather: Clear

File Name : 07_FON_Citrus_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
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	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**9**	45	**13**	67	10	**23**	11	44	3	113	10	126	10	6	2	18	
+15 mins.	9	47	5	61	**21**	17	**44**	**82**	3	**162**	**28**	**193**	**18**	6	**3**	**27**	
+30 mins.	6	55	6	67	10	15	10	35	1	98	3	102	10	**7**	3	20	
+45 mins.	2	**69**	11	**82**	2	15	5	22	**7**	76	7	90	3	4	0	7	
Total Volume	26	216	35	277	43	70	70	183	14	449	48	511	41	23	8	72	
% App. Total	9.4	78	12.6		23.5	38.3	38.3		2.7	87.9	9.4		56.9	31.9	11.1		
PHF	.722	.783	.673	.845	.512	.761	.398	.558	.500	.693	.429	.662	.569	.821	.667	.667	

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City of Fontana
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File Name : 07_FON_Citrus_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	3	2	1	6	0	1	1	1	2	0	2	0	0	2	2	1	0	0	3	2	13	15
07:15 AM	1	4	0	0	5	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	1	7	8
07:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4	4
07:45 AM	1	5	0	0	6	0	1	1	0	2	0	1	0	0	1	1	0	0	0	1	0	10	10
Total	3	14	2	1	19	0	2	4	2	6	0	3	2	0	5	3	1	0	0	4	3	34	37
08:00 AM	0	0	1	1	1	1	3	0	0	4	0	1	0	0	1	1	0	0	0	1	1	7	8
08:15 AM	1	3	0	0	4	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	0	7	7
08:30 AM	0	3	0	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	4
08:45 AM	2	3	1	0	6	0	0	2	1	2	0	2	0	0	2	1	0	0	0	1	1	11	12
Total	3	9	2	1	14	2	3	2	1	7	0	5	0	0	5	2	1	0	0	3	2	29	31
Grand Total	6	23	4	2	33	2	5	6	3	13	0	8	2	0	10	5	2	0	0	7	5	63	68
Apprch %	18.2	69.7	12.1			15.4	38.5	46.2			0	80	20			71.4	28.6	0					
Total %	9.5	36.5	6.3		52.4	3.2	7.9	9.5		20.6	0	12.7	3.2		15.9	7.9	3.2	0		11.1	7.4	92.6	

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	3	**2**	**6**	0	**1**	1	**2**	0	**2**	0	**2**	**2**	**1**	0	**3**	**13**
07:15 AM	1	4	0	5	0	0	**2**	2	0	0	0	0	0	0	0	0	7
07:30 AM	0	2	0	2	0	0	0	0	0	0	**2**	2	0	0	0	0	4
07:45 AM	1	**5**	0	6	0	1	1	2	0	1	0	1	1	0	0	1	10
Total Volume	3	14	2	19	0	2	4	6	0	3	2	5	3	1	0	4	34
% App. Total	15.8	73.7	10.5		0	33.3	66.7		0	60	40		75	25	0		
PHF	.750	.700	.250	.792	.000	.500	.500	.750	.000	.375	.250	.625	.375	.250	.000	.333	.654

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Site Code : 05119181
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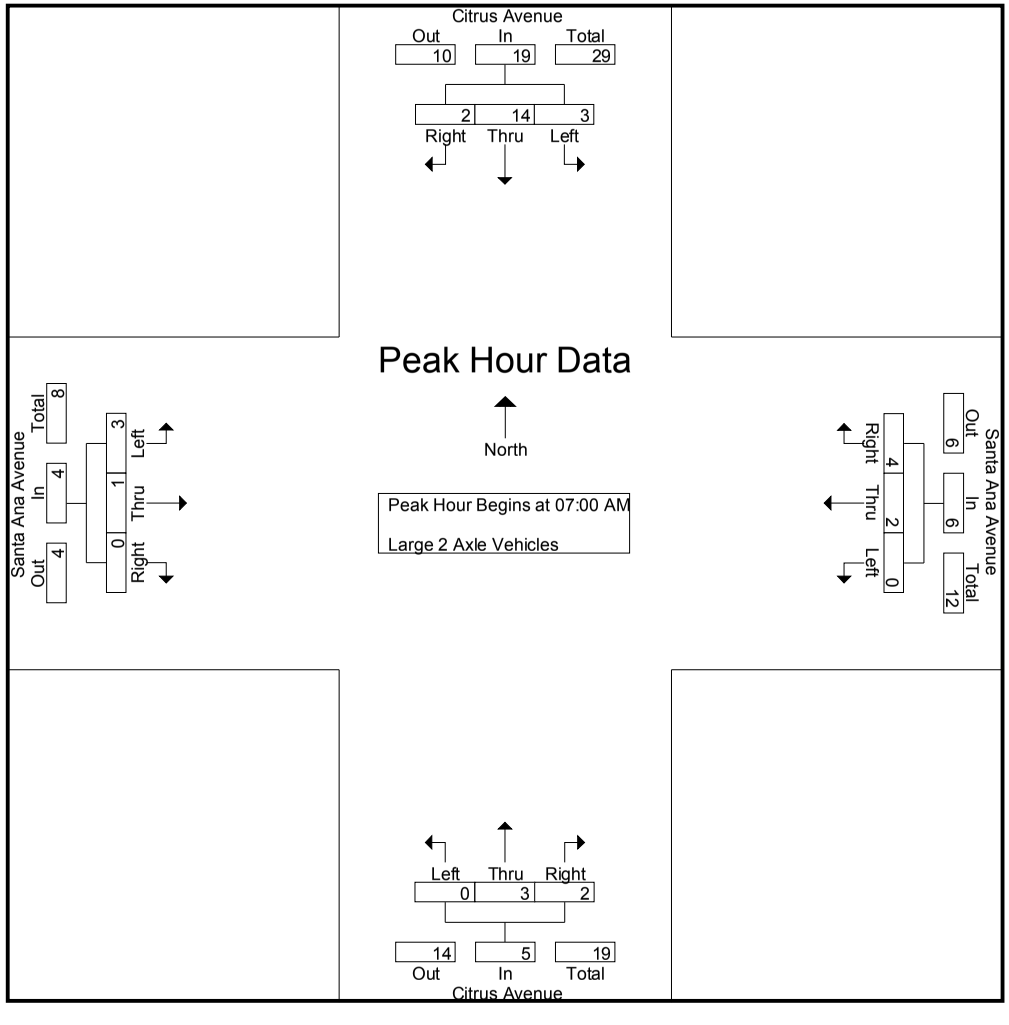

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Start Date : 3/14/2019
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	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**1**	3	**2**	**6**	0	**1**	1	**2**	0	**2**	0	**2**	**2**	**1**	0	**3**	
+15 mins.	1	4	0	5	0	0	**2**	2	0	0	0	0	0	0	0	0	
+30 mins.	0	2	0	2	0	0	0	0	0	0	**2**	2	0	0	0	0	
+45 mins.	1	**5**	0	6	0	1	1	2	0	1	0	1	1	0	0	1	
Total Volume	3	14	2	19	0	2	4	6	0	3	2	5	3	1	0	4	
% App. Total	15.8	73.7	10.5		0	33.3	66.7		0	60	40		75	25	0		
PHF	.750	.700	.250	.792	.000	.500	.500	.750	.000	.375	.250	.625	.375	.250	.000	.333	

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File Name : 07_FON_Citrus_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	2	2	2	3	5
07:15 AM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	1	1	2	3
07:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	2	0	0	2	0	0	0	0	0	2	1	0	0	3	0	0	3	3	3	3	8	11
08:00 AM	0	1	0	0	1	0	0	1	1	1	0	1	1	1	2	0	0	0	0	0	2	4	6
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	0	3	3
Total	0	1	0	0	1	0	0	1	1	1	0	2	2	1	4	2	1	0	0	3	2	9	11
Grand Total	0	3	0	0	3	0	0	1	1	1	2	3	2	1	7	2	1	3	3	6	5	17	22
Apprch %	0	100	0			0	0	100			28.6	42.9	28.6			33.3	16.7	50					
Total %	0	17.6	0		17.6	0	0	5.9		5.9	11.8	17.6	11.8		41.2	11.8	5.9	17.6		35.3	22.7	77.3	

3.1-202

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	**2**	**2**	**3**
07:15 AM	0	**1**	0	**1**	0	0	0	0	**1**	0	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	2	1	0	3	0	0	3	3	8
% App. Total	0	100	0		0	0	0		66.7	33.3	0		0	0	100		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.500	.250	.000	.750	.000	.000	.375	.375	.667

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City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

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Site Code : 05119181
Start Date : 3/14/2019
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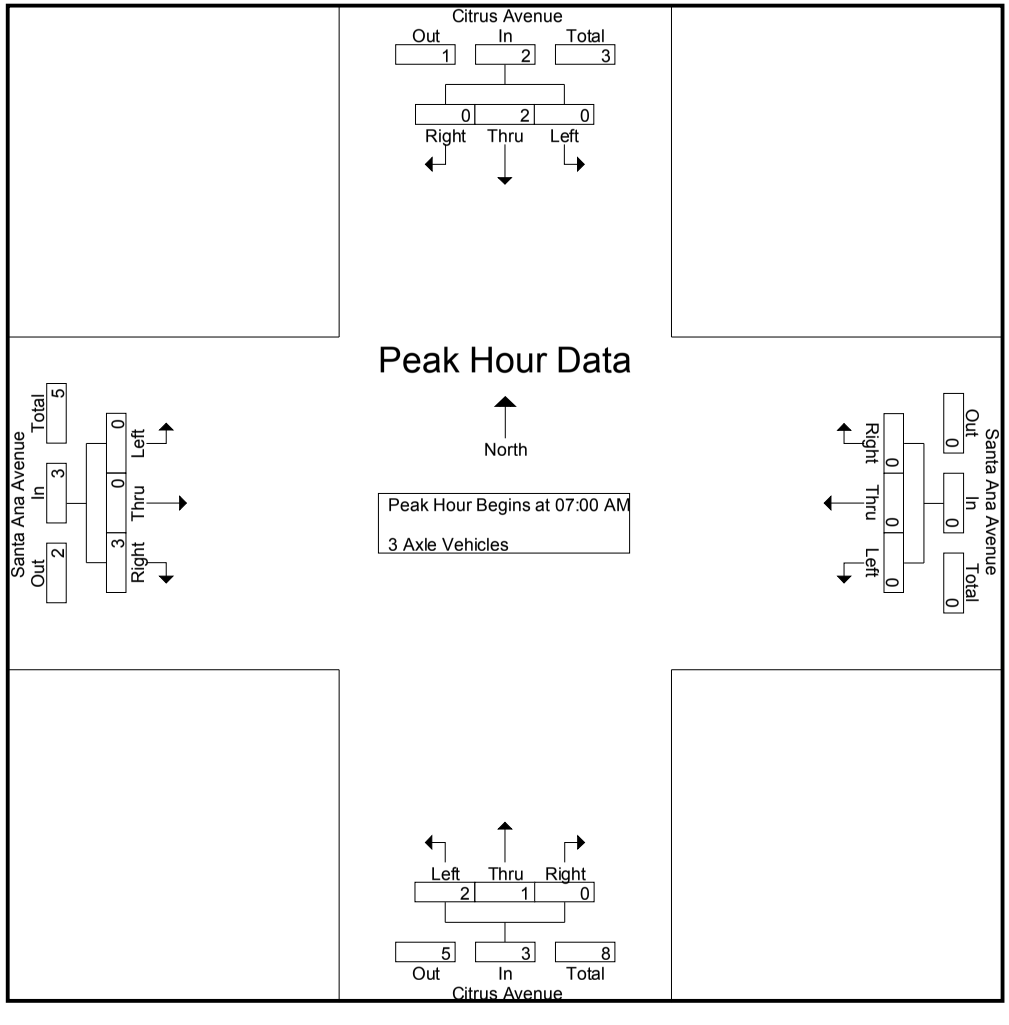

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	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	0	0	**2**	**2**	
+15 mins.	0	**1**	0	**1**	0	0	0	0	**1**	0	0	1	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	2	0	2	0	0	0	0	2	1	0	3	0	0	3	3	
% App. Total	0	100	0		0	0	0		66.7	33.3	0		0	0	100		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.500	.250	.000	.750	.000	.000	.375	.375	

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File Name : 07_FON_Citrus_Santa Ana AM
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Start Date : 3/14/2019
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Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	2	1	0	5	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	7	7
07:15 AM	1	2	0	0	3	0	0	1	0	1	0	3	0	0	3	1	1	0	0	2	0	9	9
07:30 AM	1	0	1	0	2	1	0	0	0	1	1	4	0	0	5	2	0	0	0	2	0	10	10
07:45 AM	0	2	4	0	6	1	0	1	0	2	0	2	0	0	2	0	0	0	0	0	0	10	10
Total	4	6	6	0	16	2	0	2	0	4	1	10	0	0	11	4	1	0	0	5	0	36	36
08:00 AM	0	0	1	0	1	0	0	0	0	0	0	1	2	0	3	2	0	1	0	3	0	7	7
08:15 AM	0	1	1	1	2	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	1	5	6
08:30 AM	1	0	2	0	3	0	0	1	1	1	1	1	0	0	2	2	0	2	0	4	1	10	11
08:45 AM	0	3	1	0	4	0	0	0	0	0	0	6	0	0	6	1	1	0	0	2	0	12	12
Total	1	4	5	1	10	0	0	1	1	1	1	9	2	0	12	6	1	4	0	11	2	34	36
Grand Total	5	10	11	1	26	2	0	3	1	5	2	19	2	0	23	10	2	4	0	16	2	70	72
Apprch %	19.2	38.5	42.3			40	0	60			8.7	82.6	8.7			62.5	12.5	25					
Total %	7.1	14.3	15.7		37.1	2.9	0	4.3		7.1	2.9	27.1	2.9		32.9	14.3	2.9	5.7		22.9	2.8	97.2	

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**2**	**2**	1	5	0	0	0	0	0	1	0	1	1	0	0	1	7
07:15 AM	1	2	0	3	0	0	**1**	1	0	3	0	3	1	**1**	0	**2**	9
07:30 AM	1	0	1	2	**1**	0	0	1	**1**	**4**	0	**5**	**2**	0	0	2	**10**
07:45 AM	0	2	**4**	**6**	1	0	1	**2**	0	2	0	2	0	0	0	0	10
Total Volume	4	6	6	16	2	0	2	4	1	10	0	11	4	1	0	5	36
% App. Total	25	37.5	37.5		50	0	50		9.1	90.9	0		80	20	0		
PHF	.500	.750	.375	.667	.500	.000	.500	.500	.250	.625	.000	.550	.500	.250	.000	.625	.900

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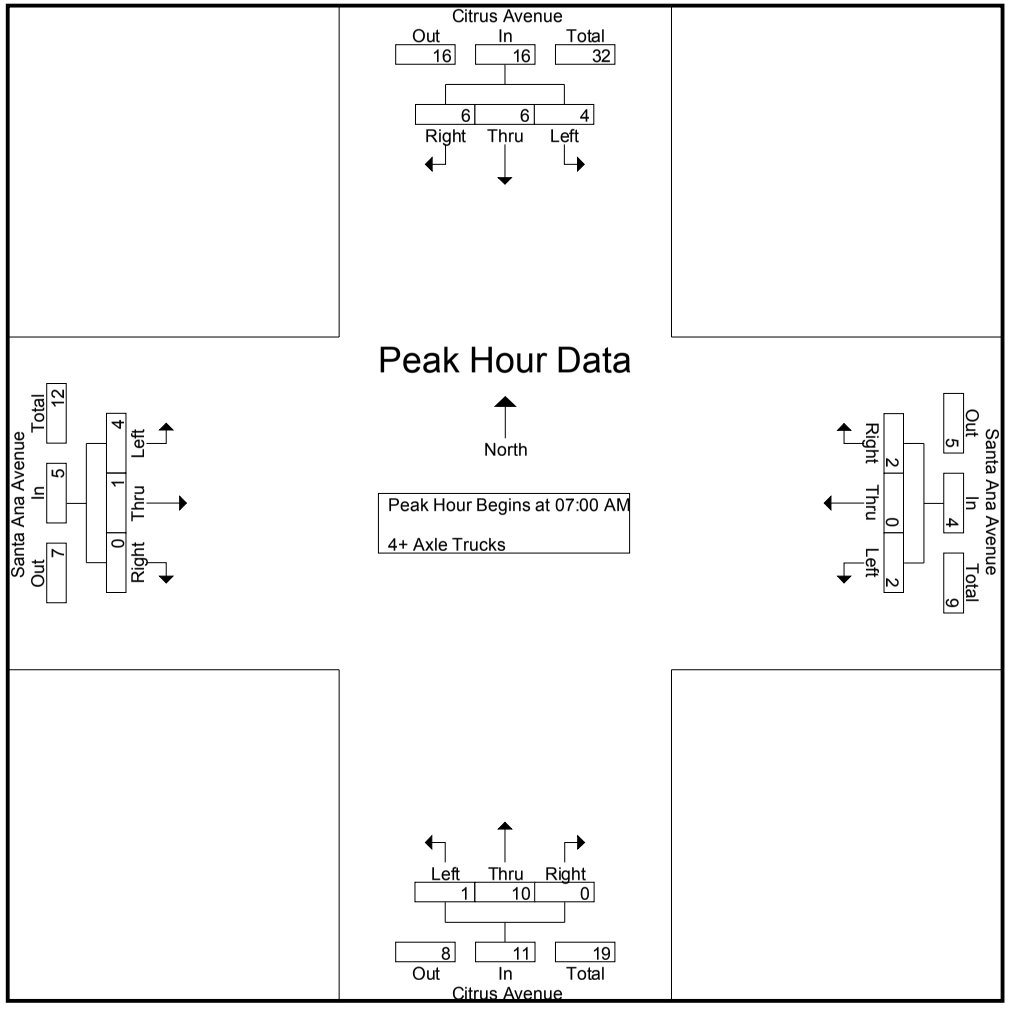

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	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**2**	**2**	1	5	0	0	0	0	0	1	0	1	1	0	0	1	
+15 mins.	1	2	0	3	0	0	**1**	1	0	3	0	3	1	**1**	0	**2**	
+30 mins.	1	0	1	2	**1**	0	0	1	**1**	**4**	0	**5**	**2**	0	0	2	
+45 mins.	0	2	**4**	**6**	1	0	1	**2**	0	2	0	2	0	0	0	0	
Total Volume	4	6	6	16	2	0	2	4	1	10	0	11	4	1	0	5	
% App. Total	25	37.5	37.5		50	0	50		9.1	90.9	0		80	20	0		
PHF	.500	.750	.375	.667	.500	.000	.500	.500	.250	.625	.000	.550	.500	.250	.000	.625	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	11	60	14	7	85	7	15	12	8	34	2	116	6	5	124	43	22	5	2	70	22	313	335
04:15 PM	6	70	8	4	84	7	10	5	4	22	0	118	2	0	120	36	12	2	1	50	9	276	285
04:30 PM	6	64	5	3	75	8	13	6	6	27	1	132	8	1	141	50	22	11	5	83	15	326	341
04:45 PM	8	63	6	3	77	4	11	14	9	29	0	156	10	1	166	44	14	7	6	65	19	337	356
Total	31	257	33	17	321	26	49	37	27	112	3	522	26	7	551	173	70	25	14	268	65	1252	1317
05:00 PM	8	86	7	2	101	7	21	5	3	33	0	114	15	4	129	32	22	4	3	58	12	321	333
05:15 PM	6	81	8	0	95	6	12	7	1	25	1	114	10	2	125	18	15	10	6	43	9	288	297
05:30 PM	6	79	4	2	89	1	13	7	3	21	0	146	8	1	154	23	16	2	1	41	7	305	312
05:45 PM	6	73	8	4	87	3	5	15	6	23	1	114	13	0	128	19	15	3	1	37	11	275	286
Total	26	319	27	8	372	17	51	34	13	102	2	488	46	7	536	92	68	19	11	179	39	1189	1228
Grand Total	57	576	60	25	693	43	100	71	40	214	5	1010	72	14	1087	265	138	44	25	447	104	2441	2545
Apprch %	8.2	83.1	8.7			20.1	46.7	33.2			0.5	92.9	6.6			59.3	30.9	9.8					
Total %	2.3	23.6	2.5		28.4	1.8	4.1	2.9		8.8	0.2	41.4	2.9		44.5	10.9	5.7	1.8		18.3	4.1	95.9	
Passenger Vehicles	54	555	54		686	41	98	69		246	5	979	66		1061	251	127	41		443	0	0	2436
% Passenger Vehicles	94.7	96.4	90	92	95.5	95.3	98	97.2	95	96.9	100	96.9	91.7	78.6	96.4	94.7	92	93.2	96	93.9	0	0	95.7
Large 2 Axle Vehicles	2	7	2		12	2	1	1		5	0	7	1		9	3	8	0		11	0	0	37
% Large 2 Axle Vehicles	3.5	1.2	3.3	4	1.7	4.7	1	1.4	2.5	2	0	0.7	1.4	7.1	0.8	1.1	5.8	0	0	2.3	0	0	1.5
3 Axle Vehicles	1	4	0		5	0	0	1		2	0	5	2		9	4	1	2		7	0	0	23
% 3 Axle Vehicles	1.8	0.7	0	0	0.7	0	0	1.4	2.5	0.8	0	0.5	2.8	14.3	0.8	1.5	0.7	4.5	0	1.5	0	0	0.9
4+ Axle Trucks	0	10	4		15	0	1	0		1	0	19	3		22	7	2	1		11	0	0	49
% 4+ Axle Trucks	0	1.7	6.7	4	2.1	0	1	0	0	0.4	0	1.9	4.2	0	2	2.6	1.4	2.3	4	2.3	0	0	1.9

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:30 PM																	
04:30 PM	6	64	5	75	**8**	13	6	27	**1**	132	8	141	**50**	**22**	**11**	**83**	326
04:45 PM	**8**	63	6	77	4	11	**14**	29	0	**156**	10	**166**	44	14	7	65	**337**
05:00 PM	8	**86**	7	**101**	7	**21**	5	**33**	0	114	**15**	129	32	22	4	58	321
05:15 PM	6	81	**8**	95	6	12	7	25	1	114	10	125	18	15	10	43	288
Total Volume	28	294	26	348	25	57	32	114	2	516	43	561	144	73	32	249	1272
% App. Total	8	84.5	7.5		21.9	50	28.1		0.4	92	7.7		57.8	29.3	12.9		
PHF	.875	.855	.813	.861	.781	.679	.571	.864	.500	.827	.717	.845	.720	.830	.727	.750	.944

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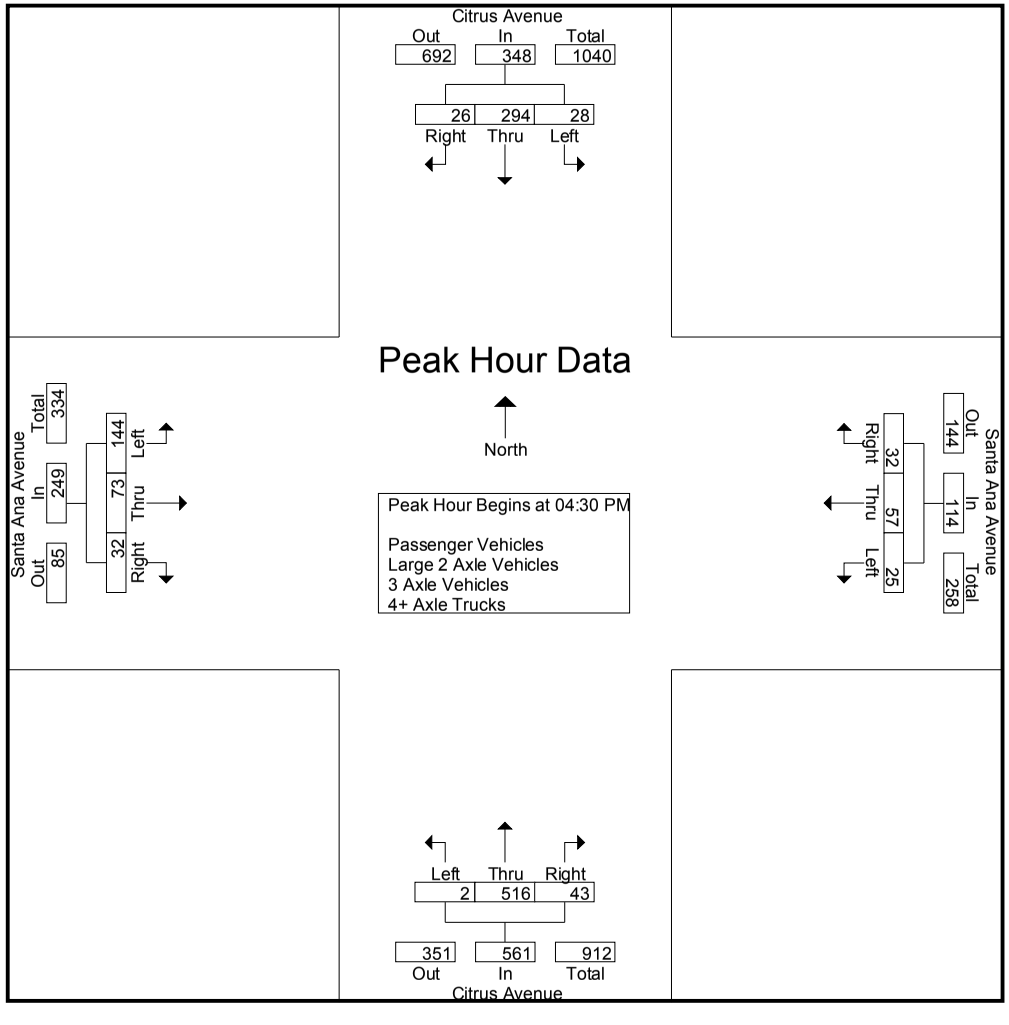

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	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	05:00 PM				04:30 PM				04:45 PM				04:00 PM				
+0 mins.	**8**	**86**	7	**101**	**8**	13	6	27	0	**156**	10	**166**	43	**22**	5	70	
+15 mins.	6	81	**8**	95	4	11	**14**	29	0	114	**15**	129	36	12	2	50	
+30 mins.	6	79	4	89	7	**21**	5	**33**	**1**	114	10	125	**50**	22	**11**	**83**	
+45 mins.	6	73	8	87	6	12	7	25	0	146	8	154	44	14	7	65	
Total Volume	26	319	27	372	25	57	32	114	1	530	43	574	173	70	25	268	
% App. Total	7	85.8	7.3		21.9	50	28.1		0.2	92.3	7.5		64.6	26.1	9.3		
PHF	.813	.927	.844	.921	.781	.679	.571	.864	.250	.849	.717	.864	.865	.795	.568	.807	

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Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	10	56	12	6	78	7	14	12	8	33	2	111	6	5	119	40	18	4	1	62	20	292	312
04:15 PM	5	66	8	4	79	6	10	5	4	21	0	116	1	0	117	33	11	2	1	46	9	263	272
04:30 PM	6	62	4	3	72	8	13	5	5	26	1	128	8	1	137	48	21	10	5	79	14	314	328
04:45 PM	8	60	5	2	73	3	10	13	8	26	0	151	10	1	161	43	14	7	6	64	17	324	341
Total	29	244	29	15	302	24	47	35	25	106	3	506	25	7	534	164	64	23	13	251	60	1193	1253
05:00 PM	7	81	7	2	95	7	21	5	3	33	0	110	11	1	121	30	19	4	3	53	9	302	311
05:15 PM	6	81	7	0	94	6	12	7	1	25	1	110	9	2	120	16	14	10	6	40	9	279	288
05:30 PM	6	78	4	2	88	1	13	7	3	21	0	144	8	1	152	23	16	2	1	41	7	302	309
05:45 PM	6	71	7	4	84	3	5	15	6	23	1	109	13	0	123	18	14	2	1	34	11	264	275
Total	25	311	25	8	361	17	51	34	13	102	2	473	41	4	516	87	63	18	11	168	36	1147	1183
Grand Total	54	555	54	23	663	41	98	69	38	208	5	979	66	11	1050	251	127	41	24	419	96	2340	2436
Apprch %	8.1	83.7	8.1			19.7	47.1	33.2			0.5	93.2	6.3			59.9	30.3	9.8					
Total %	2.3	23.7	2.3		28.3	1.8	4.2	2.9		8.9	0.2	41.8	2.8		44.9	10.7	5.4	1.8		17.9	3.9	96.1	

3.1-211

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**8**	60	5	73	3	10	**13**	26	0	**151**	10	**161**	**43**	14	7	**64**	**324**
05:00 PM	7	**81**	**7**	**95**	**7**	**21**	5	**33**	0	110	**11**	121	30	**19**	4	53	302
05:15 PM	6	81	7	94	6	12	7	25	**1**	110	9	120	16	14	**10**	40	279
05:30 PM	6	78	4	88	1	13	7	21	0	144	8	152	23	16	2	41	302
Total Volume	27	300	23	350	17	56	32	105	1	515	38	554	112	63	23	198	1207
% App. Total	7.7	85.7	6.6		16.2	53.3	30.5		0.2	93	6.9		56.6	31.8	11.6		
PHF	.844	.926	.821	.921	.607	.667	.615	.795	.250	.853	.864	.860	.651	.829	.575	.773	.931

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Start Date : 3/14/2019
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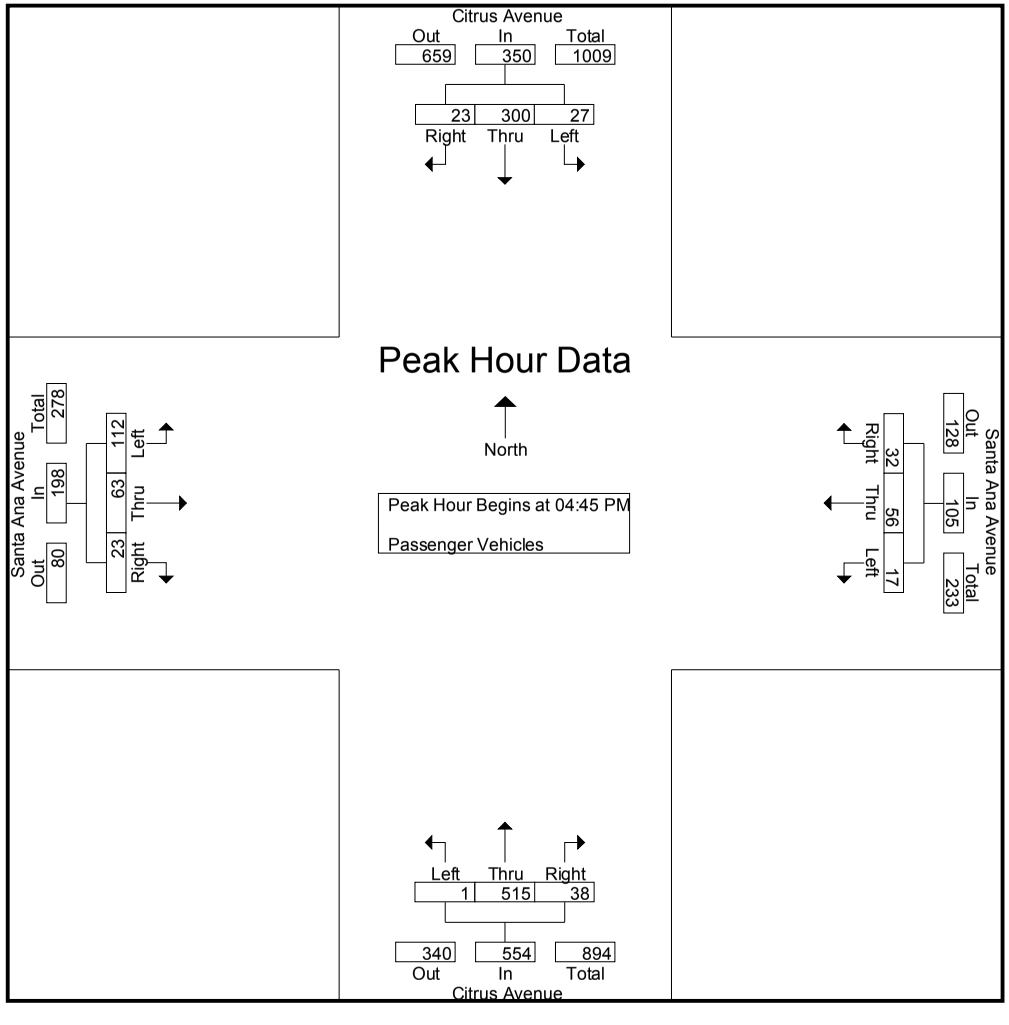

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	**8**	60	5	73	3	10	**13**	26	0	**151**	10	**161**	**43**	14	7	**64**	
+15 mins.	7	**81**	**7**	**95**	**7**	**21**	5	**33**	0	110	**11**	121	30	**19**	4	53	
+30 mins.	6	81	7	94	6	12	7	25	**1**	110	9	120	16	14	**10**	40	
+45 mins.	6	78	4	88	1	13	7	21	0	144	8	152	23	16	2	41	
Total Volume	27	300	23	350	17	56	32	105	1	515	38	554	112	63	23	198	
% App. Total	7.7	85.7	6.6		16.2	53.3	30.5		0.2	93	6.9		56.6	31.8	11.6		
PHF	.844	.926	.821	.921	.607	.667	.615	.795	.250	.853	.864	.860	.651	.829	.575	.773	

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(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	1	1	2	0	1	0	0	1	0	0	0	0	0	1	3	0	0	4	1	7	8
04:15 PM	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1	0	1	0	0	1	0	5	5
04:30 PM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	1	0	0	1	0	6	6
04:45 PM	0	2	0	0	2	1	0	1	1	2	0	1	0	0	1	1	0	0	0	1	1	6	7
Total	1	6	1	1	8	2	1	1	1	4	0	5	0	0	5	2	5	0	0	7	2	24	26
05:00 PM	1	0	0	0	1	0	0	0	0	0	0	1	1	1	2	1	2	0	0	3	1	6	7
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	2
Total	1	1	1	0	3	0	0	0	0	0	0	2	1	1	3	1	3	0	0	4	1	10	11
Grand Total	2	7	2	1	11	2	1	1	1	4	0	7	1	1	8	3	8	0	0	11	3	34	37
Apprch %	18.2	63.6	18.2			50	25	25			0	87.5	12.5			27.3	72.7	0					
Total %	5.9	20.6	5.9		32.4	5.9	2.9	2.9		11.8	0	20.6	2.9		23.5	8.8	23.5	0		32.4	8.1	91.9	

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**2**	0	**2**	**1**	0	**1**	**2**	0	**1**	0	1	**1**	0	0	1	**6**
05:00 PM	**1**	0	0	1	0	0	0	0	0	1	**1**	**2**	1	**2**	0	**3**	6
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	3	0	4	1	0	1	2	0	2	1	3	2	3	0	5	14
% App. Total	25	75	0		50	0	50		0	66.7	33.3		40	60	0		
PHF	.250	.375	.000	.500	.250	.000	.250	.250	.000	.500	.250	.375	.500	.375	.000	.417	.583

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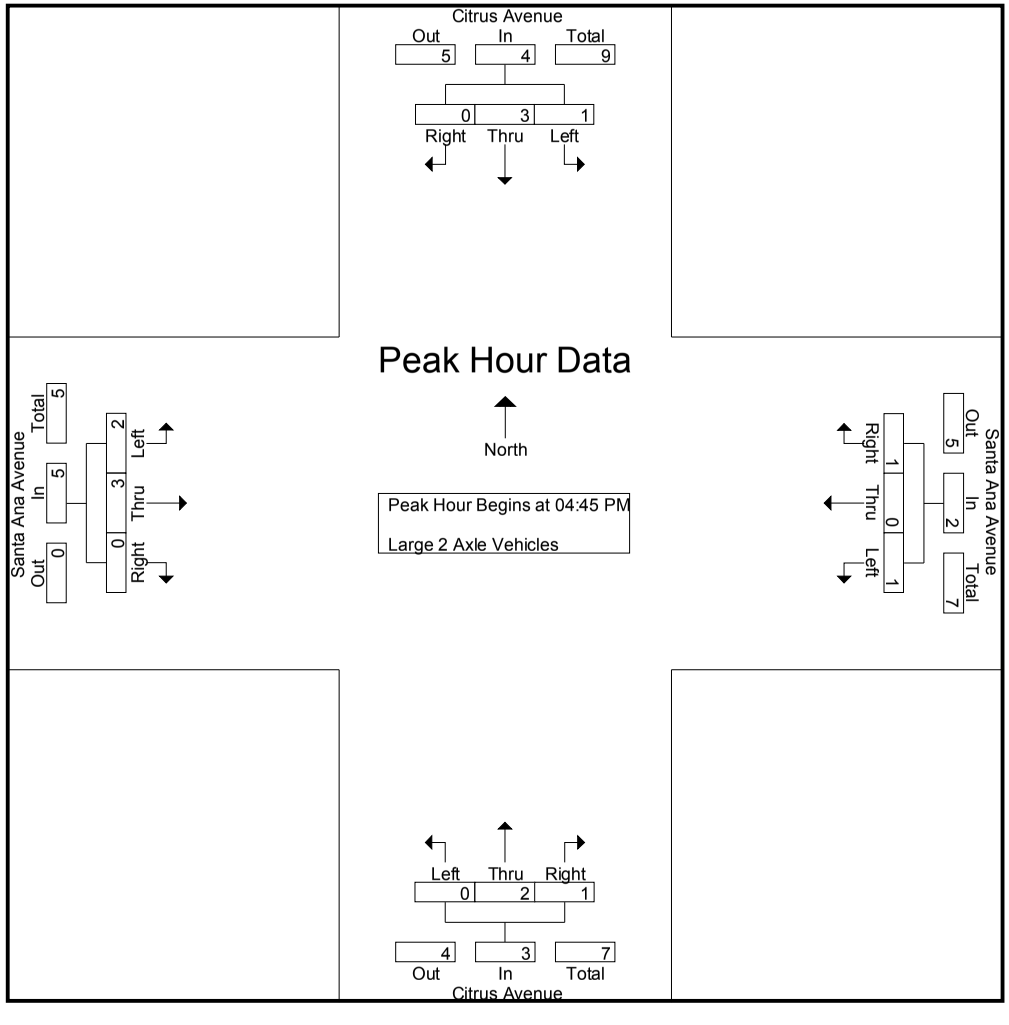
Corona, CA 92878
(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	**2**	0	**2**	**1**	0	**1**	**2**	0	**1**	0	1	**1**	0	0	1	
+15 mins.	**1**	0	0	1	0	0	0	0	0	1	**1**	**2**	1	**2**	0	**3**	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	1	3	0	4	1	0	1	2	0	2	1	3	2	3	0	5	
% App. Total	25	75	0		50	0	50		0	66.7	33.3		40	60	0		
PHF	.250	.375	.000	.500	.250	.000	.250	.250	.000	.500	.250	.375	.500	.375	.000	.417	

Counts Unlimited
PO Box 1178
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City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

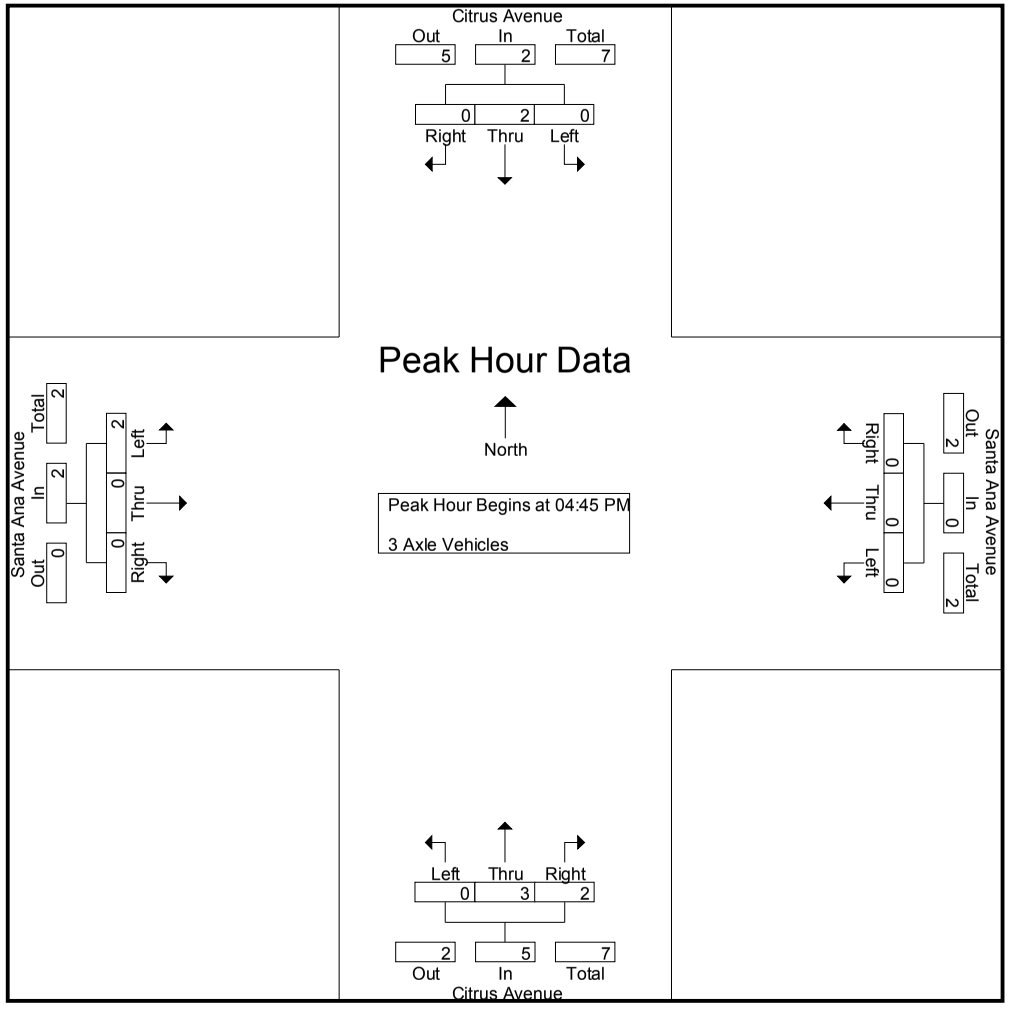
	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	1	0	0	2	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	4	4
04:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	2
04:30 PM	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	1	0	2	1	3	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
Total	1	2	0	0	3	0	0	1	1	1	0	3	0	0	3	2	0	1	0	3	1	10	11
05:00 PM	0	2	0	0	2	0	0	0	0	0	0	1	2	2	3	0	0	0	0	0	2	5	7
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	3	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	2
Total	0	2	0	0	2	0	0	0	0	0	0	2	2	2	4	2	1	1	0	4	2	10	12
Grand Total	1	4	0	0	5	0	0	1	1	1	0	5	2	2	7	4	1	2	0	7	3	20	23
Apprch %	20	80	0			0	0	100			0	71.4	28.6			57.1	14.3	28.6					
Total %	5	20	0		25	0	0	5		5	0	25	10		35	20	5	10		35	13	87	

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	1
05:00 PM	0	**2**	0	**2**	0	0	0	0	0	1	**2**	**3**	0	0	0	0	**5**
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	**2**	0	0	**2**	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	3	2	5	2	0	0	2	9
% App. Total	0	100	0		0	0	0		0	60	40		100	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.750	.250	.417	.250	.000	.000	.250	.450

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

City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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Corona, CA 92878
(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	
+15 mins.	0	**2**	0	**2**	0	0	0	0	0	1	**2**	**3**	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	**2**	0	0	**2**	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	2	0	2	0	0	0	0	0	3	2	5	2	0	0	2	
% App. Total	0	100	0		0	0	0		0	60	40		100	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.750	.250	.417	.250	.000	.000	.250	

Counts Unlimited
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City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					Santa Ana Avenue Westbound					Citrus Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	2	1	0	3	0	0	0	0	0	0	4	0	0	4	1	1	1	1	3	1	10	11
04:15 PM	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	0	6	6
04:30 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	3
04:45 PM	0	1	1	1	2	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	1	6	7
Total	0	5	3	1	8	0	1	0	0	1	0	8	1	0	9	5	1	1	1	7	2	25	27
05:00 PM	0	3	0	0	3	0	0	0	0	0	0	2	1	0	3	1	1	0	0	2	0	8	8
05:15 PM	0	0	1	0	1	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	5	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	2
05:45 PM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	7	7
Total	0	5	1	0	6	0	0	0	0	0	0	11	2	0	13	2	1	0	0	3	0	22	22
Grand Total	0	10	4	1	14	0	1	0	0	1	0	19	3	0	22	7	2	1	1	10	2	47	49
Apprch %	0	71.4	28.6			0	100	0			0	86.4	13.6			70	20	10					
Total %	0	21.3	8.5		29.8	0	2.1	0		2.1	0	40.4	6.4		46.8	14.9	4.3	2.1		21.3	4.1	95.9	

3.1-220

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	1	**1**	2	0	**1**	0	**1**	0	**3**	0	3	0	0	0	0	6
05:00 PM	0	**3**	0	**3**	0	0	0	0	0	2	**1**	3	**1**	**1**	0	**2**	**8**
05:15 PM	0	0	1	1	0	0	0	0	0	3	1	**4**	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total Volume	0	4	2	6	0	1	0	1	0	10	2	12	1	1	0	2	21
% App. Total	0	66.7	33.3		0	100	0		0	83.3	16.7		50	50	0		
PHF	.000	.333	.500	.500	.000	.250	.000	.250	.000	.833	.500	.750	.250	.250	.000	.250	.656

Counts Unlimited
PO Box 1178
Corona, CA 92878
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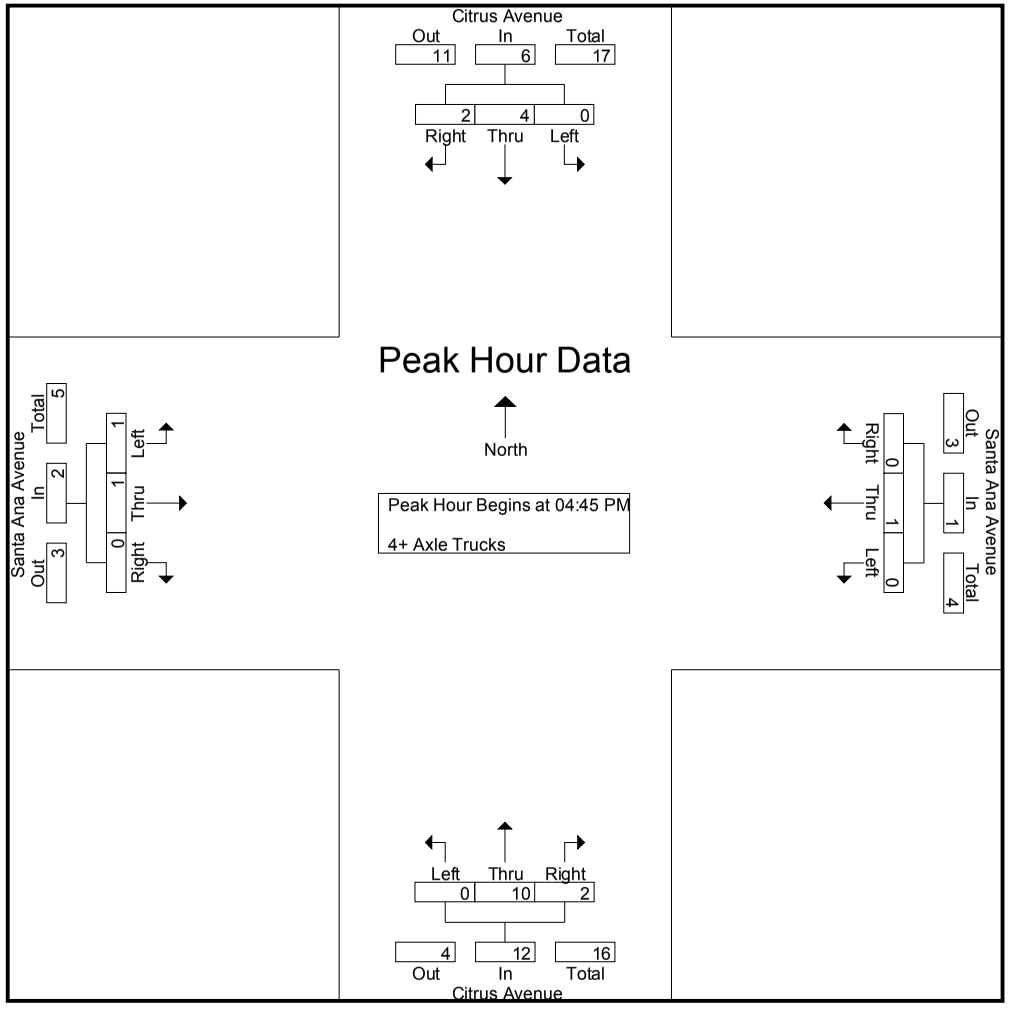
City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 07_FON_Citrus_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Santa Ana Avenue Westbound				Citrus Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	1	**1**	2	0	**1**	0	**1**	0	**3**	0	3	0	0	0	0	
+15 mins.	0	**3**	0	**3**	0	0	0	0	0	2	**1**	3	**1**	**1**	0	**2**	
+30 mins.	0	0	1	1	0	0	0	0	0	3	1	**4**	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	
Total Volume	0	4	2	6	0	1	0	1	0	10	2	12	1	1	0	2	
% App. Total	0	66.7	33.3		0	100	0		0	83.3	16.7		50	50	0		
PHF	.000	.333	.500	.500	.000	.250	.000	.250	.000	.833	.500	.750	.250	.250	.000	.250	

Location: Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Citrus Avenue	East Leg Santa Ana Avenue	South Leg Citrus Avenue	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	1	0	1
8:30 AM	0	0	3	0	3
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	4	0	4

	North Leg Citrus Avenue	East Leg Santa Ana Avenue	South Leg Citrus Avenue	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	1	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	2	0	2
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	3	0	3

Location: Fontana
N/S: Citrus Avenue
E/W: Santa Ana Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Citrus Avenue			Westbound Santa Ana Avenue			Northbound Citrus Avenue			Eastbound Santa Ana Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	0	1	0	0	0	0	0	0	2

	Southbound Citrus Avenue			Westbound Santa Ana Avenue			Northbound Citrus Avenue			Eastbound Santa Ana Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL VOLUMES:	0	0	0	0	2	0	0	0	0	1	2	0	5

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City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	9	20	39	17	68	8	121	21	6	150	13	85	32	6	130	43	85	4	1	132	30	480	510
07:15 AM	7	34	23	11	64	16	132	38	13	186	18	92	15	4	125	45	96	6	0	147	28	522	550
07:30 AM	19	29	37	18	85	19	104	19	9	142	14	67	24	6	105	48	91	1	0	140	33	472	505
07:45 AM	19	24	39	9	82	18	127	14	8	159	13	46	27	7	86	25	85	2	1	112	25	439	464
Total	54	107	138	55	299	61	484	92	36	637	58	290	98	23	446	161	357	13	2	531	116	1913	2029
08:00 AM	2	19	13	5	34	29	98	12	8	139	14	40	29	16	83	33	76	6	3	115	32	371	403
08:15 AM	10	28	27	8	65	19	122	13	6	154	7	31	24	9	62	23	83	2	0	108	23	389	412
08:30 AM	17	39	23	3	79	16	58	14	2	88	4	40	23	11	67	38	86	3	0	127	16	361	377
08:45 AM	10	30	14	7	54	16	86	17	11	119	5	44	20	2	69	37	72	5	0	114	20	356	376
Total	39	116	77	23	232	80	364	56	27	500	30	155	96	38	281	131	317	16	3	464	91	1477	1568
Grand Total	93	223	215	78	531	141	848	148	63	1137	88	445	194	61	727	292	674	29	5	995	207	3390	3597
Apprch %	17.5	42	40.5			12.4	74.6	13			12.1	61.2	26.7			29.3	67.7	2.9					
Total %	2.7	6.6	6.3		15.7	4.2	25	4.4		33.5	2.6	13.1	5.7		21.4	8.6	19.9	0.9		29.4	5.8	94.2	
Passenger Vehicles	81	214	186		550	135	792	131		1116	87	442	187		774	271	633	28		937	0	0	3377
% Passenger Vehicles	87.1	96	86.5	88.5	90.3	95.7	93.4	88.5	92.1	93	98.9	99.3	96.4	95.1	98.2	92.8	93.9	96.6	100	93.7	0	0	93.9
Large 2 Axle Vehicles	5	9	14		34	5	31	5		41	1	3	7		14	10	32	1		43	0	0	132
% Large 2 Axle Vehicles	5.4	4	6.5	7.7	5.6	3.5	3.7	3.4	0	3.4	1.1	0.7	3.6	4.9	1.8	3.4	4.7	3.4	0	4.3	0	0	3.7
3 Axle Vehicles	0	0	5		6	1	10	1		12	0	0	0		0	1	5	0		6	0	0	24
% 3 Axle Vehicles	0	0	2.3	1.3	1	0.7	1.2	0.7	0	1	0	0	0	0	0	0.3	0.7	0	0	0.6	0	0	0.7
4+ Axle Trucks	7	0	10		19	0	15	11		31	0	0	0		0	10	4	0		14	0	0	64
% 4+ Axle Trucks	7.5	0	4.7	2.6	3.1	0	1.8	7.4	7.9	2.6	0	0	0	0	0	3.4	0.6	0	0	1.4	0	0	1.8

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 07:00 AM																	
07:00 AM	9	20	**39**	68	8	121	21	150	13	85	**32**	**130**	43	85	4	132	480
07:15 AM	7	**34**	23	64	16	**132**	**38**	**186**	**18**	**92**	15	125	45	**96**	**6**	**147**	**522**
07:30 AM	**19**	29	37	**85**	**19**	104	19	142	14	67	24	105	**48**	91	1	140	472
07:45 AM	19	24	39	82	18	127	14	159	13	46	27	86	25	85	2	112	439
Total Volume	54	107	138	299	61	484	92	637	58	290	98	446	161	357	13	531	1913
% App. Total	18.1	35.8	46.2		9.6	76	14.4		13	65	22		30.3	67.2	2.4		
PHF	.711	.787	.885	.879	.803	.917	.605	.856	.806	.788	.766	.858	.839	.930	.542	.903	.916

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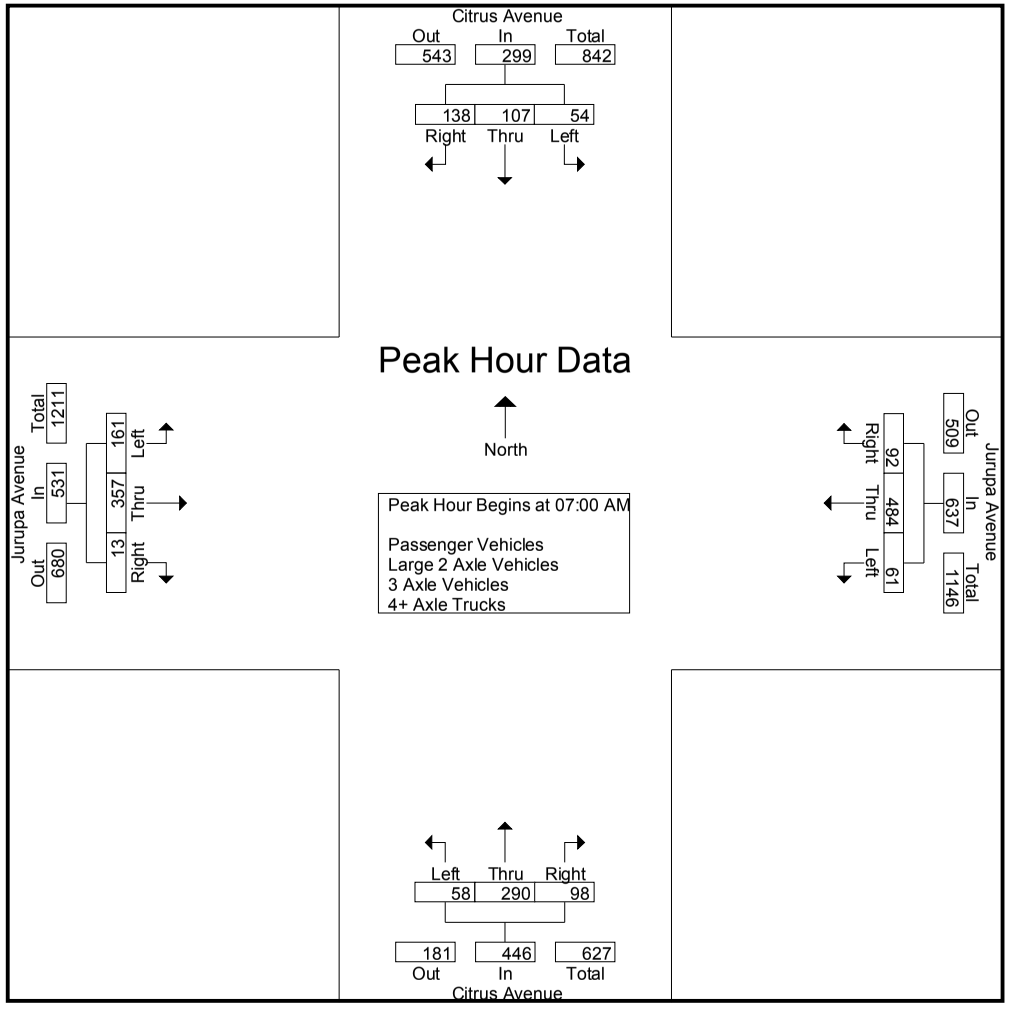
City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
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Weather: Clear

File Name : 08_FON_Citrus_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	9	20	**39**	68	8	121	21	150	13	85	**32**	**130**	43	85	4	132	
+15 mins.	7	**34**	23	64	16	**132**	**38**	**186**	**18**	**92**	15	125	45	**96**	**6**	**147**	
+30 mins.	**19**	29	37	**85**	**19**	104	19	142	14	67	24	105	**48**	91	1	140	
+45 mins.	19	24	39	82	18	127	14	159	13	46	27	86	25	85	2	112	
Total Volume	54	107	138	299	61	484	92	637	58	290	98	446	161	357	13	531	
% App. Total	18.1	35.8	46.2		9.6	76	14.4		13	65	22		30.3	67.2	2.4		
PHF	.711	.787	.885	.879	.803	.917	.605	.856	.806	.788	.766	.858	.839	.930	.542	.903	

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City of Fontana
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Weather: Clear

File Name : 08_FON_Citrus_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	8	20	33	16	61	8	117	20	6	145	13	85	32	6	130	38	81	4	1	123	29	459	488
07:15 AM	6	33	20	11	59	16	124	38	13	178	17	92	15	4	124	43	86	6	0	135	28	496	524
07:30 AM	18	27	34	16	79	18	98	14	7	130	14	67	23	6	104	44	88	1	0	133	29	446	475
07:45 AM	17	21	36	8	74	18	121	13	7	152	13	45	27	7	85	23	80	2	1	105	23	416	439
Total	49	101	123	51	273	60	460	85	33	605	57	289	97	23	443	148	335	13	2	496	109	1817	1926
08:00 AM	2	19	11	3	32	29	87	11	8	127	14	39	29	16	82	27	71	6	3	104	30	345	375
08:15 AM	9	26	22	6	57	17	112	11	6	140	7	31	20	6	58	22	78	1	0	101	18	356	374
08:30 AM	15	39	17	3	71	14	54	9	1	77	4	40	21	11	65	38	80	3	0	121	15	334	349
08:45 AM	6	29	13	6	48	15	79	15	10	109	5	43	20	2	68	36	69	5	0	110	18	335	353
Total	32	113	63	18	208	75	332	46	25	453	30	153	90	35	273	123	298	15	3	436	81	1370	1451
Grand Total	81	214	186	69	481	135	792	131	58	1058	87	442	187	58	716	271	633	28	5	932	190	3187	3377
Apprch %	16.8	44.5	38.7			12.8	74.9	12.4			12.2	61.7	26.1			29.1	67.9	3					
Total %	2.5	6.7	5.8		15.1	4.2	24.9	4.1		33.2	2.7	13.9	5.9		22.5	8.5	19.9	0.9		29.2	5.6	94.4	

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	20	33	61	8	117	20	145	13	85	**32**	**130**	38	81	4	123	459
07:15 AM	6	**33**	20	59	16	**124**	**38**	**178**	**17**	**92**	15	124	43	86	**6**	**135**	**496**
07:30 AM	**18**	27	34	**79**	**18**	98	14	130	14	67	23	104	**44**	**88**	1	133	446
07:45 AM	17	21	**36**	74	18	121	13	152	13	45	27	85	23	80	2	105	416
Total Volume	49	101	123	273	60	460	85	605	57	289	97	443	148	335	13	496	1817
% App. Total	17.9	37	45.1		9.9	76	14		12.9	65.2	21.9		29.8	67.5	2.6		
PHF	.681	.765	.854	.864	.833	.927	.559	.850	.838	.785	.758	.852	.841	.952	.542	.919	.916

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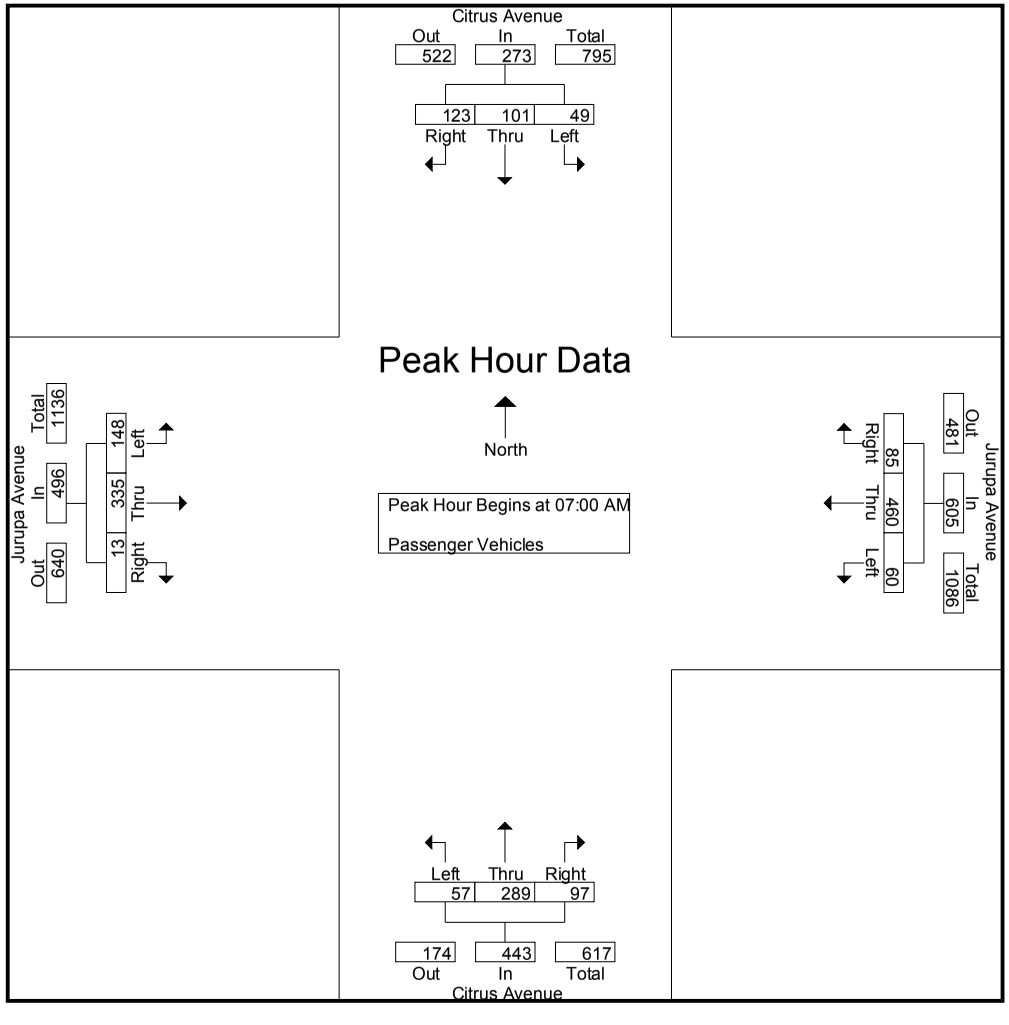
City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
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	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	8	20	33	61	8	117	20	145	13	85	**32**	**130**	38	81	4	123	
+15 mins.	6	**33**	20	59	16	**124**	**38**	**178**	**17**	**92**	15	124	43	86	**6**	**135**	
+30 mins.	**18**	27	34	**79**	**18**	98	14	130	14	67	23	104	**44**	**88**	1	133	
+45 mins.	17	21	**36**	74	18	121	13	152	13	45	27	85	23	80	2	105	
Total Volume	49	101	123	273	60	460	85	605	57	289	97	443	148	335	13	496	
% App. Total	17.9	37	45.1		9.9	76	14		12.9	65.2	21.9		29.8	67.5	2.6		
PHF	.681	.765	.854	.864	.833	.927	.559	.850	.838	.785	.758	.852	.841	.952	.542	.919	

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File Name : 08_FON_Citrus_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	2	0	3	0	3	0	0	3	0	0	0	0	0	3	3	0	0	6	0	12	12
07:15 AM	0	1	2	0	3	0	3	0	0	3	1	0	0	0	1	0	9	0	0	9	0	16	16
07:30 AM	0	2	2	2	4	0	4	1	0	5	0	0	1	0	1	3	3	0	0	6	2	16	18
07:45 AM	1	3	1	1	5	0	3	0	0	3	0	1	0	0	1	0	4	0	0	4	1	13	14
Total	2	6	7	3	15	0	13	1	0	14	1	1	1	0	3	6	19	0	0	25	3	57	60
08:00 AM	0	0	1	1	1	0	7	1	0	8	0	1	0	0	1	3	4	0	0	7	1	17	18
08:15 AM	1	2	2	1	5	2	8	1	0	11	0	0	4	3	4	1	5	1	0	7	4	27	31
08:30 AM	1	0	3	0	4	2	0	2	0	4	0	0	2	0	2	0	4	0	0	4	0	14	14
08:45 AM	1	1	1	1	3	1	3	0	0	4	0	1	0	0	1	0	0	0	0	0	1	8	9
Total	3	3	7	3	13	5	18	4	0	27	0	2	6	3	8	4	13	1	0	18	6	66	72
Grand Total	5	9	14	6	28	5	31	5	0	41	1	3	7	3	11	10	32	1	0	43	9	123	132
Apprch %	17.9	32.1	50			12.2	75.6	12.2			9.1	27.3	63.6			23.3	74.4	2.3					
Total %	4.1	7.3	11.4		22.8	4.1	25.2	4.1		33.3	0.8	2.4	5.7		8.9	8.1	26	0.8		35	6.8	93.2	

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	0	**2**	3	0	3	0	3	0	0	0	0	**3**	3	0	6	12
07:15 AM	0	1	2	3	0	3	0	3	**1**	0	0	**1**	0	**9**	0	**9**	**16**
07:30 AM	0	2	2	4	0	**4**	**1**	**5**	0	0	**1**	1	3	3	0	6	16
07:45 AM	1	**3**	1	**5**	0	3	0	3	0	**1**	0	1	0	4	0	4	13
Total Volume	2	6	7	15	0	13	1	14	1	1	1	3	6	19	0	25	57
% App. Total	13.3	40	46.7		0	92.9	7.1		33.3	33.3	33.3		24	76	0		
PHF	.500	.500	.875	.750	.000	.813	.250	.700	.250	.250	.250	.750	.500	.528	.000	.694	.891

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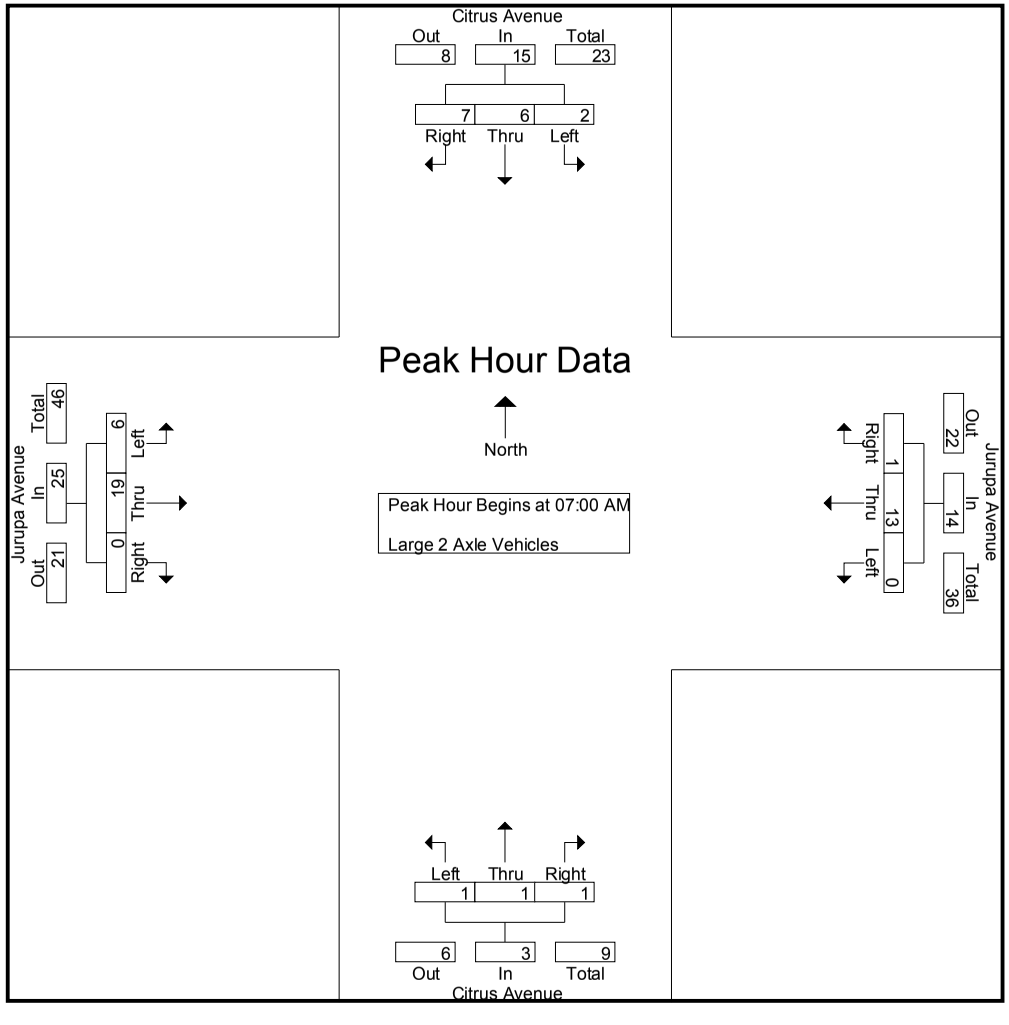

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	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**1**	0	**2**	3	0	3	0	3	0	0	0	0	**3**	3	0	6	
+15 mins.	0	1	2	3	0	3	0	3	**1**	0	0	**1**	0	**9**	0	**9**	
+30 mins.	0	2	2	4	0	**4**	**1**	**5**	0	0	**1**	1	3	3	0	6	
+45 mins.	1	**3**	1	**5**	0	3	0	3	0	**1**	0	1	0	4	0	4	
Total Volume	2	6	7	15	0	13	1	14	1	1	1	3	6	19	0	25	
% App. Total	13.3	40	46.7		0	92.9	7.1		33.3	33.3	33.3		24	76	0		
PHF	.500	.500	.875	.750	.000	.813	.250	.700	.250	.250	.250	.750	.500	.528	.000	.694	

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File Name : 08_FON_Citrus_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	3
07:15 AM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
07:30 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
07:45 AM	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	3
Total	0	0	4	0	4	1	4	0	0	5	0	0	0	0	0	1	0	0	0	1	0	10	10
08:00 AM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	3	4
08:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
08:45 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	6	6
Total	0	0	1	1	1	0	6	1	0	7	0	0	0	0	0	0	5	0	0	5	1	13	14
Grand Total	0	0	5	1	5	1	10	1	0	12	0	0	0	0	0	1	5	0	0	6	1	23	24
Apprch %	0	0	100			8.3	83.3	8.3			0	0	0			16.7	83.3	0					
Total %	0	0	21.7		21.7	4.3	43.5	4.3		52.2	0	0	0		0	4.3	21.7	0		26.1	4.2	95.8	

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**2**	**2**	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**3**
07:15 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	**1**	1	0	**2**	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	1	1	0	**2**	0	2	0	0	0	0	0	0	0	0	3
Total Volume	0	0	4	4	1	4	0	5	0	0	0	0	1	0	0	1	10
% App. Total	0	0	100		20	80	0		0	0	0		100	0	0		
PHF	.000	.000	.500	.500	.250	.500	.000	.625	.000	.000	.000	.000	.250	.000	.000	.250	.833

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Site Code : 05119181
Start Date : 3/14/2019
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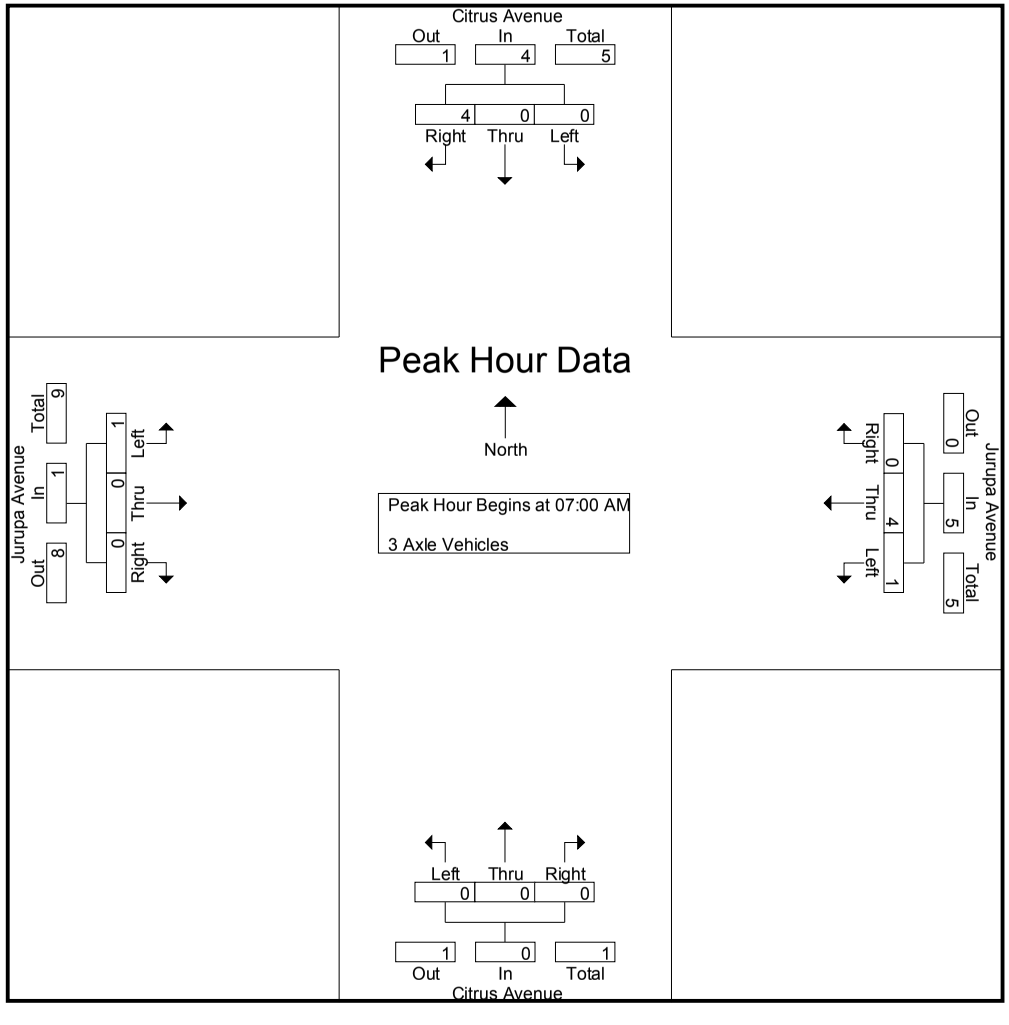

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City of Fontana
N/S: Citrus Avenue
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	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	**2**	**2**	0	0	0	0	0	0	0	0	**1**	0	0	**1**	
+15 mins.	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	**1**	1	0	**2**	0	0	0	0	0	0	0	0	
+45 mins.	0	0	1	1	0	**2**	0	2	0	0	0	0	0	0	0	0	
Total Volume	0	0	4	4	1	4	0	5	0	0	0	0	1	0	0	1	
% App. Total	0	0	100		20	80	0		0	0	0		100	0	0		
PHF	.000	.000	.500	.500	.250	.500	.000	.625	.000	.000	.000	.000	.250	.000	.000	.250	

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City of Fontana
N/S: Citrus Avenue
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File Name : 08_FON_Citrus_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	2	1	2	0	1	1	0	2	0	0	0	0	0	1	1	0	0	2	1	6	7
07:15 AM	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	2	1	0	0	3	0	8	8
07:30 AM	1	0	1	0	2	0	1	4	2	5	0	0	0	0	0	1	0	0	0	1	2	8	10
07:45 AM	1	0	1	0	2	0	1	1	1	2	0	0	0	0	0	2	1	0	0	3	1	7	8
Total	3	0	4	1	7	0	7	6	3	13	0	0	0	0	0	6	3	0	0	9	4	29	33
08:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3	0	0	0	3	0	6	6
08:15 AM	0	0	3	1	3	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1	5	6
08:30 AM	1	0	3	0	4	0	3	2	1	5	0	0	0	0	0	0	1	0	0	1	1	10	11
08:45 AM	3	0	0	0	3	0	1	2	1	3	0	0	0	0	0	1	0	0	0	1	1	7	8
Total	4	0	6	1	10	0	8	5	2	13	0	0	0	0	0	4	1	0	0	5	3	28	31
Grand Total	7	0	10	2	17	0	15	11	5	26	0	0	0	0	0	10	4	0	0	14	7	57	64
Apprch %	41.2	0	58.8			0	57.7	42.3			0	0	0			71.4	28.6	0					
Total %	12.3	0	17.5		29.8	0	26.3	19.3		45.6	0	0	0		0	17.5	7	0		24.6	10.9	89.1	

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	**2**	**2**	0	1	1	2	0	0	0	0	1	**1**	0	2	6
07:15 AM	**1**	0	0	1	0	**4**	0	4	0	0	0	0	**2**	1	0	**3**	**8**
07:30 AM	1	0	1	2	0	1	**4**	**5**	0	0	0	0	1	0	0	1	8
07:45 AM	1	0	1	2	0	1	1	2	0	0	0	0	2	1	0	3	7
Total Volume	3	0	4	7	0	7	6	13	0	0	0	0	6	3	0	9	29
% App. Total	42.9	0	57.1		0	53.8	46.2		0	0	0		66.7	33.3	0		
PHF	.750	.000	.500	.875	.000	.438	.375	.650	.000	.000	.000	.000	.750	.750	.000	.750	.906

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Site Code : 05119181
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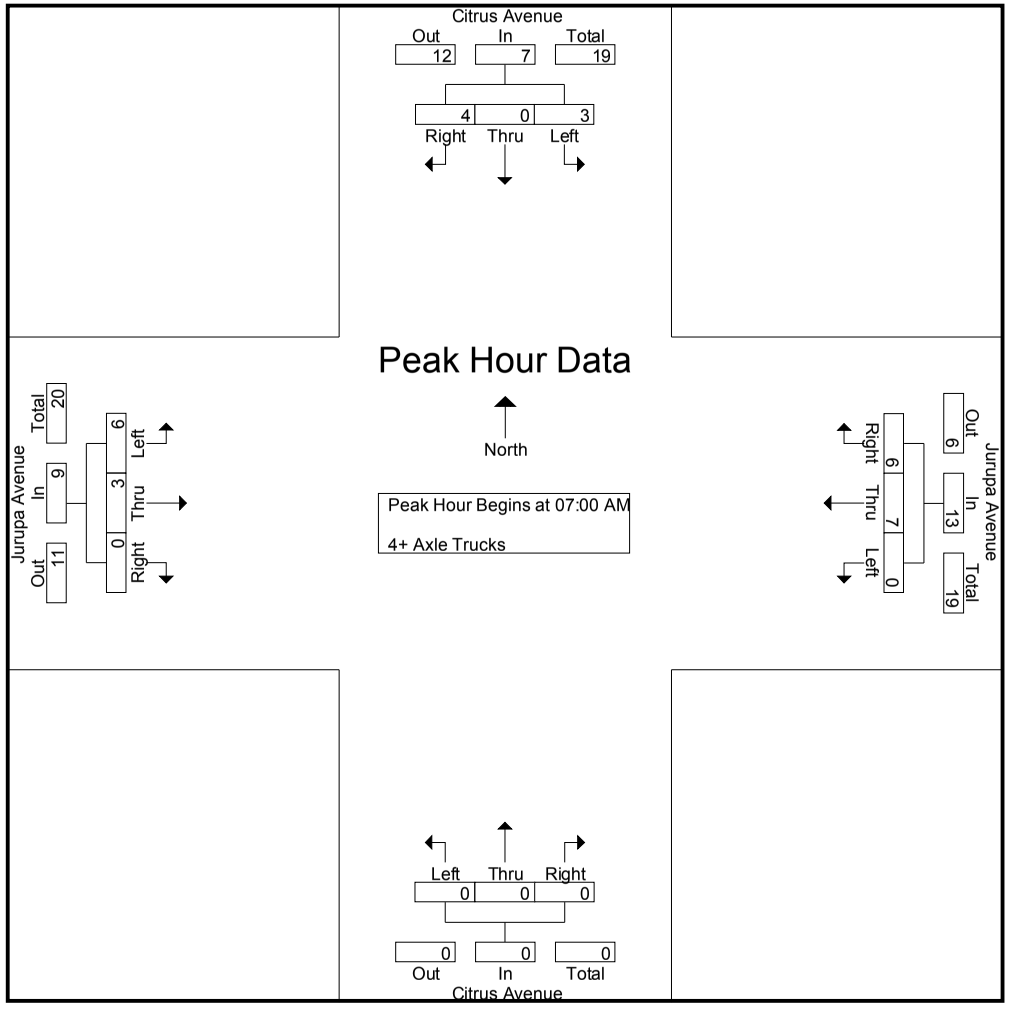

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	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	**2**	**2**	0	1	1	2	0	0	0	0	1	**1**	0	2	
+15 mins.	**1**	0	0	1	0	**4**	0	4	0	0	0	0	**2**	1	0	**3**	
+30 mins.	1	0	1	2	0	1	**4**	**5**	0	0	0	0	1	0	0	1	
+45 mins.	1	0	1	2	0	1	1	2	0	0	0	0	2	1	0	3	
Total Volume	3	0	4	7	0	7	6	13	0	0	0	0	6	3	0	9	
% App. Total	42.9	0	57.1		0	53.8	46.2		0	0	0		66.7	33.3	0		
PHF	.750	.000	.500	.875	.000	.438	.375	.650	.000	.000	.000	.000	.750	.750	.000	.750	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	22	33	14	4	69	41	91	19	14	151	8	27	21	8	56	73	195	9	0	277	26	553	579
04:15 PM	26	34	17	4	77	42	89	13	2	144	8	31	16	6	55	84	186	11	1	281	13	557	570
04:30 PM	16	32	19	13	67	24	87	21	12	132	6	34	13	7	53	75	179	19	0	273	32	525	557
04:45 PM	19	39	24	9	82	35	89	35	21	159	8	42	23	1	73	83	214	22	3	319	34	633	667
Total	83	138	74	30	295	142	356	88	49	586	30	134	73	22	237	315	774	61	4	1150	105	2268	2373
05:00 PM	19	53	22	3	94	27	93	16	14	136	3	31	18	5	52	76	189	10	3	275	25	557	582
05:15 PM	21	58	23	8	102	27	92	21	10	140	3	37	27	9	67	67	190	12	4	269	31	578	609
05:30 PM	14	47	21	8	82	38	90	36	23	164	3	37	12	6	52	85	168	7	4	260	41	558	599
05:45 PM	12	42	20	6	74	31	98	25	12	154	5	36	19	9	60	63	146	10	2	219	29	507	536
Total	66	200	86	25	352	123	373	98	59	594	14	141	76	29	231	291	693	39	13	1023	126	2200	2326
Grand Total	149	338	160	55	647	265	729	186	108	1180	44	275	149	51	468	606	1467	100	17	2173	231	4468	4699
Apprch %	23	52.2	24.7			22.5	61.8	15.8			9.4	58.8	31.8			27.9	67.5	4.6					
Total %	3.3	7.6	3.6		14.5	5.9	16.3	4.2		26.4	1	6.2	3.3		10.5	13.6	32.8	2.2		48.6	4.9	95.1	
Passenger Vehicles	143	333	147		676	262	692	176		1234	42	271	147		511	580	1395	98		2090	0	0	4511
% Passenger Vehicles	96	98.5	91.9	96.4	96.3	98.9	94.9	94.6	96.3	95.8	95.5	98.5	98.7	100	98.5	95.7	95.1	98	100	95.4	0	0	96
Large 2 Axle Vehicles	3	5	5		15	3	23	5		33	2	4	2		8	11	34	2		47	0	0	103
% Large 2 Axle Vehicles	2	1.5	3.1	3.6	2.1	1.1	3.2	2.7	1.9	2.6	4.5	1.5	1.3	0	1.5	1.8	2.3	2	0	2.1	0	0	2.2
3 Axle Vehicles	3	0	4		7	0	5	2		8	0	0	0		0	2	6	0		8	0	0	23
% 3 Axle Vehicles	2	0	2.5	0	1	0	0.7	1.1	0.9	0.6	0	0	0	0	0	0.3	0.4	0	0	0.4	0	0	0.5
4+ Axle Trucks	0	0	4		4	0	9	3		13	0	0	0		0	13	32	0		45	0	0	62
% 4+ Axle Trucks	0	0	2.5	0	0.6	0	1.2	1.6	0.9	1	0	0	0	0	0	2.1	2.2	0	0	2.1	0	0	1.3

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 04:45 PM																	
04:45 PM	19	39	**24**	82	35	89	35	159	**8**	**42**	23	**73**	83	**214**	**22**	**319**	**633**
05:00 PM	19	53	22	94	27	**93**	16	136	3	31	18	52	76	189	10	275	557
05:15 PM	**21**	**58**	23	**102**	27	92	21	140	3	37	**27**	67	67	190	12	269	578
05:30 PM	14	47	21	82	**38**	90	**36**	**164**	3	37	12	52	**85**	168	7	260	558
Total Volume	73	197	90	360	127	364	108	599	17	147	80	244	311	761	51	1123	2326
% App. Total	20.3	54.7	25		21.2	60.8	18		7	60.2	32.8		27.7	67.8	4.5		
PHF	.869	.849	.938	.882	.836	.978	.750	.913	.531	.875	.741	.836	.915	.889	.580	.880	.919

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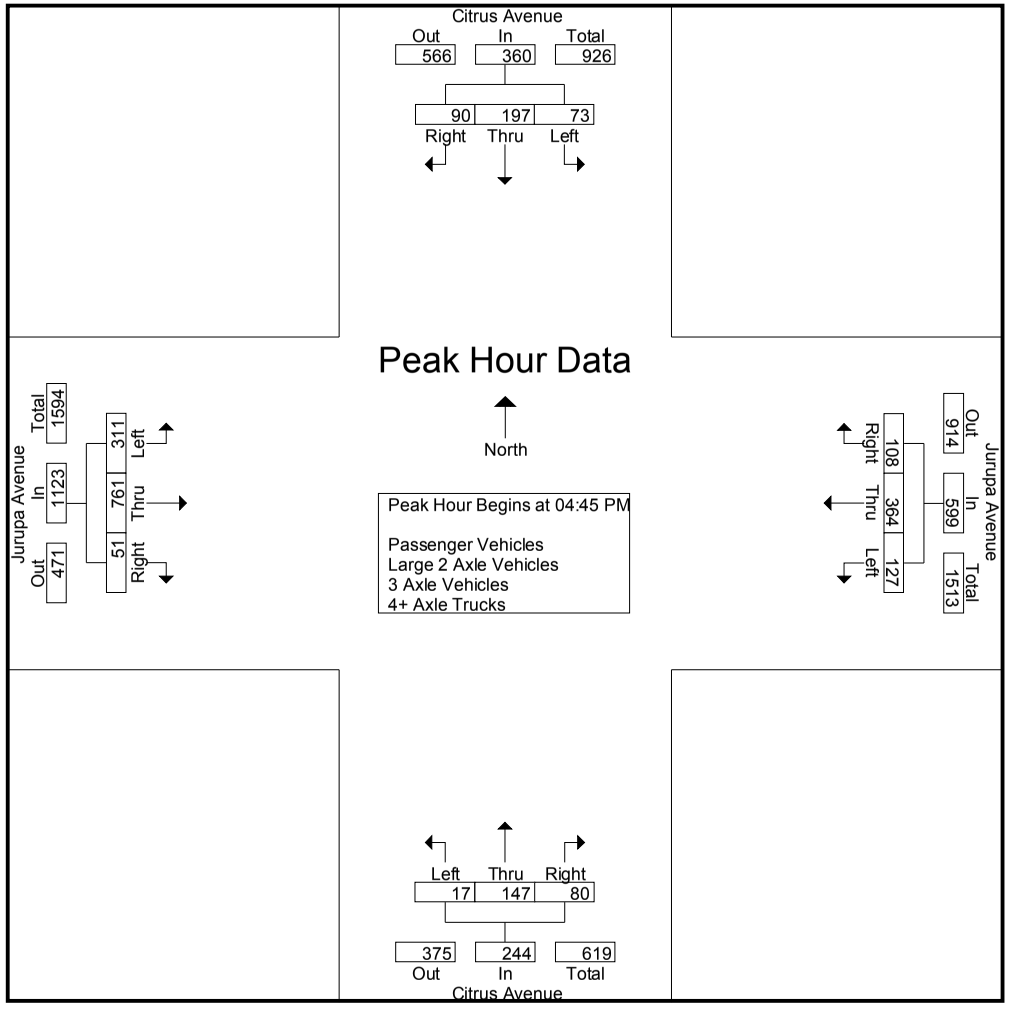

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	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:30 PM				04:00 PM				
+0 mins.	19	39	**24**	82	35	89	35	159	6	34	13	53	73	195	9	277	
+15 mins.	19	53	22	94	27	**93**	16	136	**8**	**42**	23	**73**	**84**	186	11	281	
+30 mins.	**21**	**58**	23	**102**	27	92	21	140	3	31	18	52	75	179	19	273	
+45 mins.	14	47	21	82	**38**	90	**36**	**164**	3	37	**27**	67	83	**214**	**22**	**319**	
Total Volume	73	197	90	360	127	364	108	599	20	144	81	245	315	774	61	1150	
% App. Total	20.3	54.7	25		21.2	60.8	18		8.2	58.8	33.1		27.4	67.3	5.3		
PHF	.869	.849	.938	.882	.836	.978	.750	.913	.625	.857	.750	.839	.938	.904	.693	.901	

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Groups Printed- Passenger Vehicles

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	21	33	11	3	65	41	88	17	13	146	7	26	21	8	54	69	187	9	0	265	24	530	554
04:15 PM	25	34	15	4	74	41	84	13	2	138	8	30	16	6	54	80	175	11	1	266	13	532	545
04:30 PM	14	32	19	13	65	24	82	18	11	124	6	33	13	7	52	71	173	17	0	261	31	502	533
04:45 PM	18	37	22	9	77	34	85	34	20	153	8	42	23	1	73	81	203	22	3	306	33	609	642
Total	78	136	67	29	281	140	339	82	46	561	29	131	73	22	233	301	738	59	4	1098	101	2173	2274
05:00 PM	19	52	18	3	89	26	86	14	14	126	2	31	18	5	51	74	183	10	3	267	25	533	558
05:15 PM	21	57	23	8	101	27	87	20	9	134	3	37	25	9	65	64	172	12	4	248	30	548	578
05:30 PM	14	46	21	8	81	38	86	36	23	160	3	37	12	6	52	82	163	7	4	252	41	545	586
05:45 PM	11	42	18	5	71	31	94	24	12	149	5	35	19	9	59	59	139	10	2	208	28	487	515
Total	65	197	80	24	342	122	353	94	58	569	13	140	74	29	227	279	657	39	13	975	124	2113	2237
Grand Total	143	333	147	53	623	262	692	176	104	1130	42	271	147	51	460	580	1395	98	17	2073	225	4286	4511
Apprch %	23	53.5	23.6			23.2	61.2	15.6			9.1	58.9	32			28	67.3	4.7					
Total %	3.3	7.8	3.4		14.5	6.1	16.1	4.1		26.4	1	6.3	3.4		10.7	13.5	32.5	2.3		48.4	5	95	

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	18	37	22	77	34	85	34	153	**8**	**42**	23	**73**	81	**203**	**22**	**306**	**609**
05:00 PM	19	52	18	89	26	86	14	126	2	31	18	51	74	183	10	267	533
05:15 PM	**21**	**57**	**23**	**101**	27	**87**	20	134	3	37	**25**	65	64	172	12	248	548
05:30 PM	14	46	21	81	**38**	86	**36**	**160**	3	37	12	52	**82**	163	7	252	545
Total Volume	72	192	84	348	125	344	104	573	16	147	78	241	301	721	51	1073	2235
% App. Total	20.7	55.2	24.1		21.8	60	18.2		6.6	61	32.4		28.1	67.2	4.8		
PHF	.857	.842	.913	.861	.822	.989	.722	.895	.500	.875	.780	.825	.918	.888	.580	.877	.917

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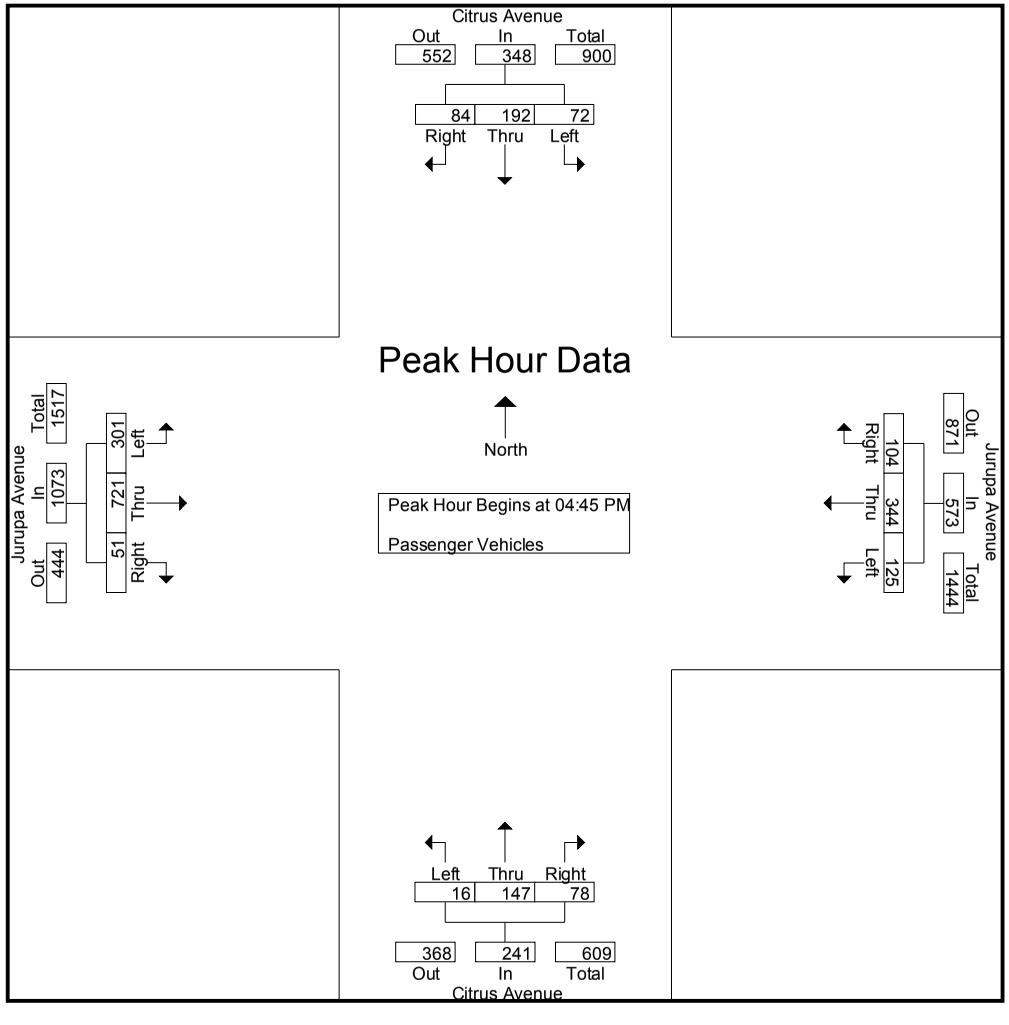

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	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	18	37	22	77	34	85	34	153	**8**	**42**	23	**73**	81	**203**	**22**	**306**	
+15 mins.	19	52	18	89	26	86	14	126	2	31	18	51	74	183	10	267	
+30 mins.	**21**	**57**	**23**	**101**	27	**87**	20	134	3	37	**25**	65	64	172	12	248	
+45 mins.	14	46	21	81	**38**	86	**36**	**160**	3	37	12	52	**82**	163	7	252	
Total Volume	72	192	84	348	125	344	104	573	16	147	78	241	301	721	51	1073	
% App. Total	20.7	55.2	24.1		21.8	60	18.2		6.6	61	32.4		28.1	67.2	4.8		
PHF	.857	.842	.913	.861	.822	.989	.722	.895	.500	.875	.780	.825	.918	.888	.580	.877	

Counts Unlimited
PO Box 1178
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(951) 268-6268

City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	1	1	0	2	1	1	3	1	1	0	0	2	1	3	0	0	4	2	10	12
04:15 PM	1	0	2	0	3	1	3	0	0	4	0	1	0	0	1	2	8	0	0	10	0	18	18
04:30 PM	1	0	0	0	1	0	4	3	1	7	0	1	0	0	1	4	3	2	0	9	1	18	19
04:45 PM	1	2	1	0	4	1	3	0	0	4	0	0	0	0	0	1	4	0	0	5	0	13	13
Total	3	2	4	1	9	2	12	4	2	18	1	3	0	0	4	8	18	2	0	28	3	59	62
05:00 PM	0	1	0	0	1	1	5	1	0	7	1	0	0	0	1	1	1	0	0	2	0	11	11
05:15 PM	0	1	0	0	1	0	2	0	0	2	0	0	2	0	2	0	10	0	0	10	0	15	15
05:30 PM	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	1	3	0	0	4	0	8	8
05:45 PM	0	0	1	1	1	0	1	0	0	1	0	1	0	0	1	1	2	0	0	3	1	6	7
Total	0	3	1	1	4	1	11	1	0	13	1	1	2	0	4	3	16	0	0	19	1	40	41
Grand Total	3	5	5	2	13	3	23	5	2	31	2	4	2	0	8	11	34	2	0	47	4	99	103
Apprch %	23.1	38.5	38.5			9.7	74.2	16.1			25	50	25			23.4	72.3	4.3					
Total %	3	5.1	5.1		13.1	3	23.2	5.1		31.3	2	4	2		8.1	11.1	34.3	2		47.5	3.9	96.1	

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**1**	**2**	**1**	**4**	**1**	3	0	4	0	0	0	0	**1**	4	0	5	13
05:00 PM	0	1	0	1	1	**5**	**1**	**7**	**1**	0	0	1	1	1	0	2	11
05:15 PM	0	1	0	1	0	2	0	2	0	0	**2**	**2**	0	**10**	0	**10**	**15**
05:30 PM	0	1	0	1	0	3	0	3	0	0	0	0	1	3	0	4	8
Total Volume	1	5	1	7	2	13	1	16	1	0	2	3	3	18	0	21	47
% App. Total	14.3	71.4	14.3		12.5	81.2	6.2		33.3	0	66.7		14.3	85.7	0		
PHF	.250	.625	.250	.438	.500	.650	.250	.571	.250	.000	.250	.375	.750	.450	.000	.525	.783

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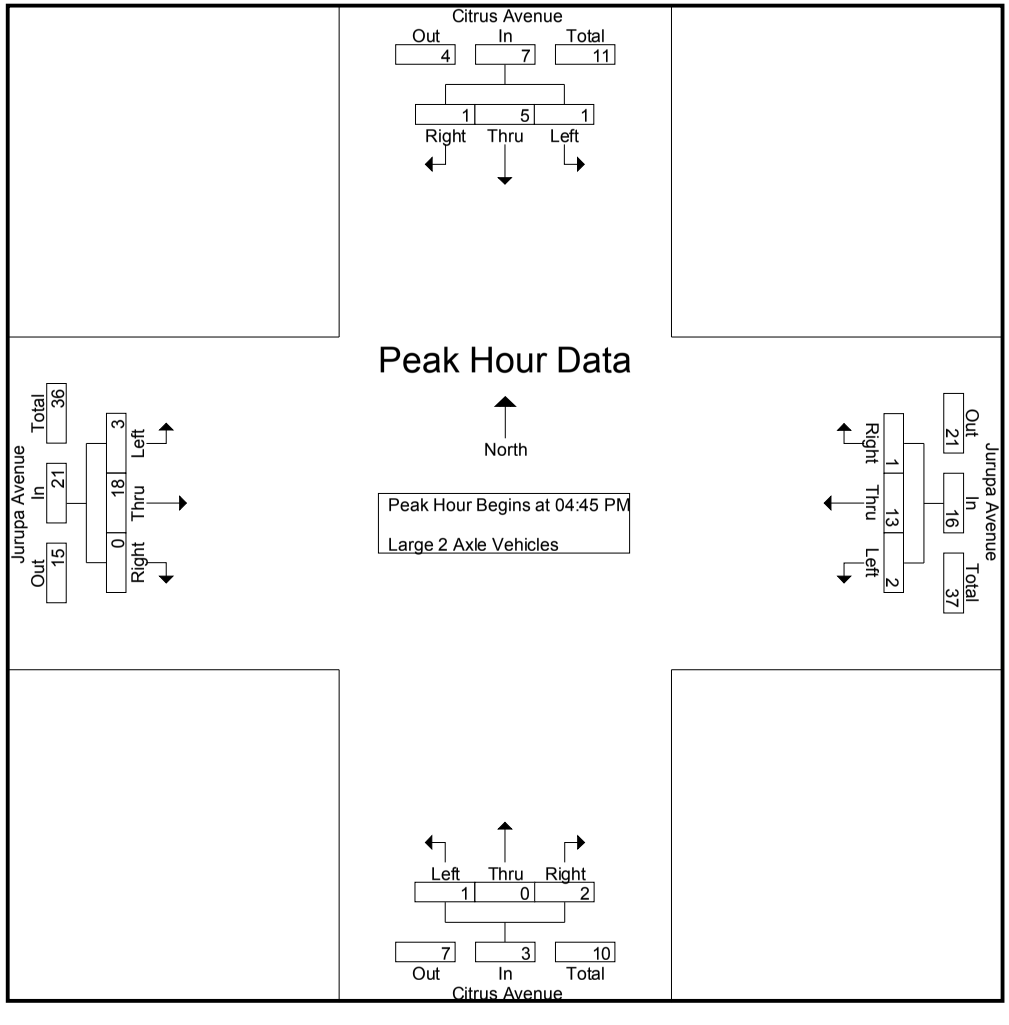
City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	**1**	**2**	**1**	**4**	**1**	3	0	4	0	0	0	0	**1**	4	0	5	
+15 mins.	0	1	0	1	1	**5**	**1**	**7**	**1**	0	0	1	1	1	0	2	
+30 mins.	0	1	0	1	0	2	0	2	0	0	**2**	**2**	0	**10**	0	**10**	
+45 mins.	0	1	0	1	0	3	0	3	0	0	0	0	1	3	0	4	
Total Volume	1	5	1	7	2	13	1	16	1	0	2	3	3	18	0	21	
% App. Total	14.3	71.4	14.3		12.5	81.2	6.2		33.3	0	66.7		14.3	85.7	0		
PHF	.250	.625	.250	.438	.500	.650	.250	.571	.250	.000	.250	.375	.750	.450	.000	.525	

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City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	1	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3
04:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	1	0	0	2	0	4	4
04:30 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	2
04:45 PM	0	0	1	0	1	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2	3
Total	2	0	2	0	4	0	2	2	1	4	0	0	0	0	0	1	2	0	0	3	1	11	12
05:00 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
05:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	3	0	0	4	0	6	6
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	3	3
Total	1	0	2	0	3	0	3	0	0	3	0	0	0	0	0	1	4	0	0	5	0	11	11
Grand Total	3	0	4	0	7	0	5	2	1	7	0	0	0	0	0	2	6	0	0	8	1	22	23
Apprch %	42.9	0	57.1			0	71.4	28.6			0	0	0			25	75	0					
Total %	13.6	0	18.2		31.8	0	22.7	9.1		31.8	0	0	0		0	9.1	27.3	0		36.4	4.3	95.7	

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	1	1	0	0	**1**	1	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**1**	**3**	0	**4**	**6**
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	3	3	0	2	1	3	0	0	0	0	1	3	0	4	10
% App. Total	0	0	100		0	66.7	33.3		0	0	0		25	75	0		
PHF	.000	.000	.375	.375	.000	.250	.250	.375	.000	.000	.000	.000	.250	.250	.000	.250	.417

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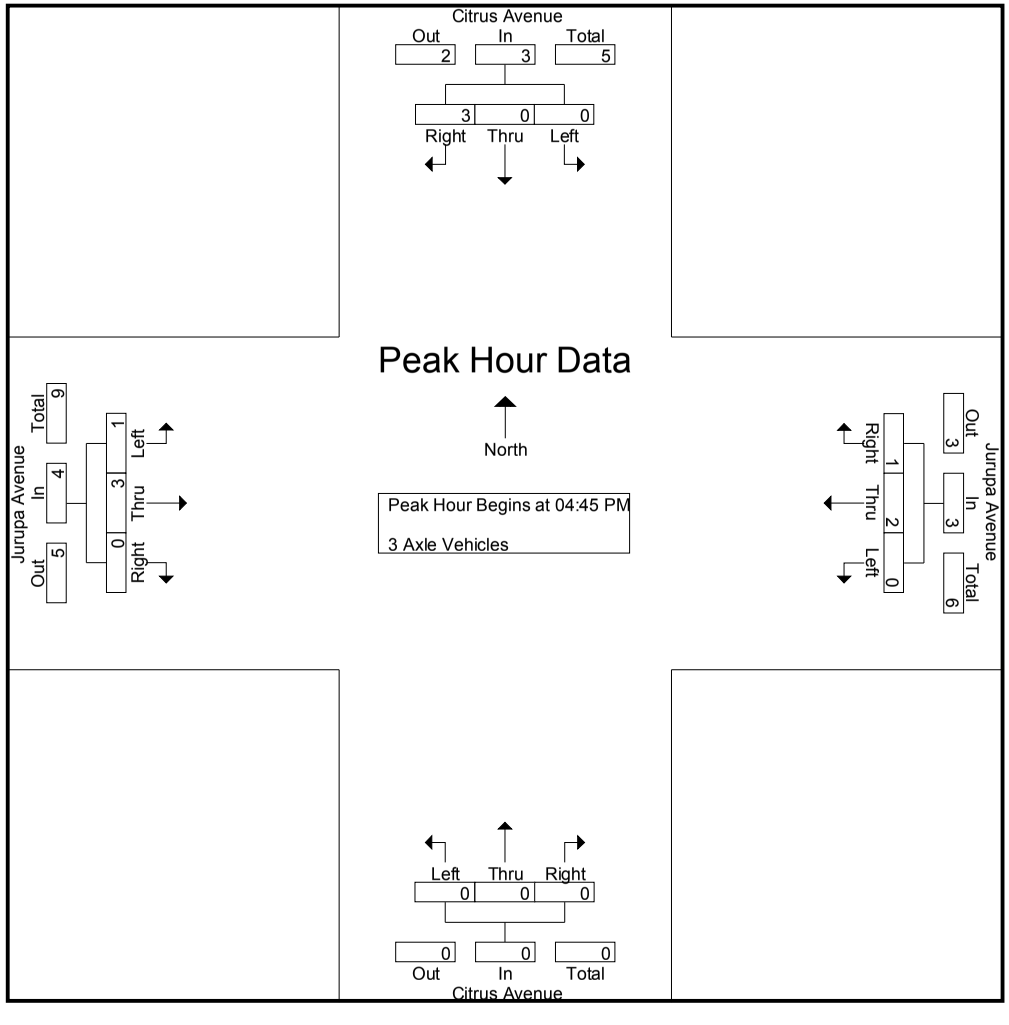
City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	1	1	0	0	**1**	1	0	0	0	0	0	0	0	0	
+15 mins.	0	0	**2**	**2**	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	**1**	**3**	0	**4**	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	3	3	0	2	1	3	0	0	0	0	1	3	0	4	
% App. Total	0	0	100		0	66.7	33.3		0	0	0		25	75	0		
PHF	.000	.000	.375	.375	.000	.250	.250	.375	.000	.000	.000	.000	.250	.250	.000	.250	

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City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Citrus Avenue Southbound					Jurupa Avenue Westbound					Citrus Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	3	5	0	0	8	0	10	10
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	3	3
04:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	7	0	0	8	0	9	9
Total	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	5	16	0	0	21	0	25	25
05:00 PM	0	0	2	0	2	0	2	1	0	3	0	0	0	0	0	1	5	0	0	6	0	11	11
05:15 PM	0	0	0	0	0	0	1	1	1	2	0	0	0	0	0	2	5	0	0	7	1	9	10
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	2	0	0	4	0	5	5
05:45 PM	0	0	1	0	1	0	2	1	0	3	0	0	0	0	0	3	4	0	0	7	0	11	11
Total	0	0	3	0	3	0	6	3	1	9	0	0	0	0	0	8	16	0	0	24	1	36	37
Grand Total	0	0	4	0	4	0	9	3	1	12	0	0	0	0	0	13	32	0	0	45	1	61	62
Apprch %	0	0	100			0	75	25			0	0	0			28.9	71.1	0					
Total %	0	0	6.6		6.6	0	14.8	4.9		19.7	0	0	0		0	21.3	52.5	0		73.8	1.6	98.4	

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	**7**	0	**8**	9
05:00 PM	0	0	**2**	**2**	0	**2**	**1**	**3**	0	0	0	0	1	5	0	6	**11**
05:15 PM	0	0	0	0	0	1	1	2	0	0	0	0	**2**	5	0	7	9
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	2	2	0	4	5
Total Volume	0	0	2	2	0	5	2	7	0	0	0	0	6	19	0	25	34
% App. Total	0	0	100		0	71.4	28.6		0	0	0		24	76	0		
PHF	.000	.000	.250	.250	.000	.625	.500	.583	.000	.000	.000	.000	.750	.679	.000	.781	.773

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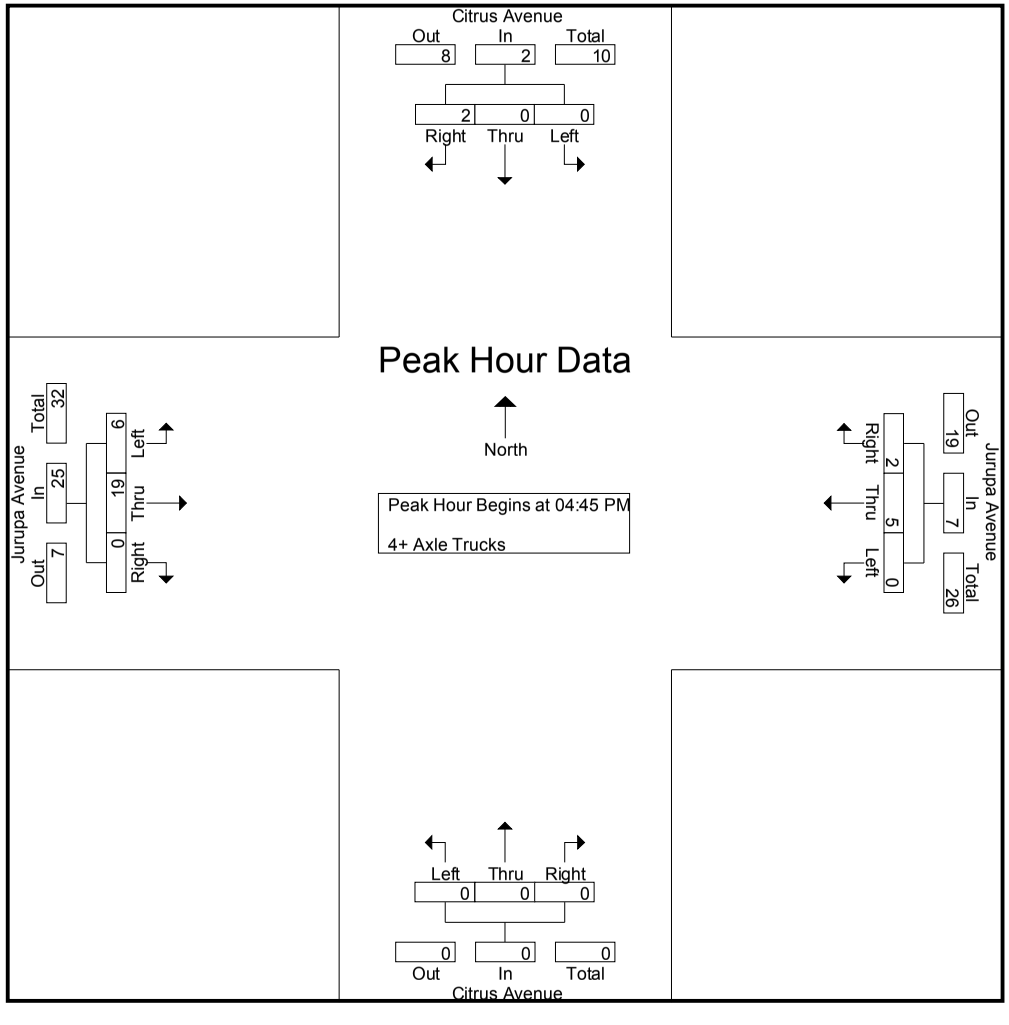
City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 08_FON_Citrus_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Citrus Avenue Southbound				Jurupa Avenue Westbound				Citrus Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	1	**7**	0	**8**	
+15 mins.	0	0	**2**	**2**	0	**2**	**1**	**3**	0	0	0	0	1	5	0	6	
+30 mins.	0	0	0	0	0	1	1	2	0	0	0	0	**2**	5	0	7	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	2	2	0	4	
Total Volume	0	0	2	2	0	5	2	7	0	0	0	0	6	19	0	25	
% App. Total	0	0	100		0	71.4	28.6		0	0	0		24	76	0		
PHF	.000	.000	.250	.250	.000	.625	.500	.583	.000	.000	.000	.000	.750	.679	.000	.781	

Location: Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Citrus Avenue	East Leg Jurupa Avenue	South Leg Citrus Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	2	1	0	0	3
7:15 AM	0	0	0	0	0
7:30 AM	0	0	2	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	1	0	1
TOTAL VOLUMES:	2	1	3	0	6

	North Leg Citrus Avenue	East Leg Jurupa Avenue	South Leg Citrus Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	1	0	0	1
4:45 PM	0	1	1	0	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	2	0	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	2	3	0	5

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951-268-0268

Location: Fontana
N/S: Citrus Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Citrus Avenue			Westbound Jurupa Avenue			Northbound Citrus Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	1	0	1

	Southbound Citrus Avenue			Westbound Jurupa Avenue			Northbound Citrus Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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951-268-6268

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City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	6	6	168	5	173	0	124	124	303
07:15 AM	0	0	0	168	8	176	0	125	125	301
07:30 AM	0	7	7	165	6	171	0	143	143	321
07:45 AM	0	0	0	148	2	150	0	131	131	281
Total	0	13	13	649	21	670	0	523	523	1206
08:00 AM	0	6	6	134	5	139	0	108	108	253
08:15 AM	0	5	5	145	3	148	0	121	121	274
08:30 AM	0	4	4	96	4	100	0	120	120	224
08:45 AM	0	5	5	92	3	95	0	103	103	203
Total	0	20	20	467	15	482	0	452	452	954
Grand Total	0	33	33	1116	36	1152	0	975	975	2160
Apprch %	0	100		96.9	3.1		0	100		
Total %	0	1.5	1.5	51.7	1.7	53.3	0	45.1	45.1	
Passenger Vehicles	0	5	5	1074	24	1098	0	930	930	2033
% Passenger Vehicles	0	15.2	15.2	96.2	66.7	95.3	0	95.4	95.4	94.1
Large 2 Axle Vehicles	0	6	6	28	3	31	0	34	34	71
% Large 2 Axle Vehicles	0	18.2	18.2	2.5	8.3	2.7	0	3.5	3.5	3.3
3 Axle Vehicles	0	3	3	8	1	9	0	5	5	17
% 3 Axle Vehicles	0	9.1	9.1	0.7	2.8	0.8	0	0.5	0.5	0.8
4+ Axle Trucks	0	19	19	6	8	14	0	6	6	39
% 4+ Axle Trucks	0	57.6	57.6	0.5	22.2	1.2	0	0.6	0.6	1.8

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	6	6	**168**	5	173	0	124	124	303
07:15 AM	0	0	0	168	**8**	**176**	0	125	125	301
07:30 AM	0	**7**	**7**	165	6	171	0	**143**	**143**	**321**
07:45 AM	0	0	0	148	2	150	0	131	131	281
Total Volume	0	13	13	649	21	670	0	523	523	1206
% App. Total	0	100		96.9	3.1		0	100		
PHF	.000	.464	.464	.966	.656	.952	.000	.914	.914	.939

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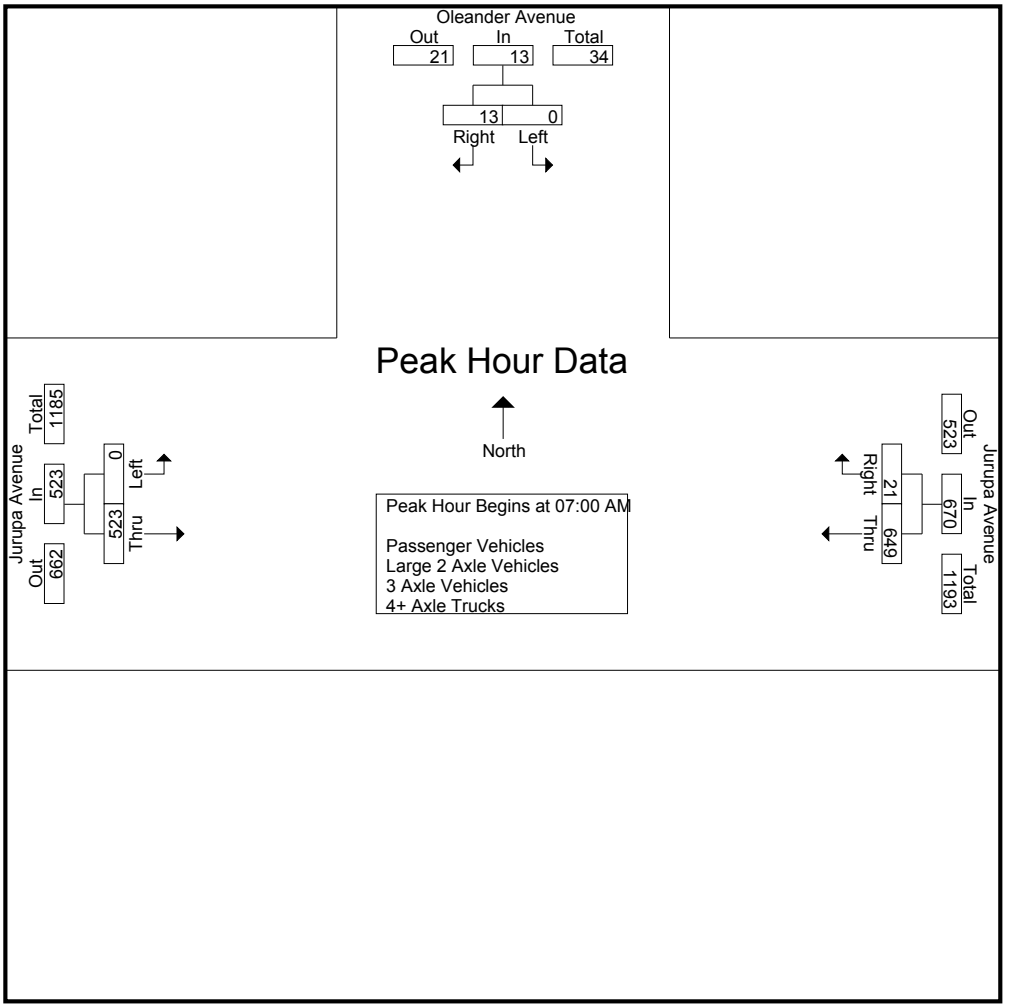

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**6**	**6**	**168**	5	173	0	124	124
+15 mins.	0	5	5	168	**8**	**176**	0	125	125
+30 mins.	0	4	4	165	6	171	0	**143**	**143**
+45 mins.	0	5	5	148	2	150	0	131	131
Total Volume	0	20	20	649	21	670	0	523	523
% App. Total	0	100		96.9	3.1		0	100	
PHF	.000	.833	.833	.966	.656	.952	.000	.914	.914

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Groups Printed- Passenger Vehicles

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	1	1	164	5	169	0	120	120	290
07:15 AM	0	0	0	163	2	165	0	115	115	280
07:30 AM	0	0	0	161	3	164	0	138	138	302
07:45 AM	0	0	0	142	2	144	0	127	127	271
Total	0	1	1	630	12	642	0	500	500	1143
08:00 AM	0	2	2	129	2	131	0	105	105	238
08:15 AM	0	1	1	138	3	141	0	114	114	256
08:30 AM	0	0	0	90	4	94	0	111	111	205
08:45 AM	0	1	1	87	3	90	0	100	100	191
Total	0	4	4	444	12	456	0	430	430	890
Grand Total	0	5	5	1074	24	1098	0	930	930	2033
Apprch %	0	100		97.8	2.2		0	100		
Total %	0	0.2	0.2	52.8	1.2	54	0	45.7	45.7	

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	**1**	**164**	**5**	**169**	0	120	120	290
07:15 AM	0	0	0	163	2	165	0	115	115	280
07:30 AM	0	0	0	161	3	164	0	**138**	**138**	**302**
07:45 AM	0	0	0	142	2	144	0	127	127	271
Total Volume	0	1	1	630	12	642	0	500	500	1143
% App. Total	0	100		98.1	1.9		0	100		
PHF	.000	.250	.250	.960	.600	.950	.000	.906	.906	.946

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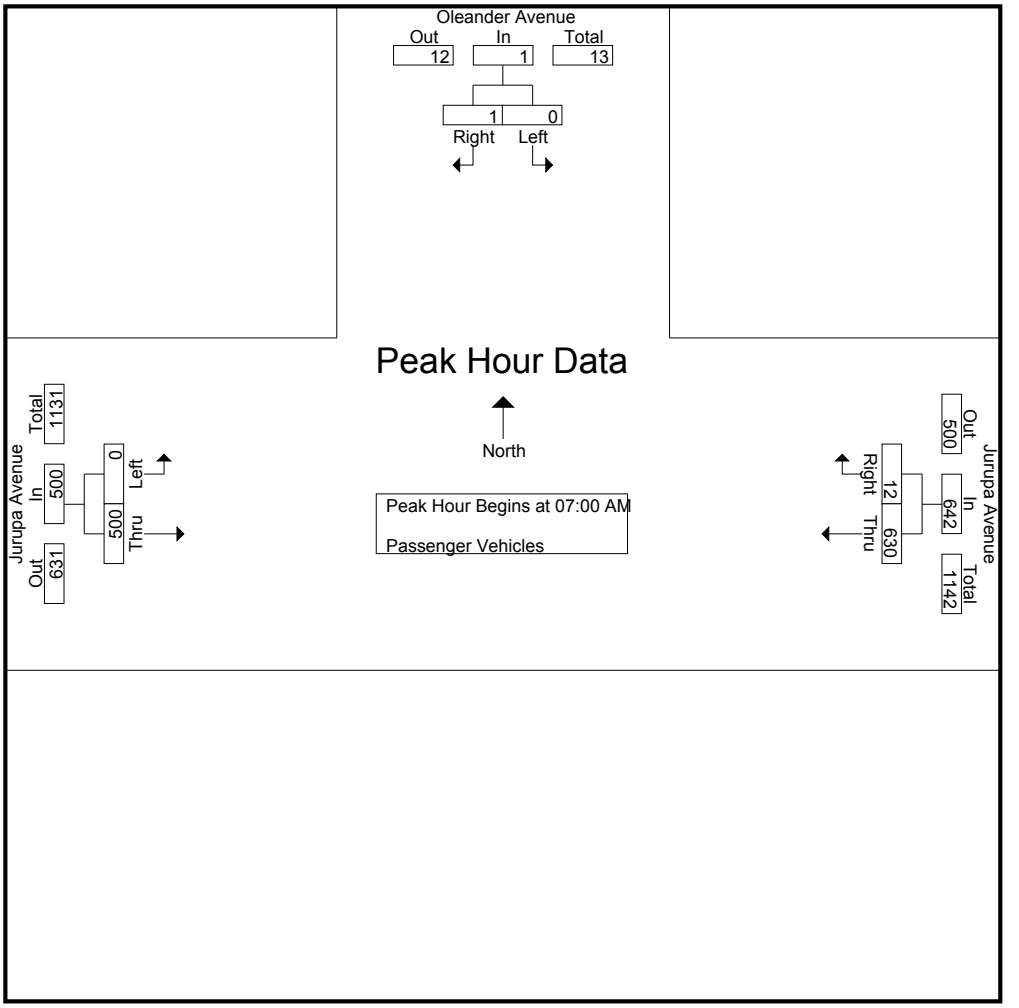

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	**1**	**164**	**5**	**169**	0	120	120
+15 mins.	0	0	0	163	2	165	0	115	115
+30 mins.	0	0	0	161	3	164	0	**138**	**138**
+45 mins.	0	0	0	142	2	144	0	127	127
Total Volume	0	1	1	630	12	642	0	500	500
% App. Total	0	100		98.1	1.9		0	100	
PHF	.000	.250	.250	.960	.600	.950	.000	.906	.906

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Groups Printed- Large 2 Axle Vehicles

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	1	1	3	0	3	0	4	4	8
07:15 AM	0	0	0	3	2	5	0	8	8	13
07:30 AM	0	0	0	4	0	4	0	2	2	6
07:45 AM	0	0	0	3	0	3	0	4	4	7
Total	0	1	1	13	2	15	0	18	18	34
08:00 AM	0	1	1	4	1	5	0	2	2	8
08:15 AM	0	2	2	4	0	4	0	7	7	13
08:30 AM	0	0	0	4	0	4	0	7	7	11
08:45 AM	0	2	2	3	0	3	0	0	0	5
Total	0	5	5	15	1	16	0	16	16	37
Grand Total	0	6	6	28	3	31	0	34	34	71
Apprch %	0	100		90.3	9.7		0	100		
Total %	0	8.5	8.5	39.4	4.2	43.7	0	47.9	47.9	

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	**1**	**1**	3	0	3	0	4	4	8
07:15 AM	0	0	0	3	**2**	**5**	0	**8**	**8**	**13**
07:30 AM	0	0	0	**4**	0	4	0	2	2	6
07:45 AM	0	0	0	3	0	3	0	4	4	7
Total Volume	0	1	1	13	2	15	0	18	18	34
% App. Total	0	100		86.7	13.3		0	100		
PHF	.000	.250	.250	.813	.250	.750	.000	.563	.563	.654

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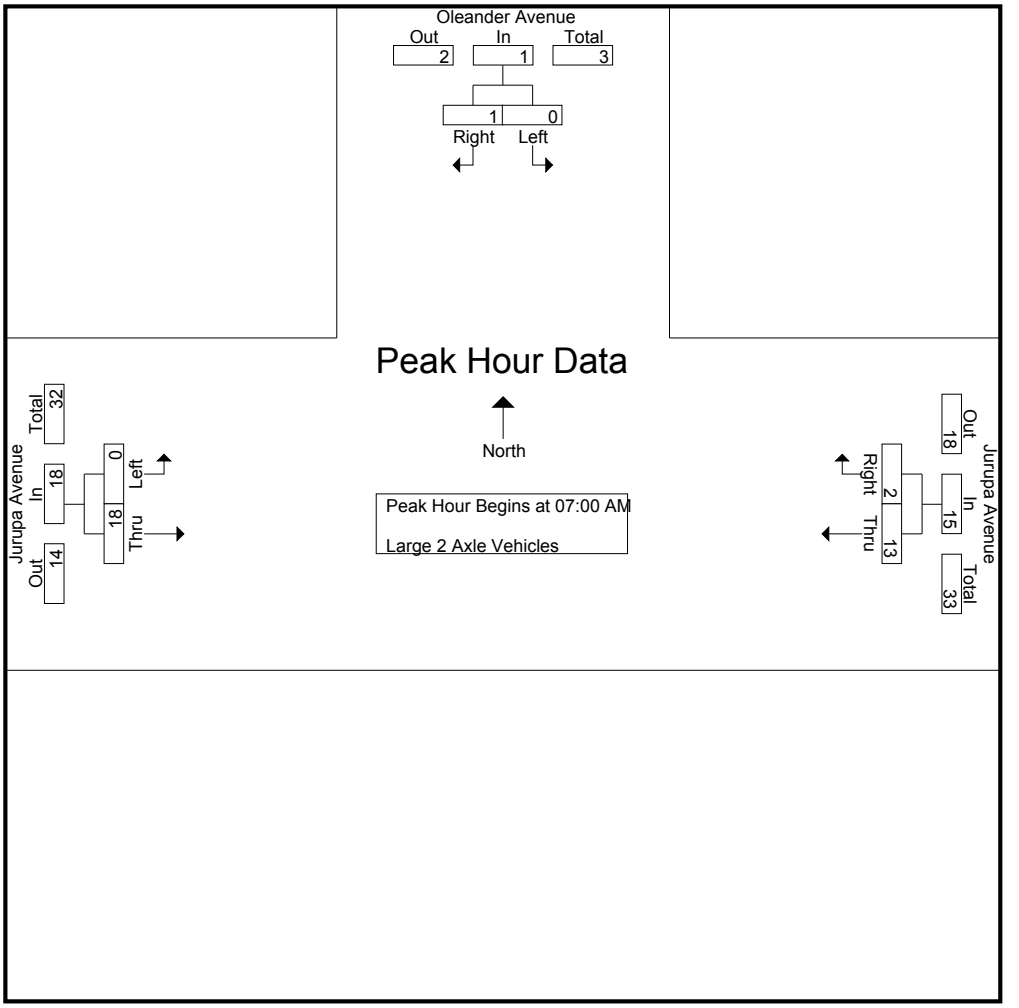

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	**1**	**1**	3	0	3	0	4	4
+15 mins.	0	0	0	3	**2**	**5**	0	**8**	**8**
+30 mins.	0	0	0	**4**	0	4	0	2	2
+45 mins.	0	0	0	3	0	3	0	4	4
Total Volume	0	1	1	13	2	15	0	18	18
% App. Total	0	100		86.7	13.3		0	100	
PHF	.000	.250	.250	.813	.250	.750	.000	.563	.563

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File Name : 09_FON_Oleander_Jurupa AM
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Groups Printed- 3 Axle Vehicles

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	2	2	0	0	0	0	1	1	3
07:45 AM	0	0	0	2	0	2	0	0	0	2
Total	0	2	2	3	0	3	0	1	1	6
08:00 AM	0	1	1	0	1	1	0	1	1	3
08:15 AM	0	0	0	2	0	2	0	0	0	2
08:30 AM	0	0	0	2	0	2	0	0	0	2
08:45 AM	0	0	0	1	0	1	0	3	3	4
Total	0	1	1	5	1	6	0	4	4	11
Grand Total	0	3	3	8	1	9	0	5	5	17
Apprch %	0	100		88.9	11.1		0	100		
Total %	0	17.6	17.6	47.1	5.9	52.9	0	29.4	29.4	

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	**2**	**2**	0	0	0	0	**1**	**1**	**3**
07:45 AM	0	0	0	**2**	0	**2**	0	0	0	2
Total Volume	0	2	2	3	0	3	0	1	1	6
% App. Total	0	100		100	0		0	100		
PHF	.000	.250	.250	.375	.000	.375	.000	.250	.250	.500

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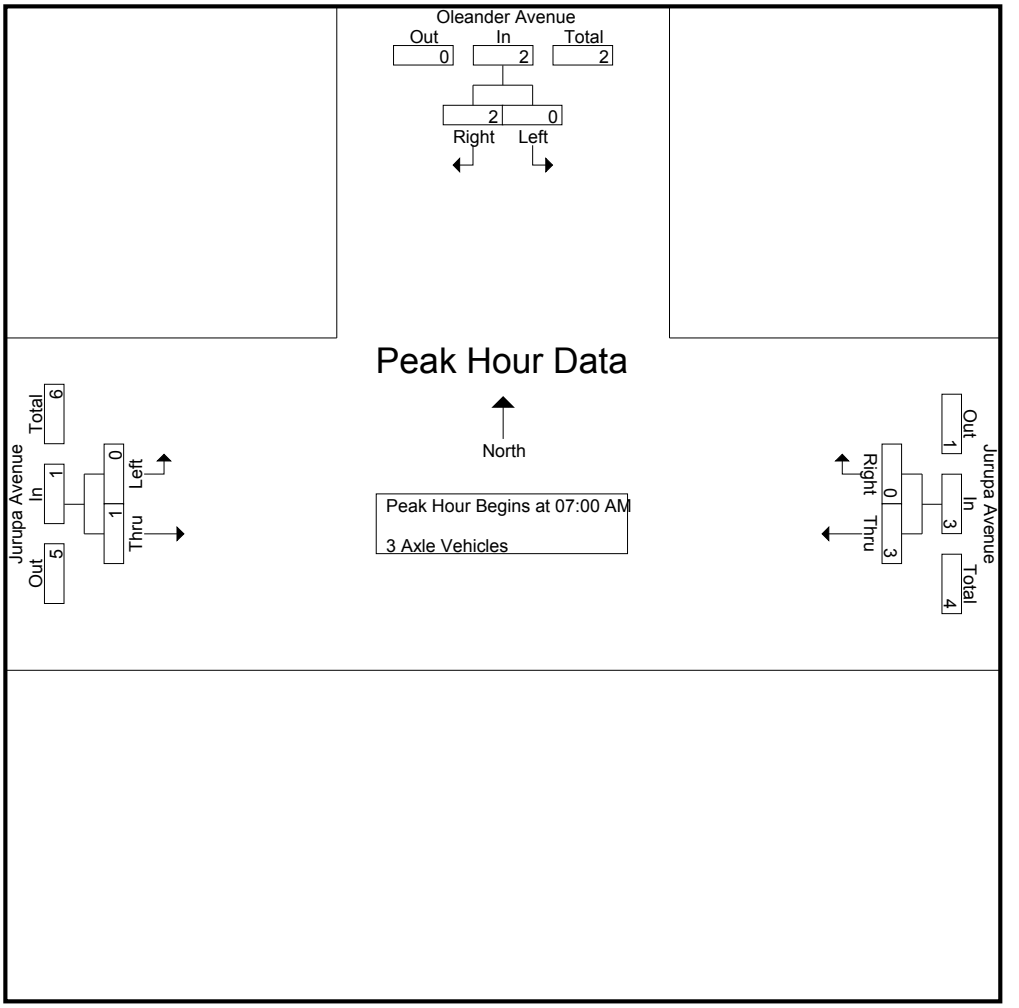

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	**2**	**2**	0	0	0	0	**1**	**1**
+45 mins.	0	0	0	**2**	0	**2**	0	0	0
Total Volume	0	2	2	3	0	3	0	1	1
% App. Total	0	100		100	0		0	100	
PHF	.000	.250	.250	.375	.000	.375	.000	.250	.250

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Groups Printed- 4+ Axle Trucks

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	4	4	1	0	1	0	0	0	5
07:15 AM	0	0	0	1	4	5	0	2	2	7
07:30 AM	0	5	5	0	3	3	0	2	2	10
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	9	9	3	7	10	0	4	4	23
08:00 AM	0	2	2	1	1	2	0	0	0	4
08:15 AM	0	2	2	1	0	1	0	0	0	3
08:30 AM	0	4	4	0	0	0	0	2	2	6
08:45 AM	0	2	2	1	0	1	0	0	0	3
Total	0	10	10	3	1	4	0	2	2	16
Grand Total	0	19	19	6	8	14	0	6	6	39
Apprch %	0	100		42.9	57.1		0	100		
Total %	0	48.7	48.7	15.4	20.5	35.9	0	15.4	15.4	

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	**1**	0	1	0	0	0	5
07:15 AM	0	0	0	1	**4**	**5**	0	**2**	**2**	7
07:30 AM	0	**5**	**5**	0	3	3	0	2	2	**10**
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	9	9	3	7	10	0	4	4	23
% App. Total	0	100		30	70		0	100		
PHF	.000	.450	.450	.750	.438	.500	.000	.500	.500	.575

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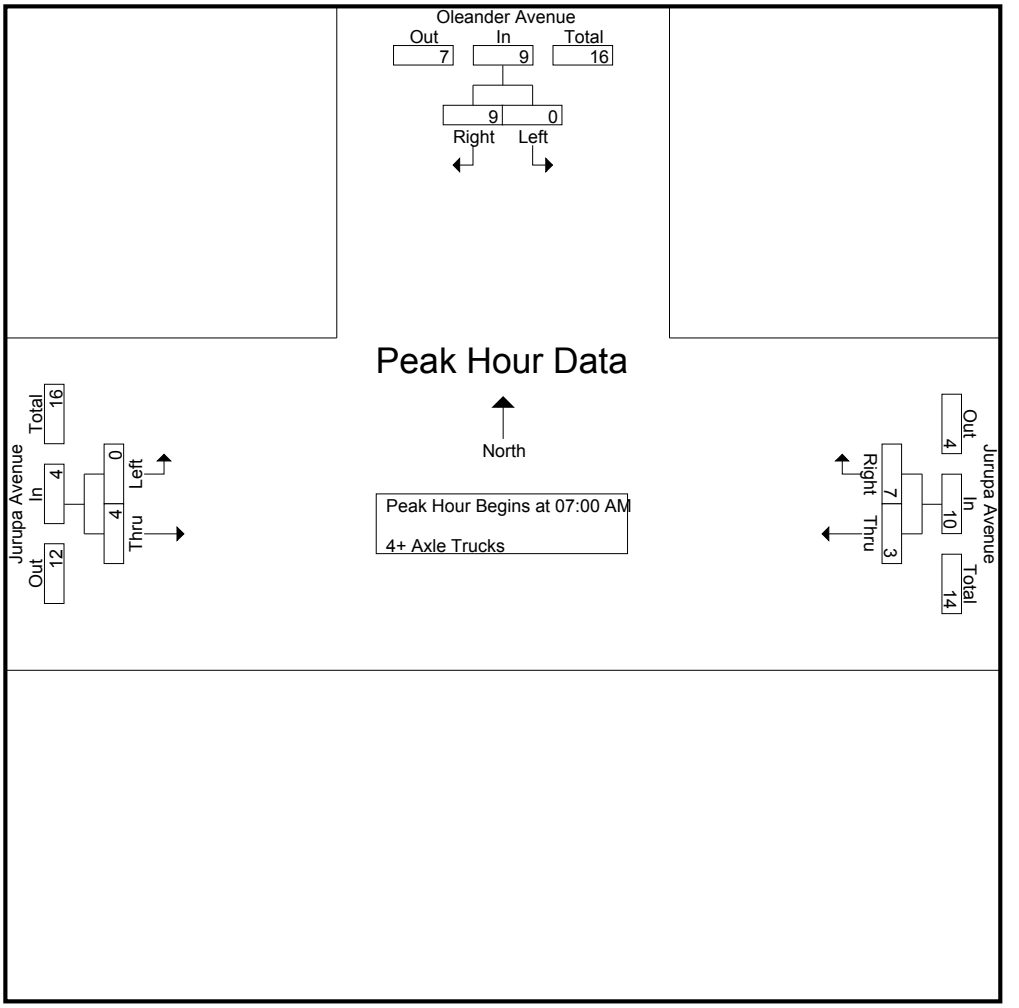

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	4	4	**1**	0	1	0	0	0
+15 mins.	0	0	0	1	**4**	**5**	0	**2**	**2**
+30 mins.	0	**5**	**5**	0	3	3	0	2	2
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	9	9	3	7	10	0	4	4
% App. Total	0	100		30	70		0	100	
PHF	.000	.450	.450	.750	.438	.500	.000	.500	.500

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	11	11	155	4	159	0	254	254	424
04:15 PM	0	4	4	146	3	149	0	227	227	380
04:30 PM	0	9	9	140	4	144	0	222	222	375
04:45 PM	0	2	2	164	1	165	0	276	276	443
Total	0	26	26	605	12	617	0	979	979	1622
05:00 PM	0	6	6	142	1	143	0	246	246	395
05:15 PM	0	2	2	151	2	153	0	246	246	401
05:30 PM	0	5	5	168	1	169	0	199	199	373
05:45 PM	0	2	2	144	1	145	0	175	175	322
Total	0	15	15	605	5	610	0	866	866	1491
Grand Total	0	41	41	1210	17	1227	0	1845	1845	3113
Apprch %	0	100		98.6	1.4		0	100		
Total %	0	1.3	1.3	38.9	0.5	39.4	0	59.3	59.3	
Passenger Vehicles	0	31	31	1178	4	1182	0	1782	1782	2995
% Passenger Vehicles	0	75.6	75.6	97.4	23.5	96.3	0	96.6	96.6	96.2
Large 2 Axle Vehicles	0	7	7	15	4	19	0	28	28	54
% Large 2 Axle Vehicles	0	17.1	17.1	1.2	23.5	1.5	0	1.5	1.5	1.7
3 Axle Vehicles	0	1	1	6	0	6	0	6	6	13
% 3 Axle Vehicles	0	2.4	2.4	0.5	0	0.5	0	0.3	0.3	0.4
4+ Axle Trucks	0	2	2	11	9	20	0	29	29	51
% 4+ Axle Trucks	0	4.9	4.9	0.9	52.9	1.6	0	1.6	1.6	1.6

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**11**	**11**	155	**4**	159	0	254	254	424
04:15 PM	0	4	4	146	3	149	0	227	227	380
04:30 PM	0	9	9	140	4	144	0	222	222	375
04:45 PM	0	2	2	**164**	1	**165**	0	**276**	**276**	**443**
Total Volume	0	26	26	605	12	617	0	979	979	1622
% App. Total	0	100		98.1	1.9		0	100		
PHF	.000	.591	.591	.922	.750	.935	.000	.887	.887	.915

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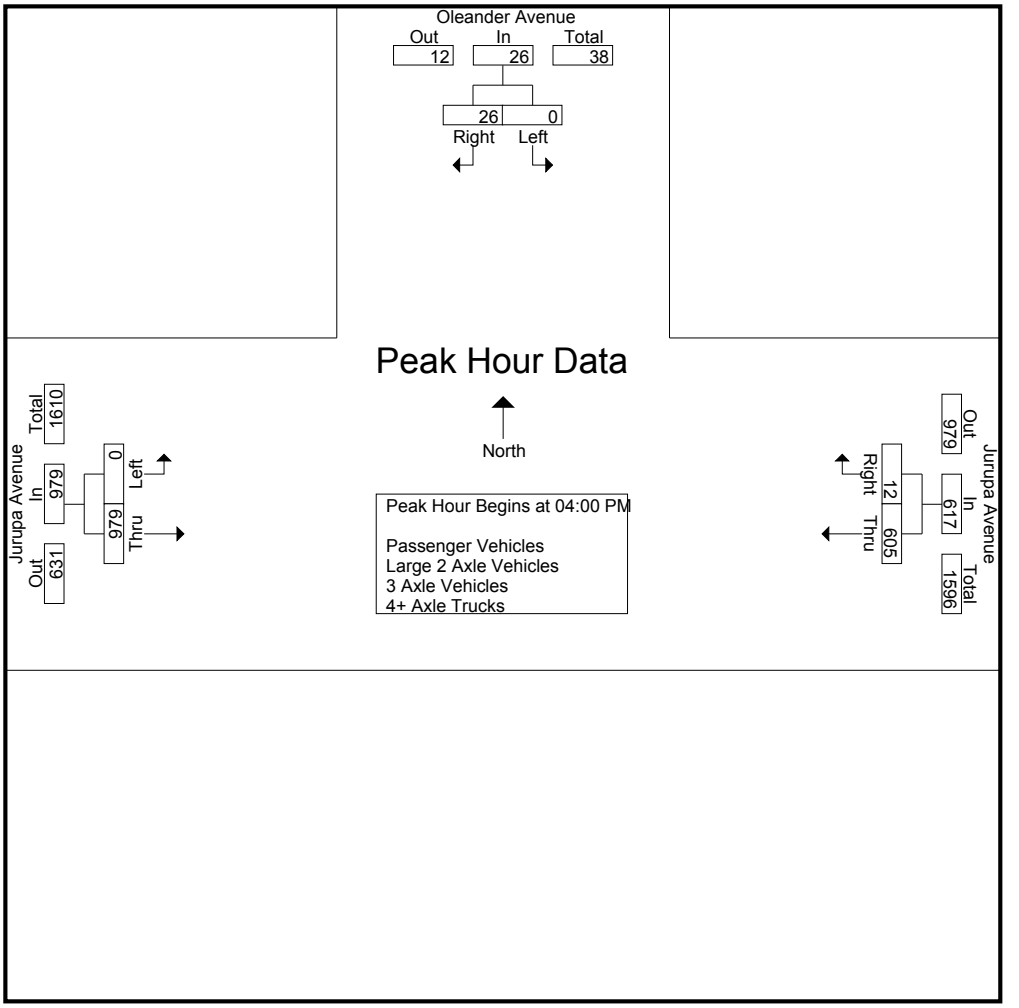

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			04:30 PM		
+0 mins.	0	**11**	**11**	164	1	165	0	222	222
+15 mins.	0	4	4	142	1	143	0	**276**	**276**
+30 mins.	0	9	9	151	**2**	153	0	246	246
+45 mins.	0	2	2	**168**	1	**169**	0	246	246
Total Volume	0	26	26	625	5	630	0	990	990
% App. Total	0	100		99.2	0.8		0	100	
PHF	.000	.591	.591	.930	.625	.932	.000	.897	.897

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

City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	11	11	151	1	152	0	245	245	408
04:15 PM	0	1	1	144	0	144	0	218	218	363
04:30 PM	0	7	7	137	2	139	0	215	215	361
04:45 PM	0	2	2	159	0	159	0	265	265	426
Total	0	21	21	591	3	594	0	943	943	1558
05:00 PM	0	4	4	134	0	134	0	241	241	379
05:15 PM	0	2	2	146	0	146	0	234	234	382
05:30 PM	0	3	3	166	0	166	0	195	195	364
05:45 PM	0	1	1	141	1	142	0	169	169	312
Total	0	10	10	587	1	588	0	839	839	1437
Grand Total	0	31	31	1178	4	1182	0	1782	1782	2995
Apprch %	0	100		99.7	0.3		0	100		
Total %	0	1	1	39.3	0.1	39.5	0	59.5	59.5	

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue 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 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**11**	**11**	151	1	152	0	245	245	408
04:15 PM	0	1	1	144	0	144	0	218	218	363
04:30 PM	0	7	7	137	**2**	139	0	215	215	361
04:45 PM	0	2	2	**159**	0	**159**	0	**265**	**265**	**426**
Total Volume	0	21	21	591	3	594	0	943	943	1558
% App. Total	0	100		99.5	0.5		0	100		
PHF	.000	.477	.477	.929	.375	.934	.000	.890	.890	.914

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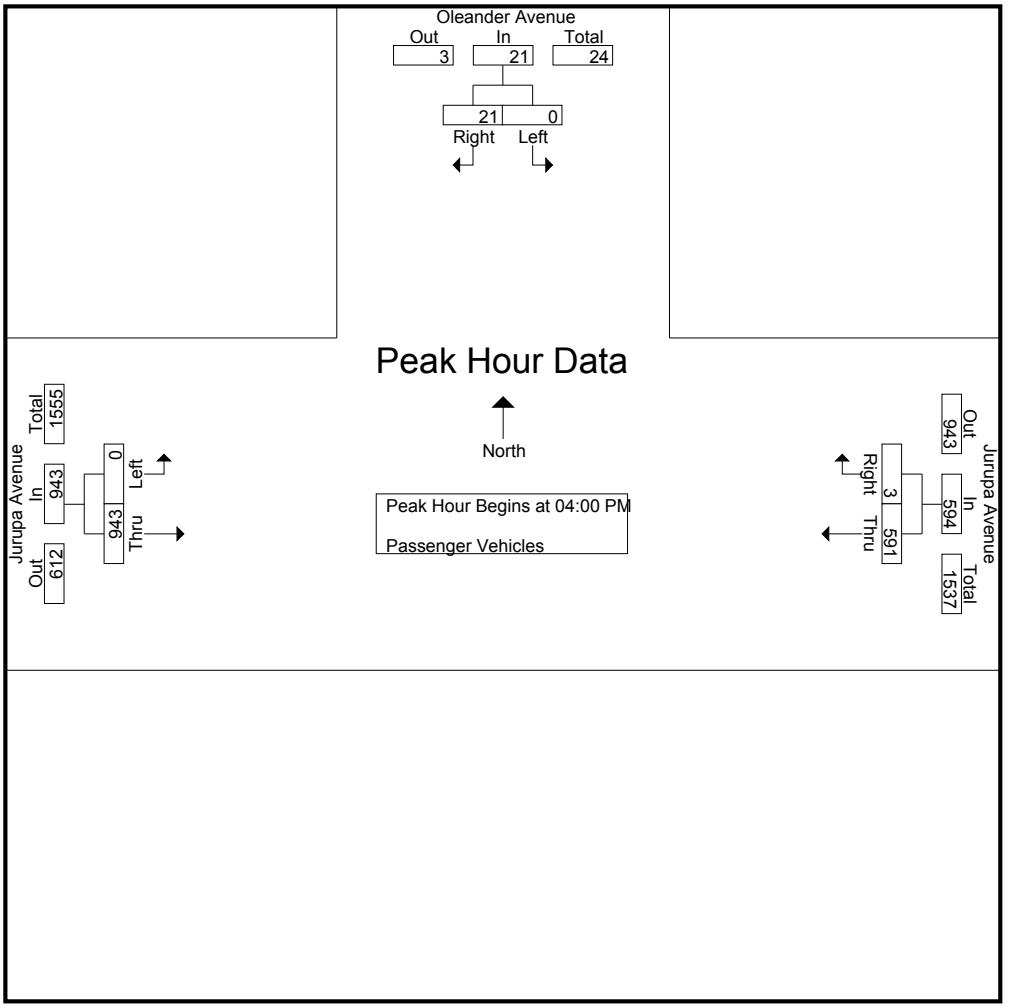
City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	**11**	**11**	151	1	152	0	245	245
+15 mins.	0	1	1	144	0	144	0	218	218
+30 mins.	0	7	7	137	**2**	139	0	215	215
+45 mins.	0	2	2	**159**	0	**159**	0	**265**	**265**
Total Volume	0	21	21	591	3	594	0	943	943
% App. Total	0	100		99.5	0.5		0	100	
PHF	.000	.477	.477	.929	.375	.934	.000	.890	.890

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City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	2	0	2	0	3	3	5
04:15 PM	0	2	2	1	1	2	0	6	6	10
04:30 PM	0	2	2	2	2	4	0	5	5	11
04:45 PM	0	0	0	2	0	2	0	3	3	5
Total	0	4	4	7	3	10	0	17	17	31
05:00 PM	0	1	1	4	0	4	0	1	1	6
05:15 PM	0	0	0	2	1	3	0	6	6	9
05:30 PM	0	1	1	2	0	2	0	2	2	5
05:45 PM	0	1	1	0	0	0	0	2	2	3
Total	0	3	3	8	1	9	0	11	11	23
Grand Total	0	7	7	15	4	19	0	28	28	54
Apprch %	0	100		78.9	21.1		0	100		
Total %	0	13	13	27.8	7.4	35.2	0	51.9	51.9	

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue 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 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	**2**	0	2	0	3	3	5
04:15 PM	0	**2**	**2**	1	1	2	0	**6**	**6**	10
04:30 PM	0	2	2	2	**2**	**4**	0	5	5	**11**
04:45 PM	0	0	0	2	0	2	0	3	3	5
Total Volume	0	4	4	7	3	10	0	17	17	31
% App. Total	0	100		70	30		0	100		
PHF	.000	.500	.500	.875	.375	.625	.000	.708	.708	.705

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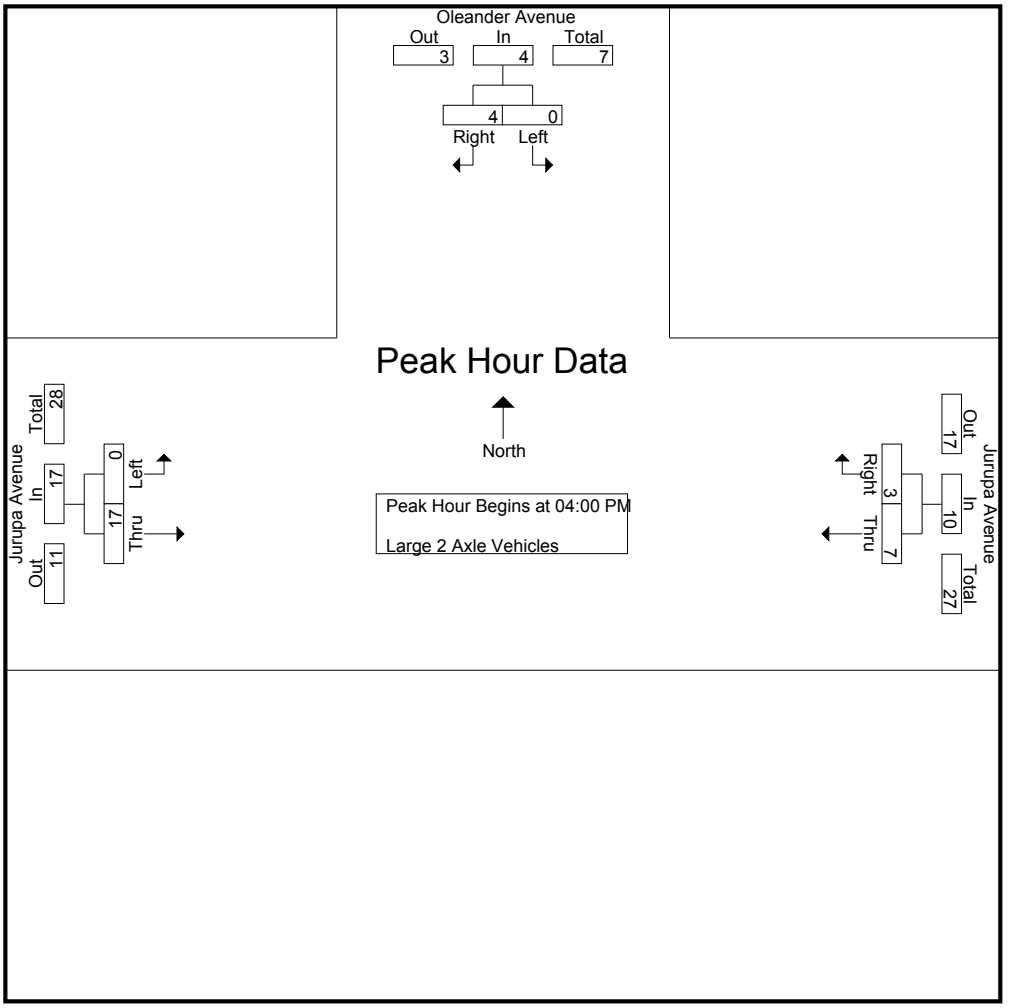
City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	**2**	0	2	0	3	3
+15 mins.	0	**2**	**2**	1	1	2	0	**6**	**6**
+30 mins.	0	2	2	2	**2**	**4**	0	5	5
+45 mins.	0	0	0	2	0	2	0	3	3
Total Volume	0	4	4	7	3	10	0	17	17
% App. Total	0	100		70	30		0	100	
PHF	.000	.500	.500	.875	.375	.625	.000	.708	.708

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City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	1	0	1	0	1	1	2
04:15 PM	0	1	1	1	0	1	0	1	1	3
04:30 PM	0	0	0	0	0	0	0	1	1	1
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total	0	1	1	3	0	3	0	3	3	7
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	2	0	2	0	2	2	4
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	1	0	1	0	1	1	2
Total	0	0	0	3	0	3	0	3	3	6
Grand Total	0	1	1	6	0	6	0	6	6	13
Apprch %	0	100		100	0		0	100		
Total %	0	7.7	7.7	46.2	0	46.2	0	46.2	46.2	

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue 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 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	**1**	0	**1**	0	**1**	**1**	2
04:15 PM	0	**1**	**1**	1	0	1	0	1	1	**3**
04:30 PM	0	0	0	0	0	0	0	1	1	1
04:45 PM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	1	1	3	0	3	0	3	3	7
% App. Total	0	100		100	0		0	100		
PHF	.000	.250	.250	.750	.000	.750	.000	.750	.750	.583

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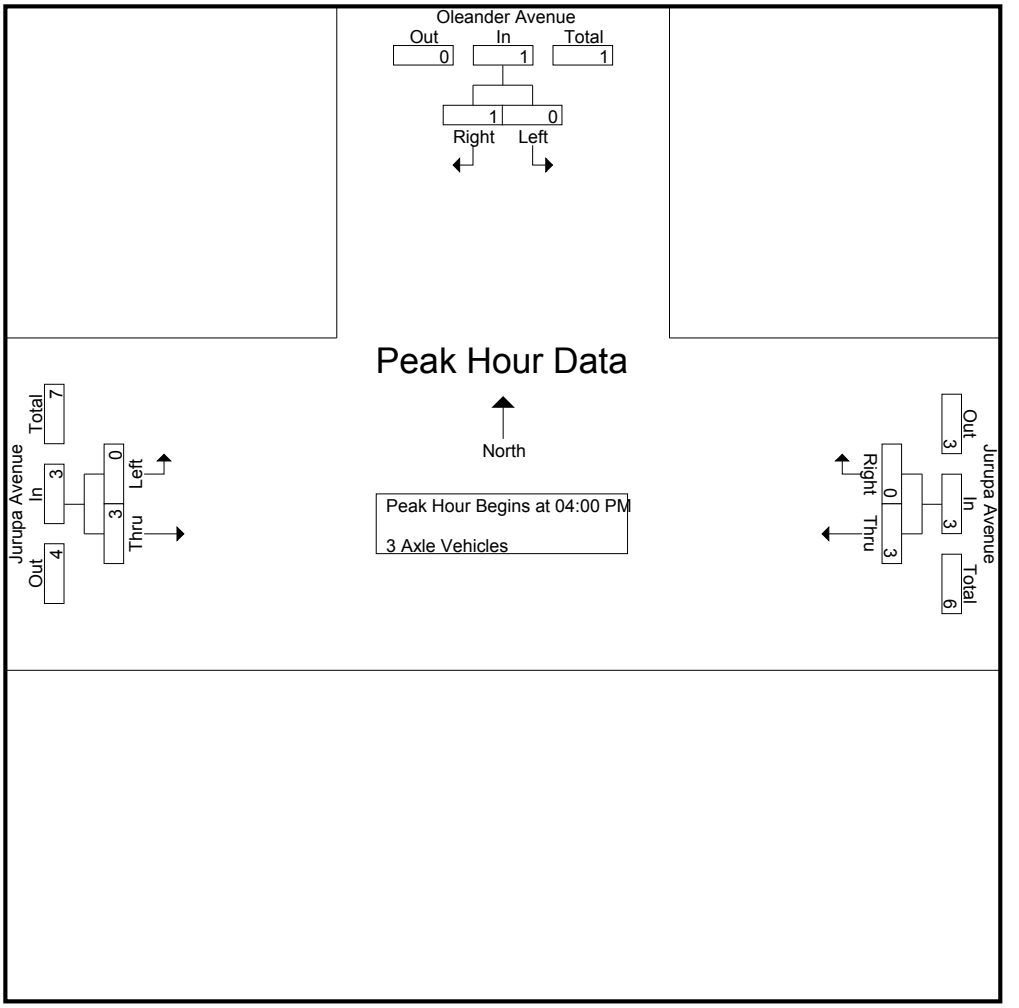
City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	**1**	0	**1**	0	**1**	**1**
+15 mins.	0	**1**	**1**	1	0	1	0	1	1
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	1	1	3	0	3	0	3	3
% App. Total	0	100		100	0		0	100	
PHF	.000	.250	.250	.750	.000	.750	.000	.750	.750

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City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	1	3	4	0	5	5	9
04:15 PM	0	0	0	0	2	2	0	2	2	4
04:30 PM	0	0	0	1	0	1	0	1	1	2
04:45 PM	0	0	0	2	1	3	0	8	8	11
Total	0	0	0	4	6	10	0	16	16	26
05:00 PM	0	1	1	4	1	5	0	4	4	10
05:15 PM	0	0	0	1	1	2	0	4	4	6
05:30 PM	0	1	1	0	1	1	0	2	2	4
05:45 PM	0	0	0	2	0	2	0	3	3	5
Total	0	2	2	7	3	10	0	13	13	25
Grand Total	0	2	2	11	9	20	0	29	29	51
Apprch %	0	100		55	45		0	100		
Total %	0	3.9	3.9	21.6	17.6	39.2	0	56.9	56.9	

	Oleander Avenue Southbound			Jurupa Avenue Westbound			Jurupa Avenue 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 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	1	**3**	**4**	0	5	5	9
04:15 PM	0	0	0	0	2	2	0	2	2	4
04:30 PM	0	0	0	1	0	1	0	1	1	2
04:45 PM	0	0	0	**2**	1	3	0	**8**	**8**	**11**
Total Volume	0	0	0	4	6	10	0	16	16	26
% App. Total	0	0		40	60		0	100		
PHF	.000	.000	.000	.500	.500	.625	.000	.500	.500	.591

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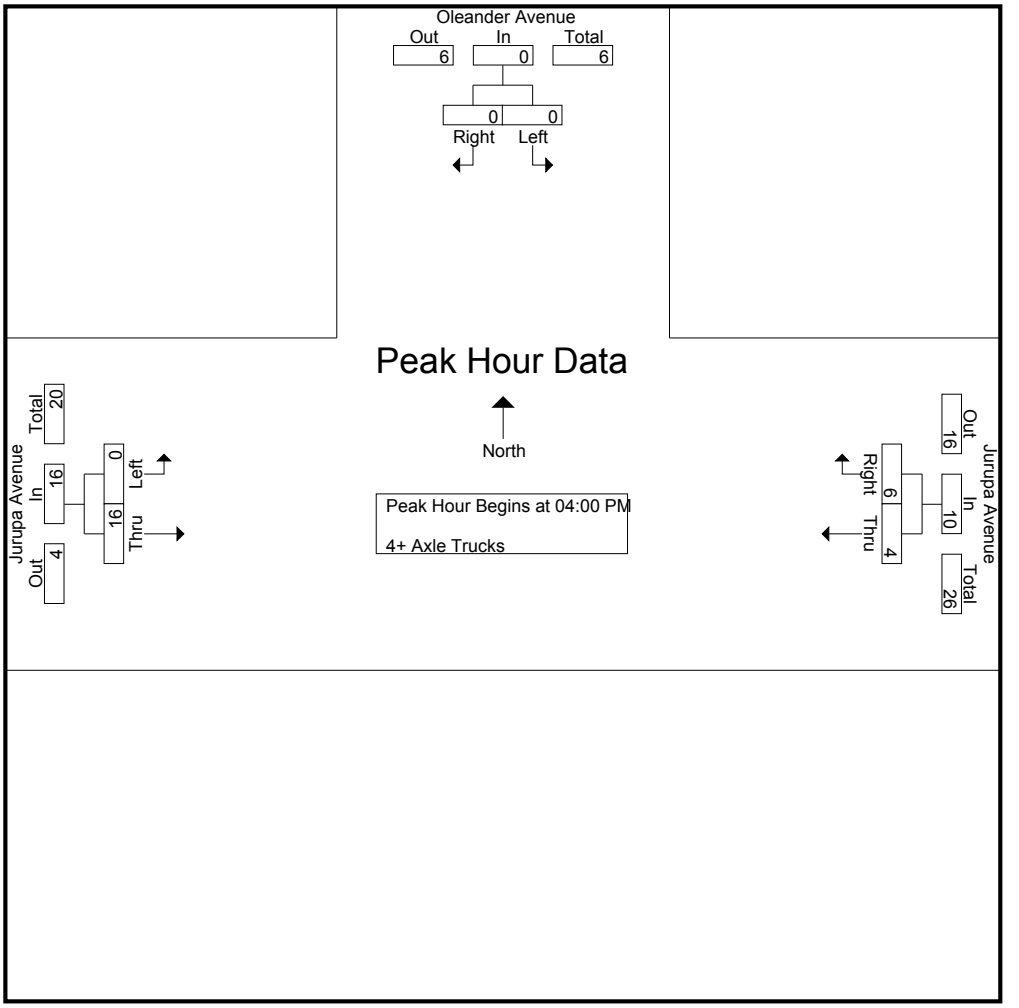
City of Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 09_FON_Oleander_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019



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

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	1	**3**	**4**	0	5	5
+15 mins.	0	0	0	0	2	2	0	2	2
+30 mins.	0	0	0	1	0	1	0	1	1
+45 mins.	0	0	0	**2**	1	3	0	**8**	**8**
Total Volume	0	0	0	4	6	10	0	16	16
% App. Total	0	0		40	60		0	100	
PHF	.000	.000	.000	.500	.500	.625	.000	.500	.500

Location: Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Oleander Avenue	East Leg Jurupa Avenue	South Leg Dead End	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Oleander Avenue	East Leg Jurupa Avenue	South Leg Dead End	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Fontana
N/S: Oleander Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Oleander Avenue			Westbound Jurupa Avenue			Northbound Dead End			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Oleander Avenue			Westbound Jurupa Avenue			Northbound Dead End			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	12	3	10	6	25	6	153	11	1	170	7	16	36	13	59	9	108	1	0	118	20	372	392
07:15 AM	7	5	11	7	23	11	156	8	3	175	9	20	30	15	59	24	110	2	0	136	25	393	418
07:30 AM	9	9	21	16	39	15	142	9	4	166	5	12	24	7	41	18	116	9	0	143	27	389	416
07:45 AM	7	6	6	5	19	12	141	10	5	163	5	16	31	14	52	20	112	2	0	134	24	368	392
Total	35	23	48	34	106	44	592	38	13	674	26	64	121	49	211	71	446	14	0	531	96	1522	1618
08:00 AM	6	5	11	9	22	10	124	3	0	137	3	2	23	13	28	9	90	0	0	99	22	286	308
08:15 AM	10	7	6	4	23	11	135	8	5	154	8	14	14	4	36	17	105	2	0	124	13	337	350
08:30 AM	5	5	8	7	18	13	89	11	5	113	4	11	17	12	32	12	113	4	0	129	24	292	316
08:45 AM	9	2	8	6	19	11	96	8	2	115	6	15	16	10	37	16	80	1	0	97	18	268	286
Total	30	19	33	26	82	45	444	30	12	519	21	42	70	39	133	54	388	7	0	449	77	1183	1260
Grand Total	65	42	81	60	188	89	1036	68	25	1193	47	106	191	88	344	125	834	21	0	980	173	2705	2878
Apprch %	34.6	22.3	43.1			7.5	86.8	5.7			13.7	30.8	55.5			12.8	85.1	2.1					
Total %	2.4	1.6	3		7	3.3	38.3	2.5		44.1	1.7	3.9	7.1		12.7	4.6	30.8	0.8		36.2	6	94	
Passenger Vehicles	64	41	71		232	83	992	66		1164	47	104	190		429	116	793	21		930	0	0	2755
% Passenger Vehicles	98.5	97.6	87.7	93.3	93.5	93.3	95.8	97.1	92	95.6	100	98.1	99.5	100	99.3	92.8	95.1	100	0	94.9	0	0	95.7
Large 2 Axle Vehicles	1	0	6		9	6	26	2		36	0	1	1		2	5	34	0		39	0	0	86
% Large 2 Axle Vehicles	1.5	0	7.4	3.3	3.6	6.7	2.5	2.9	8	3	0	0.9	0.5	0	0.5	4	4.1	0	0	4	0	0	3
3 Axle Vehicles	0	0	1		2	0	8	0		8	0	0	0		0	0	5	0		5	0	0	15
% 3 Axle Vehicles	0	0	1.2	1.7	0.8	0	0.8	0	0	0.7	0	0	0	0	0	0	0.6	0	0	0.5	0	0	0.5
4+ Axle Trucks	0	1	3		5	0	10	0		10	0	1	0		1	4	2	0		6	0	0	22
% 4+ Axle Trucks	0	2.4	3.7	1.7	2	0	1	0	0	0.8	0	0.9	0	0	0.2	3.2	0.2	0	0	0.6	0	0	0.8

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:00 AM																	
07:00 AM	**12**	3	10	25	6	153	**11**	170	7	16	**36**	**59**	9	108	1	118	372
07:15 AM	7	5	11	23	11	**156**	8	**175**	**9**	**20**	30	59	**24**	110	2	136	**393**
07:30 AM	9	**9**	**21**	**39**	**15**	142	9	166	5	12	24	41	18	**116**	**9**	**143**	389
07:45 AM	7	6	6	19	12	141	10	163	5	16	31	52	20	112	2	134	368
Total Volume	35	23	48	106	44	592	38	674	26	64	121	211	71	446	14	531	1522
% App. Total	33	21.7	45.3		6.5	87.8	5.6		12.3	30.3	57.3		13.4	84	2.6		
PHF	.729	.639	.571	.679	.733	.949	.864	.963	.722	.800	.840	.894	.740	.961	.389	.928	.968

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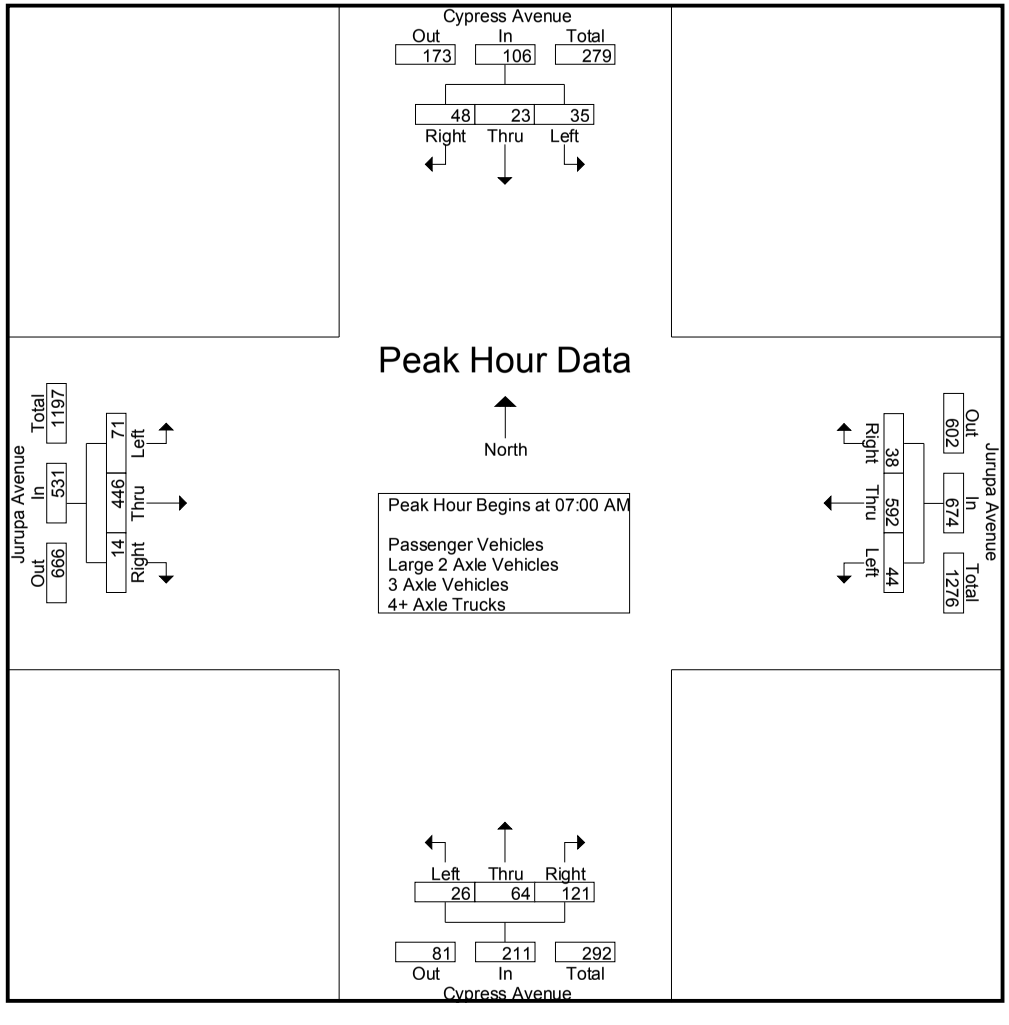
City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**12**	3	10	25	6	153	**11**	170	7	16	**36**	**59**	9	108	1	118	
+15 mins.	7	5	11	23	11	**156**	8	**175**	**9**	**20**	30	59	**24**	110	2	136	
+30 mins.	9	**9**	**21**	**39**	**15**	142	9	166	5	12	24	41	18	**116**	**9**	**143**	
+45 mins.	7	6	6	19	12	141	10	163	5	16	31	52	20	112	2	134	
Total Volume	35	23	48	106	44	592	38	674	26	64	121	211	71	446	14	531	
% App. Total	33	21.7	45.3		6.5	87.8	5.6		12.3	30.3	57.3		13.4	84	2.6		
PHF	.729	.639	.571	.679	.733	.949	.864	.963	.722	.800	.840	.894	.740	.961	.389	.928	

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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	12	3	10	6	25	6	149	11	1	166	7	16	36	13	59	7	106	1	0	114	20	364	384
07:15 AM	6	5	9	6	20	10	149	8	3	167	9	20	29	15	58	22	102	2	0	126	24	371	395
07:30 AM	9	9	19	15	37	14	138	8	3	160	5	11	24	7	40	15	112	9	0	136	25	373	398
07:45 AM	7	6	5	5	18	12	136	9	4	157	5	16	31	14	52	20	108	2	0	130	23	357	380
Total	34	23	43	32	100	42	572	36	11	650	26	63	120	49	209	64	428	14	0	506	92	1465	1557
08:00 AM	6	5	9	9	20	9	118	3	0	130	3	2	23	13	28	8	87	0	0	95	22	273	295
08:15 AM	10	6	6	4	22	10	127	8	5	145	8	13	14	4	35	16	99	2	0	117	13	319	332
08:30 AM	5	5	7	6	17	12	84	11	5	107	4	11	17	12	32	12	102	4	0	118	23	274	297
08:45 AM	9	2	6	5	17	10	91	8	2	109	6	15	16	10	37	16	77	1	0	94	17	257	274
Total	30	18	28	24	76	41	420	30	12	491	21	41	70	39	132	52	365	7	0	424	75	1123	1198
Grand Total	64	41	71	56	176	83	992	66	23	1141	47	104	190	88	341	116	793	21	0	930	167	2588	2755
Apprch %	36.4	23.3	40.3			7.3	86.9	5.8			13.8	30.5	55.7			12.5	85.3	2.3					
Total %	2.5	1.6	2.7		6.8	3.2	38.3	2.6		44.1	1.8	4	7.3		13.2	4.5	30.6	0.8		35.9	6.1	93.9	

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**12**	3	10	25	6	**149**	**11**	166	7	16	**36**	**59**	7	106	1	114	364
07:15 AM	6	5	9	20	10	149	8	**167**	**9**	**20**	29	58	**22**	102	2	126	371
07:30 AM	9	**9**	**19**	**37**	**14**	138	8	160	5	11	24	40	15	**112**	**9**	**136**	**373**
07:45 AM	7	6	5	18	12	136	9	157	5	16	31	52	20	108	2	130	357
Total Volume	34	23	43	100	42	572	36	650	26	63	120	209	64	428	14	506	1465
% App. Total	34	23	43		6.5	88	5.5		12.4	30.1	57.4		12.6	84.6	2.8		
PHF	.708	.639	.566	.676	.750	.960	.818	.973	.722	.788	.833	.886	.727	.955	.389	.930	.982

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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

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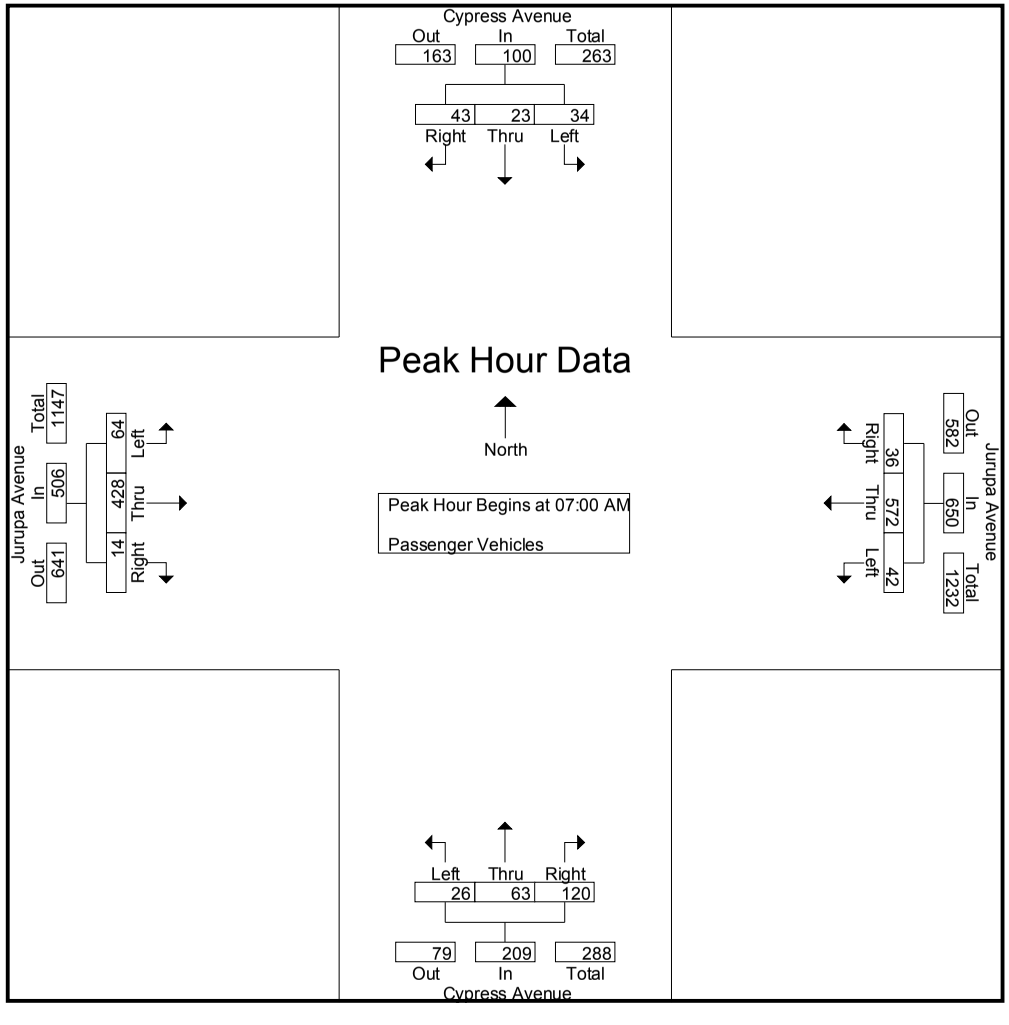
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cypress Avenue
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File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**12**	3	10	25	6	**149**	**11**	166	7	16	**36**	**59**	7	106	1	114	
+15 mins.	6	5	9	20	10	149	8	**167**	**9**	**20**	29	58	**22**	102	2	126	
+30 mins.	9	**9**	**19**	**37**	**14**	138	8	160	5	11	24	40	15	**112**	**9**	**136**	
+45 mins.	7	6	5	18	12	136	9	157	5	16	31	52	20	108	2	130	
Total Volume	34	23	43	100	42	572	36	650	26	63	120	209	64	428	14	506	
% App. Total	34	23	43		6.5	88	5.5		12.4	30.1	57.4		12.6	84.6	2.8		
PHF	.708	.639	.566	.676	.750	.960	.818	.973	.722	.788	.833	.886	.727	.955	.389	.930	

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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	2	0	0	4	0	7	7
07:15 AM	1	0	1	0	2	1	4	0	0	5	0	0	1	0	1	0	8	0	0	8	0	16	16
07:30 AM	0	0	2	1	2	1	3	1	1	5	0	1	0	0	1	1	3	0	0	4	2	12	14
07:45 AM	0	0	1	0	1	0	2	1	1	3	0	0	0	0	0	0	4	0	0	4	1	8	9
Total	1	0	4	1	5	2	12	2	2	16	0	1	1	0	2	3	17	0	0	20	3	43	46
08:00 AM	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	1	2	0	0	3	0	8	8
08:15 AM	0	0	0	0	0	1	5	0	0	6	0	0	0	0	0	1	6	0	0	7	0	13	13
08:30 AM	0	0	1	1	1	1	3	0	0	4	0	0	0	0	0	0	9	0	0	9	1	14	15
08:45 AM	0	0	1	0	1	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4	4
Total	0	0	2	1	2	4	14	0	0	18	0	0	0	0	0	2	17	0	0	19	1	39	40
Grand Total	1	0	6	2	7	6	26	2	2	34	0	1	1	0	2	5	34	0	0	39	4	82	86
Apprch %	14.3	0	85.7			17.6	76.5	5.9			0	50	50			12.8	87.2	0					
Total %	1.2	0	7.3		8.5	7.3	31.7	2.4		41.5	0	1.2	1.2		2.4	6.1	41.5	0		47.6	4.7	95.3	

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	**2**	2	0	4	7
07:15 AM	**1**	0	1	**2**	**1**	**4**	0	**5**	0	0	**1**	**1**	0	**8**	0	**8**	**16**
07:30 AM	0	0	**2**	2	1	3	**1**	5	0	**1**	0	1	1	3	0	4	12
07:45 AM	0	0	1	1	0	2	1	3	0	0	0	0	0	4	0	4	8
Total Volume	1	0	4	5	2	12	2	16	0	1	1	2	3	17	0	20	43
% App. Total	20	0	80		12.5	75	12.5		0	50	50		15	85	0		
PHF	.250	.000	.500	.625	.500	.750	.500	.800	.000	.250	.250	.500	.375	.531	.000	.625	.672

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City of Fontana
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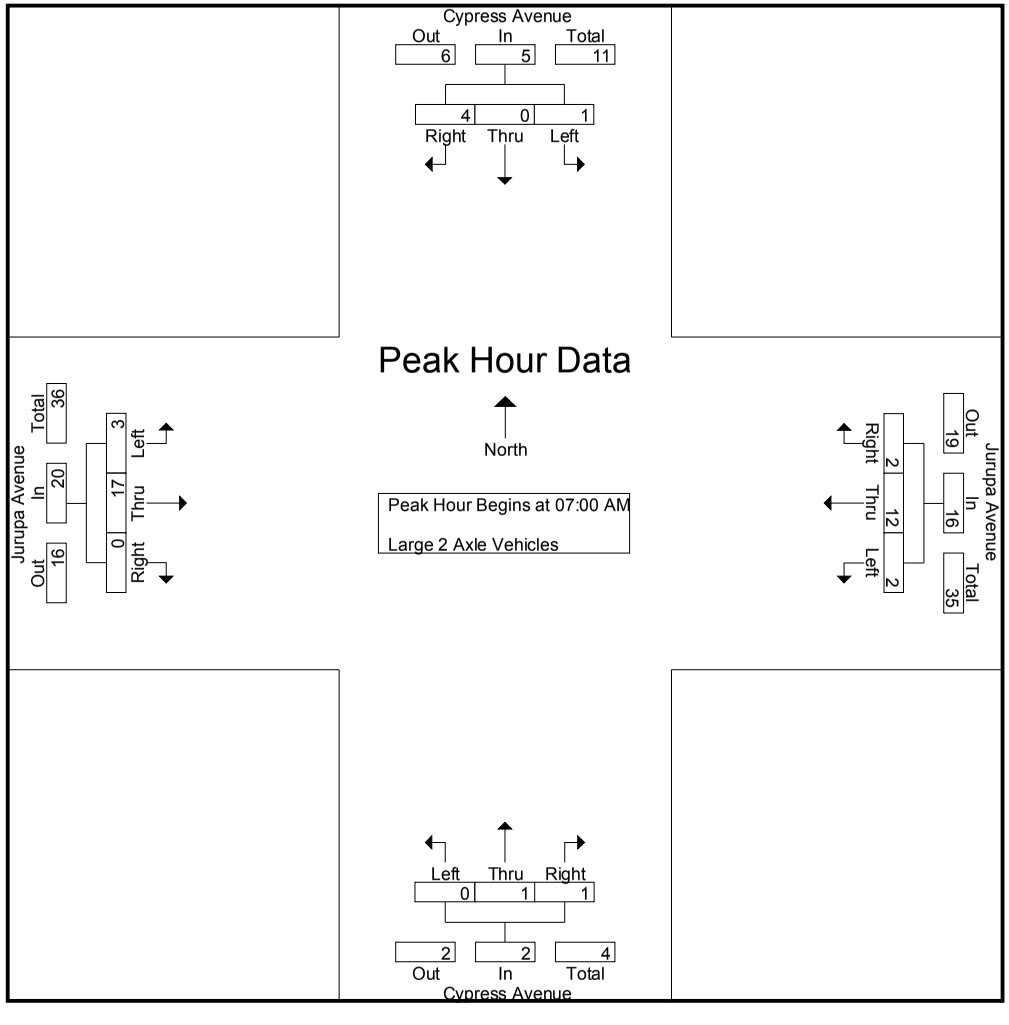
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
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Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
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	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	3	0	3	0	0	0	0	**2**	2	0	4	
+15 mins.	**1**	0	1	**2**	**1**	**4**	0	**5**	0	0	**1**	**1**	0	**8**	0	**8**	
+30 mins.	0	0	**2**	2	1	3	**1**	5	0	**1**	0	1	1	3	0	4	
+45 mins.	0	0	1	1	0	2	1	3	0	0	0	0	0	4	0	4	
Total Volume	1	0	4	5	2	12	2	16	0	1	1	2	3	17	0	20	
% App. Total	20	0	80		12.5	75	12.5		0	50	50		15	85	0		
PHF	.250	.000	.500	.625	.500	.750	.500	.800	.000	.250	.250	.500	.375	.531	.000	.625	

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City of Fontana
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Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	3	3
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
08:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
08:45 AM	0	0	1	1	1	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	1	6	7
Total	0	0	1	1	1	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	1	11	12
Grand Total	0	0	1	1	1	0	8	0	0	8	0	0	0	0	0	0	5	0	0	5	1	14	15
Apprch %	0	0	100			0	100	0			0	0	0			0	100	0					
Total %	0	0	7.1		7.1	0	57.1	0		57.1	0	0	0		0	0	35.7	0		35.7	6.7	93.3	

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	1
07:45 AM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	**2**
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.375

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City of Fontana
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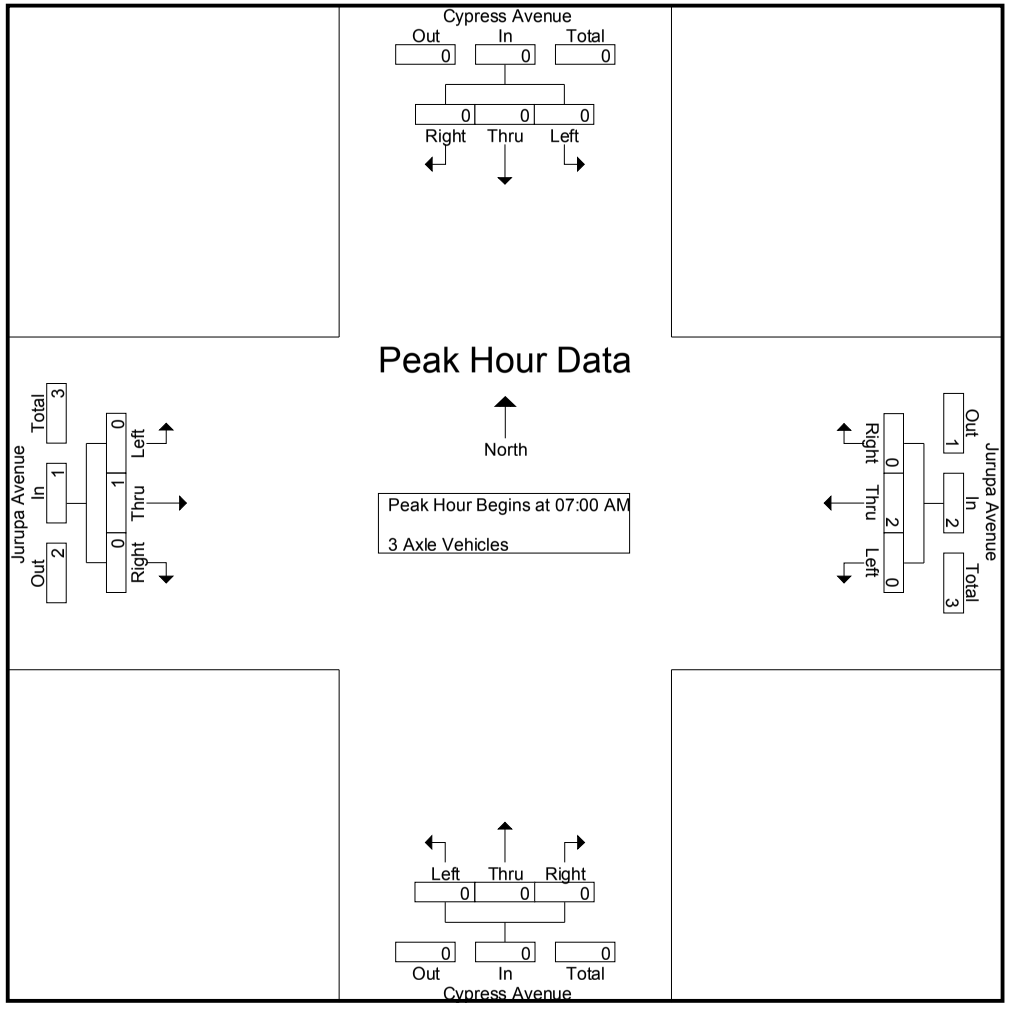
Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
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Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
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Start Date : 3/14/2019
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	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	
+45 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	

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N/S: Cypress Avenue
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Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
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Groups Printed- 4+ Axle Trucks

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15 AM	0	0	1	1	1	0	3	0	0	3	0	0	0	0	0	2	0	0	0	2	1	6	7
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	3	3
07:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	1	1	1	0	6	0	0	6	0	0	0	0	0	4	0	0	0	4	1	11	12
08:00 AM	0	0	2	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3
08:15 AM	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	4	4
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
08:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	1	2	0	3	0	4	0	0	4	0	1	0	0	1	0	2	0	0	2	0	10	10
Grand Total	0	1	3	1	4	0	10	0	0	10	0	1	0	0	1	4	2	0	0	6	1	21	22
Apprch %	0	25	75			0	100	0			0	100	0			66.7	33.3	0					
Total %	0	4.8	14.3		19	0	47.6	0		47.6	0	4.8	0		4.8	19	9.5	0		28.6	4.5	95.5	

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	**1**	**1**	0	**3**	0	**3**	0	0	0	0	**2**	0	0	**2**	**6**
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	2	3
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	1	1	0	6	0	6	0	0	0	0	4	0	0	4	11
% App. Total	0	0	100		0	100	0		0	0	0		100	0	0		
PHF	.000	.000	.250	.250	.000	.500	.000	.500	.000	.000	.000	.000	.500	.000	.000	.500	.458

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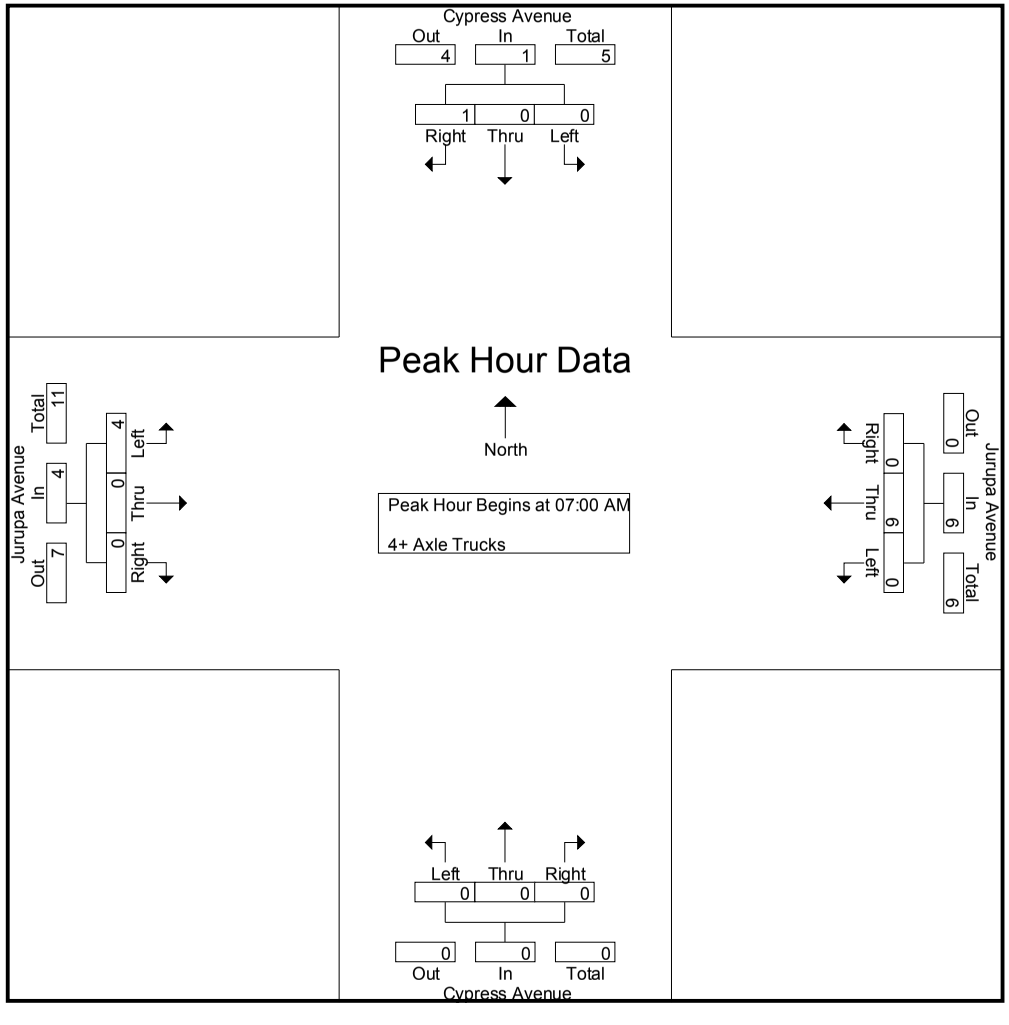
City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
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File Name : 14_FON_Cypress_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
+15 mins.	0	0	**1**	**1**	0	**3**	0	**3**	0	0	0	0	**2**	0	0	**2**	
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	2	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
Total Volume	0	0	1	1	0	6	0	6	0	0	0	0	4	0	0	4	
% App. Total	0	0	100		0	100	0		0	0	0		100	0	0		
PHF	.000	.000	.250	.250	.000	.500	.000	.500	.000	.000	.000	.000	.500	.000	.000	.500	

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City of Fontana
N/S: Cypress Avenue
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File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	11	11	14	11	36	27	130	14	9	171	6	11	16	11	33	47	203	1	0	251	31	491	522
04:15 PM	5	10	9	5	24	26	133	14	4	173	1	10	13	4	24	30	206	5	2	241	15	462	477
04:30 PM	33	17	20	7	70	31	143	15	3	189	3	12	18	10	33	33	206	5	0	244	20	536	556
04:45 PM	11	5	12	8	28	24	129	14	4	167	2	11	17	7	30	29	225	5	2	259	21	484	505
Total	60	43	55	31	158	108	535	57	20	700	12	44	64	32	120	139	840	16	4	995	87	1973	2060
05:00 PM	7	9	16	8	32	33	130	14	8	177	2	10	14	9	26	24	227	4	0	255	25	490	515
05:15 PM	9	13	13	9	35	27	143	12	5	182	2	15	11	7	28	33	225	8	2	266	23	511	534
05:30 PM	11	11	9	6	31	32	152	12	5	196	1	9	13	6	23	19	176	2	1	197	18	447	465
05:45 PM	10	21	12	4	43	29	133	14	4	176	1	15	14	7	30	16	157	7	1	180	16	429	445
Total	37	54	50	27	141	121	558	52	22	731	6	49	52	29	107	92	785	21	4	898	82	1877	1959
Grand Total	97	97	105	58	299	229	1093	109	42	1431	18	93	116	61	227	231	1625	37	8	1893	169	3850	4019
Apprch %	32.4	32.4	35.1			16	76.4	7.6			7.9	41	51.1			12.2	85.8	2					
Total %	2.5	2.5	2.7		7.8	5.9	28.4	2.8		37.2	0.5	2.4	3		5.9	6	42.2	1		49.2	4.2	95.8	
Passenger Vehicles	96	96	97		344	228	1056	106		1432	18	91	115		285	224	1559	37		1828	0	0	3889
% Passenger Vehicles	99	99	92.4	94.8	96.4	99.6	96.6	97.2	100	97.2	100	97.8	99.1	100	99	97	95.9	100	100	96.2	0	0	96.8
Large 2 Axle Vehicles	1	1	2		6	1	20	1		22	0	2	1		3	5	30	0		35	0	0	66
% Large 2 Axle Vehicles	1	1	1.9	3.4	1.7	0.4	1.8	0.9	0	1.5	0	2.2	0.9	0	1	2.2	1.8	0	0	1.8	0	0	1.6
3 Axle Vehicles	0	0	0		0	0	6	2		8	0	0	0		0	0	8	0		8	0	0	16
% 3 Axle Vehicles	0	0	0	0	0	0	0.5	1.8	0	0.5	0	0	0	0	0	0	0.5	0	0	0.4	0	0	0.4
4+ Axle Trucks	0	0	6		7	0	11	0		11	0	0	0		0	2	28	0		30	0	0	48
% 4+ Axle Trucks	0	0	5.7	1.7	2	0	1	0	0	0.7	0	0	0	0	0	0.9	1.7	0	0	1.6	0	0	1.2

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 04:30 PM																	
04:30 PM	**33**	**17**	**20**	**70**	31	**143**	**15**	**189**	**3**	12	**18**	**33**	**33**	206	5	244	**536**
04:45 PM	11	5	12	28	24	129	14	167	2	11	17	30	29	225	5	259	484
05:00 PM	7	9	16	32	**33**	130	14	177	2	10	14	26	24	**227**	4	255	490
05:15 PM	9	13	13	35	27	143	12	182	2	**15**	11	28	33	225	**8**	**266**	511
Total Volume	60	44	61	165	115	545	55	715	9	48	60	117	119	883	22	1024	2021
% App. Total	36.4	26.7	37		16.1	76.2	7.7		7.7	41	51.3		11.6	86.2	2.1		
PHF	.455	.647	.763	.589	.871	.953	.917	.946	.750	.800	.833	.886	.902	.972	.688	.962	.943

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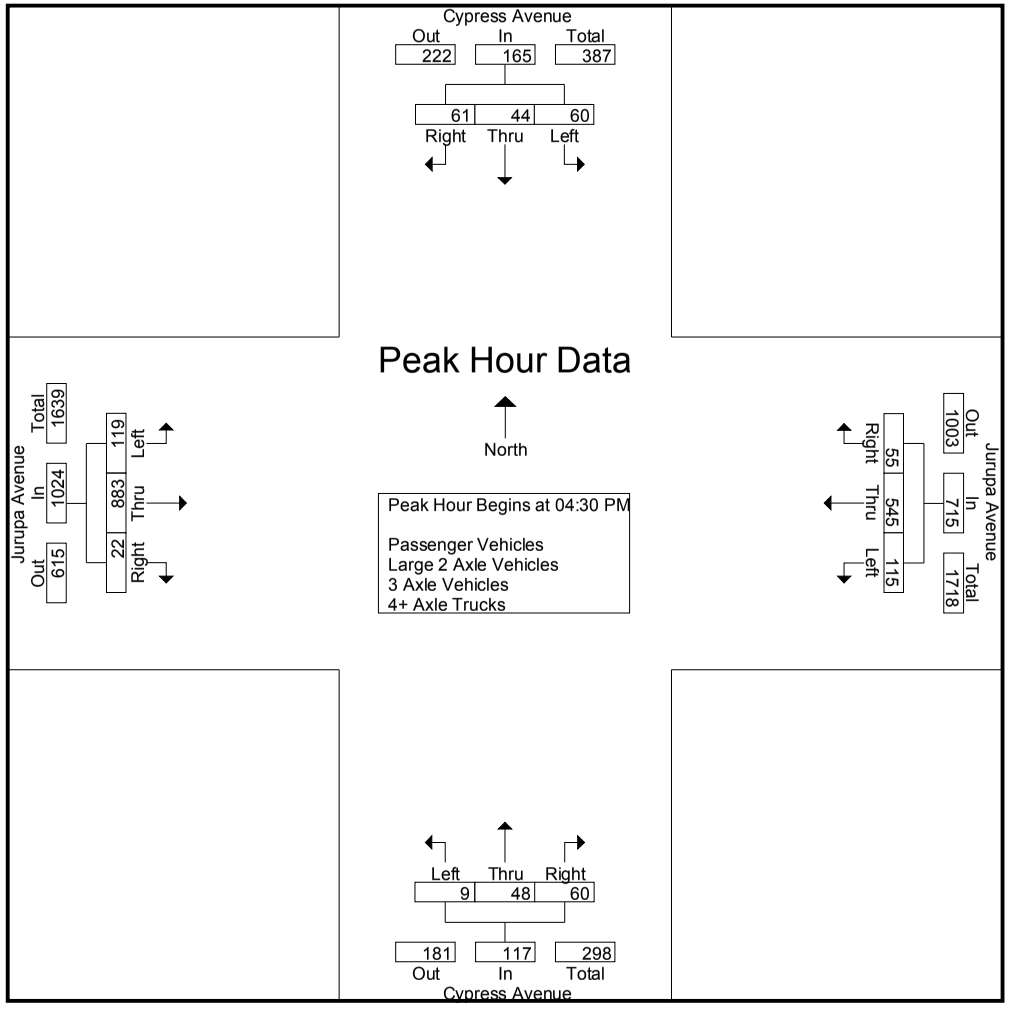
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	04:30 PM				05:00 PM				04:00 PM				04:30 PM				
+0 mins.	**33**	**17**	**20**	**70**	**33**	130	**14**	177	**6**	11	16	**33**	**33**	206	5	244	
+15 mins.	11	5	12	28	27	143	12	182	1	10	13	24	29	225	5	259	
+30 mins.	7	9	16	32	32	**152**	12	**196**	3	**12**	**18**	33	24	**227**	4	255	
+45 mins.	9	13	13	35	29	133	14	176	2	11	17	30	33	225	**8**	**266**	
Total Volume	60	44	61	165	121	558	52	731	12	44	64	120	119	883	22	1024	
% App. Total	36.4	26.7	37		16.6	76.3	7.1		10	36.7	53.3		11.6	86.2	2.1		
PHF	.455	.647	.763	.589	.917	.918	.929	.932	.500	.917	.889	.909	.902	.972	.688	.962	

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Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	11	10	12	10	33	26	125	14	9	165	6	10	16	11	32	47	197	1	0	245	30	475	505
04:15 PM	5	10	8	5	23	26	130	13	4	169	1	10	13	4	24	28	194	5	2	227	15	443	458
04:30 PM	33	17	19	6	69	31	137	15	3	183	3	12	18	10	33	33	197	5	0	235	19	520	539
04:45 PM	11	5	11	8	27	24	124	13	4	161	2	11	16	7	29	27	215	5	2	247	21	464	485
Total	60	42	50	29	152	107	516	55	20	678	12	43	63	32	118	135	803	16	4	954	85	1902	1987
05:00 PM	6	9	15	8	30	33	122	14	8	169	2	10	14	9	26	24	221	4	0	249	25	474	499
05:15 PM	9	13	11	8	33	27	137	12	5	176	2	14	11	7	27	32	212	8	2	252	22	488	510
05:30 PM	11	11	9	6	31	32	151	12	5	195	1	9	13	6	23	18	171	2	1	191	18	440	458
05:45 PM	10	21	12	4	43	29	130	13	4	172	1	15	14	7	30	15	152	7	1	174	16	419	435
Total	36	54	47	26	137	121	540	51	22	712	6	48	52	29	106	89	756	21	4	866	81	1821	1902
Grand Total	96	96	97	55	289	228	1056	106	42	1390	18	91	115	61	224	224	1559	37	8	1820	166	3723	3889
Apprch %	33.2	33.2	33.6			16.4	76	7.6			8	40.6	51.3			12.3	85.7	2				
Total %	2.6	2.6	2.6		7.8	6.1	28.4	2.8		37.3	0.5	2.4	3.1		6	6	41.9	1		48.9	4.3	95.7	

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**33**	**17**	**19**	**69**	31	**137**	**15**	**183**	**3**	12	**18**	**33**	**33**	197	5	235	**520**
04:45 PM	11	5	11	27	24	124	13	161	2	11	16	29	27	215	5	247	464
05:00 PM	6	9	15	30	**33**	122	14	169	2	10	14	26	24	**221**	4	249	474
05:15 PM	9	13	11	33	27	137	12	176	2	**14**	11	27	32	212	**8**	**252**	488
Total Volume	59	44	56	159	115	520	54	689	9	47	59	115	116	845	22	983	1946
% App. Total	37.1	27.7	35.2		16.7	75.5	7.8		7.8	40.9	51.3		11.8	86	2.2		
PHF	.447	.647	.737	.576	.871	.949	.900	.941	.750	.839	.819	.871	.879	.956	.688	.975	.936

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City of Fontana
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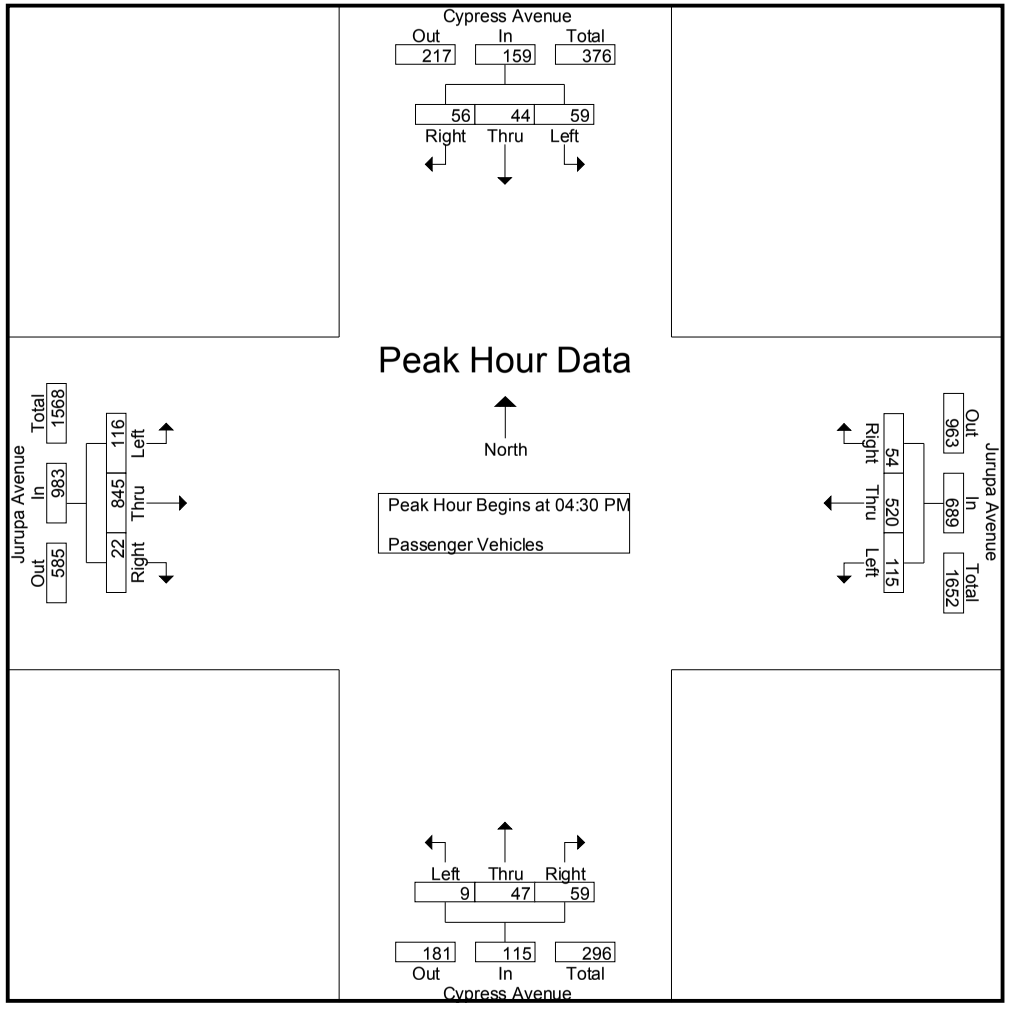

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	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	**33**	**17**	**19**	**69**	31	**137**	**15**	**183**	**3**	12	**18**	**33**	**33**	197	5	235	
+15 mins.	11	5	11	27	24	124	13	161	2	11	16	29	27	215	5	247	
+30 mins.	6	9	15	30	**33**	122	14	169	2	10	14	26	24	**221**	4	249	
+45 mins.	9	13	11	33	27	137	12	176	2	**14**	11	27	32	212	**8**	**252**	
Total Volume	59	44	56	159	115	520	54	689	9	47	59	115	116	845	22	983	
% App. Total	37.1	27.7	35.2		16.7	75.5	7.8		7.8	40.9	51.3		11.8	86	2.2		
PHF	.447	.647	.737	.576	.871	.949	.900	.941	.750	.839	.819	.871	.879	.956	.688	.975	

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Groups Printed- Large 2 Axle Vehicles

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	1	3	0	0	4	0	1	0	0	1	0	2	0	0	2	0	8	8
04:15 PM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	1	7	0	0	8	0	11	11
04:30 PM	0	0	1	1	1	0	5	0	0	5	0	0	0	0	0	0	6	0	0	6	1	12	13
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	2	1	0	0	3	0	6	6
Total	0	1	1	1	2	1	12	1	0	14	0	1	1	0	2	3	16	0	0	19	1	37	38
05:00 PM	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	8	8
05:15 PM	0	0	1	1	1	0	3	0	0	3	0	1	0	0	1	1	8	0	0	9	1	14	15
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	2	2
Total	1	0	1	1	2	0	8	0	0	8	0	1	0	0	1	2	14	0	0	16	1	27	28
Grand Total	1	1	2	2	4	1	20	1	0	22	0	2	1	0	3	5	30	0	0	35	2	64	66
Apprch %	25	25	50			4.5	90.9	4.5			0	66.7	33.3			14.3	85.7	0					
Total %	1.6	1.6	3.1		6.2	1.6	31.2	1.6		34.4	0	3.1	1.6		4.7	7.8	46.9	0		54.7	3	97	

3.1-300

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	**1**	**1**	0	**5**	0	**5**	0	0	0	0	0	6	0	6	12
04:45 PM	0	0	0	0	0	2	0	2	0	0	**1**	**1**	**2**	1	0	3	6
05:00 PM	**1**	0	0	1	0	4	0	4	0	0	0	0	0	3	0	3	8
05:15 PM	0	0	1	1	0	3	0	3	0	**1**	0	1	1	**8**	0	**9**	**14**
Total Volume	1	0	2	3	0	14	0	14	0	1	1	2	3	18	0	21	40
% App. Total	33.3	0	66.7		0	100	0		0	50	50		14.3	85.7	0		
PHF	.250	.000	.500	.750	.000	.700	.000	.700	.000	.250	.250	.500	.375	.563	.000	.583	.714

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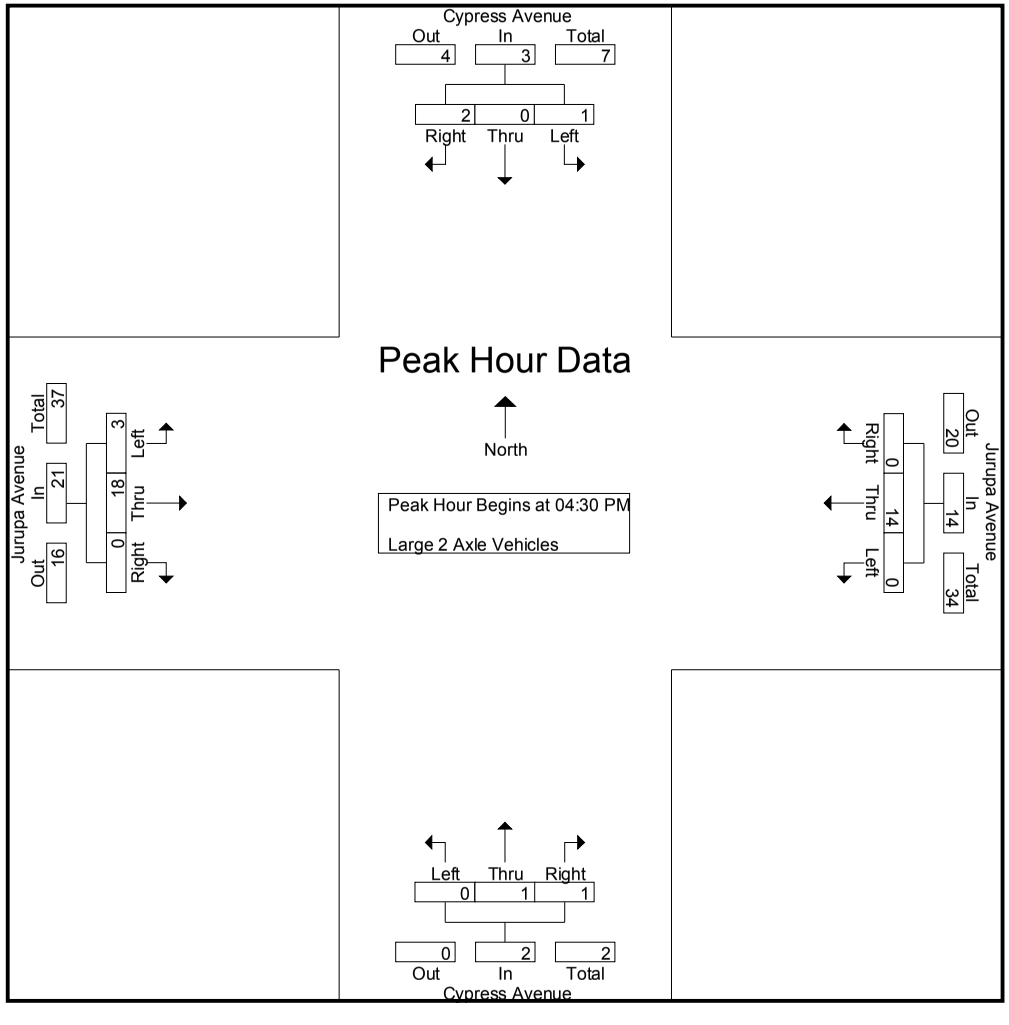
City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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(951) 268-6268

City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	**1**	**1**	0	**5**	0	**5**	0	0	0	0	0	6	0	6	
+15 mins.	0	0	0	0	0	2	0	2	0	0	**1**	**1**	**2**	1	0	3	
+30 mins.	**1**	0	0	1	0	4	0	4	0	0	0	0	0	3	0	3	
+45 mins.	0	0	1	1	0	3	0	3	0	**1**	0	1	1	**8**	0	**9**	
Total Volume	1	0	2	3	0	14	0	14	0	1	1	2	3	18	0	21	
% App. Total	33.3	0	66.7		0	100	0		0	50	50		14.3	85.7	0		
PHF	.250	.000	.500	.750	.000	.700	.000	.700	.000	.250	.250	.500	.375	.563	.000	.583	

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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
04:45 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	4	0	0	4	0	8	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
Total	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	4	0	0	4	0	8	8
Grand Total	0	0	0	0	0	0	6	2	0	8	0	0	0	0	0	0	8	0	0	8	0	16	16
Apprch %	0	0	0			0	75	25			0	0	0			0	100	0					
Total %	0	0	0		0	0	37.5	12.5		50	0	0	0		0	0	50	0		50	0	100	

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	2
04:45 PM	0	0	0	0	0	1	**1**	**2**	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	**2**	0	2	0	0	0	0	0	2	0	2	**4**
Total Volume	0	0	0	0	0	3	1	4	0	0	0	0	0	4	0	4	8
% App. Total	0	0	0		0	75	25		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.375	.250	.500	.000	.000	.000	.000	.000	.500	.000	.500	.500

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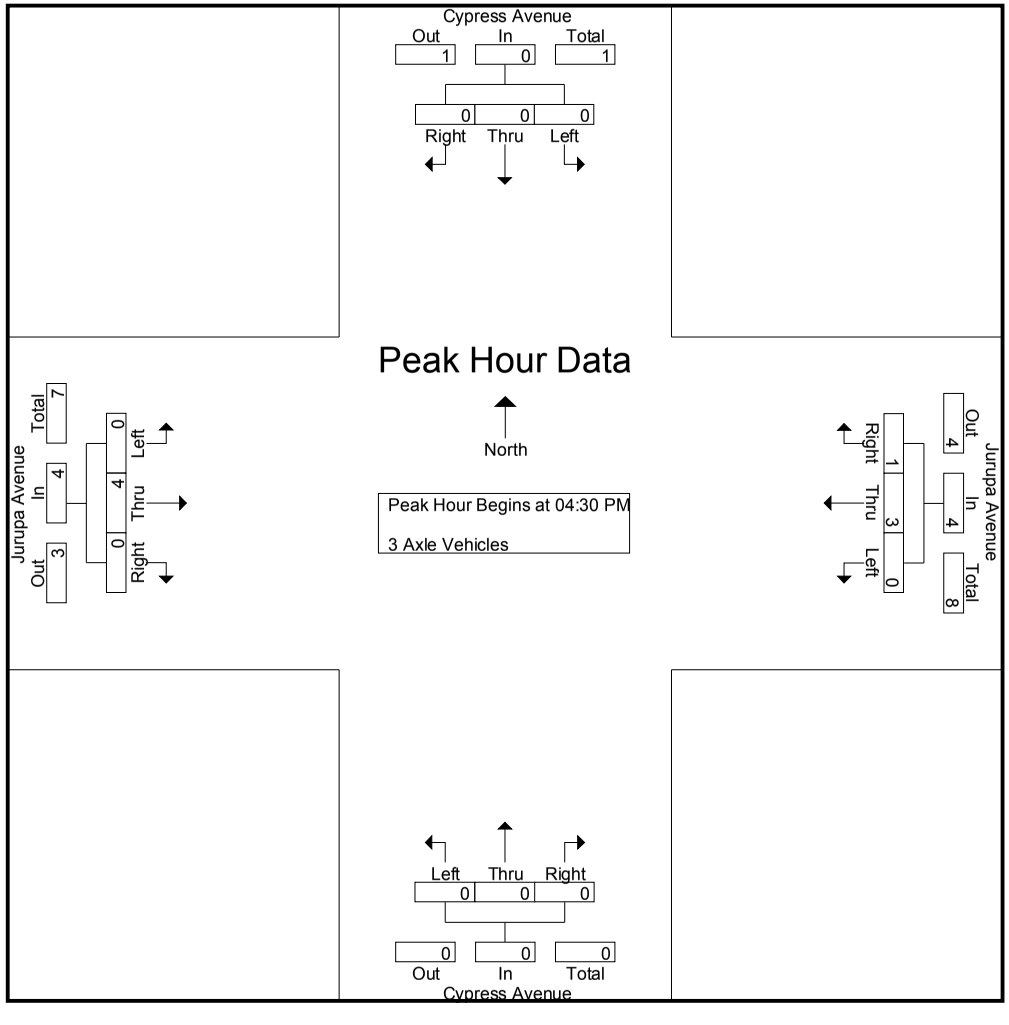
City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	
+15 mins.	0	0	0	0	0	1	**1**	**2**	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	**2**	0	2	0	0	0	0	0	2	0	2	
Total Volume	0	0	0	0	0	3	1	4	0	0	0	0	0	4	0	4	
% App. Total	0	0	0		0	75	25		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.375	.250	.500	.000	.000	.000	.000	.000	.500	.000	.500	

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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Cypress Avenue Southbound					Jurupa Avenue Westbound					Cypress Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	2	1	2	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	1	7	8
04:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	5	5
04:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
04:45 PM	0	0	1	0	1	0	2	0	0	2	0	0	0	0	0	0	9	0	0	9	0	12	12
Total	0	0	4	1	4	0	4	0	0	4	0	0	0	0	0	1	17	0	0	18	1	26	27
05:00 PM	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	8	8
05:15 PM	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	5	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	4	4
05:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
Total	0	0	2	0	2	0	7	0	0	7	0	0	0	0	0	1	11	0	0	12	0	21	21
Grand Total	0	0	6	1	6	0	11	0	0	11	0	0	0	0	0	2	28	0	0	30	1	47	48
Apprch %	0	0	100			0	100	0			0	0	0			6.7	93.3	0					
Total %	0	0	12.8		12.8	0	23.4	0		23.4	0	0	0		0	4.3	59.6	0		63.8	2.1	97.9	

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	**1**	**1**	0	2	0	2	0	0	0	0	0	**9**	0	**9**	**12**
05:00 PM	0	0	1	1	0	**4**	0	**4**	0	0	0	0	0	3	0	3	8
05:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	3	0	3	5
Total Volume	0	0	3	3	0	8	0	8	0	0	0	0	0	16	0	16	27
% App. Total	0	0	100		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.750	.750	.000	.500	.000	.500	.000	.000	.000	.000	.000	.444	.000	.444	.563

Counts Unlimited
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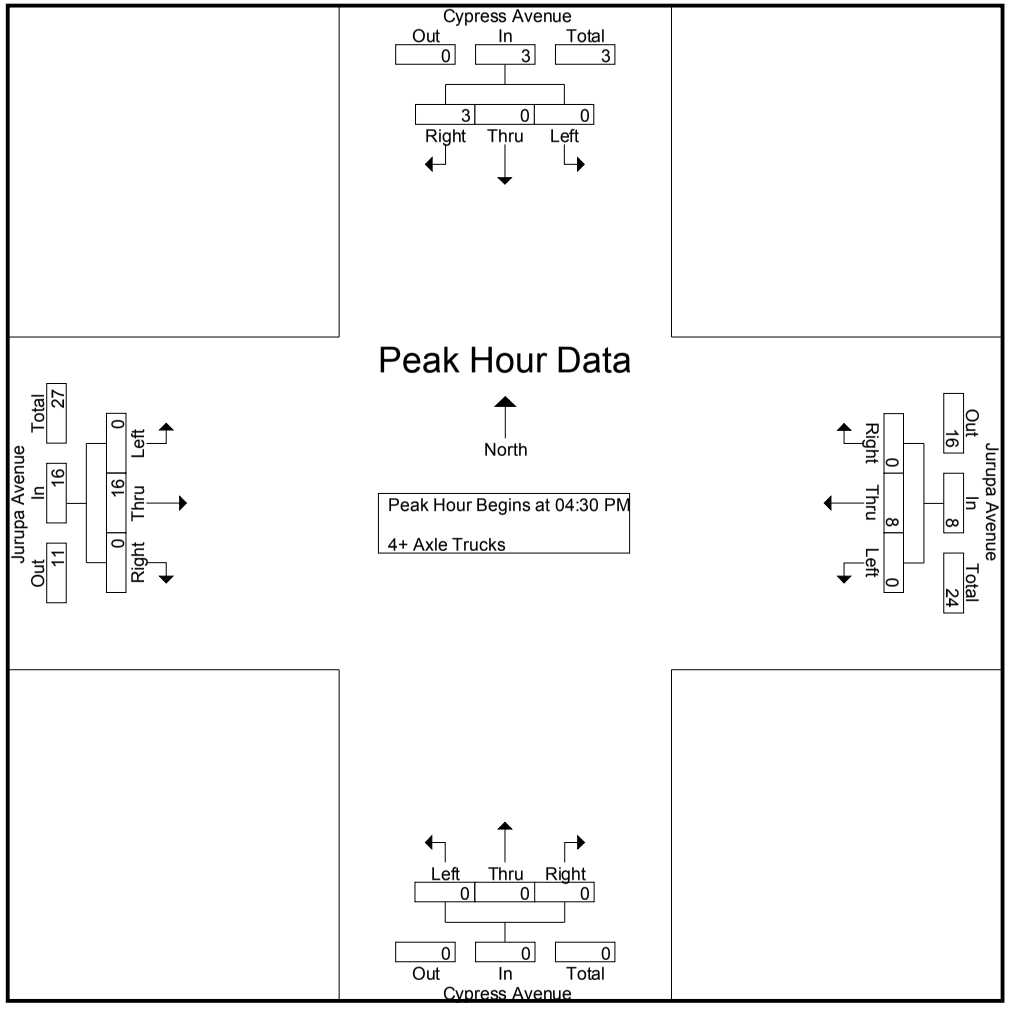
City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 14_FON_Cypress_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Cypress Avenue Southbound				Jurupa Avenue Westbound				Cypress Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	
+15 mins.	0	0	**1**	**1**	0	2	0	2	0	0	0	0	0	**9**	0	**9**	
+30 mins.	0	0	1	1	0	**4**	0	**4**	0	0	0	0	0	3	0	3	
+45 mins.	0	0	1	1	0	1	0	1	0	0	0	0	0	3	0	3	
Total Volume	0	0	3	3	0	8	0	8	0	0	0	0	0	16	0	16	
% App. Total	0	0	100		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.750	.750	.000	.500	.000	.500	.000	.000	.000	.000	.000	.444	.000	.444	

Location: Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Cypress Avenue	East Leg Jurupa Avenue	South Leg Cypress Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	1	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	2	0	2
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	2	0	3

	North Leg Cypress Avenue	East Leg Jurupa Avenue	South Leg Cypress Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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Location: Fontana
N/S: Cypress Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Cypress Avenue			Westbound Jurupa Avenue			Northbound Cypress Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Cypress Avenue			Westbound Jurupa Avenue			Northbound Cypress Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	4	11	5	20	5	34	4	43	6	3	2	11	0	25	4	29	103
07:15 AM	7	6	2	15	11	44	2	57	11	6	3	20	3	57	6	66	158
07:30 AM	11	7	2	20	7	21	3	31	4	8	9	21	0	35	7	42	114
07:45 AM	9	7	1	17	3	27	5	35	1	8	3	12	0	19	4	23	87
Total	31	31	10	72	26	126	14	166	22	25	17	64	3	136	21	160	462
08:00 AM	4	7	2	13	4	25	4	33	0	5	4	9	0	20	3	23	78
08:15 AM	8	4	0	12	12	24	6	42	5	14	3	22	0	26	1	27	103
08:30 AM	6	2	0	8	4	28	4	36	2	9	3	14	1	20	3	24	82
08:45 AM	7	5	0	12	7	28	7	42	2	7	4	13	1	22	2	25	92
Total	25	18	2	45	27	105	21	153	9	35	14	58	2	88	9	99	355
Grand Total	56	49	12	117	53	231	35	319	31	60	31	122	5	224	30	259	817
Apprch %	47.9	41.9	10.3		16.6	72.4	11		25.4	49.2	25.4		1.9	86.5	11.6		
Total %	6.9	6	1.5	14.3	6.5	28.3	4.3	39	3.8	7.3	3.8	14.9	0.6	27.4	3.7	31.7	
Passenger Vehicles	50	48	11	109	51	222	34	307	30	59	29	118	5	221	27	253	787
% Passenger Vehicles	89.3	98	91.7	93.2	96.2	96.1	97.1	96.2	96.8	98.3	93.5	96.7	100	98.7	90	97.7	96.3
Large 2 Axle Vehicles	3	1	1	5	2	6	1	9	1	1	2	4	0	2	3	5	23
% Large 2 Axle Vehicles	5.4	2	8.3	4.3	3.8	2.6	2.9	2.8	3.2	1.7	6.5	3.3	0	0.9	10	1.9	2.8
3 Axle Vehicles	2	0	0	2	0	2	0	2	0	0	0	0	0	1	0	1	5
% 3 Axle Vehicles	3.6	0	0	1.7	0	0.9	0	0.6	0	0	0	0	0	0.4	0	0.4	0.6
4+ Axle Trucks	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
% 4+ Axle Trucks	1.8	0	0	0.9	0	0.4	0	0.3	0	0	0	0	0	0	0	0	0.2

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 07:00 AM																	
07:00 AM	4	**11**	**5**	**20**	5	34	4	43	6	3	2	11	0	25	4	29	103
07:15 AM	7	6	2	15	**11**	**44**	2	**57**	**11**	6	3	20	**3**	**57**	6	**66**	**158**
07:30 AM	**11**	7	2	20	7	21	3	31	4	**8**	**9**	**21**	0	35	**7**	42	114
07:45 AM	9	7	1	17	3	27	**5**	35	1	8	3	12	0	19	4	23	87
Total Volume	31	31	10	72	26	126	14	166	22	25	17	64	3	136	21	160	462
% App. Total	43.1	43.1	13.9		15.7	75.9	8.4		34.4	39.1	26.6		1.9	85	13.1		
PHF	.705	.705	.500	.900	.591	.716	.700	.728	.500	.781	.472	.762	.250	.596	.750	.606	.731

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PO Box 1178
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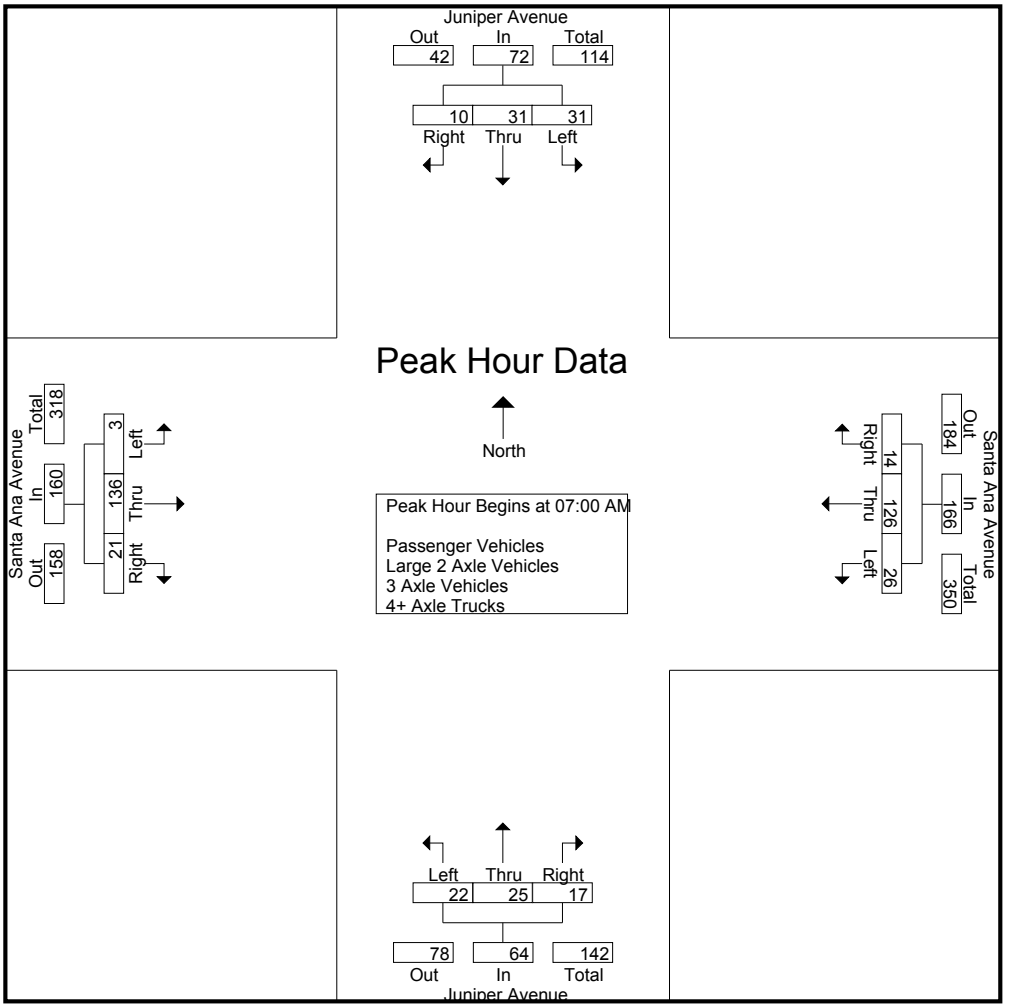
(951) 268-6268

City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	4	**11**	**5**	**20**	5	34	4	43	6	3	2	11	0	25	4	29
+15 mins.	7	6	2	15	**11**	**44**	2	**57**	**11**	6	3	20	**3**	**57**	6	**66**
+30 mins.	**11**	7	2	20	7	21	3	31	4	**8**	**9**	**21**	0	35	**7**	42
+45 mins.	9	7	1	17	3	27	**5**	35	1	8	3	12	0	19	4	23
Total Volume	31	31	10	72	26	126	14	166	22	25	17	64	3	136	21	160
% App. Total	43.1	43.1	13.9		15.7	75.9	8.4		34.4	39.1	26.6		1.9	85	13.1	
PHF	.705	.705	.500	.900	.591	.716	.700	.728	.500	.781	.472	.762	.250	.596	.750	.606

Counts Unlimited
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City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	4	11	5	20	5	32	4	41	6	3	1	10	0	25	4	29	100
07:15 AM	7	6	2	15	11	43	2	56	10	6	3	19	3	57	5	65	155
07:30 AM	9	7	2	18	7	21	3	31	4	8	8	20	0	35	6	41	110
07:45 AM	7	6	1	14	3	23	5	31	1	8	3	12	0	19	4	23	80
Total	27	30	10	67	26	119	14	159	21	25	15	61	3	136	19	158	445
08:00 AM	4	7	1	12	4	24	4	32	0	5	4	9	0	19	3	22	75
08:15 AM	8	4	0	12	12	24	6	42	5	14	3	22	0	25	1	26	102
08:30 AM	5	2	0	7	3	28	4	35	2	8	3	13	1	20	2	23	78
08:45 AM	6	5	0	11	6	27	6	39	2	7	4	13	1	21	2	24	87
Total	23	18	1	42	25	103	20	148	9	34	14	57	2	85	8	95	342
Grand Total	50	48	11	109	51	222	34	307	30	59	29	118	5	221	27	253	787
Apprch %	45.9	44	10.1		16.6	72.3	11.1		25.4	50	24.6		2	87.4	10.7		
Total %	6.4	6.1	1.4	13.9	6.5	28.2	4.3	39	3.8	7.5	3.7	15	0.6	28.1	3.4	32.1	

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	4	**11**	**5**	**20**	5	32	4	41	6	3	1	10	0	25	4	29	100
07:15 AM	7	6	2	15	**11**	**43**	2	**56**	**10**	6	3	19	**3**	**57**	5	**65**	**155**
07:30 AM	**9**	7	2	18	7	21	3	31	4	**8**	**8**	**20**	0	35	**6**	41	110
07:45 AM	7	6	1	14	3	23	**5**	31	1	8	3	12	0	19	4	23	80
Total Volume	27	30	10	67	26	119	14	159	21	25	15	61	3	136	19	158	445
% App. Total	40.3	44.8	14.9		16.4	74.8	8.8		34.4	41	24.6		1.9	86.1	12		
PHF	.750	.682	.500	.838	.591	.692	.700	.710	.525	.781	.469	.763	.250	.596	.792	.608	.718

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City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
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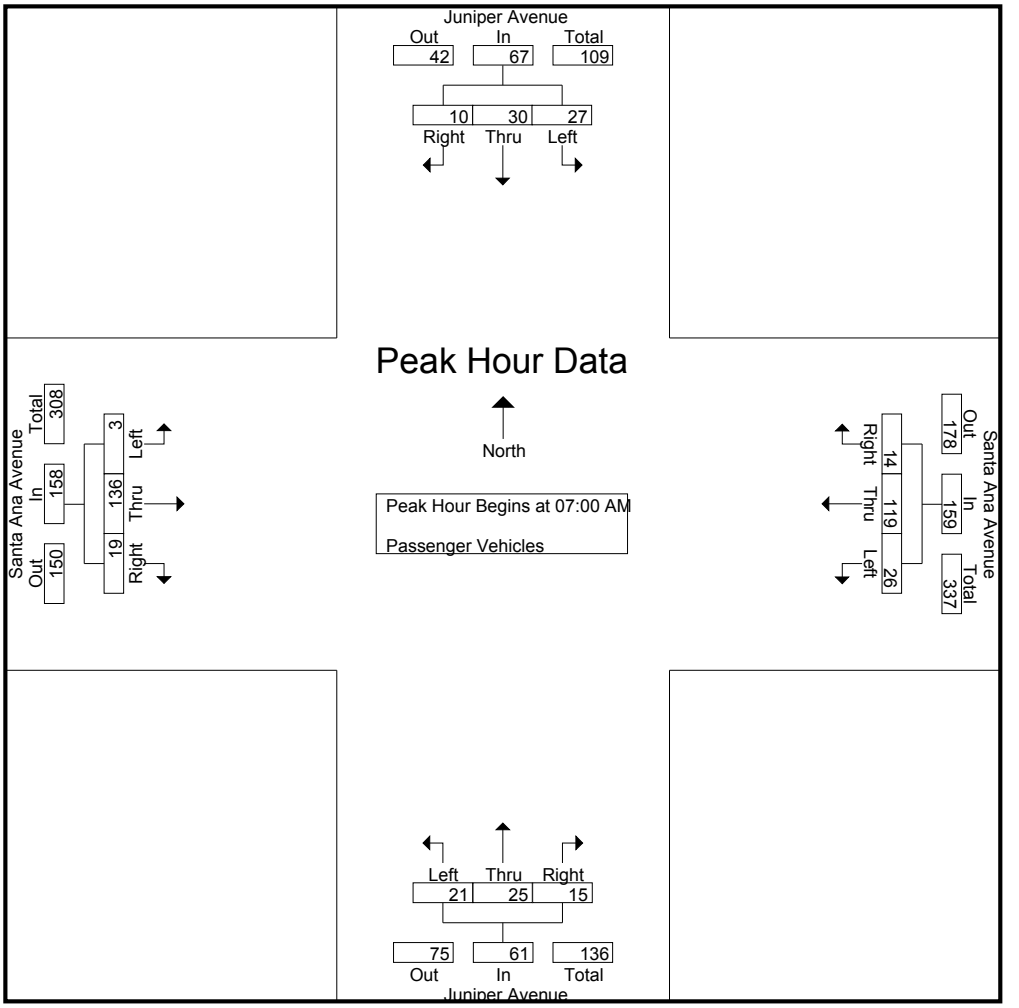

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	4	**11**	**5**	**20**	5	32	4	41	6	3	1	10	0	25	4	29
+15 mins.	7	6	2	15	**11**	**43**	2	**56**	**10**	6	3	19	**3**	**57**	5	**65**
+30 mins.	**9**	7	2	18	7	21	3	31	4	**8**	**8**	**20**	0	35	**6**	41
+45 mins.	7	6	1	14	3	23	**5**	31	1	8	3	12	0	19	4	23
Total Volume	27	30	10	67	26	119	14	159	21	25	15	61	3	136	19	158
% App. Total	40.3	44.8	14.9		16.4	74.8	8.8		34.4	41	24.6		1.9	86.1	12	
PHF	.750	.682	.500	.838	.591	.692	.700	.710	.525	.781	.469	.763	.250	.596	.792	.608

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City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1	2
07:30 AM	1	0	0	1	0	0	0	0	0	0	1	1	0	0	1	1	3
07:45 AM	1	1	0	2	0	3	0	3	0	0	0	0	0	0	0	0	5
Total	2	1	0	3	0	5	0	5	1	0	2	3	0	0	2	2	13
08:00 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	1	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:30 AM	1	0	0	1	1	0	0	1	0	1	0	1	0	0	1	1	4
08:45 AM	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	2
Total	1	0	1	2	2	1	1	4	0	1	0	1	0	2	1	3	10
Grand Total	3	1	1	5	2	6	1	9	1	1	2	4	0	2	3	5	23
Apprch %	60	20	20		22.2	66.7	11.1		25	25	50		0	40	60		
Total %	13	4.3	4.3	21.7	8.7	26.1	4.3	39.1	4.3	4.3	8.7	17.4	0	8.7	13	21.7	

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	2	0	2	0	0	**1**	**1**	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	**1**	**1**	2
07:30 AM	**1**	0	0	1	0	0	0	0	0	0	1	1	0	0	1	1	3
07:45 AM	1	**1**	0	**2**	0	**3**	0	**3**	0	0	0	0	0	0	0	0	**5**
Total Volume	2	1	0	3	0	5	0	5	1	0	2	3	0	0	2	2	13
% App. Total	66.7	33.3	0		0	100	0		33.3	0	66.7		0	0	100		
PHF	.500	.250	.000	.375	.000	.417	.000	.417	.250	.000	.500	.750	.000	.000	.500	.500	.650

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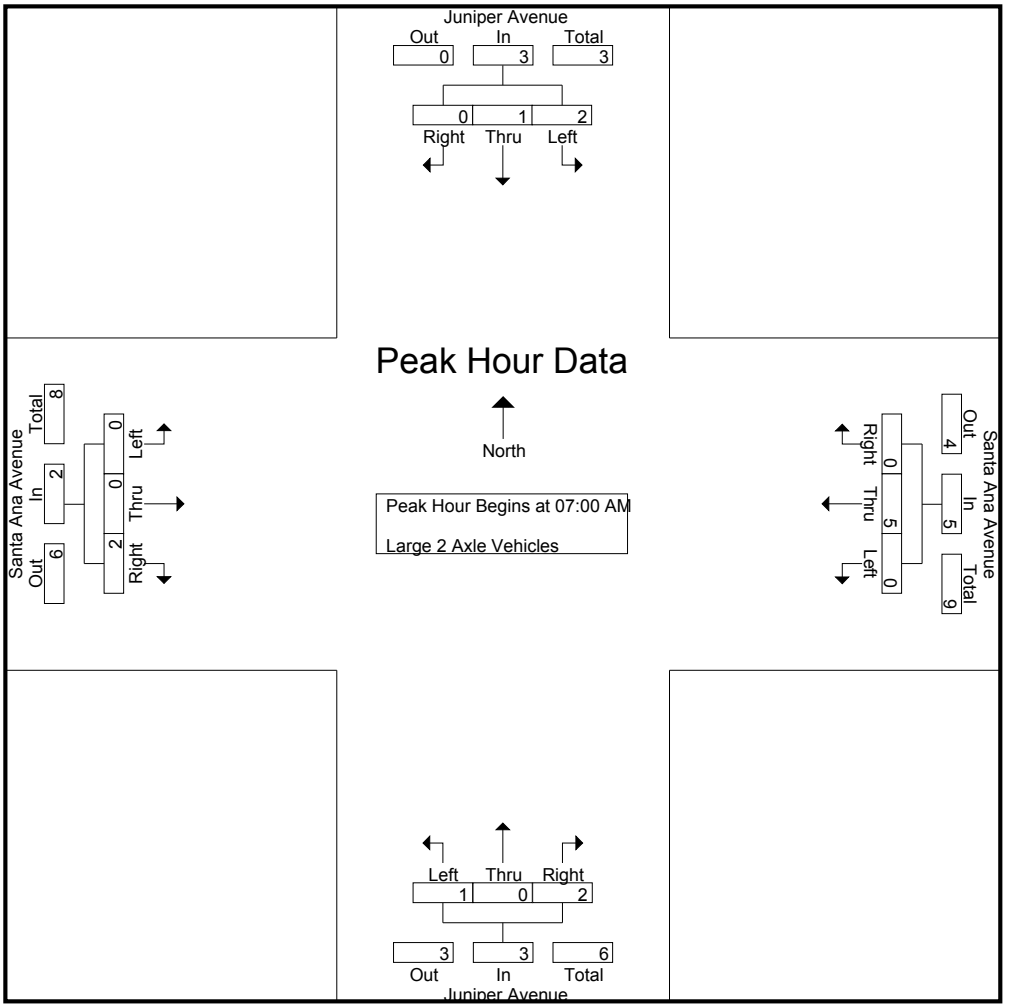
City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019



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

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	**1**	**1**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	**1**	**1**
+30 mins.	**1**	0	0	1	0	0	0	0	0	0	1	1	0	0	1	1
+45 mins.	1	**1**	0	**2**	0	**3**	0	**3**	0	0	0	0	0	0	0	0
Total Volume	2	1	0	3	0	5	0	5	1	0	2	3	0	0	2	2
% App. Total	66.7	33.3	0		0	100	0		33.3	0	66.7		0	0	100	
PHF	.500	.250	.000	.375	.000	.417	.000	.417	.250	.000	.500	.750	.000	.000	.500	.500

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City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Grand Total	2	0	0	2	0	2	0	2	0	0	0	0	0	1	0	1	5
Apprch %	100	0	0		0	100	0		0	0	0		0	100	0		
Total %	40	0	0	40	0	40	0	40	0	0	0	0	0	20	0	20	

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**
07:30 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
% App. Total	100	0	0		0	100	0		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.750

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City of Fontana
N/S: Juniper Avenue
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Weather: Clear

File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
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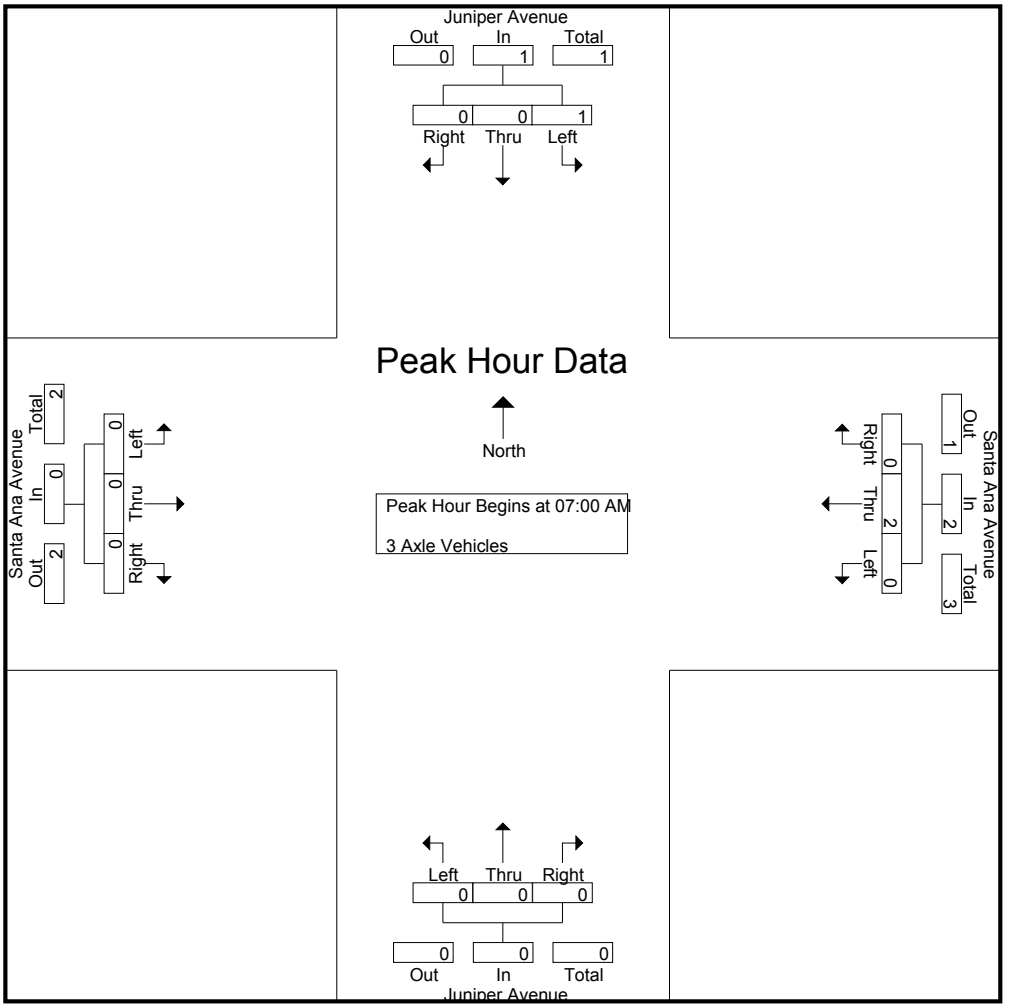

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+30 mins.	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	2	0	2	0	0	0	0	0	0	0	0
% App. Total	100	0	0		0	100	0		0	0	0		0	0	0	
PHF	.250	.000	.000	.250	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000

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City of Fontana
N/S: Juniper Avenue
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File Name : 15_FON_Juniper_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- 4+ Axle Trucks

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
Apprch %	100	0	0		0	100	0		0	0	0		0	0	0		
Total %	50	0	0	50	0	50	0	50	0	0	0	0	0	0	0	0	

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	100	0	0		0	0	0		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

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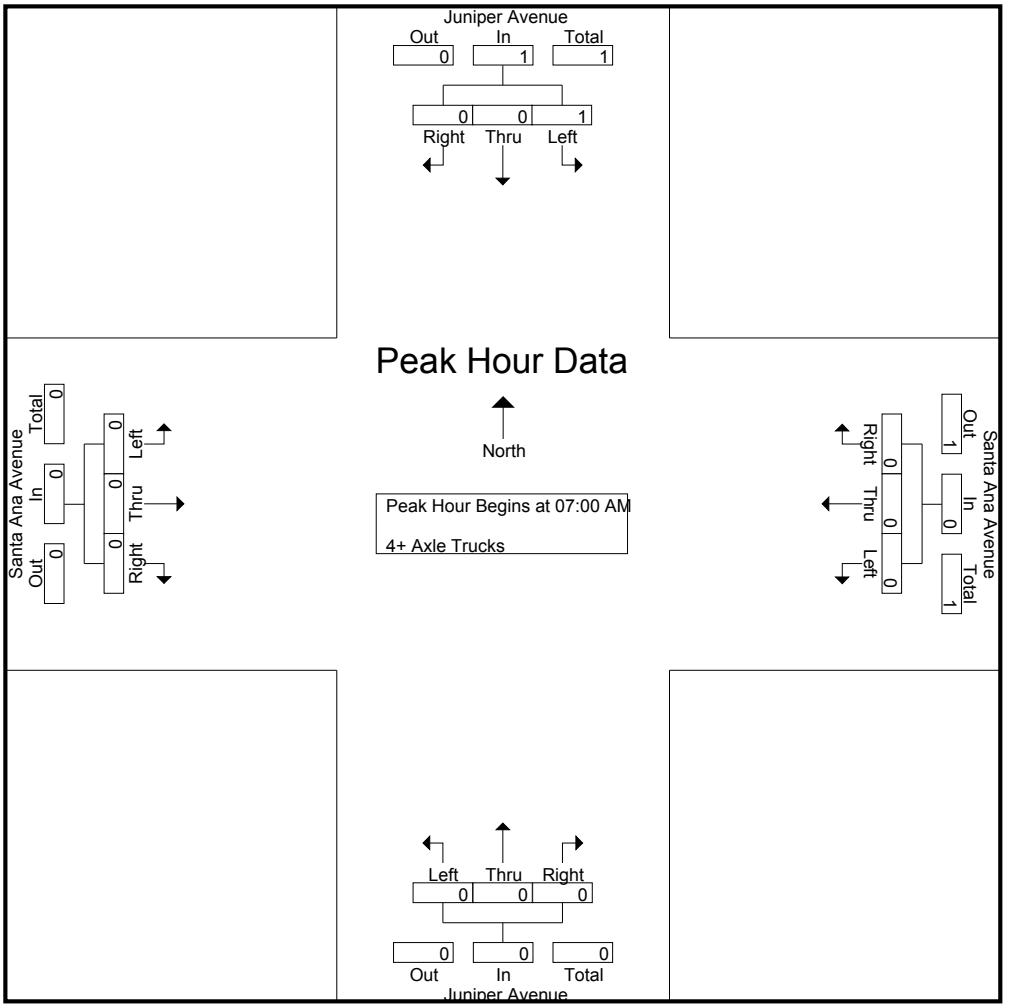

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	100	0	0		0	0	0		0	0	0		0	0	0	
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	16	8	1	25	12	49	14	75	7	10	8	25	1	67	4	72	197
04:15 PM	10	10	0	20	7	52	10	69	8	6	17	31	1	39	6	46	166
04:30 PM	20	11	0	31	15	55	16	86	6	18	12	36	2	58	5	65	218
04:45 PM	15	17	1	33	7	50	12	69	6	17	20	43	0	41	8	49	194
Total	61	46	2	109	41	206	52	299	27	51	57	135	4	205	23	232	775
05:00 PM	17	9	1	27	15	57	14	86	8	11	9	28	2	52	4	58	199
05:15 PM	12	7	0	19	11	54	4	69	6	12	9	27	1	44	1	46	161
05:30 PM	17	11	1	29	7	56	10	73	4	9	7	20	3	43	5	51	173
05:45 PM	9	9	0	18	10	58	9	77	7	11	5	23	1	43	0	44	162
Total	55	36	2	93	43	225	37	305	25	43	30	98	7	182	10	199	695
Grand Total	116	82	4	202	84	431	89	604	52	94	87	233	11	387	33	431	1470
Apprch %	57.4	40.6	2		13.9	71.4	14.7		22.3	40.3	37.3		2.6	89.8	7.7		
Total %	7.9	5.6	0.3	13.7	5.7	29.3	6.1	41.1	3.5	6.4	5.9	15.9	0.7	26.3	2.2	29.3	
Passenger Vehicles	116	81	4	201	81	416	89	586	51	93	84	228	10	371	33	414	1429
% Passenger Vehicles	100	98.8	100	99.5	96.4	96.5	100	97	98.1	98.9	96.6	97.9	90.9	95.9	100	96.1	97.2
Large 2 Axle Vehicles	0	1	0	1	1	13	0	14	1	1	1	3	1	14	0	15	33
% Large 2 Axle Vehicles	0	1.2	0	0.5	1.2	3	0	2.3	1.9	1.1	1.1	1.3	9.1	3.6	0	3.5	2.2
3 Axle Vehicles	0	0	0	0	1	1	0	2	0	0	0	0	0	2	0	2	4
% 3 Axle Vehicles	0	0	0	0	1.2	0.2	0	0.3	0	0	0	0	0	0.5	0	0.5	0.3
4+ Axle Trucks	0	0	0	0	1	1	0	2	0	0	2	2	0	0	0	0	4
% 4+ Axle Trucks	0	0	0	0	1.2	0.2	0	0.3	0	0	2.3	0.9	0	0	0	0	0.3

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 04:15 PM																	
04:15 PM	10	10	0	20	7	52	10	69	**8**	6	17	31	1	39	6	46	166
04:30 PM	**20**	11	0	31	**15**	55	**16**	**86**	6	**18**	12	36	**2**	**58**	5	**65**	**218**
04:45 PM	15	**17**	**1**	**33**	7	50	12	69	6	17	**20**	**43**	0	41	**8**	49	194
05:00 PM	17	9	1	27	15	**57**	14	86	8	11	9	28	2	52	4	58	199
Total Volume	62	47	2	111	44	214	52	310	28	52	58	138	5	190	23	218	777
% App. Total	55.9	42.3	1.8		14.2	69	16.8		20.3	37.7	42		2.3	87.2	10.6		
PHF	.775	.691	.500	.841	.733	.939	.813	.901	.875	.722	.725	.802	.625	.819	.719	.838	.891

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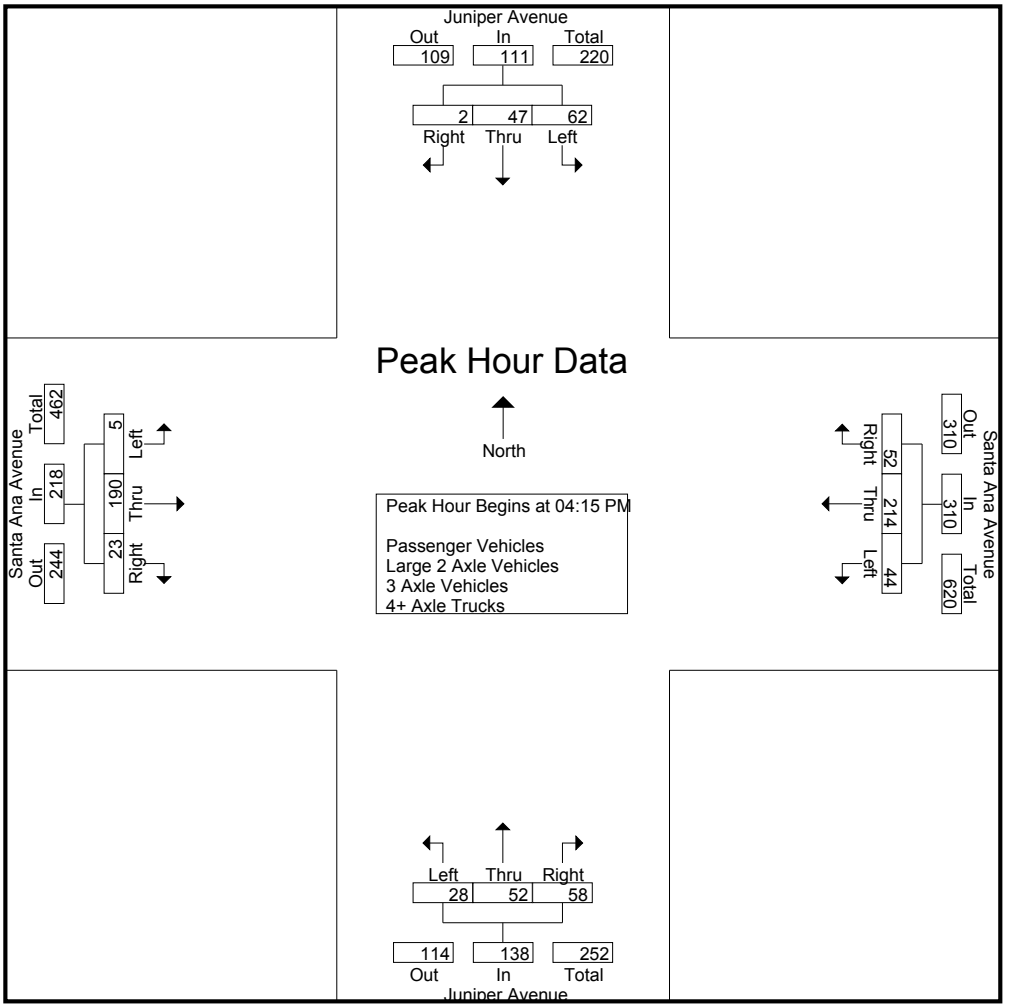
City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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

	04:15 PM				04:15 PM				04:15 PM				04:00 PM			
+0 mins.	10	10	0	20	7	52	10	69	**8**	6	17	31	1	**67**	4	**72**
+15 mins.	**20**	11	0	31	**15**	55	**16**	**86**	6	**18**	12	36	1	39	6	46
+30 mins.	15	**17**	**1**	**33**	7	50	12	69	6	17	**20**	**43**	**2**	58	5	65
+45 mins.	17	9	1	27	15	**57**	14	86	8	11	9	28	0	41	**8**	49
Total Volume	62	47	2	111	44	214	52	310	28	52	58	138	4	205	23	232
% App. Total	55.9	42.3	1.8		14.2	69	16.8		20.3	37.7	42		1.7	88.4	9.9	
PHF	.775	.691	.500	.841	.733	.939	.813	.901	.875	.722	.725	.802	.500	.765	.719	.806

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City of Fontana
N/S: Juniper Avenue
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Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- Passenger Vehicles

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	16	8	1	25	12	48	14	74	7	10	8	25	1	64	4	69	193
04:15 PM	10	10	0	20	6	48	10	64	7	6	14	27	1	37	6	44	155
04:30 PM	20	11	0	31	14	54	16	84	6	18	12	36	2	57	5	64	215
04:45 PM	15	16	1	32	7	47	12	66	6	17	20	43	0	40	8	48	189
Total	61	45	2	108	39	197	52	288	26	51	54	131	4	198	23	225	752
05:00 PM	17	9	1	27	14	54	14	82	8	11	9	28	1	48	4	53	190
05:15 PM	12	7	0	19	11	54	4	69	6	11	9	26	1	42	1	44	158
05:30 PM	17	11	1	29	7	55	10	72	4	9	7	20	3	42	5	50	171
05:45 PM	9	9	0	18	10	56	9	75	7	11	5	23	1	41	0	42	158
Total	55	36	2	93	42	219	37	298	25	42	30	97	6	173	10	189	677
Grand Total	116	81	4	201	81	416	89	586	51	93	84	228	10	371	33	414	1429
Apprch %	57.7	40.3	2		13.8	71	15.2		22.4	40.8	36.8		2.4	89.6	8		
Total %	8.1	5.7	0.3	14.1	5.7	29.1	6.2	41	3.6	6.5	5.9	16	0.7	26	2.3	29	

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	10	10	0	20	6	48	10	64	7	6	14	27	1	37	6	44	155
04:30 PM	**20**	11	0	31	**14**	**54**	**16**	**84**	6	**18**	12	36	**2**	**57**	5	**64**	**215**
04:45 PM	15	**16**	**1**	**32**	7	47	12	66	6	17	**20**	**43**	0	40	**8**	48	189
05:00 PM	17	9	1	27	14	54	14	82	**8**	11	9	28	1	48	4	53	190
Total Volume	62	46	2	110	41	203	52	296	27	52	55	134	4	182	23	209	749
% App. Total	56.4	41.8	1.8		13.9	68.6	17.6		20.1	38.8	41		1.9	87.1	11		
PHF	.775	.719	.500	.859	.732	.940	.813	.881	.844	.722	.688	.779	.500	.798	.719	.816	.871

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City of Fontana
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E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
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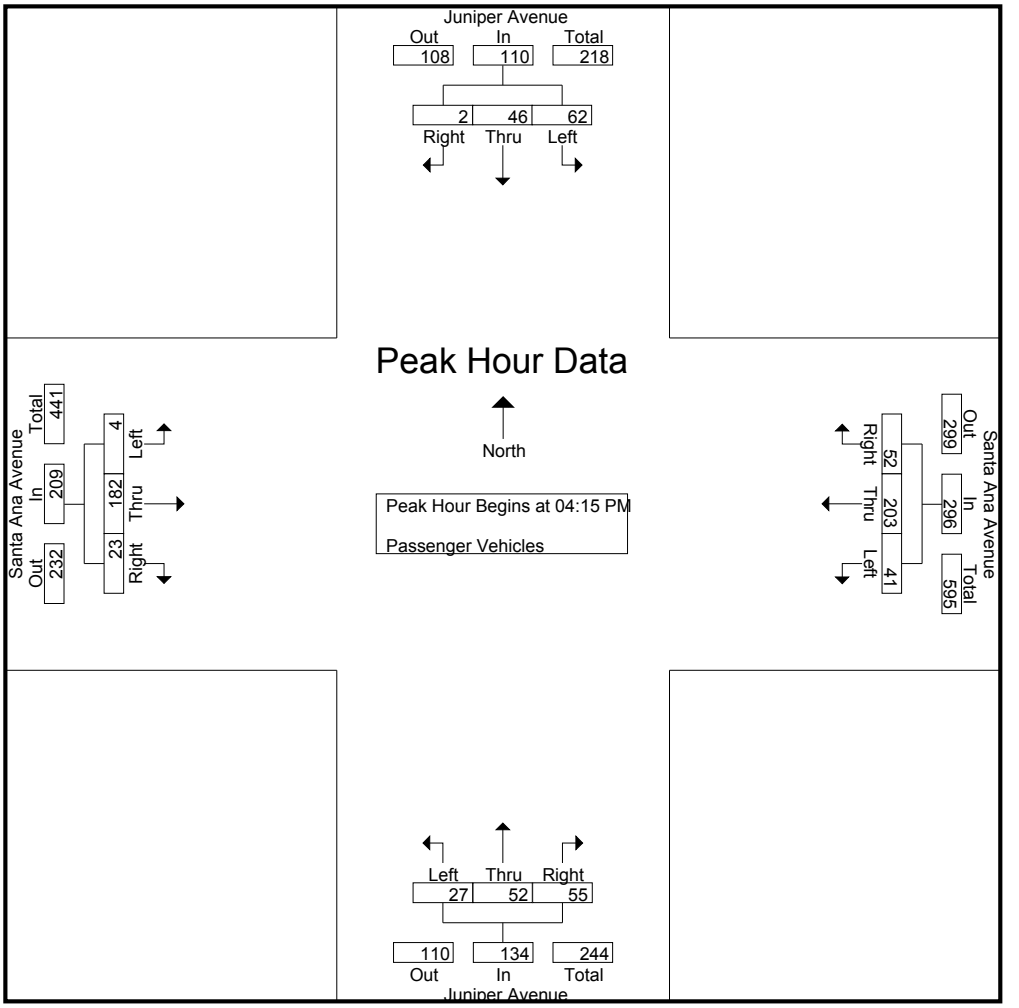

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	10	10	0	20	6	48	10	64	7	6	14	27	1	37	6	44
+15 mins.	**20**	11	0	31	**14**	**54**	**16**	**84**	6	**18**	12	36	**2**	**57**	5	**64**
+30 mins.	15	**16**	**1**	**32**	7	47	12	66	6	17	**20**	**43**	0	40	**8**	48
+45 mins.	17	9	1	27	14	54	14	82	**8**	11	9	28	1	48	4	53
Total Volume	62	46	2	110	41	203	52	296	27	52	55	134	4	182	23	209
% App. Total	56.4	41.8	1.8		13.9	68.6	17.6		20.1	38.8	41		1.9	87.1	11	
PHF	.775	.719	.500	.859	.732	.940	.813	.881	.844	.722	.688	.779	.500	.798	.719	.816

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City of Fontana
N/S: Juniper Avenue
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Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
04:15 PM	0	0	0	0	0	3	0	3	1	0	1	2	0	2	0	2	7
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	3
Total	0	1	0	1	0	7	0	7	1	0	1	2	0	5	0	5	15
05:00 PM	0	0	0	0	1	3	0	4	0	0	0	0	1	4	0	5	9
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3
05:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
Total	0	0	0	0	1	6	0	7	0	1	0	1	1	9	0	10	18
Grand Total	0	1	0	1	1	13	0	14	1	1	1	3	1	14	0	15	33
Apprch %	0	100	0		7.1	92.9	0		33.3	33.3	33.3		6.7	93.3	0		
Total %	0	3	0	3	3	39.4	0	42.4	3	3	3	9.1	3	42.4	0	45.5	

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**3**	0	3	**1**	0	**1**	**2**	0	2	0	2	7
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	**1**	0	**1**	0	2	0	2	0	0	0	0	0	0	0	0	3
05:00 PM	0	0	0	0	**1**	3	0	**4**	0	0	0	0	**1**	**4**	0	**5**	**9**
Total Volume	0	1	0	1	1	9	0	10	1	0	1	2	1	7	0	8	21
% App. Total	0	100	0		10	90	0		50	0	50		12.5	87.5	0		
PHF	.000	.250	.000	.250	.250	.750	.000	.625	.250	.000	.250	.250	.250	.438	.000	.400	.583

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City of Fontana
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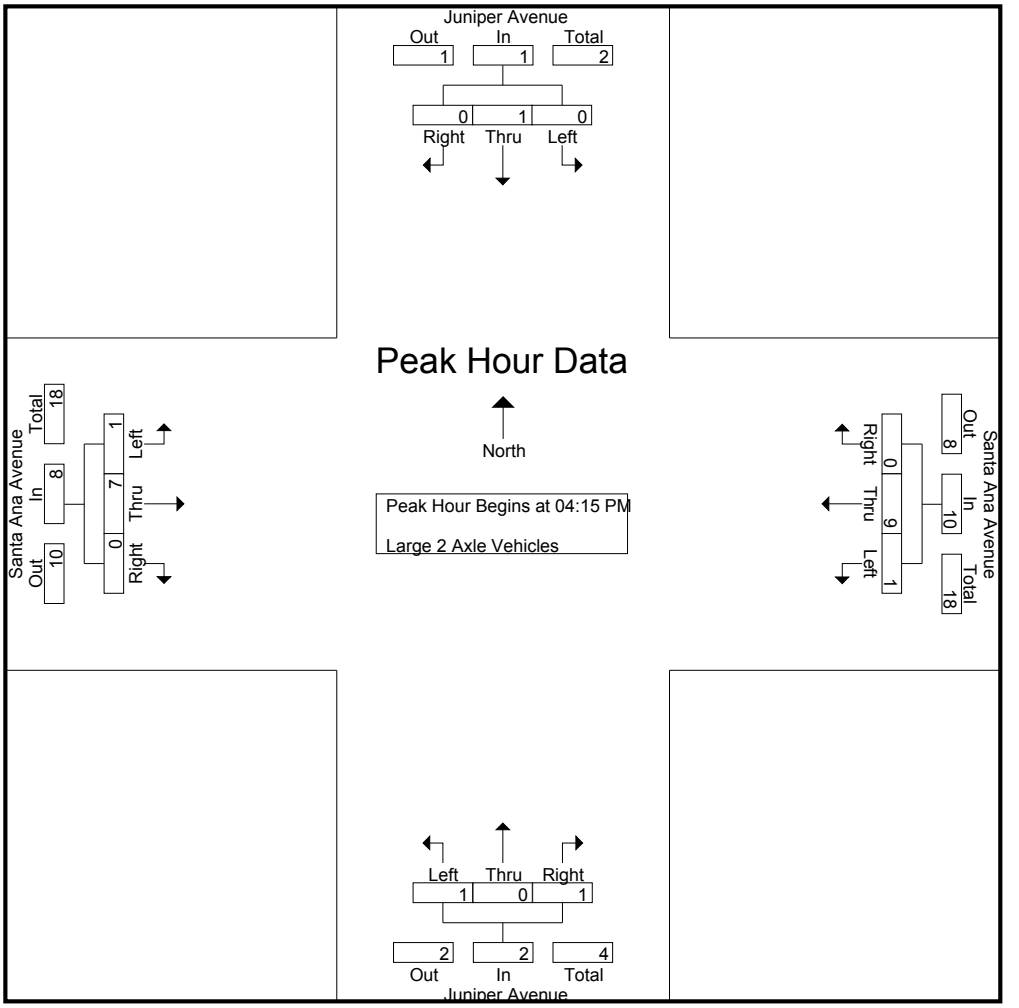
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	**3**	0	3	**1**	0	**1**	**2**	0	2	0	2
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+30 mins.	0	**1**	0	**1**	0	2	0	2	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	**1**	3	0	**4**	0	0	0	0	**1**	**4**	0	**5**
Total Volume	0	1	0	1	1	9	0	10	1	0	1	2	1	7	0	8
% App. Total	0	100	0		10	90	0		50	0	50		12.5	87.5	0	
PHF	.000	.250	.000	.250	.250	.750	.000	.625	.250	.000	.250	.250	.250	.438	.000	.400

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City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	1	1	0	2	0	0	0	0	0	2	0	2	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	1	0	2	0	0	0	0	0	2	0	2	4
Apprch %	0	0	0		50	50	0		0	0	0		0	100	0		
Total %	0	0	0	0	25	25	0	50	0	0	0	0	0	50	0	50	

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0	**1**
04:30 PM	0	0	0	0	**1**	0	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
% App. Total	0	0	0		50	50	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250	.750

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City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
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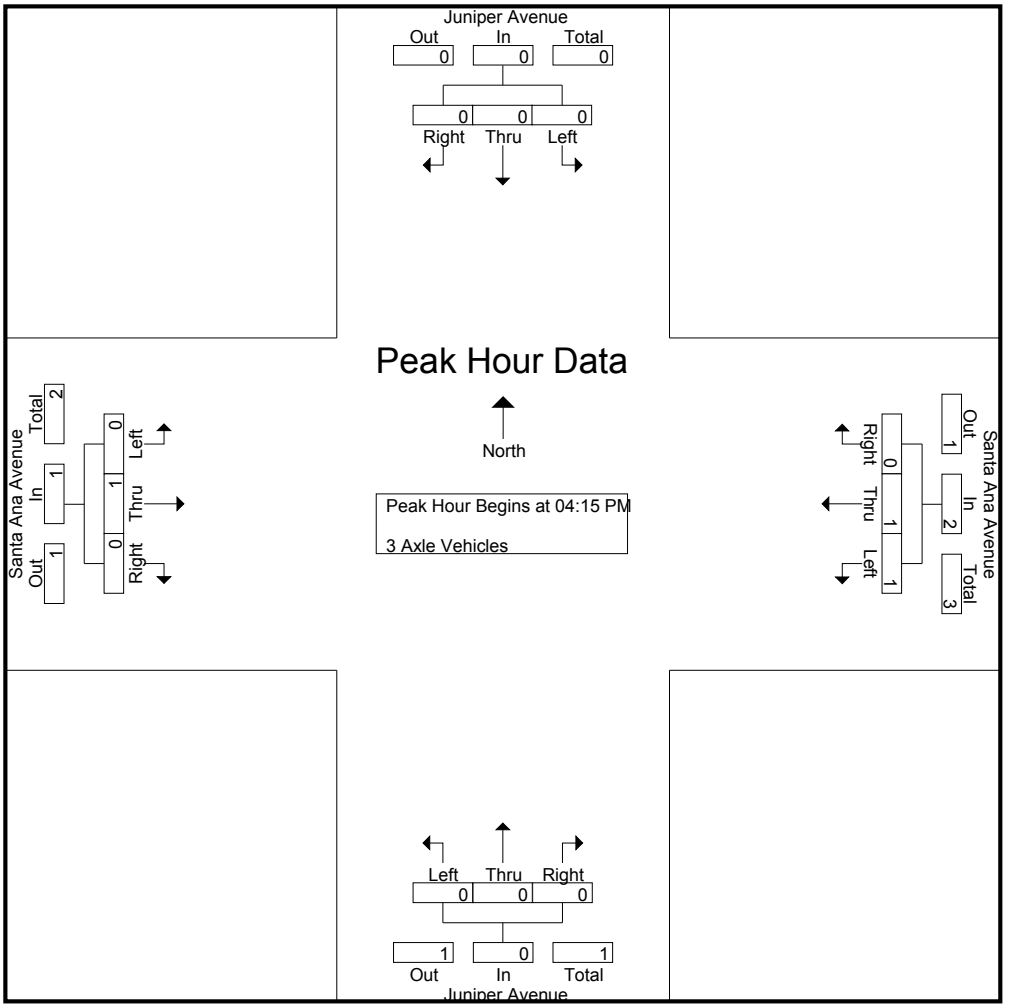

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	**1**	0	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1
% App. Total	0	0	0		50	50	0		0	0	0		0	100	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.000	.000	.000	.000	.000	.250	.000	.250

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City of Fontana
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Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- 4+ Axle Trucks

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	0	0	1	0	0	2	2	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	1	0	2	0	0	2	2	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	1	0	2	0	0	2	2	0	0	0	0	4
Apprch %	0	0	0		50	50	0		0	0	100		0	0	0		
Total %	0	0	0	0	25	25	0	50	0	0	50	50	0	0	0	0	

	Juniper Avenue Southbound				Santa Ana Avenue Westbound				Juniper Avenue Northbound				Santa Ana 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	**1**	0	0	**1**	0	0	**2**	**2**	0	0	0	0	**3**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	2	0	0	2	2	0	0	0	0	4
% App. Total	0	0	0		50	50	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000	.333

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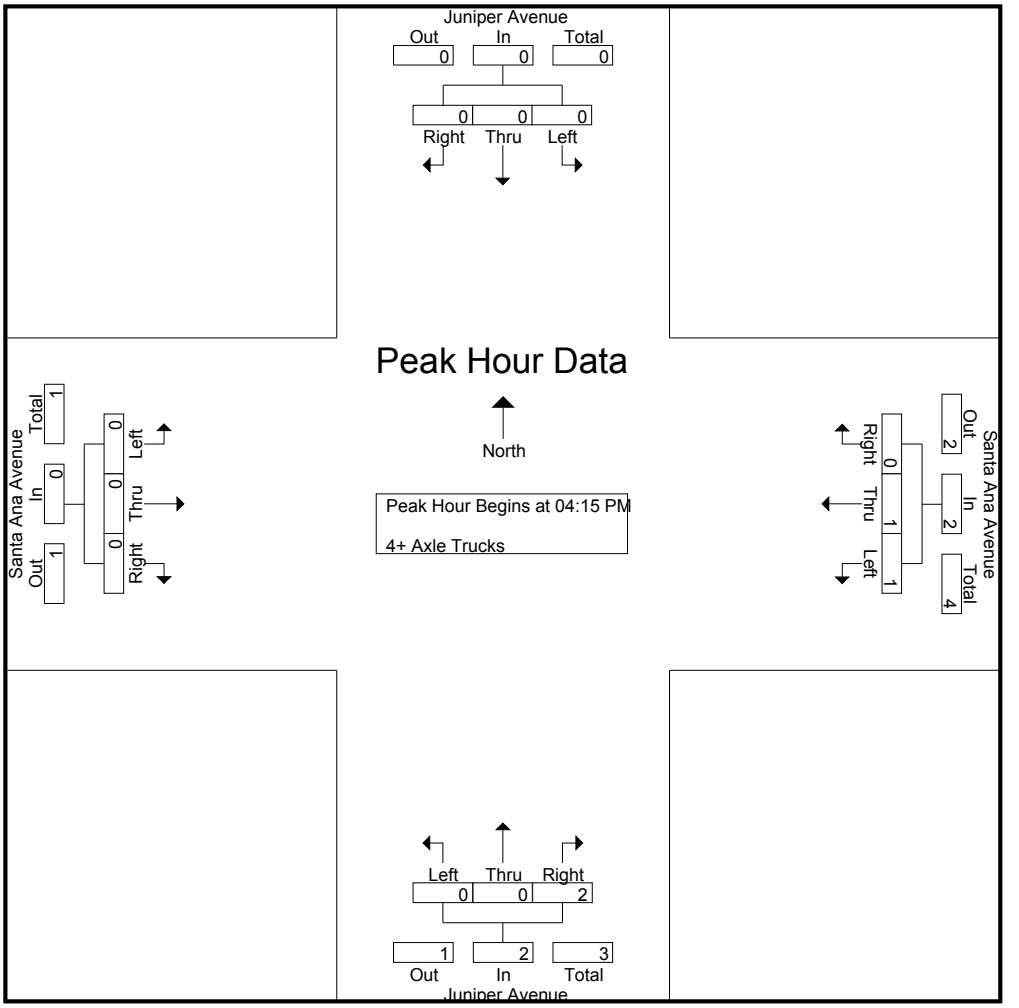
City of Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 15_FON_Juniper_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	**1**	0	0	**1**	0	0	**2**	**2**	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	2	0	0	2	2	0	0	0	0
% App. Total	0	0	0		50	50	0		0	0	100		0	0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000

Location: Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Juniper Avenue	East Leg Santa Ana Avenue	South Leg Juniper Avenue	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	1	0	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	2	0	0	0	2

	North Leg Juniper Avenue	East Leg Santa Ana Avenue	South Leg Juniper Avenue	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	1	0	0	2
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	1	1	0	0	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	2	0	0	0	2
5:45 PM	2	2	0	0	4
TOTAL VOLUMES:	6	4	0	0	10

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951-268-0268

Location: Fontana
N/S: Juniper Avenue
E/W: Santa Ana Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Juniper Avenue			Westbound Santa Ana Avenue			Northbound Juniper Avenue			Eastbound Santa Ana Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1	0	0	0	1	0	0	0	3

	Southbound Juniper Avenue			Westbound Santa Ana Avenue			Northbound Juniper Avenue			Eastbound Santa Ana Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	1	1	3

Counts Unlimited
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City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	9	0	11	7	20	4	164	8	1	176	1	0	4	2	5	3	146	1	0	150	10	351	361
07:15 AM	8	3	8	7	19	4	159	9	2	172	3	2	5	2	10	8	133	1	0	142	11	343	354
07:30 AM	6	1	8	7	15	0	149	4	0	153	1	0	2	2	3	13	137	0	0	150	9	321	330
07:45 AM	9	1	10	10	20	3	151	3	0	157	0	2	5	5	7	5	141	1	1	147	16	331	347
Total	32	5	37	31	74	11	623	24	3	658	5	4	16	11	25	29	557	3	1	589	46	1346	1392
08:00 AM	5	0	7	6	12	6	129	4	1	139	0	2	5	3	7	6	117	0	0	123	10	281	291
08:15 AM	4	1	10	7	15	3	140	11	3	154	1	5	3	3	9	9	111	0	0	120	13	298	311
08:30 AM	5	1	2	2	8	4	109	4	1	117	1	0	5	2	6	6	128	2	0	136	5	267	272
08:45 AM	3	1	11	9	15	4	119	2	0	125	1	1	3	3	5	14	100	0	0	114	12	259	271
Total	17	3	30	24	50	17	497	21	5	535	3	8	16	11	27	35	456	2	0	493	40	1105	1145
Grand Total	49	8	67	55	124	28	1120	45	8	1193	8	12	32	22	52	64	1013	5	1	1082	86	2451	2537
Apprch %	39.5	6.5	54			2.3	93.9	3.8			15.4	23.1	61.5			5.9	93.6	0.5					
Total %	2	0.3	2.7		5.1	1.1	45.7	1.8		48.7	0.3	0.5	1.3		2.1	2.6	41.3	0.2		44.1	3.4	96.6	
Passenger Vehicles	45	7	63		166	26	1062	45		1141	8	12	31		72	57	973	5		1036	0	0	2415
% Passenger Vehicles	91.8	87.5	94	92.7	92.7	92.9	94.8	100	100	95	100	100	96.9	95.5	97.3	89.1	96.1	100	100	95.7	0	0	95.2
Large 2 Axle Vehicles	4	1	4		13	1	40	0		41	0	0	1		2	7	33	0		40	0	0	96
% Large 2 Axle Vehicles	8.2	12.5	6	7.3	7.3	3.6	3.6	0	0	3.4	0	0	3.1	4.5	2.7	10.9	3.3	0	0	3.7	0	0	3.8
3 Axle Vehicles	0	0	0		0	0	9	0		9	0	0	0		0	0	5	0		5	0	0	14
% 3 Axle Vehicles	0	0	0	0	0	0	0.8	0	0	0.7	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0.6
4+ Axle Trucks	0	0	0		0	1	9	0		10	0	0	0		0	0	2	0		2	0	0	12
% 4+ Axle Trucks	0	0	0	0	0	3.6	0.8	0	0	0.8	0	0	0	0	0	0	0.2	0	0	0.2	0	0	0.5

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:00 AM																	
07:00 AM	**9**	0	**11**	**20**	**4**	**164**	8	**176**	1	0	4	5	3	**146**	**1**	**150**	**351**
07:15 AM	8	**3**	8	19	4	159	**9**	172	**3**	**2**	**5**	**10**	8	133	1	142	343
07:30 AM	6	1	8	15	0	149	4	153	1	0	2	3	**13**	137	0	150	321
07:45 AM	9	1	10	20	3	151	3	157	0	2	5	7	5	141	1	147	331
Total Volume	32	5	37	74	11	623	24	658	5	4	16	25	29	557	3	589	1346
% App. Total	43.2	6.8	50		1.7	94.7	3.6		20	16	64		4.9	94.6	0.5		
PHF	.889	.417	.841	.925	.688	.950	.667	.935	.417	.500	.800	.625	.558	.954	.750	.982	.959

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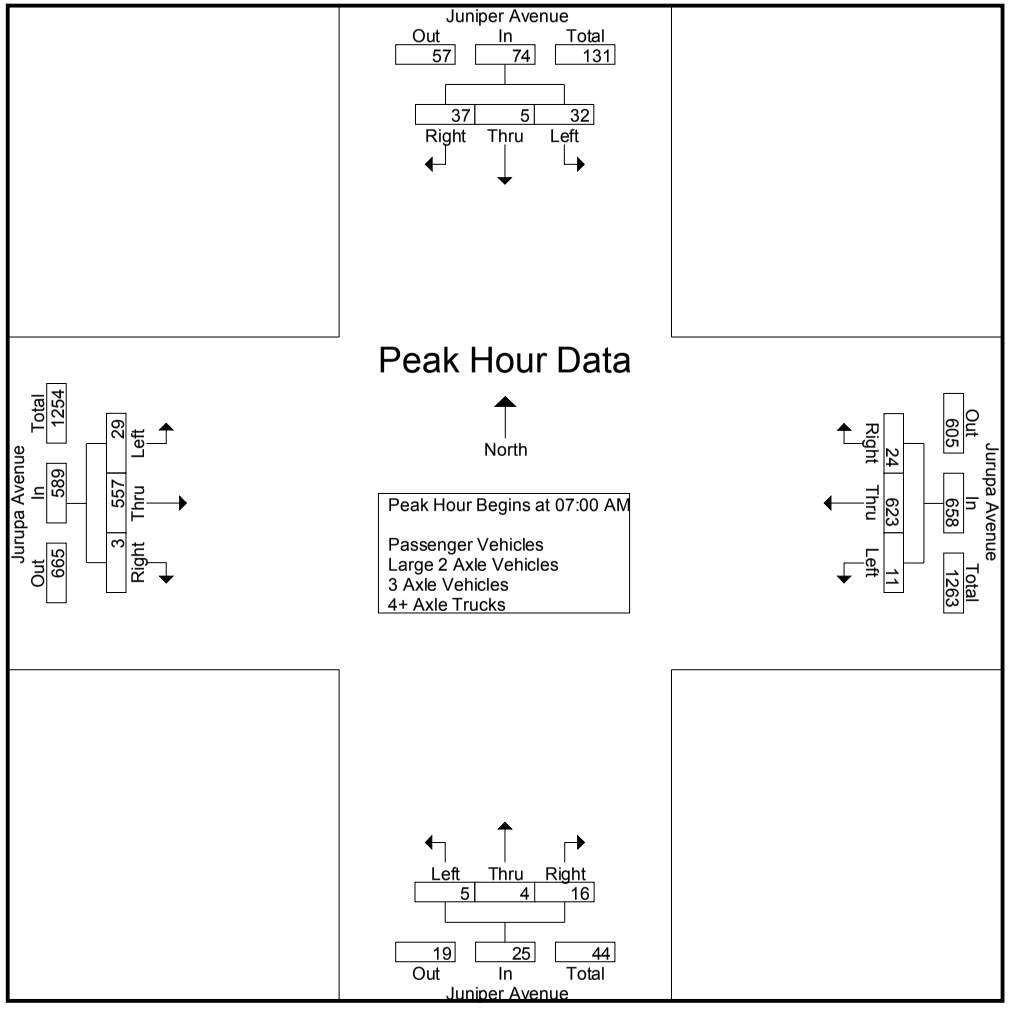
City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Juniper Avenue
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Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:45 AM				07:00 AM				
+0 mins.	**9**	0	**11**	**20**	**4**	**164**	8	**176**	0	2	**5**	7	3	**146**	**1**	**150**	
+15 mins.	8	**3**	8	19	4	159	**9**	172	0	2	5	7	8	133	1	142	
+30 mins.	6	1	8	15	0	149	4	153	**1**	**5**	3	**9**	**13**	137	0	150	
+45 mins.	9	1	10	20	3	151	3	157	1	0	5	6	5	141	1	147	
Total Volume	32	5	37	74	11	623	24	658	2	9	18	29	29	557	3	589	
% App. Total	43.2	6.8	50		1.7	94.7	3.6		6.9	31	62.1		4.9	94.6	0.5		
PHF	.889	.417	.841	.925	.688	.950	.667	.935	.500	.450	.900	.806	.558	.954	.750	.982	

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City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	8	0	11	7	19	4	159	8	1	171	1	0	4	2	5	2	145	1	0	148	10	343	353
07:15 AM	8	3	7	6	18	4	151	9	2	164	3	2	5	2	10	5	126	1	0	132	10	324	334
07:30 AM	6	0	7	6	13	0	143	4	0	147	1	0	2	2	3	13	133	0	0	146	8	309	317
07:45 AM	9	1	9	9	19	2	146	3	0	151	0	2	4	4	6	5	137	1	1	143	14	319	333
Total	31	4	34	28	69	10	599	24	3	633	5	4	15	10	24	25	541	3	1	569	42	1295	1337
08:00 AM	5	0	7	6	12	6	120	4	1	130	0	2	5	3	7	5	114	0	0	119	10	268	278
08:15 AM	3	1	10	7	14	2	130	11	3	143	1	5	3	3	9	7	106	0	0	113	13	279	292
08:30 AM	3	1	2	2	6	4	100	4	1	108	1	0	5	2	6	6	115	2	0	123	5	243	248
08:45 AM	3	1	10	8	14	4	113	2	0	119	1	1	3	3	5	14	97	0	0	111	11	249	260
Total	14	3	29	23	46	16	463	21	5	500	3	8	16	11	27	32	432	2	0	466	39	1039	1078
Grand Total	45	7	63	51	115	26	1062	45	8	1133	8	12	31	21	51	57	973	5	1	1035	81	2334	2415
Apprch %	39.1	6.1	54.8			2.3	93.7	4			15.7	23.5	60.8			5.5	94	0.5					
Total %	1.9	0.3	2.7		4.9	1.1	45.5	1.9		48.5	0.3	0.5	1.3		2.2	2.4	41.7	0.2		44.3	3.4	96.6	

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	0	**11**	**19**	**4**	**159**	8	**171**	1	0	4	5	2	**145**	**1**	**148**	**343**
07:15 AM	8	**3**	7	18	4	151	**9**	164	**3**	**2**	**5**	**10**	5	126	1	132	324
07:30 AM	6	0	7	13	0	143	4	147	1	0	2	3	**13**	133	0	146	309
07:45 AM	**9**	1	9	19	2	146	3	151	0	2	4	6	5	137	1	143	319
Total Volume	31	4	34	69	10	599	24	633	5	4	15	24	25	541	3	569	1295
% App. Total	44.9	5.8	49.3		1.6	94.6	3.8		20.8	16.7	62.5		4.4	95.1	0.5		
PHF	.861	.333	.773	.908	.625	.942	.667	.925	.417	.500	.750	.600	.481	.933	.750	.961	.944

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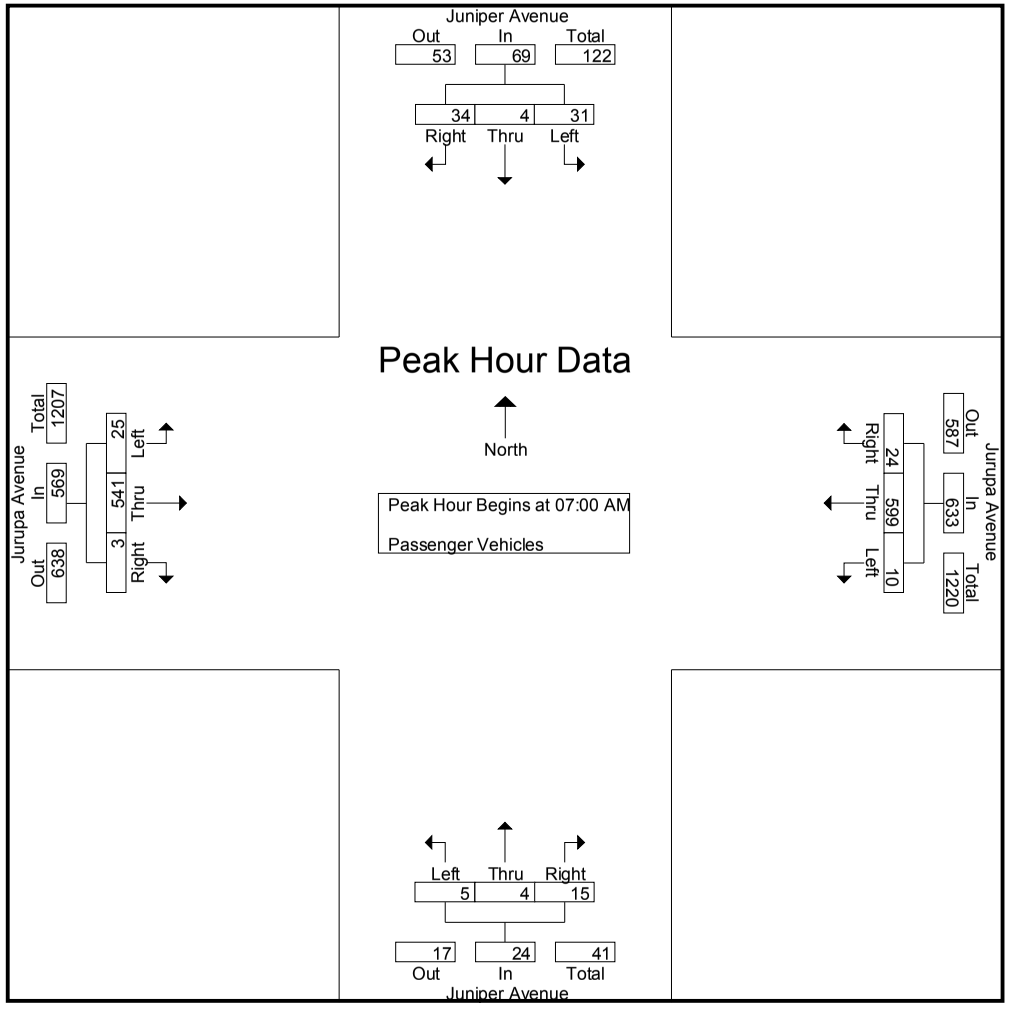
City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Juniper Avenue
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Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	8	0	**11**	**19**	**4**	**159**	8	**171**	1	0	4	5	2	**145**	**1**	**148**	
+15 mins.	8	**3**	7	18	4	151	**9**	164	**3**	**2**	**5**	**10**	5	126	1	132	
+30 mins.	6	0	7	13	0	143	4	147	1	0	2	3	**13**	133	0	146	
+45 mins.	**9**	1	9	19	2	146	3	151	0	2	4	6	5	137	1	143	
Total Volume	31	4	34	69	10	599	24	633	5	4	15	24	25	541	3	569	
% App. Total	44.9	5.8	49.3		1.6	94.6	3.8		20.8	16.7	62.5		4.4	95.1	0.5		
PHF	.861	.333	.773	.908	.625	.942	.667	.925	.417	.500	.750	.600	.481	.933	.750	.961	

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City of Fontana
N/S: Juniper Avenue
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Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	1	1	0	0	2	0	7	7
07:15 AM	0	0	1	1	1	0	5	0	0	5	0	0	0	0	0	3	7	0	0	10	1	16	17
07:30 AM	0	1	1	1	2	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	1	9	10
07:45 AM	0	0	1	1	1	1	3	0	0	4	0	0	1	1	1	0	4	0	0	4	2	10	12
Total	1	1	3	3	5	1	16	0	0	17	0	0	1	1	1	4	15	0	0	19	4	42	46
08:00 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	1	2	0	0	3	0	9	9
08:15 AM	1	0	0	0	1	0	8	0	0	8	0	0	0	0	0	2	5	0	0	7	0	16	16
08:30 AM	2	0	0	0	2	0	6	0	0	6	0	0	0	0	0	0	11	0	0	11	0	19	19
08:45 AM	0	0	1	1	1	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	1	5	6
Total	3	0	1	1	4	0	24	0	0	24	0	0	0	0	0	3	18	0	0	21	1	49	50
Grand Total	4	1	4	4	9	1	40	0	0	41	0	0	1	1	1	7	33	0	0	40	5	91	96
Apprch %	44.4	11.1	44.4			2.4	97.6	0			0	0	100			17.5	82.5	0					
Total %	4.4	1.1	4.4		9.9	1.1	44	0		45.1	0	0	1.1		1.1	7.7	36.3	0		44	5.2	94.8	

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**1**	0	0	1	0	4	0	4	0	0	0	0	1	1	0	2	7
07:15 AM	0	0	**1**	1	0	**5**	0	**5**	0	0	0	0	**3**	**7**	0	**10**	**16**
07:30 AM	0	**1**	1	**2**	0	4	0	4	0	0	0	0	0	3	0	3	9
07:45 AM	0	0	1	1	**1**	3	0	4	0	0	**1**	**1**	0	4	0	4	10
Total Volume	1	1	3	5	1	16	0	17	0	0	1	1	4	15	0	19	42
% App. Total	20	20	60		5.9	94.1	0		0	0	100		21.1	78.9	0		
PHF	.250	.250	.750	.625	.250	.800	.000	.850	.000	.000	.250	.250	.333	.536	.000	.475	.656

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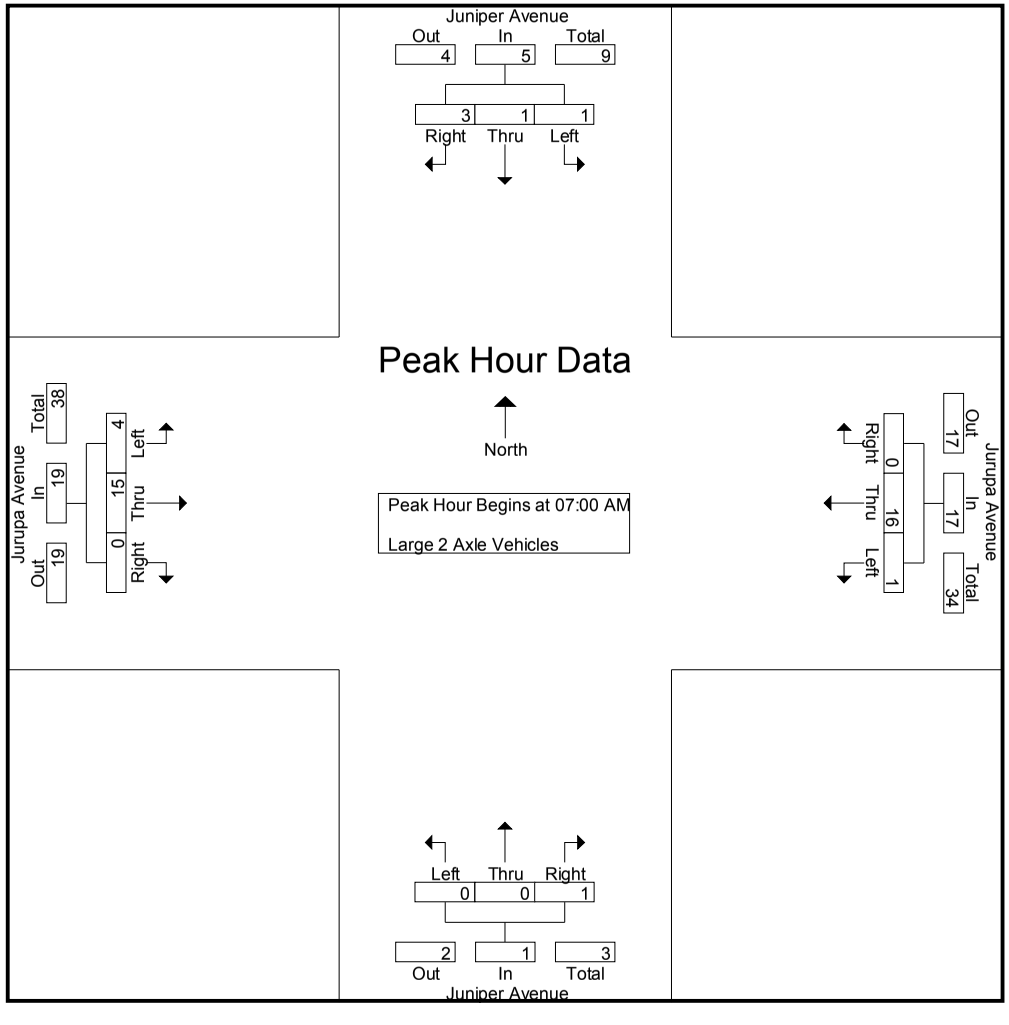
City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
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	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	**1**	0	0	1	0	4	0	4	0	0	0	0	1	1	0	2	
+15 mins.	0	0	**1**	1	0	**5**	0	**5**	0	0	0	0	**3**	**7**	0	**10**	
+30 mins.	0	**1**	1	**2**	0	4	0	4	0	0	0	0	0	3	0	3	
+45 mins.	0	0	1	1	**1**	3	0	4	0	0	**1**	**1**	0	4	0	4	
Total Volume	1	1	3	5	1	16	0	17	0	0	1	1	4	15	0	19	
% App. Total	20	20	60		5.9	94.1	0		0	0	100		21.1	78.9	0		
PHF	.250	.250	.750	.625	.250	.800	.000	.850	.000	.000	.250	.250	.333	.536	.000	.475	

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City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
07:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	0	4	4
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
08:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
08:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	5	5
Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	0	10	10
Grand Total	0	0	0	0	0	0	9	0	0	9	0	0	0	0	0	0	5	0	0	5	0	14	14
Apprch %	0	0	0			0	100	0			0	0	0			0	100	0					
Total %	0	0	0		0	0	64.3	0		64.3	0	0	0		0	0	35.7	0		35.7	0	100	

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	1
07:45 AM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	**2**
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	4
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000	.000	.250	.000	.250	.500

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Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
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Start Date : 3/14/2019
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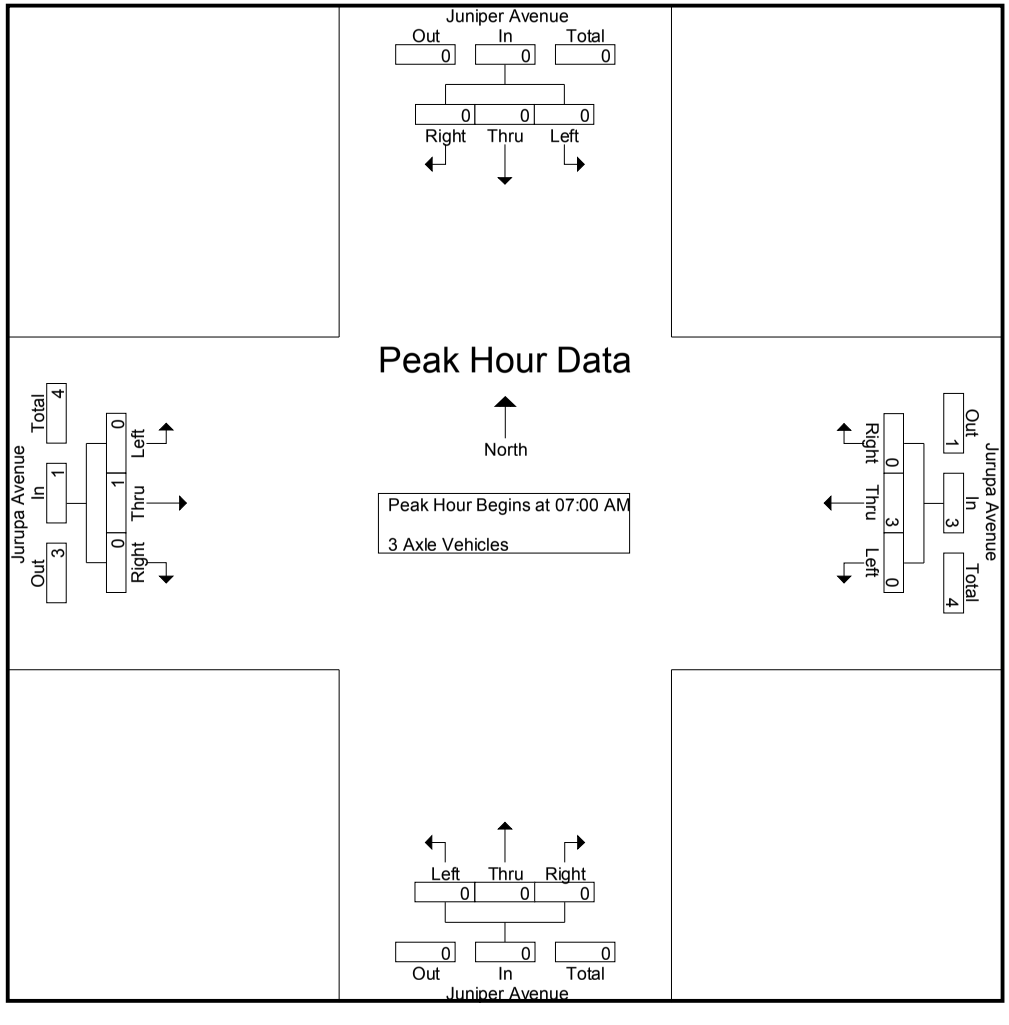

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City of Fontana
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Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
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	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	
+45 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	1	0	1	
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.000	.000	.000	.000	.000	.250	.000	.250	

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Weather: Clear

File Name : 21_FON_Juniper_Jurupa AM
Site Code : 05119181
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Groups Printed- 4+ Axle Trucks

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
07:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5	5
08:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
08:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	0	2	0	0	2	0	7	7
Grand Total	0	0	0	0	0	1	9	0	0	10	0	0	0	0	0	0	2	0	0	2	0	12	12
Apprch %	0	0	0			10	90	0			0	0	0			0	100	0					
Total %	0	0	0		0	8.3	75	0		83.3	0	0	0		0	0	16.7	0		16.7	0	100	

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	**2**
07:30 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	5
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	.625

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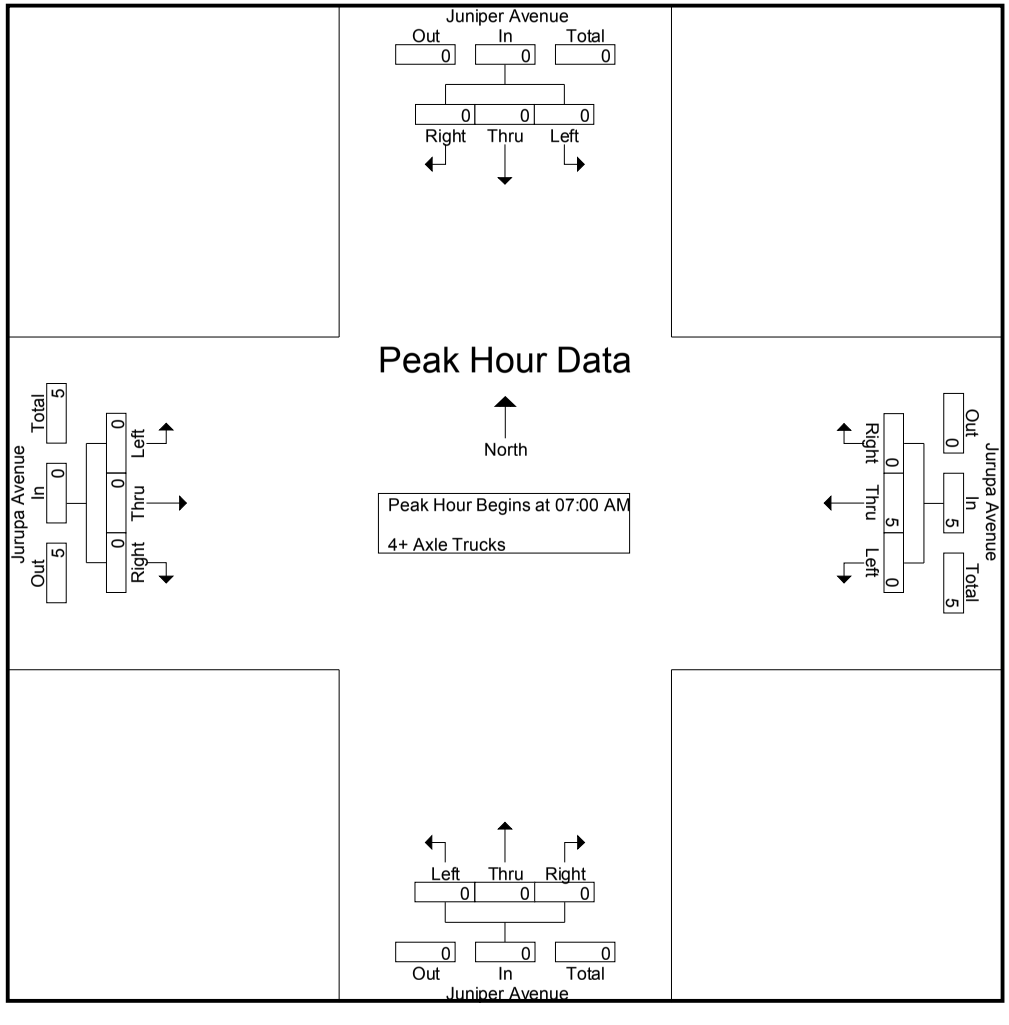

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City of Fontana
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File Name : 21_FON_Juniper_Jurupa AM
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	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
+15 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	0	0	0	0	5	0	5	0	0	0	0	0	0	0	0	
% App. Total	0	0	0		0	100	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	

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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	1	13	9	16	8	156	6	2	170	0	1	3	1	4	13	213	0	0	226	12	416	428
04:15 PM	6	5	12	9	23	7	168	12	2	187	1	1	1	1	3	16	218	2	0	236	12	449	461
04:30 PM	6	1	16	13	23	8	150	14	2	172	2	4	3	2	9	18	216	0	0	234	17	438	455
04:45 PM	10	6	9	7	25	7	168	8	1	183	3	4	2	1	9	19	253	1	0	273	9	490	499
Total	24	13	50	38	87	30	642	40	7	712	6	10	9	5	25	66	900	3	0	969	50	1793	1843
05:00 PM	7	7	17	14	31	7	153	9	1	169	0	2	0	0	2	12	208	2	0	222	15	424	439
05:15 PM	4	2	9	8	15	5	165	12	1	182	2	4	0	0	6	13	239	2	0	254	9	457	466
05:30 PM	6	1	11	10	18	8	193	8	2	209	0	1	0	0	1	8	185	1	0	194	12	422	434
05:45 PM	5	4	11	11	20	8	167	12	0	187	0	0	3	3	3	15	166	1	0	182	14	392	406
Total	22	14	48	43	84	28	678	41	4	747	2	7	3	3	12	48	798	6	0	852	50	1695	1745
Grand Total	46	27	98	81	171	58	1320	81	11	1459	8	17	12	8	37	114	1698	9	0	1821	100	3488	3588
Apprch %	26.9	15.8	57.3			4	90.5	5.6			21.6	45.9	32.4			6.3	93.2	0.5					
Total %	1.3	0.8	2.8		4.9	1.7	37.8	2.3		41.8	0.2	0.5	0.3		1.1	3.3	48.7	0.3		52.2	2.8	97.2	
Passenger Vehicles	46	27	95		246	56	1275	77		1419	8	17	12		45	109	1625	9		1743	0	0	3453
% Passenger Vehicles	100	100	96.9	96.3	97.6	96.6	96.6	95.1	100	96.5	100	100	100	100	100	95.6	95.7	100	0	95.7	0	0	96.2
Large 2 Axle Vehicles	0	0	3		6	2	27	4		33	0	0	0		0	5	36	0		41	0	0	80
% Large 2 Axle Vehicles	0	0	3.1	3.7	2.4	3.4	2	4.9	0	2.2	0	0	0	0	0	4.4	2.1	0	0	2.3	0	0	2.2
3 Axle Vehicles	0	0	0		0	0	8	0		8	0	0	0		0	0	8	0		8	0	0	16
% 3 Axle Vehicles	0	0	0	0	0	0	0.6	0	0	0.5	0	0	0	0	0	0	0.5	0	0	0.4	0	0	0.4
4+ Axle Trucks	0	0	0		0	0	10	0		10	0	0	0		0	0	29	0		29	0	0	39
% 4+ Axle Trucks	0	0	0	0	0	0	0.8	0	0	0.7	0	0	0	0	0	0	1.7	0	0	1.6	0	0	1.1

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM																	
04:30 PM	6	1	16	23	**8**	150	**14**	172	2	**4**	**3**	**9**	18	216	0	234	438
04:45 PM	**10**	6	9	25	7	**168**	8	**183**	**3**	4	2	9	**19**	**253**	1	**273**	**490**
05:00 PM	7	**7**	**17**	**31**	7	153	9	169	0	2	0	2	12	208	**2**	222	424
05:15 PM	4	2	9	15	5	165	12	182	2	4	0	6	13	239	2	254	457
Total Volume	27	16	51	94	27	636	43	706	7	14	5	26	62	916	5	983	1809
% App. Total	28.7	17	54.3		3.8	90.1	6.1		26.9	53.8	19.2		6.3	93.2	0.5		
PHF	.675	.571	.750	.758	.844	.946	.768	.964	.583	.875	.417	.722	.816	.905	.625	.900	.923

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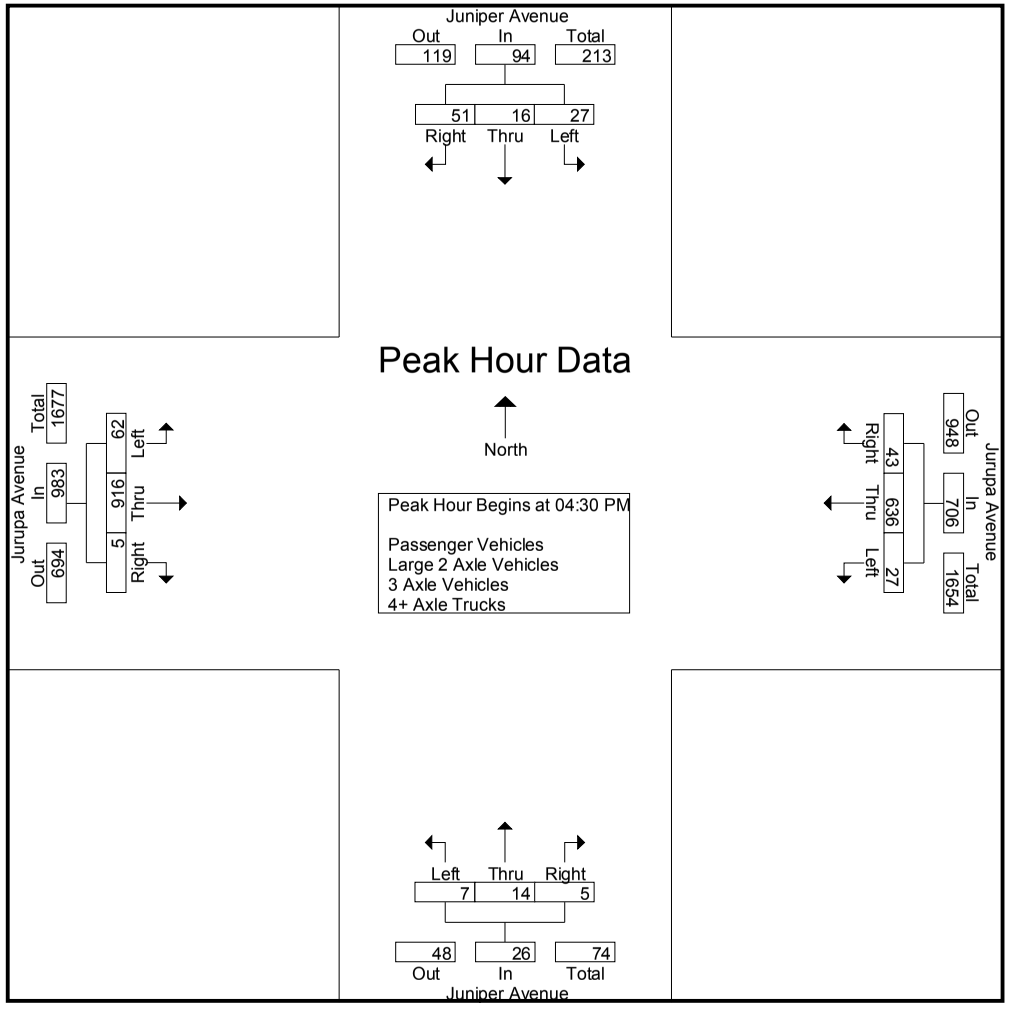

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	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:15 PM				05:00 PM				04:30 PM				04:30 PM				
+0 mins.	6	5	12	23	7	153	9	169	2	**4**	**3**	**9**	18	216	0	234	
+15 mins.	6	1	16	23	5	165	**12**	182	**3**	4	2	9	**19**	**253**	1	**273**	
+30 mins.	**10**	6	9	25	**8**	**193**	8	**209**	0	2	0	2	12	208	**2**	222	
+45 mins.	7	**7**	**17**	**31**	8	167	12	187	2	4	0	6	13	239	2	254	
Total Volume	29	19	54	102	28	678	41	747	7	14	5	26	62	916	5	983	
% App. Total	28.4	18.6	52.9		3.7	90.8	5.5		26.9	53.8	19.2		6.3	93.2	0.5		
PHF	.725	.679	.794	.823	.875	.878	.854	.894	.583	.875	.417	.722	.816	.905	.625	.900	

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Page No : 1

Groups Printed- Passenger Vehicles

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	1	12	8	15	7	151	5	2	163	0	1	3	1	4	12	206	0	0	218	11	400	411
04:15 PM	6	5	12	9	23	7	160	11	2	178	1	1	1	1	3	14	206	2	0	222	12	426	438
04:30 PM	6	1	16	13	23	8	144	13	2	165	2	4	3	2	9	18	207	0	0	225	17	422	439
04:45 PM	10	6	9	7	25	7	160	8	1	175	3	4	2	1	9	18	239	1	0	258	9	467	476
Total	24	13	49	37	86	29	615	37	7	681	6	10	9	5	25	62	858	3	0	923	49	1715	1764
05:00 PM	7	7	15	12	29	7	146	8	1	161	0	2	0	0	2	12	202	2	0	216	13	408	421
05:15 PM	4	2	9	8	15	4	160	12	1	176	2	4	0	0	6	12	224	2	0	238	9	435	444
05:30 PM	6	1	11	10	18	8	191	8	2	207	0	1	0	0	1	8	180	1	0	189	12	415	427
05:45 PM	5	4	11	11	20	8	163	12	0	183	0	0	3	3	3	15	161	1	0	177	14	383	397
Total	22	14	46	41	82	27	660	40	4	727	2	7	3	3	12	47	767	6	0	820	48	1641	1689
Grand Total	46	27	95	78	168	56	1275	77	11	1408	8	17	12	8	37	109	1625	9	0	1743	97	3356	3453
Apprch %	27.4	16.1	56.5			4	90.6	5.5			21.6	45.9	32.4			6.3	93.2	0.5					
Total %	1.4	0.8	2.8		5	1.7	38	2.3		42	0.2	0.5	0.4		1.1	3.2	48.4	0.3		51.9	2.8	97.2	

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	6	1	**16**	23	**8**	144	**13**	165	2	**4**	**3**	**9**	**18**	207	0	225	422
04:45 PM	**10**	6	9	25	7	**160**	8	175	**3**	4	2	9	18	**239**	1	**258**	**467**
05:00 PM	7	**7**	15	**29**	7	146	8	161	0	2	0	2	12	202	**2**	216	408
05:15 PM	4	2	9	15	4	160	12	**176**	2	4	0	6	12	224	2	238	435
Total Volume	27	16	49	92	26	610	41	677	7	14	5	26	60	872	5	937	1732
% App. Total	29.3	17.4	53.3		3.8	90.1	6.1		26.9	53.8	19.2		6.4	93.1	0.5		
PHF	.675	.571	.766	.793	.813	.953	.788	.962	.583	.875	.417	.722	.833	.912	.625	.908	.927

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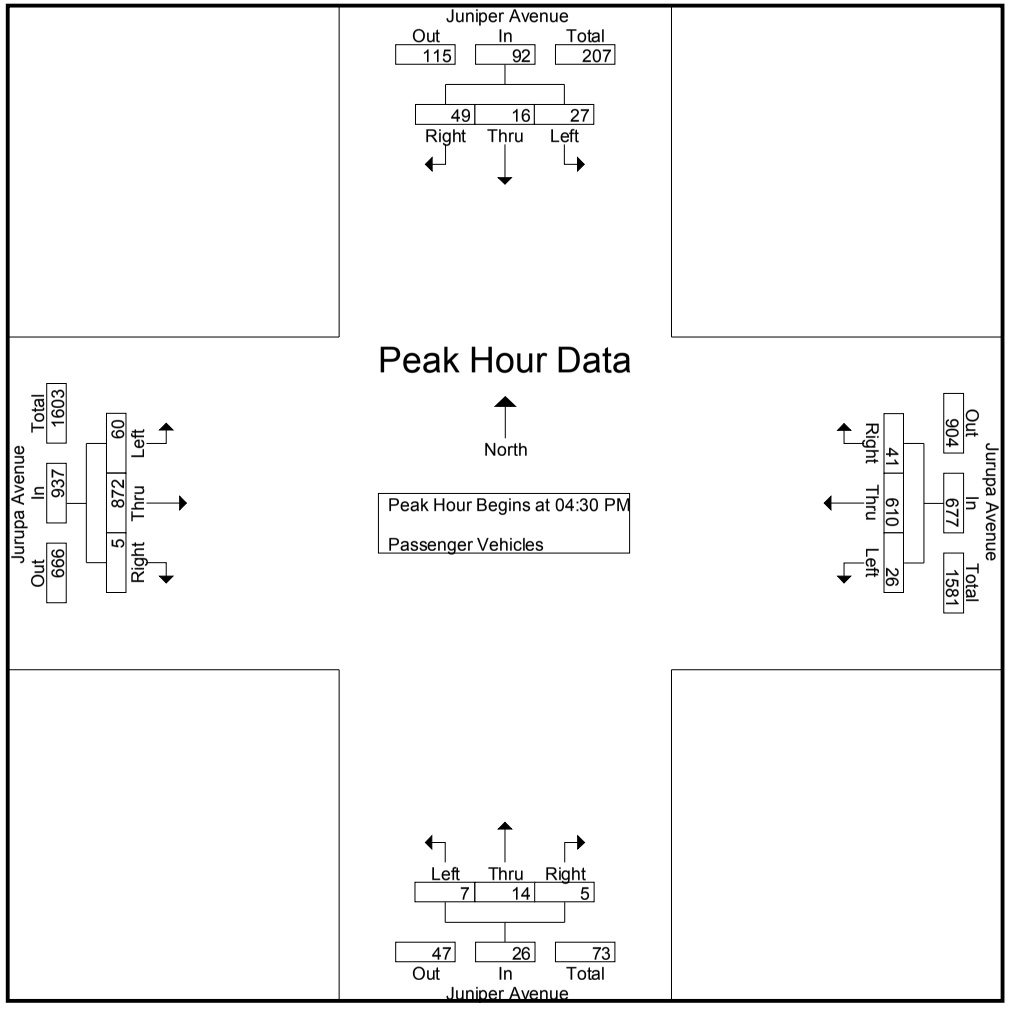
City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Juniper Avenue
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Weather: Clear

File Name : 21_FON_Juniper_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	6	1	**16**	23	**8**	144	**13**	165	2	**4**	**3**	**9**	**18**	207	0	225	
+15 mins.	**10**	6	9	25	7	**160**	8	175	**3**	4	2	9	18	**239**	1	**258**	
+30 mins.	7	**7**	15	**29**	7	146	8	161	0	2	0	2	12	202	**2**	216	
+45 mins.	4	2	9	15	4	160	12	**176**	2	4	0	6	12	224	2	238	
Total Volume	27	16	49	92	26	610	41	677	7	14	5	26	60	872	5	937	
% App. Total	29.3	17.4	53.3		3.8	90.1	6.1		26.9	53.8	19.2		6.4	93.1	0.5		
PHF	.675	.571	.766	.793	.813	.953	.788	.962	.583	.875	.417	.722	.833	.912	.625	.908	

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City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	1	1	1	3	1	0	5	0	0	0	0	0	1	3	0	0	4	1	10	11
04:15 PM	0	0	0	0	0	0	7	1	0	8	0	0	0	0	0	2	8	0	0	10	0	18	18
04:30 PM	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	0	6	0	0	6	0	13	13
04:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	1	4	0	0	5	0	9	9
Total	0	0	1	1	1	1	20	3	0	24	0	0	0	0	0	4	21	0	0	25	1	50	51
05:00 PM	0	0	2	2	2	0	3	1	0	4	0	0	0	0	0	0	3	0	0	3	2	9	11
05:15 PM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	1	9	0	0	10	0	13	13
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	2
Total	0	0	2	2	2	1	7	1	0	9	0	0	0	0	0	1	15	0	0	16	2	27	29
Grand Total	0	0	3	3	3	2	27	4	0	33	0	0	0	0	0	5	36	0	0	41	3	77	80
Apprch %	0	0	100			6.1	81.8	12.1			0	0	0			12.2	87.8	0					
Total %	0	0	3.9		3.9	2.6	35.1	5.2		42.9	0	0	0		0	6.5	46.8	0		53.2	3.8	96.2	

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	**6**	**1**	**7**	0	0	0	0	0	6	0	6	**13**
04:45 PM	0	0	0	0	0	4	0	4	0	0	0	0	**1**	4	0	5	9
05:00 PM	0	0	**2**	**2**	0	3	1	4	0	0	0	0	0	3	0	3	9
05:15 PM	0	0	0	0	**1**	2	0	3	0	0	0	0	1	**9**	0	**10**	13
Total Volume	0	0	2	2	1	15	2	18	0	0	0	0	2	22	0	24	44
% App. Total	0	0	100		5.6	83.3	11.1		0	0	0		8.3	91.7	0		
PHF	.000	.000	.250	.250	.250	.625	.500	.643	.000	.000	.000	.000	.500	.611	.000	.600	.846

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City of Fontana
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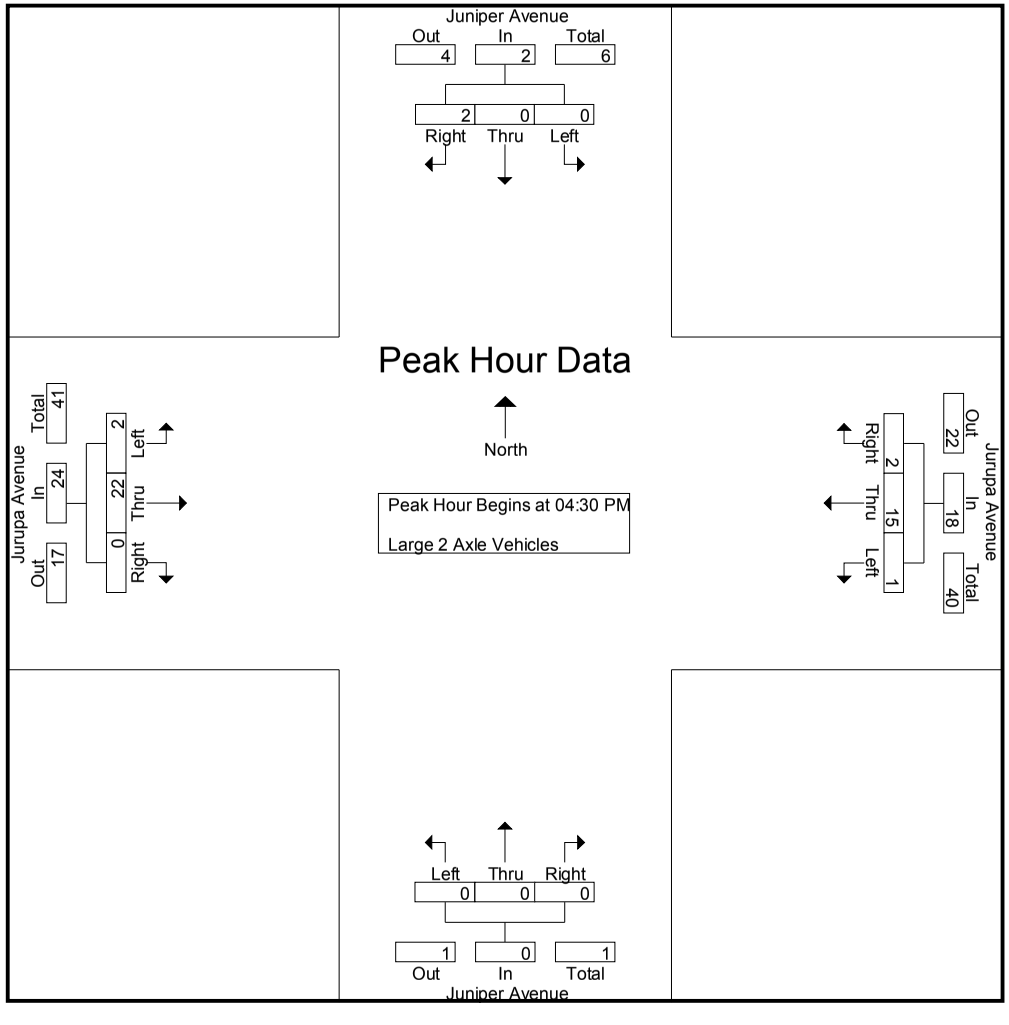
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Juniper Avenue
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File Name : 21_FON_Juniper_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	0	**6**	**1**	**7**	0	0	0	0	0	6	0	6	
+15 mins.	0	0	0	0	0	4	0	4	0	0	0	0	**1**	4	0	5	
+30 mins.	0	0	**2**	**2**	0	3	1	4	0	0	0	0	0	3	0	3	
+45 mins.	0	0	0	0	**1**	2	0	3	0	0	0	0	1	**9**	0	**10**	
Total Volume	0	0	2	2	1	15	2	18	0	0	0	0	2	22	0	24	
% App. Total	0	0	100		5.6	83.3	11.1		0	0	0		8.3	91.7	0		
PHF	.000	.000	.250	.250	.250	.625	.500	.643	.000	.000	.000	.000	.500	.611	.000	.600	

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City of Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 21_FON_Juniper_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	8	8
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	0	0	2	0	3	3
Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	8	8
Grand Total	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	8	0	0	8	0	16	16
Apprch %	0	0	0			0	100	0			0	0	0			0	100	0					
Total %	0	0	0		0	0	50	0		50	0	0	0		0	0	50	0		50	0	100	

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	2
04:45 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	**4**
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	8
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	.500

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File Name : 21_FON_Juniper_Jurupa PM
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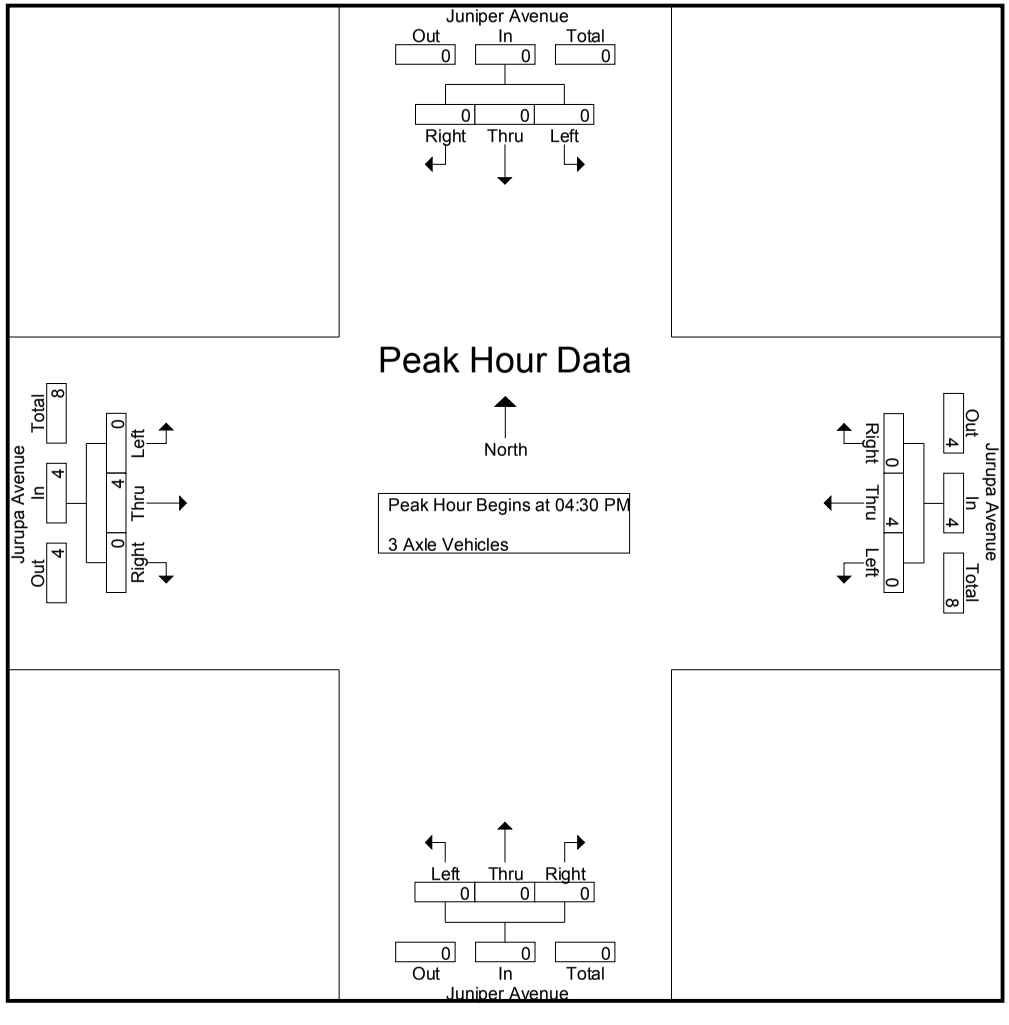

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File Name : 21_FON_Juniper_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	
+15 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	
Total Volume	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.500	.000	.500	

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Weather: Clear

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Page No : 1

Groups Printed- 4+ Axle Trucks

	Juniper Avenue Southbound					Jurupa Avenue Westbound					Juniper Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	5	5
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	10	0	0	10	0	12	12
Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	17	0	0	17	0	20	20
05:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	3	0	0	3	0	7	7
05:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	5	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	3	3
05:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	0	4	4
Total	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	0	12	0	0	12	0	19	19
Grand Total	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	29	0	0	29	0	39	39
Apprch %	0	0	0			0	100	0			0	0	0			0	100	0					
Total %	0	0	0		0	0	25.6	0		25.6	0	0	0		0	0	74.4	0		74.4	0	100	

3.1-360

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	**10**	0	**10**	**12**
05:00 PM	0	0	0	0	0	**4**	0	**4**	0	0	0	0	0	3	0	3	7
05:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	5
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	0	18	0	18	25
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.438	.000	.438	.000	.000	.000	.000	.000	.450	.000	.450	.521

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City of Fontana
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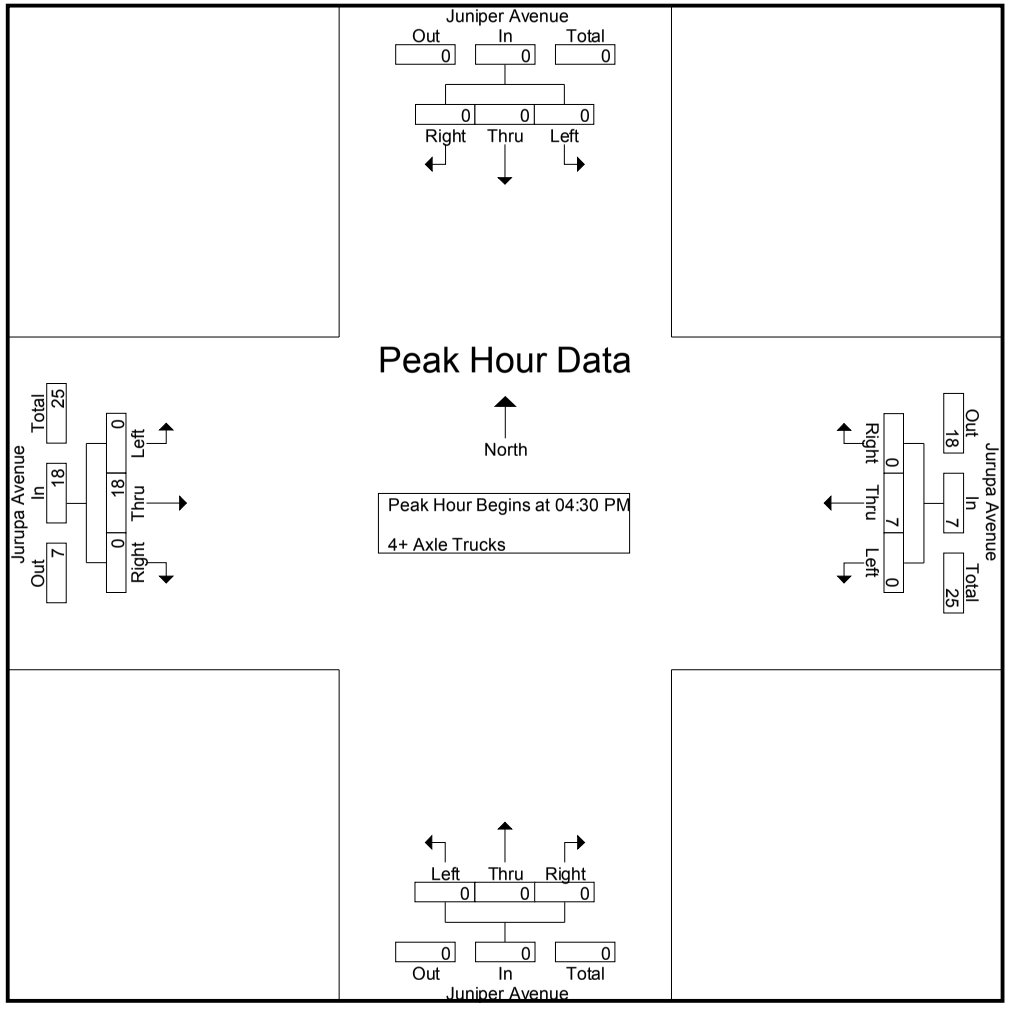
Weather: Clear

File Name : 21_FON_Juniper_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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Weather: Clear

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Page No : 3

	Juniper Avenue Southbound				Jurupa Avenue Westbound				Juniper Avenue Northbound				Jurupa 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 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:30 PM				04:30 PM				04:30 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	**10**	0	**10**	
+30 mins.	0	0	0	0	0	**4**	0	**4**	0	0	0	0	0	3	0	3	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	4	0	4	
Total Volume	0	0	0	0	0	7	0	7	0	0	0	0	0	18	0	18	
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.438	.000	.438	.000	.000	.000	.000	.000	.450	.000	.450	

Location: Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Juniper Avenue	East Leg Jurupa Avenue	South Leg Juniper Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	2	0	0	0	2
8:30 AM	0	1	2	0	3
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	3	1	2	0	6

	North Leg Juniper Avenue	East Leg Jurupa Avenue	South Leg Juniper Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	1	0	1
4:45 PM	0	0	1	0	1
5:00 PM	2	0	1	0	3
5:15 PM	0	0	0	0	0
5:30 PM	1	0	0	0	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	3	0	3	0	6

Location: Fontana
N/S: Juniper Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Juniper Avenue			Westbound Jurupa Avenue			Northbound Juniper Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	1	0	1

	Southbound Juniper Avenue			Westbound Jurupa Avenue			Northbound Juniper Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	112	174	86	19	372	10	61	82	60	153	31	191	18	4	240	46	38	17	13	101	96	866	962
07:15 AM	127	160	93	19	380	16	61	106	72	183	42	197	10	2	249	75	51	20	12	146	105	958	1063
07:30 AM	96	187	60	13	343	21	62	103	78	186	36	251	26	5	313	73	56	18	12	147	108	989	1097
07:45 AM	115	175	35	7	325	11	58	90	53	159	27	202	17	1	246	42	62	15	8	119	69	849	918
Total	450	696	274	58	1420	58	242	381	263	681	136	841	71	12	1048	236	207	70	45	513	378	3662	4040
08:00 AM	142	154	32	10	328	23	52	81	52	156	32	225	33	7	290	46	48	13	9	107	78	881	959
08:15 AM	163	165	30	6	358	28	35	78	46	141	28	236	32	5	296	33	59	15	5	107	62	902	964
08:30 AM	149	159	20	3	328	22	33	79	36	134	25	201	26	4	252	29	45	17	10	91	53	805	858
08:45 AM	125	192	25	7	342	19	30	81	50	130	16	233	34	2	283	32	57	21	14	110	73	865	938
Total	579	670	107	26	1356	92	150	319	184	561	101	895	125	18	1121	140	209	66	38	415	266	3453	3719
Grand Total	1029	1366	381	84	2776	150	392	700	447	1242	237	1736	196	30	2169	376	416	136	83	928	644	7115	7759
Apprch %	37.1	49.2	13.7			12.1	31.6	56.4			10.9	80	9			40.5	44.8	14.7					
Total %	14.5	19.2	5.4		39	2.1	5.5	9.8		17.5	3.3	24.4	2.8		30.5	5.3	5.8	1.9		13	8.3	91.7	
Passenger Vehicles	997	1311	362		2749	139	357	665		1585	232	1675	193		2129	355	385	128		947	0	0	7410
% Passenger Vehicles	96.9	96	95	94	96.1	92.7	91.1	95	94.9	93.8	97.9	96.5	98.5	96.7	96.8	94.4	92.5	94.1	95.2	93.7	0	0	95.5
Large 2 Axle Vehicles	14	32	11		61	7	11	14		43	2	37	2		42	14	16	4		36	0	0	182
% Large 2 Axle Vehicles	1.4	2.3	2.9	4.8	2.1	4.7	2.8	2	2.5	2.5	0.8	2.1	1	3.3	1.9	3.7	3.8	2.9	2.4	3.6	0	0	2.3
3 Axle Vehicles	4	7	5		17	2	8	5		18	2	6	0		8	5	5	3		14	0	0	57
% 3 Axle Vehicles	0.4	0.5	1.3	1.2	0.6	1.3	2	0.7	0.7	1.1	0.8	0.3	0	0	0.4	1.3	1.2	2.2	1.2	1.4	0	0	0.7
4+ Axle Trucks	14	16	3		33	2	16	16		43	1	18	1		20	2	10	1		14	0	0	110
% 4+ Axle Trucks	1.4	1.2	0.8	0	1.2	1.3	4.1	2.3	2	2.5	0.4	1	0.5	0	0.9	0.5	2.4	0.7	1.2	1.4	0	0	1.4

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM																	
07:15 AM	127	160	**93**	**380**	16	61	**106**	183	**42**	197	10	249	**75**	51	**20**	146	958
07:30 AM	96	**187**	60	343	21	**62**	103	**186**	36	**251**	26	**313**	73	56	18	**147**	**989**
07:45 AM	115	175	35	325	11	58	90	159	27	202	17	246	42	**62**	15	119	849
08:00 AM	**142**	154	32	328	**23**	52	81	156	32	225	**33**	290	46	48	13	107	881
Total Volume	480	676	220	1376	71	233	380	684	137	875	86	1098	236	217	66	519	3677
% App. Total	34.9	49.1	16		10.4	34.1	55.6		12.5	79.7	7.8		45.5	41.8	12.7		
PHF	.845	.904	.591	.905	.772	.940	.896	.919	.815	.872	.652	.877	.787	.875	.825	.883	.929

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E/W: Slover Avenue
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Site Code : 05119181
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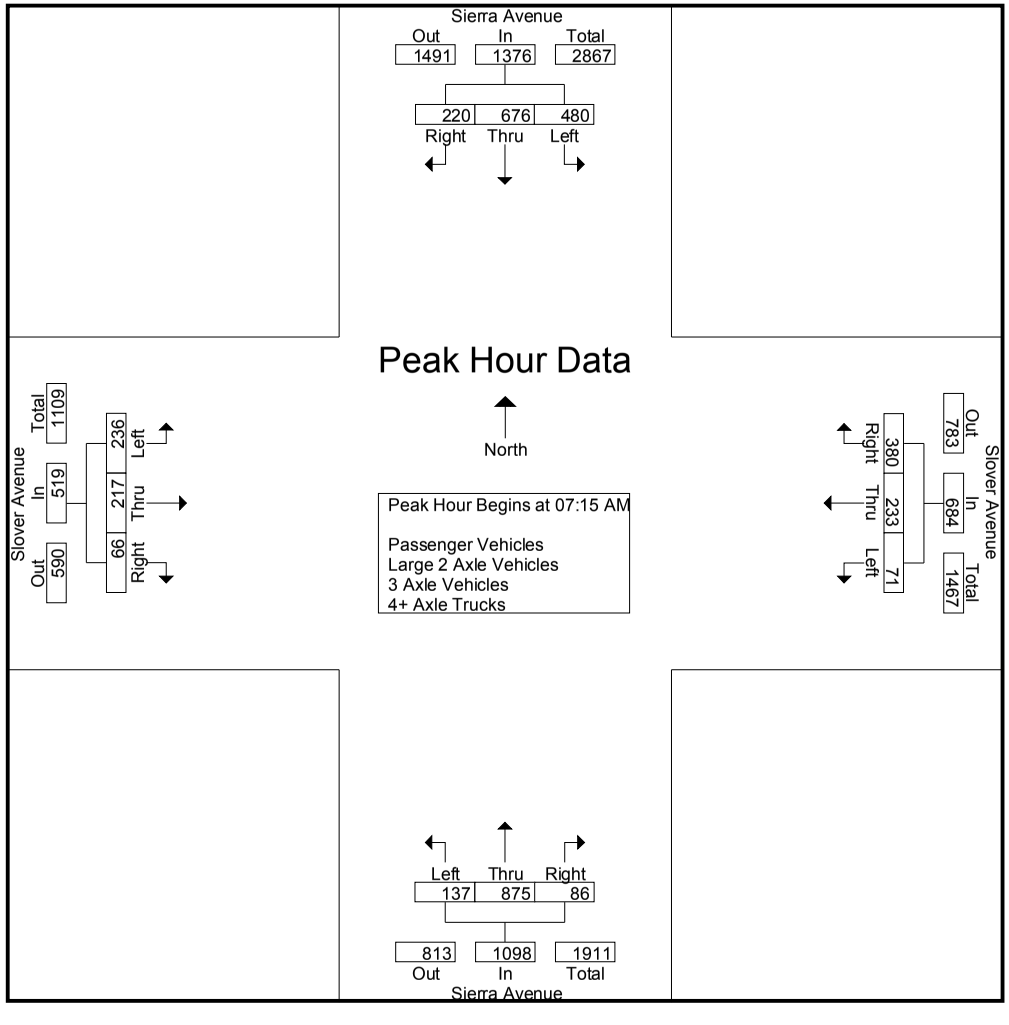

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N/S: Sierra Avenue
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File Name : 22_FON_Sierra_Slover AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 Each Approach Begins at:																	
	07:00 AM				07:15 AM				07:30 AM				07:15 AM				
+0 mins.	112	174	86	372	16	61	**106**	183	**36**	**251**	26	**313**	**75**	51	**20**	146	
+15 mins.	**127**	160	**93**	**380**	21	**62**	103	**186**	27	202	17	246	73	56	18	**147**	
+30 mins.	96	**187**	60	343	11	58	90	159	32	225	**33**	290	42	**62**	15	119	
+45 mins.	115	175	35	325	**23**	52	81	156	28	236	32	296	46	48	13	107	
Total Volume	450	696	274	1420	71	233	380	684	123	914	108	1145	236	217	66	519	
% App. Total	31.7	49	19.3		10.4	34.1	55.6		10.7	79.8	9.4		45.5	41.8	12.7		
PHF	.886	.930	.737	.934	.772	.940	.896	.919	.854	.910	.818	.915	.787	.875	.825	.883	

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Groups Printed- Passenger Vehicles

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	108	167	81	18	356	9	52	76	55	137	30	186	17	4	233	46	35	17	13	98	90	824	914
07:15 AM	124	155	91	18	370	15	59	101	68	175	41	192	10	2	243	75	48	18	11	141	99	929	1028
07:30 AM	94	185	60	13	339	18	58	100	76	176	35	243	25	5	303	69	50	18	12	137	106	955	1061
07:45 AM	110	165	34	7	309	10	52	86	50	148	26	197	17	1	240	39	60	15	8	114	66	811	877
Total	436	672	266	56	1374	52	221	363	249	636	132	818	69	12	1019	229	193	68	44	490	361	3519	3880
08:00 AM	137	146	28	8	311	21	49	79	50	149	31	217	33	7	281	42	45	12	8	99	73	840	913
08:15 AM	163	163	28	5	354	28	33	76	46	137	28	227	32	5	287	32	57	14	4	103	60	881	941
08:30 AM	140	148	18	3	306	20	30	76	33	126	25	188	25	3	238	24	38	14	10	76	49	746	795
08:45 AM	121	182	22	7	325	18	24	71	46	113	16	225	34	2	275	28	52	20	13	100	68	813	881
Total	561	639	96	23	1296	87	136	302	175	525	100	857	124	17	1081	126	192	60	35	378	250	3280	3530
Grand Total	997	1311	362	79	2670	139	357	665	424	1161	232	1675	193	29	2100	355	385	128	79	868	611	6799	7410
Apprch %	37.3	49.1	13.6			12	30.7	57.3			11	79.8	9.2			40.9	44.4	14.7					
Total %	14.7	19.3	5.3		39.3	2	5.3	9.8		17.1	3.4	24.6	2.8		30.9	5.2	5.7	1.9		12.8	8.2	91.8	

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	124	155	**91**	**370**	15	**59**	**101**	175	**41**	192	10	243	**75**	48	**18**	**141**	929
07:30 AM	94	**185**	60	339	18	58	100	**176**	35	**243**	25	**303**	69	50	18	137	**955**
07:45 AM	110	165	34	309	10	52	86	148	26	197	17	240	39	**60**	15	114	811
08:00 AM	**137**	146	28	311	**21**	49	79	149	31	217	**33**	281	42	45	12	99	840
Total Volume	465	651	213	1329	64	218	366	648	133	849	85	1067	225	203	63	491	3535
% App. Total	35	49	16		9.9	33.6	56.5		12.5	79.6	8		45.8	41.3	12.8		
PHF	.849	.880	.585	.898	.762	.924	.906	.920	.811	.873	.644	.880	.750	.846	.875	.871	.925

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Site Code : 05119181
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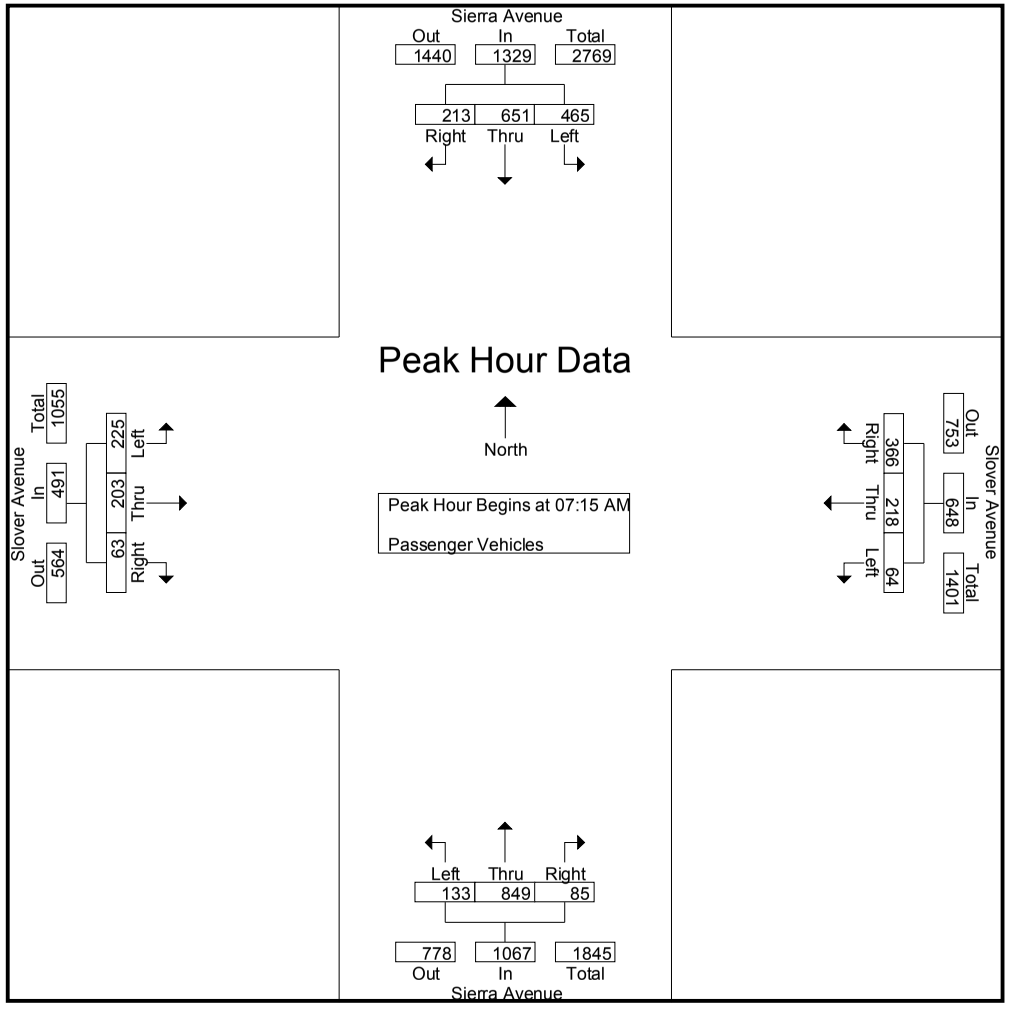
Page No : 2



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	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	124	155	**91**	**370**	15	**59**	**101**	175	**41**	192	10	243	**75**	48	**18**	**141**	
+15 mins.	94	**185**	60	339	18	58	100	**176**	35	**243**	25	**303**	69	50	18	137	
+30 mins.	110	165	34	309	10	52	86	148	26	197	17	240	39	**60**	15	114	
+45 mins.	**137**	146	28	311	**21**	49	79	149	31	217	**33**	281	42	45	12	99	
Total Volume	465	651	213	1329	64	218	366	648	133	849	85	1067	225	203	63	491	
% App. Total	35	49	16		9.9	33.6	56.5		12.5	79.6	8		45.8	41.3	12.8		
PHF	.849	.880	.585	.898	.762	.924	.906	.920	.811	.873	.644	.880	.750	.846	.875	.871	

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Groups Printed- Large 2 Axle Vehicles

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	4	4	1	10	1	4	2	1	7	0	2	0	0	2	0	1	0	0	1	2	20	22
07:15 AM	1	2	0	0	3	1	0	1	1	2	1	4	0	0	5	0	2	2	1	4	2	14	16
07:30 AM	0	0	0	0	0	1	2	3	2	6	1	4	1	0	6	3	3	0	0	6	2	18	20
07:45 AM	2	6	0	0	8	0	3	1	1	4	0	3	0	0	3	2	0	0	0	2	1	17	18
Total	5	12	4	1	21	3	9	7	5	19	2	13	1	0	16	5	6	2	1	13	7	69	76
08:00 AM	3	4	4	2	11	1	1	0	0	2	0	4	0	0	4	3	2	0	0	5	2	22	24
08:15 AM	0	2	2	1	4	0	0	0	0	0	0	6	0	0	6	1	0	0	0	1	1	11	12
08:30 AM	5	6	0	0	11	2	0	3	3	5	0	10	1	1	11	3	6	1	0	10	4	37	41
08:45 AM	1	8	1	0	10	1	1	4	3	6	0	4	0	0	4	2	2	1	1	5	4	25	29
Total	9	20	7	3	36	4	2	7	6	13	0	24	1	1	25	9	10	2	1	21	11	95	106
Grand Total	14	32	11	4	57	7	11	14	11	32	2	37	2	1	41	14	16	4	2	34	18	164	182
Apprch %	24.6	56.1	19.3			21.9	34.4	43.8			4.9	90.2	4.9			41.2	47.1	11.8					
Total %	8.5	19.5	6.7		34.8	4.3	6.7	8.5		19.5	1.2	22.6	1.2		25	8.5	9.8	2.4		20.7	9.9	90.1	

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	2	0	3	**1**	0	1	2	**1**	**4**	0	5	0	2	**2**	4	14
07:30 AM	0	0	0	0	1	2	**3**	**6**	1	4	**1**	**6**	**3**	**3**	0	**6**	18
07:45 AM	2	**6**	0	8	0	**3**	1	4	0	3	0	3	2	0	0	2	17
08:00 AM	**3**	4	**4**	**11**	1	1	0	2	0	4	0	4	3	2	0	5	**22**
Total Volume	6	12	4	22	3	6	5	14	2	15	1	18	8	7	2	17	71
% App. Total	27.3	54.5	18.2		21.4	42.9	35.7		11.1	83.3	5.6		47.1	41.2	11.8		
PHF	.500	.500	.250	.500	.750	.500	.417	.583	.500	.938	.250	.750	.667	.583	.250	.708	.807

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City of Fontana
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E/W: Slover Avenue
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Start Date : 3/14/2019
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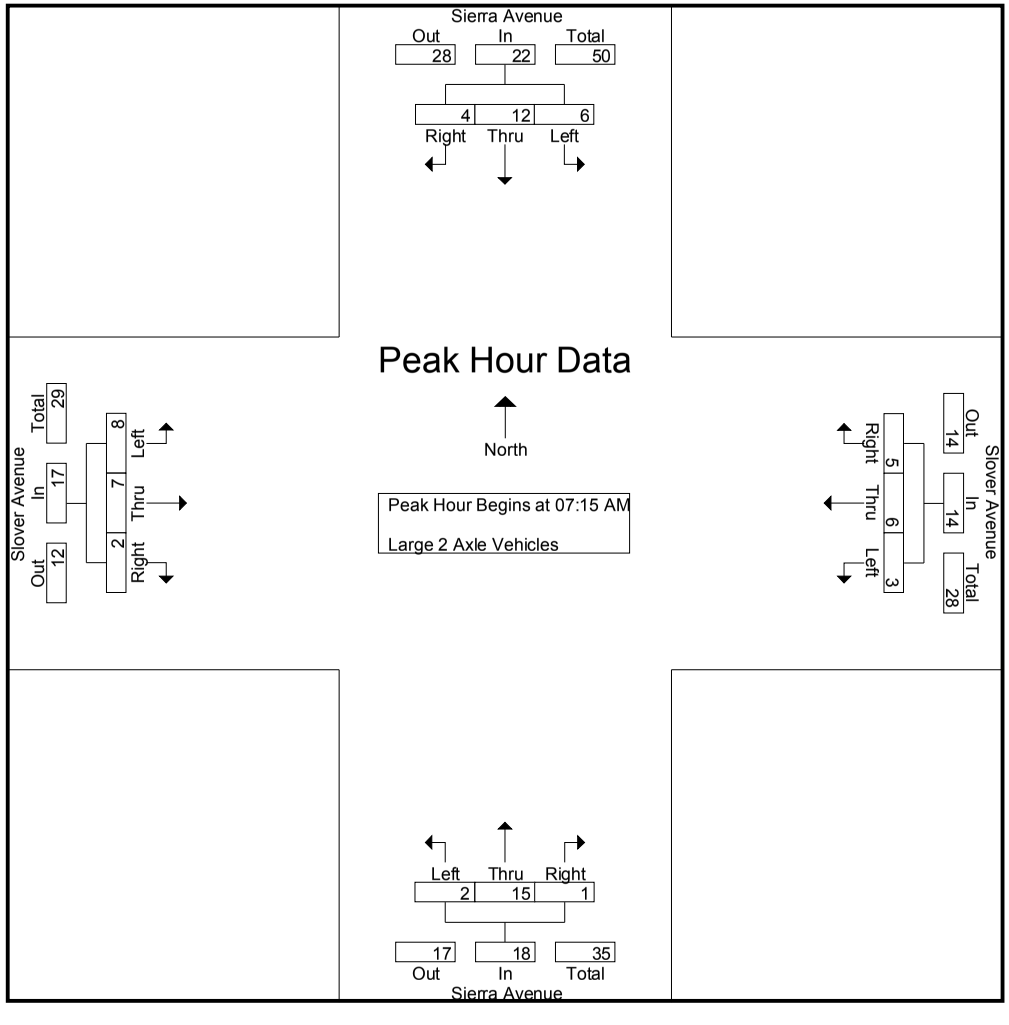

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City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover AM
Site Code : 05119181
Start Date : 3/14/2019
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	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	1	2	0	3	**1**	0	1	2	**1**	**4**	0	5	0	2	**2**	4	
+15 mins.	0	0	0	0	1	2	**3**	**6**	1	4	**1**	**6**	**3**	**3**	0	**6**	
+30 mins.	2	**6**	0	8	0	**3**	1	4	0	3	0	3	2	0	0	2	
+45 mins.	**3**	4	**4**	**11**	1	1	0	2	0	4	0	4	3	2	0	5	
Total Volume	6	12	4	22	3	6	5	14	2	15	1	18	8	7	2	17	
% App. Total	27.3	54.5	18.2		21.4	42.9	35.7		11.1	83.3	5.6		47.1	41.2	11.8		
PHF	.500	.500	.250	.500	.750	.500	.417	.583	.500	.938	.250	.750	.667	.583	.250	.708	

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City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	1	0	3	0	3	2	2	5	1	0	0	0	1	0	0	0	0	0	2	9	11
07:15 AM	0	0	2	1	2	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	4	5
07:30 AM	1	1	0	0	2	1	0	0	0	1	0	1	0	0	1	1	2	0	0	3	0	7	7
07:45 AM	1	3	1	0	5	1	0	1	0	2	0	0	0	0	0	1	0	0	0	1	0	8	8
Total	2	6	4	1	12	2	4	3	2	9	1	1	0	0	2	2	3	0	0	5	3	28	31
08:00 AM	0	0	0	0	0	0	1	1	1	2	1	3	0	0	4	1	0	0	0	1	1	7	8
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	1	1	1	3	4
08:30 AM	1	1	0	0	2	0	2	0	0	2	0	0	0	0	0	2	1	2	0	5	0	9	9
08:45 AM	1	0	1	0	2	0	1	1	0	2	0	0	0	0	0	0	1	0	0	1	0	5	5
Total	2	1	1	0	4	0	4	2	1	6	1	5	0	0	6	3	2	3	1	8	2	24	26
Grand Total	4	7	5	1	16	2	8	5	3	15	2	6	0	0	8	5	5	3	1	13	5	52	57
Apprch %	25	43.8	31.2			13.3	53.3	33.3			25	75	0			38.5	38.5	23.1					
Total %	7.7	13.5	9.6		30.8	3.8	15.4	9.6		28.8	3.8	11.5	0		15.4	9.6	9.6	5.8		25	8.8	91.2	

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	**2**	2	0	**1**	0	1	0	0	0	0	0	1	0	1	4
07:30 AM	**1**	1	0	2	**1**	0	0	1	0	1	0	1	**1**	**2**	0	**3**	7
07:45 AM	1	**3**	1	**5**	1	0	**1**	**2**	0	0	0	0	1	0	0	1	**8**
08:00 AM	0	0	0	0	0	1	1	2	**1**	**3**	0	**4**	1	0	0	1	7
Total Volume	2	4	3	9	2	2	2	6	1	4	0	5	3	3	0	6	26
% App. Total	22.2	44.4	33.3		33.3	33.3	33.3		20	80	0		50	50	0		
PHF	.500	.333	.375	.450	.500	.500	.500	.750	.250	.333	.000	.313	.750	.375	.000	.500	.813

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City of Fontana
N/S: Sierra Avenue
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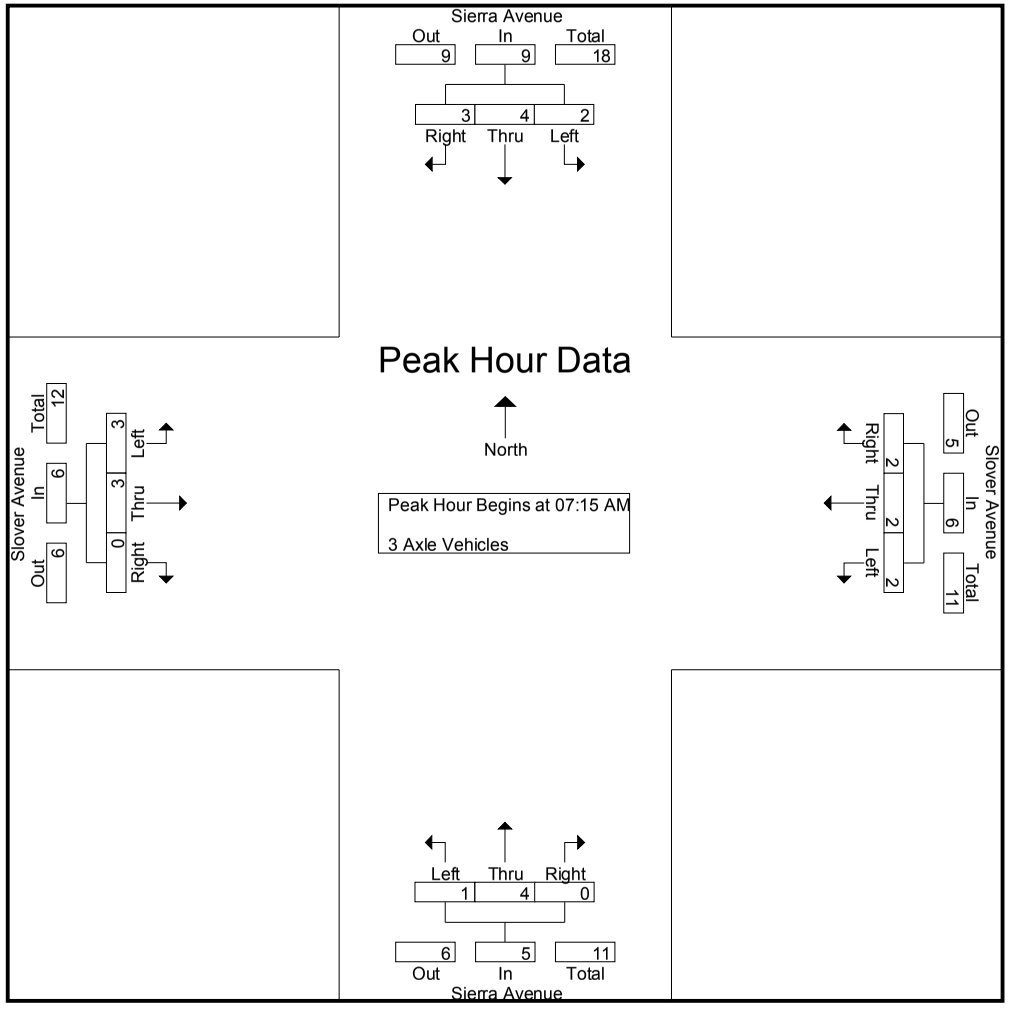

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City of Fontana
N/S: Sierra Avenue
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Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	0	0	**2**	2	0	**1**	0	1	0	0	0	0	0	1	0	1	
+15 mins.	**1**	1	0	2	**1**	0	0	1	0	1	0	1	**1**	**2**	0	**3**	
+30 mins.	1	**3**	1	**5**	1	0	**1**	**2**	0	0	0	0	1	0	0	1	
+45 mins.	0	0	0	0	0	1	1	2	**1**	**3**	0	**4**	1	0	0	1	
Total Volume	2	4	3	9	2	2	2	6	1	4	0	5	3	3	0	6	
% App. Total	22.2	44.4	33.3		33.3	33.3	33.3		20	80	0		50	50	0		
PHF	.500	.333	.375	.450	.500	.500	.500	.750	.250	.333	.000	.313	.750	.375	.000	.500	

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City of Fontana
N/S: Sierra Avenue
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File Name : 22_FON_Sierra_Slover AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	1	0	0	3	0	2	2	2	4	0	3	1	0	4	0	2	0	0	2	2	13	15
07:15 AM	2	3	0	0	5	0	1	4	3	5	0	1	0	0	1	0	0	0	0	0	3	11	14
07:30 AM	1	1	0	0	2	1	2	0	0	3	0	3	0	0	3	0	1	0	0	1	0	9	9
07:45 AM	2	1	0	0	3	0	3	2	2	5	1	2	0	0	3	0	2	0	0	2	2	13	15
Total	7	6	0	0	13	1	8	8	7	17	1	9	1	0	11	0	5	0	0	5	7	46	53
08:00 AM	2	4	0	0	6	1	1	1	1	3	0	1	0	0	1	0	1	1	1	2	2	12	14
08:15 AM	0	0	0	0	0	0	2	2	0	4	0	1	0	0	1	0	2	0	0	2	0	7	7
08:30 AM	3	4	2	0	9	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	13	13
08:45 AM	2	2	1	0	5	0	4	5	1	9	0	4	0	0	4	2	2	0	0	4	1	22	23
Total	7	10	3	0	20	1	8	8	2	17	0	9	0	0	9	2	5	1	1	8	3	54	57
Grand Total	14	16	3	0	33	2	16	16	9	34	1	18	1	0	20	2	10	1	1	13	10	100	110
Apprch %	42.4	48.5	9.1			5.9	47.1	47.1			5	90	5			15.4	76.9	7.7					
Total %	14	16	3		33	2	16	16		34	1	18	1		20	2	10	1		13	9.1	90.9	

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**2**	3	0	5	0	1	**4**	**5**	0	1	0	1	0	0	0	0	11
07:30 AM	1	1	0	2	**1**	2	0	3	0	**3**	0	**3**	0	1	0	1	9
07:45 AM	2	1	0	3	0	**3**	2	5	**1**	2	0	3	0	**2**	0	**2**	**13**
08:00 AM	2	**4**	0	**6**	1	1	1	3	0	1	0	1	0	1	**1**	2	12
Total Volume	7	9	0	16	2	7	7	16	1	7	0	8	0	4	1	5	45
% App. Total	43.8	56.2	0		12.5	43.8	43.8		12.5	87.5	0		0	80	20		
PHF	.875	.563	.000	.667	.500	.583	.438	.800	.250	.583	.000	.667	.000	.500	.250	.625	.865

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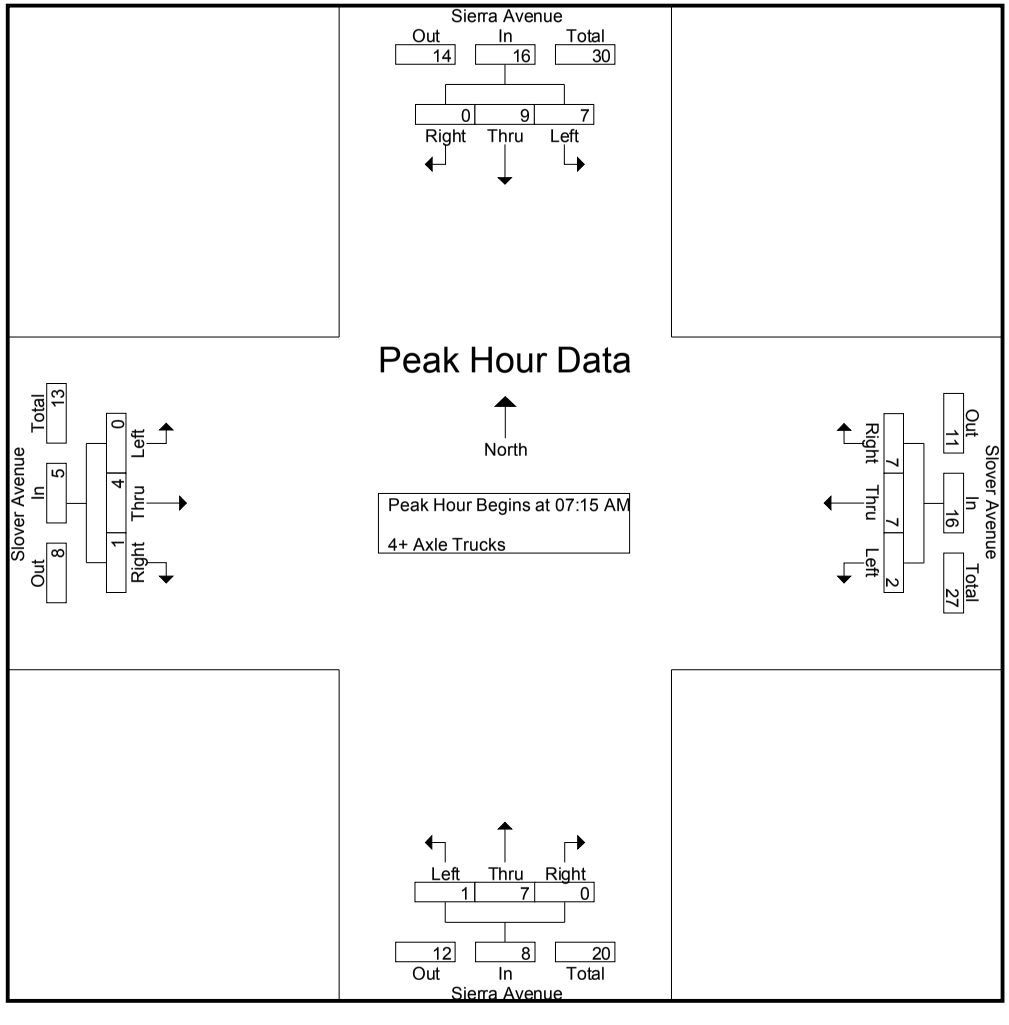
City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
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Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:15 AM				07:15 AM				07:15 AM				07:15 AM				
+0 mins.	**2**	3	0	5	0	1	**4**	**5**	0	1	0	1	0	0	0	0	
+15 mins.	1	1	0	2	**1**	2	0	3	0	**3**	0	**3**	0	1	0	1	
+30 mins.	2	1	0	3	0	**3**	2	5	**1**	2	0	3	0	**2**	0	**2**	
+45 mins.	2	**4**	0	**6**	1	1	1	3	0	1	0	1	0	1	**1**	2	
Total Volume	7	9	0	16	2	7	7	16	1	7	0	8	0	4	1	5	
% App. Total	43.8	56.2	0		12.5	43.8	43.8		12.5	87.5	0		0	80	20		
PHF	.875	.563	.000	.667	.500	.583	.438	.800	.250	.583	.000	.667	.000	.500	.250	.625	

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City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
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File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	132	203	34	9	369	51	84	156	64	291	45	282	36	3	363	75	141	32	18	248	94	1271	1365
04:15 PM	152	214	17	1	383	47	79	153	81	279	53	261	40	3	354	80	153	26	18	259	103	1275	1378
04:30 PM	140	247	19	3	406	51	102	184	87	337	59	261	40	3	360	66	126	28	19	220	112	1323	1435
04:45 PM	167	236	25	2	428	35	87	140	76	262	50	243	42	3	335	83	141	30	14	254	95	1279	1374
Total	591	900	95	15	1586	184	352	633	308	1169	207	1047	158	12	1412	304	561	116	69	981	404	5148	5552
05:00 PM	155	228	25	5	408	53	114	223	128	390	50	258	35	9	343	78	134	41	18	253	160	1394	1554
05:15 PM	140	260	24	5	424	57	94	183	85	334	50	232	37	1	319	69	164	30	19	263	110	1340	1450
05:30 PM	153	244	22	1	419	53	100	163	93	316	64	262	45	7	371	71	137	24	10	232	111	1338	1449
05:45 PM	156	209	45	20	410	48	88	139	62	275	48	249	42	8	339	54	137	24	16	215	106	1239	1345
Total	604	941	116	31	1661	211	396	708	368	1315	212	1001	159	25	1372	272	572	119	63	963	487	5311	5798
Grand Total	1195	1841	211	46	3247	395	748	1341	676	2484	419	2048	317	37	2784	576	1133	235	132	1944	891	10459	11350
Apprch %	36.8	56.7	6.5			15.9	30.1	54			15.1	73.6	11.4			29.6	58.3	12.1					
Total %	11.4	17.6	2		31	3.8	7.2	12.8		23.7	4	19.6	3		26.6	5.5	10.8	2.2		18.6	7.9	92.1	
Passenger Vehicles	1154	1813	206		3216	383	687	1308		3036	407	1993	305		2740	564	1028	224		1945	0	0	10937
% Passenger Vehicles	96.6	98.5	97.6	93.5	97.7	97	91.8	97.5	97.3	96.1	97.1	97.3	96.2	94.6	97.1	97.9	90.7	95.3	97.7	93.7	0	0	96.4
Large 2 Axle Vehicles	17	20	2		39	6	20	11		45	10	31	3		45	7	38	4		51	0	0	180
% Large 2 Axle Vehicles	1.4	1.1	0.9	0	1.2	1.5	2.7	0.8	1.2	1.4	2.4	1.5	0.9	2.7	1.6	1.2	3.4	1.7	1.5	2.5	0	0	1.6
3 Axle Vehicles	4	1	0		5	2	14	5		24	2	4	3		9	4	23	4		32	0	0	70
% 3 Axle Vehicles	0.3	0.1	0	0	0.2	0.5	1.9	0.4	0.4	0.8	0.5	0.2	0.9	0	0.3	0.7	2	1.7	0.8	1.5	0	0	0.6
4+ Axle Trucks	20	7	3		33	4	27	17		55	0	20	6		27	1	44	3		48	0	0	163
% 4+ Axle Trucks	1.7	0.4	1.4	6.5	1	1	3.6	1.3	1	1.7	0	1	1.9	2.7	1	0.2	3.9	1.3	0	2.3	0	0	1.4

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM																	
04:45 PM	**167**	236	**25**	**428**	35	87	140	262	50	243	42	335	**83**	141	30	254	1279
05:00 PM	155	228	25	408	53	**114**	**223**	**390**	50	258	35	343	78	134	**41**	253	**1394**
05:15 PM	140	**260**	24	424	**57**	94	183	334	50	232	37	319	69	**164**	30	**263**	1340
05:30 PM	153	244	22	419	53	100	163	316	**64**	**262**	**45**	**371**	71	137	24	232	1338
Total Volume	615	968	96	1679	198	395	709	1302	214	995	159	1368	301	576	125	1002	5351
% App. Total	36.6	57.7	5.7		15.2	30.3	54.5		15.6	72.7	11.6		30	57.5	12.5		
PHF	.921	.931	.960	.981	.868	.866	.795	.835	.836	.949	.883	.922	.907	.878	.762	.952	.960

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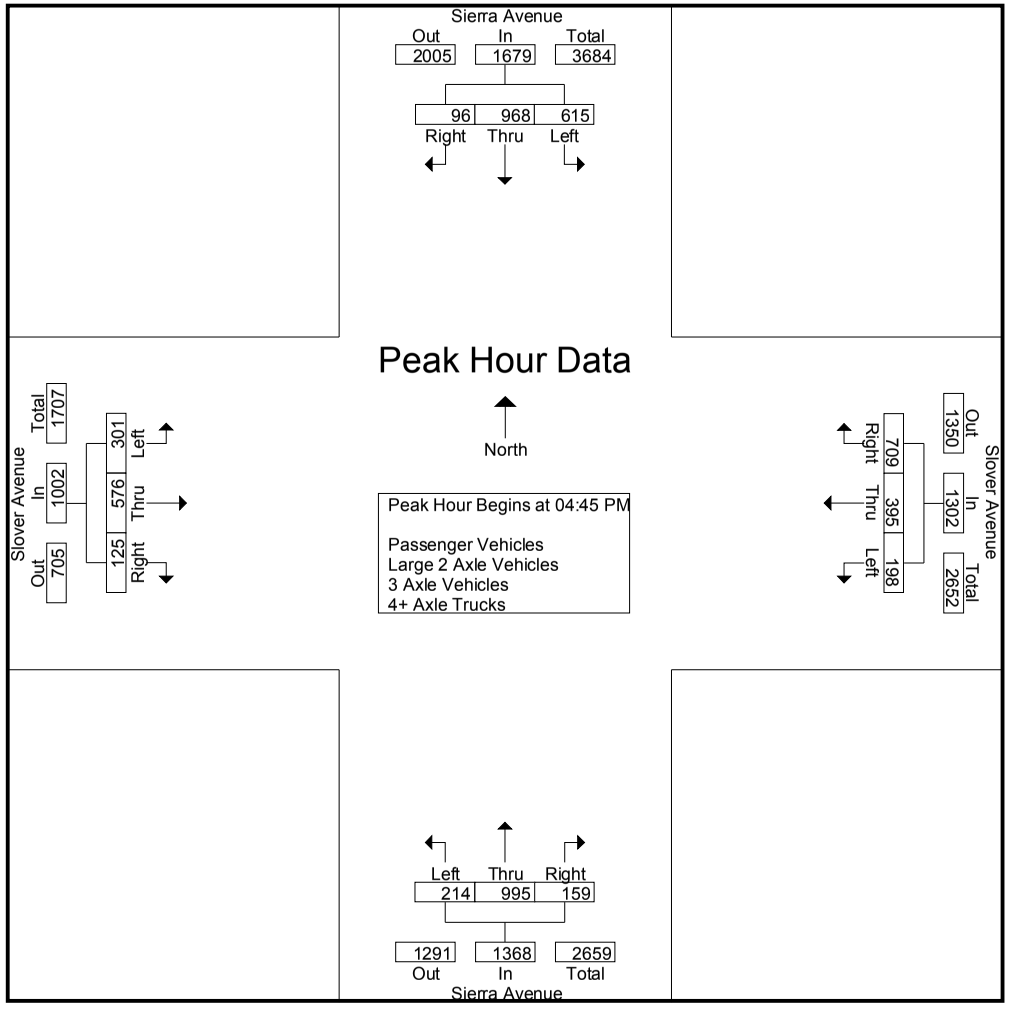

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	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:30 PM				04:00 PM				04:45 PM				
+0 mins.	**167**	236	**25**	**428**	51	102	184	337	45	**282**	36	**363**	**83**	141	30	254	
+15 mins.	155	228	25	408	35	87	140	262	53	261	40	354	78	134	**41**	253	
+30 mins.	140	**260**	24	424	53	**114**	**223**	**390**	**59**	261	40	360	69	**164**	30	**263**	
+45 mins.	153	244	22	419	**57**	94	183	334	50	243	**42**	335	71	137	24	232	
Total Volume	615	968	96	1679	196	397	730	1323	207	1047	158	1412	301	576	125	1002	
% App. Total	36.6	57.7	5.7		14.8	30	55.2		14.7	74.2	11.2		30	57.5	12.5		
PHF	.921	.931	.960	.981	.860	.871	.818	.848	.877	.928	.940	.972	.907	.878	.762	.952	

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Groups Printed- Passenger Vehicles

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	130	199	32	7	361	49	73	154	64	276	44	273	31	3	348	75	124	29	17	228	91	1213	1304
04:15 PM	149	211	17	1	377	47	72	148	78	267	51	252	39	2	342	79	129	25	18	233	99	1219	1318
04:30 PM	135	246	19	3	400	47	92	180	84	319	57	253	39	3	349	64	115	28	19	207	109	1275	1384
04:45 PM	161	230	25	2	416	34	75	135	73	244	50	236	42	3	328	82	127	28	14	237	92	1225	1317
Total	575	886	93	13	1554	177	312	617	299	1106	202	1014	151	11	1367	300	495	110	68	905	391	4932	5323
05:00 PM	146	225	25	5	396	51	110	220	127	381	46	252	33	9	331	75	117	40	17	232	158	1340	1498
05:15 PM	133	255	24	5	412	56	89	178	84	323	49	229	36	1	314	66	156	28	18	250	108	1299	1407
05:30 PM	149	242	21	1	412	51	96	157	89	304	62	256	43	6	361	71	130	22	10	223	106	1300	1406
05:45 PM	151	205	43	19	399	48	80	136	59	264	48	242	42	8	332	52	130	24	16	206	102	1201	1303
Total	579	927	113	30	1619	206	375	691	359	1272	205	979	154	24	1338	264	533	114	61	911	474	5140	5614
Grand Total	1154	1813	206	43	3173	383	687	1308	658	2378	407	1993	305	35	2705	564	1028	224	129	1816	865	10072	10937
Apprch %	36.4	57.1	6.5			16.1	28.9	55			15	73.7	11.3			31.1	56.6	12.3				
Total %	11.5	18	2		31.5	3.8	6.8	13		23.6	4	19.8	3		26.9	5.6	10.2	2.2		18	7.9	92.1	

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**161**	230	**25**	**416**	34	75	135	244	50	236	42	328	**82**	127	28	237	1225
05:00 PM	146	225	25	396	51	**110**	**220**	**381**	46	252	33	331	75	117	**40**	232	**1340**
05:15 PM	133	**255**	24	412	**56**	89	178	323	49	229	36	314	66	**156**	28	**250**	1299
05:30 PM	149	242	21	412	51	96	157	304	**62**	**256**	**43**	**361**	71	130	22	223	1300
Total Volume	589	952	95	1636	192	370	690	1252	207	973	154	1334	294	530	118	942	5164
% App. Total	36	58.2	5.8		15.3	29.6	55.1		15.5	72.9	11.5		31.2	56.3	12.5		
PHF	.915	.933	.950	.983	.857	.841	.784	.822	.835	.950	.895	.924	.896	.849	.738	.942	.963

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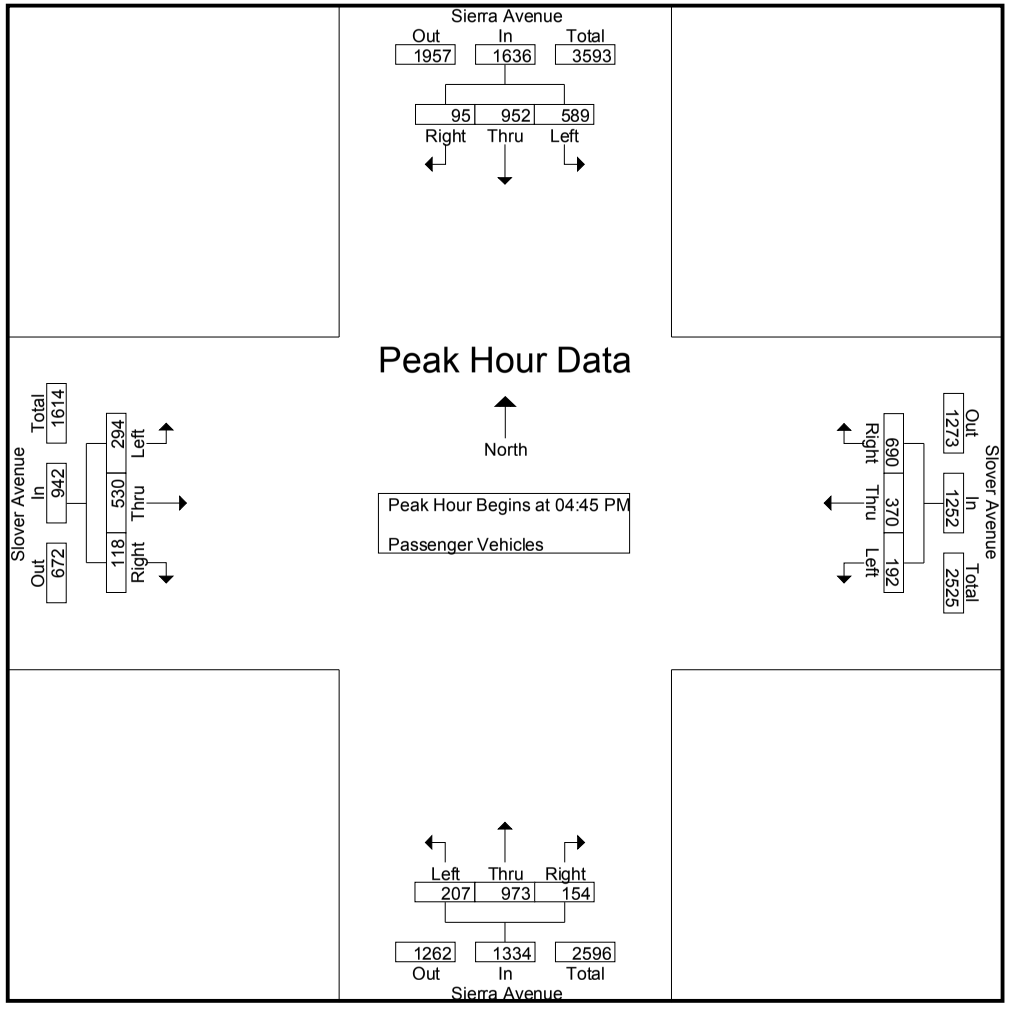
City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	**161**	230	**25**	**416**	34	75	135	244	50	236	42	328	**82**	127	28	237	
+15 mins.	146	225	25	396	51	**110**	**220**	**381**	46	252	33	331	75	117	**40**	232	
+30 mins.	133	**255**	24	412	**56**	89	178	323	49	229	36	314	66	**156**	28	**250**	
+45 mins.	149	242	21	412	51	96	157	304	**62**	**256**	**43**	**361**	71	130	22	223	
Total Volume	589	952	95	1636	192	370	690	1252	207	973	154	1334	294	530	118	942	
% App. Total	36	58.2	5.8		15.3	29.6	55.1		15.5	72.9	11.5		31.2	56.3	12.5		
PHF	.915	.933	.950	.983	.857	.841	.784	.822	.835	.950	.895	.924	.896	.849	.738	.942	

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City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	2	0	0	3	0	5	0	0	5	1	5	1	0	7	0	6	3	1	9	1	24	25
04:15 PM	2	3	0	0	5	0	4	1	1	5	2	4	0	0	6	1	9	0	0	10	1	26	27
04:30 PM	1	1	0	0	2	2	3	2	2	7	1	6	1	0	8	2	3	0	0	5	2	22	24
04:45 PM	0	3	0	0	3	0	5	3	2	8	0	5	0	0	5	0	3	0	0	3	2	19	21
Total	4	9	0	0	13	2	17	6	5	25	4	20	2	0	26	3	21	3	1	27	6	91	97
05:00 PM	6	3	0	0	9	2	1	1	0	4	4	3	0	0	7	2	6	1	1	9	1	29	30
05:15 PM	3	3	0	0	6	1	0	1	1	2	1	1	0	0	2	1	3	0	0	4	1	14	15
05:30 PM	2	2	1	0	5	1	0	2	1	3	1	2	1	1	4	0	4	0	0	4	2	16	18
05:45 PM	2	3	1	0	6	0	2	1	1	3	0	5	0	0	5	1	4	0	0	5	1	19	20
Total	13	11	2	0	26	4	3	5	3	12	6	11	1	1	18	4	17	1	1	22	5	78	83
Grand Total	17	20	2	0	39	6	20	11	8	37	10	31	3	1	44	7	38	4	2	49	11	169	180
Apprch %	43.6	51.3	5.1			16.2	54.1	29.7			22.7	70.5	6.8			14.3	77.6	8.2					
Total %	10.1	11.8	1.2		23.1	3.6	11.8	6.5		21.9	5.9	18.3	1.8		26	4.1	22.5	2.4		29	6.1	93.9	

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**3**	0	3	0	**5**	**3**	**8**	0	**5**	0	5	0	3	0	3	19
05:00 PM	**6**	3	0	**9**	**2**	1	1	4	**4**	3	0	**7**	**2**	**6**	**1**	**9**	**29**
05:15 PM	3	3	0	6	1	0	1	2	1	1	0	2	1	3	0	4	14
05:30 PM	2	2	**1**	5	1	0	2	3	1	2	**1**	4	0	4	0	4	16
Total Volume	11	11	1	23	4	6	7	17	6	11	1	18	3	16	1	20	78
% App. Total	47.8	47.8	4.3		23.5	35.3	41.2		33.3	61.1	5.6		15	80	5		
PHF	.458	.917	.250	.639	.500	.300	.583	.531	.375	.550	.250	.643	.375	.667	.250	.556	.672

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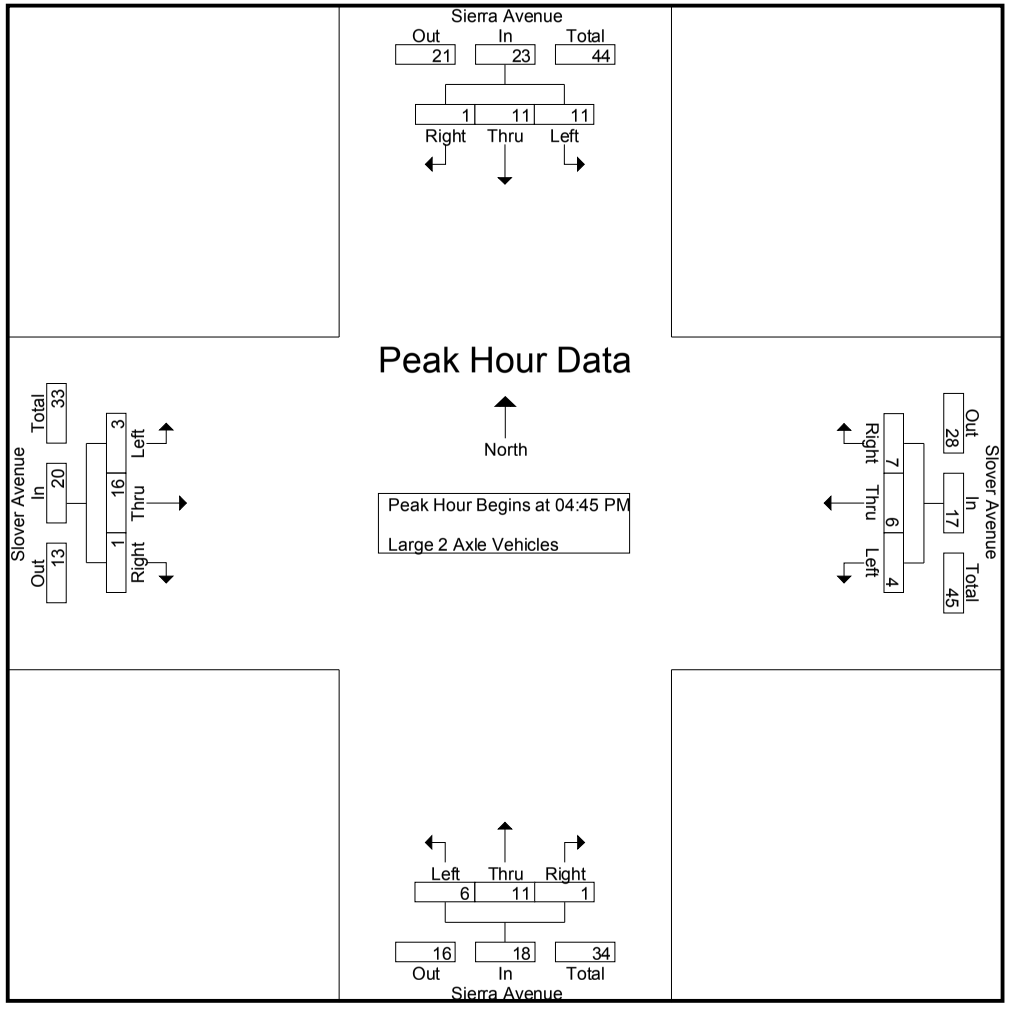
City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
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File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	**3**	0	3	0	**5**	**3**	**8**	0	**5**	0	5	0	3	0	3	
+15 mins.	**6**	3	0	**9**	**2**	1	1	4	**4**	3	0	**7**	**2**	**6**	**1**	**9**	
+30 mins.	3	3	0	6	1	0	1	2	1	1	0	2	1	3	0	4	
+45 mins.	2	2	**1**	5	1	0	2	3	1	2	**1**	4	0	4	0	4	
Total Volume	11	11	1	23	4	6	7	17	6	11	1	18	3	16	1	20	
% App. Total	47.8	47.8	4.3		23.5	35.3	41.2		33.3	61.1	5.6		15	80	5		
PHF	.458	.917	.250	.639	.500	.300	.583	.531	.375	.550	.250	.643	.375	.667	.250	.556	

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City of Fontana
N/S: Sierra Avenue
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	0	1	0	3	2	0	5	0	3	3	0	6	0	2	0	0	2	0	14	14
04:15 PM	0	0	0	0	0	0	2	1	1	3	0	0	0	0	0	0	8	1	0	9	1	12	13
04:30 PM	1	0	0	0	1	2	2	1	1	5	1	0	0	0	1	0	2	0	0	2	1	9	10
04:45 PM	2	0	0	0	2	0	2	0	0	2	0	0	0	0	0	1	6	0	0	7	0	11	11
Total	4	0	0	0	4	2	9	4	2	15	1	3	3	0	7	1	18	1	0	20	2	46	48
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	5	5
05:15 PM	0	1	0	0	1	0	4	0	0	4	0	0	0	0	0	1	1	2	1	4	1	9	10
05:30 PM	0	0	0	0	0	0	1	1	1	2	1	0	0	0	1	0	0	1	0	1	1	4	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	2
Total	0	1	0	0	1	0	5	1	1	6	1	1	0	0	2	3	5	3	1	11	2	20	22
Grand Total	4	1	0	0	5	2	14	5	3	21	2	4	3	0	9	4	23	4	1	31	4	66	70
Apprch %	80	20	0			9.5	66.7	23.8			22.2	44.4	33.3			12.9	74.2	12.9					
Total %	6.1	1.5	0		7.6	3	21.2	7.6		31.8	3	6.1	4.5		13.6	6.1	34.8	6.1		47	5.7	94.3	

3.1-389

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**2**	0	0	**2**	0	2	0	2	0	0	0	0	**1**	**6**	0	**7**	**11**
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	5	5
05:15 PM	0	**1**	0	1	0	**4**	0	**4**	0	0	0	0	1	1	**2**	4	9
05:30 PM	0	0	0	0	0	1	**1**	2	**1**	0	0	**1**	0	0	1	1	4
Total Volume	2	1	0	3	0	7	1	8	1	0	0	1	3	11	3	17	29
% App. Total	66.7	33.3	0		0	87.5	12.5		100	0	0		17.6	64.7	17.6		
PHF	.250	.250	.000	.375	.000	.438	.250	.500	.250	.000	.000	.250	.750	.458	.375	.607	.659

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City of Fontana
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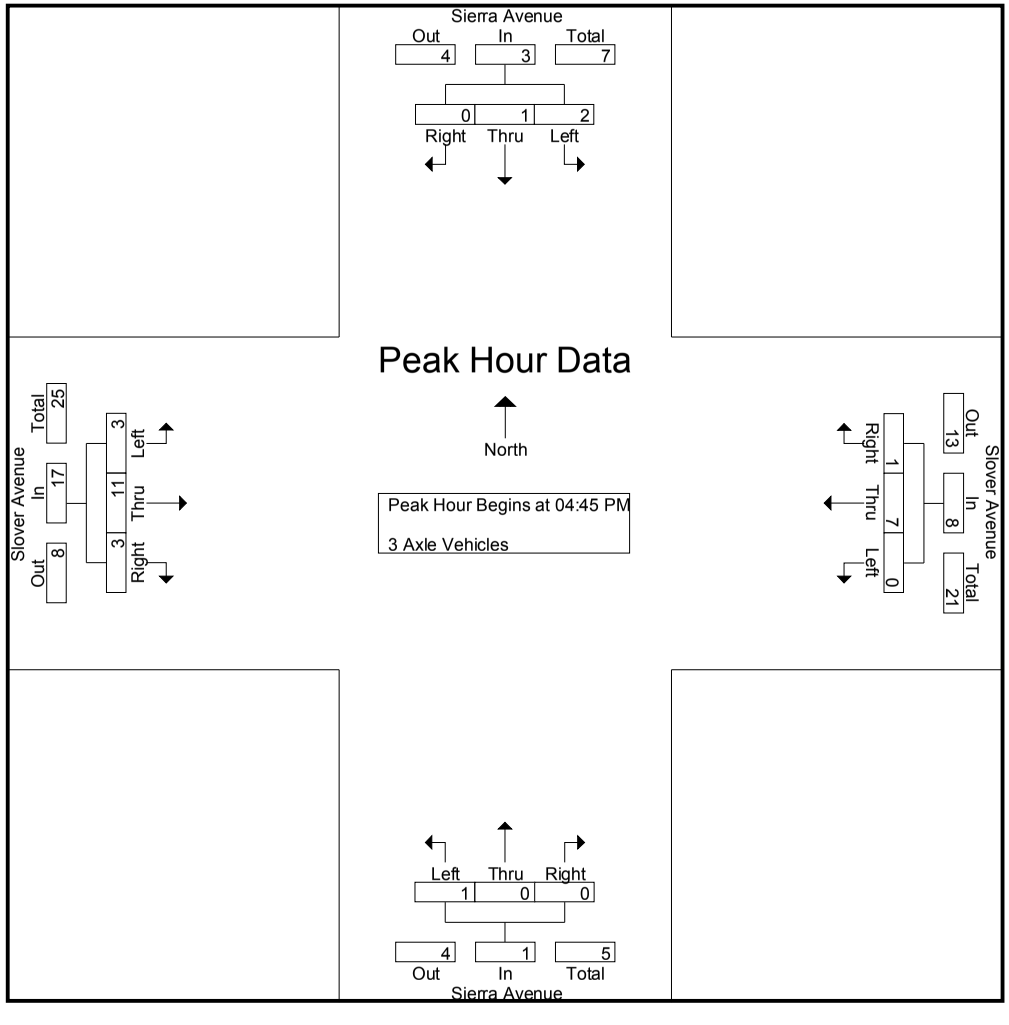
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
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File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	**2**	0	0	**2**	0	2	0	2	0	0	0	0	**1**	**6**	0	**7**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	5	
+30 mins.	0	**1**	0	1	0	**4**	0	**4**	0	0	0	0	1	1	**2**	4	
+45 mins.	0	0	0	0	0	1	**1**	2	**1**	0	0	**1**	0	0	1	1	
Total Volume	2	1	0	3	0	7	1	8	1	0	0	1	3	11	3	17	
% App. Total	66.7	33.3	0		0	87.5	12.5		100	0	0		17.6	64.7	17.6		
PHF	.250	.250	.000	.375	.000	.438	.250	.500	.250	.000	.000	.250	.750	.458	.375	.607	

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N/S: Sierra Avenue
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Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Sierra Avenue Southbound					Slover Avenue Westbound					Sierra Avenue Northbound					Slover Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	2	2	2	4	2	3	0	0	5	0	1	1	0	2	0	9	0	0	9	2	20	22
04:15 PM	1	0	0	0	1	0	1	3	1	4	0	5	1	1	6	0	7	0	0	7	2	18	20
04:30 PM	3	0	0	0	3	0	5	1	0	6	0	2	0	0	2	0	6	0	0	6	0	17	17
04:45 PM	4	3	0	0	7	1	5	2	1	8	0	2	0	0	2	0	5	2	0	7	1	24	25
Total	8	5	2	2	15	3	14	6	2	23	0	10	2	1	12	0	27	2	0	29	5	79	84
05:00 PM	3	0	0	0	3	0	3	2	1	5	0	3	2	0	5	0	7	0	0	7	1	20	21
05:15 PM	4	1	0	0	5	0	1	4	0	5	0	2	1	0	3	1	4	0	0	5	0	18	18
05:30 PM	2	0	0	0	2	1	3	3	2	7	0	4	1	0	5	0	3	1	0	4	2	18	20
05:45 PM	3	1	1	1	5	0	6	2	2	8	0	1	0	0	1	0	3	0	0	3	3	17	20
Total	12	2	1	1	15	1	13	11	5	25	0	10	4	0	14	1	17	1	0	19	6	73	79
Grand Total	20	7	3	3	30	4	27	17	7	48	0	20	6	1	26	1	44	3	0	48	11	152	163
Apprch %	66.7	23.3	10			8.3	56.2	35.4			0	76.9	23.1			2.1	91.7	6.2					
Total %	13.2	4.6	2		19.7	2.6	17.8	11.2		31.6	0	13.2	3.9		17.1	0.7	28.9	2		31.6	6.7	93.3	

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**4**	**3**	0	**7**	**1**	**5**	2	**8**	0	2	0	2	0	5	**2**	**7**	**24**
05:00 PM	3	0	0	3	0	3	2	5	0	3	**2**	**5**	0	**7**	0	7	20
05:15 PM	4	1	0	5	0	1	**4**	5	0	2	1	3	**1**	4	0	5	18
05:30 PM	2	0	0	2	1	3	3	7	0	**4**	1	5	0	3	1	4	18
Total Volume	13	4	0	17	2	12	11	25	0	11	4	15	1	19	3	23	80
% App. Total	76.5	23.5	0		8	48	44		0	73.3	26.7		4.3	82.6	13		
PHF	.813	.333	.000	.607	.500	.600	.688	.781	.000	.688	.500	.750	.250	.679	.375	.821	.833

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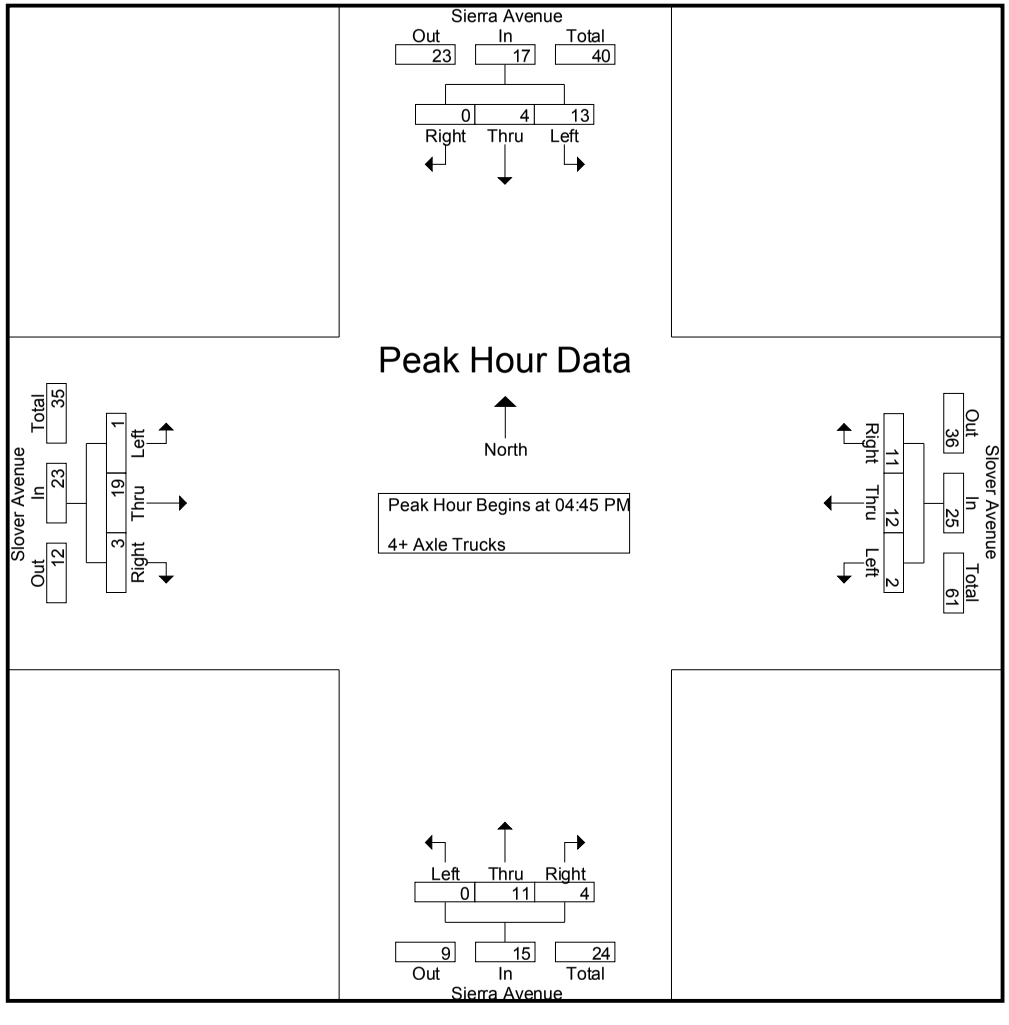
E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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E/W: Slover Avenue
Weather: Clear

File Name : 22_FON_Sierra_Slover PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Slover Avenue Westbound				Sierra Avenue Northbound				Slover 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	**4**	**3**	0	**7**	**1**	**5**	2	**8**	0	2	0	2	0	5	**2**	**7**	
+15 mins.	3	0	0	3	0	3	2	5	0	3	**2**	**5**	0	**7**	0	7	
+30 mins.	4	1	0	5	0	1	**4**	5	0	2	1	3	**1**	4	0	5	
+45 mins.	2	0	0	2	1	3	3	7	0	**4**	1	5	0	3	1	4	
Total Volume	13	4	0	17	2	12	11	25	0	11	4	15	1	19	3	23	
% App. Total	76.5	23.5	0		8	48	44		0	73.3	26.7		4.3	82.6	13		
PHF	.813	.333	.000	.607	.500	.600	.688	.781	.000	.688	.500	.750	.250	.679	.375	.821	

Location: Fontana
N/S: Sierra Avenue
E/W: Slover Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Sierra Avenue	East Leg Slover Avenue	South Leg Sierra Avenue	West Leg Slover Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	1	1
7:15 AM	1	0	0	0	1
7:30 AM	1	1	0	0	2
7:45 AM	1	0	0	0	1
8:00 AM	1	0	0	2	3
8:15 AM	1	1	0	0	2
8:30 AM	0	0	0	1	1
8:45 AM	0	1	0	2	3
TOTAL VOLUMES:	5	3	0	6	14

	North Leg Sierra Avenue	East Leg Slover Avenue	South Leg Sierra Avenue	West Leg Slover Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	2	0	2
4:15 PM	1	0	1	0	2
4:30 PM	0	1	3	0	4
4:45 PM	4	2	1	3	10
5:00 PM	0	2	1	1	4
5:15 PM	1	0	3	0	4
5:30 PM	0	1	0	0	1
5:45 PM	1	3	3	0	7
TOTAL VOLUMES:	7	9	14	4	34

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Location: Fontana
N/S: Sierra Avenue
E/W: Slover Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Sierra Avenue			Westbound Slover Avenue			Northbound Sierra Avenue			Eastbound Slover Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	1	0	0	0	0	0	1

	Southbound Sierra Avenue			Westbound Slover Avenue			Northbound Sierra Avenue			Eastbound Slover Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	1	1	0	3

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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	14	142	9	2	165	8	23	24	18	55	14	193	13	4	220	19	16	15	13	50	37	490	527
07:15 AM	15	162	14	4	191	12	28	26	17	66	20	229	8	1	257	10	19	25	18	54	40	568	608
07:30 AM	19	195	11	1	225	13	14	26	14	53	7	285	7	1	299	24	20	26	22	70	38	647	685
07:45 AM	20	149	15	4	184	5	14	19	13	38	21	249	17	0	287	10	18	15	11	43	28	552	580
Total	68	648	49	11	765	38	79	95	62	212	62	956	45	6	1063	63	73	81	64	217	143	2257	2400
08:00 AM	24	136	16	5	176	4	17	15	13	36	21	285	7	1	313	19	12	11	9	42	28	567	595
08:15 AM	23	146	15	7	184	9	23	22	15	54	25	267	14	1	306	23	13	14	5	50	28	594	622
08:30 AM	14	162	10	3	186	15	9	28	17	52	23	235	9	3	267	18	13	8	7	39	30	544	574
08:45 AM	13	174	15	6	202	10	13	10	7	33	16	252	5	1	273	17	8	10	10	35	24	543	567
Total	74	618	56	21	748	38	62	75	52	175	85	1039	35	6	1159	77	46	43	31	166	110	2248	2358
Grand Total	142	1266	105	32	1513	76	141	170	114	387	147	1995	80	12	2222	140	119	124	95	383	253	4505	4758
Apprch %	9.4	83.7	6.9			19.6	36.4	43.9			6.6	89.8	3.6			36.6	31.1	32.4					
Total %	3.2	28.1	2.3		33.6	1.7	3.1	3.8		8.6	3.3	44.3	1.8		49.3	3.1	2.6	2.8		8.5	5.3	94.7	
Passenger Vehicles	135	1210	98		1471	69	133	160		470	145	1958	77		2191	128	114	123		460	0	0	4592
% Passenger Vehicles	95.1	95.6	93.3	87.5	95.2	90.8	94.3	94.1	94.7	93.8	98.6	98.1	96.2	91.7	98.1	91.4	95.8	99.2	100	96.2	0	0	96.5
Large 2 Axle Vehicles	5	36	2		44	7	7	6		24	2	28	3		34	8	1	0		9	0	0	111
% Large 2 Axle Vehicles	3.5	2.8	1.9	3.1	2.8	9.2	5	3.5	3.5	4.8	1.4	1.4	3.8	8.3	1.5	5.7	0.8	0	0	1.9	0	0	2.3
3 Axle Vehicles	1	7	4		14	0	1	0		1	0	4	0		4	2	4	0		6	0	0	25
% 3 Axle Vehicles	0.7	0.6	3.8	6.2	0.9	0	0.7	0	0	0.2	0	0.2	0	0	0.2	1.4	3.4	0	0	1.3	0	0	0.5
4+ Axle Trucks	1	13	1		16	0	0	4		6	0	5	0		5	2	0	1		3	0	0	30
% 4+ Axle Trucks	0.7	1	1	3.1	1	0	0	2.4	1.8	1.2	0	0.3	0	0	0.2	1.4	0	0.8	0	0.6	0	0	0.6

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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	19	**195**	11	**225**	**13**	14	**26**	53	7	**285**	7	299	**24**	**20**	**26**	**70**	**647**
07:45 AM	20	149	15	184	5	14	19	38	21	249	**17**	287	10	18	15	43	552
08:00 AM	**24**	136	**16**	176	4	17	15	36	21	285	7	**313**	19	12	11	42	567
08:15 AM	23	146	15	184	9	**23**	22	**54**	**25**	267	14	306	23	13	14	50	594
Total Volume	86	626	57	769	31	68	82	181	74	1086	45	1205	76	63	66	205	2360
% App. Total	11.2	81.4	7.4		17.1	37.6	45.3		6.1	90.1	3.7		37.1	30.7	32.2		
PHF	.896	.803	.891	.854	.596	.739	.788	.838	.740	.953	.662	.962	.792	.788	.635	.732	.912

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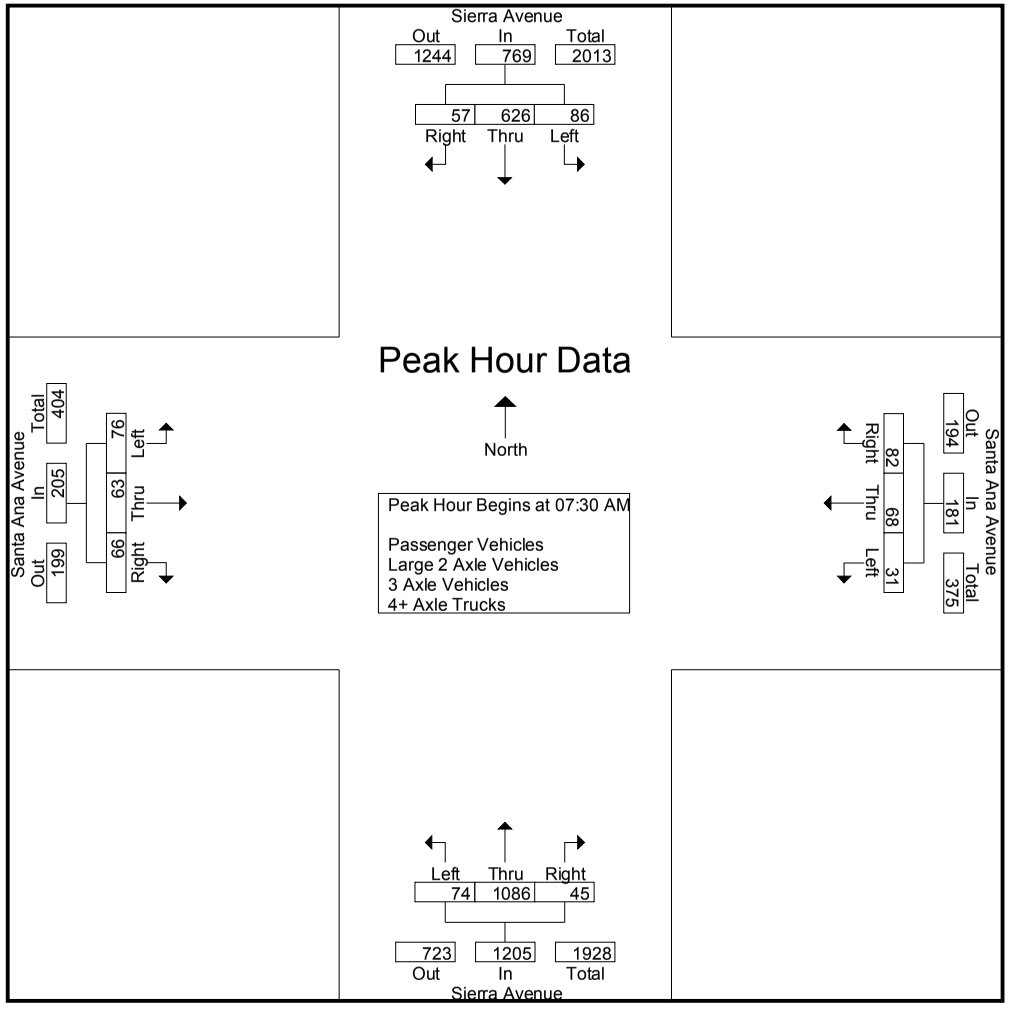
City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
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File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:30 AM				07:00 AM				
+0 mins.	15	162	14	191	8	23	24	55	7	**285**	7	299	19	16	15	50	
+15 mins.	19	**195**	11	**225**	12	**28**	**26**	**66**	21	249	**17**	287	10	19	25	54	
+30 mins.	20	149	15	184	**13**	14	26	53	21	285	7	**313**	**24**	**20**	**26**	**70**	
+45 mins.	**24**	136	**16**	176	5	14	19	38	**25**	267	14	306	10	18	15	43	
Total Volume	78	642	56	776	38	79	95	212	74	1086	45	1205	63	73	81	217	
% App. Total	10.1	82.7	7.2		17.9	37.3	44.8		6.1	90.1	3.7		29	33.6	37.3		
PHF	.813	.823	.875	.862	.731	.705	.913	.803	.740	.953	.662	.962	.656	.913	.779	.775	

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Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	14	137	8	1	159	7	22	24	18	53	14	189	13	4	216	17	16	15	13	48	36	476	512
07:15 AM	13	155	14	4	182	11	27	26	17	64	20	223	8	1	251	10	19	25	18	54	40	551	591
07:30 AM	19	191	10	1	220	11	14	24	13	49	7	281	6	1	294	23	20	26	22	69	37	632	669
07:45 AM	20	140	12	2	172	5	12	19	13	36	21	244	17	0	282	10	15	15	11	40	26	530	556
Total	66	623	44	8	733	34	75	93	61	202	62	937	44	6	1043	60	70	81	64	211	139	2189	2328
08:00 AM	22	127	16	5	165	4	15	14	12	33	20	282	7	1	309	15	12	11	9	38	27	545	572
08:15 AM	22	143	15	7	180	9	22	21	14	52	25	264	13	1	302	20	13	13	5	46	27	580	607
08:30 AM	14	151	8	2	173	12	9	23	14	44	23	228	8	2	259	17	12	8	7	37	25	513	538
08:45 AM	11	166	15	6	192	10	12	9	7	31	15	247	5	1	267	16	7	10	10	33	24	523	547
Total	69	587	54	20	710	35	58	67	47	160	83	1021	33	5	1137	68	44	42	31	154	103	2161	2264
Grand Total	135	1210	98	28	1443	69	133	160	108	362	145	1958	77	11	2180	128	114	123	95	365	242	4350	4592
Apprch %	9.4	83.9	6.8			19.1	36.7	44.2			6.7	89.8	3.5			35.1	31.2	33.7					
Total %	3.1	27.8	2.3		33.2	1.6	3.1	3.7		8.3	3.3	45	1.8		50.1	2.9	2.6	2.8		8.4	5.3	94.7	

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	19	**191**	10	**220**	**11**	14	**24**	49	7	281	6	294	**23**	**20**	**26**	**69**	**632**
07:45 AM	20	140	12	172	5	12	19	36	21	244	**17**	282	10	15	15	40	530
08:00 AM	**22**	127	**16**	165	4	15	14	33	20	**282**	7	**309**	15	12	11	38	545
08:15 AM	22	143	15	180	9	**22**	21	**52**	**25**	264	13	302	20	13	13	46	580
Total Volume	83	601	53	737	29	63	78	170	73	1071	43	1187	68	60	65	193	2287
% App. Total	11.3	81.5	7.2		17.1	37.1	45.9		6.1	90.2	3.6		35.2	31.1	33.7		
PHF	.943	.787	.828	.838	.659	.716	.813	.817	.730	.949	.632	.960	.739	.750	.625	.699	.905

Counts Unlimited
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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
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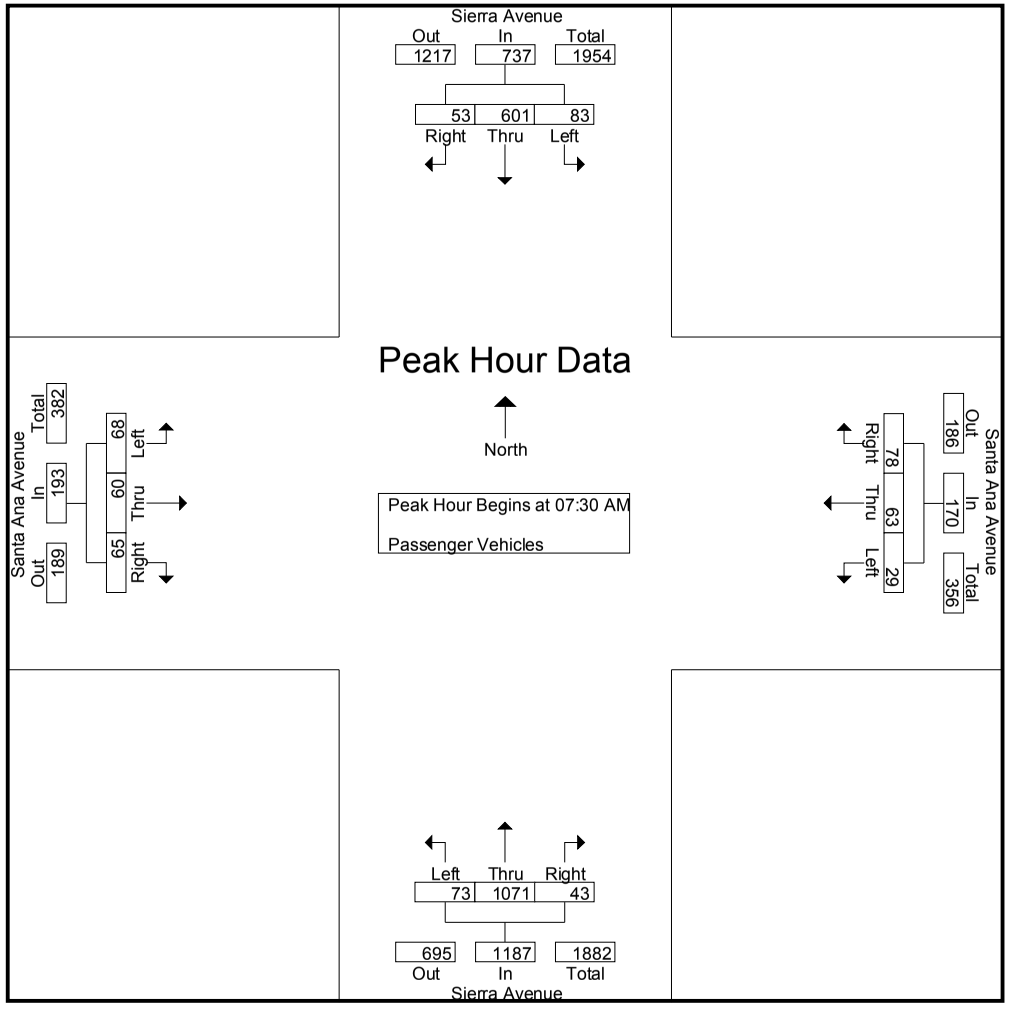
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
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Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	19	**191**	10	**220**	**11**	14	**24**	49	7	281	6	294	**23**	**20**	**26**	**69**	
+15 mins.	20	140	12	172	5	12	19	36	21	244	**17**	282	10	15	15	40	
+30 mins.	**22**	127	**16**	165	4	15	14	33	20	**282**	7	**309**	15	12	11	38	
+45 mins.	22	143	15	180	9	**22**	21	**52**	**25**	264	13	302	20	13	13	46	
Total Volume	83	601	53	737	29	63	78	170	73	1071	43	1187	68	60	65	193	
% App. Total	11.3	81.5	7.2		17.1	37.1	45.9		6.1	90.2	3.6		35.2	31.1	33.7		
PHF	.943	.787	.828	.838	.659	.716	.813	.817	.730	.949	.632	.960	.739	.750	.625	.699	

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City of Fontana
N/S: Sierra Avenue
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Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	4	0	0	4	1	1	0	0	2	0	2	0	0	2	1	0	0	0	1	0	9	9
07:15 AM	1	5	0	0	6	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	0	13	13
07:30 AM	0	2	0	0	2	2	0	1	0	3	0	3	1	0	4	1	0	0	0	1	0	10	10
07:45 AM	0	7	1	1	8	0	2	0	0	2	0	3	0	0	3	0	1	0	0	1	1	14	15
Total	1	18	1	1	20	4	3	1	0	8	0	14	1	0	15	2	1	0	0	3	1	46	47
08:00 AM	1	4	0	0	5	0	2	1	1	3	1	2	0	0	3	2	0	0	0	2	1	13	14
08:15 AM	1	2	0	0	3	0	1	1	1	2	0	3	1	0	4	3	0	0	0	3	1	12	13
08:30 AM	0	5	1	0	6	3	0	3	2	6	0	6	1	1	7	0	0	0	0	0	3	19	22
08:45 AM	2	7	0	0	9	0	1	0	0	1	1	3	0	0	4	1	0	0	0	1	0	15	15
Total	4	18	1	0	23	3	4	5	4	12	2	14	2	1	18	6	0	0	0	6	5	59	64
Grand Total	5	36	2	1	43	7	7	6	4	20	2	28	3	1	33	8	1	0	0	9	6	105	111
Apprch %	11.6	83.7	4.7			35	35	30			6.1	84.8	9.1			88.9	11.1	0					
Total %	4.8	34.3	1.9		41	6.7	6.7	5.7		19	1.9	26.7	2.9		31.4	7.6	1	0		8.6	5.4	94.6	

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	2	0	2	**2**	0	**1**	**3**	0	**3**	**1**	**4**	1	0	0	1	10
07:45 AM	0	**7**	**1**	**8**	0	**2**	0	2	0	3	0	3	0	**1**	0	1	**14**
08:00 AM	**1**	4	0	5	0	2	1	3	**1**	2	0	3	2	0	0	2	13
08:15 AM	1	2	0	3	0	1	1	2	0	3	1	4	**3**	0	0	**3**	12
Total Volume	2	15	1	18	2	5	3	10	1	11	2	14	6	1	0	7	49
% App. Total	11.1	83.3	5.6		20	50	30		7.1	78.6	14.3		85.7	14.3	0		
PHF	.500	.536	.250	.563	.250	.625	.750	.833	.250	.917	.500	.875	.500	.250	.000	.583	.875

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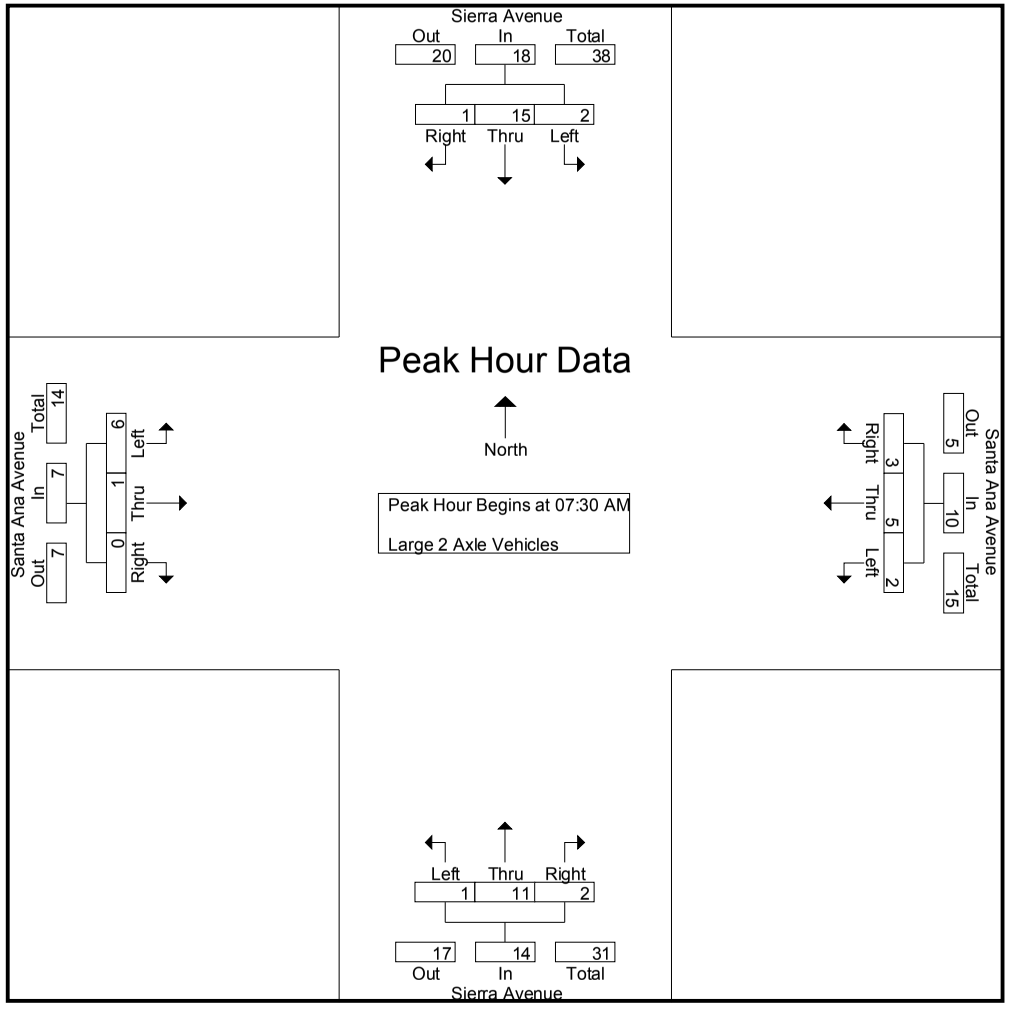
City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	0	2	0	2	**2**	0	**1**	**3**	0	**3**	**1**	**4**	1	0	0	1	
+15 mins.	0	**7**	**1**	**8**	0	**2**	0	2	0	3	0	3	0	**1**	0	1	
+30 mins.	**1**	4	0	5	0	2	1	3	**1**	2	0	3	2	0	0	2	
+45 mins.	1	2	0	3	0	1	1	2	0	3	1	4	**3**	0	0	**3**	
Total Volume	2	15	1	18	2	5	3	10	1	11	2	14	6	1	0	7	
% App. Total	11.1	83.3	5.6		20	50	30		7.1	78.6	14.3		85.7	14.3	0		
PHF	.500	.536	.250	.563	.250	.625	.750	.833	.250	.917	.500	.875	.500	.250	.000	.583	

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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	1	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	3	4
07:15 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
07:30 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:45 AM	0	2	2	1	4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1	6	7
Total	1	2	4	2	7	0	1	0	0	1	0	2	0	0	2	0	2	0	0	2	2	12	14
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	4	4
08:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	3
08:45 AM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	3	3
Total	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	2	2	0	0	4	0	11	11
Grand Total	1	7	4	2	12	0	1	0	0	1	0	4	0	0	4	2	4	0	0	6	2	23	25
Apprch %	8.3	58.3	33.3			0	100	0			0	100	0			33.3	66.7	0					
Total %	4.3	30.4	17.4		52.2	0	4.3	0		4.3	0	17.4	0		17.4	8.7	17.4	0		26.1	8	92	

3.1-406

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	**2**	**2**	**4**	0	0	0	0	0	0	0	0	0	**2**	0	**2**	**6**
08:00 AM	0	1	0	1	0	0	0	0	0	**1**	0	**1**	**2**	0	0	2	4
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	4	3	7	0	0	0	0	0	1	0	1	2	2	0	4	12
% App. Total	0	57.1	42.9		0	0	0		0	100	0		50	50	0		
PHF	.000	.500	.375	.438	.000	.000	.000	.000	.000	.250	.000	.250	.250	.250	.000	.500	.500

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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
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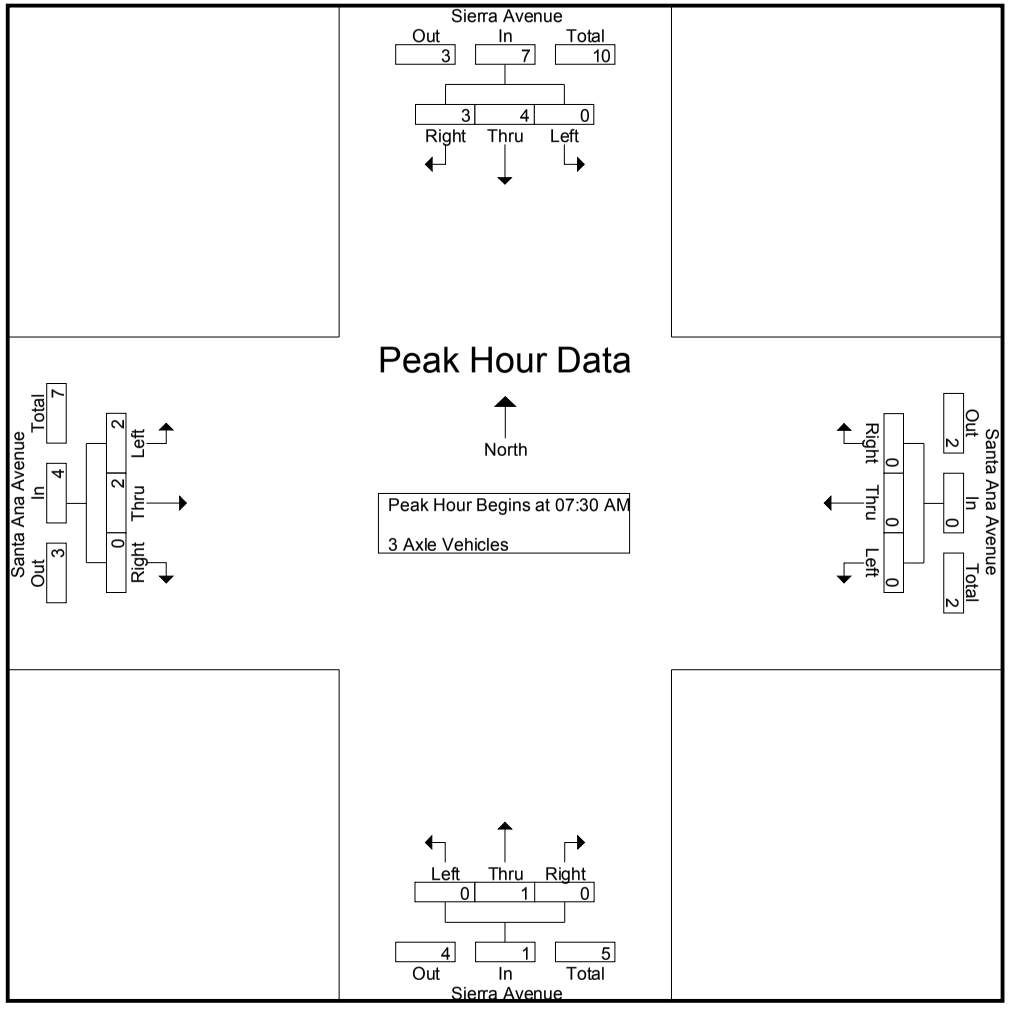

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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
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	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	**2**	**2**	**4**	0	0	0	0	0	0	0	0	0	**2**	0	**2**	
+30 mins.	0	1	0	1	0	0	0	0	0	**1**	0	**1**	**2**	0	0	2	
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	4	3	7	0	0	0	0	0	1	0	1	2	2	0	4	
% App. Total	0	57.1	42.9		0	0	0		0	100	0		50	50	0		
PHF	.000	.500	.375	.438	.000	.000	.000	.000	.000	.250	.000	.250	.250	.250	.000	.500	

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City of Fontana
N/S: Sierra Avenue
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File Name : 23_FON_Sierra_Santa Ana AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2
07:15 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
07:30 AM	0	2	0	0	2	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	1	4	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	2
Total	0	5	0	0	5	0	0	1	1	1	0	3	0	0	3	1	0	0	0	1	1	10	11
08:00 AM	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1
08:30 AM	0	4	1	1	5	0	0	2	1	2	0	1	0	0	1	1	0	0	0	1	2	9	11
08:45 AM	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	2	2
Total	1	8	1	1	10	0	0	3	1	3	0	2	0	0	2	1	0	1	0	2	2	17	19
Grand Total	1	13	1	1	15	0	0	4	2	4	0	5	0	0	5	2	0	1	0	3	3	27	30
Apprch %	6.7	86.7	6.7			0	0	100			0	100	0			66.7	0	33.3					
Total %	3.7	48.1	3.7		55.6	0	0	14.8		14.8	0	18.5	0		18.5	7.4	0	3.7		11.1	10	90	

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	2	0	2	0	0	**1**	**1**	0	1	0	1	0	0	0	0	4
07:45 AM	0	0	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0	2
08:00 AM	**1**	**4**	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	**5**
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	1
Total Volume	1	6	0	7	0	0	1	1	0	3	0	3	0	0	1	1	12
% App. Total	14.3	85.7	0		0	0	100		0	100	0		0	0	100		
PHF	.250	.375	.000	.350	.000	.000	.250	.250	.000	.375	.000	.375	.000	.000	.250	.250	.600

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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

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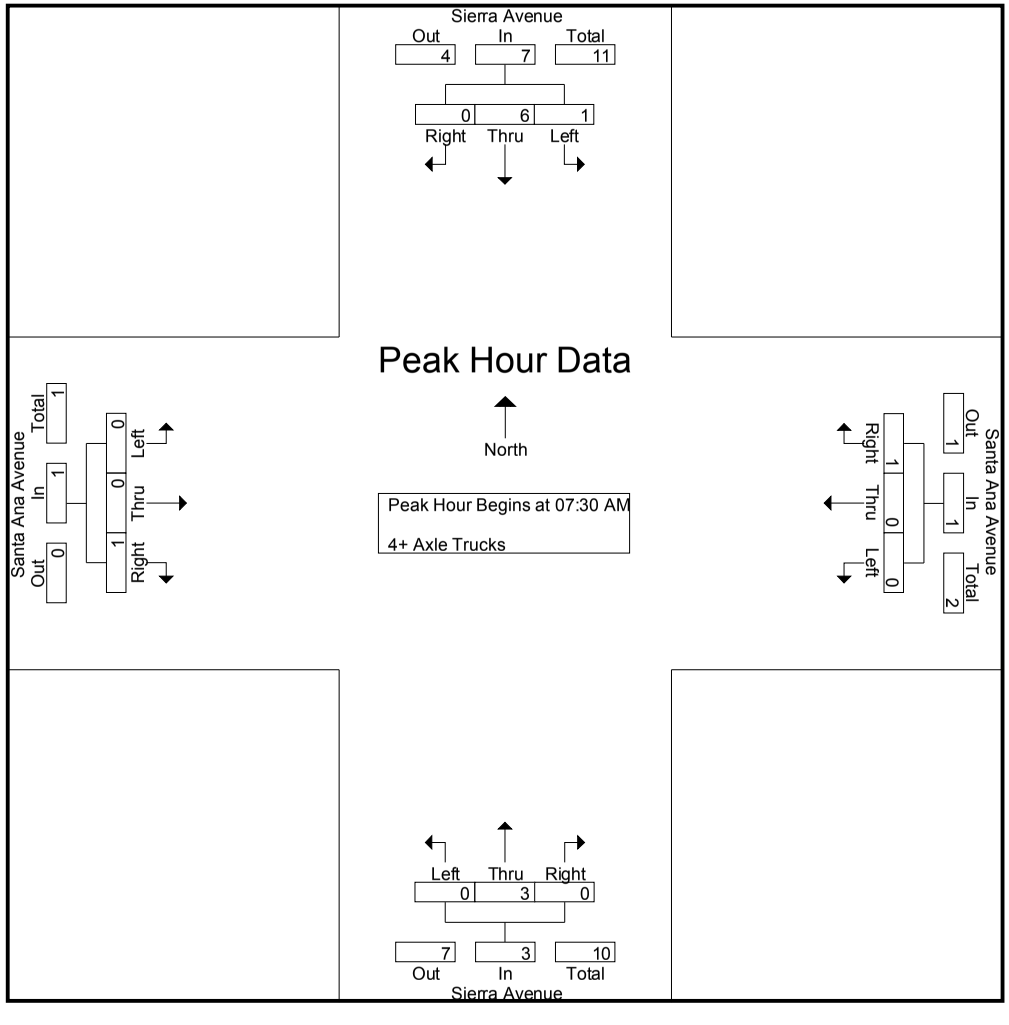

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City of Fontana
N/S: Sierra Avenue
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Page No : 3

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	0	2	0	2	0	0	**1**	**1**	0	1	0	1	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	**2**	0	**2**	0	0	0	0	
+30 mins.	**1**	**4**	0	**5**	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**1**	
Total Volume	1	6	0	7	0	0	1	1	0	3	0	3	0	0	1	1	
% App. Total	14.3	85.7	0		0	0	100		0	100	0		0	0	100		
PHF	.250	.375	.000	.350	.000	.000	.250	.250	.000	.375	.000	.375	.000	.000	.250	.250	

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City of Fontana
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Start Date : 3/14/2019
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	32	246	26	8	304	23	18	16	9	57	40	292	16	1	348	43	29	31	29	103	47	812	859
04:15 PM	21	256	30	11	307	13	14	17	11	44	55	305	20	6	380	26	23	27	20	76	48	807	855
04:30 PM	25	242	32	12	299	21	25	19	8	65	42	311	11	1	364	44	28	26	21	98	42	826	868
04:45 PM	25	267	18	4	310	15	23	21	10	59	38	286	15	1	339	40	28	30	23	98	38	806	844
Total	103	1011	106	35	1220	72	80	73	38	225	175	1194	62	9	1431	153	108	114	93	375	175	3251	3426
05:00 PM	41	256	25	4	322	18	35	20	10	73	42	328	14	3	384	28	28	33	26	89	43	868	911
05:15 PM	23	286	22	4	331	16	31	18	6	65	46	339	11	3	396	22	29	26	25	77	38	869	907
05:30 PM	37	253	27	3	317	18	38	16	11	72	43	344	6	1	393	28	38	25	22	91	37	873	910
05:45 PM	43	244	21	5	308	15	28	22	11	65	33	300	10	0	343	24	29	18	14	71	30	787	817
Total	144	1039	95	16	1278	67	132	76	38	275	164	1311	41	7	1516	102	124	102	87	328	148	3397	3545
Grand Total	247	2050	201	51	2498	139	212	149	76	500	339	2505	103	16	2947	255	232	216	180	703	323	6648	6971
Apprch %	9.9	82.1	8			27.8	42.4	29.8			11.5	85	3.5			36.3	33	30.7					
Total %	3.7	30.8	3		37.6	2.1	3.2	2.2		7.5	5.1	37.7	1.5		44.3	3.8	3.5	3.2		10.6	4.6	95.4	
Passenger Vehicles	244	2017	196		2505	130	210	142		555	331	2445	97		2889	245	227	214		864	0	0	6813
% Passenger Vehicles	98.8	98.4	97.5	94.1	98.3	93.5	99.1	95.3	96.1	96.4	97.6	97.6	94.2	100	97.5	96.1	97.8	99.1	98.9	97.8	0	0	97.7
Large 2 Axle Vehicles	3	19	2		25	3	2	2		8	5	33	3		41	7	4	2		15	0	0	89
% Large 2 Axle Vehicles	1.2	0.9	1	2	1	2.2	0.9	1.3	1.3	1.4	1.5	1.3	2.9	0	1.4	2.7	1.7	0.9	1.1	1.7	0	0	1.3
3 Axle Vehicles	0	7	1		9	1	0	2		4	2	6	0		8	1	1	0		2	0	0	23
% 3 Axle Vehicles	0	0.3	0.5	2	0.4	0.7	0	1.3	1.3	0.7	0.6	0.2	0	0	0.3	0.4	0.4	0	0	0.2	0	0	0.3
4+ Axle Trucks	0	7	2		10	5	0	3		9	1	21	3		25	2	0	0		2	0	0	46
% 4+ Axle Trucks	0	0.3	1	2	0.4	3.6	0	2	1.3	1.6	0.3	0.8	2.9	0	0.8	0.8	0	0	0	0.2	0	0	0.7

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM																	
04:45 PM	25	267	18	310	15	23	**21**	59	38	286	**15**	339	**40**	28	30	**98**	806
05:00 PM	**41**	256	25	322	**18**	35	20	**73**	42	328	14	384	28	28	**33**	89	868
05:15 PM	23	**286**	22	**331**	16	31	18	65	**46**	339	11	**396**	22	29	26	77	869
05:30 PM	37	253	**27**	317	18	**38**	16	72	43	**344**	6	393	28	**38**	25	91	**873**
Total Volume	126	1062	92	1280	67	127	75	269	169	1297	46	1512	118	123	114	355	3416
% App. Total	9.8	83	7.2		24.9	47.2	27.9		11.2	85.8	3		33.2	34.6	32.1		
PHF	.768	.928	.852	.967	.931	.836	.893	.921	.918	.943	.767	.955	.738	.809	.864	.906	.978

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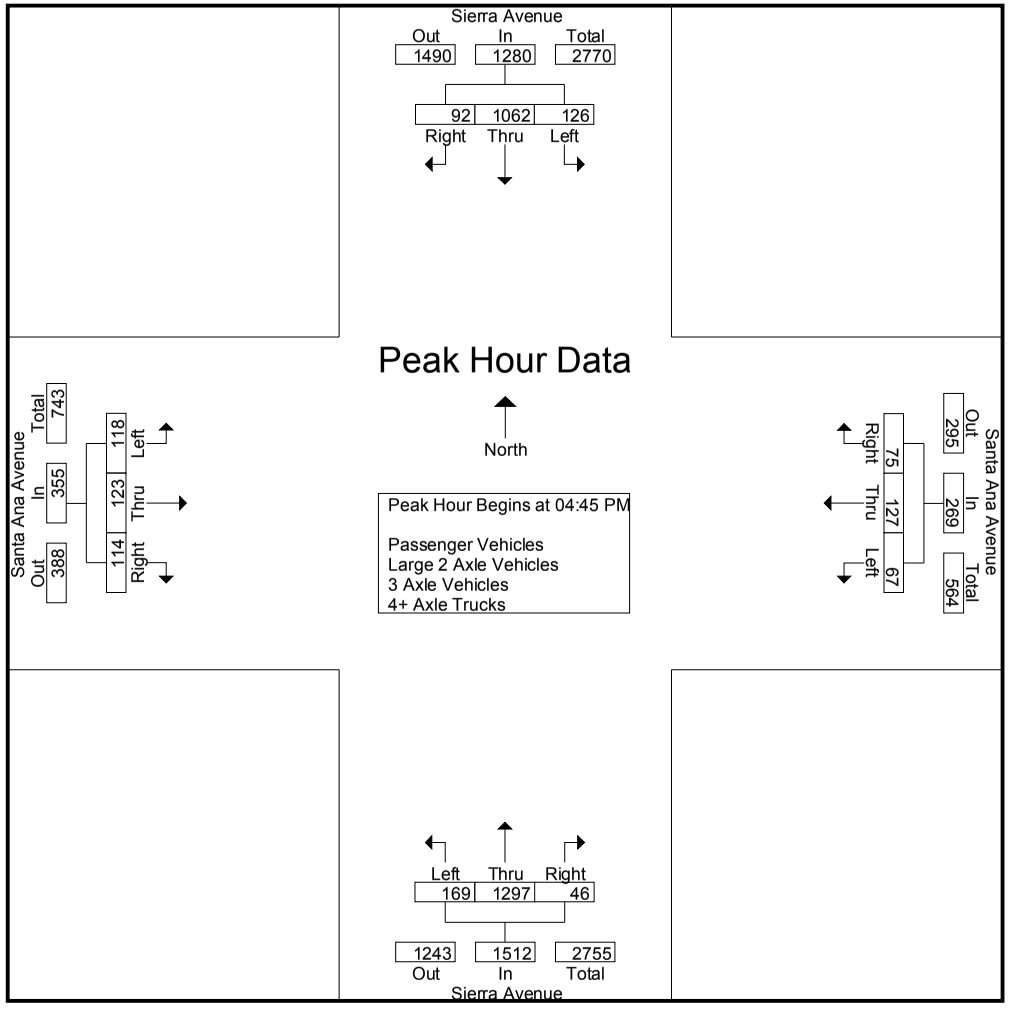

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	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				05:00 PM				05:00 PM				04:00 PM				
+0 mins.	25	267	18	310	**18**	35	20	**73**	42	328	**14**	384	43	**29**	**31**	**103**	
+15 mins.	**41**	256	25	322	16	31	18	65	**46**	339	11	**396**	26	23	27	76	
+30 mins.	23	**286**	22	**331**	18	**38**	16	72	43	**344**	6	393	**44**	28	26	98	
+45 mins.	37	253	**27**	317	15	28	**22**	65	33	300	10	343	40	28	30	98	
Total Volume	126	1062	92	1280	67	132	76	275	164	1311	41	1516	153	108	114	375	
% App. Total	9.8	83	7.2		24.4	48	27.6		10.8	86.5	2.7		40.8	28.8	30.4		
PHF	.768	.928	.852	.967	.931	.868	.864	.942	.891	.953	.732	.957	.869	.931	.919	.910	

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File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- Passenger Vehicles

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	31	242	25	8	298	22	18	14	9	54	40	280	15	1	335	40	29	31	29	100	47	787	834
04:15 PM	21	252	29	10	302	12	14	17	11	43	52	298	18	6	368	24	22	26	19	72	46	785	831
04:30 PM	24	241	31	11	296	20	25	19	8	64	41	303	11	1	355	42	28	26	21	96	41	811	852
04:45 PM	25	261	17	3	303	13	23	21	10	57	38	281	14	1	333	39	27	30	23	96	37	789	826
Total	101	996	102	32	1199	67	80	71	38	218	171	1162	58	9	1391	145	106	113	92	364	171	3172	3343
05:00 PM	41	249	25	4	315	17	33	20	10	70	41	315	14	3	370	27	28	33	26	88	43	843	886
05:15 PM	23	280	22	4	325	15	31	16	5	62	46	334	10	3	390	22	28	25	24	75	36	852	888
05:30 PM	36	252	27	3	315	18	38	16	11	72	42	338	5	1	385	28	38	25	22	91	37	863	900
05:45 PM	43	240	20	5	303	13	28	19	9	60	31	296	10	0	337	23	27	18	14	68	28	768	796
Total	143	1021	94	16	1258	63	130	71	35	264	160	1283	39	7	1482	100	121	101	86	322	144	3326	3470
Grand Total	244	2017	196	48	2457	130	210	142	73	482	331	2445	97	16	2873	245	227	214	178	686	315	6498	6813
Apprch %	9.9	82.1	8			27	43.6	29.5			11.5	85.1	3.4			35.7	33.1	31.2					
Total %	3.8	31	3		37.8	2	3.2	2.2		7.4	5.1	37.6	1.5		44.2	3.8	3.5	3.3		10.6	4.6	95.4	

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	25	261	17	303	13	23	**21**	57	38	281	**14**	333	**39**	27	30	**96**	789
05:00 PM	**41**	249	25	315	17	33	20	70	41	315	14	370	27	28	**33**	88	843
05:15 PM	23	**280**	22	**325**	15	31	16	62	**46**	334	10	**390**	22	28	25	75	852
05:30 PM	36	252	**27**	315	**18**	**38**	16	**72**	42	**338**	5	385	28	**38**	25	91	**863**
Total Volume	125	1042	91	1258	63	125	73	261	167	1268	43	1478	116	121	113	350	3347
% App. Total	9.9	82.8	7.2		24.1	47.9	28		11.3	85.8	2.9		33.1	34.6	32.3		
PHF	.762	.930	.843	.968	.875	.822	.869	.906	.908	.938	.768	.947	.744	.796	.856	.911	.970

Counts Unlimited
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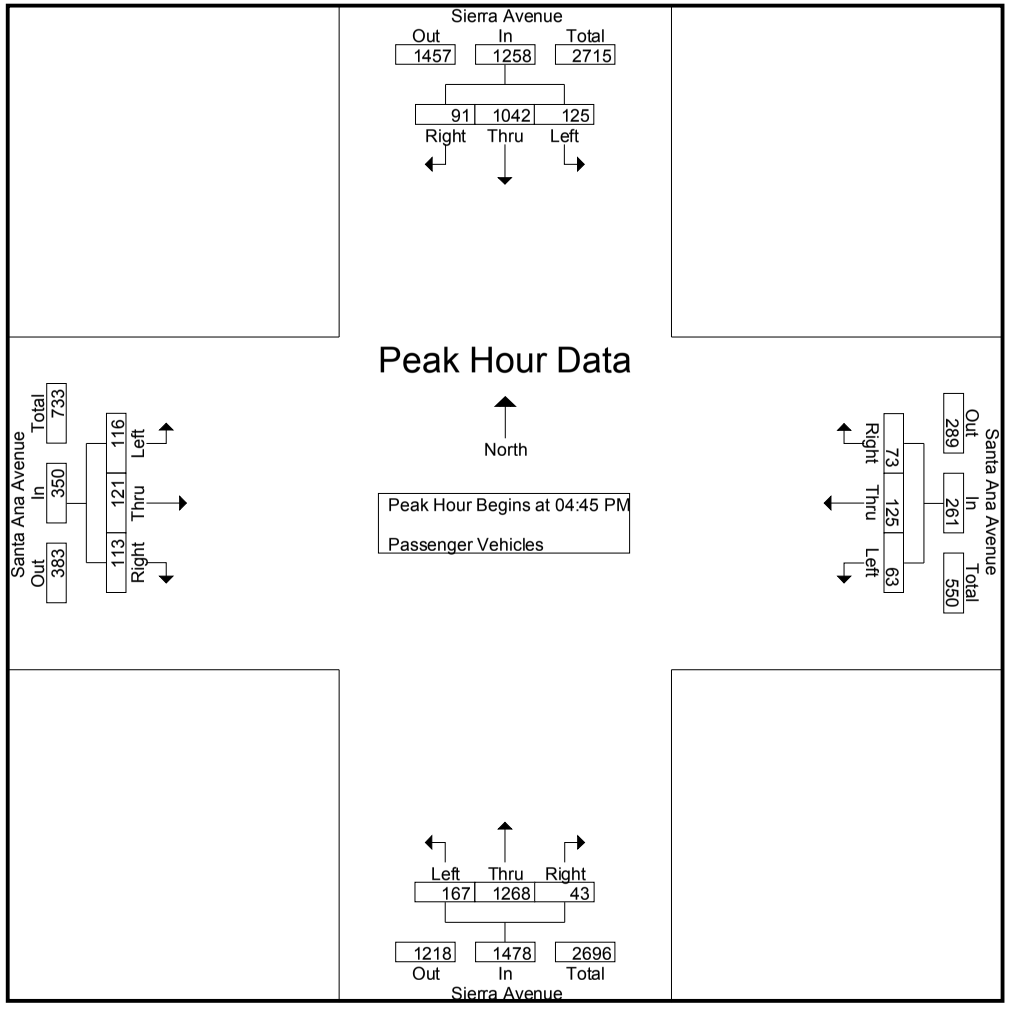
City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
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Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	25	261	17	303	13	23	**21**	57	38	281	**14**	333	**39**	27	30	**96**	
+15 mins.	**41**	249	25	315	17	33	20	70	41	315	14	370	27	28	**33**	88	
+30 mins.	23	**280**	22	**325**	15	31	16	62	**46**	334	10	**390**	22	28	25	75	
+45 mins.	36	252	**27**	315	**18**	**38**	16	**72**	42	**338**	5	385	28	**38**	25	91	
Total Volume	125	1042	91	1258	63	125	73	261	167	1268	43	1478	116	121	113	350	
% App. Total	9.9	82.8	7.2		24.1	47.9	28		11.3	85.8	2.9		33.1	34.6	32.3		
PHF	.762	.930	.843	.968	.875	.822	.869	.906	.908	.938	.768	.947	.744	.796	.856	.911	

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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	3	1	0	5	0	0	0	0	0	0	6	0	0	6	2	0	0	0	2	0	13	13
04:15 PM	0	3	1	1	4	1	0	0	0	1	1	6	1	0	8	1	1	1	1	3	2	16	18
04:30 PM	1	1	0	0	2	0	0	0	0	0	1	6	0	0	7	1	0	0	0	1	0	10	10
04:45 PM	0	3	0	0	3	1	0	0	0	1	0	1	1	0	2	1	0	0	0	1	0	7	7
Total	2	10	2	1	14	2	0	0	0	2	2	19	2	0	23	5	1	1	1	7	2	46	48
05:00 PM	0	6	0	0	6	0	2	0	0	2	1	7	0	0	8	1	0	0	0	1	0	17	17
05:15 PM	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	0	1	1	1	2	1	6	7
05:30 PM	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	4
05:45 PM	0	1	0	0	1	1	0	2	1	3	2	3	0	0	5	1	2	0	0	3	1	12	13
Total	1	9	0	0	10	1	2	2	1	5	3	14	1	0	18	2	3	1	1	6	2	39	41
Grand Total	3	19	2	1	24	3	2	2	1	7	5	33	3	0	41	7	4	2	2	13	4	85	89
Apprch %	12.5	79.2	8.3			42.9	28.6	28.6			12.2	80.5	7.3			53.8	30.8	15.4					
Total %	3.5	22.4	2.4		28.2	3.5	2.4	2.4		8.2	5.9	38.8	3.5		48.2	8.2	4.7	2.4		15.3	4.5	95.5	

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	3	0	3	**1**	0	0	1	0	1	**1**	2	**1**	0	0	1	7
05:00 PM	0	**6**	0	**6**	0	**2**	0	**2**	**1**	**7**	0	**8**	1	0	0	1	**17**
05:15 PM	0	2	0	2	0	0	0	0	0	1	1	2	0	**1**	**1**	**2**	6
05:30 PM	**1**	0	0	1	0	0	0	0	0	3	0	3	0	0	0	0	4
Total Volume	1	11	0	12	1	2	0	3	1	12	2	15	2	1	1	4	34
% App. Total	8.3	91.7	0		33.3	66.7	0		6.7	80	13.3		50	25	25		
PHF	.250	.458	.000	.500	.250	.250	.000	.375	.250	.429	.500	.469	.500	.250	.250	.500	.500

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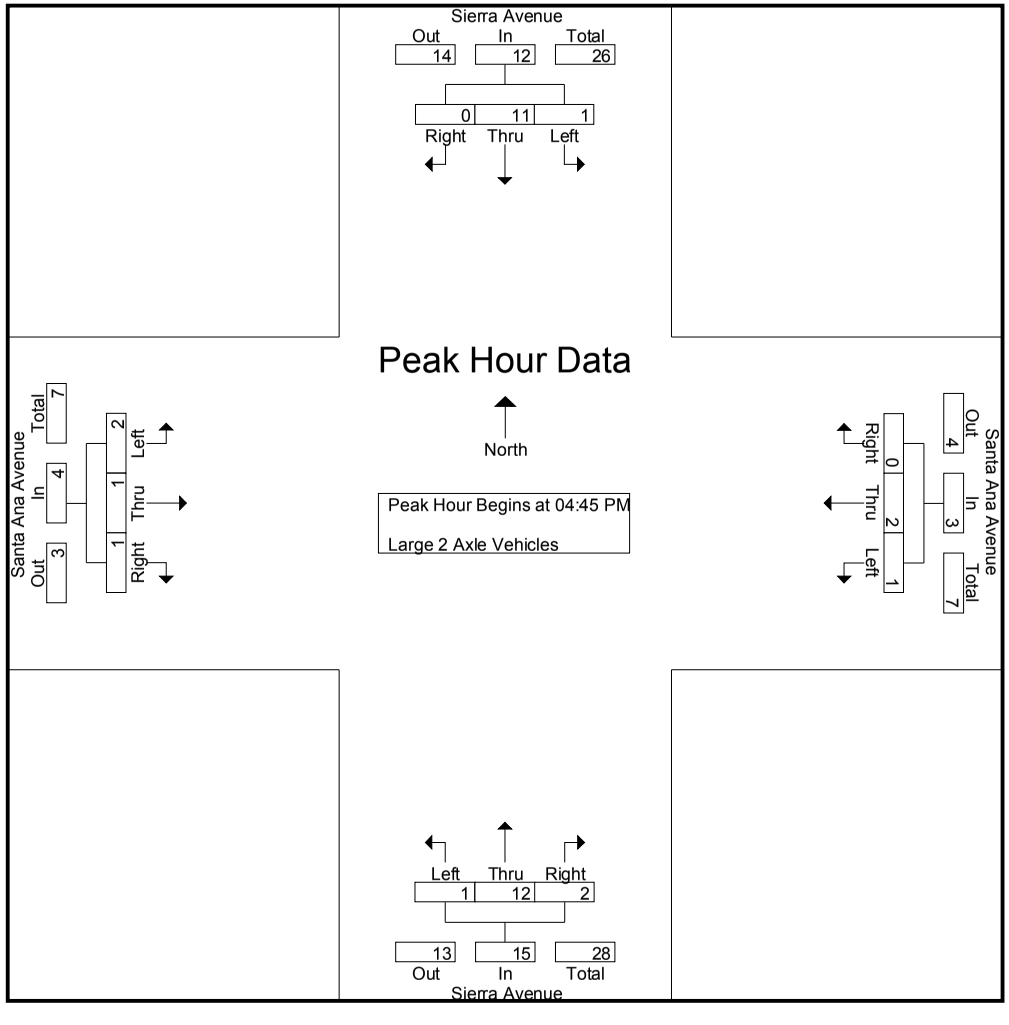
City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	3	0	3	**1**	0	0	1	0	1	**1**	2	**1**	0	0	1	
+15 mins.	0	**6**	0	**6**	0	**2**	0	**2**	**1**	**7**	0	**8**	1	0	0	1	
+30 mins.	0	2	0	2	0	0	0	0	0	1	1	2	0	**1**	**1**	**2**	
+45 mins.	**1**	0	0	1	0	0	0	0	0	3	0	3	0	0	0	0	
Total Volume	1	11	0	12	1	2	0	3	1	12	2	15	2	1	1	4	
% App. Total	8.3	91.7	0		33.3	66.7	0		6.7	80	13.3		50	25	25		
PHF	.250	.458	.000	.500	.250	.250	.000	.375	.250	.429	.500	.469	.500	.250	.250	.500	

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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	1	0	0	0	1	0	5	5
04:15 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	2
04:30 PM	0	0	1	1	1	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	1	3	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	1	1	1	2	0	0	1	0	1	1	5	0	0	6	1	1	0	0	2	1	11	12
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	4	0	0	4	1	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	6	7
05:30 PM	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	2
05:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	2
Total	0	6	0	0	6	1	0	1	1	2	1	1	0	0	2	0	0	0	0	0	1	10	11
Grand Total	0	7	1	1	8	1	0	2	1	3	2	6	0	0	8	1	1	0	0	2	2	21	23
Apprch %	0	87.5	12.5			33.3	0	66.7			25	75	0			50	50	0					
Total %	0	33.3	4.8		38.1	4.8	0	9.5		14.3	9.5	28.6	0		38.1	4.8	4.8	0		9.5	8.7	91.3	

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	**4**	0	**4**	**1**	0	**1**	**2**	0	0	0	0	0	0	0	0	**6**
05:30 PM	0	1	0	1	0	0	0	0	**1**	0	0	**1**	0	0	0	0	2
Total Volume	0	5	0	5	1	0	1	2	1	0	0	1	0	1	0	1	9
% App. Total	0	100	0		50	0	50		100	0	0		0	100	0		
PHF	.000	.313	.000	.313	.250	.000	.250	.250	.250	.000	.000	.250	.000	.250	.000	.250	.375

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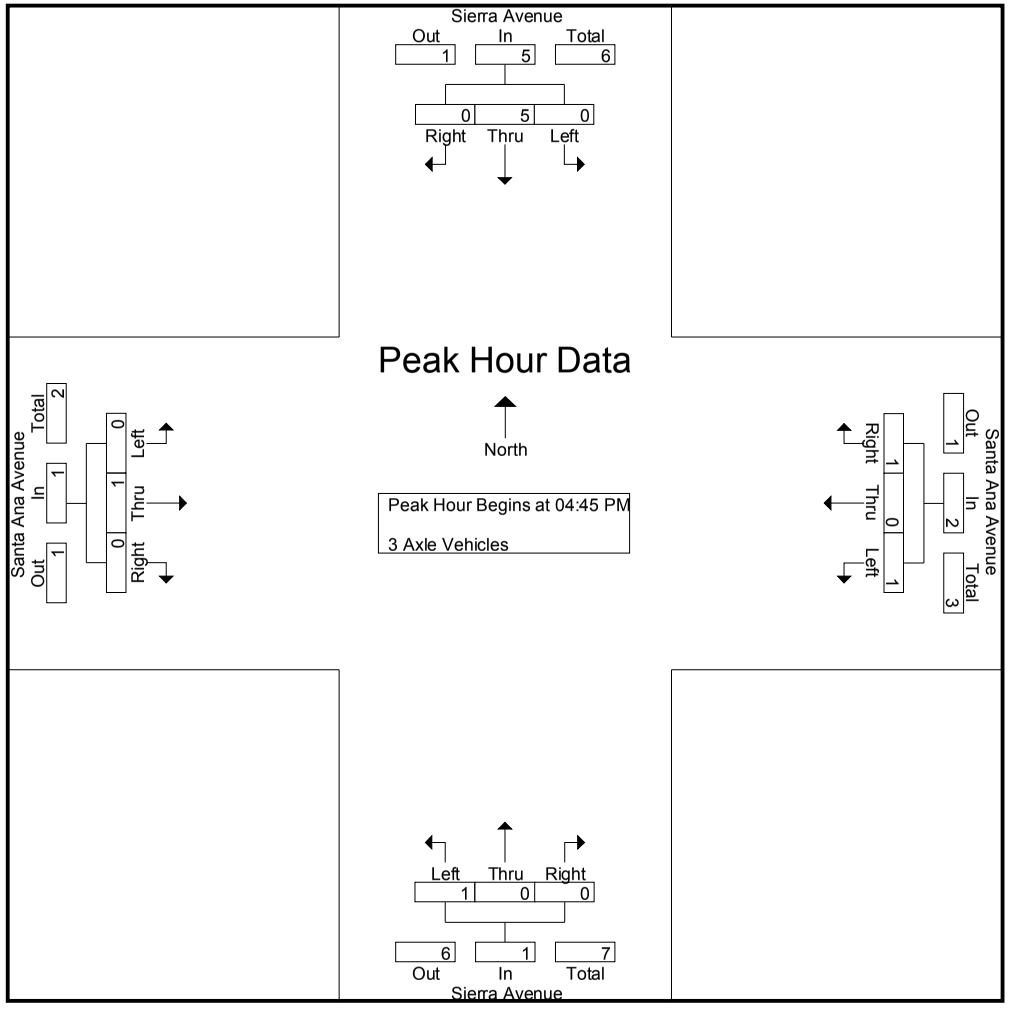
City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	**1**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	**4**	0	**4**	**1**	0	**1**	**2**	0	0	0	0	0	0	0	0	
+45 mins.	0	1	0	1	0	0	0	0	**1**	0	0	**1**	0	0	0	0	
Total Volume	0	5	0	5	1	0	1	2	1	0	0	1	0	1	0	1	
% App. Total	0	100	0		50	0	50		100	0	0		0	100	0		
PHF	.000	.313	.000	.313	.250	.000	.250	.250	.250	.000	.000	.250	.000	.250	.000	.250	

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City of Fontana
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Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Sierra Avenue Southbound					Santa Ana Avenue Westbound					Sierra Avenue Northbound					Santa Ana Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	1	0	1	0	2	0	3	1	0	4	0	0	0	0	0	0	7	7
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	1	0	0	0	1	0	4	4
04:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	2	2
04:45 PM	0	3	1	1	4	1	0	0	0	1	0	4	0	0	4	0	0	0	0	0	1	9	10
Total	0	4	1	1	5	3	0	1	0	4	1	8	2	0	11	2	0	0	0	2	1	22	23
05:00 PM	0	1	0	0	1	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	0	8	8
05:15 PM	0	0	0	0	0	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	5	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	4	4
05:45 PM	0	2	1	0	3	1	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	5	6
Total	0	3	1	0	4	2	0	2	1	4	0	13	1	0	14	0	0	0	0	0	1	22	23
Grand Total	0	7	2	1	9	5	0	3	1	8	1	21	3	0	25	2	0	0	0	2	2	44	46
Apprch %	0	77.8	22.2			62.5	0	37.5			4	84	12			100	0	0					
Total %	0	15.9	4.5		20.5	11.4	0	6.8		18.2	2.3	47.7	6.8		56.8	4.5	0	0		4.5	4.3	95.7	

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**3**	**1**	**4**	**1**	0	0	**1**	0	4	0	4	0	0	0	0	**9**
05:00 PM	0	1	0	1	1	0	0	1	0	**6**	0	**6**	0	0	0	0	8
05:15 PM	0	0	0	0	0	0	**1**	1	0	4	0	4	0	0	0	0	5
05:30 PM	0	0	0	0	0	0	0	0	0	3	**1**	4	0	0	0	0	4
Total Volume	0	4	1	5	2	0	1	3	0	17	1	18	0	0	0	0	26
% App. Total	0	80	20		66.7	0	33.3		0	94.4	5.6		0	0	0		
PHF	.000	.333	.250	.313	.500	.000	.250	.750	.000	.708	.250	.750	.000	.000	.000	.000	.722

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City of Fontana
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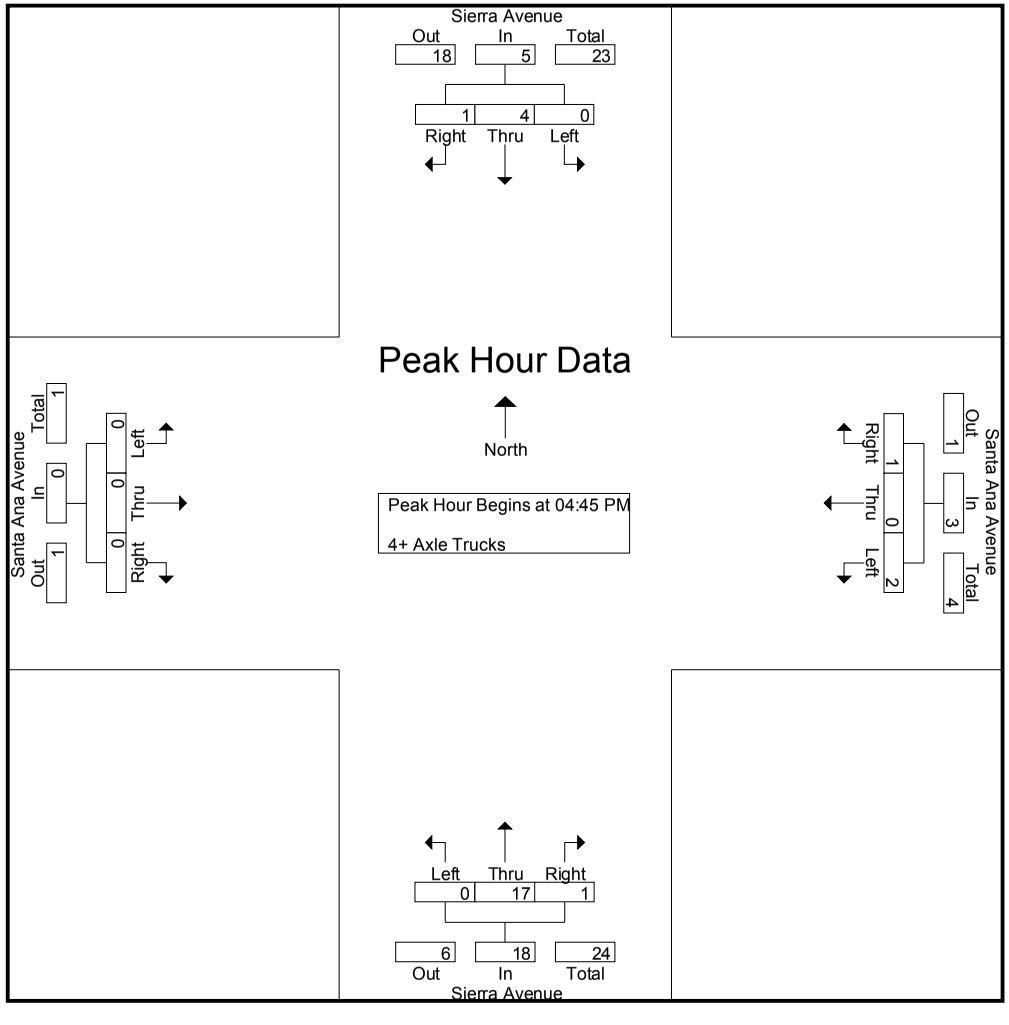
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue
Weather: Clear

File Name : 23_FON_Sierra_Santa Ana PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Santa Ana Avenue Westbound				Sierra Avenue Northbound				Santa Ana 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	**3**	**1**	**4**	**1**	0	0	**1**	0	4	0	4	0	0	0	0	
+15 mins.	0	1	0	1	1	0	0	1	0	**6**	0	**6**	0	0	0	0	
+30 mins.	0	0	0	0	0	0	**1**	1	0	4	0	4	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	3	**1**	4	0	0	0	0	
Total Volume	0	4	1	5	2	0	1	3	0	17	1	18	0	0	0	0	
% App. Total	0	80	20		66.7	0	33.3		0	94.4	5.6		0	0	0		
PHF	.000	.333	.250	.313	.500	.000	.250	.750	.000	.708	.250	.750	.000	.000	.000	.000	

Location: Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Sierra Avenue	East Leg Santa Ana Avenue	South Leg Sierra Avenue	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	1	1	1	3
7:15 AM	1	1	1	0	3
7:30 AM	0	1	0	0	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	1	1
8:30 AM	0	0	0	0	0
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	1	4	2	2	9

	North Leg Sierra Avenue	East Leg Santa Ana Avenue	South Leg Sierra Avenue	West Leg Santa Ana Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	0	0	0	1
4:15 PM	0	0	1	0	1
4:30 PM	0	3	0	0	3
4:45 PM	0	1	0	0	1
5:00 PM	0	1	1	0	2
5:15 PM	0	0	0	0	0
5:30 PM	0	1	0	0	1
5:45 PM	0	2	0	0	2
TOTAL VOLUMES:	1	8	2	0	11

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Location: Fontana
N/S: Sierra Avenue
E/W: Santa Ana Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Sierra Avenue			Westbound Santa Ana Avenue			Northbound Sierra Avenue			Eastbound Santa Ana Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	0	0	0	1

	Southbound Sierra Avenue			Westbound Santa Ana Avenue			Northbound Sierra Avenue			Eastbound Santa Ana Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	0	2	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	2	0	0	0	0	0	2	0	0	2	0	6

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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	6	100	40	24	146	34	66	16	7	116	67	145	11	9	223	53	52	63	30	168	70	653	723
07:15 AM	8	92	44	32	144	47	77	25	16	149	61	145	16	11	222	46	47	52	27	145	86	660	746
07:30 AM	6	133	48	31	187	29	53	30	16	112	49	175	6	3	230	61	56	38	32	155	82	684	766
07:45 AM	3	87	37	22	127	17	63	22	12	102	60	190	20	4	270	52	57	53	28	162	66	661	727
Total	23	412	169	109	604	127	259	93	51	479	237	655	53	27	945	212	212	206	117	630	304	2658	2962
08:00 AM	9	71	34	19	114	30	70	18	11	118	43	191	15	12	249	49	46	35	21	130	63	611	674
08:15 AM	7	85	31	13	123	26	57	11	8	94	58	189	12	5	259	50	37	45	32	132	58	608	666
08:30 AM	12	90	42	25	144	39	34	19	14	92	41	164	12	8	217	72	25	44	25	141	72	594	666
08:45 AM	6	95	27	13	128	15	40	16	15	71	58	181	9	6	248	64	15	25	13	104	47	551	598
Total	34	341	134	70	509	110	201	64	48	375	200	725	48	31	973	235	123	149	91	507	240	2364	2604
Grand Total	57	753	303	179	1113	237	460	157	99	854	437	1380	101	58	1918	447	335	355	208	1137	544	5022	5566
Apprch %	5.1	67.7	27.2			27.8	53.9	18.4			22.8	71.9	5.3			39.3	29.5	31.2					
Total %	1.1	15	6		22.2	4.7	9.2	3.1		17	8.7	27.5	2		38.2	8.9	6.7	7.1		22.6	9.8	90.2	
Passenger Vehicles	54	729	272		1215	229	450	153		928	426	1354	97		1934	427	320	345		1290	0	0	5367
% Passenger Vehicles	94.7	96.8	89.8	89.4	94	96.6	97.8	97.5	97	97.4	97.5	98.1	96	98.3	97.9	95.5	95.5	97.2	95.2	95.9	0	0	96.4
Large 2 Axle Vehicles	2	20	17		49	6	7	2		17	7	21	4		33	14	13	9		45	0	0	144
% Large 2 Axle Vehicles	3.5	2.7	5.6	5.6	3.8	2.5	1.5	1.3	2	1.8	1.6	1.5	4	1.7	1.7	3.1	3.9	2.5	4.3	3.3	0	0	2.6
3 Axle Vehicles	0	1	5		10	1	2	1		5	2	2	0		4	4	2	0		6	0	0	25
% 3 Axle Vehicles	0	0.1	1.7	2.2	0.8	0.4	0.4	0.6	1	0.5	0.5	0.1	0	0	0.2	0.9	0.6	0	0	0.4	0	0	0.4
4+ Axle Trucks	1	3	9		18	1	1	1		3	2	3	0		5	2	0	1		4	0	0	30
% 4+ Axle Trucks	1.8	0.4	3	2.8	1.4	0.4	0.2	0.6	0	0.3	0.5	0.2	0	0	0.3	0.4	0	0.3	0.5	0.3	0	0	0.5

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:00 AM																	
07:00 AM	6	100	40	146	34	66	16	116	**67**	145	11	223	53	52	**63**	**168**	653
07:15 AM	**8**	92	44	144	**47**	**77**	25	**149**	61	145	16	222	46	47	52	145	660
07:30 AM	6	**133**	**48**	**187**	29	53	**30**	112	49	175	6	230	**61**	56	38	155	**684**
07:45 AM	3	87	37	127	17	63	22	102	60	**190**	**20**	**270**	52	**57**	53	162	661
Total Volume	23	412	169	604	127	259	93	479	237	655	53	945	212	212	206	630	2658
% App. Total	3.8	68.2	28		26.5	54.1	19.4		25.1	69.3	5.6		33.7	33.7	32.7		
PHF	.719	.774	.880	.807	.676	.841	.775	.804	.884	.862	.663	.875	.869	.930	.817	.938	.971

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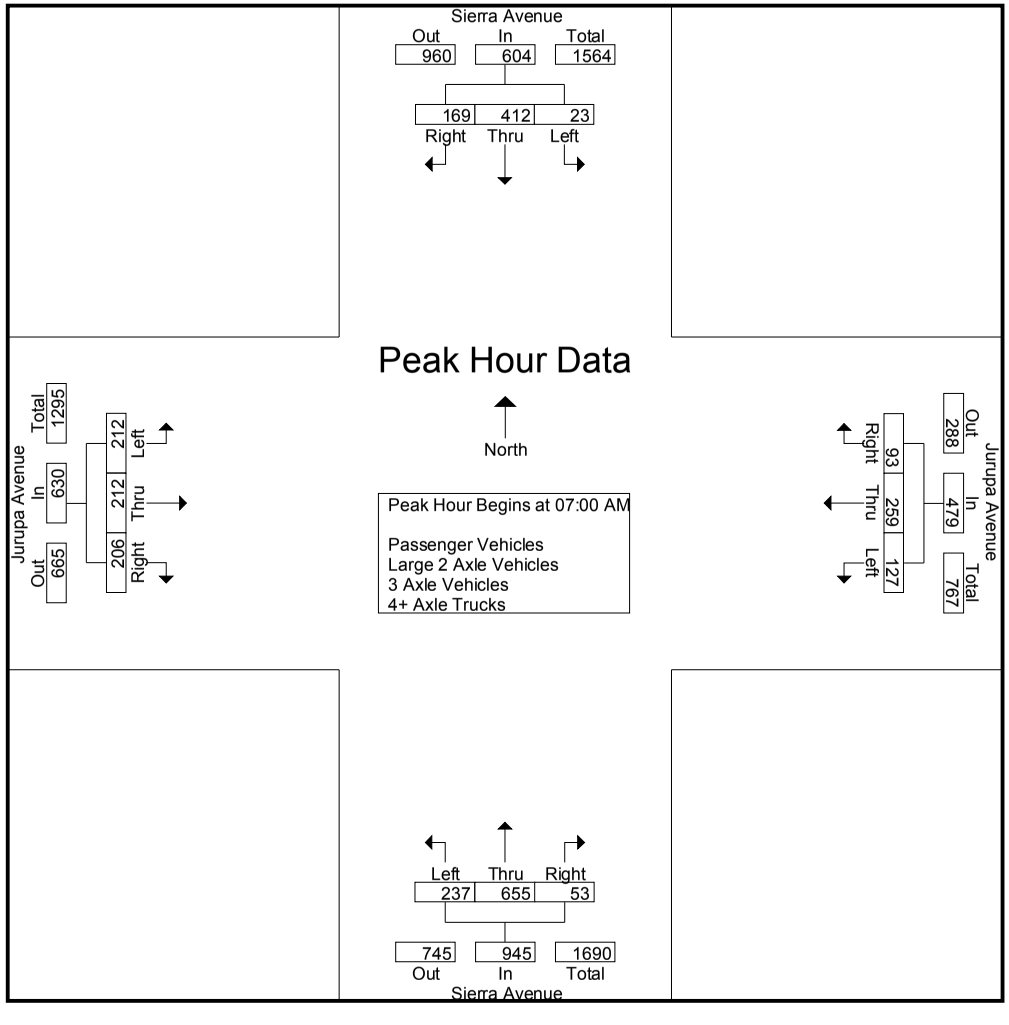
City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
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Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	07:00 AM				07:15 AM				07:30 AM				07:00 AM				
+0 mins.	6	100	40	146	**47**	**77**	25	**149**	49	175	6	230	53	52	**63**	**168**	
+15 mins.	**8**	92	44	144	29	53	**30**	112	**60**	190	**20**	**270**	46	47	52	145	
+30 mins.	6	**133**	**48**	**187**	17	63	22	102	43	**191**	15	249	**61**	56	38	155	
+45 mins.	3	87	37	127	30	70	18	118	58	189	12	259	52	**57**	53	162	
Total Volume	23	412	169	604	123	263	95	481	210	745	53	1008	212	212	206	630	
% App. Total	3.8	68.2	28		25.6	54.7	19.8		20.8	73.9	5.3		33.7	33.7	32.7		
PHF	.719	.774	.880	.807	.654	.854	.792	.807	.875	.975	.663	.933	.869	.930	.817	.938	

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City of Fontana
N/S: Sierra Avenue
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Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
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Groups Printed- Passenger Vehicles

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	6	98	37	23	141	34	65	16	7	115	67	140	11	9	218	51	52	62	29	165	68	639	707
07:15 AM	8	87	39	29	134	46	77	25	16	148	59	142	16	11	217	43	45	51	26	139	82	638	720
07:30 AM	5	131	43	29	179	27	53	29	15	109	48	173	5	3	226	58	53	37	31	148	78	662	740
07:45 AM	3	86	34	20	123	17	61	20	11	98	58	187	20	4	265	51	54	52	27	157	62	643	705
Total	22	402	153	101	577	124	256	90	49	470	232	642	52	27	926	203	204	202	113	609	290	2582	2872
08:00 AM	8	70	30	16	108	28	69	18	11	115	42	186	14	12	242	49	43	35	21	127	60	592	652
08:15 AM	7	81	29	12	117	25	53	11	8	89	55	187	10	4	252	47	36	43	30	126	54	584	638
08:30 AM	11	86	36	20	133	38	32	18	13	88	41	161	12	8	214	67	23	40	21	130	62	565	627
08:45 AM	6	90	24	11	120	14	40	16	15	70	56	178	9	6	243	61	14	25	13	100	45	533	578
Total	32	327	119	59	478	105	194	63	47	362	194	712	45	30	951	224	116	143	85	483	221	2274	2495
Grand Total	54	729	272	160	1055	229	450	153	96	832	426	1354	97	57	1877	427	320	345	198	1092	511	4856	5367
Apprch %	5.1	69.1	25.8			27.5	54.1	18.4			22.7	72.1	5.2			39.1	29.3	31.6					
Total %	1.1	15	5.6		21.7	4.7	9.3	3.2		17.1	8.8	27.9	2		38.7	8.8	6.6	7.1		22.5	9.5	90.5	

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	6	98	37	141	34	65	16	115	**67**	140	11	218	51	52	**62**	**165**	639
07:15 AM	**8**	87	39	134	**46**	**77**	25	**148**	59	142	16	217	43	45	51	139	638
07:30 AM	5	**131**	**43**	**179**	27	53	**29**	109	48	173	5	226	**58**	53	37	148	**662**
07:45 AM	3	86	34	123	17	61	20	98	58	**187**	**20**	**265**	51	**54**	52	157	643
Total Volume	22	402	153	577	124	256	90	470	232	642	52	926	203	204	202	609	2582
% App. Total	3.8	69.7	26.5		26.4	54.5	19.1		25.1	69.3	5.6		33.3	33.5	33.2		
PHF	.688	.767	.890	.806	.674	.831	.776	.794	.866	.858	.650	.874	.875	.944	.815	.923	.975

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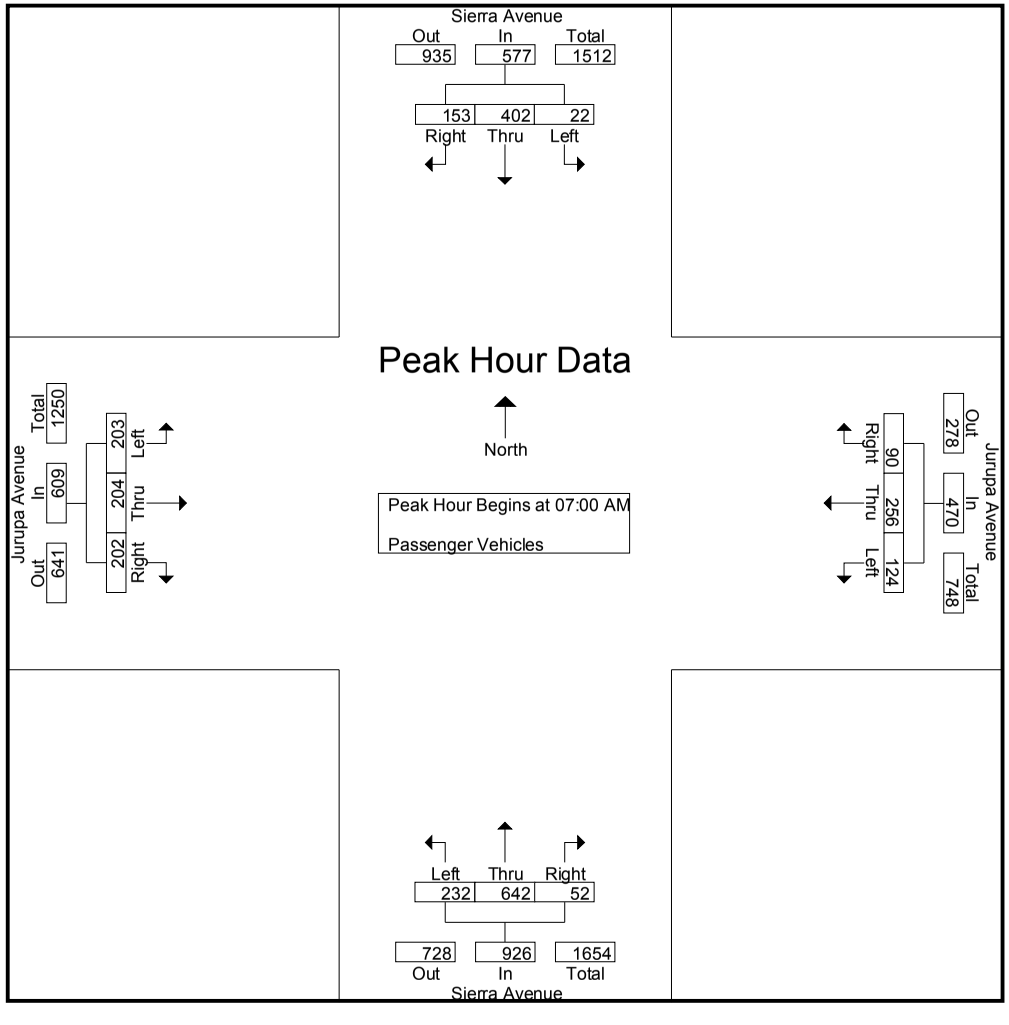
City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
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File Name : 24_FON_Sierra_Jurupa AM
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	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	6	98	37	141	34	65	16	115	**67**	140	11	218	51	52	**62**	**165**	
+15 mins.	**8**	87	39	134	**46**	**77**	25	**148**	59	142	16	217	43	45	51	139	
+30 mins.	5	**131**	**43**	**179**	27	53	**29**	109	48	173	5	226	**58**	53	37	148	
+45 mins.	3	86	34	123	17	61	20	98	58	**187**	**20**	**265**	51	**54**	52	157	
Total Volume	22	402	153	577	124	256	90	470	232	642	52	926	203	204	202	609	
% App. Total	3.8	69.7	26.5		26.4	54.5	19.1		25.1	69.3	5.6		33.3	33.5	33.2		
PHF	.688	.767	.890	.806	.674	.831	.776	.794	.866	.858	.650	.874	.875	.944	.815	.923	

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City of Fontana
N/S: Sierra Avenue
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File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	2	1	4	0	1	0	0	1	0	4	0	0	4	1	0	1	1	2	2	11	13
07:15 AM	0	5	3	2	8	1	0	0	0	1	1	2	0	0	3	3	2	1	1	6	3	18	21
07:30 AM	1	2	3	1	6	2	0	0	0	2	1	2	1	0	4	2	3	1	1	6	2	18	20
07:45 AM	0	1	1	1	2	0	1	1	1	2	2	2	0	0	4	1	3	1	1	5	3	13	16
Total	1	10	9	5	20	3	2	1	1	6	4	10	1	0	15	7	8	4	4	19	10	60	70
08:00 AM	0	0	1	1	1	2	1	0	0	3	1	4	1	0	6	0	2	0	0	2	1	12	13
08:15 AM	0	1	2	1	3	0	2	0	0	2	2	2	2	1	6	3	1	1	1	5	3	16	19
08:30 AM	1	4	3	2	8	0	2	1	1	3	0	2	0	0	2	4	2	4	4	10	7	23	30
08:45 AM	0	5	2	1	7	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	1	11	12
Total	1	10	8	5	19	3	5	1	1	9	3	11	3	1	17	7	5	5	5	17	12	62	74
Grand Total	2	20	17	10	39	6	7	2	2	15	7	21	4	1	32	14	13	9	9	36	22	122	144
Apprch %	5.1	51.3	43.6			40	46.7	13.3			21.9	65.6	12.5			38.9	36.1	25					
Total %	1.6	16.4	13.9		32	4.9	5.7	1.6		12.3	5.7	17.2	3.3		26.2	11.5	10.7	7.4		29.5	15.3	84.7	

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	2	2	4	0	**1**	0	1	0	**4**	0	**4**	1	0	**1**	2	11
07:15 AM	0	**5**	**3**	**8**	1	0	0	1	1	2	0	3	**3**	2	1	**6**	**18**
07:30 AM	**1**	2	3	6	**2**	0	0	**2**	1	2	**1**	4	2	**3**	1	6	18
07:45 AM	0	1	1	2	0	1	**1**	2	**2**	2	0	4	1	3	1	5	13
Total Volume	1	10	9	20	3	2	1	6	4	10	1	15	7	8	4	19	60
% App. Total	5	50	45		50	33.3	16.7		26.7	66.7	6.7		36.8	42.1	21.1		
PHF	.250	.500	.750	.625	.375	.500	.250	.750	.500	.625	.250	.938	.583	.667	1.00	.792	.833

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City of Fontana
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E/W: Jurupa Avenue
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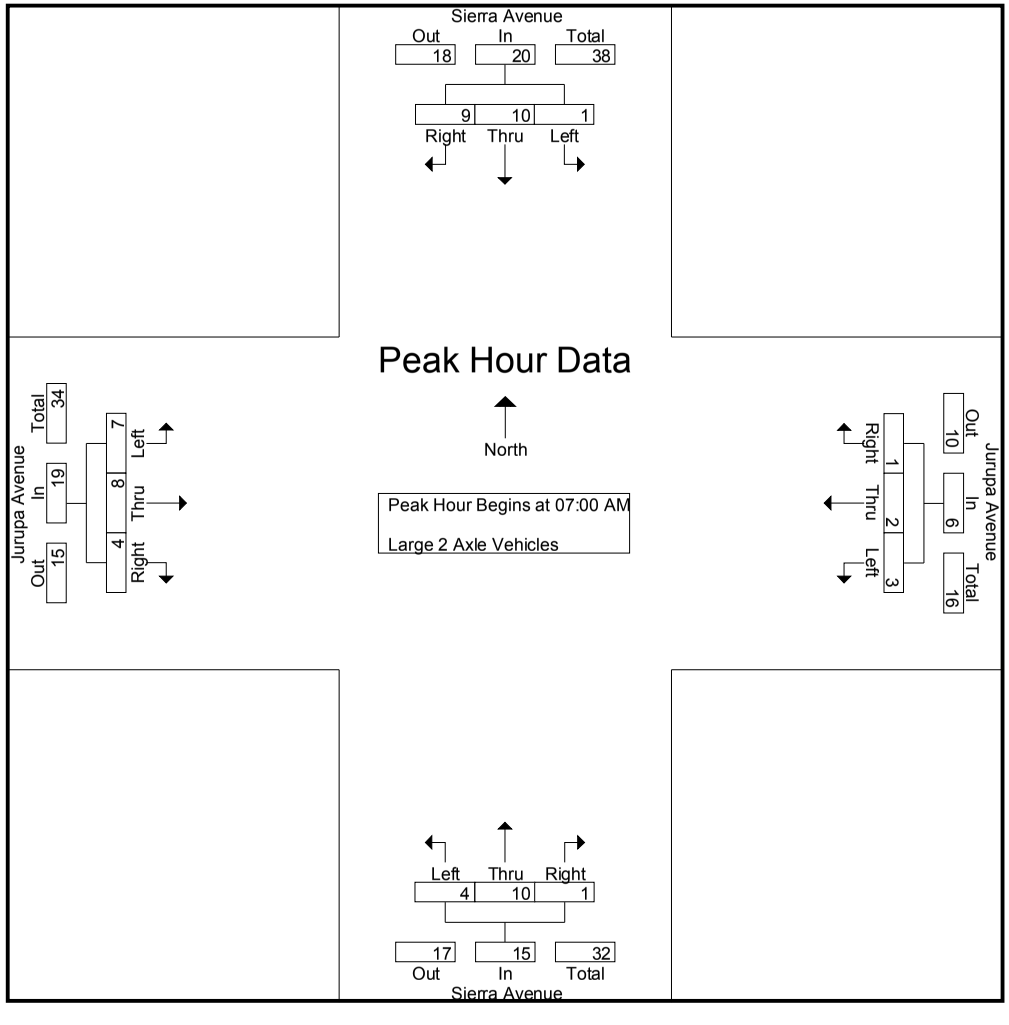
File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	2	2	4	0	**1**	0	1	0	**4**	0	**4**	1	0	**1**	2	
+15 mins.	0	**5**	**3**	**8**	1	0	0	1	1	2	0	3	**3**	2	1	**6**	
+30 mins.	**1**	2	3	6	**2**	0	0	**2**	1	2	**1**	4	2	**3**	1	6	
+45 mins.	0	1	1	2	0	1	**1**	2	**2**	2	0	4	1	3	1	5	
Total Volume	1	10	9	20	3	2	1	6	4	10	1	15	7	8	4	19	
% App. Total	5	50	45		50	33.3	16.7		26.7	66.7	6.7		36.8	42.1	21.1		
PHF	.250	.500	.750	.625	.375	.500	.250	.750	.500	.625	.250	.938	.583	.667	1.000	.792	

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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	1	0	0	0	1	1	2	3
07:45 AM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2	3
Total	0	0	1	1	1	0	1	1	1	2	0	1	0	0	1	2	0	0	0	2	2	6	8
08:00 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	1	0	0	1	0	3	3
08:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2
08:30 AM	0	0	2	2	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	3	5
08:45 AM	0	0	1	1	1	0	0	0	0	0	2	0	0	0	2	2	1	0	0	3	1	6	7
Total	0	1	4	3	5	1	1	0	0	2	2	1	0	0	3	2	2	0	0	4	3	14	17
Grand Total	0	1	5	4	6	1	2	1	1	4	2	2	0	0	4	4	2	0	0	6	5	20	25
Apprch %	0	16.7	83.3			25	50	25			50	50	0			66.7	33.3	0					
Total %	0	5	25		30	5	10	5		20	10	10	0		20	20	10	0		30	20	80	

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**1**	0	0	**1**	**2**
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	**1**	**1**	0	0	0	0	1	0	0	1	2
07:45 AM	0	0	**1**	**1**	0	**1**	0	1	0	0	0	0	0	0	0	0	2
Total Volume	0	0	1	1	0	1	1	2	0	1	0	1	2	0	0	2	6
% App. Total	0	0	100		0	50	50		0	100	0		100	0	0		
PHF	.000	.000	.250	.250	.000	.250	.250	.500	.000	.250	.000	.250	.500	.000	.000	.500	.750

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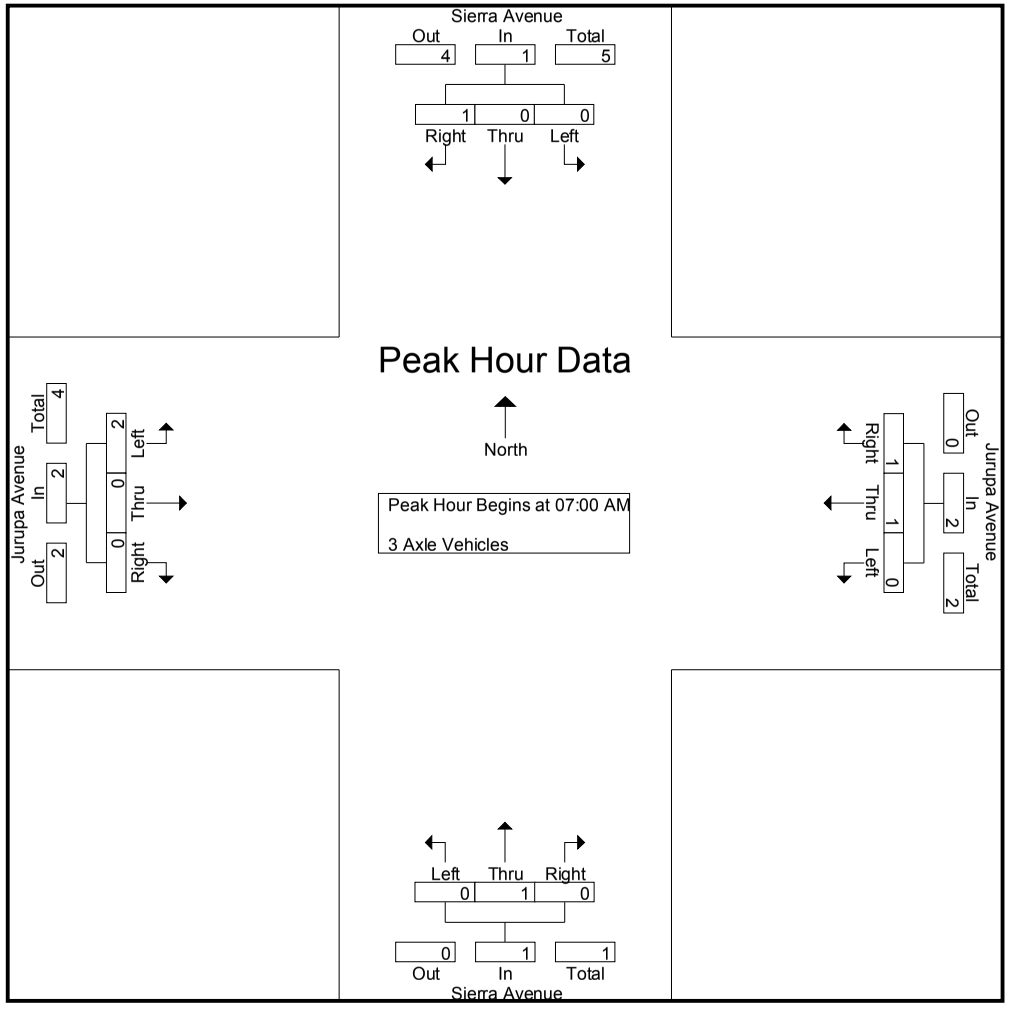
City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**1**	0	0	**1**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	0	0	**1**	**1**	0	0	0	0	1	0	0	1	
+45 mins.	0	0	**1**	**1**	0	**1**	0	1	0	0	0	0	0	0	0	0	
Total Volume	0	0	1	1	0	1	1	2	0	1	0	1	2	0	0	2	
% App. Total	0	0	100		0	50	50		0	100	0		100	0	0		
PHF	.000	.000	.250	.250	.000	.250	.250	.500	.000	.250	.000	.250	.500	.000	.000	.500	

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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
07:15 AM	0	0	2	1	2	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	1	4	5
07:30 AM	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3
07:45 AM	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	3	3
Total	0	0	6	2	6	0	0	1	0	1	1	2	0	0	3	0	0	0	0	0	2	10	12
08:00 AM	1	1	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	6
08:15 AM	0	2	0	0	2	1	1	0	0	2	1	0	0	0	1	0	0	1	1	1	1	6	7
08:30 AM	0	0	1	1	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	3	4
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1
Total	1	3	3	3	7	1	1	0	0	2	1	1	0	0	2	2	0	1	1	3	4	14	18
Grand Total	1	3	9	5	13	1	1	1	0	3	2	3	0	0	5	2	0	1	1	3	6	24	30
Apprch %	7.7	23.1	69.2			33.3	33.3	33.3			40	60	0			66.7	0	33.3					
Total %	4.2	12.5	37.5		54.2	4.2	4.2	4.2		12.5	8.3	12.5	0		20.8	8.3	0	4.2		12.5	20	80	

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	**2**	**2**	0	0	0	0	**1**	**1**	0	**2**	0	0	0	0	**4**
07:30 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	1	1	0	0	**1**	**1**	0	1	0	1	0	0	0	0	3
Total Volume	0	0	6	6	0	0	1	1	1	2	0	3	0	0	0	0	10
% App. Total	0	0	100		0	0	100		33.3	66.7	0		0	0	0		
PHF	.000	.000	.750	.750	.000	.000	.250	.250	.250	.500	.000	.375	.000	.000	.000	.000	.625

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City of Fontana
N/S: Sierra Avenue
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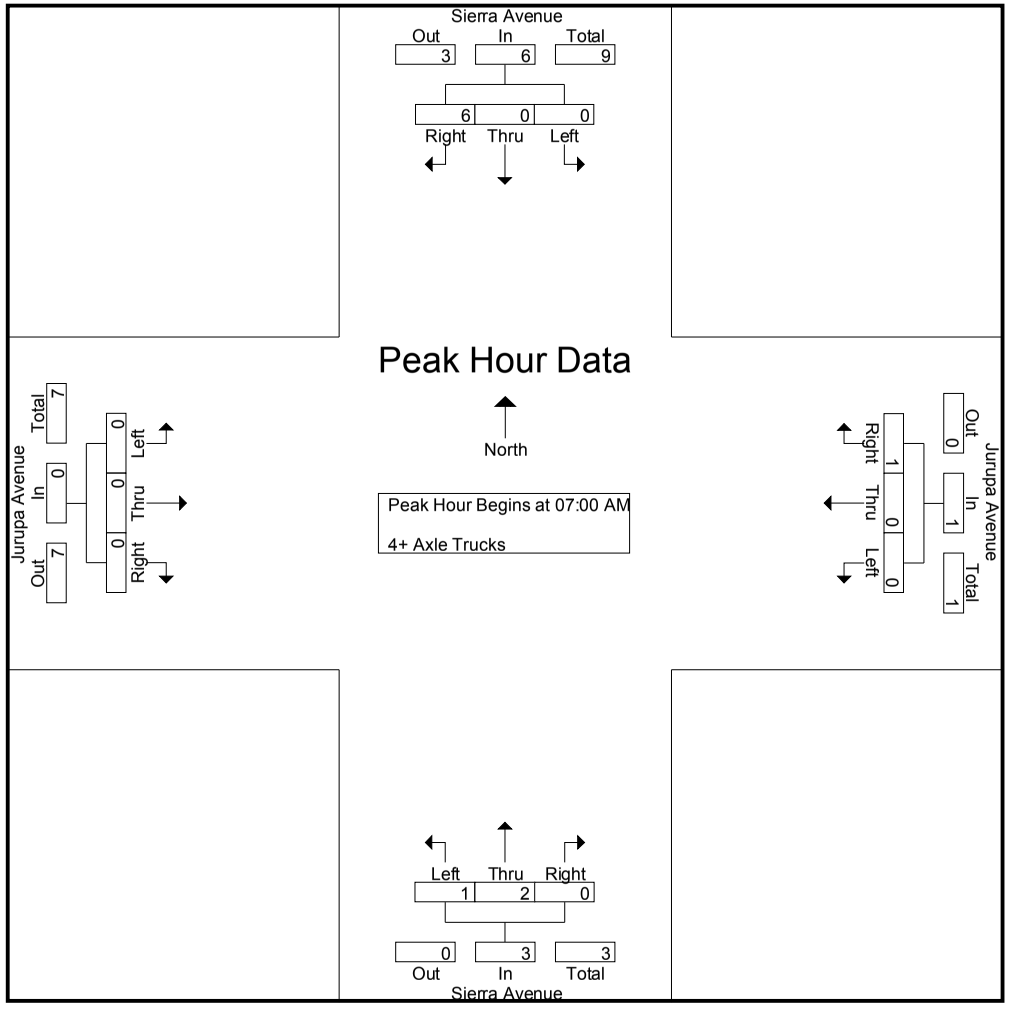
File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa AM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	0	**2**	**2**	0	0	0	0	**1**	**1**	0	**2**	0	0	0	0	
+30 mins.	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	1	1	0	0	**1**	**1**	0	1	0	1	0	0	0	0	
Total Volume	0	0	6	6	0	0	1	1	1	2	0	3	0	0	0	0	
% App. Total	0	0	100		0	0	100		33.3	66.7	0		0	0	0		
PHF	.000	.000	.750	.750	.000	.000	.250	.250	.250	.500	.000	.375	.000	.000	.000	.000	

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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	17	127	53	16	197	21	73	16	11	110	55	193	26	6	274	98	53	93	45	244	78	825	903
04:15 PM	21	121	56	11	198	35	60	15	12	110	61	237	18	7	316	93	51	72	36	216	66	840	906
04:30 PM	17	127	47	17	191	31	77	12	10	120	57	214	17	5	288	88	61	88	43	237	75	836	911
04:45 PM	19	140	56	17	215	33	66	21	11	120	55	186	27	13	268	97	95	83	45	275	86	878	964
Total	74	515	212	61	801	120	276	64	44	460	228	830	88	31	1146	376	260	336	169	972	305	3379	3684
05:00 PM	26	126	47	10	199	42	59	25	20	126	57	239	21	7	317	87	105	60	27	252	64	894	958
05:15 PM	19	158	59	20	236	35	64	17	13	116	59	246	26	10	331	103	56	72	33	231	76	914	990
05:30 PM	22	139	64	18	225	29	69	17	12	115	79	221	23	12	323	77	52	57	34	186	76	849	925
05:45 PM	10	125	43	12	178	28	85	15	8	128	70	215	36	25	321	93	44	68	44	205	89	832	921
Total	77	548	213	60	838	134	277	74	53	485	265	921	106	54	1292	360	257	257	138	874	305	3489	3794
Grand Total	151	1063	425	121	1639	254	553	138	97	945	493	1751	194	85	2438	736	517	593	307	1846	610	6868	7478
Apprch %	9.2	64.9	25.9			26.9	58.5	14.6			20.2	71.8	8			39.9	28	32.1					
Total %	2.2	15.5	6.2		23.9	3.7	8.1	2		13.8	7.2	25.5	2.8		35.5	10.7	7.5	8.6		26.9	8.2	91.8	
Passenger Vehicles	147	1047	404		1715	253	547	134		1028	475	1713	190		2461	697	503	582		2085	0	0	7289
% Passenger Vehicles	97.4	98.5	95.1	96.7	97.4	99.6	98.9	97.1	96.9	98.7	96.3	97.8	97.9	97.6	97.5	94.7	97.3	98.1	98.7	96.8	0	0	97.5
Large 2 Axle Vehicles	4	12	5		22	1	6	2		10	14	31	4		51	10	11	7		31	0	0	114
% Large 2 Axle Vehicles	2.6	1.1	1.2	0.8	1.2	0.4	1.1	1.4	1	1	2.8	1.8	2.1	2.4	2	1.4	2.1	1.2	1	1.4	0	0	1.5
3 Axle Vehicles	0	1	5		7	0	0	0		0	3	3	0		6	6	1	1		8	0	0	21
% 3 Axle Vehicles	0	0.1	1.2	0.8	0.4	0	0	0	0	0	0.6	0.2	0	0	0.2	0.8	0.2	0.2	0	0.4	0	0	0.3
4+ Axle Trucks	0	3	11		16	0	0	2		4	1	4	0		5	23	2	3		29	0	0	54
% 4+ Axle Trucks	0	0.3	2.6	1.7	0.9	0	0	1.4	2.1	0.4	0.2	0.2	0	0	0.2	3.1	0.4	0.5	0.3	1.3	0	0	0.7

24-4147

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM																	
04:45 PM	19	140	56	215	33	66	21	120	55	186	**27**	268	97	95	**83**	**275**	878
05:00 PM	**26**	126	47	199	**42**	59	**25**	**126**	57	239	21	317	87	**105**	60	252	894
05:15 PM	19	**158**	59	**236**	35	64	17	116	59	**246**	26	**331**	**103**	56	72	231	**914**
05:30 PM	22	139	**64**	225	29	**69**	17	115	**79**	221	23	323	77	52	57	186	849
Total Volume	86	563	226	875	139	258	80	477	250	892	97	1239	364	308	272	944	3535
% App. Total	9.8	64.3	25.8		29.1	54.1	16.8		20.2	72	7.8		38.6	32.6	28.8		
PHF	.827	.891	.883	.927	.827	.935	.800	.946	.791	.907	.898	.936	.883	.733	.819	.858	.967

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City of Fontana
N/S: Sierra Avenue
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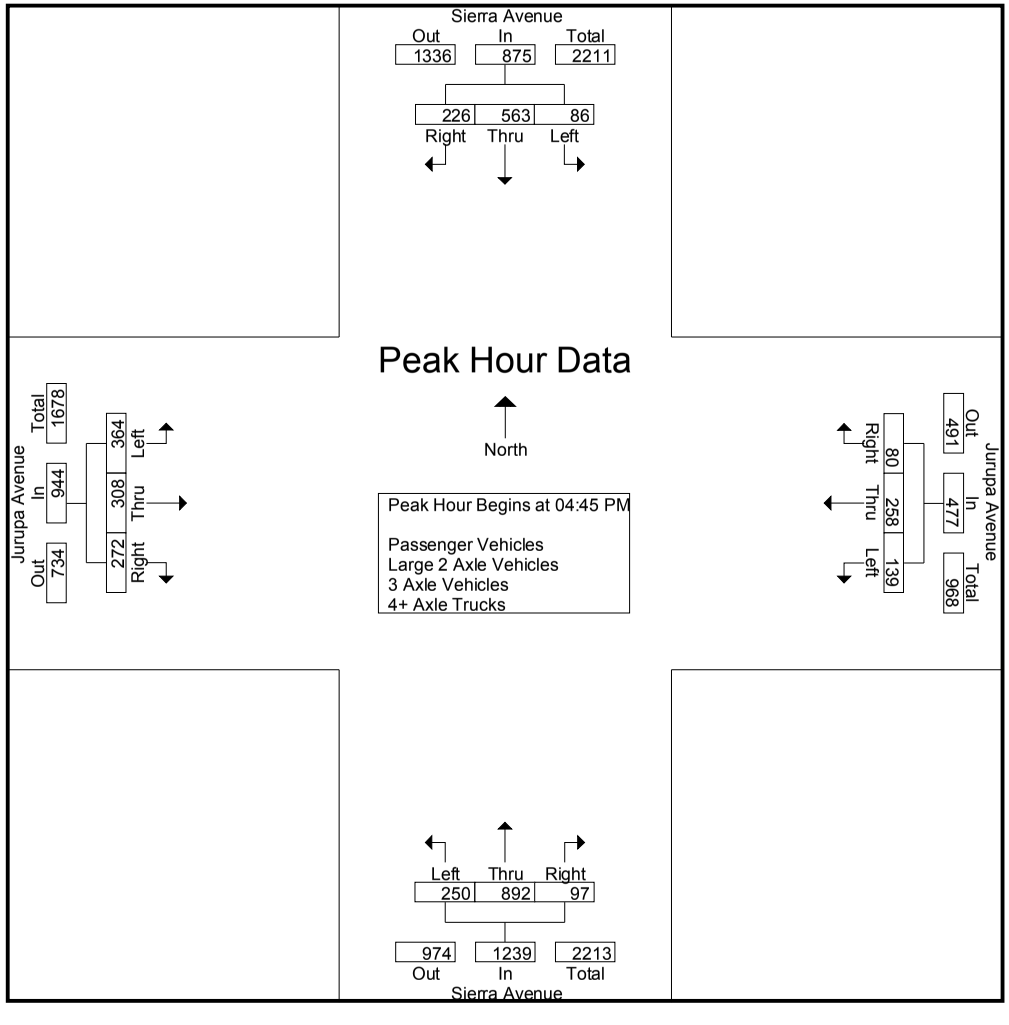

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City of Fontana
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Site Code : 05119181
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Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 Each Approach Begins at:																	
	04:45 PM				05:00 PM				05:00 PM				04:30 PM				
+0 mins.	19	140	56	215	**42**	59	**25**	126	57	239	21	317	88	61	**88**	237	
+15 mins.	**26**	126	47	199	35	64	17	116	59	**246**	26	**331**	97	95	83	**275**	
+30 mins.	19	**158**	59	**236**	29	69	17	115	**79**	221	23	323	87	**105**	60	252	
+45 mins.	22	139	**64**	225	28	**85**	15	**128**	70	215	**36**	321	**103**	56	72	231	
Total Volume	86	563	226	875	134	277	74	485	265	921	106	1292	375	317	303	995	
% App. Total	9.8	64.3	25.8		27.6	57.1	15.3		20.5	71.3	8.2		37.7	31.9	30.5		
PHF	.827	.891	.883	.927	.798	.815	.740	.947	.839	.936	.736	.976	.910	.755	.861	.905	

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City of Fontana
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E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	15	126	52	16	193	21	71	14	10	106	53	186	25	5	264	92	52	92	44	236	75	799	874
04:15 PM	21	119	53	9	193	35	59	15	12	109	57	231	17	7	305	90	47	70	36	207	64	814	878
04:30 PM	17	125	44	16	186	31	77	12	10	120	54	210	17	5	281	83	60	85	42	228	73	815	888
04:45 PM	18	139	52	16	209	33	65	21	11	119	52	183	27	13	262	92	92	82	44	266	84	856	940
Total	71	509	201	57	781	120	272	62	43	454	216	810	86	30	1112	357	251	329	166	937	296	3284	3580
05:00 PM	25	122	43	10	190	42	57	24	19	123	56	231	21	7	308	80	104	58	26	242	62	863	925
05:15 PM	19	154	57	20	230	34	64	17	13	115	56	244	26	10	326	97	53	70	33	220	76	891	967
05:30 PM	22	138	63	18	223	29	69	16	11	114	78	216	22	12	316	72	51	57	34	180	75	833	908
05:45 PM	10	124	40	12	174	28	85	15	8	128	69	212	35	24	316	91	44	68	44	203	88	821	909
Total	76	538	203	60	817	133	275	72	51	480	259	903	104	53	1266	340	252	253	137	845	301	3408	3709
Grand Total	147	1047	404	117	1598	253	547	134	94	934	475	1713	190	83	2378	697	503	582	303	1782	597	6692	7289
Apprch %	9.2	65.5	25.3			27.1	58.6	14.3			20	72	8			39.1	28.2	32.7					
Total %	2.2	15.6	6		23.9	3.8	8.2	2		14	7.1	25.6	2.8		35.5	10.4	7.5	8.7		26.6	8.2	91.8	

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	18	139	52	209	33	65	21	119	52	183	**27**	262	92	92	**82**	**266**	856
05:00 PM	**25**	122	43	190	**42**	57	**24**	**123**	56	231	21	308	80	**104**	58	242	863
05:15 PM	19	**154**	57	**230**	34	64	17	115	56	**244**	26	**326**	**97**	53	70	220	**891**
05:30 PM	22	138	**63**	223	29	**69**	16	114	**78**	216	22	316	72	51	57	180	833
Total Volume	84	553	215	852	138	255	78	471	242	874	96	1212	341	300	267	908	3443
% App. Total	9.9	64.9	25.2		29.3	54.1	16.6		20	72.1	7.9		37.6	33	29.4		
PHF	.840	.898	.853	.926	.821	.924	.813	.957	.776	.895	.889	.929	.879	.721	.814	.853	.966

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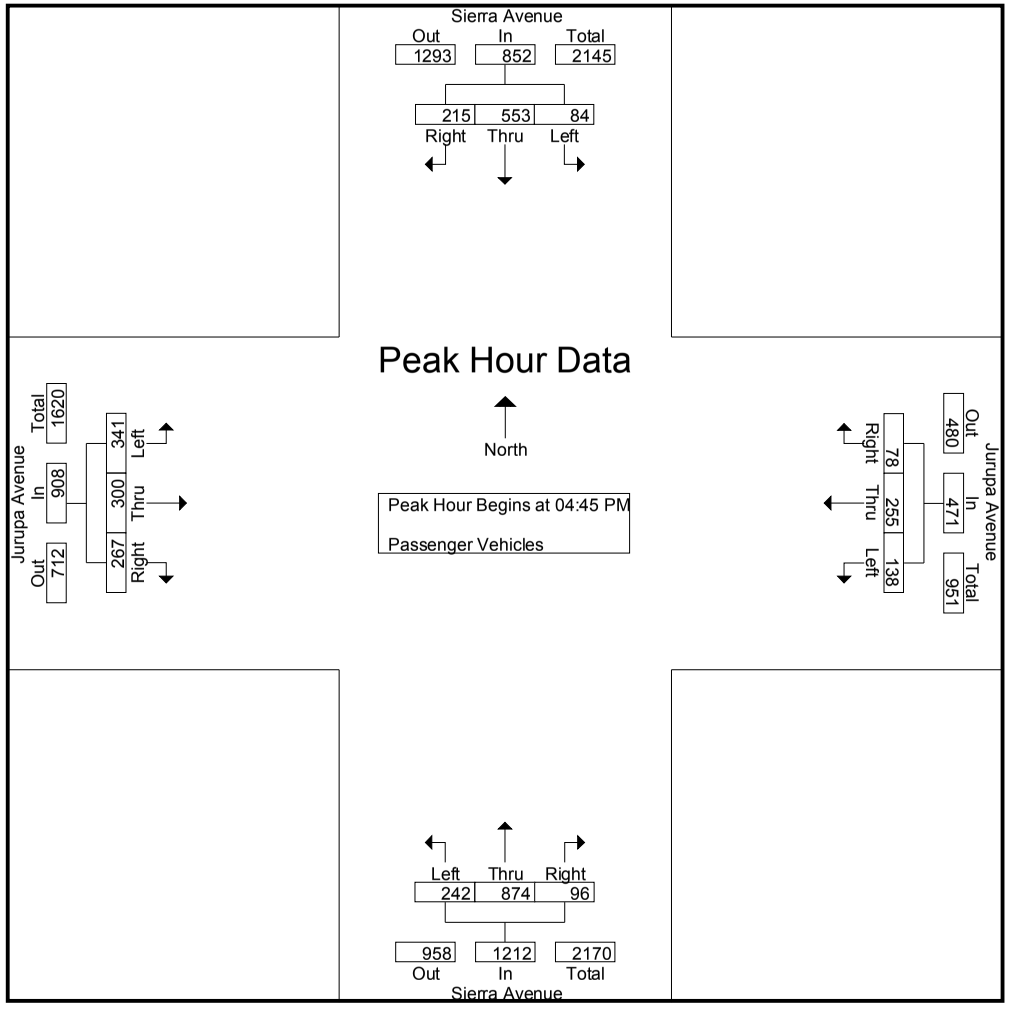
City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	18	139	52	209	33	65	21	119	52	183	**27**	262	92	92	**82**	**266**	
+15 mins.	**25**	122	43	190	**42**	57	**24**	**123**	56	231	21	308	80	**104**	58	242	
+30 mins.	19	**154**	57	**230**	34	64	17	115	56	**244**	26	**326**	**97**	53	70	220	
+45 mins.	22	138	**63**	223	29	**69**	16	114	**78**	216	22	316	72	51	57	180	
Total Volume	84	553	215	852	138	255	78	471	242	874	96	1212	341	300	267	908	
% App. Total	9.9	64.9	25.2		29.3	54.1	16.6		20	72.1	7.9		37.6	33	29.4		
PHF	.840	.898	.853	.926	.821	.924	.813	.957	.776	.895	.889	.929	.879	.721	.814	.853	

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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	2	0	0	0	2	0	2	2	1	4	1	4	1	1	6	1	1	1	1	3	3	15	18
04:15 PM	0	2	1	0	3	0	1	0	0	1	4	4	1	0	9	1	3	0	0	4	0	17	17
04:30 PM	0	2	2	1	4	0	0	0	0	0	3	4	0	0	7	2	1	3	1	6	2	17	19
04:45 PM	1	1	1	0	3	0	1	0	0	1	1	3	0	0	4	1	2	0	0	3	0	11	11
Total	3	5	4	1	12	0	4	2	1	6	9	15	2	1	26	5	7	4	2	16	5	60	65
05:00 PM	1	2	1	0	4	0	2	0	0	2	1	8	0	0	9	1	1	1	1	3	1	18	19
05:15 PM	0	3	0	0	3	1	0	0	0	1	2	2	0	0	4	2	2	2	0	6	0	14	14
05:30 PM	0	1	0	0	1	0	0	0	0	0	1	4	1	0	6	1	1	0	0	2	0	9	9
05:45 PM	0	1	0	0	1	0	0	0	0	0	1	2	1	1	4	1	0	0	0	1	1	6	7
Total	1	7	1	0	9	1	2	0	0	3	5	16	2	1	23	5	4	3	1	12	2	47	49
Grand Total	4	12	5	1	21	1	6	2	1	9	14	31	4	2	49	10	11	7	3	28	7	107	114
Apprch %	19	57.1	23.8			11.1	66.7	22.2			28.6	63.3	8.2			35.7	39.3	25					
Total %	3.7	11.2	4.7		19.6	0.9	5.6	1.9		8.4	13.1	29	3.7		45.8	9.3	10.3	6.5		26.2	6.1	93.9	

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**1**	1	**1**	3	0	1	0	1	1	3	0	4	1	**2**	0	3	11
05:00 PM	1	2	1	**4**	0	**2**	0	**2**	1	**8**	0	**9**	1	1	1	3	**18**
05:15 PM	0	**3**	0	3	**1**	0	0	1	**2**	2	0	4	**2**	2	**2**	**6**	14
05:30 PM	0	1	0	1	0	0	0	0	1	4	**1**	6	1	1	0	2	9
Total Volume	2	7	2	11	1	3	0	4	5	17	1	23	5	6	3	14	52
% App. Total	18.2	63.6	18.2		25	75	0		21.7	73.9	4.3		35.7	42.9	21.4		
PHF	.500	.583	.500	.688	.250	.375	.000	.500	.625	.531	.250	.639	.625	.750	.375	.583	.722

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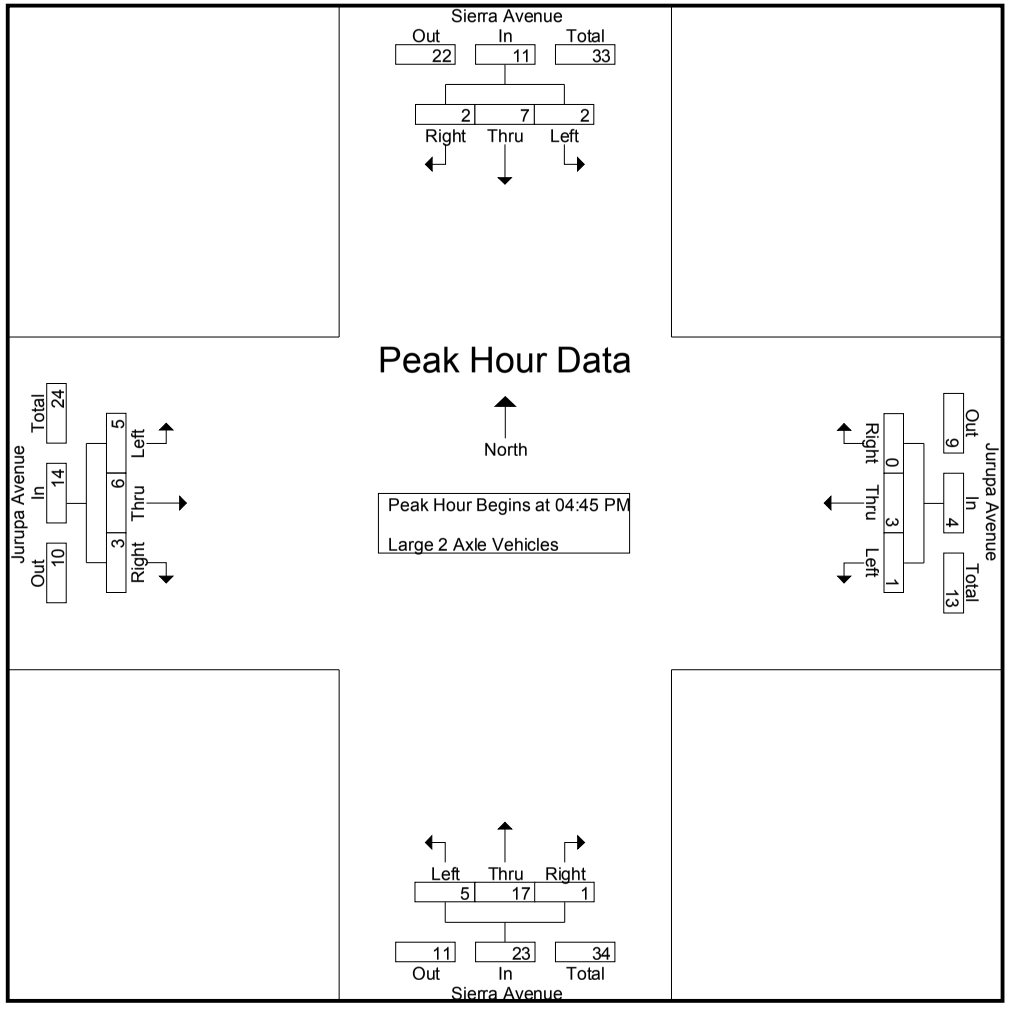
City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	**1**	1	**1**	3	0	1	0	1	1	3	0	4	1	**2**	0	3	
+15 mins.	1	2	1	**4**	0	**2**	0	**2**	1	**8**	0	**9**	1	1	1	3	
+30 mins.	0	**3**	0	3	**1**	0	0	1	**2**	2	0	4	**2**	2	**2**	**6**	
+45 mins.	0	1	0	1	0	0	0	0	1	4	**1**	6	1	1	0	2	
Total Volume	2	7	2	11	1	3	0	4	5	17	1	23	5	6	3	14	
% App. Total	18.2	63.6	18.2		25	75	0		21.7	73.9	4.3		35.7	42.9	21.4		
PHF	.500	.583	.500	.688	.250	.375	.000	.500	.625	.531	.250	.639	.625	.750	.375	.583	

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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	1	0	0	0	1	0	3	3
04:15 PM	0	0	1	1	1	0	0	0	0	0	0	1	0	0	1	0	1	1	0	2	1	4	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
Total	0	0	1	1	1	0	0	0	0	0	3	2	0	0	5	3	1	1	0	5	1	11	12
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	4	4
05:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2
05:45 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	3	3
Total	0	1	4	0	5	0	0	0	0	0	0	1	0	0	1	3	0	0	0	3	0	9	9
Grand Total	0	1	5	1	6	0	0	0	0	0	3	3	0	0	6	6	1	1	0	8	1	20	21
Apprch %	0	16.7	83.3			0	0	0			50	50	0			75	12.5	12.5					
Total %	0	5	25		30	0	0	0		0	15	15	0		30	30	5	5		40	4.8	95.2	

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	**1**	**2**	**3**	0	0	0	0	0	0	0	0	**1**	0	0	**1**	**4**
05:30 PM	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	1	3	4	0	0	0	0	2	0	0	2	2	0	0	2	8
% App. Total	0	25	75		0	0	0		100	0	0		100	0	0		
PHF	.000	.250	.375	.333	.000	.000	.000	.000	.250	.000	.000	.250	.500	.000	.000	.500	.500

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City of Fontana
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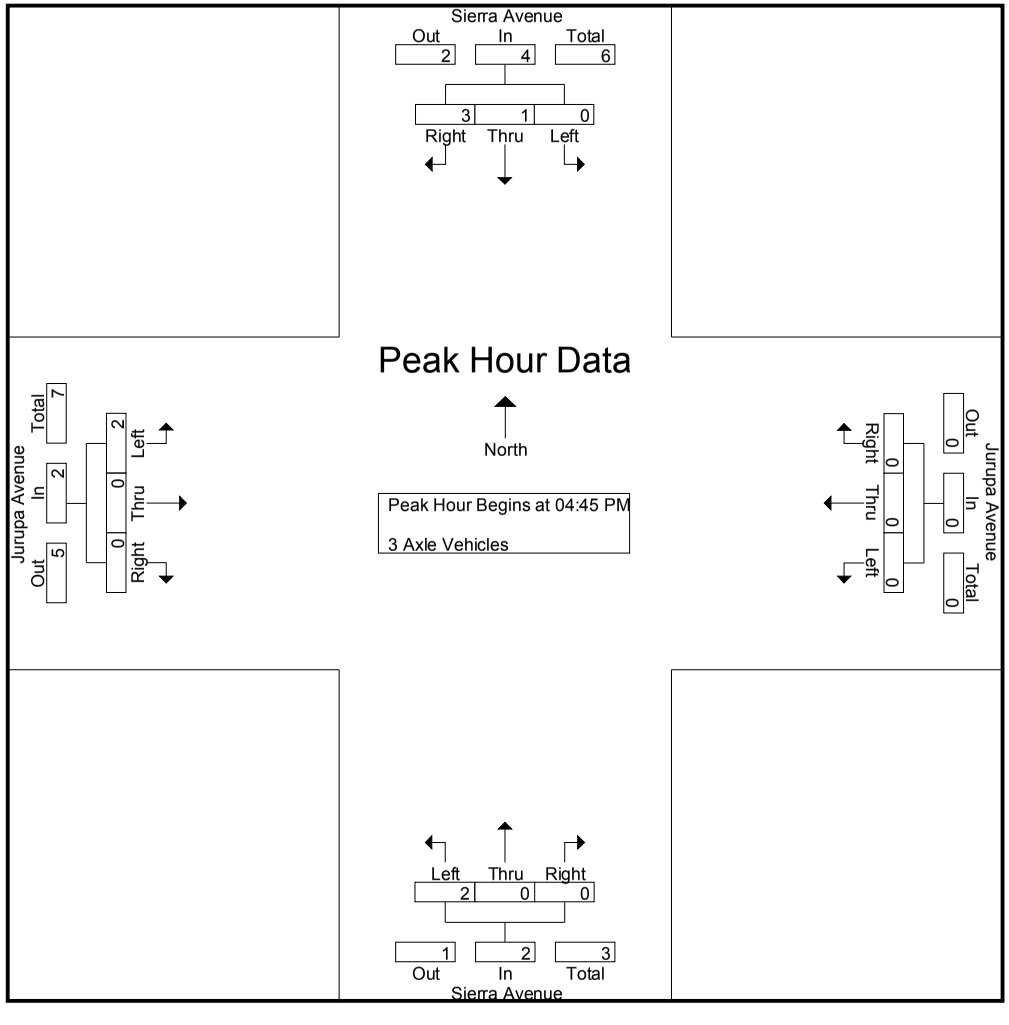
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	0	0	0	0	0	0	**2**	0	0	**2**	0	0	0	0	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+30 mins.	0	**1**	**2**	**3**	0	0	0	0	0	0	0	0	**1**	0	0	**1**	
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	1	
Total Volume	0	1	3	4	0	0	0	0	2	0	0	2	2	0	0	2	
% App. Total	0	25	75		0	0	0		100	0	0		100	0	0		
PHF	.000	.250	.375	.333	.000	.000	.000	.000	.250	.000	.000	.250	.500	.000	.000	.500	

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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

	Sierra Avenue Southbound					Jurupa Avenue Westbound					Sierra Avenue Northbound					Jurupa Avenue Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	1	0	2	0	0	0	0	0	0	2	0	0	2	4	0	0	0	4	0	8	8
04:15 PM	0	0	1	1	1	0	0	0	0	0	0	1	0	0	1	2	0	1	0	3	1	5	6
04:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2
04:45 PM	0	0	3	1	3	0	0	0	0	0	0	0	0	0	0	4	1	1	1	6	2	9	11
Total	0	1	6	2	7	0	0	0	0	0	0	3	0	0	3	11	1	2	1	14	3	24	27
05:00 PM	0	2	3	0	5	0	0	1	1	1	0	0	0	0	0	6	0	1	0	7	1	13	14
05:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3	1	0	0	4	0	5	5
05:30 PM	0	0	0	0	0	0	0	1	1	1	0	1	0	0	1	3	0	0	0	3	1	5	6
05:45 PM	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	2	5	0	7	0	0	2	2	2	1	1	0	0	2	12	1	1	0	14	2	25	27
Grand Total	0	3	11	2	14	0	0	2	2	2	1	4	0	0	5	23	2	3	1	28	5	49	54
Apprch %	0	21.4	78.6			0	0	100			20	80	0			82.1	7.1	10.7					
Total %	0	6.1	22.4		28.6	0	0	4.1		4.1	2	8.2	0		10.2	46.9	4.1	6.1		57.1	9.3	90.7	

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	**3**	3	0	0	0	0	0	0	0	0	4	**1**	**1**	6	9
05:00 PM	0	**2**	3	**5**	0	0	**1**	**1**	0	0	0	0	**6**	0	1	**7**	**13**
05:15 PM	0	0	0	0	0	0	0	0	**1**	0	0	**1**	3	1	0	4	5
05:30 PM	0	0	0	0	0	0	1	1	0	**1**	0	1	3	0	0	3	5
Total Volume	0	2	6	8	0	0	2	2	1	1	0	2	16	2	2	20	32
% App. Total	0	25	75		0	0	100		50	50	0		80	10	10		
PHF	.000	.250	.500	.400	.000	.000	.500	.500	.250	.250	.000	.500	.667	.500	.500	.714	.615

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City of Fontana
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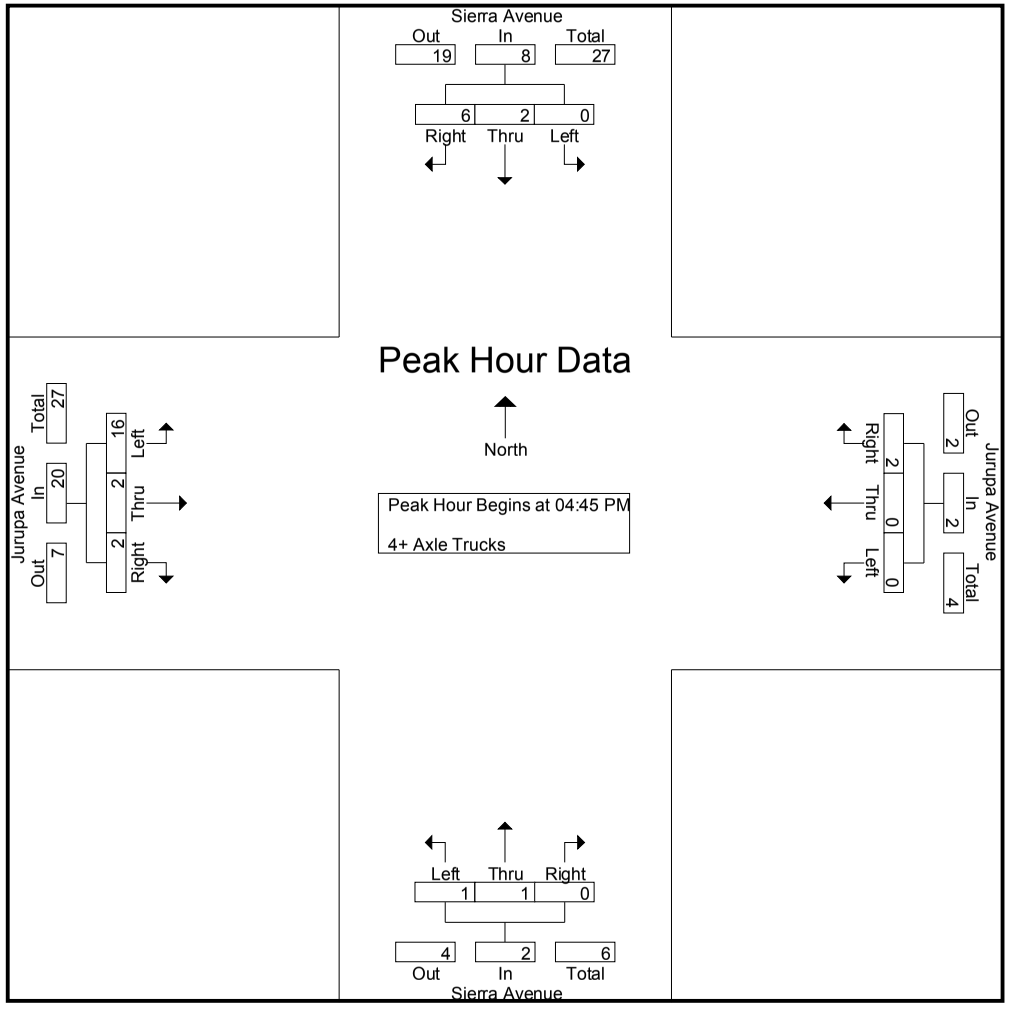
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 2



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City of Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue
Weather: Clear

File Name : 24_FON_Sierra_Jurupa PM
Site Code : 05119181
Start Date : 3/14/2019
Page No : 3

	Sierra Avenue Southbound				Jurupa Avenue Westbound				Sierra Avenue Northbound				Jurupa 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 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
+0 mins.	0	0	**3**	3	0	0	0	0	0	0	0	0	4	**1**	**1**	6	
+15 mins.	0	**2**	3	**5**	0	0	**1**	**1**	0	0	0	0	**6**	0	1	**7**	
+30 mins.	0	0	0	0	0	0	0	0	**1**	0	0	**1**	3	1	0	4	
+45 mins.	0	0	0	0	0	0	1	1	0	**1**	0	1	3	0	0	3	
Total Volume	0	2	6	8	0	0	2	2	1	1	0	2	16	2	2	20	
% App. Total	0	25	75		0	0	100		50	50	0		80	10	10		
PHF	.000	.250	.500	.400	.000	.000	.500	.500	.250	.250	.000	.500	.667	.500	.500	.714	

Location: Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

PEDESTRIANS

	North Leg Sierra Avenue	East Leg Jurupa Avenue	South Leg Sierra Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	1	0	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	1	0	0	0	1
8:15 AM	3	0	0	1	4
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	5	0	0	1	6

	North Leg Sierra Avenue	East Leg Jurupa Avenue	South Leg Sierra Avenue	West Leg Jurupa Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

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

Location: Fontana
N/S: Sierra Avenue
E/W: Jurupa Avenue

Date: 3/14/2019
Day: Thursday

BICYCLES

	Southbound Sierra Avenue			Westbound Jurupa Avenue			Northbound Sierra Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	1	0	1

	Southbound Sierra Avenue			Westbound Jurupa Avenue			Northbound Sierra Avenue			Eastbound Jurupa Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	1	0	1	0	0	2

Counts Unlimited, Inc.
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City of Fontana
Citrus Avenue
N/ Slover Avenue
24 Hour Directional Volume Count

FON001
Site Code: 051-19181

Start Time	14-Mar-19 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		64	200			38	159				
12:15		27	218			35	193				
12:30		32	202			22	140				
12:45		18	204	141	824	25	150	120	642	261	1466
01:00		21	159			18	155				
01:15		17	204			26	149				
01:30		21	344			9	209				
01:45		21	262	80	969	23	187	76	700	156	1669
02:00		23	233			32	181				
02:15		14	227			22	**199**				
02:30		25	**435**			20	**220**				
02:45		23	**350**	85	1245	34	**181**	108	781	193	2026
03:00		36	**346**			30	**204**				
03:15		33	**293**			37	179				
03:30		41	357			75	194				
03:45		47	346	157	1342	70	162	212	739	369	2081
04:00		62	338			89	172				
04:15		75	298			93	180				
04:30		82	352			107	173				
04:45		82	338	301	1326	208	173	497	698	798	2024
05:00		75	375			70	188				
05:15		68	318			125	178				
05:30		89	339			249	169				
05:45		89	263	321	1295	271	155	715	690	1036	1985
06:00		100	231			159	148				
06:15		114	201			146	128				
06:30		182	161			**211**	142				
06:45		**184**	147	580	740	**318**	118	834	536	1414	1276
07:00		**232**	131			**310**	123				
07:15		**294**	133			**310**	122				
07:30		**274**	109			209	143				
07:45		174	96	974	469	264	138	1093	526	2067	995
08:00		135	149			215	112				
08:15		122	93			213	116				
08:30		171	97			195	93				
08:45		168	84	596	423	171	117	794	438	1390	861
09:00		161	80			132	96				
09:15		161	73			150	101				
09:30		135	69			127	93				
09:45		127	57	584	279	118	118	527	408	1111	687
10:00		155	76			122	86				
10:15		144	64			113	68				
10:30		147	98			134	60				
10:45		167	49	613	287	131	60	500	274	1113	561
11:00		156	58			130	53				
11:15		160	41			137	43				
11:30		192	51			121	37				
11:45		198	34	706	184	142	37	530	170	1236	354
Total		5138	9383	5138	9383	6006	6602	6006	6602	11144	15985
Combined Total		14521		14521		12608		12608		27129	
AM Peak	-	06:45	-	-	-	06:30	-	-	-	-	-
Vol.	-	984	-	-	-	1149	-	-	-	-	-
P.H.F.		0.837				0.903					
PM Peak	-	-	02:30	-	-	-	02:15	-	-	-	-
Vol.	-	-	1424	-	-	-	804	-	-	-	-
P.H.F.			0.818				0.914				
Percentage		35.4%	64.6%			47.6%	52.4%				
ADT/AADT		ADT 27,129		AADT 27,129							

Counts Unlimited, Inc.

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City of Fontana
Cypress Avenue
N/ Jurupa Avenue
24 Hour Directional Volume Count

FON003
Site Code: 051-19181

Start Time	14-Mar-19 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		2	23			3	31				
12:15		3	26			5	11				
12:30		3	26			2	21				
12:45		2	21	10	96	1	32	11	95	21	191
01:00		0	19			2	27				
01:15		0	26			1	23				
01:30		3	15			1	25				
01:45		7	30	10	90	1	31	5	106	15	196
02:00		2	34			4	32				
02:15		1	41			3	30				
02:30		2	45			1	**60**				
02:45		1	46	6	166	1	**44**	9	166	15	332
03:00		3	55			4	**38**				
03:15		2	**63**			0	**44**				
03:30		6	**57**			7	29				
03:45		5	**53**	16	228	2	31	13	142	29	370
04:00		3	**72**			5	26				
04:15		4	51			12	24				
04:30		10	65			13	67				
04:45		7	56	24	244	8	29	38	146	62	390
05:00		8	47			7	37				
05:15		25	61			12	34				
05:30		33	40			17	30				
05:45		35	44	101	192	16	42	52	143	153	335
06:00		13	45			14	31				
06:15		19	37			15	37				
06:30		28	27			22	25				
06:45		25	36	85	145	**22**	30	73	123	158	268
07:00		**34**	41			**25**	29				
07:15		**50**	35			**22**	35				
07:30		**36**	31			**39**	23				
07:45		**44**	18	164	125	19	22	105	109	269	234
08:00		14	8			22	19				
08:15		37	9			23	23				
08:30		34	9			16	21				
08:45		36	23	121	49	19	22	80	85	201	134
09:00		29	14			19	14				
09:15		24	11			11	12				
09:30		35	11			13	12				
09:45		20	11	108	47	15	10	58	48	166	95
10:00		28	12			12	12				
10:15		26	6			11	7				
10:30		25	5			26	8				
10:45		13	3	92	26	11	7	60	34	152	60
11:00		25	5			29	6				
11:15		25	6			17	6				
11:30		32	5			20	7				
11:45		15	3	97	19	21	5	87	24	184	43
Total		834	1427	834	1427	591	1221	591	1221	1425	2648
Combined Total		2261		2261		1812		1812		4073	
AM Peak	-	07:00	-	-	-	06:45	-	-	-	-	-
Vol.	-	164	-	-	-	108	-	-	-	-	-
P.H.F.		0.820				0.692					
PM Peak	-	-	03:15	-	-	-	02:30	-	-	-	-
Vol.	-	-	245	-	-	-	186	-	-	-	-
P.H.F.			0.851				0.775				
Percentage		36.9%	63.1%			32.6%	67.4%				
ADT/AADT		ADT 4,073		AADT 4,073							

Counts Unlimited, Inc.

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City of Fontana
Juniper Avenue
N/ Jurupa Avenue
24 Hour Directional Volume Count

FON004
Site Code: 051-19181

Start	14-Mar-19	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
Time	Thu	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	13			0	10				
12:15		3	13			0	17				
12:30		0	14			2	12				
12:45		1	15	4	55	1	13	3	52	7	107
01:00		3	9			1	17				
01:15		1	10			2	16				
01:30		2	8			0	15				
01:45		3	15	9	42	1	21	4	69	13	111
02:00		0	14			0	18				
02:15		0	26			0	9				
02:30		0	21			1	30				
02:45		1	**40**	1	101	0	20	1	77	2	178
03:00		4	**33**			1	18				
03:15		2	**31**			2	11				
03:30		2	**25**			1	15				
03:45		3	26	11	115	2	20	6	64	17	179
04:00		1	17			3	16				
04:15		1	26			2	**23**				
04:30		1	30			3	**24**				
04:45		2	29	5	102	4	**25**	12	88	17	190
05:00		1	19			0	**30**				
05:15		6	28			2	15				
05:30		4	17			5	18				
05:45		5	22	16	86	8	20	15	83	31	169
06:00		10	11			5	24				
06:15		6	17			9	16				
06:30		10	20			15	19				
06:45		9	14	35	62	19	31	48	90	83	152
07:00		11	11			**20**	15				
07:15		19	11			**18**	12				
07:30		**17**	6			**15**	11				
07:45		**9**	8	56	36	**20**	13	73	51	129	87
08:00		**11**	11			12	12				
08:15		**23**	7			15	4				
08:30		10	6			8	8				
08:45		10	6	54	30	12	10	47	34	101	64
09:00		11	6			18	7				
09:15		11	4			12	9				
09:30		10	5			13	10				
09:45		14	2	46	17	10	9	53	35	99	52
10:00		14	2			11	4				
10:15		12	2			13	5				
10:30		10	1			11	4				
10:45		12	3	48	8	13	2	48	15	96	23
11:00		9	3			12	3				
11:15		9	3			12	2				
11:30		19	3			14	5				
11:45		16	0	53	9	10	0	48	10	101	19
Total		338	663	338	663	358	668	358	668	696	1331
Combined Total		1001		1001		1026		1026		2027	
AM Peak	-	07:30	-	-	-	07:00	-	-	-	-	-
Vol.	-	60	-	-	-	73	-	-	-	-	-
P.H.F.		0.652				0.913					
PM Peak	-	-	02:45	-	-	-	04:15	-	-	-	-
Vol.	-	-	129	-	-	-	102	-	-	-	-
P.H.F.			0.806				0.850				
Percentage		33.8%	66.2%			34.9%	65.1%				
ADT/AADT		ADT 2,027		AADT 2,027							

Counts Unlimited, Inc.

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City of Fontana
Jurupa Avenue
E/ Cypress Avenue
24 Hour Directional Volume Count

FON007
Site Code: 051-19181

Start	14-Mar-19	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Thu	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		30	136			22	102				
12:15		17	110			19	116				
12:30		24	119			15	124				
12:45		12	135	83	500	14	127	70	469	153	969
01:00		13	127			13	124				
01:15		13	110			14	134				
01:30		17	177			13	136				
01:45		11	153	54	567	19	145	59	539	113	1106
02:00		16	170			8	134				
02:15		13	178			18	127				
02:30		12	224			13	152				
02:45		9	284	50	856	17	161	56	574	106	1430
03:00		13	245			18	138				
03:15		15	231			12	212				
03:30		17	245			23	162				
03:45		15	253	60	974	51	157	104	669	164	1643
04:00		19	235			22	171				
04:15		32	224			27	176				
04:30		24	**241**			64	164				
04:45		32	**297**	107	997	74	**193**	187	704	294	1701
05:00		31	**229**			37	**154**				
05:15		43	**240**			68	**179**				
05:30		47	206			110	**191**				
05:45		58	180	179	855	123	170	338	694	517	1549
06:00		56	192			73	177				
06:15		64	176			92	171				
06:30		107	150			129	144				
06:45		108	161	335	679	154	146	448	638	783	1317
07:00		**153**	163			**169**	147				
07:15		**151**	136			**170**	115				
07:30		**149**	122			**166**	138				
07:45		**149**	126	602	547	**161**	131	666	531	1268	1078
08:00		118	114			135	99				
08:15		127	84			153	118				
08:30		135	85			110	117				
08:45		104	71	484	354	116	121	514	455	998	809
09:00		159	79			110	96				
09:15		116	56			84	98				
09:30		112	48			85	86				
09:45		106	47	493	230	88	77	367	357	860	587
10:00		98	51			105	68				
10:15		99	34			101	48				
10:30		119	50			93	40				
10:45		96	39	412	174	90	42	389	198	801	372
11:00		132	37			110	31				
11:15		124	23			120	26				
11:30		128	23			109	29				
11:45		136	23	520	106	100	21	439	107	959	213
Total		3379	6839	3379	6839	3637	5935	3637	5935	7016	12774
Combined Total		10218		10218		9572		9572		19790	
AM Peak	-	07:00	-	-	-	07:00	-	-	-	-	-
Vol.	-	602	-	-	-	666	-	-	-	-	-
P.H.F.		0.984				0.979					
PM Peak	-	-	04:30	-	-	-	04:45	-	-	-	-
Vol.	-	-	1007	-	-	-	717	-	-	-	-
P.H.F.			0.848				0.929				
Percentage		33.1%	66.9%			38.0%	62.0%				
ADT/AADT		ADT 19,790		AADT 19,790							

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City of Fontana
Jurupa Avenue
W/ Citrus Avenue
24 Hour Directional Volume Count

FON006
Site Code: 051-19181

Start Time	14-Mar-19 Thu	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		10	118			17	93				
12:15		14	105			17	93				
12:30		25	117			14	97				
12:45		13	115	62	455	13	113	61	396	123	851
01:00		10	118			12	98				
01:15		8	123			11	114				
01:30		11	133			11	119				
01:45		9	179	38	553	15	127	49	458	87	1011
02:00		20	185			8	121				
02:15		14	204			17	104				
02:30		13	272			10	125				
02:45		9	298	56	959	12	131	47	481	103	1440
03:00		7	318			7	115				
03:15		10	330			15	109				
03:30		20	286			20	**139**				
03:45		21	292	58	1226	41	**134**	83	497	141	1723
04:00		17	**296**			26	**108**				
04:15		23	**299**			31	**135**				
04:30		20	**291**			58	123				
04:45		28	**378**	88	1264	73	121	188	487	276	1751
05:00		24	291			37	124				
05:15		34	284			78	122				
05:30		38	264			129	122				
05:45		38	227	134	1066	117	125	361	493	495	1559
06:00		49	206			77	130				
06:15		53	194			87	125				
06:30		77	133			142	110				
06:45		105	190	284	723	168	91	474	456	758	1179
07:00		**126**	128			**166**	112				
07:15		**156**	122			**170**	68				
07:30		**142**	111			**158**	109				
07:45		**116**	110	540	471	**181**	90	675	379	1215	850
08:00		117	97			123	85				
08:15		113	63			154	80				
08:30		132	79			84	75				
08:45		118	70	480	309	109	78	470	318	950	627
09:00		135	69			92	74				
09:15		91	53			69	65				
09:30		93	44			56	64				
09:45		113	38	432	204	72	63	289	266	721	470
10:00		85	43			71	48				
10:15		97	37			80	38				
10:30		101	43			86	30				
10:45		95	24	378	147	78	29	315	145	693	292
11:00		131	24			98	19				
11:15		116	29			99	18				
11:30		122	25			82	18				
11:45		112	20	481	98	84	20	363	75	844	173
Total		3031	7475	3031	7475	3375	4451	3375	4451	6406	11926
Combined Total		10506		10506		7826		7826		18332	
AM Peak	-	07:00	-	-	-	07:00	-	-	-	-	-
Vol.	-	540	-	-	-	675	-	-	-	-	-
P.H.F.		0.865				0.932					
PM Peak	-	-	04:00	-	-	-	03:30	-	-	-	-
Vol.	-	-	1264	-	-	-	516	-	-	-	-
P.H.F.			0.836				0.928				
Percentage		28.9%	71.1%			43.1%	56.9%				
ADT/AADT		ADT 18,332		AADT 18,332							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Fontana
Santa Ana Avenue
E/ Citrus Avenue
24 Hour Directional Volume Count

FON005
Site Code: 051-19181

Start	14-Mar-19	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Thu	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	24			1	13				
12:15		0	27			0	21				
12:30		0	30			1	27				
12:45		0	21	0	102	2	19	4	80	4	182
01:00		1	18			0	29				
01:15		0	21			0	23				
01:30		1	21			0	35				
01:45		1	16	3	76	0	28	0	115	3	191
02:00		2	30			0	32				
02:15		2	29			2	26				
02:30		0	52			2	**103**				
02:45		4	38	8	149	0	**53**	4	214	12	363
03:00		2	35			1	**25**				
03:15		4	**34**			4	**40**				
03:30		2	**25**			0	33				
03:45		1	**70**	9	164	3	20	8	118	17	282
04:00		1	**39**			1	34				
04:15		4	20			0	22				
04:30		2	36			2	26				
04:45		5	32	12	127	5	29	8	111	20	238
05:00		2	42			1	33				
05:15		3	30			3	24				
05:30		10	31			10	22				
05:45		12	35	27	138	18	23	32	102	59	240
06:00		13	25			5	20				
06:15		9	12			19	13				
06:30		13	11			22	16				
06:45		**15**	11	50	59	22	15	68	64	118	123
07:00		**29**	18			**43**	16				
07:15		**43**	11			**87**	18				
07:30		**20**	9			**36**	10				
07:45		14	7	106	45	**26**	11	192	55	298	100
08:00		13	9			15	20				
08:15		17	4			19	11				
08:30		17	6			23	20				
08:45		13	7	60	26	24	11	81	62	141	88
09:00		19	4			13	12				
09:15		14	6			21	8				
09:30		11	4			13	5				
09:45		6	1	50	15	19	4	66	29	116	44
10:00		14	0			17	2				
10:15		25	5			11	2				
10:30		14	1			25	1				
10:45		23	2	76	8	18	1	71	6	147	14
11:00		11	0			18	0				
11:15		22	1			31	1				
11:30		25	4			24	1				
11:45		19	1	77	6	20	1	93	3	170	9
Total		478	915	478	915	627	959	627	959	1105	1874
Combined Total		1393		1393		1586		1586		2979	
AM Peak	-	06:45	-	-	-	07:00	-	-	-	-	-
Vol.	-	107	-	-	-	192	-	-	-	-	-
P.H.F.		0.622				0.552					
PM Peak	-	-	03:15	-	-	-	02:30	-	-	-	-
Vol.	-	-	168	-	-	-	221	-	-	-	-
P.H.F.			0.600				0.536				
Percentage		34.3%	65.7%			39.5%	60.5%				
ADT/AADT		ADT 2,979		AADT 2,979							

Counts Unlimited, Inc.

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City of Fontana
Sierra Avenue
N/ Slover Avenue
24 Hour Directional Volume Count

FON002
Site Code: 051-19181

Start Time	14-Mar-19 Thu	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		68	403			68	357				
12:15		59	376			54	424				
12:30		51	397			40	387				
12:45		43	410	221	1586	30	364	192	1532	413	3118
01:00		43	392			43	399				
01:15		28	427			40	443				
01:30		33	433			45	393				
01:45		28	474	132	1726	29	383	157	1618	289	3344
02:00		49	491			32	350				
02:15		27	458			23	379				
02:30		30	**634**			36	423				
02:45		27	**558**	133	2141	40	393	131	1545	264	3686
03:00		29	**588**			53	408				
03:15		38	**562**			47	409				
03:30		40	608			53	415				
03:45		63	531	170	2289	74	387	227	1619	397	3908
04:00		61	527			60	389				
04:15		92	484			60	405				
04:30		115	517			83	425				
04:45		85	485	353	2013	120	451	323	1670	676	3683
05:00		95	580			98	**434**				
05:15		122	499			114	**458**				
05:30		144	491			169	**464**				
05:45		122	481	483	2051	187	**478**	568	1834	1051	3885
06:00		158	490			164	406				
06:15		172	463			200	387				
06:30		291	466			275	367				
06:45		236	456	857	1875	**354**	363	993	1523	1850	3398
07:00		312	447			**350**	328				
07:15		259	421			**399**	354				
07:30		235	376			**345**	439				
07:45		354	309	1160	1553	326	333	1420	1454	2580	3007
08:00		359	283			337	334				
08:15		355	247			352	324				
08:30		315	302			325	304				
08:45		346	240	1375	1072	358	235	1372	1197	2747	2269
09:00		318	250			286	244				
09:15		319	196			255	222				
09:30		332	249			306	202				
09:45		307	189	1276	884	292	195	1139	863	2415	1747
10:00		341	171			296	153				
10:15		300	142			321	163				
10:30		375	125			284	142				
10:45		352	123	1368	561	351	95	1252	553	2620	1114
11:00		**350**	115			353	109				
11:15		**371**	86			282	106				
11:30		**363**	68			334	85				
11:45		**415**	67	1499	336	348	80	1317	380	2816	716
Total		9027	18087	9027	18087	9091	15788	9091	15788	18118	33875
Combined Total		27114		27114		24879		24879		51993	
AM Peak	-	11:00	-	-	-	06:45	-	-	-	-	-
Vol.	-	1499	-	-	-	1448	-	-	-	-	-
P.H.F.		0.903				0.907					
PM Peak	-	-	02:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	2342	-	-	-	1834	-	-	-	-
P.H.F.			0.924				0.959				
Percentage		33.3%	66.7%			36.5%	63.5%				
ADT/AADT		ADT 51,993		AADT 51,993							

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APPENDIX 3.2:

EXISTING (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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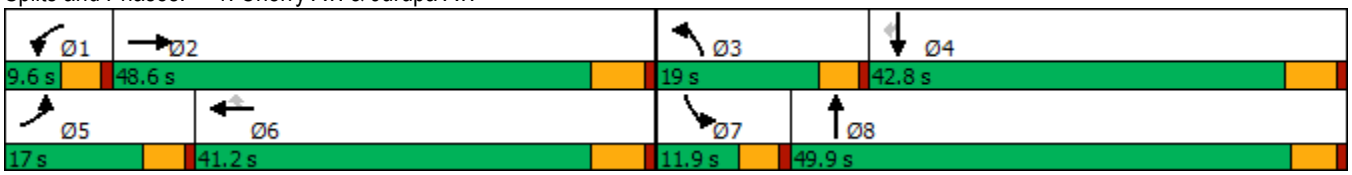
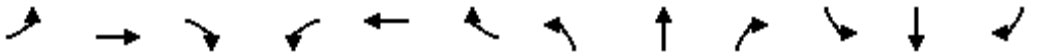
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	218	345	40	681	128	261	457	83	283	256
Future Volume (vph)	218	345	40	681	128	261	457	83	283	256
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	17.0	48.6	9.6	41.2	41.2	19.0	49.9	11.9	42.8	42.8
Total Split (%)	14.2%	40.5%	8.0%	34.3%	34.3%	15.8%	41.6%	9.9%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 91.4
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	345	145	40	681	128	261	457	48	83	283	256
Future Volume (veh/h)	218	345	145	40	681	128	261	457	48	83	283	256
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.94	1.00		0.97	1.00		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	421	90	49	830	86	318	557	42	101	345	169
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	1511	313	123	1060	447	381	1868	139	156	1142	443
Arrive On Green	0.09	0.35	0.35	0.04	0.29	0.29	0.11	0.38	0.38	0.04	0.32	0.32
Sat Flow, veh/h	3510	4292	888	3510	3610	1521	3510	4911	366	3510	3610	1401
Grp Volume(v), veh/h	266	336	175	49	830	86	318	390	209	101	345	169
Grp Sat Flow(s),veh/h/ln	1755	1729	1723	1755	1805	1521	1755	1729	1819	1755	1805	1401
Q Serve(g_s), s	8.2	7.7	8.1	1.5	23.3	4.7	9.8	8.7	8.9	3.1	8.0	10.4
Cycle Q Clear(g_c), s	8.2	7.7	8.1	1.5	23.3	4.7	9.8	8.7	8.9	3.1	8.0	10.4
Prop In Lane	1.00		0.52	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	328	1217	606	123	1060	447	381	1315	692	156	1142	443
V/C Ratio(X)	0.81	0.28	0.29	0.40	0.78	0.19	0.84	0.30	0.30	0.65	0.30	0.38
Avail Cap(c_a), veh/h	393	1338	667	159	1155	487	457	1400	737	232	1207	468
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.2	25.7	25.9	52.2	35.8	29.3	48.3	23.9	24.0	52.0	28.6	29.4
Incr Delay (d2), s/veh	8.6	0.1	0.3	0.8	3.3	0.2	9.4	0.1	0.2	1.7	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.1	3.2	0.7	10.3	1.7	4.7	3.5	3.8	1.4	3.3	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.8	25.9	26.1	53.0	39.1	29.5	57.7	24.1	24.2	53.7	28.7	29.9
LnGrp LOS	E	C	C	D	D	C	E	C	C	D	C	C
Approach Vol, veh/h		777			965			917			615	
Approach Delay, s/veh		36.9			39.0			35.8			33.2	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	44.7	16.6	40.8	14.9	38.3	9.5	47.9
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	42.8	14.4	37.0	12.4	35.4	7.3	* 45
Max Q Clear Time (g_c+I1), s	3.5	10.1	11.8	12.4	10.2	25.3	5.1	10.9
Green Ext Time (p_c), s	0.0	3.1	0.2	2.7	0.1	3.9	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

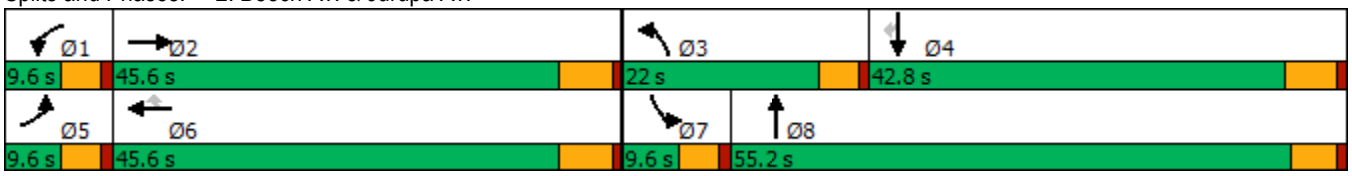
Notes

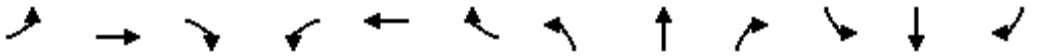
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	97	269	4	500	51	222	84	12	3	49
Future Volume (vph)	97	269	4	500	51	222	84	12	3	49
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	9.6	45.6	9.6	45.6	45.6	22.0	55.2	9.6	42.8	42.8
Total Split (%)	8.0%	38.0%	8.0%	38.0%	38.0%	18.3%	46.0%	8.0%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 70.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	269	30	4	500	51	222	84	12	12	3	49
Future Volume (veh/h)	97	269	30	4	500	51	222	84	12	12	3	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	277	27	4	515	28	229	87	6	12	3	27
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	251	1283	123	19	1040	323	285	1140	78	28	687	306
Arrive On Green	0.07	0.27	0.27	0.01	0.20	0.20	0.16	0.33	0.33	0.02	0.19	0.19
Sat Flow, veh/h	3510	4814	460	3510	5187	1610	1810	3428	234	1810	3610	1608
Grp Volume(v), veh/h	100	197	107	4	515	28	229	45	48	12	3	27
Grp Sat Flow(s),veh/h/ln	1755	1729	1815	1755	1729	1610	1810	1805	1858	1810	1805	1608
Q Serve(g_s), s	1.5	2.4	2.5	0.1	4.8	0.8	6.7	0.9	1.0	0.4	0.0	0.8
Cycle Q Clear(g_c), s	1.5	2.4	2.5	0.1	4.8	0.8	6.7	0.9	1.0	0.4	0.0	0.8
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	251	921	484	19	1040	323	285	600	618	28	687	306
V/C Ratio(X)	0.40	0.21	0.22	0.21	0.50	0.09	0.80	0.08	0.08	0.44	0.00	0.09
Avail Cap(c_a), veh/h	321	2516	1321	321	3774	1172	576	1653	1701	165	2442	1087
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	15.6	15.6	27.1	19.4	17.8	22.2	12.5	12.5	26.7	17.9	18.2
Incr Delay (d2), s/veh	0.4	0.1	0.2	2.0	0.4	0.1	2.0	0.1	0.1	4.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.8	0.9	0.0	1.7	0.3	2.7	0.3	0.4	0.2	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	15.7	15.9	29.1	19.8	17.9	24.3	12.5	12.6	30.7	17.9	18.4
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		404			547			322			42	
Approach Delay, s/veh		18.0			19.8			20.9			21.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	20.4	13.2	16.2	8.5	16.8	5.4	24.0
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	39.8	17.4	37.0	5.0	39.8	5.0	* 50
Max Q Clear Time (g_c+I1), s	2.1	4.5	8.7	2.8	3.5	6.8	2.4	3.0
Green Ext Time (p_c), s	0.0	1.8	0.2	0.1	0.0	3.5	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

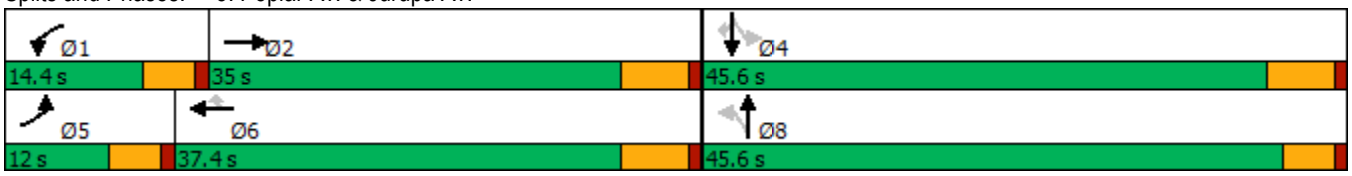
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	60	444	76	603	34	116	71	7	32	37
Future Volume (vph)	60	444	76	603	34	116	71	7	32	37
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	12.0	35.0	14.4	37.4	37.4	45.6	45.6	45.6	45.6	45.6
Total Split (%)	12.6%	36.8%	15.2%	39.4%	39.4%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 49.8
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	444	40	76	603	34	116	71	134	7	32	37
Future Volume (veh/h)	60	444	40	76	603	34	116	71	134	7	32	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	477	35	82	648	26	125	76	60	8	34	20
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	117	1253	91	136	1374	426	519	519	372	471	491	416
Arrive On Green	0.06	0.25	0.25	0.08	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	4927	357	1810	5187	1610	1370	2006	1440	1273	1900	1608
Grp Volume(v), veh/h	65	333	179	82	648	26	125	68	68	8	34	20
Grp Sat Flow(s),veh/h/ln	1810	1729	1826	1810	1729	1610	1370	1805	1641	1273	1900	1608
Q Serve(g_s), s	1.4	3.1	3.2	1.7	4.1	0.5	3.0	1.1	1.3	0.2	0.5	0.4
Cycle Q Clear(g_c), s	1.4	3.1	3.2	1.7	4.1	0.5	3.5	1.1	1.3	1.5	0.5	0.4
Prop In Lane	1.00		0.20	1.00		1.00	1.00		0.88	1.00		1.00
Lane Grp Cap(c), veh/h	117	879	464	136	1374	426	519	467	424	471	491	416
V/C Ratio(X)	0.56	0.38	0.39	0.60	0.47	0.06	0.24	0.14	0.16	0.02	0.07	0.05
Avail Cap(c_a), veh/h	340	2567	1356	451	4167	1294	1593	1882	1710	1430	1923	1627
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	12.1	12.1	17.6	12.1	10.8	12.3	11.2	11.3	11.8	11.0	10.9
Incr Delay (d2), s/veh	1.5	0.3	0.5	1.6	0.3	0.1	0.2	0.1	0.2	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.9	1.0	0.6	1.1	0.1	0.7	0.4	0.4	0.0	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	12.4	12.6	19.2	12.4	10.9	12.6	11.4	11.5	11.9	11.1	11.0
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		577			756			261			62	
Approach Delay, s/veh		13.2			13.1			12.0			11.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	15.8		16.0	7.1	16.2		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	9.8	29.2		39.8	7.4	31.6		* 41				
Max Q Clear Time (g_c+I1), s	3.7	5.2		3.5	3.4	6.1		5.5				
Green Ext Time (p_c), s	0.0	2.9		0.2	0.0	4.3		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		12.9	
HCM 6th LOS		B	

Notes

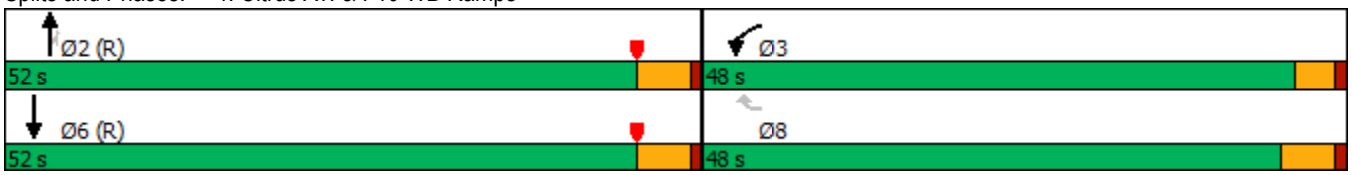
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

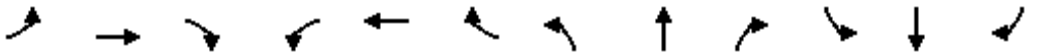
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	491	484	805	352	1156	542
Future Volume (vph)	491	484	805	352	1156	542
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	48.0	48.0	52.0	52.0	52.0	
Total Split (%)	48.0%	48.0%	52.0%	52.0%	52.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	491	0	484	0	805	352	0	1156	542
Future Volume (veh/h)	0	0	0	491	0	484	0	805	352	0	1156	542
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				522	0	309	0	856	364	0	1230	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				565	0	884	0	3102	941	0	2159	
Arrive On Green				0.31	0.00	0.31	0.00	1.00	1.00	0.00	0.60	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1573	0	3705	1610
Grp Volume(v), veh/h				522	0	309	0	856	364	0	1230	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1573	0	1805	1610
Q Serve(g_s), s				27.9	0.0	8.4	0.0	0.0	0.0	0.0	20.8	0.0
Cycle Q Clear(g_c), s				27.9	0.0	8.4	0.0	0.0	0.0	0.0	20.8	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				565	0	884	0	3102	941	0	2159	
V/C Ratio(X)				0.92	0.00	0.35	0.00	0.28	0.39	0.00	0.57	
Avail Cap(c_a), veh/h				796	0	1247	0	3102	941	0	2159	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.79	0.79	0.00	1.00	0.00
Uniform Delay (d), s/veh				33.3	0.0	26.6	0.0	0.0	0.0	0.0	12.3	0.0
Incr Delay (d2), s/veh				10.9	0.0	0.1	0.0	0.2	1.0	0.0	1.1	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				13.1	0.0	2.7	0.0	0.1	0.2	0.0	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.1	0.0	26.7	0.0	0.2	1.0	0.0	13.4	0.0
LnGrp LOS				D	A	C	A	A	A	A	B	
Approach Vol, veh/h					831			1220			1230	A
Approach Delay, s/veh					37.6			0.4			13.4	
Approach LOS					D			A			B	

Timer - Assigned Phs	2			6		8			
Phs Duration (G+Y+Rc), s	64.8			64.8		35.2			
Change Period (Y+Rc), s	5.0			5.0		4.0			
Max Green Setting (Gmax), s	47.0			47.0		44.0			
Max Q Clear Time (g_c+I1), s	2.0			22.8		29.9			
Green Ext Time (p_c), s	4.6			5.8		1.3			

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Notes

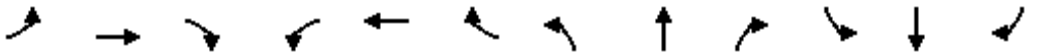
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	355	4	802	653	994
Future Volume (vph)	355	4	802	653	994
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	32.0	32.0	36.0	32.0	68.0
Total Split (%)	32.0%	32.0%	36.0%	32.0%	68.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	4	310	0	0	0	0	802	355	653	994	0
Future Volume (veh/h)	355	4	310	0	0	0	0	802	355	653	994	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	386	4	238				0	872	263	710	1080	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	624	5	282				0	1823	547	772	2607	0
Arrive On Green	0.18	0.18	0.18				0.00	0.46	0.46	0.44	1.00	0.00
Sat Flow, veh/h	3510	27	1588				0	4114	1183	3510	3705	0
Grp Volume(v), veh/h	386	0	242				0	764	371	710	1080	0
Grp Sat Flow(s),veh/h/ln	1755	0	1614				0	1729	1668	1755	1805	0
Q Serve(g_s), s	10.2	0.0	14.5				0.0	15.3	15.4	19.0	0.0	0.0
Cycle Q Clear(g_c), s	10.2	0.0	14.5				0.0	15.3	15.4	19.0	0.0	0.0
Prop In Lane	1.00		0.98				0.00		0.71	1.00		0.00
Lane Grp Cap(c), veh/h	624	0	287				0	1599	771	772	2607	0
V/C Ratio(X)	0.62	0.00	0.84				0.00	0.48	0.48	0.92	0.41	0.00
Avail Cap(c_a), veh/h	948	0	436				0	1599	771	983	2607	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.79	0.79	0.68	0.68	0.00
Uniform Delay (d), s/veh	38.0	0.0	39.8				0.0	18.6	18.6	27.2	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	5.7				0.0	0.8	1.7	7.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	5.9				0.0	5.8	5.8	6.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	45.4				0.0	19.4	20.3	34.6	0.3	0.0
LnGrp LOS	D	A	D				A	B	C	C	A	A
Approach Vol, veh/h		628						1135			1790	
Approach Delay, s/veh		41.1						19.7			13.9	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	26.0	51.2		22.8		77.2
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	28.0	31.0		27.0		63.0
Max Q Clear Time (g_c+I1), s	21.0	17.4		16.5		2.0
Green Ext Time (p_c), s	1.0	4.1		1.3		5.3

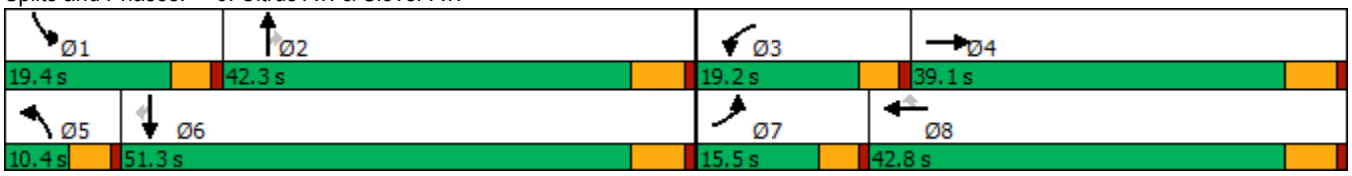
Intersection Summary		
HCM 6th Ctrl Delay		20.6
HCM 6th LOS		C

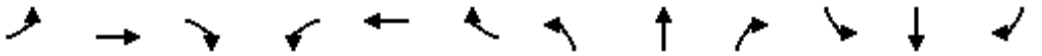
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	280	183	94	460	199	41	634	47	201	453	592
Future Volume (vph)	280	183	94	460	199	41	634	47	201	453	592
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	15.5	39.1	19.2	42.8	42.8	10.4	42.3	42.3	19.4	51.3	51.3
Total Split (%)	12.9%	32.6%	16.0%	35.7%	35.7%	8.7%	35.3%	35.3%	16.2%	42.8%	42.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 94.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	183	20	94	460	199	41	634	47	201	453	592
Future Volume (veh/h)	280	183	20	94	460	199	41	634	47	201	453	592
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		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	210	17	108	529	175	47	729	23	231	521	547
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	396	876	70	138	802	355	70	1473	448	267	746	625
Arrive On Green	0.11	0.26	0.26	0.08	0.22	0.22	0.04	0.28	0.28	0.15	0.39	0.39
Sat Flow, veh/h	3510	3383	272	1810	3610	1597	1810	5187	1576	1810	1900	1590
Grp Volume(v), veh/h	322	111	116	108	529	175	47	729	23	231	521	547
Grp Sat Flow(s),veh/h/ln	1755	1805	1850	1810	1805	1597	1810	1729	1576	1810	1900	1590
Q Serve(g_s), s	8.0	4.3	4.4	5.2	11.9	8.5	2.3	10.4	0.9	11.1	20.4	28.4
Cycle Q Clear(g_c), s	8.0	4.3	4.4	5.2	11.9	8.5	2.3	10.4	0.9	11.1	20.4	28.4
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	396	467	479	138	802	355	70	1473	448	267	746	625
V/C Ratio(X)	0.81	0.24	0.24	0.78	0.66	0.49	0.67	0.49	0.05	0.87	0.70	0.88
Avail Cap(c_a), veh/h	430	675	692	297	1500	664	118	2126	646	301	971	813
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	26.1	26.1	40.4	31.6	30.3	42.2	26.6	23.2	37.1	22.6	25.0
Incr Delay (d2), s/veh	9.6	0.3	0.3	3.7	0.9	1.1	4.1	0.3	0.0	19.0	1.5	8.6
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	1.8	1.9	2.4	5.0	3.2	1.1	4.0	0.3	6.0	8.5	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	26.3	26.3	44.1	32.5	31.3	46.4	26.8	23.2	56.1	24.1	33.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		549			812			799			1299	
Approach Delay, s/veh		39.1			33.8			27.9			33.8	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	31.1	11.4	28.8	8.0	40.8	14.6	25.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	14.8	36.5	14.6	33.3	5.8	45.5	10.9	37.0
Max Q Clear Time (g_c+I1), s	13.1	12.4	7.2	6.4	4.3	30.4	10.0	13.9
Green Ext Time (p_c), s	0.1	4.8	0.1	1.1	0.0	4.6	0.1	3.8

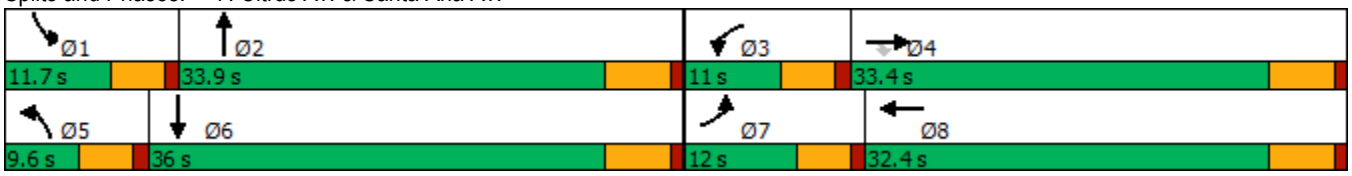
Intersection Summary	
HCM 6th Ctrl Delay	33.3
HCM 6th LOS	C

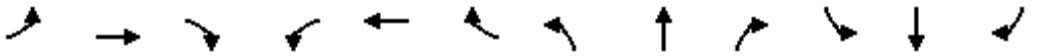
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	59	28	16	49	74	22	488	44	267
Future Volume (vph)	59	28	16	49	74	22	488	44	267
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	12.0	33.4	33.4	11.0	32.4	9.6	33.9	11.7	36.0
Total Split (%)	13.3%	37.1%	37.1%	12.2%	36.0%	10.7%	37.7%	13.0%	40.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 60.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	28	16	49	74	84	22	488	52	44	267	57
Future Volume (veh/h)	59	28	16	49	74	84	22	488	52	44	267	57
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	38	13	66	100	57	30	659	55	59	361	61
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	381	323	108	438	233	62	975	81	101	961	161
Arrive On Green	0.07	0.20	0.20	0.06	0.19	0.19	0.03	0.29	0.29	0.06	0.31	0.31
Sat Flow, veh/h	1810	1900	1610	1810	2267	1203	1810	3373	281	1810	3094	518
Grp Volume(v), veh/h	80	38	13	66	78	79	30	352	362	59	209	213
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1665	1810	1805	1849	1810	1805	1807
Q Serve(g_s), s	2.2	0.8	0.3	1.8	1.8	2.0	0.8	8.7	8.7	1.6	4.6	4.7
Cycle Q Clear(g_c), s	2.2	0.8	0.3	1.8	1.8	2.0	0.8	8.7	8.7	1.6	4.6	4.7
Prop In Lane	1.00		1.00	1.00		0.72	1.00		0.15	1.00		0.29
Lane Grp Cap(c), veh/h	121	381	323	108	349	322	62	522	534	101	561	561
V/C Ratio(X)	0.66	0.10	0.04	0.61	0.22	0.25	0.49	0.68	0.68	0.59	0.37	0.38
Avail Cap(c_a), veh/h	265	1051	891	229	963	888	179	1016	1041	254	1091	1092
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	16.5	16.3	23.2	17.2	17.3	24.0	15.9	15.9	23.3	13.6	13.6
Incr Delay (d2), s/veh	2.3	0.1	0.1	2.1	0.3	0.4	2.2	1.5	1.5	2.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.3	0.1	0.7	0.7	0.7	0.3	3.1	3.2	0.7	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	16.6	16.4	25.3	17.5	17.7	26.2	17.4	17.4	25.3	14.0	14.1
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		131			223			744			481	
Approach Delay, s/veh		21.9			19.9			17.8			15.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.4	20.0	7.6	15.5	6.3	21.1	8.0	15.2
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	7.1	28.5	6.4	28.0	5.0	30.6	7.4	27.0
Max Q Clear Time (g_c+I1), s	3.6	10.7	3.8	2.8	2.8	6.7	4.2	4.0
Green Ext Time (p_c), s	0.0	3.9	0.0	0.2	0.0	2.3	0.0	0.8

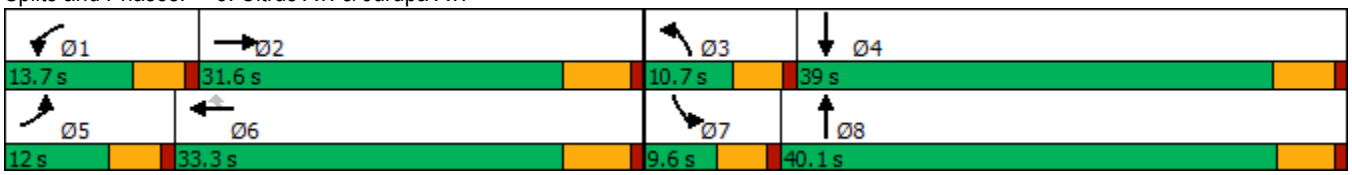
Intersection Summary	
HCM 6th Ctrl Delay	17.7
HCM 6th LOS	B

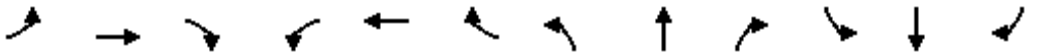
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	181	382	63	517	105	59	291	62	113
Future Volume (vph)	181	382	63	517	105	59	291	62	113
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	12.0	31.6	13.7	33.3	33.3	10.7	40.1	9.6	39.0
Total Split (%)	12.6%	33.3%	14.4%	35.1%	35.1%	11.3%	42.2%	10.1%	41.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 61.6
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	382	13	63	517	105	59	291	99	62	113	159
Future Volume (veh/h)	181	382	13	63	517	105	59	291	99	62	113	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	197	415	12	68	562	75	64	316	83	67	123	113
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	246	1497	43	109	1107	343	105	558	144	108	369	311
Arrive On Green	0.14	0.29	0.29	0.06	0.21	0.21	0.06	0.20	0.20	0.06	0.20	0.20
Sat Flow, veh/h	1810	5180	149	1810	5187	1606	1810	2838	734	1810	1858	1566
Grp Volume(v), veh/h	197	276	151	68	562	75	64	199	200	67	119	117
Grp Sat Flow(s),veh/h/ln	1810	1729	1871	1810	1729	1606	1810	1805	1767	1810	1805	1618
Q Serve(g_s), s	5.5	3.2	3.2	1.9	4.9	2.0	1.8	5.2	5.3	1.9	2.9	3.2
Cycle Q Clear(g_c), s	5.5	3.2	3.2	1.9	4.9	2.0	1.8	5.2	5.3	1.9	2.9	3.2
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.42	1.00		0.97
Lane Grp Cap(c), veh/h	246	999	540	109	1107	343	105	355	348	108	358	321
V/C Ratio(X)	0.80	0.28	0.28	0.62	0.51	0.22	0.61	0.56	0.57	0.62	0.33	0.36
Avail Cap(c_a), veh/h	259	1724	933	318	2757	853	213	1221	1195	175	1172	1051
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	14.2	14.2	23.7	17.9	16.8	23.8	18.8	18.8	23.8	17.8	17.9
Incr Delay (d2), s/veh	14.3	0.1	0.3	2.2	0.4	0.3	2.1	1.4	1.5	2.2	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	1.0	1.1	0.8	1.7	0.7	0.8	2.0	2.0	0.8	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	14.4	14.5	25.9	18.3	17.1	25.9	20.1	20.3	25.9	18.3	18.6
LnGrp LOS	D	B	B	C	B	B	C	C	C	C	B	B
Approach Vol, veh/h		624			705			463			303	
Approach Delay, s/veh		21.2			18.9			21.0			20.1	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	20.8	7.6	15.7	11.6	16.8	7.7	15.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	9.1	25.8	6.1	33.6	7.4	27.5	5.0	* 35
Max Q Clear Time (g_c+I1), s	3.9	5.2	3.8	5.2	7.5	6.9	3.9	7.3
Green Ext Time (p_c), s	0.0	2.3	0.0	1.3	0.0	3.6	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	551	673	37	0	35
Future Vol, veh/h	0	551	673	37	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	586	716	39	0	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	378
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	534
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	534
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

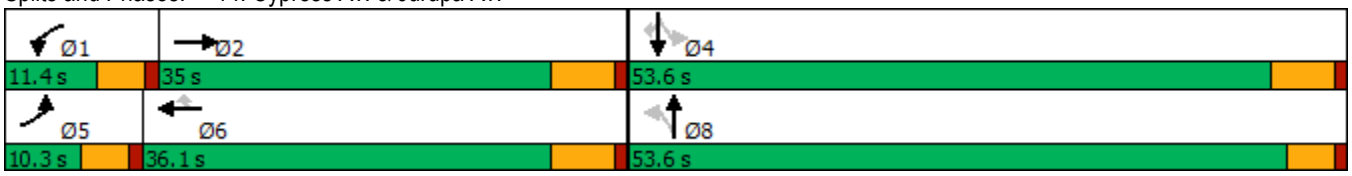
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	534
HCM Lane V/C Ratio	-	-	-	0.07
HCM Control Delay (s)	-	-	-	12.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

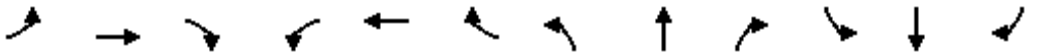
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	82	465	46	619	40	26	65	36	23	54
Future Volume (vph)	82	465	46	619	40	26	65	36	23	54
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.3	35.0	11.4	36.1	36.1	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.3%	35.0%	11.4%	36.1%	36.1%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 54.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	465	14	46	619	40	26	65	122	36	23	54
Future Volume (veh/h)	82	465	14	46	619	40	26	65	122	36	23	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	479	14	47	638	28	27	67	75	37	24	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	139	1475	43	92	1344	417	523	210	235	422	488	414
Arrive On Green	0.08	0.28	0.28	0.05	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	5180	151	1810	5187	1610	1383	818	916	1265	1900	1610
Grp Volume(v), veh/h	85	319	174	47	638	28	27	0	142	37	24	21
Grp Sat Flow(s),veh/h/ln	1810	1729	1873	1810	1729	1610	1383	0	1734	1265	1900	1610
Q Serve(g_s), s	1.8	2.9	2.9	1.0	4.1	0.5	0.6	0.0	2.6	1.0	0.4	0.4
Cycle Q Clear(g_c), s	1.8	2.9	2.9	1.0	4.1	0.5	1.0	0.0	2.6	3.6	0.4	0.4
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	139	985	533	92	1344	417	523	0	446	422	488	414
V/C Ratio(X)	0.61	0.32	0.33	0.51	0.47	0.07	0.05	0.00	0.32	0.09	0.05	0.05
Avail Cap(c_a), veh/h	259	2539	1375	309	3952	1227	1872	0	2137	1618	2284	1935
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	1.00	1.00
Uniform Delay (d), s/veh	17.8	11.2	11.2	18.4	12.4	11.1	11.5	0.0	12.0	13.4	11.1	11.1
Incr Delay (d2), s/veh	1.6	0.2	0.4	1.6	0.3	0.1	0.0	0.0	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.8	0.9	0.4	1.1	0.1	0.2	0.0	0.9	0.2	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	11.4	11.6	20.0	12.7	11.2	11.5	0.0	12.4	13.5	11.2	11.2
LnGrp LOS	B	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		578			713			169			82	
Approach Delay, s/veh		12.6			13.1			12.2			12.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	17.1		16.0	7.6	16.1		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	6.8	29.2		47.8	5.7	30.3		* 49				
Max Q Clear Time (g_c+I1), s	3.0	4.9		5.6	3.8	6.1		4.6				
Green Ext Time (p_c), s	0.0	2.8		0.3	0.0	4.2		1.0				

Intersection Summary			
HCM 6th Ctrl Delay		12.8	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	136	23	26	134	14	23	25	20	37	34	10
Future Vol, veh/h	3	136	23	26	134	14	23	25	20	37	34	10
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	186	32	36	184	19	32	34	27	51	47	14
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

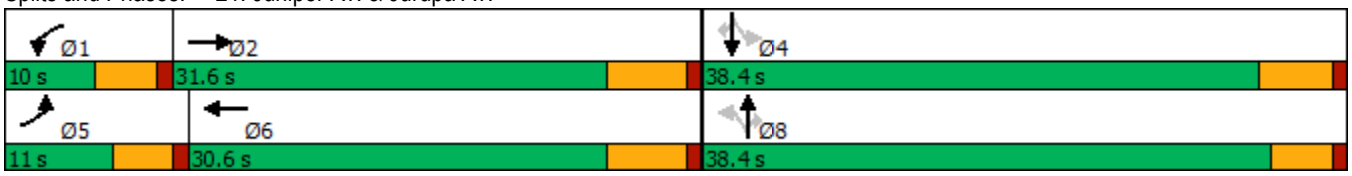
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	10.9	9.2	9.2	9.8
HCM LOS	B	A	A	A

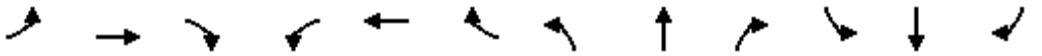
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	48%	0%	2%	28%	0%	52%	0%
Vol Thru, %	52%	0%	84%	72%	83%	48%	0%
Vol Right, %	0%	100%	14%	0%	17%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	20	162	93	81	71	10
LT Vol	23	0	3	26	0	37	0
Through Vol	25	0	136	67	67	34	0
RT Vol	0	20	23	0	14	0	10
Lane Flow Rate	66	27	222	127	111	97	14
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.111	0.039	0.326	0.192	0.16	0.163	0.019
Departure Headway (Hd)	6.053	5.102	5.281	5.439	5.177	6.042	5.07
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	587	694	677	655	688	588	698
Service Time	3.844	2.892	3.349	3.209	2.946	3.832	2.859
HCM Lane V/C Ratio	0.112	0.039	0.328	0.194	0.161	0.165	0.02
HCM Control Delay	9.6	8.1	10.9	9.5	8.9	10	8
HCM Lane LOS	A	A	B	A	A	A	A
HCM 95th-tile Q	0.4	0.1	1.4	0.7	0.6	0.6	0.1

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	36	574	12	654	5	5	17	35	6	42
Future Volume (vph)	36	574	12	654	5	5	17	35	6	42
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	11.0	31.6	10.0	30.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	13.8%	39.5%	12.5%	38.3%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 43.5
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	574	3	12	654	27	5	5	17	35	6	42
Future Volume (veh/h)	36	574	3	12	654	27	5	5	17	35	6	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	598	2	12	681	25	5	5	7	36	6	12
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	79	1592	5	28	1389	51	318	272	428	503	71	428
Arrive On Green	0.04	0.30	0.30	0.02	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	5337	18	1810	5136	188	654	1022	1610	1224	267	1610
Grp Volume(v), veh/h	38	387	213	12	458	248	10	0	7	42	0	12
Grp Sat Flow(s),veh/h/ln	1810	1729	1897	1810	1729	1866	1677	0	1610	1491	0	1610
Q Serve(g_s), s	0.8	3.3	3.3	0.2	4.2	4.2	0.0	0.0	0.1	0.4	0.0	0.2
Cycle Q Clear(g_c), s	0.8	3.3	3.3	0.2	4.2	4.2	0.1	0.0	0.1	0.7	0.0	0.2
Prop In Lane	1.00		0.01	1.00		0.10	0.50		1.00	0.86		1.00
Lane Grp Cap(c), veh/h	79	1031	566	28	935	504	590	0	428	574	0	428
V/C Ratio(X)	0.48	0.38	0.38	0.42	0.49	0.49	0.02	0.00	0.02	0.07	0.00	0.03
Avail Cap(c_a), veh/h	308	2372	1301	260	2281	1230	1617	0	1447	1478	0	1413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	10.4	10.4	18.3	11.5	11.5	10.2	0.0	10.2	10.4	0.0	10.2
Incr Delay (d2), s/veh	1.7	0.2	0.4	3.7	0.4	0.7	0.0	0.0	0.0	0.1	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	0.9	1.0	0.1	1.1	1.3	0.1	0.0	0.0	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	10.7	10.8	22.0	11.9	12.3	10.2	0.0	10.2	10.4	0.0	10.2
LnGrp LOS	B	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		638			718			17			54	
Approach Delay, s/veh		11.2			12.2			10.2			10.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	17.0		15.4	6.2	16.0		15.4				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	6.4	24.8		* 34				
Max Q Clear Time (g_c+I1), s	2.2	5.3		2.7	2.8	6.2		2.1				
Green Ext Time (p_c), s	0.0	3.3		0.2	0.0	3.9		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		11.7
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	249	237	70	81	256	402	143	910	503	712
Future Volume (vph)	249	237	70	81	256	402	143	910	503	712
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	12.0	47.6	47.6	9.6	45.2	16.0	14.5	46.8	16.0	48.3
Total Split (%)	10.0%	39.7%	39.7%	8.0%	37.7%	13.3%	12.1%	39.0%	13.3%	40.3%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 79.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	237	70	81	256	402	143	910	87	503	712	229
Future Volume (veh/h)	249	237	70	81	256	402	143	910	87	503	712	229
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	268	255	31	87	275	158	154	978	78	541	766	193
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	358	727	324	203	567	897	242	1716	136	564	1521	380
Arrive On Green	0.10	0.20	0.20	0.06	0.16	0.16	0.07	0.28	0.28	0.16	0.37	0.37
Sat Flow, veh/h	3510	3610	1610	3510	3610	2812	3510	6220	492	3510	4138	1032
Grp Volume(v), veh/h	268	255	31	87	275	158	154	769	287	541	639	320
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1406	1755	1634	1811	1755	1729	1712
Q Serve(g_s), s	5.3	4.3	1.1	1.7	4.9	2.9	3.0	9.6	9.7	10.8	10.2	10.3
Cycle Q Clear(g_c), s	5.3	4.3	1.1	1.7	4.9	2.9	3.0	9.6	9.7	10.8	10.2	10.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		0.60
Lane Grp Cap(c), veh/h	358	727	324	203	567	897	242	1352	499	564	1271	629
V/C Ratio(X)	0.75	0.35	0.10	0.43	0.49	0.18	0.64	0.57	0.57	0.96	0.50	0.51
Avail Cap(c_a), veh/h	366	2127	949	247	1984	2001	490	2805	1036	564	2091	1035
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	24.4	23.1	32.3	27.3	17.5	32.2	22.1	22.1	29.5	17.4	17.4
Incr Delay (d2), s/veh	7.1	0.3	0.1	0.5	0.6	0.1	1.0	0.4	1.0	27.7	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.7	0.4	0.7	2.0	0.8	1.2	3.3	3.8	6.3	3.5	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	24.6	23.2	32.8	27.9	17.6	33.2	22.4	23.2	57.2	17.7	18.1
LnGrp LOS	D	C	C	C	C	B	C	C	C	E	B	B
Approach Vol, veh/h		554			520			1210			1500	
Approach Delay, s/veh		31.1			25.6			24.0			32.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	25.8	8.7	20.5	9.5	32.3	11.8	17.3
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	11.4	40.6	5.0	* 42	9.9	* 43	7.4	39.0
Max Q Clear Time (g_c+I1), s	12.8	11.7	3.7	6.3	5.0	12.3	7.3	6.9
Green Ext Time (p_c), s	0.0	7.3	0.0	1.6	0.1	6.6	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	28.4
HCM 6th LOS	C

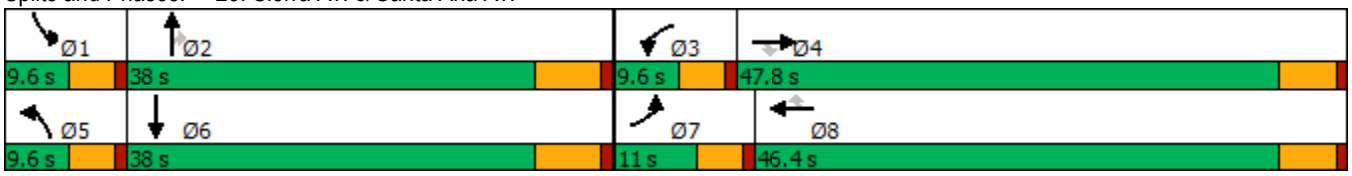
Notes

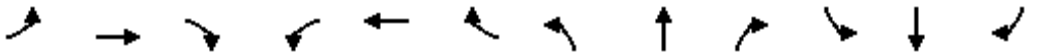
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	85	67	68	33	73	87	75	1105	47	90	659
Future Volume (vph)	85	67	68	33	73	87	75	1105	47	90	659
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	11.0	47.8	47.8	9.6	46.4	46.4	9.6	38.0	38.0	9.6	38.0
Total Split (%)	10.5%	45.5%	45.5%	9.1%	44.2%	44.2%	9.1%	36.2%	36.2%	9.1%	36.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 105
Actuated Cycle Length: 70
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	67	68	33	73	87	75	1105	47	90	659	63
Future Volume (veh/h)	85	67	68	33	73	87	75	1105	47	90	659	63
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	93	74	23	36	80	36	82	1214	49	99	724	50
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	120	694	309	68	590	263	218	1855	568	236	1798	124
Arrive On Green	0.07	0.19	0.19	0.04	0.16	0.16	0.06	0.36	0.36	0.07	0.36	0.36
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	3510	5187	1589	3510	4956	341
Grp Volume(v), veh/h	93	74	23	36	80	36	82	1214	49	99	504	270
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1755	1729	1589	1755	1729	1838
Q Serve(g_s), s	3.0	1.0	0.7	1.2	1.1	1.2	1.4	11.8	1.2	1.6	6.5	6.6
Cycle Q Clear(g_c), s	3.0	1.0	0.7	1.2	1.1	1.2	1.4	11.8	1.2	1.6	6.5	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	120	694	309	68	590	263	218	1855	568	236	1255	667
V/C Ratio(X)	0.78	0.11	0.07	0.53	0.14	0.14	0.38	0.65	0.09	0.42	0.40	0.40
Avail Cap(c_a), veh/h	192	2542	1134	150	2458	1096	292	2740	839	292	1826	971
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	20.1	19.9	28.5	21.5	21.5	27.1	16.2	12.8	27.0	14.3	14.3
Incr Delay (d2), s/veh	4.0	0.1	0.1	2.4	0.1	0.2	0.4	0.4	0.1	0.4	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.4	0.2	0.5	0.4	0.4	0.5	3.7	0.4	0.6	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.7	20.1	20.0	30.8	21.6	21.8	27.5	16.6	12.9	27.4	14.5	14.7
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		190			152			1345			873	
Approach Delay, s/veh		25.8			23.8			17.1			16.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	27.7	6.9	17.0	8.3	28.0	8.6	15.2
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.0	31.8	5.0	42.4	5.0	31.8	6.4	41.0
Max Q Clear Time (g_c+I1), s	3.6	13.8	3.2	3.0	3.4	8.6	5.0	3.2
Green Ext Time (p_c), s	0.0	7.5	0.0	0.5	0.0	4.5	0.0	0.6

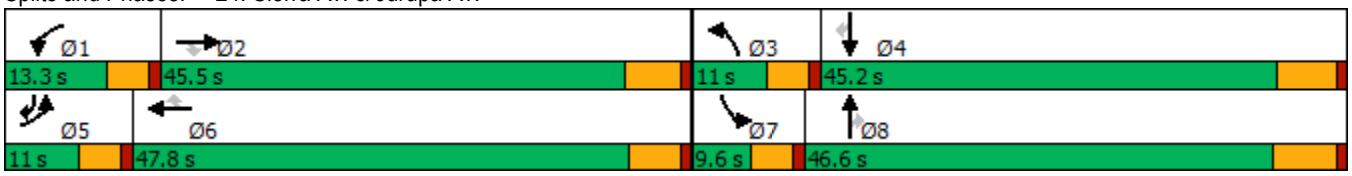
Intersection Summary	
HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

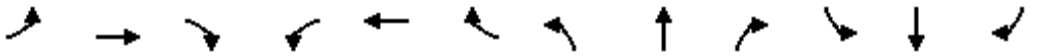
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	222	220	210	130	263	98	243	671	54	24	422	192
Future Volume (vph)	222	220	210	130	263	98	243	671	54	24	422	192
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	11.0	45.5	45.5	13.3	47.8	47.8	11.0	46.6	46.6	9.6	45.2	11.0
Total Split (%)	9.6%	39.6%	39.6%	11.6%	41.6%	41.6%	9.6%	40.5%	40.5%	8.3%	39.3%	9.6%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 115
Actuated Cycle Length: 68.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	220	210	130	263	98	243	671	54	24	422	192
Future Volume (veh/h)	222	220	210	130	263	98	243	671	54	24	422	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	229	227	95	134	271	48	251	692	28	25	435	86
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	342	746	333	281	683	304	366	1036	462	102	765	498
Arrive On Green	0.10	0.21	0.21	0.08	0.19	0.19	0.10	0.29	0.29	0.03	0.21	0.21
Sat Flow, veh/h	3510	3610	1610	3510	3610	1608	3510	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	229	227	95	134	271	48	251	692	28	25	435	86
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1608	1755	1805	1610	1755	1805	1610
Q Serve(g_s), s	3.4	2.9	2.7	2.0	3.6	1.4	3.7	9.1	0.7	0.4	5.8	2.1
Cycle Q Clear(g_c), s	3.4	2.9	2.7	2.0	3.6	1.4	3.7	9.1	0.7	0.4	5.8	2.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	342	746	333	281	683	304	366	1036	462	102	765	498
V/C Ratio(X)	0.67	0.30	0.29	0.48	0.40	0.16	0.69	0.67	0.06	0.25	0.57	0.17
Avail Cap(c_a), veh/h	415	2648	1181	564	2828	1260	415	2675	1193	324	2602	1317
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	18.2	18.1	23.8	19.2	18.3	23.4	17.0	14.0	25.7	19.1	13.6
Incr Delay (d2), s/veh	1.8	0.2	0.5	0.5	0.4	0.2	2.9	0.8	0.1	0.5	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.0	0.8	0.7	1.3	0.4	1.4	3.0	0.2	0.1	2.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	18.4	18.6	24.3	19.6	18.6	26.3	17.8	14.1	26.2	19.8	13.8
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		551			453			971			546	
Approach Delay, s/veh		21.3			20.9			19.9			19.1	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	17.0	10.2	18.0	9.9	16.0	6.2	22.0
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	8.7	39.7	6.4	* 39	6.4	* 42	5.0	40.1
Max Q Clear Time (g_c+I1), s	4.0	4.9	5.7	7.8	5.4	5.6	2.4	11.1
Green Ext Time (p_c), s	0.1	1.6	0.0	2.9	0.0	1.9	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

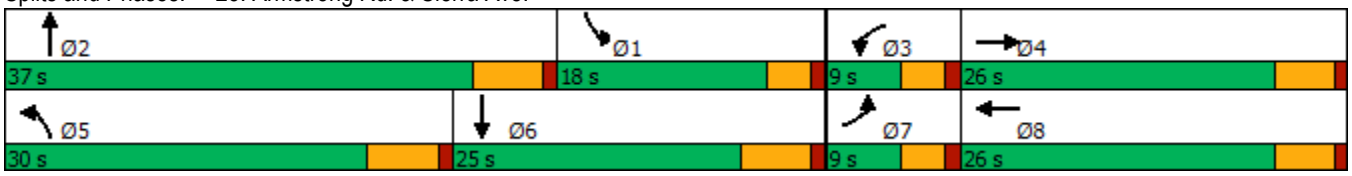
Notes

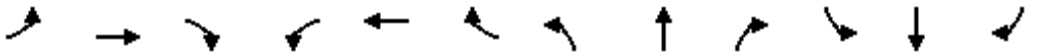
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	52	9	703	36	37	888	270	3	342
Future Volume (vph)	52	9	703	36	37	888	270	3	342
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0		9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0		9.0	26.0	30.0	37.0	18.0	25.0
Total Split (%)	10.0%	28.9%		10.0%	28.9%	33.3%	41.1%	20.0%	27.8%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	Max	None	Max
Act Effct Green (s)	5.1	9.7	71.5	7.3	6.5	24.7	48.2	10.9	19.6
Actuated g/C Ratio	0.07	0.14	1.00	0.10	0.09	0.35	0.67	0.15	0.27
v/c Ratio	0.44	0.02	0.47	0.21	0.20	0.79	0.23	0.01	0.80
Control Delay	45.9	30.7	1.0	34.0	23.9	28.8	9.1	27.0	39.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	30.7	1.0	34.0	23.9	28.8	9.1	27.0	39.9
LOS	D	C	A	C	C	C	A	C	D
Approach Delay		4.4			27.7		24.2		39.8
Approach LOS		A			C		C		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	9	703	36	37	22	888	270	6	3	342	42
Future Volume (veh/h)	52	9	703	36	37	22	888	270	6	3	342	42
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		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	10	0	39	40	11	955	290	6	3	368	22
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	86	257		69	173	45	1114	838	17	261	495	30
Arrive On Green	0.05	0.07	0.00	0.04	0.06	0.06	0.32	0.45	0.45	0.14	0.28	0.28
Sat Flow, veh/h	1810	3610	1610	1810	2813	737	3510	1855	38	1810	1775	106
Grp Volume(v), veh/h	56	10	0	39	25	26	955	0	296	3	0	390
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1745	1755	0	1893	1810	0	1881
Q Serve(g_s), s	2.1	0.2	0.0	1.5	0.9	1.0	17.7	0.0	7.0	0.1	0.0	13.1
Cycle Q Clear(g_c), s	2.1	0.2	0.0	1.5	0.9	1.0	17.7	0.0	7.0	0.1	0.0	13.1
Prop In Lane	1.00		1.00	1.00		0.42	1.00		0.02	1.00		0.06
Lane Grp Cap(c), veh/h	86	257		69	111	108	1114	0	856	261	0	524
V/C Ratio(X)	0.65	0.04		0.57	0.22	0.24	0.86	0.00	0.35	0.01	0.00	0.74
Avail Cap(c_a), veh/h	131	1095		131	547	529	1232	0	856	366	0	524
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	29.9	0.0	32.7	30.9	30.9	22.2	0.0	12.3	25.4	0.0	22.7
Incr Delay (d2), s/veh	3.1	0.1	0.0	2.7	1.0	1.2	6.1	0.0	1.1	0.0	0.0	9.2
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	0.1	0.0	0.7	0.4	0.4	7.2	0.0	2.7	0.0	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	30.0	0.0	35.4	31.9	32.1	28.3	0.0	13.4	25.4	0.0	32.0
LnGrp LOS	D	C		D	C	C	C	A	B	C	A	C
Approach Vol, veh/h		66	A		90			1251			393	
Approach Delay, s/veh		34.6			33.5			24.8			31.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	37.0	6.6	9.9	27.7	25.0	7.3	9.3
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	14.0	* 31	5.0	21.0	24.3	19.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	2.1	9.0	3.5	2.2	19.7	15.1	4.1	3.0
Green Ext Time (p_c), s	0.0	2.2	0.0	0.0	2.3	1.1	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

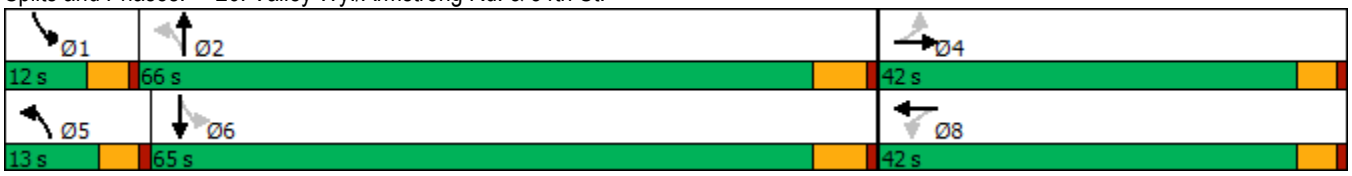
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

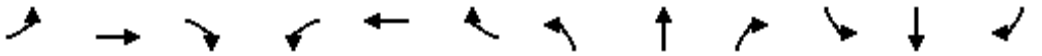
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	82	13	102	65	64	1004	6	979
Future Volume (vph)	82	13	102	65	64	1004	6	979
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	13.0	66.0	12.0	65.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	10.8%	55.0%	10.0%	54.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	17.7	17.7		17.7	70.5	68.0	66.3	61.2
Actuated g/C Ratio	0.18	0.18		0.18	0.72	0.69	0.68	0.63
v/c Ratio	0.43	0.17		0.72	0.22	0.46	0.02	0.55
Control Delay	42.1	15.1		52.3	6.4	8.7	5.3	12.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	15.1		52.3	6.4	8.7	5.3	12.9
LOS	D	B		D	A	A	A	B
Approach Delay		31.6		52.3		8.5		12.9
Approach LOS		C		D		A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 14.7	Intersection LOS: B
Intersection Capacity Utilization 64.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	13	40	102	65	12	64	1004	52	6	979	133
Future Volume (veh/h)	82	13	40	102	65	12	64	1004	52	6	979	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	89	14	40	111	71	13	70	1091	57	7	1064	142
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	276	73	209	185	98	16	363	2307	120	345	1999	266
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.04	0.66	0.66	0.01	0.63	0.63
Sat Flow, veh/h	1335	429	1227	734	577	94	1810	3486	182	1810	3192	425
Grp Volume(v), veh/h	89	0	54	195	0	0	70	565	583	7	601	605
Grp Sat Flow(s),veh/h/ln	1335	0	1656	1405	0	0	1810	1805	1863	1810	1805	1812
Q Serve(g_s), s	0.0	0.0	2.6	10.3	0.0	0.0	1.2	14.6	14.6	0.1	17.6	17.7
Cycle Q Clear(g_c), s	6.7	0.0	2.6	13.0	0.0	0.0	1.2	14.6	14.6	0.1	17.6	17.7
Prop In Lane	1.00		0.74	0.57		0.07	1.00		0.10	1.00		0.23
Lane Grp Cap(c), veh/h	276	0	282	299	0	0	363	1195	1233	345	1130	1135
V/C Ratio(X)	0.32	0.00	0.19	0.65	0.00	0.00	0.19	0.47	0.47	0.02	0.53	0.53
Avail Cap(c_a), veh/h	577	0	655	647	0	0	444	1195	1233	470	1130	1135
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	0.0	33.6	38.4	0.0	0.0	7.2	7.9	7.9	7.0	9.9	9.9
Incr Delay (d2), s/veh	0.7	0.0	0.3	2.4	0.0	0.0	0.1	1.3	1.3	0.0	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	1.1	4.6	0.0	0.0	0.4	4.8	5.0	0.0	6.2	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	0.0	33.9	40.8	0.0	0.0	7.3	9.2	9.2	7.0	11.7	11.7
LnGrp LOS	D	A	C	D	A	A	A	A	A	A	B	B
Approach Vol, veh/h		143			195			1218			1213	
Approach Delay, s/veh		35.2			40.8			9.1			11.7	
Approach LOS		D			D			A			B	

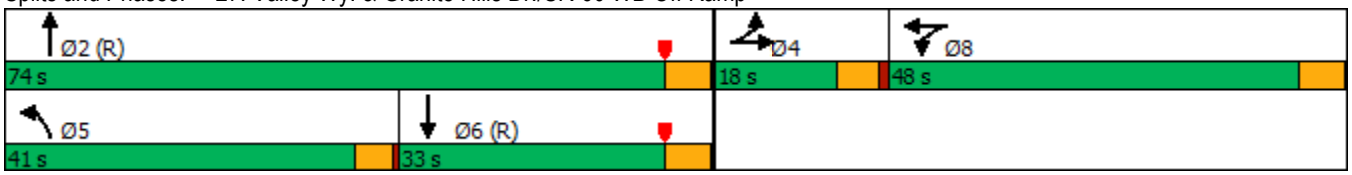
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	68.4		20.7	8.8	65.0		20.7				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	7.4	60.2		37.4	8.4	59.2		37.4				
Max Q Clear Time (g_c+I1), s	2.1	16.6		8.7	3.2	19.7		15.0				
Green Ext Time (p_c), s	0.0	8.6		0.6	0.0	9.3		1.1				

Intersection Summary												
HCM 6th Ctrl Delay			13.8									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	180	107	96	702	1159
Future Volume (vph)	0	180	107	96	702	1159
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	18.0	48.0	48.0	41.0	74.0	33.0
Total Split (%)	12.9%	34.3%	34.3%	29.3%	52.9%	23.6%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	12.6	41.4	41.4	13.0	70.0	52.4
Actuated g/C Ratio	0.09	0.30	0.30	0.09	0.50	0.37
v/c Ratio	1.60	0.35	0.97	0.59	0.40	0.90
Control Delay	336.9	40.5	65.1	74.3	23.0	52.3
Queue Delay	83.6	0.0	0.0	0.0	0.0	10.7
Total Delay	420.5	40.5	65.1	74.3	23.0	62.9
LOS	F	D	E	E	C	E
Approach Delay	420.5		59.2		29.1	62.9
Approach LOS	F		E		C	E

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 125	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.60	
Intersection Signal Delay: 81.3	Intersection LOS: F
Intersection Capacity Utilization 103.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	0	169	180	107	464	96	702	0	0	1159	20
Future Volume (veh/h)	67	0	169	180	107	464	96	702	0	0	1159	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	69	0	174	186	110	368	99	724	0	0	1195	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	0	107	541	115	384	125	1792	0	0	1432	25
Arrive On Green	0.09	0.00	0.09	0.30	0.30	0.30	0.02	0.16	0.00	0.00	0.39	0.39
Sat Flow, veh/h	472	0	1190	1810	384	1285	1810	3705	0	0	3724	64
Grp Volume(v), veh/h	243	0	0	186	0	478	99	724	0	0	594	622
Grp Sat Flow(s),veh/h/ln	1662	0	0	1810	0	1669	1810	1805	0	0	1805	1887
Q Serve(g_s), s	12.6	0.0	0.0	11.2	0.0	39.4	7.6	25.1	0.0	0.0	41.6	41.6
Cycle Q Clear(g_c), s	12.6	0.0	0.0	11.2	0.0	39.4	7.6	25.1	0.0	0.0	41.6	41.6
Prop In Lane	0.28		0.72	1.00		0.77	1.00		0.00	0.00		0.03
Lane Grp Cap(c), veh/h	150	0	0	541	0	499	125	1792	0	0	713	745
V/C Ratio(X)	1.62	0.00	0.00	0.34	0.00	0.96	0.79	0.40	0.00	0.00	0.83	0.83
Avail Cap(c_a), veh/h	150	0	0	552	0	509	470	1792	0	0	713	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.98	0.98	0.00	0.00	0.82	0.82
Uniform Delay (d), s/veh	63.7	0.0	0.0	38.3	0.0	48.2	67.4	40.0	0.0	0.0	38.2	38.2
Incr Delay (d2), s/veh	309.4	0.0	0.0	0.4	0.0	29.1	10.6	0.7	0.0	0.0	9.3	8.9
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	18.1	0.0	0.0	5.0	0.0	19.9	4.0	12.3	0.0	0.0	19.5	20.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	373.1	0.0	0.0	38.7	0.0	77.3	78.0	40.6	0.0	0.0	47.5	47.2
LnGrp LOS	F	A	A	D	A	E	E	D	A	A	D	D
Approach Vol, veh/h		243			664			823			1216	
Approach Delay, s/veh		373.1			66.5			45.1			47.3	
Approach LOS		F			E			D			D	

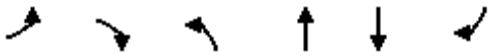
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		74.8		18.0	14.2	60.6		47.2				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		68.7		12.6	36.4	27.7		42.7				
Max Q Clear Time (g_c+I1), s		27.1		14.6	9.6	43.6		41.4				
Green Ext Time (p_c), s		3.1		0.0	0.2	0.0		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			77.9									
HCM 6th LOS			E									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	277	798	1029
Future Volume (vph)	277	798	1029
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	15.0	140.0	125.0
Total Split (%)	10.7%	100.0%	89.3%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	10.4	140.0	119.2
Actuated g/C Ratio	0.07	1.00	0.85
v/c Ratio	2.20	0.24	0.56
Control Delay	592.5	0.2	6.3
Queue Delay	0.0	0.2	0.0
Total Delay	592.5	0.3	6.3
LOS	F	A	A
Approach Delay		153.0	6.3
Approach LOS		F	A

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.20	
Intersection Signal Delay: 67.3	Intersection LOS: E
Intersection Capacity Utilization 68.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	277	798	1029	479
Future Volume (veh/h)	0	0	277	798	1029	479
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.97
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			295	849	1095	510
Peak Hour Factor			0.94	0.94	0.94	0.94
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			134	3460	2043	915
Arrive On Green			0.07	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2495	1075
Grp Volume(v), veh/h			295	849	813	792
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1670
Q Serve(g_s), s			10.4	1.8	0.0	0.0
Cycle Q Clear(g_c), s			10.4	1.8	0.0	0.0
Prop In Lane			1.00			0.64
Lane Grp Cap(c), veh/h			134	3460	1537	1422
V/C Ratio(X)			2.19	0.25	0.53	0.56
Avail Cap(c_a), veh/h			134	3460	1537	1422
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.55	0.55	0.45	0.45
Uniform Delay (d), s/veh			64.8	0.2	0.0	0.0
Incr Delay (d2), s/veh			550.8	0.1	0.6	0.7
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			25.3	0.0	0.3	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			615.6	0.3	0.6	0.7
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				1144	1605	
Approach Delay, s/veh				158.9	0.7	
Approach LOS				F	A	

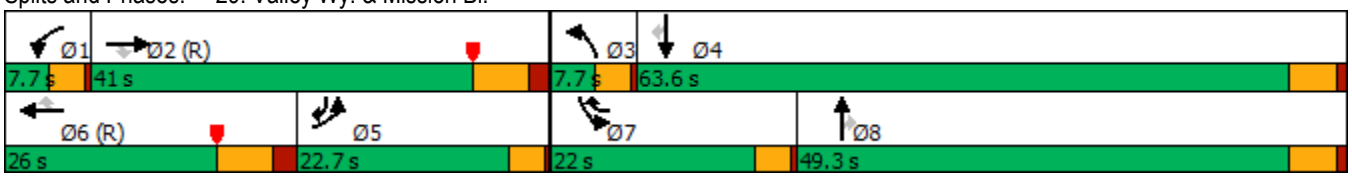
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			15.0	125.0
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			10.4	119.2
Max Q Clear Time (g_c+I1), s	3.8			12.4	2.0
Green Ext Time (p_c), s	6.5			0.0	18.8

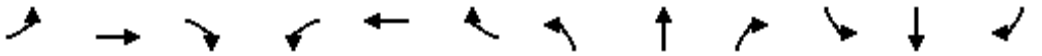
Intersection Summary	
HCM 6th Ctrl Delay	66.5
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	266	334	25	44	227	604	5	444	32	310	344	376
Future Volume (vph)	266	334	25	44	227	604	5	444	32	310	344	376
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	22.7	41.0	41.0	7.7	26.0	22.0	7.7	49.3	49.3	22.0	63.6	22.7
Total Split (%)	18.9%	34.2%	34.2%	6.4%	21.7%	18.3%	6.4%	41.1%	41.1%	18.3%	53.0%	18.9%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	19.0	54.1	54.1	8.1	41.4	63.0	4.0	21.6	21.6	18.3	42.1	62.7
Actuated g/C Ratio	0.16	0.45	0.45	0.07	0.34	0.52	0.03	0.18	0.18	0.15	0.35	0.52
v/c Ratio	0.51	0.22	0.03	0.38	0.19	0.69	0.04	0.72	0.08	0.61	0.29	0.24
Control Delay	49.8	22.3	0.1	61.8	29.1	12.7	57.0	52.5	0.3	53.0	28.6	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	22.3	0.1	61.8	29.1	12.7	57.0	52.5	0.3	53.0	28.6	1.3
LOS	D	C	A	E	C	B	E	D	A	D	C	A
Approach Delay		33.1			19.4			49.1			26.0	
Approach LOS		C			B			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 29.2	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	334	25	44	227	604	5	444	32	310	344	376
Future Volume (veh/h)	266	334	25	44	227	604	5	444	32	310	344	376
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	280	352	9	46	239	597	5	467	23	326	362	354
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	1223	1810	796	59	572	434	18	685	305	393	1071	1799
Arrive On Green	0.35	0.50	0.50	0.03	0.16	0.16	0.01	0.19	0.19	0.11	0.30	0.30
Sat Flow, veh/h	3510	3610	1587	1810	3610	1601	3510	3610	1608	3510	3610	2737
Grp Volume(v), veh/h	280	352	9	46	239	597	5	467	23	326	362	354
Grp Sat Flow(s),veh/h/ln	1755	1805	1587	1810	1805	1601	1755	1805	1608	1755	1805	1369
Q Serve(g_s), s	6.8	6.5	0.3	3.0	7.2	15.0	0.2	14.4	1.4	10.9	9.4	0.6
Cycle Q Clear(g_c), s	6.8	6.5	0.3	3.0	7.2	15.0	0.2	14.4	1.4	10.9	9.4	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1223	1810	796	59	572	434	18	685	305	393	1071	1799
V/C Ratio(X)	0.23	0.19	0.01	0.77	0.42	1.38	0.28	0.68	0.08	0.83	0.34	0.20
Avail Cap(c_a), veh/h	1223	1810	796	60	572	434	117	1324	589	535	1754	2317
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)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	27.7	16.5	15.0	57.6	45.5	22.0	59.5	45.3	40.0	52.2	33.0	3.3
Incr Delay (d2), s/veh	0.0	0.2	0.0	41.5	2.2	183.3	3.1	1.2	0.1	6.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.6	0.1	2.0	3.3	26.9	0.1	6.5	0.6	5.0	4.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	16.8	15.0	99.0	47.8	205.3	62.5	46.5	40.1	58.6	33.1	3.4
LnGrp LOS	C	B	B	F	D	F	E	D	D	E	C	A
Approach Vol, veh/h		641			882			495			1042	
Approach Delay, s/veh		21.5			157.1			46.3			31.0	
Approach LOS		C			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	67.2	4.3	40.9	48.8	26.0	17.1	28.1
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	4.0	34.0	4.0	58.3	19.0	* 19	18.3	44.0
Max Q Clear Time (g_c+I1), s	5.0	8.5	2.2	11.4	8.8	17.0	12.9	16.4
Green Ext Time (p_c), s	0.0	3.0	0.0	3.9	0.4	1.1	0.5	3.2

Intersection Summary	
HCM 6th Ctrl Delay	67.8
HCM 6th LOS	E

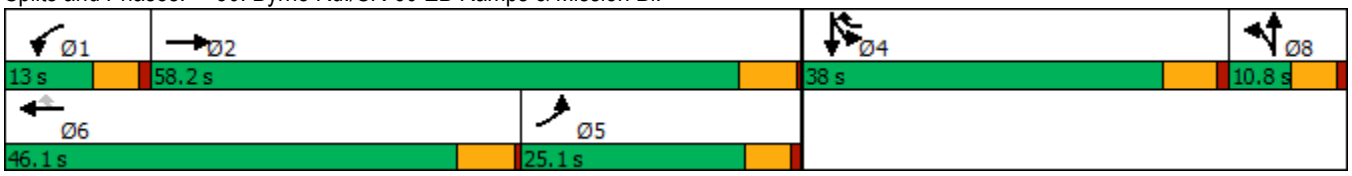
Notes

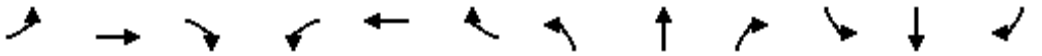
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	142	264	5	318	280	1	345	2
Future Volume (vph)	142	264	5	318	280	1	345	2
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	25.1	58.2	13.0	46.1	38.0	10.8	38.0	38.0
Total Split (%)	20.9%	48.5%	10.8%	38.4%	31.7%	9.0%	31.7%	31.7%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	None	None	None	None	None
Act Effct Green (s)	36.0	54.0	6.1	14.6	34.5	5.5	20.0	20.0
Actuated g/C Ratio	0.39	0.59	0.07	0.16	0.38	0.06	0.22	0.22
v/c Ratio	0.24	0.15	0.05	0.66	0.41	0.23	0.65	0.62
Control Delay	24.2	11.6	48.8	43.4	2.9	42.4	41.9	38.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	11.6	48.8	43.4	2.9	42.4	41.9	38.6
LOS	C	B	D	D	A	D	D	D
Approach Delay		15.9		24.6		42.4		40.3
Approach LOS		B		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.3	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 52.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	264	6	5	318	280	14	1	7	345	2	52
Future Volume (veh/h)	142	264	6	5	318	280	14	1	7	345	2	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	318	6	6	383	218	17	1	3	446	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	726	2084	39	14	634	530	33	2	6	566	297	0
Arrive On Green	0.40	0.58	0.58	0.01	0.18	0.18	0.02	0.02	0.02	0.16	0.00	0.00
Sat Flow, veh/h	1810	3622	68	1810	3610	1586	1443	85	255	3619	1900	0
Grp Volume(v), veh/h	171	158	166	6	383	218	21	0	0	446	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1885	1810	1805	1586	1782	0	0	1810	1900	0
Q Serve(g_s), s	5.7	3.7	3.7	0.3	8.9	9.7	1.1	0.0	0.0	10.8	0.0	0.0
Cycle Q Clear(g_c), s	5.7	3.7	3.7	0.3	8.9	9.7	1.1	0.0	0.0	10.8	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	0.81		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	726	1039	1085	14	634	530	40	0	0	566	297	0
V/C Ratio(X)	0.24	0.15	0.15	0.43	0.60	0.41	0.52	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	726	1039	1085	157	1598	954	111	0	0	1277	671	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	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.1	9.0	9.0	45.1	34.7	23.6	44.1	0.0	0.0	37.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.3	19.4	0.3	0.2	3.8	0.0	0.0	2.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.3	1.4	0.2	3.7	4.4	0.5	0.0	0.0	4.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	9.3	9.3	64.5	35.0	23.8	47.9	0.0	0.0	39.5	0.0	0.0
LnGrp LOS	B	A	A	E	D	C	D	A	A	D	A	A
Approach Vol, veh/h		495			607			21			446	
Approach Delay, s/veh		12.4			31.3			47.9			39.5	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	58.2		20.1	42.3	21.7		7.2				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	7.9	52.5		32.2	20.0	* 40		5.7				
Max Q Clear Time (g_c+I1), s	2.3	5.7		12.8	7.7	11.7		3.1				
Green Ext Time (p_c), s	0.0	1.0		1.5	0.3	1.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		27.9	
HCM 6th LOS		C	

Notes

User approved volume balancing among the lanes for turning movement.

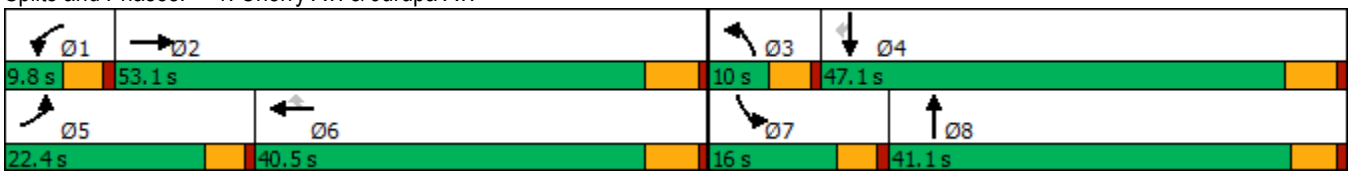
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	319	936	54	400	109	57	315	179	447	222
Future Volume (vph)	319	936	54	400	109	57	315	179	447	222
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	22.4	53.1	9.8	40.5	40.5	10.0	41.1	16.0	47.1	47.1
Total Split (%)	18.7%	44.3%	8.2%	33.8%	33.8%	8.3%	34.3%	13.3%	39.3%	39.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 76.7
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	936	122	54	400	109	57	315	57	179	447	222
Future Volume (veh/h)	319	936	122	54	400	109	57	315	57	179	447	222
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	332	975	99	56	417	77	59	328	33	186	466	142
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	458	1594	161	176	913	406	182	928	92	291	810	354
Arrive On Green	0.13	0.33	0.33	0.05	0.25	0.25	0.05	0.19	0.19	0.08	0.22	0.22
Sat Flow, veh/h	3510	4785	485	3510	3610	1606	3510	4799	474	3510	3610	1577
Grp Volume(v), veh/h	332	704	370	56	417	77	59	235	126	186	466	142
Grp Sat Flow(s),veh/h/ln	1755	1729	1812	1755	1805	1606	1755	1729	1815	1755	1805	1577
Q Serve(g_s), s	5.5	10.4	10.5	0.9	6.0	2.3	1.0	3.6	3.7	3.1	7.0	4.7
Cycle Q Clear(g_c), s	5.5	10.4	10.5	0.9	6.0	2.3	1.0	3.6	3.7	3.1	7.0	4.7
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	458	1152	603	176	913	406	182	669	351	291	810	354
V/C Ratio(X)	0.73	0.61	0.61	0.32	0.46	0.19	0.32	0.35	0.36	0.64	0.58	0.40
Avail Cap(c_a), veh/h	1023	2677	1403	299	2051	912	310	2038	1069	655	2441	1066
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	17.1	17.1	28.0	19.3	17.9	27.9	21.3	21.4	27.1	21.1	20.2
Incr Delay (d2), s/veh	0.8	0.5	1.0	0.4	0.4	0.2	0.4	0.3	0.6	0.9	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.5	3.8	0.4	2.2	0.8	0.4	1.4	1.5	1.2	2.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	17.6	18.1	28.4	19.6	18.1	28.3	21.6	22.0	28.0	21.7	20.9
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1406			550			420			794	
Approach Delay, s/veh		19.8			20.3			22.7			23.1	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	26.1	7.8	19.5	12.6	21.2	9.7	17.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.2	47.3	5.4	41.3	17.8	34.7	11.4	* 36
Max Q Clear Time (g_c+I1), s	2.9	12.5	3.0	9.0	7.5	8.0	5.1	5.7
Green Ext Time (p_c), s	0.0	7.7	0.0	3.5	0.4	2.8	0.2	2.3

Intersection Summary	
HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

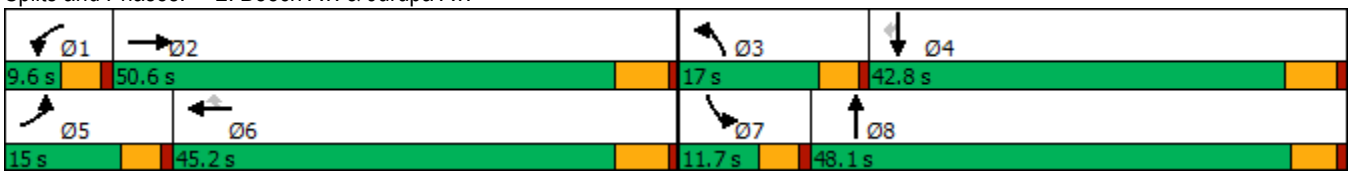
Notes

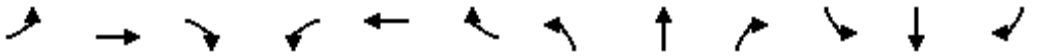
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	155	1083	23	468	19	89	36	41	36	76
Future Volume (vph)	155	1083	23	468	19	89	36	41	36	76
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	15.0	50.6	9.6	45.2	45.2	17.0	48.1	11.7	42.8	42.8
Total Split (%)	12.5%	42.2%	8.0%	37.7%	37.7%	14.2%	40.1%	9.8%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 72.1
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	1083	199	23	468	19	89	36	19	41	36	76
Future Volume (veh/h)	155	1083	199	23	468	19	89	36	19	41	36	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	1152	189	24	498	17	95	38	14	44	38	30
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	269	1810	297	96	1837	570	123	493	172	78	587	262
Arrive On Green	0.08	0.40	0.40	0.03	0.35	0.35	0.07	0.19	0.19	0.04	0.16	0.16
Sat Flow, veh/h	3510	4489	736	3510	5187	1610	1810	2625	915	1810	3610	1610
Grp Volume(v), veh/h	165	887	454	24	498	17	95	25	27	44	38	30
Grp Sat Flow(s),veh/h/ln	1755	1729	1767	1755	1729	1610	1810	1805	1735	1810	1805	1610
Q Serve(g_s), s	2.8	12.7	12.7	0.4	4.2	0.4	3.2	0.7	0.8	1.5	0.5	1.0
Cycle Q Clear(g_c), s	2.8	12.7	12.7	0.4	4.2	0.4	3.2	0.7	0.8	1.5	0.5	1.0
Prop In Lane	1.00		0.42	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	269	1394	713	96	1837	570	123	339	326	78	587	262
V/C Ratio(X)	0.61	0.64	0.64	0.25	0.27	0.03	0.77	0.08	0.08	0.57	0.06	0.11
Avail Cap(c_a), veh/h	594	2521	1288	286	3325	1032	365	1263	1214	209	2173	969
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	14.7	14.7	29.3	14.2	13.0	28.2	20.6	20.6	28.8	21.8	22.0
Incr Delay (d2), s/veh	0.9	0.5	1.0	0.5	0.1	0.0	3.8	0.1	0.1	2.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.0	4.2	0.2	1.4	0.1	1.4	0.3	0.3	0.6	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	15.2	15.7	29.8	14.3	13.0	31.9	20.6	20.7	31.2	21.8	22.1
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1506			539			147			112	
Approach Delay, s/veh		16.8			14.9			27.9			25.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	30.6	8.8	15.8	9.3	27.6	7.2	17.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	44.8	12.4	37.0	10.4	39.4	7.1	* 43
Max Q Clear Time (g_c+I1), s	2.4	14.7	5.2	3.0	4.8	6.2	3.5	2.8
Green Ext Time (p_c), s	0.0	10.1	0.1	0.3	0.1	3.3	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

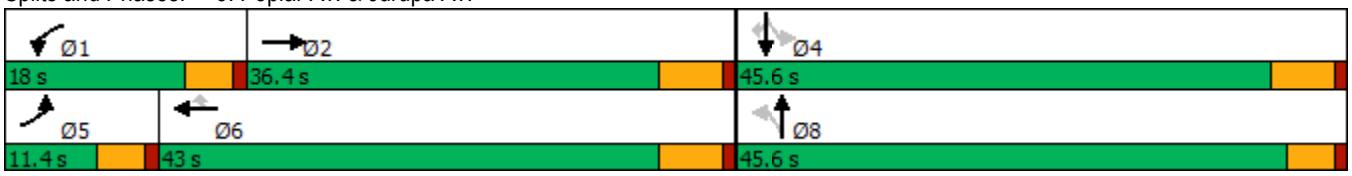
Notes

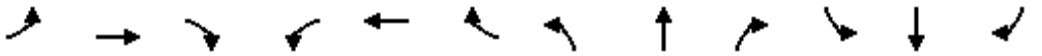
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	44	1102	127	420	25	49	36	48	83	52
Future Volume (vph)	44	1102	127	420	25	49	36	48	83	52
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	11.4	36.4	18.0	43.0	43.0	45.6	45.6	45.6	45.6	45.6
Total Split (%)	11.4%	36.4%	18.0%	43.0%	43.0%	45.6%	45.6%	45.6%	45.6%	45.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 62.3
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1102	77	127	420	25	49	36	95	48	83	52
Future Volume (veh/h)	44	1102	77	127	420	25	49	36	95	48	83	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	1124	68	130	429	23	50	37	46	49	85	39
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	1862	113	169	2175	675	363	373	333	390	392	332
Arrive On Green	0.05	0.37	0.37	0.09	0.42	0.42	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	5000	302	1810	5187	1609	1286	1805	1610	1336	1900	1608
Grp Volume(v), veh/h	45	777	415	130	429	23	50	37	46	49	85	39
Grp Sat Flow(s),veh/h/ln	1810	1729	1845	1810	1729	1609	1286	1805	1610	1336	1900	1608
Q Serve(g_s), s	1.2	9.0	9.0	3.5	2.6	0.4	1.7	0.8	1.2	1.5	1.8	1.0
Cycle Q Clear(g_c), s	1.2	9.0	9.0	3.5	2.6	0.4	3.5	0.8	1.2	2.7	1.8	1.0
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	1288	687	169	2175	675	363	373	333	390	392	332
V/C Ratio(X)	0.53	0.60	0.60	0.77	0.20	0.03	0.14	0.10	0.14	0.13	0.22	0.12
Avail Cap(c_a), veh/h	249	2139	1141	490	3901	1210	1163	1496	1335	1189	1529	1294
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	12.6	12.6	21.9	9.1	8.5	17.8	15.9	16.0	17.1	16.3	16.0
Incr Delay (d2), s/veh	1.9	0.5	0.9	2.8	0.0	0.0	0.2	0.1	0.2	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.6	2.9	1.4	0.7	0.1	0.4	0.3	0.4	0.4	0.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	13.0	13.4	24.7	9.1	8.5	17.9	16.0	16.2	17.3	16.6	16.1
LnGrp LOS	C	B	B	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		1237			582			133			173	
Approach Delay, s/veh		13.6			12.6			16.8			16.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.2	24.2		16.0	6.9	26.5		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	13.4	30.6		39.8	6.8	37.2		* 41				
Max Q Clear Time (g_c+I1), s	5.5	11.0		4.7	3.2	4.6		5.5				
Green Ext Time (p_c), s	0.1	7.3		0.7	0.0	2.8		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.8	
HCM 6th LOS		B	

Notes

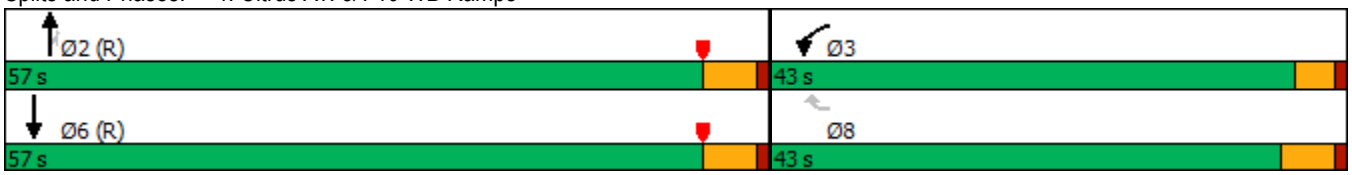
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

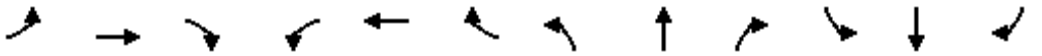
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	261	481	1166	332	845	469
Future Volume (vph)	261	481	1166	332	845	469
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	43.0	43.0	57.0	57.0	57.0	
Total Split (%)	43.0%	43.0%	57.0%	57.0%	57.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	261	0	481	0	1166	332	0	845	469
Future Volume (veh/h)	0	0	0	261	0	481	0	1166	332	0	845	469
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				275	0	380	0	1227	314	0	889	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				323	0	506	0	3794	1174	0	2640	
Arrive On Green				0.18	0.00	0.18	0.00	1.00	1.00	0.00	0.73	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1606	0	3705	1610
Grp Volume(v), veh/h				275	0	380	0	1227	314	0	889	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1606	0	1805	1610
Q Serve(g_s), s				14.7	0.0	12.7	0.0	0.0	0.0	0.0	8.8	0.0
Cycle Q Clear(g_c), s				14.7	0.0	12.7	0.0	0.0	0.0	0.0	8.8	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				323	0	506	0	3794	1174	0	2640	
V/C Ratio(X)				0.85	0.00	0.75	0.00	0.32	0.27	0.00	0.34	
Avail Cap(c_a), veh/h				706	0	1105	0	3794	1174	0	2640	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.69	0.69	0.00	1.00	0.00
Uniform Delay (d), s/veh				39.8	0.0	39.0	0.0	0.0	0.0	0.0	4.8	0.0
Incr Delay (d2), s/veh				2.5	0.0	0.9	0.0	0.2	0.4	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.5	0.0	4.3	0.0	0.1	0.1	0.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.2	0.0	39.8	0.0	0.2	0.4	0.0	5.1	0.0
LnGrp LOS				D	A	D	A	A	A	A	A	
Approach Vol, veh/h					655			1541			889	A
Approach Delay, s/veh					40.8			0.2			5.1	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	78.1			78.1		21.9						
Change Period (Y+Rc), s	5.0			5.0		4.0						
Max Green Setting (Gmax), s	52.0			52.0		39.0						
Max Q Clear Time (g_c+I1), s	2.0			10.8		16.7						
Green Ext Time (p_c), s	7.0			4.0		1.1						

Intersection Summary		
HCM 6th Ctrl Delay	10.2	
HCM 6th LOS	B	

Notes

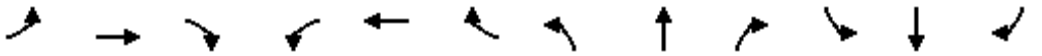
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	455	11	1042	470	636
Future Volume (vph)	455	11	1042	470	636
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	26.0	26.0	48.0	26.0	74.0
Total Split (%)	26.0%	26.0%	48.0%	26.0%	74.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	455	11	212	0	0	0	0	1042	512	470	636	0
Future Volume (veh/h)	455	11	212	0	0	0	0	1042	512	470	636	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	474	11	146				0	1085	352	490	662	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	561	18	242				0	2098	681	556	2672	0
Arrive On Green	0.16	0.16	0.16				0.00	0.54	0.54	0.32	1.00	0.00
Sat Flow, veh/h	3510	114	1514				0	4043	1256	3510	3705	0
Grp Volume(v), veh/h	474	0	157				0	969	468	490	662	0
Grp Sat Flow(s),veh/h/ln	1755	0	1628				0	1729	1671	1755	1805	0
Q Serve(g_s), s	13.1	0.0	9.0				0.0	17.8	17.8	13.2	0.0	0.0
Cycle Q Clear(g_c), s	13.1	0.0	9.0				0.0	17.8	17.8	13.2	0.0	0.0
Prop In Lane	1.00		0.93				0.00		0.75	1.00		0.00
Lane Grp Cap(c), veh/h	561	0	260				0	1873	905	556	2672	0
V/C Ratio(X)	0.84	0.00	0.60				0.00	0.52	0.52	0.88	0.25	0.00
Avail Cap(c_a), veh/h	737	0	342				0	1873	905	772	2672	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.52	0.52	0.90	0.90	0.00
Uniform Delay (d), s/veh	40.8	0.0	39.1				0.0	14.6	14.6	33.3	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.0	0.8				0.0	0.5	1.1	6.4	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	5.8	0.0	3.5				0.0	6.3	6.2	4.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.3	0.0	39.9				0.0	15.1	15.7	39.6	0.2	0.0
LnGrp LOS	D	A	D				A	B	B	D	A	A
Approach Vol, veh/h		631						1437			1152	
Approach Delay, s/veh		44.7						15.3			17.0	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.8	59.2		21.0		79.0
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	22.0	43.0		21.0		69.0
Max Q Clear Time (g_c+I1), s	15.2	19.8		15.1		2.0
Green Ext Time (p_c), s	0.6	6.5		0.9		2.8

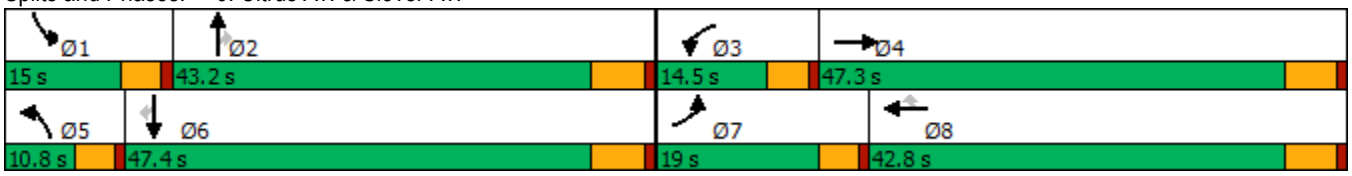
Intersection Summary		
HCM 6th Ctrl Delay		21.7
HCM 6th LOS		C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	631	831	64	253	194	29	666	102	221	330	273
Future Volume (vph)	631	831	64	253	194	29	666	102	221	330	273
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	19.0	47.3	14.5	42.8	42.8	10.8	43.2	43.2	15.0	47.4	47.4
Total Split (%)	15.8%	39.4%	12.1%	35.7%	35.7%	9.0%	36.0%	36.0%	12.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 89.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	631	831	27	64	253	194	29	666	102	221	330	273
Future Volume (veh/h)	631	831	27	64	253	194	29	666	102	221	330	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	657	866	28	67	264	158	30	694	42	230	344	193
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	664	1134	37	90	644	287	56	1153	356	247	624	528
Arrive On Green	0.19	0.32	0.32	0.05	0.18	0.18	0.03	0.22	0.22	0.14	0.33	0.33
Sat Flow, veh/h	3510	3567	115	1810	3610	1607	1810	5187	1599	1810	1900	1610
Grp Volume(v), veh/h	657	438	456	67	264	158	30	694	42	230	344	193
Grp Sat Flow(s),veh/h/ln	1755	1805	1877	1810	1805	1607	1810	1729	1599	1810	1900	1610
Q Serve(g_s), s	14.2	16.6	16.6	2.8	4.9	6.8	1.2	9.1	1.6	9.6	11.3	7.0
Cycle Q Clear(g_c), s	14.2	16.6	16.6	2.8	4.9	6.8	1.2	9.1	1.6	9.6	11.3	7.0
Prop In Lane	1.00		0.06	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	664	574	597	90	644	287	56	1153	356	247	624	528
V/C Ratio(X)	0.99	0.76	0.76	0.74	0.41	0.55	0.54	0.60	0.12	0.93	0.55	0.37
Avail Cap(c_a), veh/h	664	984	1024	235	1755	782	147	2550	786	247	1039	880
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	23.4	23.4	35.7	27.7	28.5	36.3	26.6	23.6	32.5	21.0	19.5
Incr Delay (d2), s/veh	32.0	2.1	2.1	4.5	0.4	1.7	3.0	0.5	0.1	38.1	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	6.6	6.9	1.3	2.0	2.5	0.6	3.5	0.6	6.5	4.6	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.7	25.5	25.4	40.2	28.1	30.1	39.3	27.1	23.8	70.6	21.7	19.9
LnGrp LOS	E	C	C	D	C	C	D	C	C	E	C	B
Approach Vol, veh/h		1551			489			766			767	
Approach Delay, s/veh		41.3			30.4			27.4			35.9	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	22.7	8.4	30.0	6.9	30.8	19.0	19.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	10.4	37.4	9.9	41.5	6.2	41.6	14.4	37.0
Max Q Clear Time (g_c+I1), s	11.6	11.1	4.8	18.6	3.2	13.3	16.2	8.8
Green Ext Time (p_c), s	0.0	4.7	0.0	5.3	0.0	2.5	0.0	2.1

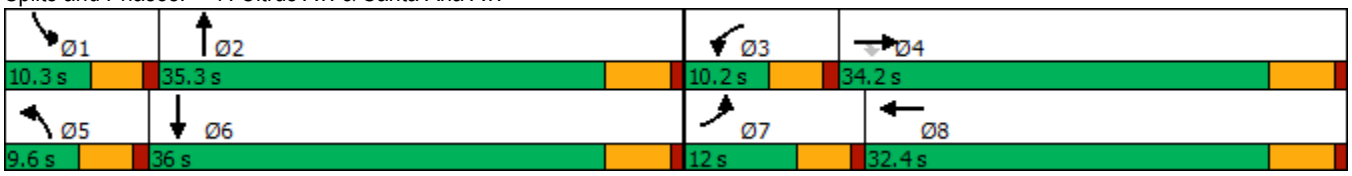
Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

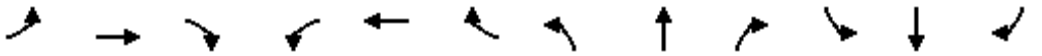
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	151	78	32	26	59	2	543	29	308
Future Volume (vph)	151	78	32	26	59	2	543	29	308
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	12.0	34.2	34.2	10.2	32.4	9.6	35.3	10.3	36.0
Total Split (%)	13.3%	38.0%	38.0%	11.3%	36.0%	10.7%	39.2%	11.4%	40.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 57.9
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	78	32	26	59	33	2	543	51	29	308	30
Future Volume (veh/h)	151	78	32	26	59	33	2	543	51	29	308	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	83	13	28	63	15	2	578	45	31	328	23
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	520	434	58	559	128	5	885	69	63	1002	70
Arrive On Green	0.11	0.27	0.27	0.03	0.19	0.19	0.00	0.26	0.26	0.03	0.29	0.29
Sat Flow, veh/h	1810	1900	1586	1810	2907	667	1810	3394	264	1810	3423	239
Grp Volume(v), veh/h	161	83	13	28	38	40	2	307	316	31	172	179
Grp Sat Flow(s),veh/h/ln	1810	1900	1586	1810	1805	1769	1810	1805	1853	1810	1805	1857
Q Serve(g_s), s	4.3	1.7	0.3	0.8	0.9	0.9	0.1	7.6	7.6	0.8	3.7	3.8
Cycle Q Clear(g_c), s	4.3	1.7	0.3	0.8	0.9	0.9	0.1	7.6	7.6	0.8	3.7	3.8
Prop In Lane	1.00		1.00	1.00		0.38	1.00		0.14	1.00		0.13
Lane Grp Cap(c), veh/h	205	520	434	58	347	340	5	470	483	63	529	544
V/C Ratio(X)	0.78	0.16	0.03	0.48	0.11	0.12	0.40	0.65	0.65	0.49	0.33	0.33
Avail Cap(c_a), veh/h	267	1091	910	202	971	952	180	1076	1104	206	1101	1133
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	13.8	13.3	23.9	16.7	16.7	25.0	16.5	16.5	23.8	13.9	13.9
Incr Delay (d2), s/veh	8.0	0.1	0.0	2.3	0.1	0.2	18.4	1.5	1.5	2.2	0.4	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	2.0	0.6	0.1	0.3	0.3	0.3	0.0	2.8	2.9	0.4	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.6	14.0	13.4	26.1	16.9	16.9	43.4	18.1	18.0	25.9	14.2	14.2
LnGrp LOS	C	B	B	C	B	B	D	B	B	C	B	B
Approach Vol, veh/h		257			106			625			382	
Approach Delay, s/veh		23.7			19.3			18.1			15.2	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	18.5	6.2	19.1	4.7	20.1	10.3	15.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	5.7	29.9	5.6	28.8	5.0	30.6	7.4	27.0
Max Q Clear Time (g_c+I1), s	2.8	9.6	2.8	3.7	2.1	5.8	6.3	2.9
Green Ext Time (p_c), s	0.0	3.4	0.0	0.4	0.0	1.9	0.0	0.3

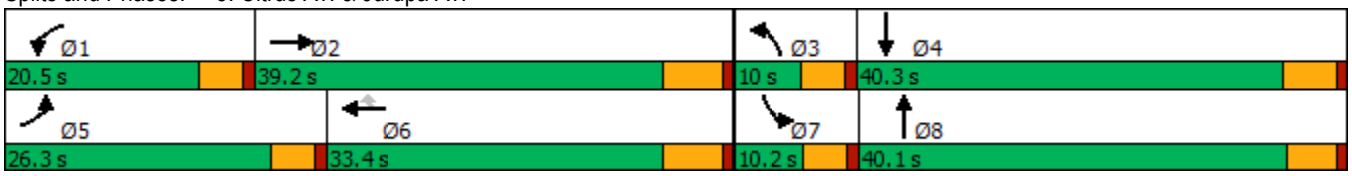
Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

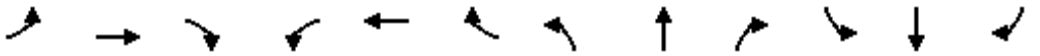
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	328	822	129	390	115	18	147	74	202
Future Volume (vph)	328	822	129	390	115	18	147	74	202
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	26.3	39.2	20.5	33.4	33.4	10.0	40.1	10.2	40.3
Total Split (%)	23.9%	35.6%	18.6%	30.4%	30.4%	9.1%	36.5%	9.3%	36.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 76.9
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	822	51	129	390	115	18	147	82	74	202	100
Future Volume (veh/h)	328	822	51	129	390	115	18	147	82	74	202	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	357	893	40	140	424	51	20	160	66	80	220	79
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	415	1573	70	181	932	289	43	445	176	113	564	197
Arrive On Green	0.23	0.31	0.31	0.10	0.18	0.18	0.02	0.18	0.18	0.06	0.21	0.21
Sat Flow, veh/h	1810	5089	227	1810	5187	1610	1810	2524	999	1810	2625	916
Grp Volume(v), veh/h	357	606	327	140	424	51	20	113	113	80	149	150
Grp Sat Flow(s),veh/h/ln	1810	1729	1858	1810	1729	1610	1810	1805	1718	1810	1805	1735
Q Serve(g_s), s	11.0	8.5	8.5	4.4	4.2	1.6	0.6	3.2	3.4	2.5	4.1	4.3
Cycle Q Clear(g_c), s	11.0	8.5	8.5	4.4	4.2	1.6	0.6	3.2	3.4	2.5	4.1	4.3
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.58	1.00		0.53
Lane Grp Cap(c), veh/h	415	1069	574	181	932	289	43	318	303	113	388	373
V/C Ratio(X)	0.86	0.57	0.57	0.77	0.45	0.18	0.47	0.35	0.37	0.71	0.38	0.40
Avail Cap(c_a), veh/h	678	1994	1071	497	2471	767	169	1091	1038	175	1088	1045
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.4	16.8	16.8	25.4	21.2	20.1	27.9	21.0	21.0	26.6	19.5	19.5
Incr Delay (d2), s/veh	3.3	0.5	0.9	2.6	0.3	0.3	2.9	0.7	0.8	3.0	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	2.8	3.1	1.8	1.5	0.6	0.3	1.3	1.3	1.1	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	17.2	17.7	28.1	21.6	20.4	30.8	21.6	21.8	29.7	20.1	20.2
LnGrp LOS	C	B	B	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		1290			615			246			379	
Approach Delay, s/veh		19.4			23.0			22.5			22.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	23.7	6.0	17.8	17.9	16.2	8.2	15.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	15.9	33.4	5.4	34.9	21.7	27.6	5.6	* 35
Max Q Clear Time (g_c+I1), s	6.4	10.5	2.6	6.3	13.0	6.2	4.5	5.4
Green Ext Time (p_c), s	0.1	5.8	0.0	1.7	0.4	2.7	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	21.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Vol, veh/h	0	1033	625	27	0	32
Future Vol, veh/h	0	1033	625	27	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1123	679	29	0	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	354
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	553
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	553
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.9
HCM LOS			B

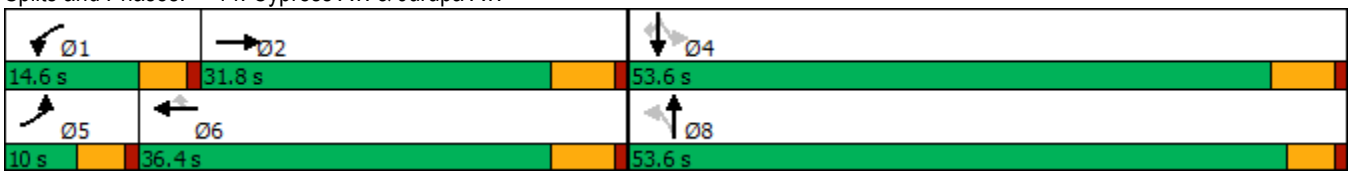
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	553
HCM Lane V/C Ratio	-	-	-	0.063
HCM Control Delay (s)	-	-	-	11.9
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

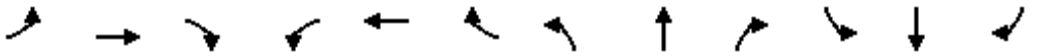
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	122	939	115	580	57	9	49	61	44	69
Future Volume (vph)	122	939	115	580	57	9	49	61	44	69
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.0	31.8	14.6	36.4	36.4	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.0%	31.8%	14.6%	36.4%	36.4%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 60.1
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	939	22	115	580	57	9	49	61	61	44	69
Future Volume (veh/h)	122	939	22	115	580	57	9	49	61	61	44	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	999	19	122	617	40	10	52	30	65	47	39
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	167	1725	33	158	1683	522	431	252	145	408	423	359
Arrive On Green	0.09	0.33	0.33	0.09	0.32	0.32	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	5240	100	1810	5187	1610	1332	1130	652	1337	1900	1610
Grp Volume(v), veh/h	130	659	359	122	617	40	10	0	82	65	47	39
Grp Sat Flow(s),veh/h/ln	1810	1729	1882	1810	1729	1610	1332	0	1783	1337	1900	1610
Q Serve(g_s), s	3.2	7.1	7.1	3.0	4.1	0.8	0.3	0.0	1.7	1.9	0.9	0.9
Cycle Q Clear(g_c), s	3.2	7.1	7.1	3.0	4.1	0.8	1.2	0.0	1.7	3.6	0.9	0.9
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	167	1138	620	158	1683	522	431	0	397	408	423	359
V/C Ratio(X)	0.78	0.58	0.58	0.77	0.37	0.08	0.02	0.00	0.21	0.16	0.11	0.11
Avail Cap(c_a), veh/h	218	2002	1090	403	3534	1097	1588	0	1945	1533	2022	1714
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	1.00	1.00
Uniform Delay (d), s/veh	19.9	12.5	12.5	20.1	11.6	10.5	14.4	0.0	14.2	15.7	13.9	13.9
Incr Delay (d2), s/veh	9.1	0.5	0.9	3.0	0.1	0.1	0.0	0.0	0.3	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	2.0	2.3	1.2	1.2	0.2	0.1	0.0	0.6	0.5	0.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.0	12.9	13.3	23.1	11.8	10.6	14.4	0.0	14.5	15.9	14.0	14.0
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		1148			779			92			151	
Approach Delay, s/veh		14.9			13.5			14.5			14.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	20.6		15.8	8.7	20.4		15.8				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	10.0	26.0		47.8	5.4	30.6		* 49				
Max Q Clear Time (g_c+I1), s	5.0	9.1		5.6	5.2	6.1		3.7				
Green Ext Time (p_c), s	0.1	5.7		0.5	0.0	4.1		0.5				

Intersection Summary		
HCM 6th Ctrl Delay		14.4
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	11.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	199	23	49	227	52	30	52	64	62	48	2
Future Vol, veh/h	6	199	23	49	227	52	30	52	64	62	48	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	224	26	55	255	58	34	58	72	70	54	2
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

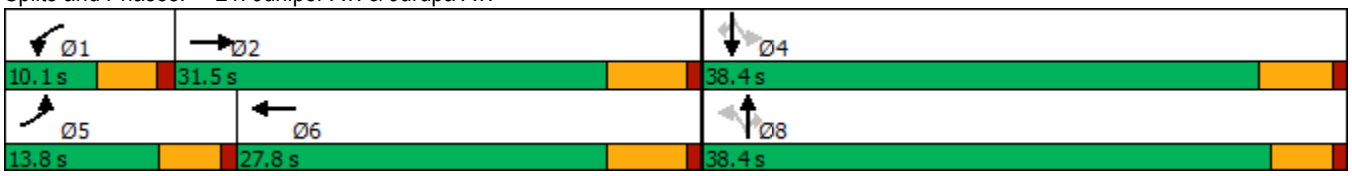
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	13.1	10.8	10.1	11.5
HCM LOS	B	B	B	B

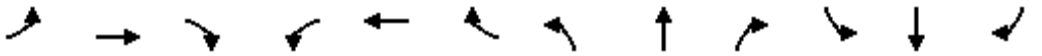
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	37%	0%	3%	30%	0%	56%	0%
Vol Thru, %	63%	0%	87%	70%	69%	44%	0%
Vol Right, %	0%	100%	10%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	64	228	163	166	110	2
LT Vol	30	0	6	49	0	62	0
Through Vol	52	0	199	114	114	48	0
RT Vol	0	64	23	0	52	0	2
Lane Flow Rate	92	72	256	183	186	124	2
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.17	0.115	0.419	0.301	0.287	0.233	0.004
Departure Headway (Hd)	6.641	5.742	5.895	5.939	5.564	6.785	5.785
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	623	610	604	645	529	617
Service Time	4.387	3.487	3.933	3.675	3.301	4.533	3.532
HCM Lane V/C Ratio	0.17	0.116	0.42	0.303	0.288	0.234	0.003
HCM Control Delay	10.8	9.2	13.1	11.2	10.5	11.6	8.6
HCM Lane LOS	B	A	B	B	B	B	A
HCM 95th-tile Q	0.6	0.4	2.1	1.3	1.2	0.9	0

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	77	980	28	671	7	15	5	34	22	64
Future Volume (vph)	77	980	28	671	7	15	5	34	22	64
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.8	31.5	10.1	27.8	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	17.3%	39.4%	12.6%	34.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 49
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	980	5	28	671	54	7	15	5	34	22	64
Future Volume (veh/h)	77	980	5	28	671	54	7	15	5	34	22	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	84	1065	5	30	729	54	8	16	2	37	24	24
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	134	1866	9	63	1534	113	203	338	393	340	190	392
Arrive On Green	0.07	0.35	0.35	0.04	0.31	0.31	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	5328	25	1810	4928	363	372	1386	1610	837	778	1604
Grp Volume(v), veh/h	84	691	379	30	510	273	24	0	2	61	0	24
Grp Sat Flow(s),veh/h/ln	1810	1729	1895	1810	1729	1833	1758	0	1610	1615	0	1604
Q Serve(g_s), s	1.9	6.9	6.9	0.7	5.1	5.1	0.0	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	1.9	6.9	6.9	0.7	5.1	5.1	0.4	0.0	0.0	1.1	0.0	0.5
Prop In Lane	1.00		0.01	1.00		0.20	0.33		1.00	0.61		1.00
Lane Grp Cap(c), veh/h	134	1211	664	63	1077	571	542	0	393	530	0	392
V/C Ratio(X)	0.63	0.57	0.57	0.47	0.47	0.48	0.04	0.00	0.01	0.12	0.00	0.06
Avail Cap(c_a), veh/h	390	2084	1142	233	1784	946	1466	0	1276	1364	0	1242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.2	11.3	11.3	20.2	11.9	11.9	12.3	0.0	12.2	12.6	0.0	12.4
Incr Delay (d2), s/veh	1.8	0.4	0.8	2.0	0.3	0.6	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.9	2.1	0.3	1.4	1.6	0.2	0.0	0.0	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	11.7	12.0	22.2	12.2	12.5	12.4	0.0	12.2	12.7	0.0	12.4
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		1154			813			26			85	
Approach Delay, s/veh		12.5			12.7			12.4			12.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	20.7		15.8	7.8	19.1		15.8				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.5	25.7		33.0	9.2	22.0		* 34				
Max Q Clear Time (g_c+I1), s	2.7	8.9		3.1	3.9	7.1		2.4				
Green Ext Time (p_c), s	0.0	6.0		0.3	0.0	4.0		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		12.5
HCM 6th LOS		B

Notes

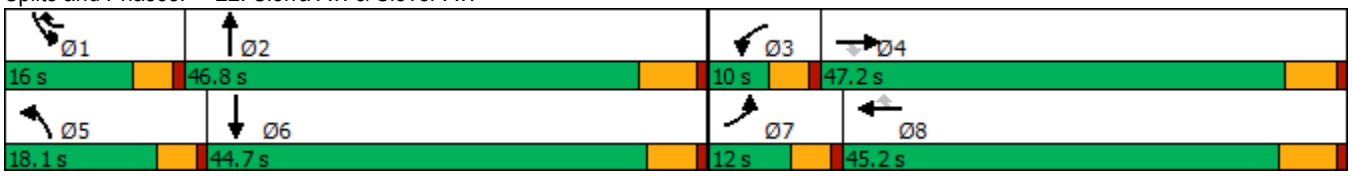
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	311	647	137	206	436	740	222	1028	655	989
Future Volume (vph)	311	647	137	206	436	740	222	1028	655	989
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	12.0	47.2	47.2	10.0	45.2	16.0	18.1	46.8	16.0	44.7
Total Split (%)	10.0%	39.3%	39.3%	8.3%	37.7%	13.3%	15.1%	39.0%	13.3%	37.3%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 92.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	647	137	206	436	740	222	1028	168	655	989	97
Future Volume (veh/h)	311	647	137	206	436	740	222	1028	168	655	989	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	324	674	79	215	454	373	231	1071	154	682	1030	87
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	295	970	425	215	888	1051	312	1722	245	454	1638	138
Arrive On Green	0.08	0.27	0.27	0.06	0.25	0.25	0.09	0.30	0.30	0.13	0.34	0.34
Sat Flow, veh/h	3510	3610	1579	3510	3610	2780	3510	5819	829	3510	4871	411
Grp Volume(v), veh/h	324	674	79	215	454	373	231	901	324	682	731	386
Grp Sat Flow(s),veh/h/ln	1755	1805	1579	1755	1805	1390	1755	1634	1746	1755	1729	1824
Q Serve(g_s), s	7.4	14.8	3.4	5.4	9.6	8.5	5.7	14.0	14.2	11.4	15.7	15.7
Cycle Q Clear(g_c), s	7.4	14.8	3.4	5.4	9.6	8.5	5.7	14.0	14.2	11.4	15.7	15.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.47	1.00		0.23
Lane Grp Cap(c), veh/h	295	970	425	215	888	1051	312	1450	517	454	1163	613
V/C Ratio(X)	1.10	0.69	0.19	1.00	0.51	0.36	0.74	0.62	0.63	1.50	0.63	0.63
Avail Cap(c_a), veh/h	295	1694	741	215	1596	1596	537	2256	804	454	1541	813
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.4	29.0	24.8	41.4	28.7	19.9	39.2	26.8	26.9	38.4	24.6	24.6
Incr Delay (d2), s/veh	82.0	0.9	0.2	61.5	0.5	0.2	1.3	0.4	1.3	237.7	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	6.1	1.2	4.0	3.9	2.5	2.4	5.1	5.6	19.6	6.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	122.4	29.9	25.0	102.9	29.1	20.1	40.5	27.2	28.1	276.1	25.2	25.7
LnGrp LOS	F	C	C	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		1077			1042			1456			1799	
Approach Delay, s/veh		57.4			41.1			29.5			120.4	
Approach LOS		E			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	32.3	10.0	29.9	12.4	35.9	12.0	27.9
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	11.4	40.6	5.4	* 41	13.5	* 39	7.4	39.0
Max Q Clear Time (g_c+I1), s	13.4	16.2	7.4	16.8	7.7	17.7	9.4	11.6
Green Ext Time (p_c), s	0.0	8.4	0.0	4.6	0.2	7.1	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	67.8
HCM 6th LOS	E

Notes

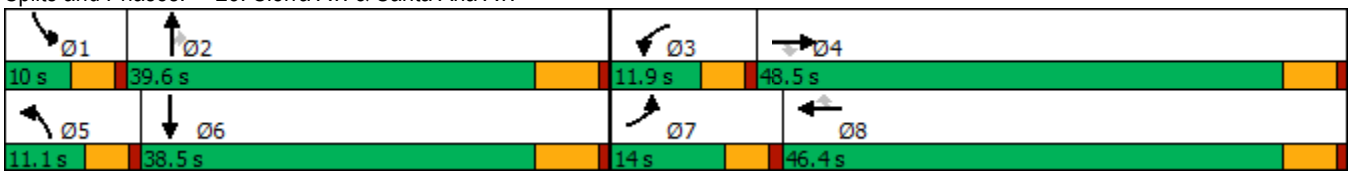
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

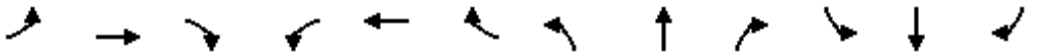
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	120	126	115	74	129	79	172	1343	50	127	1089
Future Volume (vph)	120	126	115	74	129	79	172	1343	50	127	1089
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	14.0	48.5	48.5	11.9	46.4	46.4	11.1	39.6	39.6	10.0	38.5
Total Split (%)	12.7%	44.1%	44.1%	10.8%	42.2%	42.2%	10.1%	36.0%	36.0%	9.1%	35.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 80.2
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	126	115	74	129	79	172	1343	50	127	1089	94
Future Volume (veh/h)	120	126	115	74	129	79	172	1343	50	127	1089	94
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	122	129	19	76	132	43	176	1370	43	130	1111	81
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	665	296	103	557	249	268	1964	600	240	1828	133
Arrive On Green	0.09	0.18	0.18	0.06	0.15	0.15	0.08	0.38	0.38	0.07	0.37	0.37
Sat Flow, veh/h	1810	3610	1608	1810	3610	1610	3510	5187	1586	3510	4934	359
Grp Volume(v), veh/h	122	129	19	76	132	43	176	1370	43	130	778	414
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1610	1755	1729	1586	1755	1729	1835
Q Serve(g_s), s	4.4	2.0	0.6	2.8	2.1	1.5	3.2	14.9	1.2	2.4	12.2	12.2
Cycle Q Clear(g_c), s	4.4	2.0	0.6	2.8	2.1	1.5	3.2	14.9	1.2	2.4	12.2	12.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.20
Lane Grp Cap(c), veh/h	157	665	296	103	557	249	268	1964	600	240	1281	680
V/C Ratio(X)	0.78	0.19	0.06	0.74	0.24	0.17	0.66	0.70	0.07	0.54	0.61	0.61
Avail Cap(c_a), veh/h	255	2336	1040	198	2222	991	343	2601	795	285	1677	890
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	23.0	22.4	30.9	24.7	24.5	29.9	17.5	13.2	30.0	17.0	17.0
Incr Delay (d2), s/veh	3.2	0.1	0.1	3.9	0.2	0.3	1.4	0.5	0.0	0.7	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	1.9	0.8	0.2	1.2	0.9	0.6	1.3	4.9	0.4	0.9	4.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	23.1	22.5	34.8	24.9	24.8	31.3	18.0	13.3	30.7	17.5	17.9
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		270			251			1589			1322	
Approach Delay, s/veh		27.5			27.9			19.4			18.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	31.4	8.4	17.7	9.7	30.9	10.4	15.7
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.4	33.4	7.3	43.1	6.5	32.3	9.4	41.0
Max Q Clear Time (g_c+I1), s	4.4	16.9	4.8	4.0	5.2	14.2	6.4	4.1
Green Ext Time (p_c), s	0.0	8.2	0.0	0.8	0.0	6.8	0.0	0.9

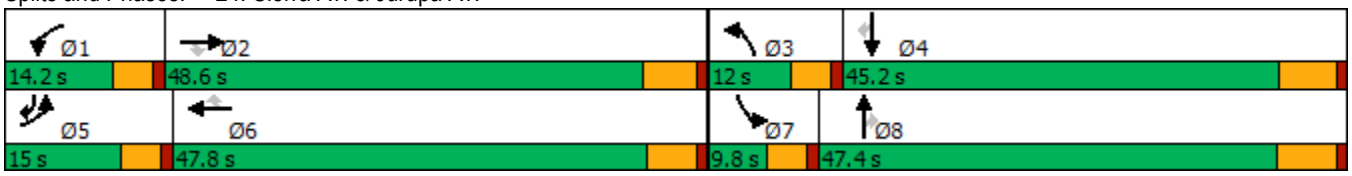
Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	404	318	279	140	261	84	260	911	98	88	576	245
Future Volume (vph)	404	318	279	140	261	84	260	911	98	88	576	245
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	15.0	48.6	48.6	14.2	47.8	47.8	12.0	47.4	47.4	9.8	45.2	15.0
Total Split (%)	12.5%	40.5%	40.5%	11.8%	39.8%	39.8%	10.0%	39.5%	39.5%	8.2%	37.7%	12.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 81.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	404	318	279	140	261	84	260	911	98	88	576	245
Future Volume (veh/h)	404	318	279	140	261	84	260	911	98	88	576	245
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	416	328	145	144	269	27	268	939	58	91	594	186
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	506	794	354	236	516	230	359	1249	550	208	1094	720
Arrive On Green	0.14	0.22	0.22	0.07	0.14	0.14	0.10	0.35	0.35	0.06	0.30	0.30
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3610	1590	3510	3610	1610
Grp Volume(v), veh/h	416	328	145	144	269	27	268	939	58	91	594	186
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1590	1755	1805	1610
Q Serve(g_s), s	8.0	5.5	5.4	2.8	4.8	1.0	5.2	16.1	1.7	1.8	9.6	5.0
Cycle Q Clear(g_c), s	8.0	5.5	5.4	2.8	4.8	1.0	5.2	16.1	1.7	1.8	9.6	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	506	794	354	236	516	230	359	1249	550	208	1094	720
V/C Ratio(X)	0.82	0.41	0.41	0.61	0.52	0.12	0.75	0.75	0.11	0.44	0.54	0.26
Avail Cap(c_a), veh/h	522	2210	986	482	2189	976	372	2112	930	261	2013	1130
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	23.4	23.4	31.7	27.7	26.1	30.5	20.2	15.5	31.8	20.3	12.1
Incr Delay (d2), s/veh	9.2	0.3	0.8	1.0	0.8	0.2	6.8	0.9	0.1	0.5	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	2.1	1.8	1.1	2.0	0.4	2.3	5.7	0.5	0.7	3.5	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	23.7	24.1	32.7	28.6	26.3	37.2	21.1	15.6	32.3	20.8	12.3
LnGrp LOS	D	C	C	C	C	C	D	C	B	C	C	B
Approach Vol, veh/h		889			440			1265			871	
Approach Delay, s/veh		30.6			29.8			24.3			20.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	21.2	11.8	27.7	14.7	15.8	8.7	30.7
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	9.6	42.8	7.4	* 39	10.4	* 42	5.2	40.9
Max Q Clear Time (g_c+I1), s	4.8	7.5	7.2	11.6	10.0	6.8	3.8	18.1
Green Ext Time (p_c), s	0.1	2.5	0.0	4.3	0.0	1.8	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

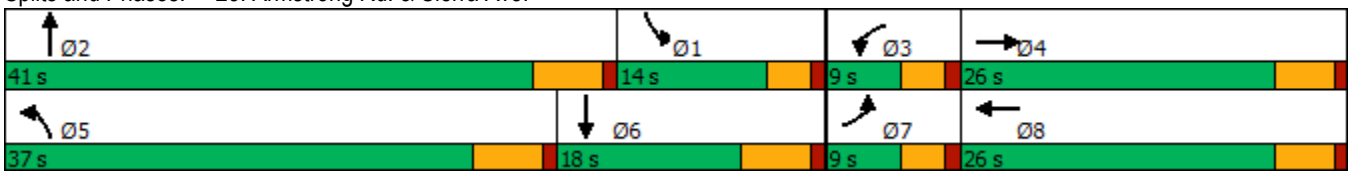
Notes

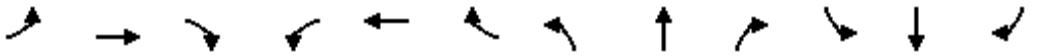
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	111	45	738	10	24	1267	701	11	215
Future Volume (vph)	111	45	738	10	24	1267	701	11	215
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0		9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0		9.0	26.0	37.0	41.0	14.0	18.0
Total Split (%)	10.0%	28.9%		10.0%	28.9%	41.1%	45.6%	15.6%	20.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	Max	None	Max
Act Effct Green (s)	5.8	9.7	71.7	5.0	6.2	31.5	46.9	10.1	12.4
Actuated g/C Ratio	0.08	0.14	1.00	0.07	0.09	0.44	0.65	0.14	0.17
v/c Ratio	0.79	0.09	0.47	0.08	0.15	0.85	0.61	0.04	0.78
Control Delay	73.7	28.3	1.0	34.9	22.0	26.0	13.2	29.5	47.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.7	28.3	1.0	34.9	22.0	26.0	13.2	29.5	47.4
LOS	E	C	A	C	C	C	B	C	D
Approach Delay		11.4			24.3		21.3		46.7
Approach LOS		B			C		C		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.7	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	45	738	10	24	20	1267	701	27	11	215	31
Future Volume (veh/h)	111	45	738	10	24	20	1267	701	27	11	215	31
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	46	0	10	25	21	1306	723	27	11	222	24
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	126	424		23	119	89	1456	894	33	171	288	31
Arrive On Green	0.07	0.12	0.00	0.01	0.06	0.06	0.41	0.49	0.49	0.09	0.17	0.17
Sat Flow, veh/h	1810	3610	1610	1810	1974	1467	3510	1820	68	1810	1682	182
Grp Volume(v), veh/h	114	46	0	10	23	23	1306	0	750	11	0	246
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1636	1755	0	1888	1810	0	1864
Q Serve(g_s), s	4.5	0.8	0.0	0.4	0.9	1.0	24.9	0.0	24.1	0.4	0.0	9.1
Cycle Q Clear(g_c), s	4.5	0.8	0.0	0.4	0.9	1.0	24.9	0.0	24.1	0.4	0.0	9.1
Prop In Lane	1.00		1.00	1.00		0.90	1.00		0.04	1.00		0.10
Lane Grp Cap(c), veh/h	126	424		23	109	99	1456	0	928	171	0	319
V/C Ratio(X)	0.91	0.11		0.44	0.21	0.24	0.90	0.00	0.81	0.06	0.00	0.77
Avail Cap(c_a), veh/h	126	1055		126	528	478	1529	0	928	252	0	319
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.2	28.3	0.0	35.2	32.1	32.2	19.6	0.0	15.4	29.6	0.0	28.4
Incr Delay (d2), s/veh	51.2	0.1	0.0	4.9	0.9	1.2	7.4	0.0	7.5	0.1	0.0	16.4
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	3.6	0.3	0.0	0.2	0.4	0.4	9.9	0.0	10.1	0.2	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	28.4	0.0	40.1	33.0	33.4	27.0	0.0	23.0	29.7	0.0	44.8
LnGrp LOS	F	C		D	C	C	C	A	C	C	A	D
Approach Vol, veh/h		160	A		56			2056			257	
Approach Delay, s/veh		68.3			34.4			25.5			44.1	
Approach LOS		E			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	41.0	4.9	13.4	35.5	18.0	9.0	9.3
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 35	5.0	21.0	31.3	12.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	2.4	26.1	2.4	2.8	26.9	11.1	6.5	3.0
Green Ext Time (p_c), s	0.0	4.2	0.0	0.1	2.9	0.2	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

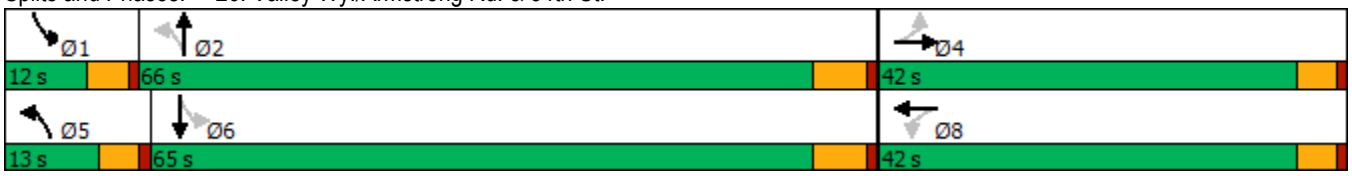
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	134	14	52	21	17	1843	10	868
Future Volume (vph)	134	14	52	21	17	1843	10	868
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	13.0	66.0	12.0	65.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	10.8%	55.0%	10.0%	54.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	14.8	14.8		14.8	67.9	65.8	66.9	63.9
Actuated g/C Ratio	0.16	0.16		0.16	0.73	0.71	0.72	0.69
v/c Ratio	0.64	0.08		0.36	0.04	0.77	0.06	0.40
Control Delay	49.6	24.2		35.8	4.3	13.1	4.9	8.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	49.6	24.2		35.8	4.3	13.1	4.9	8.0
LOS	D	C		D	A	B	A	A
Approach Delay		46.0		35.8		13.1		7.9
Approach LOS		D		D		B		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.8	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 72.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	14	9	52	21	11	17	1843	56	10	868	76
Future Volume (veh/h)	134	14	9	52	21	11	17	1843	56	10	868	76
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	14	7	54	22	8	18	1900	47	10	895	66
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	266	141	71	172	64	18	463	2506	62	187	2345	173
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.02	0.70	0.70	0.01	0.69	0.69
Sat Flow, veh/h	1401	1194	597	877	540	149	1810	3600	89	1810	3408	251
Grp Volume(v), veh/h	138	0	21	84	0	0	18	949	998	10	474	487
Grp Sat Flow(s),veh/h/ln	1401	0	1791	1566	0	0	1810	1805	1884	1810	1805	1855
Q Serve(g_s), s	3.0	0.0	0.9	3.1	0.0	0.0	0.3	29.1	29.6	0.1	9.6	9.6
Cycle Q Clear(g_c), s	7.2	0.0	0.9	4.2	0.0	0.0	0.3	29.1	29.6	0.1	9.6	9.6
Prop In Lane	1.00		0.33	0.64		0.10	1.00		0.05	1.00		0.14
Lane Grp Cap(c), veh/h	266	0	212	253	0	0	463	1256	1311	187	1242	1276
V/C Ratio(X)	0.52	0.00	0.10	0.33	0.00	0.00	0.04	0.75	0.76	0.05	0.38	0.38
Avail Cap(c_a), veh/h	706	0	774	734	0	0	602	1256	1311	319	1242	1276
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	0.0	34.0	35.4	0.0	0.0	4.3	8.4	8.5	9.0	5.7	5.7
Incr Delay (d2), s/veh	1.6	0.0	0.2	0.8	0.0	0.0	0.0	4.2	4.2	0.0	0.9	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	2.9	0.0	0.4	1.7	0.0	0.0	0.1	9.0	9.5	0.0	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	0.0	34.2	36.2	0.0	0.0	4.3	12.7	12.7	9.0	6.6	6.6
LnGrp LOS	D	A	C	D	A	A	A	B	B	A	A	A
Approach Vol, veh/h		159			84			1965			971	
Approach Delay, s/veh		37.7			36.2			12.6			6.6	
Approach LOS		D			D			B			A	

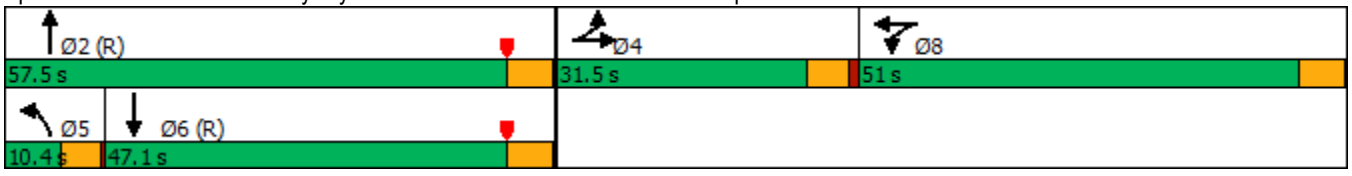
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	66.0		14.8	6.4	65.3		14.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	7.4	60.2		37.4	8.4	59.2		37.4				
Max Q Clear Time (g_c+I1), s	2.1	31.6		9.2	2.3	11.6		6.2				
Green Ext Time (p_c), s	0.0	17.6		0.5	0.0	6.6		0.5				

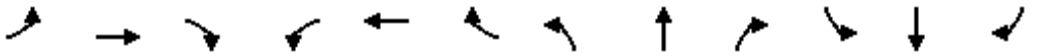
Intersection Summary			
HCM 6th Ctrl Delay		12.7	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	284	38	37	1262	784
Future Volume (vph)	0	284	38	37	1262	784
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	31.5	51.0	51.0	10.4	57.5	47.1
Total Split (%)	22.5%	36.4%	36.4%	7.4%	41.1%	33.6%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	26.1	45.7	45.7	5.8	52.2	43.9
Actuated g/C Ratio	0.19	0.33	0.33	0.04	0.37	0.31
v/c Ratio	0.99	0.51	1.07	0.53	0.99	0.76
Control Delay	104.6	41.8	95.4	89.5	64.2	48.9
Queue Delay	35.1	0.0	0.0	0.0	0.0	0.3
Total Delay	139.7	41.8	95.4	89.5	64.2	49.2
LOS	F	D	F	F	E	D
Approach Delay	139.7		77.9		64.9	49.2
Approach LOS	F		E		E	D

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 125	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 71.5	Intersection LOS: E
Intersection Capacity Utilization 102.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	0	92	284	38	551	37	1262	0	0	784	25
Future Volume (veh/h)	217	0	92	284	38	551	37	1262	0	0	784	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	228	0	97	299	40	486	39	1328	0	0	825	20
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	227	0	97	591	40	484	51	1346	0	0	1124	27
Arrive On Green	0.19	0.00	0.19	0.33	0.33	0.33	0.01	0.12	0.00	0.00	0.31	0.31
Sat Flow, veh/h	1219	0	519	1810	122	1483	1810	3705	0	0	3696	87
Grp Volume(v), veh/h	325	0	0	299	0	526	39	1328	0	0	414	431
Grp Sat Flow(s),veh/h/ln	1738	0	0	1810	0	1605	1810	1805	0	0	1805	1883
Q Serve(g_s), s	26.1	0.0	0.0	18.7	0.0	45.7	3.0	51.4	0.0	0.0	28.6	28.6
Cycle Q Clear(g_c), s	26.1	0.0	0.0	18.7	0.0	45.7	3.0	51.4	0.0	0.0	28.6	28.6
Prop In Lane	0.70		0.30	1.00		0.92	1.00		0.00	0.00		0.05
Lane Grp Cap(c), veh/h	324	0	0	591	0	524	51	1346	0	0	563	588
V/C Ratio(X)	1.00	0.00	0.00	0.51	0.00	1.00	0.77	0.99	0.00	0.00	0.73	0.73
Avail Cap(c_a), veh/h	324	0	0	591	0	524	75	1346	0	0	563	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.93	0.93	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh	57.0	0.0	0.0	38.0	0.0	47.2	68.9	61.0	0.0	0.0	43.0	43.0
Incr Delay (d2), s/veh	50.8	0.0	0.0	0.7	0.0	40.3	22.6	20.7	0.0	0.0	7.6	7.3
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	15.8	0.0	0.0	8.2	0.0	23.5	1.7	28.7	0.0	0.0	13.6	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.8	0.0	0.0	38.7	0.0	87.5	91.5	81.7	0.0	0.0	50.6	50.3
LnGrp LOS	F	A	A	D	A	F	F	F	A	A	D	D
Approach Vol, veh/h		325			825			1367			845	
Approach Delay, s/veh		107.8			69.8			82.0			50.5	
Approach LOS		F			E			F			D	

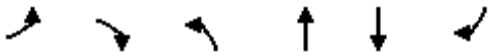
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		57.5		31.5	8.5	49.0		51.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		52.2		26.1	5.8	41.8		45.7				
Max Q Clear Time (g_c+I1), s		53.4		28.1	5.0	30.6		47.7				
Green Ext Time (p_c), s		0.0		0.0	0.0	2.4		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			73.6									
HCM 6th LOS			E									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	145	1299	939
Future Volume (vph)	145	1299	939
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	10.0	140.0	130.0
Total Split (%)	7.1%	100.0%	92.9%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	5.4	140.0	124.2
Actuated g/C Ratio	0.04	1.00	0.89
v/c Ratio	2.26	0.39	0.40
Control Delay	638.8	0.3	1.2
Queue Delay	0.0	8.8	0.0
Total Delay	638.8	9.1	1.2
LOS	F	A	A
Approach Delay		72.4	1.2
Approach LOS		E	A

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 134.2 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.26	
Intersection Signal Delay: 40.7	Intersection LOS: D
Intersection Capacity Utilization 49.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	145	1299	939	221
Future Volume (veh/h)	0	0	145	1299	939	221
Initial Q (Qb), veh			20	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.98
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			156	1397	1010	238
Peak Hour Factor			0.93	0.93	0.93	0.93
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			70	3460	2561	601
Arrive On Green			0.04	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2982	678
Grp Volume(v), veh/h			156	1397	630	618
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1760
Q Serve(g_s), s			5.4	3.7	0.0	0.0
Cycle Q Clear(g_c), s			5.4	3.7	0.0	0.0
Prop In Lane			1.00			0.39
Lane Grp Cap(c), veh/h			70	3460	1601	1561
V/C Ratio(X)			2.24	0.40	0.39	0.40
Avail Cap(c_a), veh/h			70	3460	1601	1561
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.54	0.54	0.66	0.66
Uniform Delay (d), s/veh			67.3	0.2	0.0	0.0
Incr Delay (d2), s/veh			579.9	0.2	0.5	0.5
Initial Q Delay(d3),s/veh			1031.6	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			33.7	0.1	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			1678.8	0.4	0.5	0.5
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				1553	1248	
Approach Delay, s/veh				169.0	0.5	
Approach LOS				F	A	

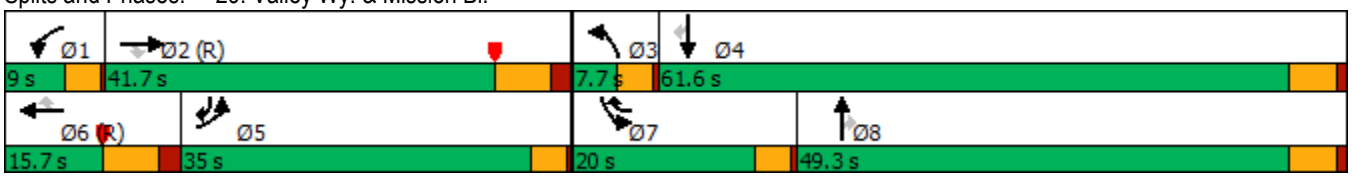
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			10.0	130.0
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			5.4	124.2
Max Q Clear Time (g_c+I1), s	5.7			7.4	2.0
Green Ext Time (p_c), s	14.6			0.0	10.6

Intersection Summary	
HCM 6th Ctrl Delay	93.9
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	761	736	48	62	160	416	11	330	77	369	364	207
Future Volume (vph)	761	736	48	62	160	416	11	330	77	369	364	207
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	35.0	41.7	41.7	9.0	15.7	20.0	7.7	49.3	49.3	20.0	61.6	35.0
Total Split (%)	29.2%	34.8%	34.8%	7.5%	13.1%	16.7%	6.4%	41.1%	41.1%	16.7%	51.3%	29.2%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	31.3	57.8	57.8	9.6	36.1	55.2	4.0	17.1	17.1	15.9	35.1	68.0
Actuated g/C Ratio	0.26	0.48	0.48	0.08	0.30	0.46	0.03	0.14	0.14	0.13	0.29	0.57
v/c Ratio	0.87	0.44	0.06	0.45	0.15	0.51	0.09	0.67	0.23	0.83	0.36	0.13
Control Delay	53.8	22.6	0.1	62.2	32.5	8.5	58.1	55.1	2.2	66.8	34.4	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	22.6	0.1	62.2	32.5	8.5	58.1	55.1	2.2	66.8	34.4	1.2
LOS	D	C	A	E	C	A	E	E	A	E	C	A
Approach Delay		37.2			19.7			45.5			39.8	
Approach LOS		D			B			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 35.7	Intersection LOS: D
Intersection Capacity Utilization 69.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	761	736	48	62	160	416	11	330	77	369	364	207
Future Volume (veh/h)	761	736	48	62	160	416	11	330	77	369	364	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	793	767	29	65	167	406	11	344	37	384	379	142
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	1628	1876	831	80	262	319	36	528	231	442	945	2051
Arrive On Green	0.46	0.52	0.52	0.04	0.07	0.07	0.01	0.15	0.15	0.13	0.26	0.26
Sat Flow, veh/h	3510	3610	1600	1810	3610	1610	3510	3610	1583	3510	3610	2812
Grp Volume(v), veh/h	793	767	29	65	167	406	11	344	37	384	379	142
Grp Sat Flow(s),veh/h/ln	1755	1805	1600	1810	1805	1610	1755	1805	1583	1755	1805	1406
Q Serve(g_s), s	18.8	15.6	1.1	4.3	5.4	6.1	0.4	10.8	2.5	12.9	10.4	0.3
Cycle Q Clear(g_c), s	18.8	15.6	1.1	4.3	5.4	6.1	0.4	10.8	2.5	12.9	10.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1628	1876	831	80	262	319	36	528	231	442	945	2051
V/C Ratio(X)	0.49	0.41	0.03	0.81	0.64	1.27	0.31	0.65	0.16	0.87	0.40	0.07
Avail Cap(c_a), veh/h	1628	1876	831	80	262	319	117	1324	580	477	1694	2634
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)	0.73	0.73	0.73	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	22.3	17.6	14.1	56.9	54.1	23.5	59.0	48.4	44.8	51.5	36.5	1.2
Incr Delay (d2), s/veh	0.1	0.5	0.1	42.7	11.3	144.4	1.8	1.4	0.3	14.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	6.2	0.4	2.9	2.8	18.5	0.2	4.9	1.0	6.4	4.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	18.1	14.2	99.6	65.5	167.9	60.7	49.7	45.1	65.5	36.8	1.2
LnGrp LOS	C	B	B	F	E	F	E	D	D	E	D	A
Approach Vol, veh/h		1589			638			392			905	
Approach Delay, s/veh		20.1			134.1			49.6			43.4	
Approach LOS		C			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	69.4	4.9	36.7	62.7	15.7	18.8	22.8
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	5.3	34.7	4.0	56.3	31.3	* 8.7	16.3	44.0
Max Q Clear Time (g_c+I1), s	6.3	17.6	2.4	12.4	20.8	8.1	14.9	12.8
Green Ext Time (p_c), s	0.0	6.2	0.0	3.0	1.3	0.3	0.2	2.4

Intersection Summary	
HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

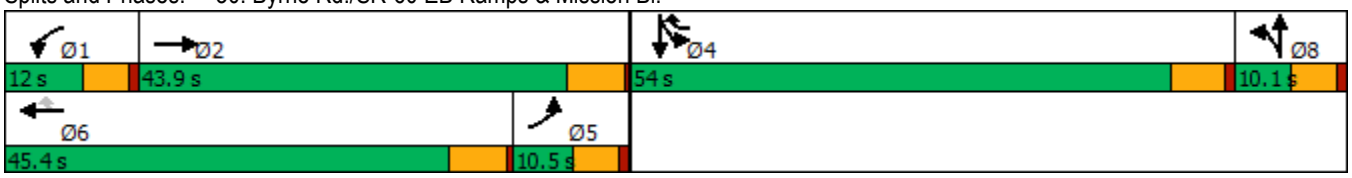
Notes

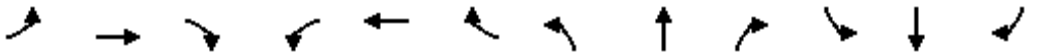
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	448	6	290	88	1	1165	6
Future Volume (vph)	63	448	6	290	88	1	1165	6
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	10.5	43.9	12.0	45.4	54.0	10.1	54.0	54.0
Total Split (%)	8.8%	36.6%	10.0%	37.8%	45.0%	8.4%	45.0%	45.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	None	None	None	None	None
Act Effct Green (s)	22.1	38.5	6.0	13.2	65.2	5.0	47.2	47.2
Actuated g/C Ratio	0.22	0.38	0.06	0.13	0.65	0.05	0.47	0.47
v/c Ratio	0.17	0.35	0.06	0.64	0.09	0.13	0.84	0.82
Control Delay	36.0	24.6	50.0	48.9	1.5	42.5	36.1	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	24.6	50.0	48.9	1.5	42.5	36.1	34.3
LOS	D	C	D	D	A	D	D	C
Approach Delay		26.0		38.0		42.5		35.2
Approach LOS		C		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 33.6	Intersection LOS: C
Intersection Capacity Utilization 72.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	448	8	6	290	88	6	1	5	1165	6	89
Future Volume (veh/h)	63	448	8	6	290	88	6	1	5	1165	6	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	472	7	6	305	34	6	1	5	1298	0	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	469	1348	20	14	407	822	12	2	10	1439	756	0
Arrive On Green	0.26	0.37	0.37	0.01	0.11	0.11	0.01	0.01	0.01	0.40	0.00	0.00
Sat Flow, veh/h	1810	3640	54	1810	3610	1610	864	144	720	3619	1900	0
Grp Volume(v), veh/h	66	234	245	6	305	34	12	0	0	1298	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1889	1810	1805	1610	1727	0	0	1810	1900	0
Q Serve(g_s), s	2.9	9.7	9.7	0.3	8.4	1.1	0.7	0.0	0.0	34.8	0.0	0.0
Cycle Q Clear(g_c), s	2.9	9.7	9.7	0.3	8.4	1.1	0.7	0.0	0.0	34.8	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.50		0.42	1.00		0.00
Lane Grp Cap(c), veh/h	469	668	699	14	407	822	24	0	0	1439	756	0
V/C Ratio(X)	0.14	0.35	0.35	0.43	0.75	0.04	0.49	0.00	0.00	0.90	0.00	0.00
Avail Cap(c_a), veh/h	469	668	699	121	1389	1260	84	0	0	1691	888	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	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.4	23.5	23.5	51.0	44.4	12.6	50.5	0.0	0.0	29.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.4	1.4	19.9	1.1	0.0	5.6	0.0	0.0	6.4	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	1.2	4.2	4.3	0.2	3.7	0.8	0.3	0.0	0.0	15.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	24.9	24.9	70.9	45.4	12.6	56.1	0.0	0.0	35.6	0.0	0.0
LnGrp LOS	C	C	C	E	D	B	E	A	A	D	A	A
Approach Vol, veh/h		545			345			12			1298	
Approach Delay, s/veh		25.5			42.6			56.1			35.6	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	43.9		46.8	32.5	17.3		6.6				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	6.9	38.2		48.2	5.4	* 40		5.0				
Max Q Clear Time (g_c+I1), s	2.3	11.7		36.8	4.9	10.4		2.7				
Green Ext Time (p_c), s	0.0	1.5		4.3	0.0	1.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		34.3
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 3.3:

EXISTING (2019) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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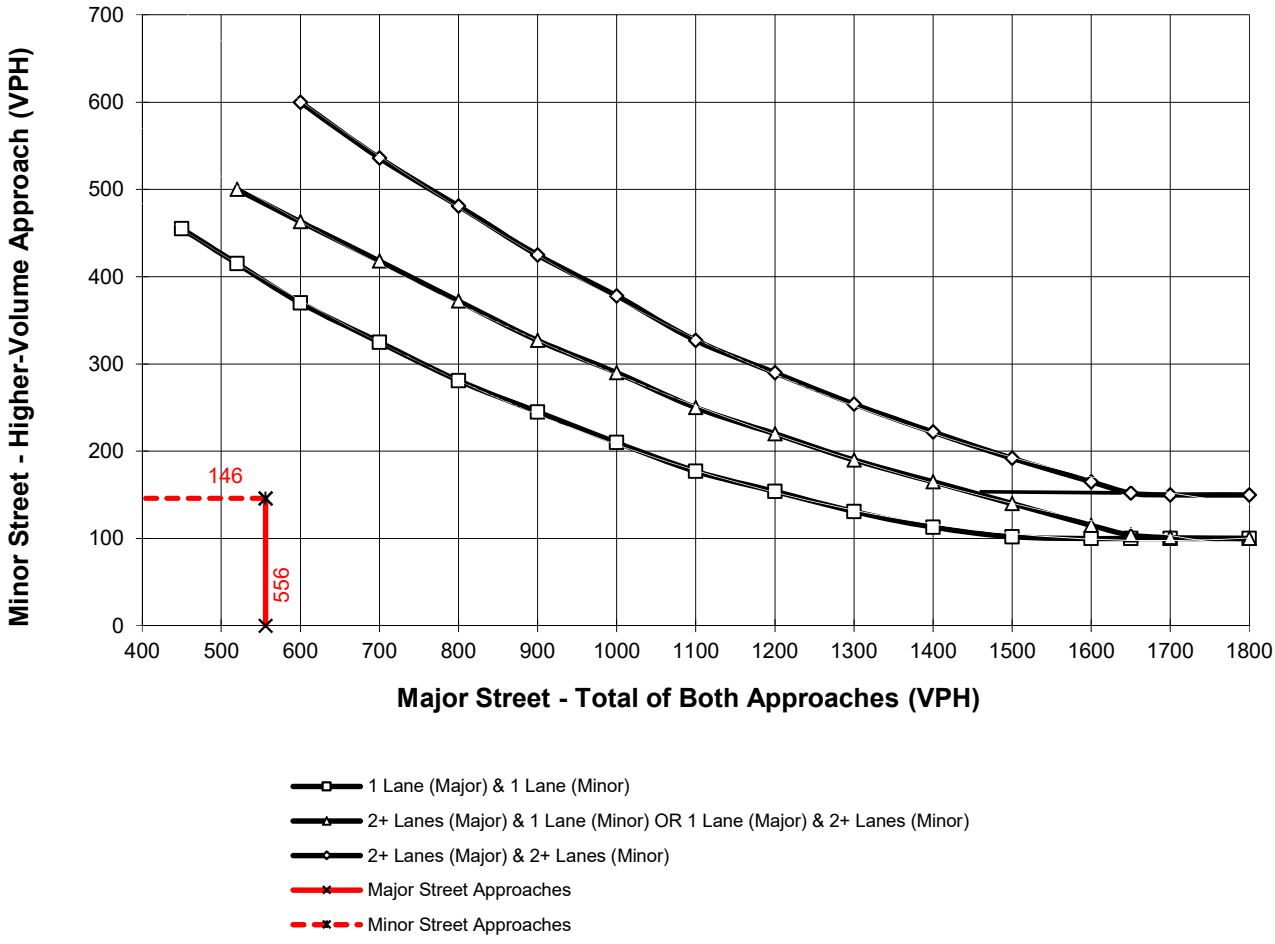
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2019) Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av**
Total of Both Approaches (VPH) = **556**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Juniper Av**
High Volume Approach (VPH) = **146**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 3.4:

EXISTING (2019) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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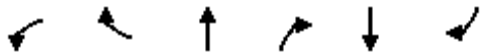
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	522	515	856	374	1230	577
v/c Ratio	0.85	0.49	0.29	0.36	0.60	0.36
Control Delay	43.1	18.0	15.0	6.3	17.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	18.0	15.0	6.3	17.0	0.6
Queue Length 50th (ft)	303	96	108	33	256	0
Queue Length 95th (ft)	380	127	141	99	393	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	794	1318	2945	1053	2049	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.39	0.29	0.36	0.60	0.36

Intersection Summary

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	386	341	1258	710	1080
v/c Ratio	0.56	0.83	0.59	0.84	0.43
Control Delay	38.5	42.6	23.0	43.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	38.5	42.6	23.0	43.7	5.8
Queue Length 50th (ft)	114	142	204	174	115
Queue Length 95th (ft)	147	228	299	289	125
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	945	519	2146	980	2539
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.41	0.66	0.59	0.72	0.43

Intersection Summary



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	275	506	1227	349	889	494
v/c Ratio	0.72	0.79	0.34	0.29	0.35	0.31
Control Delay	47.1	41.1	9.4	4.1	7.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	41.1	9.4	4.1	7.1	0.5
Queue Length 50th (ft)	164	148	90	0	104	0
Queue Length 95th (ft)	233	196	247	97	169	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	703	1128	3620	1199	2519	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.45	0.34	0.29	0.35	0.31

Intersection Summary

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	474	232	1618	490	663
v/c Ratio	0.77	0.49	0.64	0.78	0.25
Control Delay	47.7	9.5	18.6	41.5	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	9.5	18.6	41.5	6.8
Queue Length 50th (ft)	149	6	241	159	106
Queue Length 95th (ft)	196	67	338	208	151
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	735	516	2542	770	2611
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.45	0.64	0.64	0.25

Intersection Summary

APPENDIX 3.5:

EXISTING (2019) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	WB E of Citrus	1740	5
2	Diverge	Basic	WB Off-Ramp	1500	5
3	Basic	Basic	Between Off and Loop On Ramp	1215	4
4	Merge	Merge	WB Loop On-Ramp	1500	4
5	Basic	Basic	Between On Ramps	1450	4
6	Merge	Merge	WB On Ramp	1500	4
7	Basic	Basic	WB W of Citrus	6460	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7467	11000	0.68	48.2	31.0	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.926	7467	1012	11000	2100	0.68	0.48	50.0	-	29.9	-	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6442	8800	0.73	48.2	33.4	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.893	6795	353	9000	1900	0.76	0.19	45.7	47.0	37.2	26.2	C

Segment 5: Basic

Time	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

Period			(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
1	0.92	0.980	6764		8800		0.77		48.2		35.1		E

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	7347	583	9000	2100	0.82	0.28	45.6	47.0	40.3	27.8	C

Segment 7: Basic

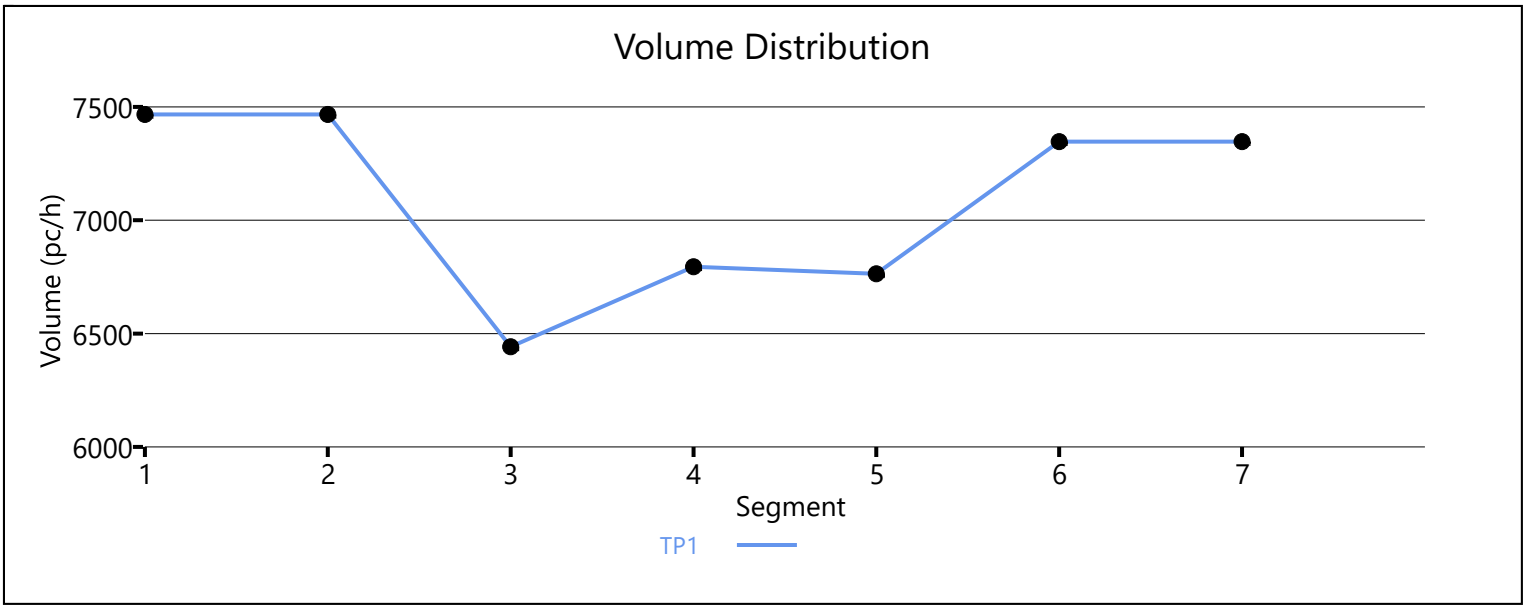
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7347	8800	0.83	48.2	38.1	E

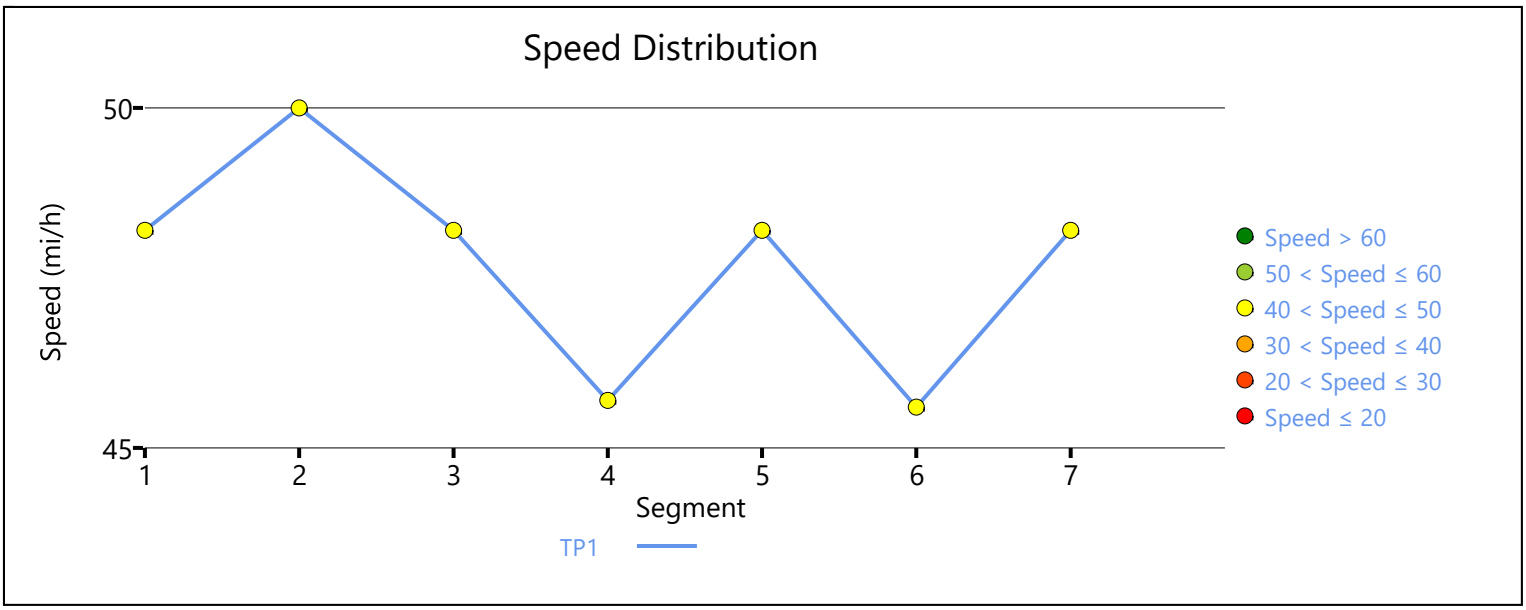
Facility Time Period Results

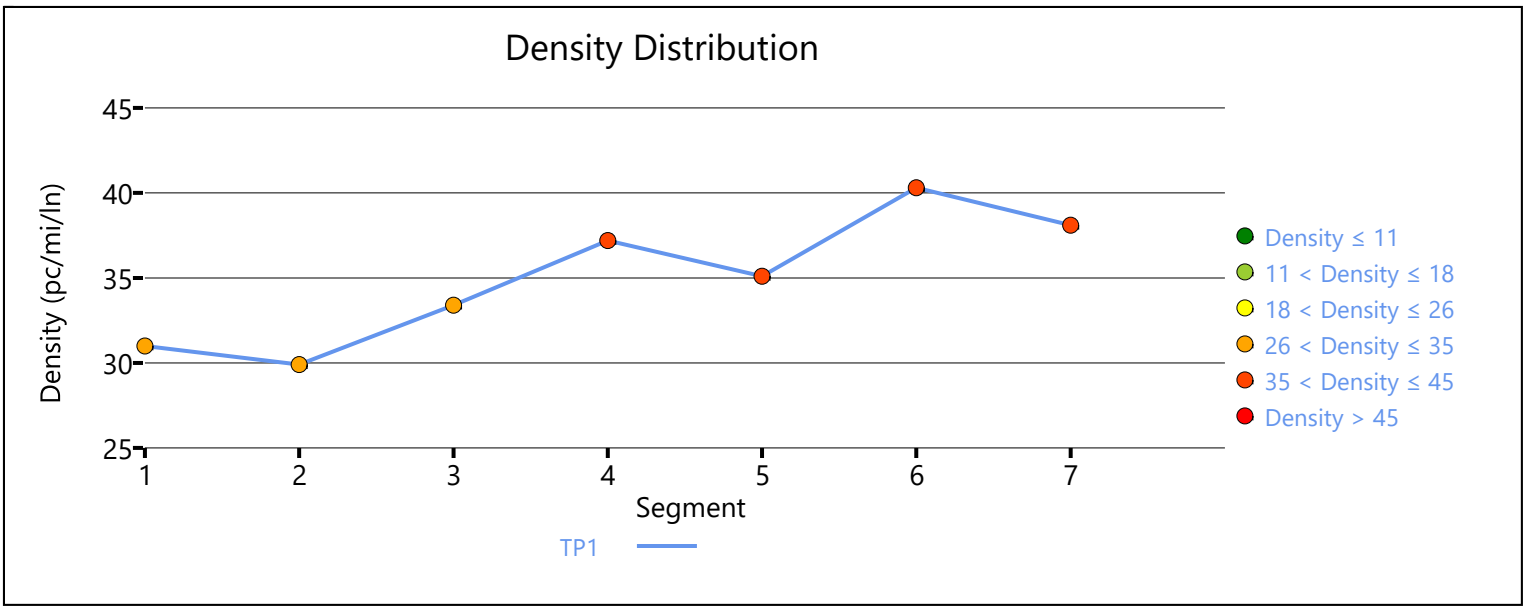
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	47.9	35.7	34.9	3.6	E

Facility Overall Results

Space Mean Speed, mi/h	47.9	Density, veh/mi/ln	34.9
Average Travel Time, min	3.6	Density, pc/mi/ln	35.7







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HCS7 Basic Freeway Report

Project Information

Analyst	CS	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6712	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1875
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

Analyst	CS	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6225	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1338
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	74.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6543	11685	0.56	63.7	20.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.909	6543	691	11750	2100	0.56	0.33	65.0	-	20.1	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	5842	9348	0.62	63.7	22.9	C

Segment 4: Merge

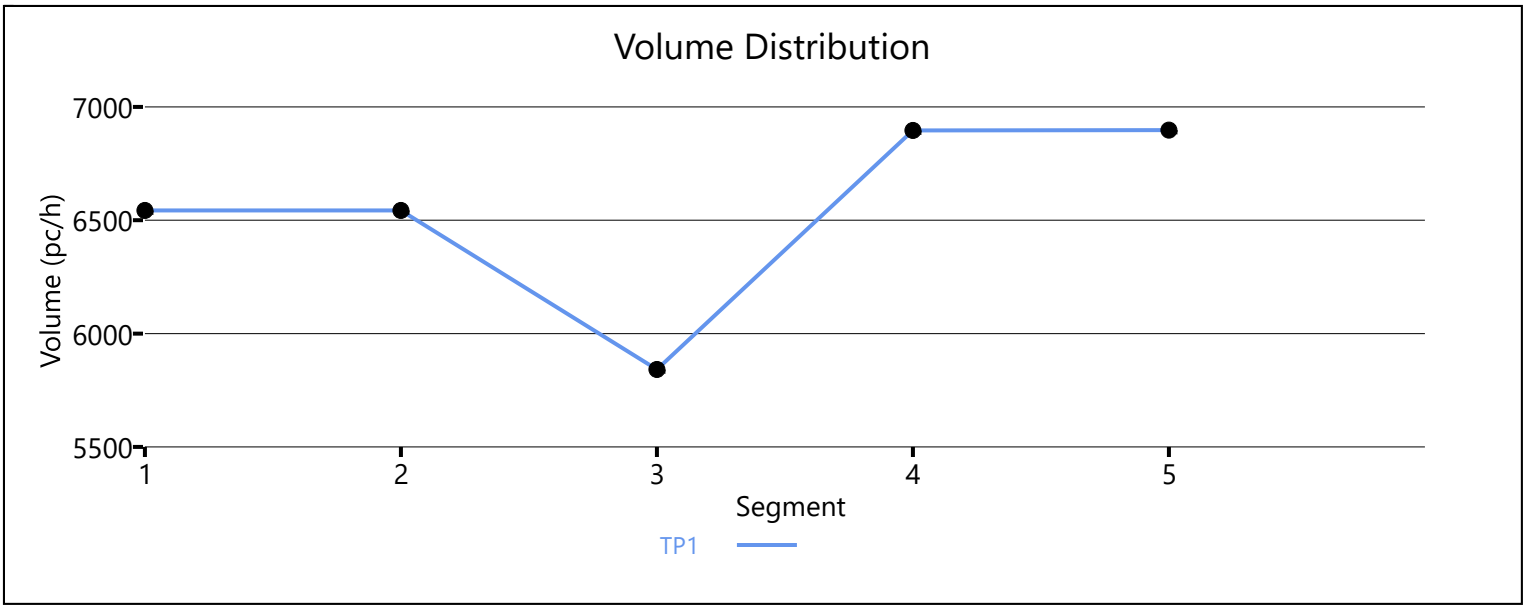
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.926	6896	1054	9400	2100	0.62	0.50	64.9	-	22.5	-	C

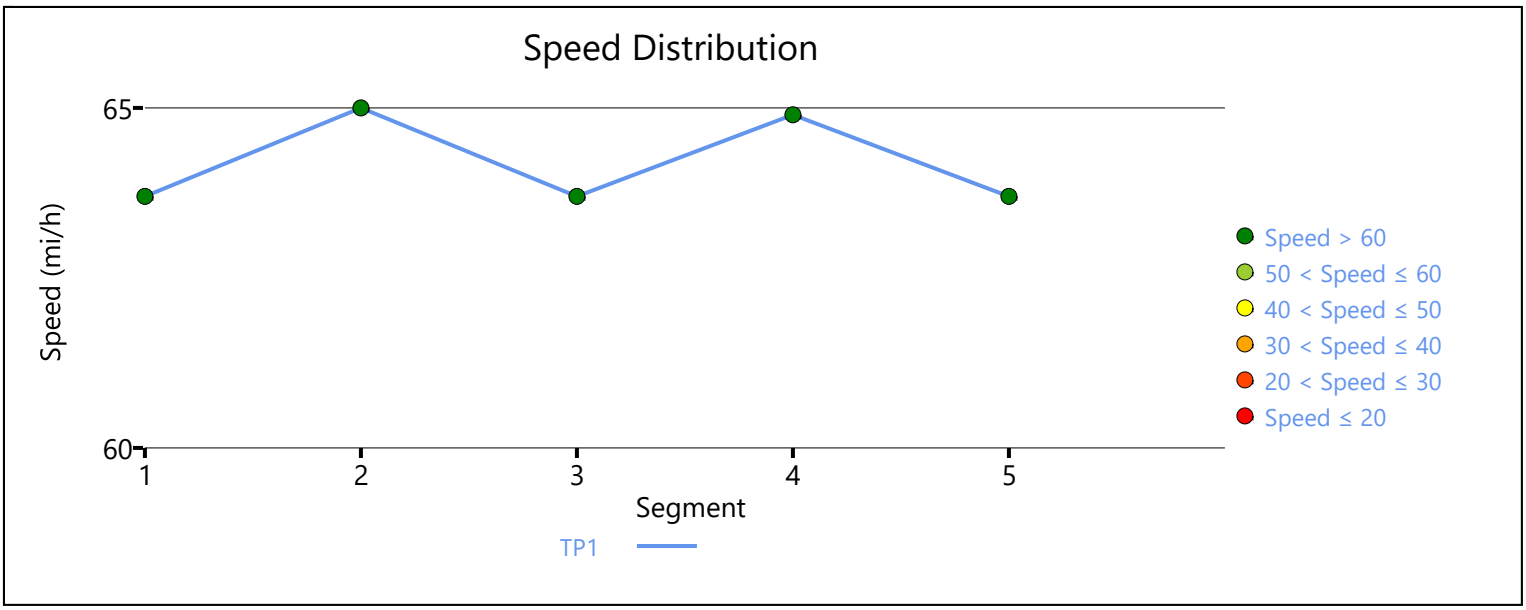
Segment 5: Basic

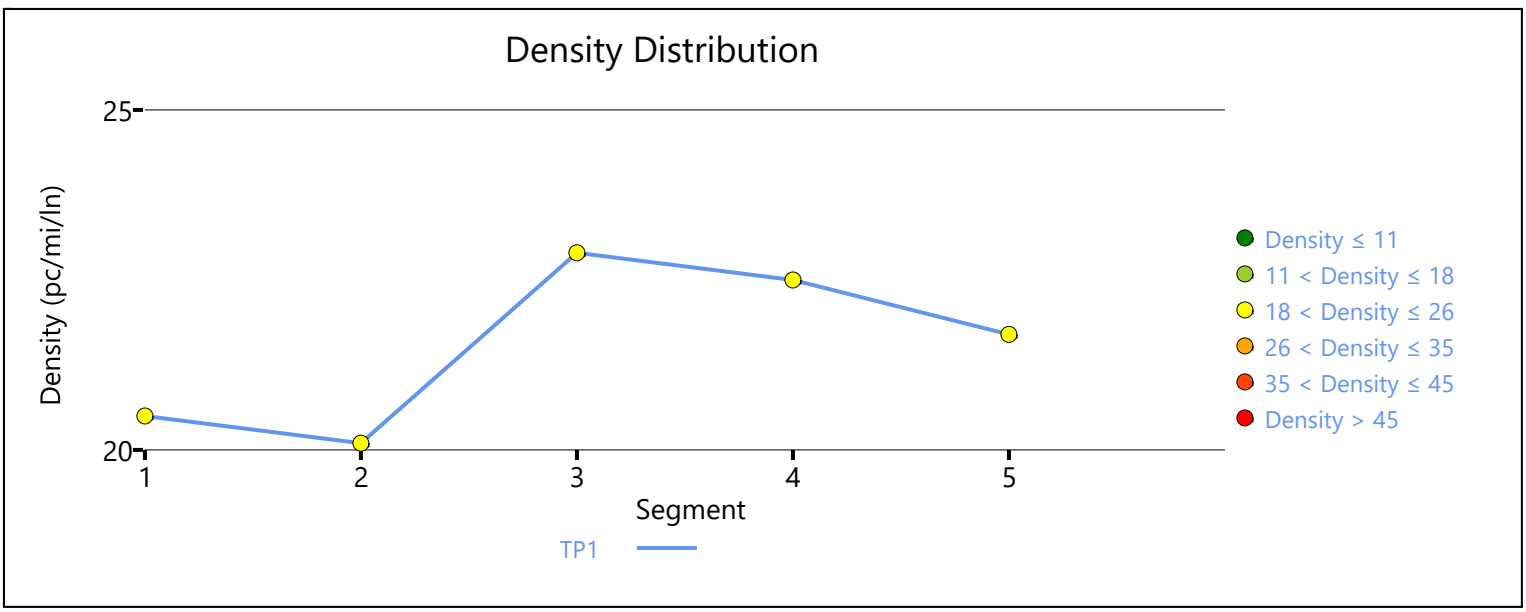
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6898	11685	0.59	63.7	21.7	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	64.0	21.1	20.8	2.7	C

Facility Overall Results			
Space Mean Speed, mi/h	64.0	Density, veh/mi/ln	20.8
Average Travel Time, min	2.7	Density, pc/mi/ln	21.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	GP Lane, ft	ML Type	ML Lanes
1	Basic	Basic	WB E of Citrus	1740	5	Continuous Access	1
2	Diverge	Basic	WB Off-Ramp	1500	5	Continuous Access	1
3	Basic	Basic	Between Off and Loop On Ramp	1215	4	Continuous Access	1
4	Merge	Merge	WB Loop On-Ramp	1500	4	Continuous Access	1
5	Basic	Basic	Between On Ramps	1450	4	Continuous Access	1
6	Merge	Merge	WB On Ramp	1500	4	Continuous Access	1
7	Basic	Basic	WB W of Citrus	6460	4	Continuous Access	1

Facility Segment Data

Segment 1: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6837	11660	0.59	63.2	21.6	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 2: Diverge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	6837	770	11750	2100	0.58	0.37	65.0	-	21.0	-	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 3: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6060	9328	0.65	63.2	24.0	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 4: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	6405	345	9400	1900	0.68	0.18	58.6	56.6	27.3	24.9	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 5: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6449	9328	0.69	62.9	25.6	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 6: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	6955	506	9400	2100	0.74	0.24	58.4	56.7	29.8	26.3	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 7: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6959	9328	0.75	62.1	28.0	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

General Purpose Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.9	25.9	25.2	2.8	C

Managed Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	75.4	0.0	0.0	2.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.9	20.9	20.4	2.8	C

General Purpos Lane Overall Results

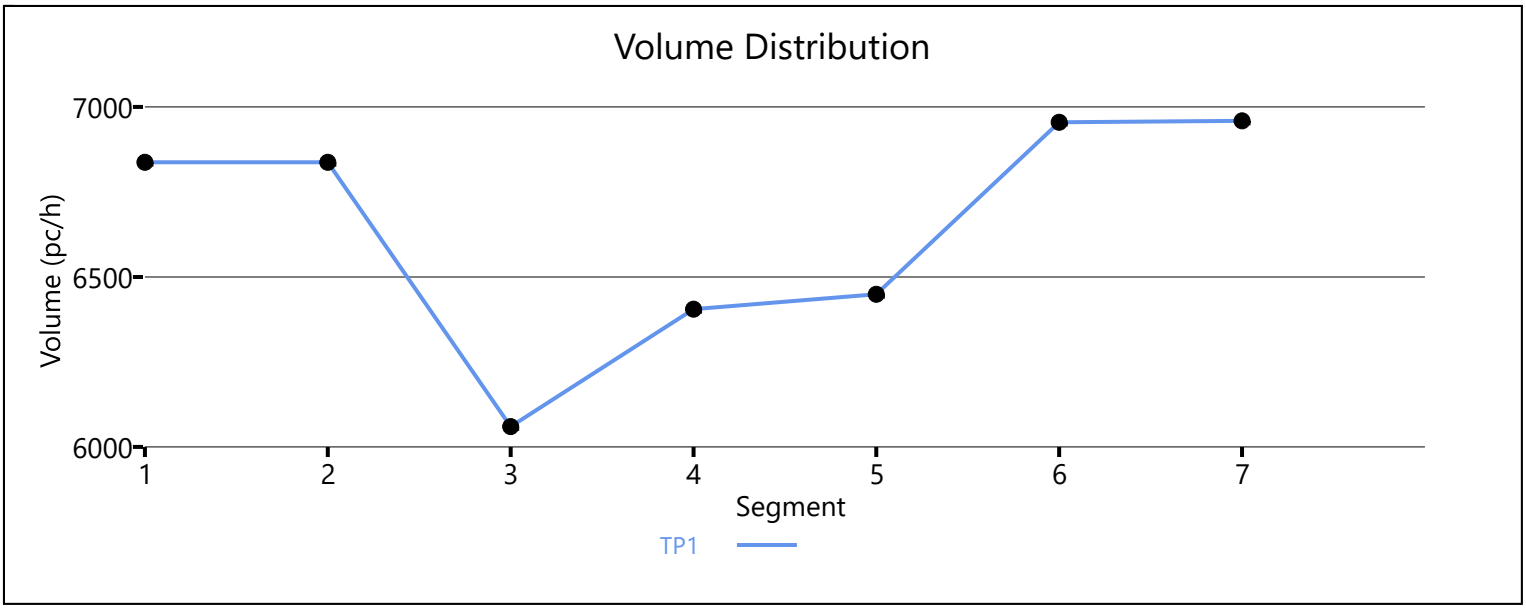
Space Mean Speed, mi/h	61.9	Density, veh/mi/ln	25.2
Average Travel Time, min	2.8	Density, pc/mi/ln	25.9

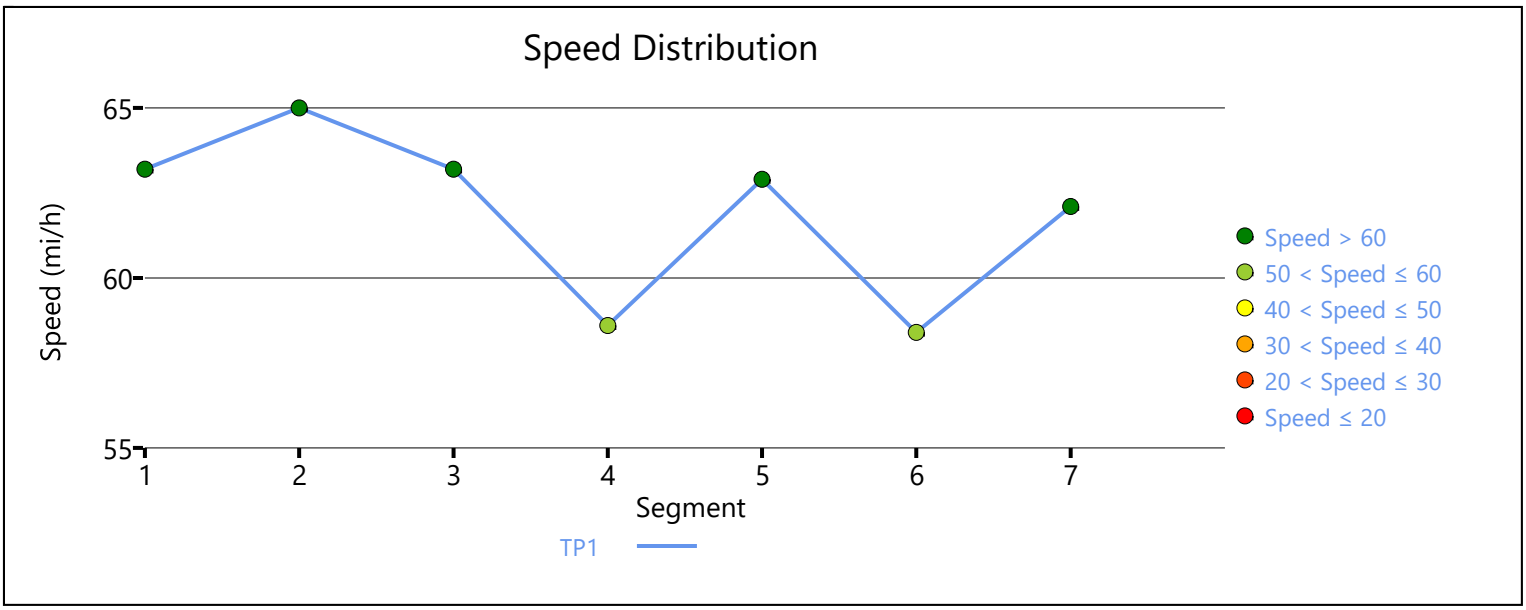
Managed Lane Overall Results

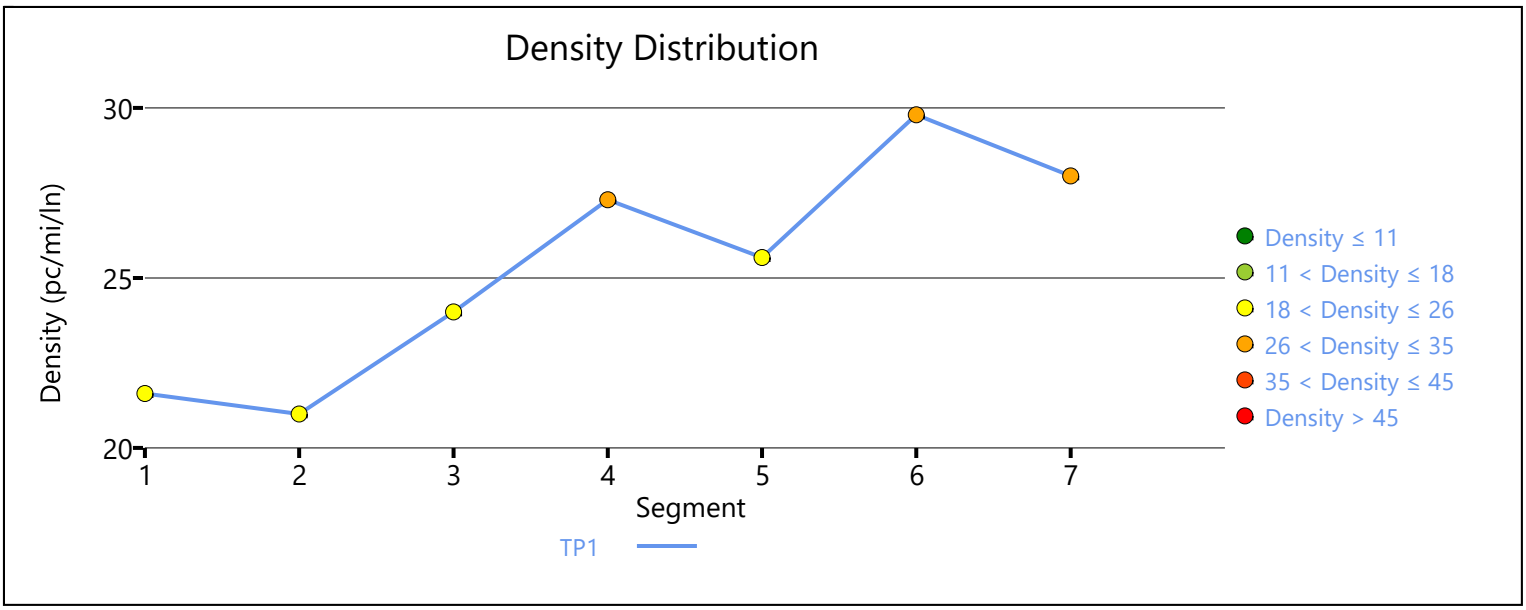
Space Mean Speed, mi/h	75.4	Density, veh/mi/ln	0.0
Average Travel Time, min	2.3	Density, pc/mi/ln	0.0

Facility Overall Results

Space Mean Speed, mi/h	61.9	Density, veh/mi/ln	20.4
Average Travel Time, min	2.8	Density, pc/mi/ln	20.9







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HCS7 Basic Freeway Report

Project Information

Analyst	CS	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6069	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1662
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.69
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	23.6
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

Analyst	CS	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5314	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1142
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.48
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	75.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6384	11185	0.57	53.7	23.8	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.962	6384	721	11250	2100	0.57	0.34	55.0	-	23.2	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	5677	8948	0.63	53.7	26.4	D

Segment 4: Merge

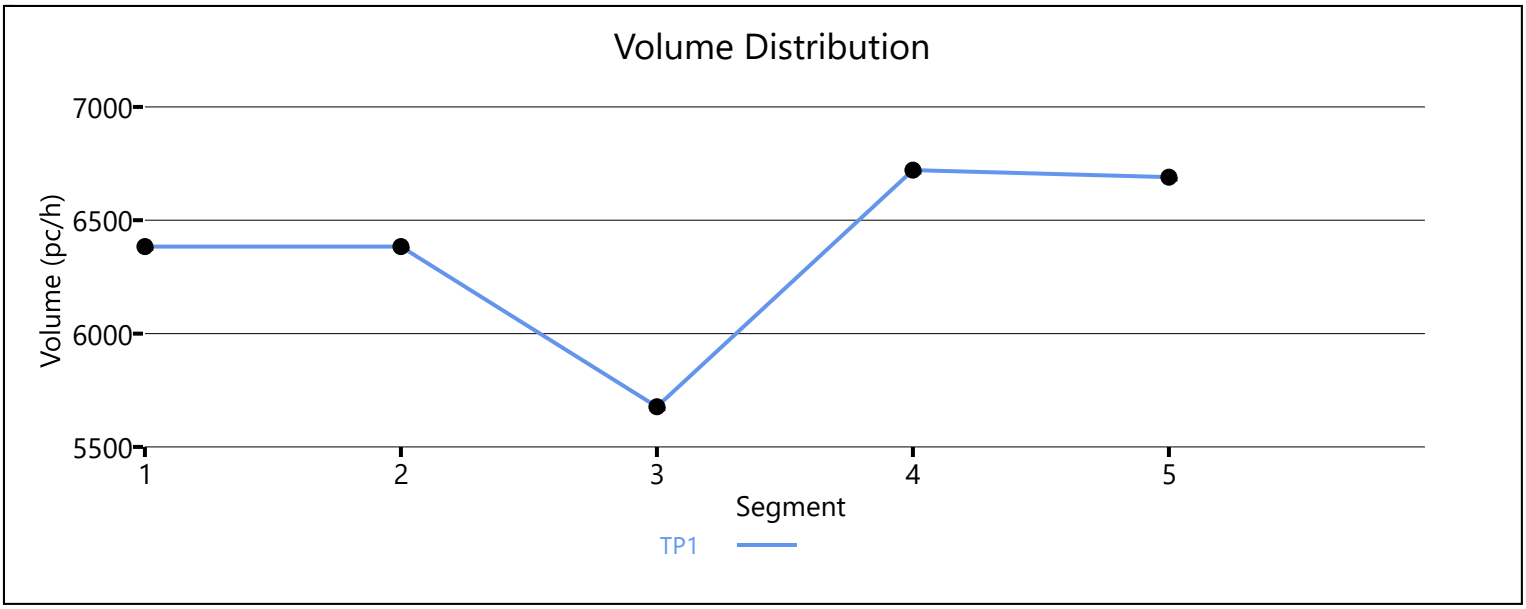
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	6721	1044	9000	2100	0.63	0.50	55.0	-	25.8	-	C

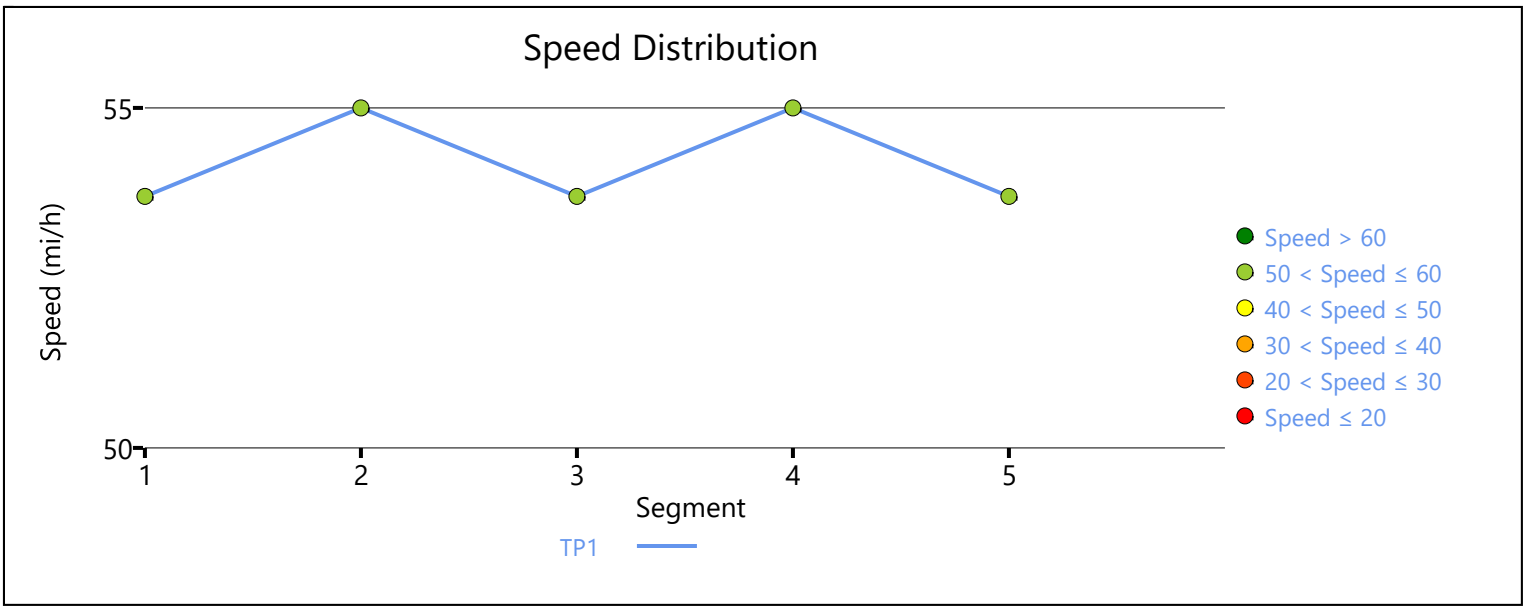
Segment 5: Basic

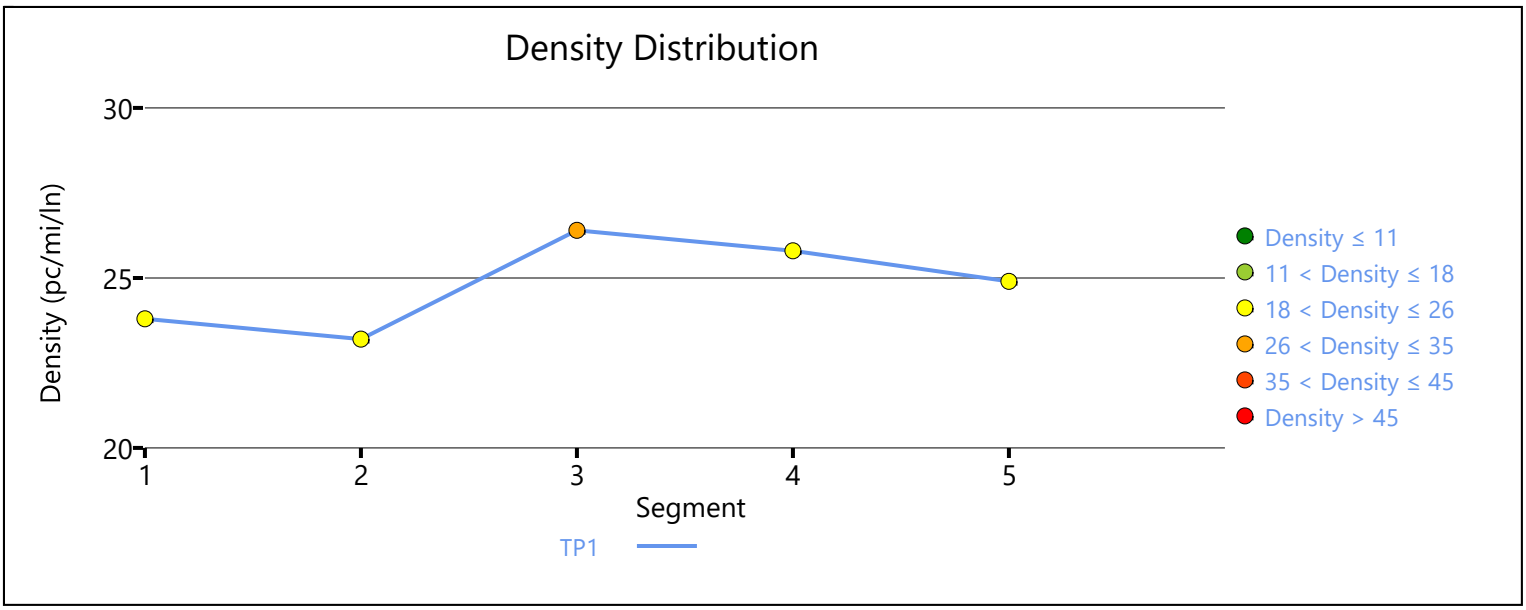
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6690	11185	0.60	53.7	24.9	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	54.0	24.4	23.9	3.2	C

Facility Overall Results			
Space Mean Speed, mi/h	54.0	Density, veh/mi/ln	23.9
Average Travel Time, min	3.2	Density, pc/mi/ln	24.4







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APPENDIX 4.1:

POST PROCESSING WORKSHEETS

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Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Cherry Avenue & Jurupa Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	261	298	38	14%	57	74	17	30%
	Through	457	482	26	6%	315	339	24	8%
	Right	48	40	-8	-17%	57	46	-11	-19%
	NB Total	765	820	55	7%	429	459	30	7%
SOUTH BOUND	Left	83	99	17	20%	179	170	-9	-5%
	Through	283	332	49	17%	447	463	16	4%
	Right	256	419	163	64%	222	337	115	52%
	SB Total	622	850	229	37%	848	970	122	14%
EAST BOUND	Left	218	276	59	27%	319	504	186	58%
	Through	345	350	6	2%	936	1,117	181	19%
	Right	145	143	-2	-1%	122	158	37	30%
	EB Total	707	769	62	9%	1,376	1,779	403	29%
WEST BOUND	Left	40	35	-5	-13%	54	41	-13	-24%
	Through	681	823	142	21%	400	441	42	10%
	Right	128	142	15	11%	109	99	-10	-9%
	WB Total	849	1,000	152	18%	562	581	19	3%
TOTAL ENTERING VOLUME		2,942	3,439	497	17%	3,215	3,789	574	18%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	850	970			
North Leg	Outbound	900	942			
North Leg	**TOTAL**	**1,750**	**1,912**	**7%**	**8%**	**25,453**
South Leg	Inbound	820	459			
South Leg	Outbound	510	662			
South Leg	**TOTAL**	**1,330**	**1,121**	**10%**	**8%**	**13,740**
East Leg	Inbound	1,000	581			
East Leg	Outbound	489	1,333			
East Leg	**TOTAL**	**1,489**	**1,914**	**8%**	**11%**	**18,004**
West Leg	Inbound	769	1,779			
West Leg	Outbound	1,540	852			
West Leg	**TOTAL**	**2,309**	**2,631**	**13%**	**15%**	**18,027**
OVERALL TOTAL		***6,878***	***7,578***	**9%**	***10%***	***75,224***

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Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Beech Avenue & Jurupa Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	222	243	21	9%	89	66	-23	-26%
	Through	84	98	14	17%	36	49	13	36%
	Right	12	18	6	50%	19	25	6	32%
	NB Total	318	359	41	13%	144	140	-4	-3%
SOUTH BOUND	Left	12	26	14	117%	41	86	46	112%
	Through	3	6	3	100%	36	61	25	69%
	Right	49	78	29	59%	76	92	16	21%
	SB Total	64	110	46	72%	153	239	87	57%
EAST BOUND	Left	97	85	-12	-12%	155	186	32	20%
	Through	269	298	30	11%	1,083	1,260	178	16%
	Right	30	29	-1	-3%	199	185	-14	-7%
	EB Total	396	412	17	4%	1,436	1,631	195	14%
WEST BOUND	Left	4	6	2	50%	23	35	12	52%
	Through	500	624	124	25%	468	508	40	9%
	Right	51	68	17	33%	19	38	19	100%
	WB Total	555	698	143	26%	510	581	71	14%
TOTAL ENTERING VOLUME		1,333	1,579	246.5	18%	2,243	2,591	349	16%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	110	239			
North Leg	Outbound	251	273			
North Leg	**TOTAL**	**361**	**512**	**21%**	**29%**	**1,741**
South Leg	Inbound	359	140			
South Leg	Outbound	41	281			
South Leg	**TOTAL**	**400**	**421**	**5%**	**5%**	**8,788**
East Leg	Inbound	698	581			
East Leg	Outbound	342	1,371			
East Leg	**TOTAL**	**1,040**	**1,952**	**13%**	**25%**	**7,817**
West Leg	Inbound	412	1,631			
West Leg	Outbound	945	666			
West Leg	**TOTAL**	**1,357**	**2,297**	**9%**	**15%**	**15,120**
OVERALL TOTAL		***3,158***	***5,182***	**9%**	***15%***	***33,466***

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Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Poplar Avenue & Jurupa Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	116	93	-23	-20%	49	34	-15	-31%
	Through	71	69	-2	-3%	36	36	0	0%
	Right	134	183	49	37%	95	131	36	38%
	NB Total	321	345	24	7%	180	201	21	12%
SOUTH BOUND	Left	7	13	6	86%	48	65	17	35%
	Through	32	37	5	16%	83	69	-14	-17%
	Right	37	40	3	8%	52	36	-16	-31%
	SB Total	76	90	14	18%	183	170	-13	-7%
EAST BOUND	Left	60	49	-11	-18%	44	39	-5	-10%
	Through	444	524	80	18%	1,102	1,364	263	24%
	Right	40	30	-10	-25%	77	58	-19	-25%
	EB Total	544	603	60	11%	1,222	1,461	239	20%
WEST BOUND	Left	76	103	27	36%	127	193	66	52%
	Through	603	767	165	27%	420	530	111	26%
	Right	34	52	18	53%	25	45	20	80%
	WB Total	713	922	210	29%	572	768	197	34%
TOTAL ENTERING VOLUME		1,653	1,960	307	19%	2,157	2,600	444	21%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	90	170			
North Leg	Outbound	170	120			
North Leg	**TOTAL**	**260**	**290**	**13%**	**14%**	**2,063**
South Leg	Inbound	345	201			
South Leg	Outbound	170	320			
South Leg	**TOTAL**	**515**	**521**	**12%**	**13%**	**4,130**
East Leg	Inbound	922	768			
East Leg	Outbound	720	1,560			
East Leg	**TOTAL**	**1,642**	**2,328**	**13%**	**19%**	**12,391**
West Leg	Inbound	603	1,461			
West Leg	Outbound	900	600			
West Leg	**TOTAL**	**1,503**	**2,061**	**19%**	**26%**	**7,817**
OVERALL TOTAL		***3,920***	***5,200***	**15%**	***20%***	***26,401***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[03 Poplar_Jurupa.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Citrus Avenue & I-10 Westbound Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	352	468	116	33%	332	413	81	24%
	Through	805	811	7	1%	1,166	1,255	90	8%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	1,157	1,279	123	11%	1,498	1,668	171	11%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,156	1,276	121	10%	845	895	50	6%
	Right	542	594	53	10%	469	437	-32	-7%
	SB Total	1,697	1,870	173	10%	1,314	1,332	18	1%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	491	568	78	16%	261	345	85	32%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	484	422	-62	-13%	481	485	4	1%
	WB Total	975	990	16	2%	742	830	89	12%
TOTAL ENTERING VOLUME		3,828	4,139	311	8%	3,553	3,830	277	8%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,870	1,332			
North Leg	Outbound	1,233	1,740			
North Leg	**TOTAL**	**3,103**	**3,072**	**10%**	**10%**	**30,956**
South Leg	Inbound	1,279	1,668			
South Leg	Outbound	1,844	1,240			
South Leg	**TOTAL**	**3,123**	**2,908**	**11%**	**10%**	**28,023**
East Leg	Inbound	990	830			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**990**	**830**	**11%**	**10%**	**8,681**
West Leg	Inbound	0	0			
West Leg	Outbound	1,062	850			
West Leg	**TOTAL**	**1,062**	**850**	**9%**	**7%**	**12,382**
OVERALL TOTAL		***8,278***	***7,660***	**10%**	***10%***	***80,042***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[04 Citrus_I-10 WB.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Citrus Avenue & I-10 Eastbound Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	802	948	146	18%	1,042	1,185	143	14%
	Right	355	412	58	16%	512	529	18	3%
	NB Total	1,157	1,360	204	18%	1,554	1,714	161	10%
SOUTH BOUND	Left	653	712	60	9%	470	451	-19	-4%
	Through	994	1,128	135	14%	636	793	157	25%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	1,646	1,840	194	12%	1,106	1,244	139	13%
EAST BOUND	Left	355	352	-3	-1%	455	485	30	7%
	Through	4	4	0	0%	11	11	0	0%
	Right	310	314	5	1%	212	267	55	26%
	EB Total	668	670	2	0%	678	763	85	13%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		3,471	3,870	399.5	12%	3,337	3,721	384	12%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,840	1,244			
North Leg	Outbound	1,300	1,670			
North Leg	**TOTAL**	**3,140**	**2,914**	**11%**	**10%**	**28,023**
South Leg	Inbound	1,360	1,714			
South Leg	Outbound	1,442	1,060			
South Leg	**TOTAL**	**2,802**	**2,774**	**12%**	**12%**	**23,468**
East Leg	Inbound	0	0			
East Leg	Outbound	1,128	991			
East Leg	**TOTAL**	**1,128**	**991**	**14%**	**12%**	**8,297**
West Leg	Inbound	670	763			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**670**	**763**	**8%**	**9%**	**8,894**
OVERALL TOTAL		***7,740***	***7,442***	**11%**	***11%***	***68,682***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[05 Citrus_I-10 EB.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Citrus Avenue & Slover Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	41	32	-9	-22%	29	21	-8	-28%
	Through	634	751	117	18%	666	763	97	15%
	Right	47	83	36	77%	102	157	56	55%
	NB Total	722	866	144	20%	797	941	145	18%
SOUTH BOUND	Left	201	380	180	90%	221	387	167	76%
	Through	453	491	39	9%	330	421	91	28%
	Right	592	495	-97	-16%	273	222	-51	-19%
	SB Total	1,245	1,366	122	10%	824	1,030	207	25%
EAST BOUND	Left	280	222	-58	-21%	631	522	-109	-17%
	Through	183	217	35	19%	831	926	96	11%
	Right	20	14	-6	-30%	27	22	-5	-19%
	EB Total	482	453	-29	-6%	1,488	1,470	-18	-1%
WEST BOUND	Left	94	136	42	45%	64	117	54	84%
	Through	460	513	54	12%	253	298	45	18%
	Right	199	337	138	69%	194	365	172	89%
	WB Total	753	986	234	31%	510	780	270	53%
TOTAL ENTERING VOLUME		3,201	3,671	470	15%	3,618	4,221	603	17%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,366	1,030			
North Leg	Outbound	1,310	1,650			
North Leg	**TOTAL**	**2,676**	**2,680**	**11%**	**11%**	**23,468**
South Leg	Inbound	866	941			
South Leg	Outbound	641	560			
South Leg	**TOTAL**	**1,507**	**1,501**	**16%**	**16%**	**9,254**
East Leg	Inbound	986	780			
East Leg	Outbound	680	1,470			
East Leg	**TOTAL**	**1,666**	**2,250**	**9%**	**12%**	**18,769**
West Leg	Inbound	453	1,470			
West Leg	Outbound	1,040	541			
West Leg	**TOTAL**	**1,493**	**2,011**	**16%**	**22%**	**9,221**
OVERALL TOTAL		***7,342***	***8,442***	**12%**	***14%***	***60,712***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[06 Citrus_Slover.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Citrus Avenue & Santa Ana Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	22	27	5	23%	2	1	-1	-50%
	Through	488	599	112	23%	543	609	67	12%
	Right	52	64	12	23%	51	62	11	22%
	NB Total	562	690	129	23%	596	672	77	13%
SOUTH BOUND	Left	44	57	13	30%	29	52	23	79%
	Through	267	309	42	16%	308	445	137	44%
	Right	57	74	17	30%	30	30	0	0%
	SB Total	368	440	72	20%	367	527	160	44%
EAST BOUND	Left	59	64	5	8%	151	189	38	25%
	Through	28	31	3	11%	78	106	28	36%
	Right	16	15	-1	-3%	32	35	3	9%
	EB Total	103	110	8	7%	261	330	69	26%
WEST BOUND	Left	49	59	10	20%	26	50	24	92%
	Through	74	100	26	35%	59	78	19	32%
	Right	84	112	28	33%	33	72	39	118%
	WB Total	207	271	64	31%	118	200	82	69%
TOTAL ENTERING VOLUME		1,239	1,511	272	22%	1,342	1,729	388	29%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	440	527			
North Leg	Outbound	775	870			
North Leg	**TOTAL**	**1,215**	**1,397**	**13%**	**15%**	**9,303**
South Leg	Inbound	690	672			
South Leg	Outbound	383	530			
South Leg	**TOTAL**	**1,073**	**1,202**	**14%**	**15%**	**7,873**
East Leg	Inbound	271	200			
East Leg	Outbound	152	220			
East Leg	**TOTAL**	**423**	**420**	**12%**	**12%**	**3,411**
West Leg	Inbound	110	330			
West Leg	Outbound	201	109			
West Leg	**TOTAL**	**311**	**439**	**10%**	**14%**	**3,148**
OVERALL TOTAL		***3,022***	***3,458***	**13%**	***15%***	***23,735***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[07 Citrus_Santa Ana.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Citrus Avenue & Jurupa Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	59	53	-6	-10%	18	18	0	0%
	Through	291	310	19	7%	147	136	-11	-7%
	Right	99	89	-10	-10%	82	77	-5	-6%
	NB Total	449	452	3	1%	247	231	-16	-6%
SOUTH BOUND	Left	62	75	13	21%	74	125	51	69%
	Through	113	115	2	2%	202	237	35	17%
	Right	159	192	33	21%	100	179	80	80%
	SB Total	334	382	48	14%	376	541	166	44%
EAST BOUND	Left	181	255	75	41%	328	386	59	18%
	Through	382	456	74	19%	822	987	166	20%
	Right	13	13	0	0%	51	42	-9	-18%
	EB Total	576	724	149	26%	1,200	1,415	215	18%
WEST BOUND	Left	63	62	-1	-1%	129	111	-18	-14%
	Through	517	605	88	17%	390	513	123	32%
	Right	105	146	41	39%	115	139	25	21%
	WB Total	685	813	129	19%	634	763	130	20%
TOTAL ENTERING VOLUME		2,043	2,371	328	16%	2,456	2,950	494	20%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	382	541			
North Leg	Outbound	711	661			
North Leg	**TOTAL**	**1,093**	**1,202**	**14%**	**15%**	**7,873**
South Leg	Inbound	452	231			
South Leg	Outbound	190	390			
South Leg	**TOTAL**	**642**	**621**	**20%**	**20%**	**3,154**
East Leg	Inbound	813	763			
East Leg	Outbound	620	1,189			
East Leg	**TOTAL**	**1,433**	**1,952**	**12%**	**17%**	**11,494**
West Leg	Inbound	724	1,415			
West Leg	Outbound	850	710			
West Leg	**TOTAL**	**1,574**	**2,125**	**12%**	**17%**	**12,664**
OVERALL TOTAL		***4,742***	***5,900***	**13%**	***17%***	***35,185***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[08 Citrus_Jurupa.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Oleander Avenue & Jurupa Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	35	244	209	597%	32	173	142	449%
	SB Total	35	244	209	597%	32	173	142	449%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	551	664	114	21%	1,033	1,180	148	14%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	551	664	114	21%	1,033	1,180	148	14%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	673	611	-62	-9%	625	597	-28	-4%
	Right	37	111	74	200%	27	280	253	937%
	WB Total	710	722	13	2%	652	877	226	35%
TOTAL ENTERING VOLUME		1,295	1,630	335	26%	1,716	2,230	515	30%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	244	173			
North Leg	Outbound	111	280			
North Leg	**TOTAL**	**355**	**453**	**5%**	**6%**	**7,873**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**0%**	**0%**	**3,154**
East Leg	Inbound	722	877			
East Leg	Outbound	664	1,180			
East Leg	**TOTAL**	**1,386**	**2,057**	**12%**	**18%**	**11,494**
West Leg	Inbound	664	1,180			
West Leg	Outbound	855	770			
West Leg	**TOTAL**	**1,519**	**1,950**	**12%**	**15%**	**12,664**
OVERALL TOTAL		***3,260***	***4,460***	**9%**	***13%***	***35,185***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[09 Oleander_Jurupa.xls]Output (3)

Project: Goodman Industrial Park Fontana III
Scenario: Horizon Year (2040)

Job #: 12382
Analyst: CS
Date: 4/8/19

LOCATION: Cypress Avenue & Jurupa Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	26	26	0	0%	9	9	0	0%
	Through	65	60	-5	-8%	49	46	-3	-6%
	Right	122	124	2	2%	61	66	5	8%
	NB Total	213	210	-3	-1%	119	121	2	2%
SOUTH BOUND	Left	36	40	4	11%	61	63	2	3%
	Through	23	22	-1	-4%	44	35	-9	-20%
	Right	54	58	4	7%	69	64	-5	-7%
	SB Total	113	120	7	6%	174	162	-12	-7%
EAST BOUND	Left	82	90	8	10%	122	124	2	2%
	Through	465	566	102	22%	939	1,101	162	17%
	Right	14	15	1	7%	22	20	-2	-9%
	EB Total	561	671	111	20%	1,083	1,245	162	15%
WEST BOUND	Left	46	44	-2	-4%	115	126	11	10%
	Through	619	676	57	9%	580	747	168	29%
	Right	40	40	0	0%	57	70	14	24%
	WB Total	705	760	55	8%	751	943	192	26%
TOTAL ENTERING VOLUME		1,592	1,761	169.5	11%	2,127	2,471	344	16%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	120	162			
North Leg	Outbound	190	240			
North Leg	**TOTAL**	**310**	**402**	**60%**	**78%**	**514**
South Leg	Inbound	210	121			
South Leg	Outbound	81	181			
South Leg	**TOTAL**	**291**	**302**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	760	943			
East Leg	Outbound	730	1,230			
East Leg	**TOTAL**	**1,490**	**2,173**	**14%**	**20%**	**10,972**
West Leg	Inbound	671	1,245			
West Leg	Outbound	760	820			
West Leg	**TOTAL**	**1,431**	**2,065**	**13%**	**18%**	**11,265**
OVERALL TOTAL		***3,522***	***4,942***	**15%**	***22%***	***22,751***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[14 Cypress_Jurupa.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Juniper Avenue & Santa Ana Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	25	24	2400%	1	49	48	4800%
	Through	2	12	10	500%	2	32	30	1500%
	Right	1	34	33	3300%	1	79	78	7800%
	NB Total	4	71	67	1675%	4	160	156	3900%
SOUTH BOUND	Left	1	8	7	700%	1	9	8	800%
	Through	2	16	14	700%	2	15	13	650%
	Right	1	6	5	500%	1	6	5	500%
	SB Total	4	30	26	650%	4	30	26	650%
EAST BOUND	Left	1	6	5	500%	1	10	9	900%
	Through	2	147	145	7250%	2	212	210	10500%
	Right	1	31	30	3000%	1	39	38	3800%
	EB Total	4	184	180	4500%	4	261	257	6425%
WEST BOUND	Left	1	63	62	6200%	1	75	74	7400%
	Through	2	219	217	10850%	2	255	253	12650%
	Right	1	12	11	1100%	1	18	17	1700%
	WB Total	4	294	290	7250%	4	348	344	8600%
TOTAL ENTERING VOLUME		16	579	563	3519%	16	799	783	4894%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	30	30			
North Leg	Outbound	30	60			
North Leg	**TOTAL**	**60**	**90**	**6%**	**9%**	**1,027**
South Leg	Inbound	71	160			
South Leg	Outbound	110	129			
South Leg	**TOTAL**	**181**	**289**	**6%**	**9%**	**3,289**
East Leg	Inbound	294	348			
East Leg	Outbound	189	300			
East Leg	**TOTAL**	**483**	**648**	**7%**	**10%**	**6,717**
West Leg	Inbound	184	261			
West Leg	Outbound	250	310			
West Leg	**TOTAL**	**434**	**571**	**7%**	**10%**	**5,789**
OVERALL TOTAL		***1,158***	***1,598***	***7%***	***9%***	***16,822***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[15 Juniper_Santa Ana-SEMI.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Juniper Avenue & Jurupa Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	1	0	-1	-100%	1	0	-1	-100%
	Right	1	0	-1	-100%	1	0	-1	-100%
	NB Total	3	0	-3	-100%	3	0	-3	-100%
SOUTH BOUND	Left	1	24	23	2300%	1	47	46	4600%
	Through	1	0	-1	-100%	1	0	-1	-100%
	Right	1	16	15	1500%	1	43	42	4200%
	SB Total	3	40	37	1233%	3	90	87	2900%
EAST BOUND	Left	1	24	23	2300%	1	36	35	3500%
	Through	3	406	403	13433%	3	543	540	18000%
	Right	1	0	-1	-100%	1	0	-1	-100%
	EB Total	5	430	425	8500%	5	579	574	11480%
WEST BOUND	Left	1	0	-1	-100%	1	0	-1	-100%
	Through	3	284	281	9367%	3	487	484	16133%
	Right	1	26	25	2500%	1	34	33	3300%
	WB Total	5	310	305	6100%	5	521	516	10320%
TOTAL ENTERING VOLUME		16	780	764	4775%	16	1,190	1174	7338%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	40	90			
North Leg	Outbound	50	70			
North Leg	**TOTAL**	**90**	**160**	**5%**	**9%**	**1,727**
South Leg	Inbound	0	0			
South Leg	Outbound	0	0			
South Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
East Leg	Inbound	310	521			
East Leg	Outbound	430	590			
East Leg	**TOTAL**	**740**	**1,111**	**7%**	**10%**	**11,105**
West Leg	Inbound	430	579			
West Leg	Outbound	300	530			
West Leg	**TOTAL**	**730**	**1,109**	**7%**	**10%**	**10,972**
OVERALL TOTAL		***1,560***	***2,380***	***7%***	***10%***	***23,804***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[21 Juniper_Jurupa-SEMI.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Sierra Avenue & Slover Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	143	207	65	45%	222	266	45	20%
	Through	910	922	12	1%	1,028	1,131	103	10%
	Right	87	109	22	25%	168	237	69	41%
	NB Total	1,140	1,238	99	9%	1,418	1,634	217	15%
SOUTH BOUND	Left	503	500	-3	-1%	655	676	21	3%
	Through	712	930	218	31%	989	1,037	49	5%
	Right	229	263	35	15%	97	85	-12	-12%
	SB Total	1,444	1,693	250	17%	1,741	1,798	58	3%
EAST BOUND	Left	249	239	-10	-4%	311	284	-27	-9%
	Through	237	281	45	19%	647	758	112	17%
	Right	70	109	39	56%	137	163	27	19%
	EB Total	555	629	74	13%	1,094	1,205	112	10%
WEST BOUND	Left	81	111	30	37%	206	270	64	31%
	Through	256	310	54	21%	436	479	44	10%
	Right	402	339	-63	-16%	740	745	6	1%
	WB Total	739	760	21	3%	1,381	1,494	113	8%
TOTAL ENTERING VOLUME		3,877	4,320	443	11%	5,633	6,131	499	9%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,693	1,798			
North Leg	Outbound	1,500	2,160			
North Leg	**TOTAL**	**3,193**	**3,958**	**9%**	**12%**	**33,860**
South Leg	Inbound	1,238	1,634			
South Leg	Outbound	1,150	1,470			
South Leg	**TOTAL**	**2,388**	**3,104**	**7%**	**9%**	**36,346**
East Leg	Inbound	760	1,494			
East Leg	Outbound	890	1,671			
East Leg	**TOTAL**	**1,650**	**3,165**	**14%**	**27%**	**11,849**
West Leg	Inbound	629	1,205			
West Leg	Outbound	780	830			
West Leg	**TOTAL**	**1,409**	**2,035**	**9%**	**13%**	**16,117**
OVERALL TOTAL		***8,640***	***12,262***	**9%**	***12%***	***98,172***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[22 Sierra_Slover.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Sierra Avenue & Santa Ana Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	75	122	47	63%	172	210	39	22%
	Through	1,105	1,218	114	10%	1,343	1,518	175	13%
	Right	47	55	8	17%	50	66	16	32%
	NB Total	1,227	1,395	169	14%	1,565	1,794	230	15%
SOUTH BOUND	Left	90	108	18	20%	127	185	58	46%
	Through	659	892	233	35%	1,089	1,154	66	6%
	Right	63	104	42	66%	94	127	33	35%
	SB Total	812	1,104	293	36%	1,310	1,466	157	12%
EAST BOUND	Left	85	108	23	27%	120	154	34	28%
	Through	67	90	23	34%	126	189	64	51%
	Right	68	103	35	51%	115	126	11	10%
	EB Total	220	301	81	37%	361	469	109	30%
WEST BOUND	Left	33	35	2	6%	74	74	1	1%
	Through	73	97	24	33%	129	164	35	27%
	Right	87	78	-9	-10%	79	92	14	17%
	WB Total	193	210	17	9%	281	330	49	17%
TOTAL ENTERING VOLUME		2,451	3,010	559	23%	3,516	4,059	544	15%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,104	1,466			
North Leg	Outbound	1,404	1,764			
North Leg	**TOTAL**	**2,508**	**3,230**	**7%**	**9%**	**35,957**
South Leg	Inbound	1,395	1,794			
South Leg	Outbound	1,030	1,354			
South Leg	**TOTAL**	**2,425**	**3,148**	**6%**	**8%**	**38,800**
East Leg	Inbound	210	330			
East Leg	Outbound	253	440			
East Leg	**TOTAL**	**463**	**770**	**13%**	**22%**	**3,452**
West Leg	Inbound	301	469			
West Leg	Outbound	323	501			
West Leg	**TOTAL**	**624**	**970**	**9%**	**14%**	**6,717**
OVERALL TOTAL		***6,020***	***8,118***	**7%**	***10%***	***84,926***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[23 Sierra_Santa Ana.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040)	Analyst:	CS
		Date:	4/8/19

LOCATION: Sierra Avenue & Jurupa Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	243	268	25	10%	260	315	55	21%
	Through	671	843	173	26%	911	1,030	119	13%
	Right	54	62	8	15%	98	94	-4	-4%
	NB Total	968	1,173	206	21%	1,269	1,439	170	13%
SOUTH BOUND	Left	24	31	7	29%	88	91	3	3%
	Through	422	651	229	54%	576	611	36	6%
	Right	192	240	49	25%	245	318	74	30%
	SB Total	638	922	285	45%	908	1,020	112	12%
EAST BOUND	Left	222	260	38	17%	404	515	111	27%
	Through	220	236	16	7%	318	345	27	8%
	Right	210	266	56	27%	279	311	32	11%
	EB Total	652	762	110	17%	1,001	1,171	170	17%
WEST BOUND	Left	130	153	23	18%	140	138	-2	-1%
	Through	263	252	-11	-4%	261	317	56	21%
	Right	98	107	10	10%	84	95	11	13%
	WB Total	490	512	22	4%	485	550	65	13%
TOTAL ENTERING VOLUME		2,747	3,369	622	23%	3,663	4,180	517	14%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	922	1,020			
North Leg	Outbound	1,210	1,640			
North Leg	**TOTAL**	**2,132**	**2,660**	**6%**	**7%**	**35,706**
South Leg	Inbound	1,173	1,439			
South Leg	Outbound	1,070	1,060			
South Leg	**TOTAL**	**2,243**	**2,499**	**6%**	**7%**	**37,879**
East Leg	Inbound	512	550			
East Leg	Outbound	329	530			
East Leg	**TOTAL**	**841**	**1,080**	**16%**	**20%**	**5,327**
West Leg	Inbound	762	1,171			
West Leg	Outbound	760	950			
West Leg	**TOTAL**	**1,522**	**2,121**	**14%**	**19%**	**11,105**
OVERALL TOTAL		***6,738***	***8,360***	***7%***	***9%***	***90,017***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[24 Sierra_Jurupa.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	43614

LOCATION: Armstrong Road / Sierra Avenue
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	5	198	193	3860%	5	283	278	5560%
	Through	2	706	704	35200%	2	1,082	1,080	54000%
	Right	1	376	375	37500%	1	425	424	42400%
	NB Total	8	1,280	1,272	15900%	8	1,790	1,782	22275%
SOUTH BOUND	Left	1	289	288	28800%	1	358	357	35700%
	Through	2	659	657	32850%	2	923	921	46050%
	Right	1	152	151	15100%	1	239	238	23800%
	SB Total	4	1,100	1,096	27400%	4	1,520	1,516	37900%
EAST BOUND	Left	1	183	182	18200%	1	265	264	26400%
	Through	1	875	874	87400%	1	937	936	93600%
	Right	5	222	217	4340%	5	268	263	5260%
	EB Total	7	1,280	1,273	18186%	7	1,470	1,463	20900%
WEST BOUND	Left	1	318	317	31700%	1	429	428	42800%
	Through	1	660	659	65900%	1	998	997	99700%
	Right	1	261	260	26000%	1	423	422	42200%
	WB Total	3	1,239	1,236	41200%	3	1,850	1,847	61567%
TOTAL ENTERING VOLUME		22	4,899	4877	22168%	22	6,630	6608	30036%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,100	1,520			
North Leg	Outbound	1,150	1,770			
North Leg	**TOTAL**	**2,250**	**3,290**	**7%**	**11%**	**30,300**
South Leg	Inbound	1,280	1,790			
South Leg	Outbound	1,199	1,620			
South Leg	**TOTAL**	**2,479**	**3,410**	**8%**	**11%**	**31,000**
East Leg	Inbound	1,239	1,850			
East Leg	Outbound	1,540	1,720			
East Leg	**TOTAL**	**2,779**	**3,570**	**7%**	**10%**	**37,200**
West Leg	Inbound	1,280	1,470			
West Leg	Outbound	1,010	1,520			
West Leg	**TOTAL**	**2,290**	**2,990**	**8%**	**10%**	**29,200**
OVERALL TOTAL		***9,798***	***13,260***	**8%**	***10%***	***127,700***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[25 Armstrong_Sierra-Semi.xls]Output (3)

Project: Goodman Industrial Park Fontana III
Scenario: Horizon Year (2040) Without Project

Job #: 12382
Analyst: CP
Date: 43614

LOCATION: Armstrong Road / 34th Street
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	35	34	3400%	5	48	43	860%
	Through	2	1,140	1,138	56900%	2	1,609	1,607	80350%
	Right	1	80	79	7900%	1	103	102	10200%
	NB Total	4	1,255	1,251	31275%	8	1,760	1,752	21900%
SOUTH BOUND	Left	1	91	90	9000%	1	125	124	12400%
	Through	2	1,065	1,063	53150%	2	1,427	1,425	71250%
	Right	1	39	38	3800%	1	58	57	5700%
	SB Total	4	1,195	1,191	29775%	4	1,610	1,606	40150%
EAST BOUND	Left	1	45	44	4400%	1	56	55	5500%
	Through	1	28	27	2700%	1	32	31	3100%
	Right	1	37	36	3600%	5	41	36	720%
	EB Total	3	110	107	3567%	7	129	122	1743%
WEST BOUND	Left	1	78	77	7700%	1	91	90	9000%
	Through	1	26	25	2500%	1	34	33	3300%
	Right	1	96	95	9500%	1	125	124	12400%
	WB Total	3	200	197	6567%	3	250	247	8233%
TOTAL ENTERING VOLUME		14	2,760	2746	19614%	22	3,749	3727	16941%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,195	1,610			
North Leg	Outbound	1,281	1,790			
North Leg	**TOTAL**	**2,476**	**3,400**	**8%**	**11%**	**30,952**
South Leg	Inbound	1,255	1,760			
South Leg	Outbound	1,180	1,559			
South Leg	**TOTAL**	**2,435**	**3,319**	**8%**	**11%**	**30,178**
East Leg	Inbound	200	250			
East Leg	Outbound	199	260			
East Leg	**TOTAL**	**399**	**510**	**8%**	**10%**	**5,266**
West Leg	Inbound	110	129			
West Leg	Outbound	100	140			
West Leg	**TOTAL**	**210**	**269**	**8%**	**10%**	**2,676**
OVERALL TOTAL		***5,520***	***7,498***	**8%**	***11%***	***69,072***

U:\UcJobs_12100-12500_12300\12382\Post Processing\12382-05\[26 Armstrong_34th-Semi.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	43614

LOCATION: Valley Way / Granite Hills Drive
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	86	85	8500%	1	155	154	15400%
	Through	2	1,179	1,177	58850%	2	1,588	1,586	79300%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	3	1,265	1,262	42067%	3	1,743	1,740	58000%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,150	1,148	57400%	2	1,281	1,279	63950%
	Right	1	54	53	5300%	1	255	254	25400%
	SB Total	3	1,204	1,201	40033%	3	1,536	1,533	51100%
EAST BOUND	Left	1	71	70	7000%	1	162	161	16100%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	110	109	10900%	1	79	78	7800%
	EB Total	2	181	179	8950%	2	241	239	11950%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		8	2,650	2642	33025%	8	3,520	3512	43900%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,204	1,536			
North Leg	Outbound	1,250	1,750			
North Leg	**TOTAL**	**2,454**	**3,286**	**8%**	**11%**	**30,200**
South Leg	Inbound	1,265	1,743			
South Leg	Outbound	1,260	1,360			
South Leg	**TOTAL**	**2,525**	**3,103**	**8%**	**10%**	**30,400**
East Leg	Inbound	0	0			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**0**	**0**	**#DIV/0!**	**#DIV/0!**	**-**
West Leg	Inbound	181	241			
West Leg	Outbound	140	410			
West Leg	**TOTAL**	**321**	**651**	**7%**	**14%**	**4,500**
OVERALL TOTAL		***5,300***	***7,040***	**8%**	***11%***	***65,100***

U:\UcJobs_12100-12500_12300\12382\Post Processing\[27 Valley Wy_Granite Hills-Semi.xls]Output (3)

Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	43614

LOCATION: Valley Way / SR-60 Westbound Ramps
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	292	291	29100%	1	165	164	16400%
	Through	2	755	753	37650%	2	457	455	22750%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	3	1,047	1,044	34800%	3	622	619	20633%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	782	780	39000%	2	570	568	28400%
	Right	1	108	107	10700%	1	155	154	15400%
	SB Total	3	890	887	29567%	3	725	722	24067%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	1	438	437	43700%	1	270	269	26900%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	155	154	15400%	1	203	202	20200%
	WB Total	2	593	591	29550%	2	473	471	23550%
TOTAL ENTERING VOLUME		8	2,530	2522	31525%	8	1,820	1812	22650%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	890	725			
North Leg	Outbound	910	660			
North Leg	**TOTAL**	**1,800**	**1,385**	**6%**	**5%**	**30,400**
South Leg	Inbound	1,047	622			
South Leg	Outbound	1,220	840			
South Leg	**TOTAL**	**2,267**	**1,462**	**5%**	**3%**	**42,200**
East Leg	Inbound	593	473			
East Leg	Outbound	0	0			
East Leg	**TOTAL**	**593**	**473**	**4%**	**3%**	**13,600**
West Leg	Inbound	0	0			
West Leg	Outbound	400	320			
West Leg	**TOTAL**	**400**	**320**	**6%**	**5%**	**6,400**
OVERALL TOTAL		***5,060***	***3,640***	**5%**	***4%***	***92,600***

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Project:	Goodman Industrial Park Fontana III	Job #:	12382
Scenario:	Horizon Year (2040) Without Project	Analyst:	CP
		Date:	43614

LOCATION: Valley Way (NS) / Mission Boulevard (EW)
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	83	82	8200%	1	76	75	7500%
	Through	1	990	989	98900%	1	930	929	92900%
	Right	1	54	53	5300%	1	61	60	6000%
	NB Total	3	1,127	1,124	37467%	3	1,067	1,064	35467%
SOUTH BOUND	Left	2	455	453	22650%	2	604	602	30100%
	Through	1	815	814	81400%	1	1,222	1,221	122100%
	Right	2	697	695	34750%	2	755	753	37650%
	SB Total	5	1,967	1,962	39240%	5	2,581	2,576	51520%
EAST BOUND	Left	2	712	710	35500%	2	734	732	36600%
	Through	1	352	351	35100%	1	434	433	43300%
	Right	1	70	69	6900%	1	98	97	9700%
	EB Total	4	1,134	1,130	28250%	4	1,266	1,262	31550%
WEST BOUND	Left	1	37	36	3600%	1	81	80	8000%
	Through	1	282	281	28100%	1	448	447	44700%
	Right	2	372	370	18500%	2	606	604	30200%
	WB Total	4	691	687	17175%	4	1,135	1,131	28275%
TOTAL ENTERING VOLUME		16	4,919	4903	30644%	16	6,049	6033	37706%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,967	2,581			
North Leg	Outbound	2,074	2,270			
North Leg	**TOTAL**	**4,041**	**4,851**	**8%**	**9%**	**52,900**
South Leg	Inbound	1,127	1,067			
South Leg	Outbound	922	1,401			
South Leg	**TOTAL**	**2,049**	**2,468**	**8%**	**10%**	**24,600**
East Leg	Inbound	691	1,135			
East Leg	Outbound	861	1,099			
East Leg	**TOTAL**	**1,552**	**2,234**	**8%**	**11%**	**20,000**
West Leg	Inbound	1,134	1,266			
West Leg	Outbound	1,062	1,279			
West Leg	**TOTAL**	**2,196**	**2,545**	**7%**	**8%**	**31,600**
OVERALL TOTAL		***9,838***	***12,098***	**8%**	***9%***	***129,100***

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Project: Goodman Industrial Park Fontana III
Scenario: Horizon Year (2040) Without Project

Job #: 12382
Analyst: CP
Date: 43614

LOCATION: Valley Way / SR-60 Eastbound Ramps
FORECAST YEAR: 2035

INDIVIDUAL TURN VOLUME GROWTH REVIEW

		AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
APPROACH	TURNING MOVEMENT	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	938	936	46800%	2	1,216	1,214	60700%
	Right	1	494	493	49300%	1	350	349	34900%
	NB Total	3	1,432	1,429	47633%	3	1,566	1,563	52100%
SOUTH BOUND	Left	1	196	195	19500%	1	160	159	15900%
	Through	2	1,039	1,037	51850%	2	1,340	1,338	66900%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	3	1,235	1,232	41067%	3	1,500	1,497	49900%
EAST BOUND	Left	1	122	121	12100%	1	194	193	19300%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	341	340	34000%	1	470	469	46900%
	EB Total	2	463	461	23050%	2	664	662	33100%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		8	3,130	3122	39025%	8	3,730	3722	46525%

FORECAST PEAK HOUR TO ADT COMPARISON

		VOLUMES		PERCENT OF ADT		
		AM	PM	AM	PM	ADT
North Leg	Inbound	1,235	1,500			
North Leg	Outbound	1,060	1,410			
North Leg	**TOTAL**	**2,295**	**2,910**	**5%**	**7%**	**42,200**
South Leg	Inbound	1,432	1,566			
South Leg	Outbound	1,380	1,810			
South Leg	**TOTAL**	**2,812**	**3,376**	**5%**	**6%**	**52,900**
East Leg	Inbound	0	0			
East Leg	Outbound	690	510			
East Leg	**TOTAL**	**690**	**510**	**6%**	**4%**	**11,800**
West Leg	Inbound	463	664			
West Leg	Outbound	0	0			
West Leg	**TOTAL**	**463**	**664**	**6%**	**8%**	**8,000**
OVERALL TOTAL		***6,260***	***7,460***	**5%**	***6%***	***114,900***

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APPENDIX 5.1:

E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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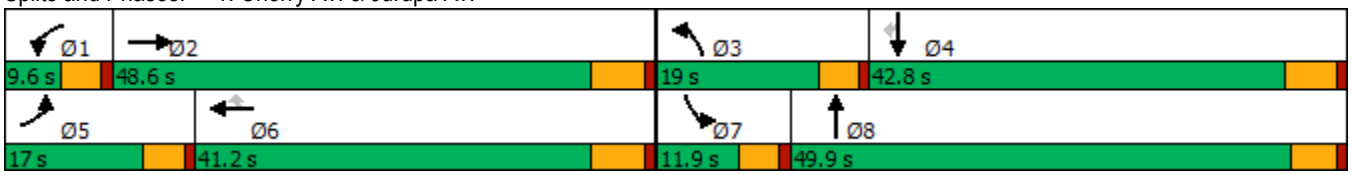
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	218	386	40	693	129	261	457	85	283	256
Future Volume (vph)	218	386	40	693	129	261	457	85	283	256
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	17.0	48.6	9.6	41.2	41.2	19.0	49.9	11.9	42.8	42.8
Total Split (%)	14.2%	40.5%	8.0%	34.3%	34.3%	15.8%	41.6%	9.9%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 91.9
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	218	386	145	40	693	129	261	457	48	85	283	256
Future Volume (veh/h)	218	386	145	40	693	129	261	457	48	85	283	256
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.97	1.00		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	266	471	90	49	845	87	318	557	42	104	345	169
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	328	1545	288	123	1063	448	381	1861	139	160	1141	442
Arrive On Green	0.09	0.35	0.35	0.04	0.29	0.29	0.11	0.38	0.38	0.05	0.32	0.32
Sat Flow, veh/h	3510	4380	815	3510	3610	1522	3510	4911	366	3510	3610	1400
Grp Volume(v), veh/h	266	369	192	49	845	87	318	390	209	104	345	169
Grp Sat Flow(s),veh/h/ln	1755	1729	1737	1755	1805	1522	1755	1729	1819	1755	1805	1400
Q Serve(g_s), s	8.2	8.6	8.9	1.5	23.9	4.7	9.8	8.8	8.9	3.2	8.0	10.4
Cycle Q Clear(g_c), s	8.2	8.6	8.9	1.5	23.9	4.7	9.8	8.8	8.9	3.2	8.0	10.4
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.20	1.00		1.00
Lane Grp Cap(c), veh/h	328	1220	613	123	1063	448	381	1310	689	160	1141	442
V/C Ratio(X)	0.81	0.30	0.31	0.40	0.79	0.19	0.84	0.30	0.30	0.65	0.30	0.38
Avail Cap(c_a), veh/h	393	1335	671	158	1153	486	456	1398	735	231	1205	467
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.3	26.0	26.1	52.3	36.0	29.2	48.4	24.1	24.1	52.0	28.7	29.5
Incr Delay (d2), s/veh	8.7	0.1	0.3	0.8	3.7	0.2	9.4	0.1	0.2	1.7	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	3.4	3.6	0.7	10.5	1.7	4.8	3.5	3.8	1.4	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.0	26.1	26.4	53.1	39.7	29.5	57.9	24.2	24.4	53.7	28.8	30.0
LnGrp LOS	E	C	C	D	D	C	E	C	C	D	C	C
Approach Vol, veh/h		827			981			917			618	
Approach Delay, s/veh		36.4			39.4			35.9			33.3	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	44.9	16.6	40.8	14.9	38.4	9.6	47.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	42.8	14.4	37.0	12.4	35.4	7.3	* 45
Max Q Clear Time (g_c+I1), s	3.5	10.9	11.8	12.4	10.2	25.9	5.2	10.9
Green Ext Time (p_c), s	0.0	3.5	0.2	2.7	0.1	3.9	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	36.6
HCM 6th LOS	D

Notes

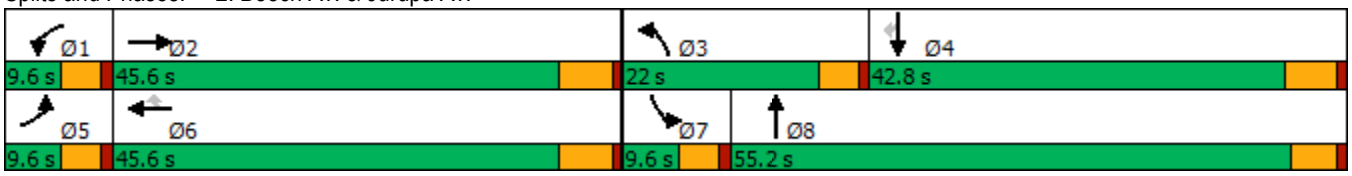
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

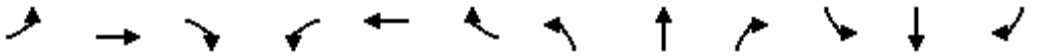
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	97	312	4	513	51	222	84	13	3	49
Future Volume (vph)	97	312	4	513	51	222	84	13	3	49
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	9.6	45.6	9.6	45.6	45.6	22.0	55.2	9.6	42.8	42.8
Total Split (%)	8.0%	38.0%	8.0%	38.0%	38.0%	18.3%	46.0%	8.0%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 70.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	312	30	4	513	51	222	84	12	13	3	49
Future Volume (veh/h)	97	312	30	4	513	51	222	84	12	13	3	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	322	27	4	529	28	229	87	6	13	3	27
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	250	1317	109	19	1058	328	285	1133	77	30	684	304
Arrive On Green	0.07	0.27	0.27	0.01	0.20	0.20	0.16	0.33	0.33	0.02	0.19	0.19
Sat Flow, veh/h	3510	4881	403	3510	5187	1610	1810	3428	234	1810	3610	1608
Grp Volume(v), veh/h	100	227	122	4	529	28	229	45	48	13	3	27
Grp Sat Flow(s),veh/h/ln	1755	1729	1826	1755	1729	1610	1810	1805	1858	1810	1805	1608
Q Serve(g_s), s	1.5	2.8	2.9	0.1	5.0	0.8	6.7	1.0	1.0	0.4	0.0	0.8
Cycle Q Clear(g_c), s	1.5	2.8	2.9	0.1	5.0	0.8	6.7	1.0	1.0	0.4	0.0	0.8
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	250	933	492	19	1058	328	285	596	614	30	684	304
V/C Ratio(X)	0.40	0.24	0.25	0.21	0.50	0.09	0.80	0.08	0.08	0.44	0.00	0.09
Avail Cap(c_a), veh/h	319	2502	1321	319	3753	1165	572	1644	1692	164	2428	1081
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.4	15.7	15.7	27.2	19.4	17.7	22.4	12.7	12.7	26.8	18.1	18.4
Incr Delay (d2), s/veh	0.4	0.1	0.3	2.0	0.4	0.1	2.0	0.1	0.1	3.8	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.9	1.0	0.0	1.7	0.3	2.7	0.3	0.4	0.2	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.8	15.8	16.0	29.3	19.8	17.8	24.4	12.7	12.7	30.6	18.1	18.5
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		449			561			322			43	
Approach Delay, s/veh		17.9			19.7			21.0			22.1	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	20.6	13.3	16.2	8.5	17.0	5.5	24.0
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	39.8	17.4	37.0	5.0	39.8	5.0	* 50
Max Q Clear Time (g_c+I1), s	2.1	4.9	8.7	2.8	3.5	7.0	2.4	3.0
Green Ext Time (p_c), s	0.0	2.0	0.2	0.1	0.0	3.6	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

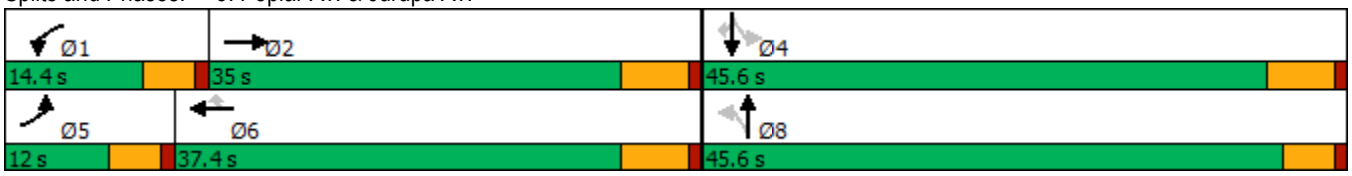
Notes

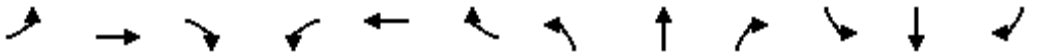
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	60	488	77	616	35	116	71	11	32	37
Future Volume (vph)	60	488	77	616	35	116	71	11	32	37
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	12.0	35.0	14.4	37.4	37.4	45.6	45.6	45.6	45.6	45.6
Total Split (%)	12.6%	36.8%	15.2%	39.4%	39.4%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 49.9
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	488	40	77	616	35	116	71	136	11	32	37
Future Volume (veh/h)	60	488	40	77	616	35	116	71	136	11	32	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	65	525	35	83	662	27	125	76	62	12	34	20
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	117	1278	84	137	1393	433	516	509	376	467	489	414
Arrive On Green	0.06	0.26	0.26	0.08	0.27	0.27	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	4963	328	1810	5187	1610	1370	1978	1463	1271	1900	1608
Grp Volume(v), veh/h	65	364	196	83	662	27	125	69	69	12	34	20
Grp Sat Flow(s),veh/h/ln	1810	1729	1833	1810	1729	1610	1370	1805	1637	1271	1900	1608
Q Serve(g_s), s	1.4	3.5	3.5	1.8	4.2	0.5	3.0	1.2	1.3	0.3	0.5	0.4
Cycle Q Clear(g_c), s	1.4	3.5	3.5	1.8	4.2	0.5	3.5	1.2	1.3	1.6	0.5	0.4
Prop In Lane	1.00		0.18	1.00		1.00	1.00		0.89	1.00		1.00
Lane Grp Cap(c), veh/h	117	891	472	137	1393	433	516	464	421	467	489	414
V/C Ratio(X)	0.56	0.41	0.41	0.61	0.48	0.06	0.24	0.15	0.16	0.03	0.07	0.05
Avail Cap(c_a), veh/h	339	2553	1353	448	4144	1287	1584	1871	1697	1419	1912	1618
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	12.2	12.2	17.7	12.1	10.8	12.4	11.3	11.4	12.0	11.1	11.0
Incr Delay (d2), s/veh	1.5	0.3	0.6	1.6	0.3	0.1	0.2	0.1	0.2	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.0	1.1	0.6	1.2	0.1	0.7	0.4	0.4	0.1	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.5	12.5	12.8	19.3	12.4	10.8	12.7	11.5	11.6	12.0	11.2	11.1
LnGrp LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Vol, veh/h		625			772			263			66	
Approach Delay, s/veh		13.3			13.1			12.1			11.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	16.0		16.0	7.2	16.4		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	9.8	29.2		39.8	7.4	31.6		* 41				
Max Q Clear Time (g_c+I1), s	3.8	5.5		3.6	3.4	6.2		5.5				
Green Ext Time (p_c), s	0.0	3.2		0.2	0.0	4.4		1.1				

Intersection Summary			
HCM 6th Ctrl Delay		12.9	
HCM 6th LOS		B	

Notes

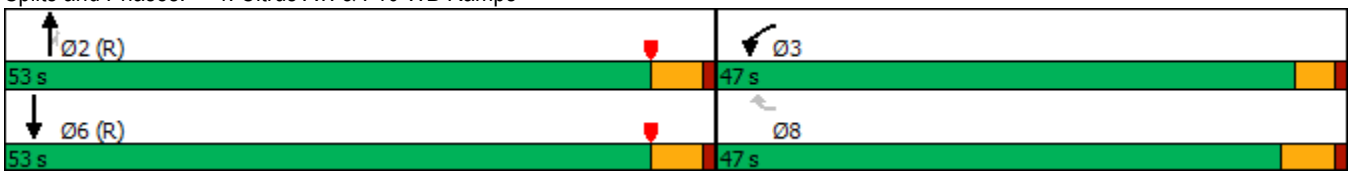
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

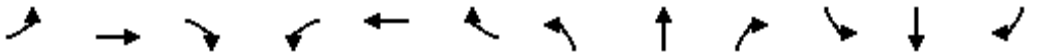
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	491	484	807	364	1164	542
Future Volume (vph)	491	484	807	364	1164	542
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	47.0	47.0	53.0	53.0	53.0	
Total Split (%)	47.0%	47.0%	53.0%	53.0%	53.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	491	0	484	0	807	364	0	1164	542
Future Volume (veh/h)	0	0	0	491	0	484	0	807	364	0	1164	542
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				522	0	309	0	859	377	0	1238	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				564	0	884	0	3102	941	0	2159	
Arrive On Green				0.31	0.00	0.31	0.00	1.00	1.00	0.00	0.60	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1573	0	3705	1610
Grp Volume(v), veh/h				522	0	309	0	859	377	0	1238	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1573	0	1805	1610
Q Serve(g_s), s				27.9	0.0	8.4	0.0	0.0	0.0	0.0	21.0	0.0
Cycle Q Clear(g_c), s				27.9	0.0	8.4	0.0	0.0	0.0	0.0	21.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				564	0	884	0	3102	941	0	2159	
V/C Ratio(X)				0.92	0.00	0.35	0.00	0.28	0.40	0.00	0.57	
Avail Cap(c_a), veh/h				778	0	1219	0	3102	941	0	2159	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.77	0.77	0.00	1.00	0.00
Uniform Delay (d), s/veh				33.3	0.0	26.6	0.0	0.0	0.0	0.0	12.3	0.0
Incr Delay (d2), s/veh				11.6	0.0	0.1	0.0	0.2	1.0	0.0	1.1	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				13.2	0.0	2.7	0.0	0.0	0.3	0.0	7.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.8	0.0	26.7	0.0	0.2	1.0	0.0	13.4	0.0
LnGrp LOS				D	A	C	A	A	A	A	B	
Approach Vol, veh/h					831			1236			1238	A
Approach Delay, s/veh					38.1			0.4			13.4	
Approach LOS					D			A			B	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	64.8			64.8		35.2						
Change Period (Y+Rc), s	5.0			5.0		4.0						
Max Green Setting (Gmax), s	48.0			48.0		43.0						
Max Q Clear Time (g_c+I1), s	2.0			23.0		29.9						
Green Ext Time (p_c), s	4.7			5.9		1.3						

Intersection Summary		
HCM 6th Ctrl Delay	14.8	
HCM 6th LOS	B	

Notes

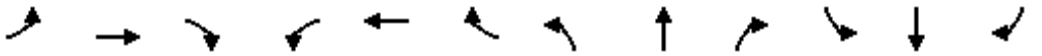
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	355	4	816	653	1002
Future Volume (vph)	355	4	816	653	1002
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	32.0	32.0	36.0	32.0	68.0
Total Split (%)	32.0%	32.0%	36.0%	32.0%	68.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	4	350	0	0	0	0	816	355	653	1002	0
Future Volume (veh/h)	355	4	350	0	0	0	0	816	355	653	1002	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	386	4	281				0	887	263	710	1089	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	714	5	324				0	1729	510	772	2514	0
Arrive On Green	0.20	0.20	0.20				0.00	0.44	0.44	0.44	1.00	0.00
Sat Flow, veh/h	3510	23	1591				0	4131	1169	3510	3705	0
Grp Volume(v), veh/h	386	0	285				0	774	376	710	1089	0
Grp Sat Flow(s),veh/h/ln	1755	0	1614				0	1729	1670	1755	1805	0
Q Serve(g_s), s	9.8	0.0	17.1				0.0	16.2	16.4	19.0	0.0	0.0
Cycle Q Clear(g_c), s	9.8	0.0	17.1				0.0	16.2	16.4	19.0	0.0	0.0
Prop In Lane	1.00		0.99				0.00		0.70	1.00		0.00
Lane Grp Cap(c), veh/h	714	0	328				0	1510	729	772	2514	0
V/C Ratio(X)	0.54	0.00	0.87				0.00	0.51	0.52	0.92	0.43	0.00
Avail Cap(c_a), veh/h	948	0	436				0	1510	729	983	2514	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.80	0.80	0.68	0.68	0.00
Uniform Delay (d), s/veh	35.6	0.0	38.5				0.0	20.4	20.5	27.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	11.1				0.0	1.0	2.1	7.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	7.4				0.0	6.2	6.3	6.2	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	0.0	49.6				0.0	21.4	22.6	34.6	0.4	0.0
LnGrp LOS	D	A	D				A	C	C	C	A	A
Approach Vol, veh/h		671						1150			1799	
Approach Delay, s/veh		41.7						21.8			13.9	
Approach LOS		D						C			B	

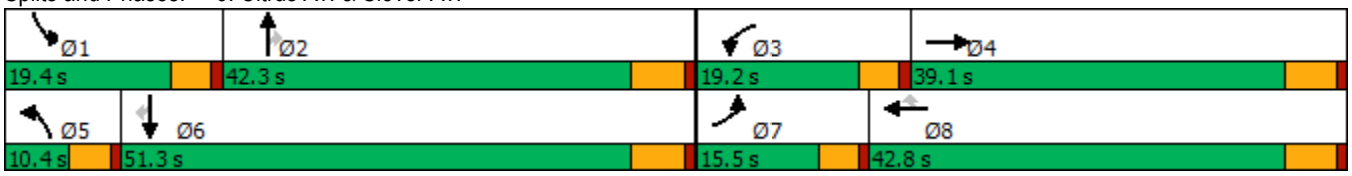
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	26.0	48.7		25.3		74.7
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	28.0	31.0		27.0		63.0
Max Q Clear Time (g_c+I1), s	21.0	18.4		19.1		2.0
Green Ext Time (p_c), s	1.0	4.0		1.3		5.3

Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	280	183	94	460	199	44	648	47	201	501	592
Future Volume (vph)	280	183	94	460	199	44	648	47	201	501	592
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	15.5	39.1	19.2	42.8	42.8	10.4	42.3	42.3	19.4	51.3	51.3
Total Split (%)	12.9%	32.6%	16.0%	35.7%	35.7%	8.7%	35.3%	35.3%	16.2%	42.8%	42.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 97
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	183	30	94	460	199	44	648	47	201	501	592
Future Volume (veh/h)	280	183	30	94	460	199	44	648	47	201	501	592
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		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	322	210	28	108	529	175	51	745	23	231	576	547
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	395	826	109	138	799	354	72	1492	453	266	750	628
Arrive On Green	0.11	0.26	0.26	0.08	0.22	0.22	0.04	0.29	0.29	0.15	0.39	0.39
Sat Flow, veh/h	3510	3206	422	1810	3610	1597	1810	5187	1576	1810	1900	1590
Grp Volume(v), veh/h	322	117	121	108	529	175	51	745	23	231	576	547
Grp Sat Flow(s),veh/h/ln	1755	1805	1822	1810	1805	1597	1810	1729	1576	1810	1900	1590
Q Serve(g_s), s	8.1	4.6	4.7	5.3	12.0	8.6	2.5	10.7	0.9	11.2	23.7	28.5
Cycle Q Clear(g_c), s	8.1	4.6	4.7	5.3	12.0	8.6	2.5	10.7	0.9	11.2	23.7	28.5
Prop In Lane	1.00		0.23	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	465	470	138	799	354	72	1492	453	266	750	628
V/C Ratio(X)	0.82	0.25	0.26	0.78	0.66	0.49	0.70	0.50	0.05	0.87	0.77	0.87
Avail Cap(c_a), veh/h	425	668	675	294	1485	657	117	2105	640	298	961	804
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	26.5	26.5	40.8	31.9	30.6	42.6	26.6	23.2	37.5	23.6	25.1
Incr Delay (d2), s/veh	9.9	0.3	0.3	3.7	0.9	1.1	4.6	0.3	0.0	19.5	2.9	8.5
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	3.8	1.9	2.0	2.4	5.0	3.2	1.2	4.2	0.3	6.1	10.2	11.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	26.8	26.8	44.5	32.9	31.7	47.2	26.9	23.2	57.0	26.5	33.6
LnGrp LOS	D	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		560			812			819			1354	
Approach Delay, s/veh		39.5			34.2			28.1			34.6	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.8	31.7	11.4	29.0	8.2	41.3	14.7	25.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	14.8	36.5	14.6	33.3	5.8	45.5	10.9	37.0
Max Q Clear Time (g_c+I1), s	13.2	12.7	7.3	6.7	4.5	30.5	10.1	14.0
Green Ext Time (p_c), s	0.1	4.9	0.1	1.2	0.0	5.0	0.1	3.8

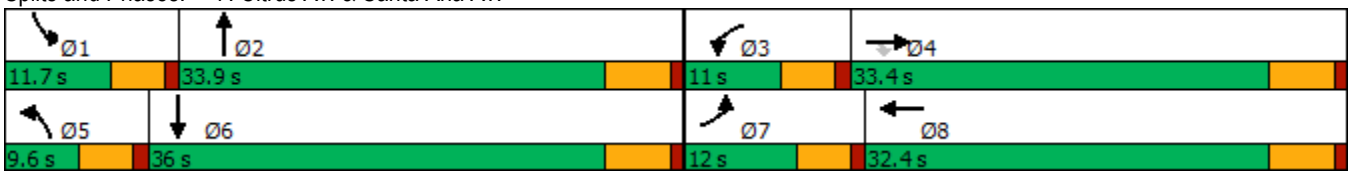
Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C

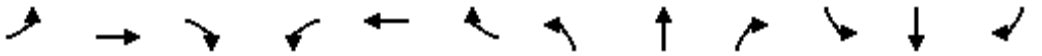
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	59	30	22	49	75	24	500	61	308
Future Volume (vph)	59	30	22	49	75	24	500	61	308
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	12.0	33.4	33.4	11.0	32.4	9.6	33.9	11.7	36.0
Total Split (%)	13.3%	37.1%	37.1%	12.2%	36.0%	10.7%	37.7%	13.0%	40.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 63
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	30	22	49	75	89	24	500	52	61	308	57
Future Volume (veh/h)	59	30	22	49	75	89	24	500	52	61	308	57
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	80	41	21	66	101	63	32	676	55	82	416	61
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	119	374	317	107	416	240	64	987	80	121	1021	149
Arrive On Green	0.07	0.20	0.20	0.06	0.19	0.19	0.04	0.29	0.29	0.07	0.32	0.32
Sat Flow, veh/h	1810	1900	1610	1810	2192	1266	1810	3381	275	1810	3162	461
Grp Volume(v), veh/h	80	41	21	66	82	82	32	361	370	82	236	241
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1652	1810	1805	1851	1810	1805	1817
Q Serve(g_s), s	2.2	0.9	0.6	1.8	2.0	2.2	0.9	9.2	9.2	2.3	5.3	5.4
Cycle Q Clear(g_c), s	2.2	0.9	0.6	1.8	2.0	2.2	0.9	9.2	9.2	2.3	5.3	5.4
Prop In Lane	1.00		1.00	1.00		0.77	1.00		0.15	1.00		0.25
Lane Grp Cap(c), veh/h	119	374	317	107	343	314	64	527	540	121	583	587
V/C Ratio(X)	0.67	0.11	0.07	0.62	0.24	0.26	0.50	0.68	0.69	0.68	0.41	0.41
Avail Cap(c_a), veh/h	258	1025	869	223	939	860	174	992	1017	248	1065	1072
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	17.1	17.0	23.8	17.8	17.9	24.6	16.3	16.3	23.7	13.7	13.7
Incr Delay (d2), s/veh	2.4	0.1	0.1	2.1	0.4	0.4	2.2	1.6	1.6	2.5	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4	0.2	0.8	0.7	0.8	0.4	3.3	3.4	1.0	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.1	17.2	17.0	26.0	18.2	18.4	26.8	17.8	17.8	26.1	14.1	14.2
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		142			230			763			559	
Approach Delay, s/veh		22.2			20.5			18.2			15.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	20.5	7.7	15.6	6.4	22.2	8.0	15.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	7.1	28.5	6.4	28.0	5.0	30.6	7.4	27.0
Max Q Clear Time (g_c+I1), s	4.3	11.2	3.8	2.9	2.9	7.4	4.2	4.2
Green Ext Time (p_c), s	0.0	3.9	0.0	0.2	0.0	2.6	0.0	0.8

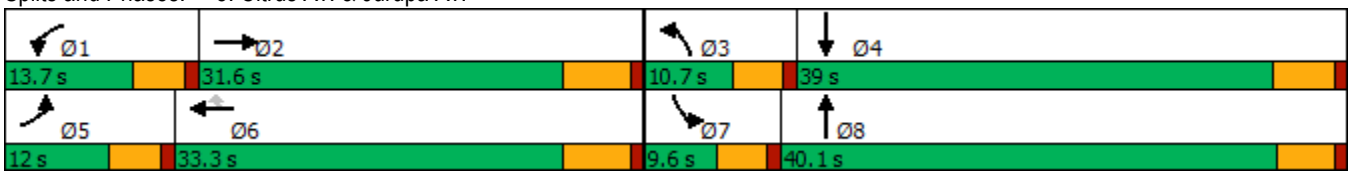
Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	181	432	63	532	119	59	291	108	113
Future Volume (vph)	181	432	63	532	119	59	291	108	113
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	12.0	31.6	13.7	33.3	33.3	10.7	40.1	9.6	39.0
Total Split (%)	12.6%	33.3%	14.4%	35.1%	35.1%	11.3%	42.2%	10.1%	41.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 63.6
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	181	432	13	63	532	119	59	291	99	108	113	159
Future Volume (veh/h)	181	432	13	63	532	119	59	291	99	108	113	159
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	197	470	12	68	578	90	64	316	83	117	123	113
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	245	1510	38	107	1112	344	103	536	139	150	399	336
Arrive On Green	0.14	0.29	0.29	0.06	0.21	0.21	0.06	0.19	0.19	0.08	0.21	0.21
Sat Flow, veh/h	1810	5200	132	1810	5187	1606	1810	2838	734	1810	1858	1566
Grp Volume(v), veh/h	197	312	170	68	578	90	64	199	200	117	119	117
Grp Sat Flow(s),veh/h/ln	1810	1729	1874	1810	1729	1606	1810	1805	1767	1810	1805	1618
Q Serve(g_s), s	5.7	3.8	3.8	2.0	5.3	2.5	1.9	5.4	5.6	3.4	3.0	3.3
Cycle Q Clear(g_c), s	5.7	3.8	3.8	2.0	5.3	2.5	1.9	5.4	5.6	3.4	3.0	3.3
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.42	1.00		0.97
Lane Grp Cap(c), veh/h	245	1004	544	107	1112	344	103	341	334	150	388	348
V/C Ratio(X)	0.80	0.31	0.31	0.63	0.52	0.26	0.62	0.58	0.60	0.78	0.31	0.34
Avail Cap(c_a), veh/h	248	1655	897	305	2646	819	205	1172	1147	168	1125	1008
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	14.9	14.9	24.8	18.7	17.6	24.8	19.9	20.0	24.2	17.8	17.9
Incr Delay (d2), s/veh	15.9	0.2	0.3	2.3	0.4	0.4	2.2	1.6	1.7	16.1	0.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	1.2	1.4	0.8	1.8	0.9	0.8	2.2	2.2	2.0	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	15.1	15.3	27.1	19.1	18.0	27.1	21.5	21.7	40.3	18.2	18.5
LnGrp LOS	D	B	B	C	B	B	C	C	C	D	B	B
Approach Vol, veh/h		679			736			463			353	
Approach Delay, s/veh		21.9			19.7			22.4			25.6	
Approach LOS		C			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	21.5	7.7	17.0	11.9	17.4	9.1	15.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	9.1	25.8	6.1	33.6	7.4	27.5	5.0	* 35
Max Q Clear Time (g_c+I1), s	4.0	5.8	3.9	5.3	7.7	7.3	5.4	7.6
Green Ext Time (p_c), s	0.0	2.6	0.0	1.3	0.0	3.8	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑↱			↱
Traffic Vol, veh/h	0	647	702	37	0	35
Future Vol, veh/h	0	647	702	37	0	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	688	747	39	0	37

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	393
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	522
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	522
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	522
HCM Lane V/C Ratio	-	-	-	0.071
HCM Control Delay (s)	-	-	-	12.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1027	-	-	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1027	-	-	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1027	-	-	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1	0	0	0	0	0
Stage 1	0	-	-	-	-	-
Stage 2	1	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	1027	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	1027	-	-	-	-	-
Mov Cap-2 Maneuver	938	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	1028	-	-	-	-	-

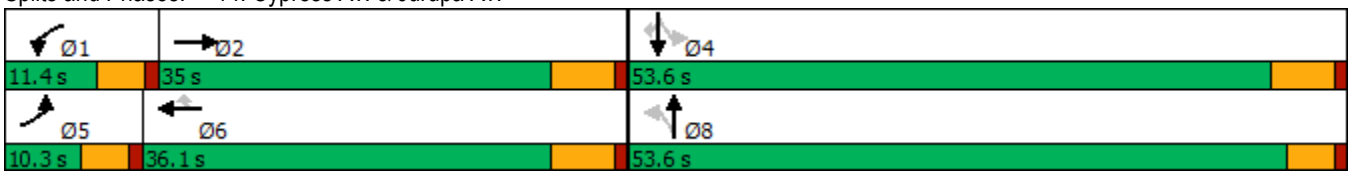
Approach	WB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

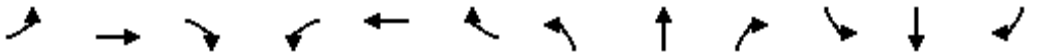
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	82	465	46	619	40	26	65	36	23	54
Future Volume (vph)	82	465	46	619	40	26	65	36	23	54
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.3	35.0	11.4	36.1	36.1	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.3%	35.0%	11.4%	36.1%	36.1%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	6.4	22.2	6.3	14.6	14.6	16.7	16.7	15.3	15.3	15.3
Actuated g/C Ratio	0.12	0.41	0.12	0.27	0.27	0.31	0.31	0.28	0.28	0.28
v/c Ratio	0.40	0.23	0.23	0.46	0.08	0.06	0.32	0.11	0.04	0.11
Control Delay	36.1	14.3	31.5	18.6	1.4	13.3	7.1	14.8	13.9	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	14.3	31.5	18.6	1.4	13.3	7.1	14.8	13.9	2.5
LOS	D	B	C	B	A	B	A	B	B	A
Approach Delay		17.5		18.5			7.9		8.7	
Approach LOS		B		B			A		A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 54.4	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.46	
Intersection Signal Delay: 16.0	Intersection LOS: B
Intersection Capacity Utilization 54.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	465	14	46	619	40	26	65	122	36	23	54
Future Volume (veh/h)	82	465	14	46	619	40	26	65	122	36	23	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	85	479	14	47	638	28	27	67	75	37	24	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	139	1475	43	92	1344	417	523	210	235	422	488	414
Arrive On Green	0.08	0.28	0.28	0.05	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	1810	5180	151	1810	5187	1610	1383	818	916	1265	1900	1610
Grp Volume(v), veh/h	85	319	174	47	638	28	27	0	142	37	24	21
Grp Sat Flow(s),veh/h/ln	1810	1729	1873	1810	1729	1610	1383	0	1734	1265	1900	1610
Q Serve(g_s), s	1.8	2.9	2.9	1.0	4.1	0.5	0.6	0.0	2.6	1.0	0.4	0.4
Cycle Q Clear(g_c), s	1.8	2.9	2.9	1.0	4.1	0.5	1.0	0.0	2.6	3.6	0.4	0.4
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	139	985	533	92	1344	417	523	0	446	422	488	414
V/C Ratio(X)	0.61	0.32	0.33	0.51	0.47	0.07	0.05	0.00	0.32	0.09	0.05	0.05
Avail Cap(c_a), veh/h	259	2539	1375	309	3952	1227	1872	0	2137	1618	2284	1935
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	1.00	1.00
Uniform Delay (d), s/veh	17.8	11.2	11.2	18.4	12.4	11.1	11.5	0.0	12.0	13.4	11.1	11.1
Incr Delay (d2), s/veh	1.6	0.2	0.4	1.6	0.3	0.1	0.0	0.0	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.8	0.9	0.4	1.1	0.1	0.2	0.0	0.9	0.2	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	11.4	11.6	20.0	12.7	11.2	11.5	0.0	12.4	13.5	11.2	11.2
LnGrp LOS	B	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		578			713			169			82	
Approach Delay, s/veh		12.6			13.1			12.2			12.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.6	17.1		16.0	7.6	16.1		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	6.8	29.2		47.8	5.7	30.3		* 49				
Max Q Clear Time (g_c+I1), s	3.0	4.9		5.6	3.8	6.1		4.6				
Green Ext Time (p_c), s	0.0	2.8		0.3	0.0	4.2		1.0				

Intersection Summary		
HCM 6th Ctrl Delay		12.8
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	136	23	26	134	14	23	25	20	37	34	10
Future Vol, veh/h	3	136	23	26	134	14	23	25	20	37	34	10
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	186	32	36	184	19	32	34	27	51	47	14
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	10.9	9.2	9.2	9.8
HCM LOS	B	A	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	48%	0%	2%	28%	0%	52%	0%
Vol Thru, %	52%	0%	84%	72%	83%	48%	0%
Vol Right, %	0%	100%	14%	0%	17%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	20	162	93	81	71	10
LT Vol	23	0	3	26	0	37	0
Through Vol	25	0	136	67	67	34	0
RT Vol	0	20	23	0	14	0	10
Lane Flow Rate	66	27	222	127	111	97	14
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.111	0.039	0.326	0.192	0.16	0.163	0.019
Departure Headway (Hd)	6.053	5.102	5.281	5.439	5.177	6.042	5.07
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	587	694	677	655	688	588	698
Service Time	3.844	2.892	3.349	3.209	2.946	3.832	2.859
HCM Lane V/C Ratio	0.112	0.039	0.328	0.194	0.161	0.165	0.02
HCM Control Delay	9.6	8.1	10.9	9.5	8.9	10	8
HCM Lane LOS	A	A	B	A	A	A	A
HCM 95th-tile Q	0.4	0.1	1.4	0.7	0.6	0.6	0.1

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1027	1090	1635	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1027	1090	1635	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1027	1090	1635	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1027	1090	1635	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1027	1090	1635	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1027	1090	1635	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1027	1090	1635	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1027	1090	1635	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	0	0	0	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1	1	1	0	-	0
Stage 1	1	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	1027	1090	1635	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	1027	1090	1635	-	-	-
Mov Cap-2 Maneuver	1027	-	-	-	-	-
Stage 1	1028	-	-	-	-	-
Stage 2	-	-	-	-	-	-

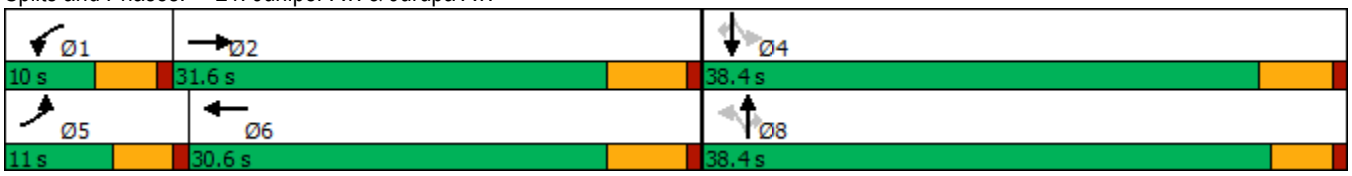
Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

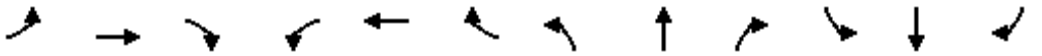
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1635	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	36	574	12	654	5	5	17	35	6	42
Future Volume (vph)	36	574	12	654	5	5	17	35	6	42
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	11.0	31.6	10.0	30.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	13.8%	39.5%	12.5%	38.3%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	6.1	15.9	5.7	13.8		14.8	14.8		13.9	13.9
Actuated g/C Ratio	0.14	0.37	0.13	0.32		0.34	0.34		0.32	0.32
v/c Ratio	0.15	0.32	0.06	0.43		0.02	0.03		0.09	0.08
Control Delay	24.9	11.9	25.8	14.4		12.0	0.1		12.8	0.3
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	24.9	11.9	25.8	14.4		12.0	0.1		12.8	0.3
LOS	C	B	C	B		B	A		B	A
Approach Delay		12.7		14.6		4.4			6.4	
Approach LOS		B		B		A			A	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 43.5	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 13.1	Intersection LOS: B
Intersection Capacity Utilization 43.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	574	3	12	654	27	5	5	17	35	6	42
Future Volume (veh/h)	36	574	3	12	654	27	5	5	17	35	6	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	38	598	2	12	681	25	5	5	7	36	6	12
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	79	1592	5	28	1389	51	318	272	428	503	71	428
Arrive On Green	0.04	0.30	0.30	0.02	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	5337	18	1810	5136	188	654	1022	1610	1224	267	1610
Grp Volume(v), veh/h	38	387	213	12	458	248	10	0	7	42	0	12
Grp Sat Flow(s),veh/h/ln	1810	1729	1897	1810	1729	1866	1677	0	1610	1491	0	1610
Q Serve(g_s), s	0.8	3.3	3.3	0.2	4.2	4.2	0.0	0.0	0.1	0.4	0.0	0.2
Cycle Q Clear(g_c), s	0.8	3.3	3.3	0.2	4.2	4.2	0.1	0.0	0.1	0.7	0.0	0.2
Prop In Lane	1.00		0.01	1.00		0.10	0.50		1.00	0.86		1.00
Lane Grp Cap(c), veh/h	79	1031	566	28	935	504	590	0	428	574	0	428
V/C Ratio(X)	0.48	0.38	0.38	0.42	0.49	0.49	0.02	0.00	0.02	0.07	0.00	0.03
Avail Cap(c_a), veh/h	308	2372	1301	260	2281	1230	1617	0	1447	1478	0	1413
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	10.4	10.4	18.3	11.5	11.5	10.2	0.0	10.2	10.4	0.0	10.2
Incr Delay (d2), s/veh	1.7	0.2	0.4	3.7	0.4	0.7	0.0	0.0	0.0	0.1	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	0.9	1.0	0.1	1.1	1.3	0.1	0.0	0.0	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	10.7	10.8	22.0	11.9	12.3	10.2	0.0	10.2	10.4	0.0	10.2
LnGrp LOS	B	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		638			718			17			54	
Approach Delay, s/veh		11.2			12.2			10.2			10.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	17.0		15.4	6.2	16.0		15.4				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	6.4	24.8		* 34				
Max Q Clear Time (g_c+I1), s	2.2	5.3		2.7	2.8	6.2		2.1				
Green Ext Time (p_c), s	0.0	3.3		0.2	0.0	3.9		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		11.7
HCM 6th LOS		B

Notes

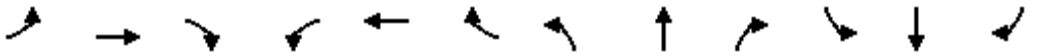
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	251	238	70	81	261	402	143	921	503	747
Future Volume (vph)	251	238	70	81	261	402	143	921	503	747
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	12.0	47.6	47.6	9.6	45.2	16.0	14.5	46.8	16.0	48.3
Total Split (%)	10.0%	39.7%	39.7%	8.0%	37.7%	13.3%	12.1%	39.0%	13.3%	40.3%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 79.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	238	70	81	261	402	143	921	87	503	747	235
Future Volume (veh/h)	251	238	70	81	261	402	143	921	87	503	747	235
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	270	256	31	87	281	158	154	990	78	541	803	200
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	360	727	324	202	565	894	241	1730	135	562	1531	378
Arrive On Green	0.10	0.20	0.20	0.06	0.16	0.16	0.07	0.28	0.28	0.16	0.37	0.37
Sat Flow, veh/h	3510	3610	1610	3510	3610	2812	3510	6227	487	3510	4147	1025
Grp Volume(v), veh/h	270	256	31	87	281	158	154	778	290	541	669	334
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1406	1755	1634	1812	1755	1729	1714
Q Serve(g_s), s	5.3	4.3	1.1	1.7	5.1	2.9	3.0	9.7	9.8	10.9	10.8	10.9
Cycle Q Clear(g_c), s	5.3	4.3	1.1	1.7	5.1	2.9	3.0	9.7	9.8	10.9	10.8	10.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		0.60
Lane Grp Cap(c), veh/h	360	727	324	202	565	894	241	1362	503	562	1276	633
V/C Ratio(X)	0.75	0.35	0.10	0.43	0.50	0.18	0.64	0.57	0.58	0.96	0.52	0.53
Avail Cap(c_a), veh/h	365	2118	945	246	1976	1993	488	2794	1033	562	2082	1032
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	24.5	23.2	32.4	27.5	17.6	32.3	22.1	22.1	29.7	17.6	17.6
Incr Delay (d2), s/veh	7.4	0.3	0.1	0.5	0.7	0.1	1.0	0.4	1.0	28.6	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.7	0.4	0.7	2.0	0.8	1.2	3.3	3.8	6.4	3.8	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	24.7	23.3	33.0	28.2	17.7	33.4	22.5	23.2	58.3	17.9	18.3
LnGrp LOS	D	C	C	C	C	B	C	C	C	E	B	B
Approach Vol, veh/h		557			526			1222			1544	
Approach Delay, s/veh		31.3			25.8			24.0			32.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	26.0	8.7	20.5	9.5	32.5	11.9	17.3
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	11.4	40.6	5.0	* 42	9.9	* 43	7.4	39.0
Max Q Clear Time (g_c+I1), s	12.9	11.8	3.7	6.3	5.0	12.9	7.3	7.1
Green Ext Time (p_c), s	0.0	7.4	0.0	1.6	0.1	6.9	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

Notes

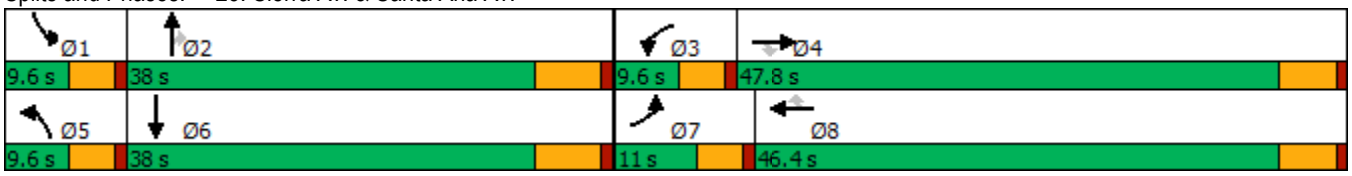
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

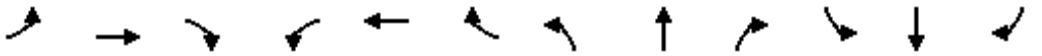
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	89	71	68	42	86	87	75	1111	50	90	680
Future Volume (vph)	89	71	68	42	86	87	75	1111	50	90	680
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	11.0	47.8	47.8	9.6	46.4	46.4	9.6	38.0	38.0	9.6	38.0
Total Split (%)	10.5%	45.5%	45.5%	9.1%	44.2%	44.2%	9.1%	36.2%	36.2%	9.1%	36.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 105
Actuated Cycle Length: 71.5
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	89	71	68	42	86	87	75	1111	50	90	680	77
Future Volume (veh/h)	89	71	68	42	86	87	75	1111	50	90	680	77
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	78	23	46	95	36	82	1221	52	99	747	66
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	126	681	304	80	589	263	217	1856	568	235	1762	155
Arrive On Green	0.07	0.19	0.19	0.04	0.16	0.16	0.06	0.36	0.36	0.07	0.36	0.36
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	3510	5187	1589	3510	4854	426
Grp Volume(v), veh/h	98	78	23	46	95	36	82	1221	52	99	531	282
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1755	1729	1589	1755	1729	1823
Q Serve(g_s), s	3.2	1.1	0.7	1.5	1.4	1.2	1.4	12.0	1.3	1.6	7.0	7.1
Cycle Q Clear(g_c), s	3.2	1.1	0.7	1.5	1.4	1.2	1.4	12.0	1.3	1.6	7.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.23
Lane Grp Cap(c), veh/h	126	681	304	80	589	263	217	1856	568	235	1255	662
V/C Ratio(X)	0.78	0.11	0.08	0.57	0.16	0.14	0.38	0.66	0.09	0.42	0.42	0.43
Avail Cap(c_a), veh/h	191	2520	1124	149	2437	1087	289	2715	832	289	1810	954
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.8	20.4	20.3	28.5	21.8	21.8	27.4	16.4	12.9	27.2	14.6	14.6
Incr Delay (d2), s/veh	5.0	0.1	0.1	2.4	0.1	0.2	0.4	0.4	0.1	0.4	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.4	0.2	0.7	0.5	0.4	0.5	3.8	0.4	0.6	2.2	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	20.5	20.4	30.8	22.0	22.0	27.8	16.8	13.0	27.7	14.8	15.0
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		199			177			1355			912	
Approach Delay, s/veh		26.5			24.3			17.3			16.3	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	27.9	7.3	16.9	8.3	28.2	8.8	15.3
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.0	31.8	5.0	42.4	5.0	31.8	6.4	41.0
Max Q Clear Time (g_c+I1), s	3.6	14.0	3.5	3.1	3.4	9.1	5.2	3.4
Green Ext Time (p_c), s	0.0	7.6	0.0	0.5	0.0	4.7	0.0	0.7

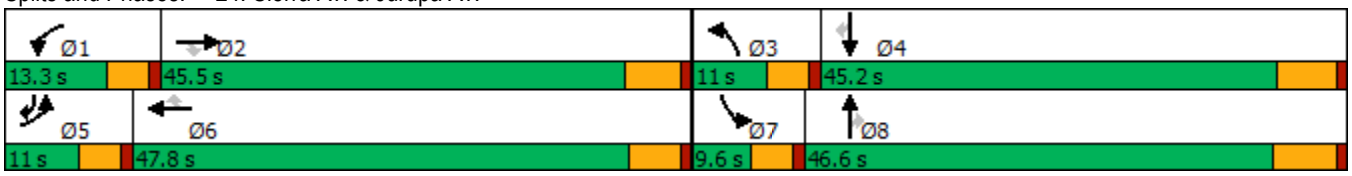
Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	221	215	130	266	98	260	671	54	24	422	222
Future Volume (vph)	231	221	215	130	266	98	260	671	54	24	422	222
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	11.0	45.5	45.5	13.3	47.8	47.8	11.0	46.6	46.6	9.6	45.2	11.0
Total Split (%)	9.6%	39.6%	39.6%	11.6%	41.6%	41.6%	9.6%	40.5%	40.5%	8.3%	39.3%	9.6%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 115
Actuated Cycle Length: 68.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	231	221	215	130	266	98	260	671	54	24	422	222
Future Volume (veh/h)	231	221	215	130	266	98	260	671	54	24	422	222
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	238	228	101	134	274	48	268	692	28	25	435	117
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	352	754	336	280	680	303	382	1035	462	102	746	494
Arrive On Green	0.10	0.21	0.21	0.08	0.19	0.19	0.11	0.29	0.29	0.03	0.21	0.21
Sat Flow, veh/h	3510	3610	1610	3510	3610	1608	3510	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	238	228	101	134	274	48	268	692	28	25	435	117
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1608	1755	1805	1610	1755	1805	1610
Q Serve(g_s), s	3.6	2.9	2.9	2.0	3.6	1.4	4.0	9.2	0.7	0.4	5.9	3.0
Cycle Q Clear(g_c), s	3.6	2.9	2.9	2.0	3.6	1.4	4.0	9.2	0.7	0.4	5.9	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	754	336	280	680	303	382	1035	462	102	746	494
V/C Ratio(X)	0.68	0.30	0.30	0.48	0.40	0.16	0.70	0.67	0.06	0.25	0.58	0.24
Avail Cap(c_a), veh/h	414	2638	1177	562	2817	1255	414	2665	1189	323	2592	1317
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	18.2	18.1	23.9	19.4	18.4	23.3	17.1	14.1	25.8	19.4	14.1
Incr Delay (d2), s/veh	2.3	0.2	0.5	0.5	0.4	0.2	3.8	0.8	0.1	0.5	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.0	0.9	0.8	1.4	0.4	1.6	3.0	0.2	0.1	2.1	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	18.4	18.6	24.4	19.7	18.7	27.1	17.9	14.1	26.3	20.2	14.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	B
Approach Vol, veh/h		567			456			988			577	
Approach Delay, s/veh		21.6			21.0			20.3			19.2	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	17.1	10.5	17.7	10.0	16.0	6.2	22.1
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	8.7	39.7	6.4	* 39	6.4	* 42	5.0	40.1
Max Q Clear Time (g_c+I1), s	4.0	4.9	6.0	7.9	5.6	5.6	2.4	11.2
Green Ext Time (p_c), s	0.1	1.7	0.0	3.0	0.0	1.9	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	20.5
HCM 6th LOS	C

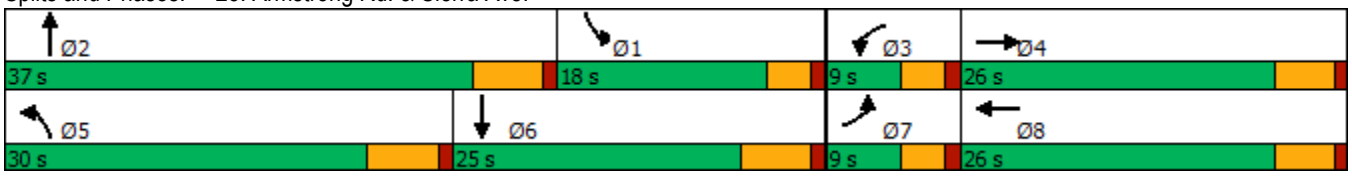
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	52	9	703	36	37	888	270	3	342
Future Volume (vph)	52	9	703	36	37	888	270	3	342
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0		9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0		9.0	26.0	30.0	37.0	18.0	25.0
Total Split (%)	10.0%	28.9%		10.0%	28.9%	33.3%	41.1%	20.0%	27.8%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	Max	None	Max
Act Effct Green (s)	5.1	9.7	71.5	7.3	6.5	24.7	48.2	10.9	19.6
Actuated g/C Ratio	0.07	0.14	1.00	0.10	0.09	0.35	0.67	0.15	0.27
v/c Ratio	0.44	0.02	0.47	0.21	0.20	0.79	0.23	0.01	0.80
Control Delay	45.9	30.7	1.0	34.0	23.9	28.8	9.1	27.0	39.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	30.7	1.0	34.0	23.9	28.8	9.1	27.0	39.9
LOS	D	C	A	C	C	C	A	C	D
Approach Delay		4.4			27.7		24.2		39.8
Approach LOS		A			C		C		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 69.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	9	703	36	37	22	888	270	6	3	342	42
Future Volume (veh/h)	52	9	703	36	37	22	888	270	6	3	342	42
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		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	56	10	0	39	40	11	955	290	6	3	368	22
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	86	257		69	173	45	1114	838	17	261	495	30
Arrive On Green	0.05	0.07	0.00	0.04	0.06	0.06	0.32	0.45	0.45	0.14	0.28	0.28
Sat Flow, veh/h	1810	3610	1610	1810	2813	737	3510	1855	38	1810	1775	106
Grp Volume(v), veh/h	56	10	0	39	25	26	955	0	296	3	0	390
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1745	1755	0	1893	1810	0	1881
Q Serve(g_s), s	2.1	0.2	0.0	1.5	0.9	1.0	17.7	0.0	7.0	0.1	0.0	13.1
Cycle Q Clear(g_c), s	2.1	0.2	0.0	1.5	0.9	1.0	17.7	0.0	7.0	0.1	0.0	13.1
Prop In Lane	1.00		1.00	1.00		0.42	1.00		0.02	1.00		0.06
Lane Grp Cap(c), veh/h	86	257		69	111	108	1114	0	856	261	0	524
V/C Ratio(X)	0.65	0.04		0.57	0.22	0.24	0.86	0.00	0.35	0.01	0.00	0.74
Avail Cap(c_a), veh/h	131	1095		131	547	529	1232	0	856	366	0	524
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.4	29.9	0.0	32.7	30.9	30.9	22.2	0.0	12.3	25.4	0.0	22.7
Incr Delay (d2), s/veh	3.1	0.1	0.0	2.7	1.0	1.2	6.1	0.0	1.1	0.0	0.0	9.2
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	0.1	0.0	0.7	0.4	0.4	7.2	0.0	2.7	0.0	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.5	30.0	0.0	35.4	31.9	32.1	28.3	0.0	13.4	25.4	0.0	32.0
LnGrp LOS	D	C		D	C	C	C	A	B	C	A	C
Approach Vol, veh/h		66	A		90			1251			393	
Approach Delay, s/veh		34.6			33.5			24.8			31.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	37.0	6.6	9.9	27.7	25.0	7.3	9.3
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	14.0	* 31	5.0	21.0	24.3	19.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	2.1	9.0	3.5	2.2	19.7	15.1	4.1	3.0
Green Ext Time (p_c), s	0.0	2.2	0.0	0.0	2.3	1.1	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

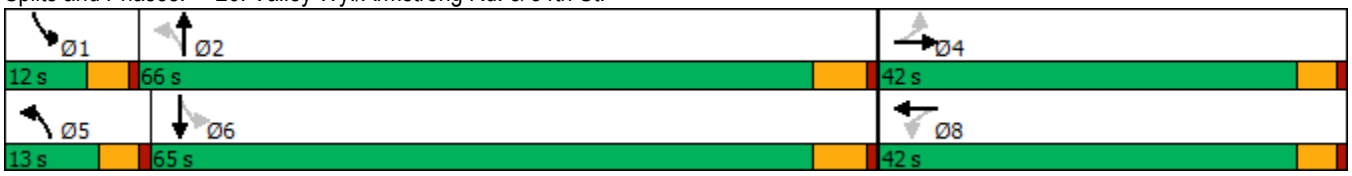
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

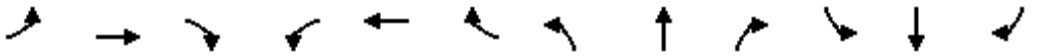
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	82	13	102	65	64	1021	6	984
Future Volume (vph)	82	13	102	65	64	1021	6	984
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	13.0	66.0	12.0	65.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	10.8%	55.0%	10.0%	54.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	17.7	17.7		17.7	70.5	68.0	66.3	61.2
Actuated g/C Ratio	0.18	0.18		0.18	0.72	0.69	0.68	0.63
v/c Ratio	0.43	0.17		0.72	0.22	0.47	0.02	0.55
Control Delay	42.1	15.1		52.3	6.5	8.8	5.3	13.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	15.1		52.3	6.5	8.8	5.3	13.0
LOS	D	B		D	A	A	A	B
Approach Delay		31.6		52.3		8.6		12.9
Approach LOS		C		D		A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 14.7	Intersection LOS: B
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	13	40	102	65	12	64	1021	52	6	984	133
Future Volume (veh/h)	82	13	40	102	65	12	64	1021	52	6	984	133
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	89	14	40	111	71	13	70	1110	57	7	1070	142
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	276	73	209	185	98	16	362	2310	119	339	2000	265
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.04	0.66	0.66	0.01	0.63	0.63
Sat Flow, veh/h	1335	429	1227	734	577	94	1810	3489	179	1810	3194	423
Grp Volume(v), veh/h	89	0	54	195	0	0	70	574	593	7	604	608
Grp Sat Flow(s),veh/h/ln	1335	0	1656	1405	0	0	1810	1805	1863	1810	1805	1812
Q Serve(g_s), s	0.0	0.0	2.6	10.3	0.0	0.0	1.2	14.9	14.9	0.1	17.8	17.8
Cycle Q Clear(g_c), s	6.7	0.0	2.6	13.0	0.0	0.0	1.2	14.9	14.9	0.1	17.8	17.8
Prop In Lane	1.00		0.74	0.57		0.07	1.00		0.10	1.00		0.23
Lane Grp Cap(c), veh/h	276	0	282	299	0	0	362	1195	1233	339	1130	1135
V/C Ratio(X)	0.32	0.00	0.19	0.65	0.00	0.00	0.19	0.48	0.48	0.02	0.53	0.54
Avail Cap(c_a), veh/h	577	0	655	647	0	0	442	1195	1233	464	1130	1135
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	0.0	33.6	38.4	0.0	0.0	7.2	7.9	7.9	7.0	9.9	9.9
Incr Delay (d2), s/veh	0.7	0.0	0.3	2.4	0.0	0.0	0.1	1.4	1.3	0.0	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	1.1	4.6	0.0	0.0	0.4	4.9	5.1	0.0	6.2	6.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.9	0.0	33.9	40.8	0.0	0.0	7.3	9.3	9.3	7.0	11.7	11.7
LnGrp LOS	D	A	C	D	A	A	A	A	A	A	B	B
Approach Vol, veh/h		143			195			1237			1219	
Approach Delay, s/veh		35.2			40.8			9.2			11.7	
Approach LOS		D			D			A			B	

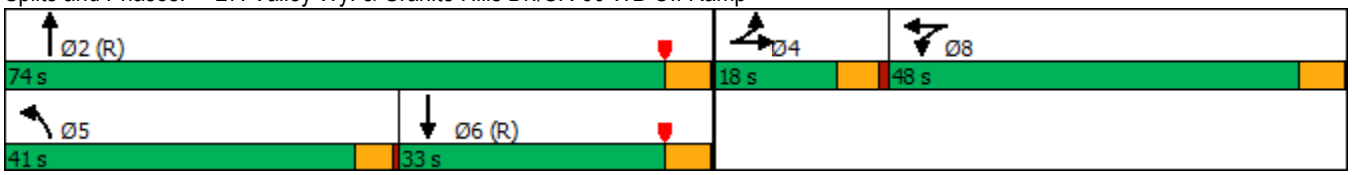
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	68.4		20.7	8.8	65.0		20.7				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	7.4	60.2		37.4	8.4	59.2		37.4				
Max Q Clear Time (g_c+I1), s	2.1	16.9		8.7	3.2	19.8		15.0				
Green Ext Time (p_c), s	0.0	8.8		0.6	0.0	9.3		1.1				

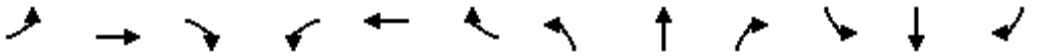
Intersection Summary			
HCM 6th Ctrl Delay		13.8	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	180	107	96	719	1164
Future Volume (vph)	0	180	107	96	719	1164
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	18.0	48.0	48.0	41.0	74.0	33.0
Total Split (%)	12.9%	34.3%	34.3%	29.3%	52.9%	23.6%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	12.6	41.4	41.4	13.0	70.0	52.4
Actuated g/C Ratio	0.09	0.30	0.30	0.09	0.50	0.37
v/c Ratio	1.60	0.35	0.97	0.59	0.41	0.91
Control Delay	336.9	40.5	65.1	74.2	23.1	52.6
Queue Delay	97.6	0.0	0.0	0.0	0.0	11.9
Total Delay	434.5	40.5	65.1	74.2	23.1	64.6
LOS	F	D	E	E	C	E
Approach Delay	434.5		59.2		29.2	64.6
Approach LOS	F		E		C	E

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 125	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.60	
Intersection Signal Delay: 82.7	Intersection LOS: F
Intersection Capacity Utilization 103.6%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	0	169	180	107	464	96	719	0	0	1164	20
Future Volume (veh/h)	67	0	169	180	107	464	96	719	0	0	1164	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	69	0	174	186	110	368	99	741	0	0	1200	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	42	0	107	541	115	384	125	1792	0	0	1433	25
Arrive On Green	0.09	0.00	0.09	0.30	0.30	0.30	0.02	0.16	0.00	0.00	0.39	0.39
Sat Flow, veh/h	472	0	1190	1810	384	1285	1810	3705	0	0	3724	63
Grp Volume(v), veh/h	243	0	0	186	0	478	99	741	0	0	597	624
Grp Sat Flow(s),veh/h/ln	1662	0	0	1810	0	1669	1810	1805	0	0	1805	1887
Q Serve(g_s), s	12.6	0.0	0.0	11.2	0.0	39.4	7.6	25.8	0.0	0.0	41.8	41.9
Cycle Q Clear(g_c), s	12.6	0.0	0.0	11.2	0.0	39.4	7.6	25.8	0.0	0.0	41.8	41.9
Prop In Lane	0.28		0.72	1.00		0.77	1.00		0.00	0.00		0.03
Lane Grp Cap(c), veh/h	150	0	0	541	0	499	125	1792	0	0	713	745
V/C Ratio(X)	1.62	0.00	0.00	0.34	0.00	0.96	0.79	0.41	0.00	0.00	0.84	0.84
Avail Cap(c_a), veh/h	150	0	0	552	0	509	470	1792	0	0	713	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.98	0.98	0.00	0.00	0.82	0.82
Uniform Delay (d), s/veh	63.7	0.0	0.0	38.3	0.0	48.2	67.4	40.2	0.0	0.0	38.3	38.3
Incr Delay (d2), s/veh	309.4	0.0	0.0	0.4	0.0	29.1	10.6	0.7	0.0	0.0	9.5	9.1
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	18.1	0.0	0.0	5.0	0.0	19.9	4.0	12.6	0.0	0.0	19.7	20.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	373.1	0.0	0.0	38.7	0.0	77.3	78.0	40.9	0.0	0.0	47.8	47.4
LnGrp LOS	F	A	A	D	A	E	E	D	A	A	D	D
Approach Vol, veh/h		243			664			840			1221	
Approach Delay, s/veh		373.1			66.5			45.3			47.6	
Approach LOS		F			E			D			D	

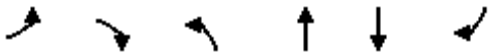
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		74.8		18.0	14.2	60.6		47.2				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		68.7		12.6	36.4	27.7		42.7				
Max Q Clear Time (g_c+I1), s		27.8		14.6	9.6	43.9		41.4				
Green Ext Time (p_c), s		3.2		0.0	0.2	0.0		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			77.8									
HCM 6th LOS			E									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	277	815	1030
Future Volume (vph)	277	815	1030
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	15.0	140.0	125.0
Total Split (%)	10.7%	100.0%	89.3%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	10.4	140.0	119.2
Actuated g/C Ratio	0.07	1.00	0.85
v/c Ratio	2.20	0.24	0.56
Control Delay	592.5	0.2	6.4
Queue Delay	0.0	0.2	0.0
Total Delay	592.5	0.3	6.4
LOS	F	A	A
Approach Delay		150.7	6.4
Approach LOS		F	A

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.20	
Intersection Signal Delay: 66.9	Intersection LOS: E
Intersection Capacity Utilization 68.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	277	815	1030	483
Future Volume (veh/h)	0	0	277	815	1030	483
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.97
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			295	867	1096	514
Peak Hour Factor			0.94	0.94	0.94	0.94
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			134	3460	2039	919
Arrive On Green			0.07	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2490	1079
Grp Volume(v), veh/h			295	867	815	795
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1669
Q Serve(g_s), s			10.4	1.8	0.0	0.0
Cycle Q Clear(g_c), s			10.4	1.8	0.0	0.0
Prop In Lane			1.00			0.65
Lane Grp Cap(c), veh/h			134	3460	1537	1421
V/C Ratio(X)			2.19	0.25	0.53	0.56
Avail Cap(c_a), veh/h			134	3460	1537	1421
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.54	0.54	0.44	0.44
Uniform Delay (d), s/veh			64.8	0.2	0.0	0.0
Incr Delay (d2), s/veh			550.5	0.1	0.6	0.7
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			25.3	0.0	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			615.3	0.3	0.6	0.7
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				1162	1610	
Approach Delay, s/veh				156.4	0.6	
Approach LOS				F	A	

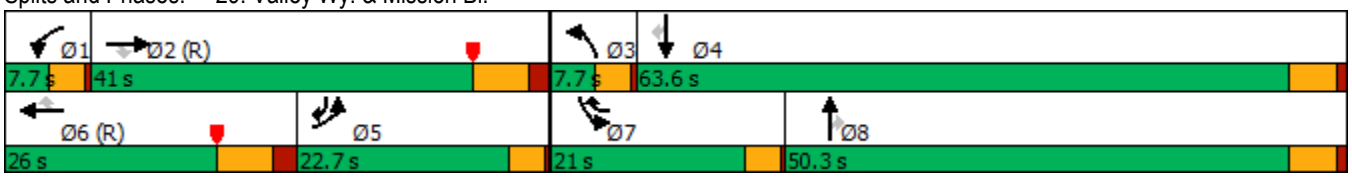
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			15.0	125.0
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			10.4	119.2
Max Q Clear Time (g_c+I1), s	3.8			12.4	2.0
Green Ext Time (p_c), s	6.7			0.0	18.9

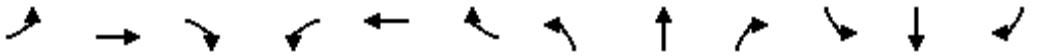
Intersection Summary	
HCM 6th Ctrl Delay	65.9
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	278	334	25	44	227	604	5	448	32	310	345	376
Future Volume (vph)	278	334	25	44	227	604	5	448	32	310	345	376
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	22.7	41.0	41.0	7.7	26.0	21.0	7.7	50.3	50.3	21.0	63.6	22.7
Total Split (%)	18.9%	34.2%	34.2%	6.4%	21.7%	17.5%	6.4%	41.9%	41.9%	17.5%	53.0%	18.9%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	19.0	54.9	54.9	8.1	42.2	62.8	4.0	21.8	21.8	17.3	41.3	61.9
Actuated g/C Ratio	0.16	0.46	0.46	0.07	0.35	0.52	0.03	0.18	0.18	0.14	0.34	0.52
v/c Ratio	0.53	0.21	0.03	0.38	0.19	0.69	0.04	0.72	0.07	0.65	0.29	0.24
Control Delay	50.3	21.8	0.1	61.8	28.5	12.9	57.0	52.4	0.3	55.1	29.2	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	21.8	0.1	61.8	28.5	12.9	57.0	52.4	0.3	55.1	29.2	1.4
LOS	D	C	A	E	C	B	E	D	A	E	C	A
Approach Delay		33.4			19.4			49.0			26.8	
Approach LOS		C			B			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 29.6	Intersection LOS: C
Intersection Capacity Utilization 70.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	278	334	25	44	227	604	5	448	32	310	345	376
Future Volume (veh/h)	278	334	25	44	227	604	5	448	32	310	345	376
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	293	352	9	46	239	597	5	472	23	326	363	354
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	1219	1806	794	59	572	433	18	690	307	391	1074	1799
Arrive On Green	0.35	0.50	0.50	0.03	0.16	0.16	0.01	0.19	0.19	0.11	0.30	0.30
Sat Flow, veh/h	3510	3610	1587	1810	3610	1601	3510	3610	1608	3510	3610	2738
Grp Volume(v), veh/h	293	352	9	46	239	597	5	472	23	326	363	354
Grp Sat Flow(s),veh/h/ln	1755	1805	1587	1810	1805	1601	1755	1805	1608	1755	1805	1369
Q Serve(g_s), s	7.1	6.5	0.3	3.0	7.2	15.0	0.2	14.6	1.4	10.9	9.4	0.6
Cycle Q Clear(g_c), s	7.1	6.5	0.3	3.0	7.2	15.0	0.2	14.6	1.4	10.9	9.4	0.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1219	1806	794	59	572	433	18	690	307	391	1074	1799
V/C Ratio(X)	0.24	0.19	0.01	0.77	0.42	1.38	0.28	0.68	0.07	0.83	0.34	0.20
Avail Cap(c_a), veh/h	1219	1806	794	60	572	433	117	1354	603	506	1754	2314
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)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81
Uniform Delay (d), s/veh	27.9	16.6	15.1	57.6	45.5	22.0	59.5	45.2	39.8	52.2	32.9	3.3
Incr Delay (d2), s/veh	0.0	0.2	0.0	41.5	2.2	184.5	3.1	1.2	0.1	7.5	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	2.9	2.6	0.1	2.0	3.3	27.0	0.1	6.6	0.6	5.1	4.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	16.8	15.1	99.0	47.8	206.6	62.5	46.4	39.9	59.7	33.1	3.4
LnGrp LOS	C	B	B	F	D	F	E	D	D	E	C	A
Approach Vol, veh/h		654			882			500			1043	
Approach Delay, s/veh		21.8			157.9			46.2			31.3	
Approach LOS		C			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	67.0	4.3	41.0	48.7	26.0	17.1	28.2
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	4.0	34.0	4.0	58.3	19.0	* 19	17.3	45.0
Max Q Clear Time (g_c+I1), s	5.0	8.5	2.2	11.4	9.1	17.0	12.9	16.6
Green Ext Time (p_c), s	0.0	3.0	0.0	3.9	0.4	1.1	0.5	3.3

Intersection Summary	
HCM 6th Ctrl Delay	68.0
HCM 6th LOS	E

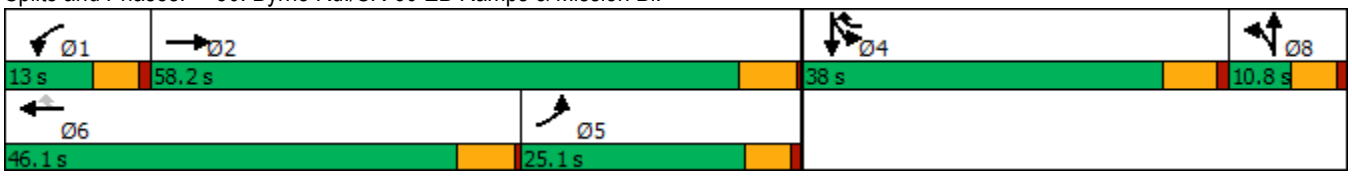
Notes

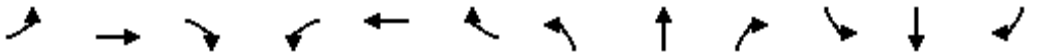
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	142	264	5	318	280	1	357	2
Future Volume (vph)	142	264	5	318	280	1	357	2
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	25.1	58.2	13.0	46.1	38.0	10.8	38.0	38.0
Total Split (%)	20.9%	48.5%	10.8%	38.4%	31.7%	9.0%	31.7%	31.7%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	None	None	None	None	None
Act Effct Green (s)	36.0	54.0	6.1	14.6	34.7	5.5	20.2	20.2
Actuated g/C Ratio	0.39	0.59	0.07	0.16	0.38	0.06	0.22	0.22
v/c Ratio	0.24	0.15	0.05	0.67	0.41	0.23	0.66	0.65
Control Delay	24.3	11.7	48.8	43.5	2.9	42.5	42.1	39.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	11.7	48.8	43.5	2.9	42.5	42.1	39.6
LOS	C	B	D	D	A	D	D	D
Approach Delay		16.0		24.7		42.5		40.9
Approach LOS		B		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.5	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 53.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	142	264	6	5	318	280	14	1	7	357	2	52
Future Volume (veh/h)	142	264	6	5	318	280	14	1	7	357	2	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	318	6	6	383	218	17	1	3	460	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	722	2074	39	14	631	536	33	2	6	581	305	0
Arrive On Green	0.40	0.57	0.57	0.01	0.17	0.17	0.02	0.02	0.02	0.16	0.00	0.00
Sat Flow, veh/h	1810	3622	68	1810	3610	1586	1443	85	255	3619	1900	0
Grp Volume(v), veh/h	171	158	166	6	383	218	21	0	0	460	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1885	1810	1805	1586	1782	0	0	1810	1900	0
Q Serve(g_s), s	5.8	3.8	3.8	0.3	9.0	9.7	1.1	0.0	0.0	11.2	0.0	0.0
Cycle Q Clear(g_c), s	5.8	3.8	3.8	0.3	9.0	9.7	1.1	0.0	0.0	11.2	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	0.81		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	722	1034	1080	14	631	536	40	0	0	581	305	0
V/C Ratio(X)	0.24	0.15	0.15	0.43	0.61	0.41	0.52	0.00	0.00	0.79	0.00	0.00
Avail Cap(c_a), veh/h	722	1034	1080	156	1591	957	111	0	0	1271	667	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	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	18.3	9.2	9.2	45.3	34.9	23.5	44.3	0.0	0.0	37.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.3	19.4	0.4	0.2	3.8	0.0	0.0	2.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	1.4	1.4	0.2	3.8	4.4	0.5	0.0	0.0	4.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.5	9.5	9.5	64.7	35.3	23.7	48.2	0.0	0.0	39.5	0.0	0.0
LnGrp LOS	B	A	A	E	D	C	D	A	A	D	A	A
Approach Vol, veh/h		495			607			21			460	
Approach Delay, s/veh		12.6			31.4			48.2			39.5	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	58.2		20.5	42.3	21.7		7.2				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	7.9	52.5		32.2	20.0	* 40		5.7				
Max Q Clear Time (g_c+I1), s	2.3	5.8		13.2	7.8	11.7		3.1				
Green Ext Time (p_c), s	0.0	1.0		1.5	0.3	1.8		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		28.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

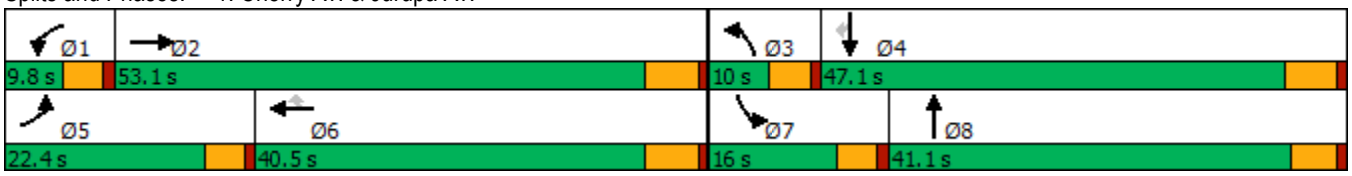
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

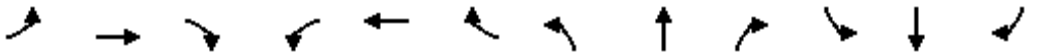
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	319	950	54	437	111	57	315	180	447	222
Future Volume (vph)	319	950	54	437	111	57	315	180	447	222
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	22.4	53.1	9.8	40.5	40.5	10.0	41.1	16.0	47.1	47.1
Total Split (%)	18.7%	44.3%	8.2%	33.8%	33.8%	8.3%	34.3%	13.3%	39.3%	39.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 77
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	950	122	54	437	111	57	315	57	180	447	222
Future Volume (veh/h)	319	950	122	54	437	111	57	315	57	180	447	222
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	332	990	99	56	455	79	59	328	33	188	466	142
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	457	1611	161	176	924	411	181	922	91	293	808	353
Arrive On Green	0.13	0.34	0.34	0.05	0.26	0.26	0.05	0.19	0.19	0.08	0.22	0.22
Sat Flow, veh/h	3510	4793	478	3510	3610	1606	3510	4799	474	3510	3610	1577
Grp Volume(v), veh/h	332	714	375	56	455	79	59	235	126	188	466	142
Grp Sat Flow(s),veh/h/ln	1755	1729	1813	1755	1805	1606	1755	1729	1815	1755	1805	1577
Q Serve(g_s), s	5.6	10.6	10.7	0.9	6.6	2.4	1.0	3.6	3.7	3.2	7.1	4.7
Cycle Q Clear(g_c), s	5.6	10.6	10.7	0.9	6.6	2.4	1.0	3.6	3.7	3.2	7.1	4.7
Prop In Lane	1.00		0.26	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	457	1162	609	176	924	411	181	664	349	293	808	353
V/C Ratio(X)	0.73	0.61	0.62	0.32	0.49	0.19	0.33	0.35	0.36	0.64	0.58	0.40
Avail Cap(c_a), veh/h	1016	2660	1394	297	2037	906	308	2024	1062	651	2425	1059
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.7	17.1	17.1	28.2	19.5	17.9	28.1	21.5	21.6	27.3	21.3	20.4
Incr Delay (d2), s/veh	0.8	0.5	1.0	0.4	0.4	0.2	0.4	0.3	0.6	0.9	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	3.6	3.9	0.4	2.4	0.8	0.4	1.4	1.5	1.2	2.7	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	17.6	18.1	28.6	19.9	18.1	28.5	21.8	22.2	28.2	21.9	21.1
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1421			590			420			796	
Approach Delay, s/veh		19.8			20.5			22.9			23.2	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	26.5	7.8	19.6	12.6	21.5	9.7	17.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.2	47.3	5.4	41.3	17.8	34.7	11.4	* 36
Max Q Clear Time (g_c+I1), s	2.9	12.7	3.0	9.1	7.6	8.6	5.2	5.7
Green Ext Time (p_c), s	0.0	7.8	0.0	3.5	0.4	3.0	0.2	2.3

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

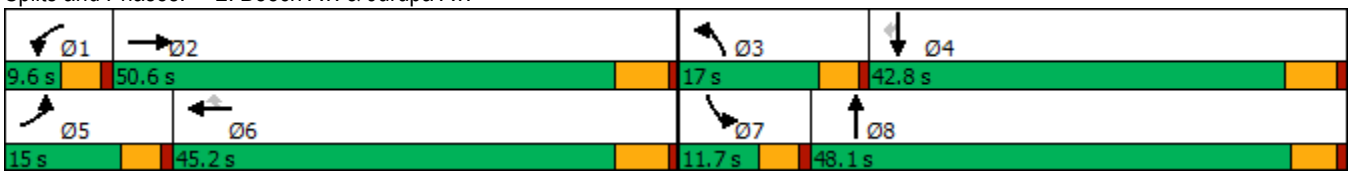
Notes

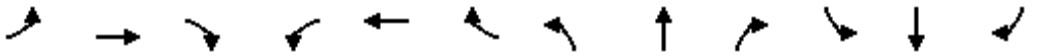
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	155	1098	23	507	20	89	36	41	36	76
Future Volume (vph)	155	1098	23	507	20	89	36	41	36	76
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	15.0	50.6	9.6	45.2	45.2	17.0	48.1	11.7	42.8	42.8
Total Split (%)	12.5%	42.2%	8.0%	37.7%	37.7%	14.2%	40.1%	9.8%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 72.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	1098	199	23	507	20	89	36	19	41	36	76
Future Volume (veh/h)	155	1098	199	23	507	20	89	36	19	41	36	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	165	1168	189	24	539	18	95	38	14	44	38	30
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	267	1828	296	96	1855	576	123	491	171	78	584	260
Arrive On Green	0.08	0.41	0.41	0.03	0.36	0.36	0.07	0.19	0.19	0.04	0.16	0.16
Sat Flow, veh/h	3510	4499	728	3510	5187	1610	1810	2625	915	1810	3610	1610
Grp Volume(v), veh/h	165	898	459	24	539	18	95	25	27	44	38	30
Grp Sat Flow(s),veh/h/ln	1755	1729	1769	1755	1729	1610	1810	1805	1735	1810	1805	1610
Q Serve(g_s), s	2.8	12.9	12.9	0.4	4.6	0.4	3.2	0.7	0.8	1.5	0.6	1.0
Cycle Q Clear(g_c), s	2.8	12.9	12.9	0.4	4.6	0.4	3.2	0.7	0.8	1.5	0.6	1.0
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	267	1405	719	96	1855	576	123	338	325	78	584	260
V/C Ratio(X)	0.62	0.64	0.64	0.25	0.29	0.03	0.77	0.08	0.08	0.57	0.07	0.12
Avail Cap(c_a), veh/h	590	2505	1282	284	3305	1026	363	1255	1207	208	2160	963
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	14.7	14.7	29.5	14.2	12.9	28.3	20.7	20.8	29.0	22.0	22.1
Incr Delay (d2), s/veh	0.9	0.5	1.0	0.5	0.1	0.0	3.8	0.1	0.1	2.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.1	4.3	0.2	1.5	0.1	1.4	0.3	0.3	0.6	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	15.2	15.7	30.0	14.3	12.9	32.1	20.8	20.9	31.4	22.0	22.3
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1522			581			147			112	
Approach Delay, s/veh		16.8			14.9			28.1			25.8	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	30.9	8.8	15.8	9.3	27.9	7.3	17.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	44.8	12.4	37.0	10.4	39.4	7.1	* 43
Max Q Clear Time (g_c+I1), s	2.4	14.9	5.2	3.0	4.8	6.6	3.5	2.8
Green Ext Time (p_c), s	0.0	10.3	0.1	0.3	0.1	3.6	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

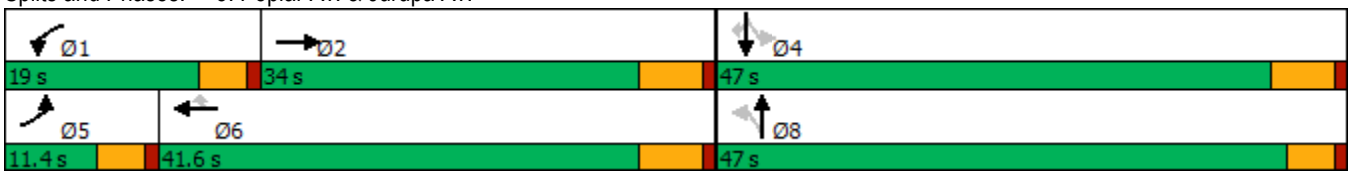
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

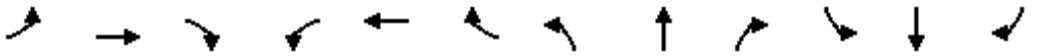
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	44	1117	129	460	29	49	36	49	83	52
Future Volume (vph)	44	1117	129	460	29	49	36	49	83	52
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	11.4	34.0	19.0	41.6	41.6	47.0	47.0	47.0	47.0	47.0
Total Split (%)	11.4%	34.0%	19.0%	41.6%	41.6%	47.0%	47.0%	47.0%	47.0%	47.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 62.3
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	1117	77	129	460	29	49	36	96	49	83	52
Future Volume (veh/h)	44	1117	77	129	460	29	49	36	96	49	83	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	1140	68	132	469	27	50	37	47	50	85	39
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	1850	110	172	2168	673	364	374	333	390	393	333
Arrive On Green	0.05	0.37	0.37	0.10	0.42	0.42	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	5005	298	1810	5187	1609	1286	1805	1610	1335	1900	1608
Grp Volume(v), veh/h	45	787	421	132	469	27	50	37	47	50	85	39
Grp Sat Flow(s),veh/h/ln	1810	1729	1845	1810	1729	1609	1286	1805	1610	1335	1900	1608
Q Serve(g_s), s	1.2	9.2	9.2	3.5	2.9	0.5	1.7	0.8	1.2	1.6	1.8	1.0
Cycle Q Clear(g_c), s	1.2	9.2	9.2	3.5	2.9	0.5	3.5	0.8	1.2	2.7	1.8	1.0
Prop In Lane	1.00		0.16	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	1278	682	172	2168	673	364	374	333	390	393	333
V/C Ratio(X)	0.53	0.62	0.62	0.77	0.22	0.04	0.14	0.10	0.14	0.13	0.22	0.12
Avail Cap(c_a), veh/h	249	1976	1055	528	3764	1167	1203	1551	1384	1229	1587	1343
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	12.7	12.7	21.8	9.2	8.5	17.7	15.8	16.0	17.1	16.2	15.9
Incr Delay (d2), s/veh	1.9	0.5	0.9	2.7	0.0	0.0	0.2	0.1	0.2	0.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.7	2.9	1.4	0.8	0.1	0.4	0.3	0.4	0.4	0.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	13.2	13.6	24.5	9.2	8.5	17.9	16.0	16.2	17.2	16.5	16.1
LnGrp LOS	C	B	B	C	A	A	B	B	B	B	B	B
Approach Vol, veh/h		1253			628			134			174	
Approach Delay, s/veh		13.7			12.4			16.7			16.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	24.0		16.0	6.9	26.4		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	14.4	28.2		41.2	6.8	35.8		* 42				
Max Q Clear Time (g_c+I1), s	5.5	11.2		4.7	3.2	4.9		5.5				
Green Ext Time (p_c), s	0.1	7.0		0.7	0.0	3.1		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.8	
HCM 6th LOS		B	

Notes

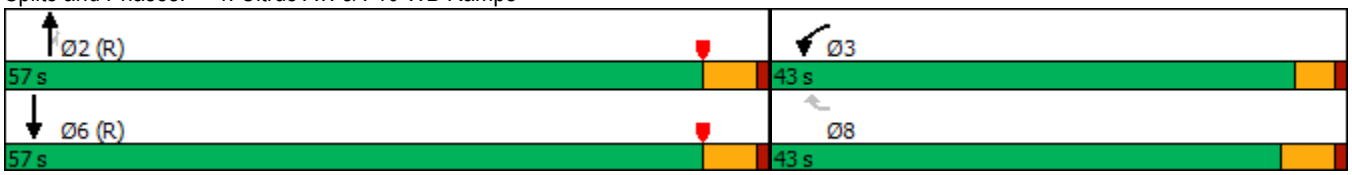
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

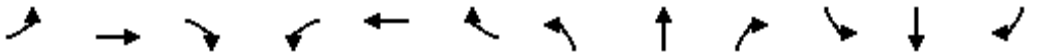
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	261	481	1174	370	848	469
Future Volume (vph)	261	481	1174	370	848	469
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	43.0	43.0	57.0	57.0	57.0	
Total Split (%)	43.0%	43.0%	57.0%	57.0%	57.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	261	0	481	0	1174	370	0	848	469
Future Volume (veh/h)	0	0	0	261	0	481	0	1174	370	0	848	469
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				275	0	380	0	1236	354	0	893	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				323	0	506	0	3794	1174	0	2640	
Arrive On Green				0.18	0.00	0.18	0.00	1.00	0.73	0.00	0.73	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1606	0	3705	1610
Grp Volume(v), veh/h				275	0	380	0	1236	354	0	893	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1606	0	1805	1610
Q Serve(g_s), s				14.7	0.0	12.7	0.0	0.0	7.6	0.0	8.8	0.0
Cycle Q Clear(g_c), s				14.7	0.0	12.7	0.0	0.0	7.6	0.0	8.8	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				323	0	506	0	3794	1174	0	2640	
V/C Ratio(X)				0.85	0.00	0.75	0.00	0.33	0.30	0.00	0.34	
Avail Cap(c_a), veh/h				706	0	1105	0	3794	1174	0	2640	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.68	0.68	0.00	1.00	0.00
Uniform Delay (d), s/veh				39.8	0.0	39.0	0.0	0.0	4.6	0.0	4.8	0.0
Incr Delay (d2), s/veh				2.5	0.0	0.9	0.0	0.2	0.4	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.5	0.0	4.3	0.0	0.1	1.9	0.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.2	0.0	39.8	0.0	0.2	5.1	0.0	5.1	0.0
LnGrp LOS				D	A	D	A	A	A	A	A	
Approach Vol, veh/h					655			1590			893	A
Approach Delay, s/veh					40.8			1.3			5.1	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	78.1			78.1		21.9						
Change Period (Y+Rc), s	5.0			5.0		4.0						
Max Green Setting (Gmax), s	52.0			52.0		39.0						
Max Q Clear Time (g_c+I1), s	9.6			10.8		16.7						
Green Ext Time (p_c), s	7.1			4.0		1.1						

Intersection Summary		
HCM 6th Ctrl Delay	10.6	
HCM 6th LOS	B	

Notes

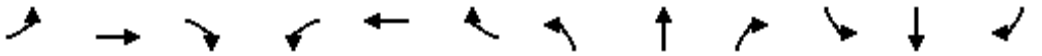
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	455	11	1088	470	639
Future Volume (vph)	455	11	1088	470	639
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	26.0	26.0	48.0	26.0	74.0
Total Split (%)	26.0%	26.0%	48.0%	26.0%	74.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	455	11	226	0	0	0	0	1088	512	470	639	0
Future Volume (veh/h)	455	11	226	0	0	0	0	1088	512	470	639	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	474	11	160				0	1133	352	490	666	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	563	17	244				0	2122	659	556	2671	0
Arrive On Green	0.16	0.16	0.16				0.00	0.54	0.54	0.32	1.00	0.00
Sat Flow, veh/h	3510	105	1522				0	4089	1217	3510	3705	0
Grp Volume(v), veh/h	474	0	171				0	1000	485	490	666	0
Grp Sat Flow(s),veh/h/ln	1755	0	1626				0	1729	1678	1755	1805	0
Q Serve(g_s), s	13.1	0.0	9.9				0.0	18.7	18.7	13.2	0.0	0.0
Cycle Q Clear(g_c), s	13.1	0.0	9.9				0.0	18.7	18.7	13.2	0.0	0.0
Prop In Lane	1.00		0.94				0.00		0.73	1.00		0.00
Lane Grp Cap(c), veh/h	563	0	261				0	1872	908	556	2671	0
V/C Ratio(X)	0.84	0.00	0.66				0.00	0.53	0.53	0.88	0.25	0.00
Avail Cap(c_a), veh/h	737	0	341				0	1872	908	772	2671	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.50	0.50	0.90	0.90	0.00
Uniform Delay (d), s/veh	40.8	0.0	39.4				0.0	14.8	14.8	33.3	0.0	0.0
Incr Delay (d2), s/veh	5.5	0.0	1.1				0.0	0.5	1.1	6.4	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	5.8	0.0	3.8				0.0	6.6	6.5	4.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	0.0	40.5				0.0	15.3	15.9	39.6	0.2	0.0
LnGrp LOS	D	A	D				A	B	B	D	A	A
Approach Vol, veh/h		645						1485			1156	
Approach Delay, s/veh		44.7						15.5			16.9	
Approach LOS		D						B			B	

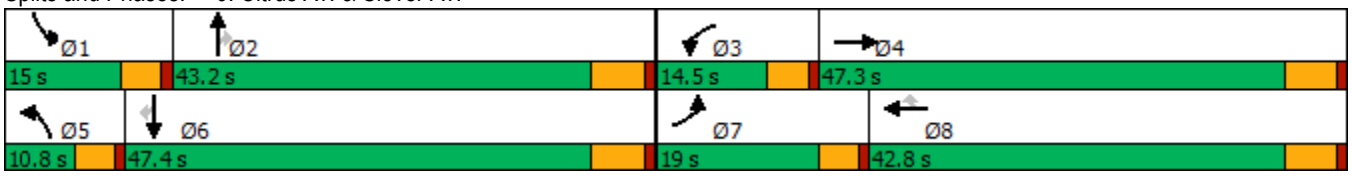
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.8	59.1		21.0		79.0
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	22.0	43.0		21.0		69.0
Max Q Clear Time (g_c+I1), s	15.2	20.7		15.1		2.0
Green Ext Time (p_c), s	0.6	6.8		0.9		2.8

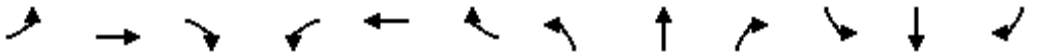
Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	631	831	64	253	194	37	712	102	221	347	273
Future Volume (vph)	631	831	64	253	194	37	712	102	221	347	273
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	19.0	47.3	14.5	42.8	42.8	10.8	43.2	43.2	15.0	47.4	47.4
Total Split (%)	15.8%	39.4%	12.1%	35.7%	35.7%	9.0%	36.0%	36.0%	12.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	631	831	30	64	253	194	37	712	102	221	347	273
Future Volume (veh/h)	631	831	30	64	253	194	37	712	102	221	347	273
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	657	866	31	67	264	158	39	742	42	230	361	193
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	651	1126	40	89	653	291	66	1204	371	242	626	530
Arrive On Green	0.19	0.32	0.32	0.05	0.18	0.18	0.04	0.23	0.23	0.13	0.33	0.33
Sat Flow, veh/h	3510	3553	127	1810	3610	1607	1810	5187	1600	1810	1900	1610
Grp Volume(v), veh/h	657	440	457	67	264	158	39	742	42	230	361	193
Grp Sat Flow(s),veh/h/ln	1755	1805	1875	1810	1805	1607	1810	1729	1600	1810	1900	1610
Q Serve(g_s), s	14.4	17.1	17.1	2.8	5.0	6.9	1.6	10.0	1.6	9.8	12.2	7.1
Cycle Q Clear(g_c), s	14.4	17.1	17.1	2.8	5.0	6.9	1.6	10.0	1.6	9.8	12.2	7.1
Prop In Lane	1.00		0.07	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	651	572	594	89	653	291	66	1204	371	242	626	530
V/C Ratio(X)	1.01	0.77	0.77	0.75	0.40	0.54	0.59	0.62	0.11	0.95	0.58	0.36
Avail Cap(c_a), veh/h	651	964	1002	231	1720	766	144	2498	770	242	1018	862
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.6	24.0	24.0	36.5	28.1	28.9	36.8	26.7	23.5	33.4	21.6	19.8
Incr Delay (d2), s/veh	37.7	2.2	2.1	4.7	0.4	1.6	3.1	0.5	0.1	43.4	0.8	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	6.9	7.1	1.3	2.0	2.6	0.7	3.8	0.6	6.9	5.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.3	26.2	26.1	41.2	28.5	30.5	39.9	27.2	23.7	76.8	22.4	20.3
LnGrp LOS	F	C	C	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		1554			489			823			784	
Approach Delay, s/veh		44.4			30.9			27.7			37.8	
Approach LOS		D			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	23.8	8.4	30.4	7.4	31.4	19.0	19.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	10.4	37.4	9.9	41.5	6.2	41.6	14.4	37.0
Max Q Clear Time (g_c+I1), s	11.8	12.0	4.8	19.1	3.6	14.2	16.4	8.9
Green Ext Time (p_c), s	0.0	5.1	0.0	5.3	0.0	2.6	0.0	2.1

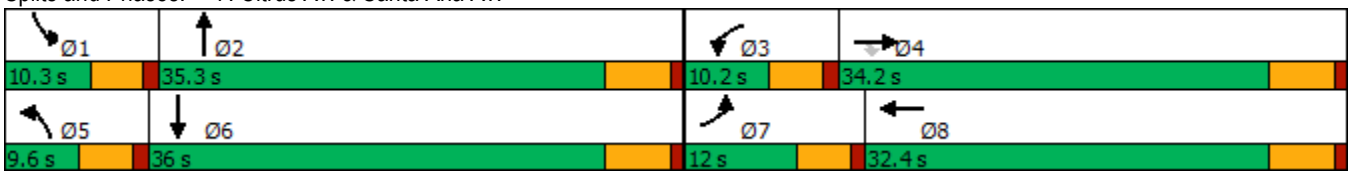
Intersection Summary	
HCM 6th Ctrl Delay	37.4
HCM 6th LOS	D

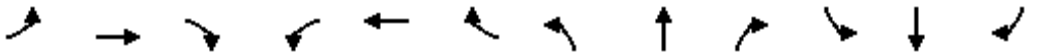
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	151	79	34	26	61	6	578	37	321
Future Volume (vph)	151	79	34	26	61	6	578	37	321
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	12.0	34.2	34.2	10.2	32.4	9.6	35.3	10.3	36.0
Total Split (%)	13.3%	38.0%	38.0%	11.3%	36.0%	10.7%	39.2%	11.4%	40.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 57.6
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	151	79	34	26	61	53	6	578	51	37	321	30
Future Volume (veh/h)	151	79	34	26	61	53	6	578	51	37	321	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	161	84	15	28	65	36	6	615	45	39	341	23
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	516	431	58	438	224	14	920	67	75	1041	70
Arrive On Green	0.11	0.27	0.27	0.03	0.19	0.19	0.01	0.27	0.27	0.04	0.30	0.30
Sat Flow, veh/h	1810	1900	1586	1810	2299	1176	1810	3411	249	1810	3433	231
Grp Volume(v), veh/h	161	84	15	28	50	51	6	325	335	39	179	185
Grp Sat Flow(s),veh/h/ln	1810	1900	1586	1810	1805	1670	1810	1805	1855	1810	1805	1859
Q Serve(g_s), s	4.5	1.7	0.4	0.8	1.2	1.3	0.2	8.3	8.4	1.1	4.0	4.0
Cycle Q Clear(g_c), s	4.5	1.7	0.4	0.8	1.2	1.3	0.2	8.3	8.4	1.1	4.0	4.0
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.13	1.00		0.12
Lane Grp Cap(c), veh/h	205	516	431	58	344	318	14	487	500	75	547	563
V/C Ratio(X)	0.79	0.16	0.03	0.48	0.15	0.16	0.42	0.67	0.67	0.52	0.33	0.33
Avail Cap(c_a), veh/h	258	1054	880	195	939	869	174	1040	1069	199	1064	1096
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.4	14.4	13.9	24.7	17.5	17.5	25.6	16.9	16.9	24.4	14.0	14.0
Incr Delay (d2), s/veh	9.1	0.1	0.0	2.3	0.2	0.2	6.9	1.6	1.6	2.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.6	0.1	0.3	0.4	0.5	0.1	3.1	3.2	0.5	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.5	14.6	13.9	27.0	17.7	17.8	32.5	18.5	18.4	26.4	14.3	14.3
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		260			129			666			403	
Approach Delay, s/veh		25.0			19.7			18.6			15.5	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	19.4	6.3	19.5	5.0	21.1	10.5	15.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	5.7	29.9	5.6	28.8	5.0	30.6	7.4	27.0
Max Q Clear Time (g_c+I1), s	3.1	10.4	2.8	3.7	2.2	6.0	6.5	3.3
Green Ext Time (p_c), s	0.0	3.6	0.0	0.4	0.0	1.9	0.0	0.4

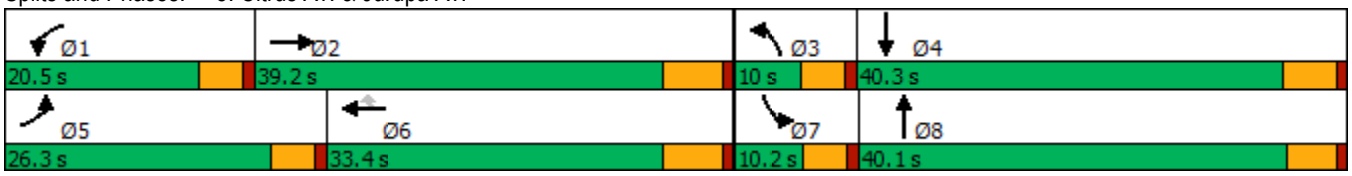
Intersection Summary	
HCM 6th Ctrl Delay	19.0
HCM 6th LOS	B

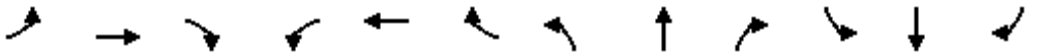
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	328	839	129	436	154	18	147	88	202
Future Volume (vph)	328	839	129	436	154	18	147	88	202
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	26.3	39.2	20.5	33.4	33.4	10.0	40.1	10.2	40.3
Total Split (%)	23.9%	35.6%	18.6%	30.4%	30.4%	9.1%	36.5%	9.3%	36.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 77.7
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	839	51	129	436	154	18	147	82	88	202	100
Future Volume (veh/h)	328	839	51	129	436	154	18	147	82	88	202	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	357	912	40	140	474	93	20	160	66	96	220	79
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	415	1566	69	181	925	287	43	441	175	124	576	201
Arrive On Green	0.23	0.31	0.31	0.10	0.18	0.18	0.02	0.17	0.17	0.07	0.22	0.22
Sat Flow, veh/h	1810	5094	223	1810	5187	1610	1810	2524	999	1810	2625	916
Grp Volume(v), veh/h	357	619	333	140	474	93	20	113	113	96	149	150
Grp Sat Flow(s),veh/h/ln	1810	1729	1859	1810	1729	1610	1810	1805	1718	1810	1805	1735
Q Serve(g_s), s	11.1	8.8	8.8	4.4	4.8	2.9	0.6	3.2	3.4	3.0	4.1	4.3
Cycle Q Clear(g_c), s	11.1	8.8	8.8	4.4	4.8	2.9	0.6	3.2	3.4	3.0	4.1	4.3
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.58	1.00		0.53
Lane Grp Cap(c), veh/h	415	1063	572	181	925	287	43	315	300	124	396	381
V/C Ratio(X)	0.86	0.58	0.58	0.77	0.51	0.32	0.47	0.36	0.38	0.78	0.38	0.39
Avail Cap(c_a), veh/h	672	1978	1063	493	2452	761	167	1082	1030	174	1079	1037
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	17.1	17.1	25.6	21.7	20.9	28.1	21.2	21.3	26.8	19.4	19.5
Incr Delay (d2), s/veh	3.5	0.5	0.9	2.7	0.4	0.6	2.9	0.7	0.8	8.3	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	3.0	3.3	1.8	1.7	1.1	0.3	1.3	1.3	1.5	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.1	17.6	18.0	28.3	22.1	21.6	31.0	21.9	22.1	35.1	20.0	20.1
LnGrp LOS	C	B	B	C	C	C	C	C	C	D	B	C
Approach Vol, veh/h		1309			707			246			395	
Approach Delay, s/veh		19.7			23.3			22.7			23.7	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	23.8	6.0	18.2	18.0	16.2	8.6	15.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	15.9	33.4	5.4	34.9	21.7	27.6	5.6	* 35
Max Q Clear Time (g_c+I1), s	6.4	10.8	2.6	6.3	13.1	6.8	5.0	5.4
Green Ext Time (p_c), s	0.1	5.9	0.0	1.7	0.4	3.1	0.0	1.3

Intersection Summary	
HCM 6th Ctrl Delay	21.5
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑			↱
Traffic Vol, veh/h	0	1065	710	27	0	32
Future Vol, veh/h	0	1065	710	27	0	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1158	772	29	0	35

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	401
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	516
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	516
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	516
HCM Lane V/C Ratio	-	-	-	0.067
HCM Control Delay (s)	-	-	-	12.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	7	234	2	18	176
Future Vol, veh/h	4	7	234	2	18	176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	8	254	2	20	191

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	486	255	0	0	256	0
Stage 1	255	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	544	789	-	-	1321	-
Stage 1	792	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	536	789	-	-	1321	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	792	-	-	-	-	-
Stage 2	800	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	712	1321	-
HCM Lane V/C Ratio	-	-	0.017	0.015	-
HCM Control Delay (s)	-	-	10.1	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	7	240	8	3	182
Future Vol, veh/h	21	7	240	8	3	182
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	8	261	9	3	198

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	470	266	0	0	270	0
Stage 1	266	-	-	-	-	-
Stage 2	204	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	556	778	-	-	1305	-
Stage 1	783	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	555	778	-	-	1305	-
Mov Cap-2 Maneuver	621	-	-	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	654	1305	-
HCM Lane V/C Ratio	-	-	0.047	0.002	-
HCM Control Delay (s)	-	-	10.8	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	7	241	9	3	201
Future Vol, veh/h	23	7	241	9	3	201
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	8	262	10	3	218

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	491	267	0	0	272	0
Stage 1	267	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	540	777	-	-	1303	-
Stage 1	782	-	-	-	-	-
Stage 2	818	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	539	777	-	-	1303	-
Mov Cap-2 Maneuver	610	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	816	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	642	1303	-
HCM Lane V/C Ratio	-	-	0.051	0.003	-
HCM Control Delay (s)	-	-	10.9	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	3	246	3	1	223
Future Vol, veh/h	9	3	246	3	1	223
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	3	267	3	1	242

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	513	269	0	0	270	0
Stage 1	269	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	525	775	-	-	1305	-
Stage 1	781	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	524	775	-	-	1305	-
Mov Cap-2 Maneuver	600	-	-	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	800	-	-	-	-	-

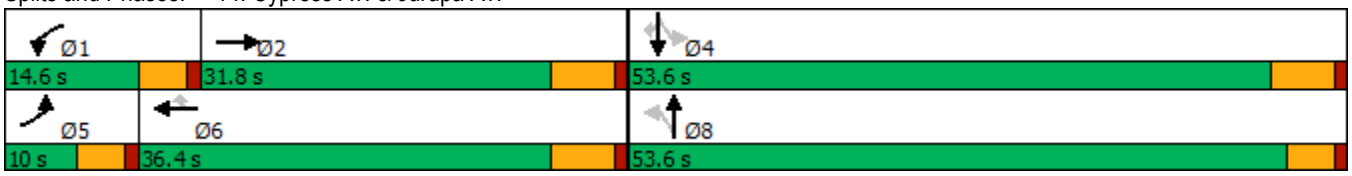
Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0
HCM LOS	B		

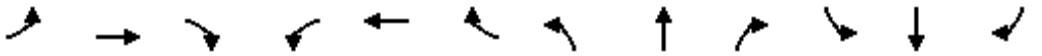
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	636	1305	-
HCM Lane V/C Ratio	-	-	0.021	0.001	-
HCM Control Delay (s)	-	-	10.8	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	143	949	115	608	57	9	49	62	44	126
Future Volume (vph)	143	949	115	608	57	9	49	62	44	126
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.0	31.8	14.6	36.4	36.4	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.0%	31.8%	14.6%	36.4%	36.4%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	5.9	21.4	8.9	21.4	21.4	16.8	16.8	15.5	15.5	15.5
Actuated g/C Ratio	0.10	0.35	0.15	0.35	0.35	0.28	0.28	0.26	0.26	0.26
v/c Ratio	0.86	0.56	0.46	0.35	0.10	0.03	0.22	0.20	0.10	0.26
Control Delay	76.1	20.2	35.6	16.3	4.0	15.7	9.6	19.0	17.4	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.1	20.2	35.6	16.3	4.0	15.7	9.6	19.0	17.4	4.9
LOS	E	C	D	B	A	B	A	B	B	A
Approach Delay		27.3		18.2			10.1		11.0	
Approach LOS		C		B			B		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 60.4	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 48.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	949	22	115	608	57	9	49	61	62	44	126
Future Volume (veh/h)	143	949	22	115	608	57	9	49	61	62	44	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	152	1010	19	122	647	40	10	52	30	66	47	100
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	194	1737	33	158	1615	501	414	251	145	406	422	357
Arrive On Green	0.11	0.33	0.33	0.09	0.31	0.31	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	5242	99	1810	5187	1610	1260	1130	652	1337	1900	1610
Grp Volume(v), veh/h	152	666	363	122	647	40	10	0	82	66	47	100
Grp Sat Flow(s),veh/h/ln	1810	1729	1882	1810	1729	1610	1260	0	1783	1337	1900	1610
Q Serve(g_s), s	3.7	7.2	7.2	3.0	4.4	0.8	0.3	0.0	1.7	1.9	0.9	2.3
Cycle Q Clear(g_c), s	3.7	7.2	7.2	3.0	4.4	0.8	1.2	0.0	1.7	3.6	0.9	2.3
Prop In Lane	1.00		0.05	1.00		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	194	1146	624	158	1615	501	414	0	395	406	422	357
V/C Ratio(X)	0.78	0.58	0.58	0.77	0.40	0.08	0.02	0.00	0.21	0.16	0.11	0.28
Avail Cap(c_a), veh/h	217	1995	1086	401	3521	1093	1505	0	1938	1527	2015	1707
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	1.00	1.00
Uniform Delay (d), s/veh	19.6	12.5	12.5	20.1	12.2	11.0	14.5	0.0	14.3	15.8	14.0	14.6
Incr Delay (d2), s/veh	13.2	0.5	0.9	3.0	0.2	0.1	0.0	0.0	0.3	0.2	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	2.1	2.3	1.2	1.3	0.2	0.1	0.0	0.6	0.5	0.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	12.9	13.3	23.1	12.4	11.0	14.5	0.0	14.6	16.0	14.1	15.0
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		1181			809			92			213	
Approach Delay, s/veh		15.6			13.9			14.6			15.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	20.7		15.8	9.4	19.8		15.8				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	10.0	26.0		47.8	5.4	30.6		* 49				
Max Q Clear Time (g_c+I1), s	5.0	9.2		5.6	5.7	6.4		3.7				
Green Ext Time (p_c), s	0.1	5.7		0.7	0.0	4.3		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		14.9	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	12
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	199	23	61	227	52	30	68	97	62	54	2
Future Vol, veh/h	6	199	23	61	227	52	30	68	97	62	54	2
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	7	224	26	69	255	58	34	76	109	70	61	2
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	13.9	11.6	10.6	12
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	31%	0%	3%	35%	0%	53%	0%
Vol Thru, %	69%	0%	87%	65%	69%	47%	0%
Vol Right, %	0%	100%	10%	0%	31%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	97	228	175	166	116	2
LT Vol	30	0	6	61	0	62	0
Through Vol	68	0	199	114	114	54	0
RT Vol	0	97	23	0	52	0	2
Lane Flow Rate	110	109	256	196	186	130	2
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.205	0.177	0.436	0.337	0.299	0.252	0.004
Departure Headway (Hd)	6.718	5.848	6.13	6.182	5.782	6.962	5.974
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	533	610	587	580	619	515	596
Service Time	4.48	3.609	4.184	3.932	3.532	4.728	3.74
HCM Lane V/C Ratio	0.206	0.179	0.436	0.338	0.3	0.252	0.003
HCM Control Delay	11.2	9.9	13.9	12.1	11	12.1	8.8
HCM Lane LOS	B	A	B	B	B	B	A
HCM 95th-tile Q	0.8	0.6	2.2	1.5	1.3	1	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	2	1	181	133	5
Future Vol, veh/h	13	2	1	181	133	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	2	1	197	145	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	347	148	150	0	-	0
Stage 1	148	-	-	-	-	-
Stage 2	199	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	654	904	1444	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	839	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	653	904	1444	-	-	-
Mov Cap-2 Maneuver	653	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	839	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1444	-	678	-	-
HCM Lane V/C Ratio	0.001	-	0.024	-	-
HCM Control Delay (s)	7.5	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	19	7	173	132	3
Future Vol, veh/h	9	19	7	173	132	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	21	8	188	143	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	349	145	146	0	-	0
Stage 1	145	-	-	-	-	-
Stage 2	204	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	652	908	1448	-	-	-
Stage 1	887	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	648	908	1448	-	-	-
Mov Cap-2 Maneuver	648	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	835	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1448	-	804	-	-
HCM Lane V/C Ratio	0.005	-	0.038	-	-
HCM Control Delay (s)	7.5	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	20	7	170	147	4
Future Vol, veh/h	10	20	7	170	147	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	22	8	185	160	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	363	162	164	0	-	0
Stage 1	162	-	-	-	-	-
Stage 2	201	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	640	888	1427	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	636	888	1427	-	-	-
Mov Cap-2 Maneuver	636	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	838	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1427	-	784	-	-
HCM Lane V/C Ratio	0.005	-	0.042	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	20	7	169	164	3
Future Vol, veh/h	8	20	7	169	164	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	22	8	184	178	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	380	180	181	0	-	0
Stage 1	180	-	-	-	-	-
Stage 2	200	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	626	868	1407	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	622	868	1407	-	-	-
Mov Cap-2 Maneuver	622	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	838	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1407	-	780	-	-
HCM Lane V/C Ratio	0.005	-	0.039	-	-
HCM Control Delay (s)	7.6	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	5	2	169	181	3
Future Vol, veh/h	8	5	2	169	181	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	5	2	184	197	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	387	199	200	0	-	0
Stage 1	199	-	-	-	-	-
Stage 2	188	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	620	847	1384	-	-	-
Stage 1	839	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	619	847	1384	-	-	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	837	-	-	-	-	-
Stage 2	849	-	-	-	-	-

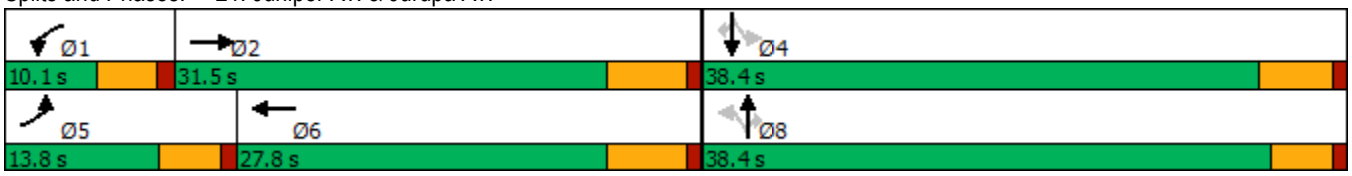
Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.1	0
HCM LOS	B		

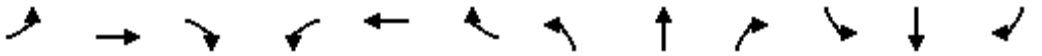
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1384	-	690	-	-
HCM Lane V/C Ratio	0.002	-	0.02	-	-
HCM Control Delay (s)	7.6	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	87	981	28	671	7	15	5	72	22	92
Future Volume (vph)	87	981	28	671	7	15	5	72	22	92
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.8	31.5	10.1	27.8	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	17.3%	39.4%	12.6%	34.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	7.3	21.7	5.7	15.6		14.7	14.7		13.9	13.9
Actuated g/C Ratio	0.14	0.43	0.11	0.31		0.29	0.29		0.27	0.27
v/c Ratio	0.37	0.49	0.15	0.51		0.05	0.01		0.26	0.20
Control Delay	28.7	13.5	29.2	17.1		14.8	0.0		17.8	4.9
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	28.7	13.5	29.2	17.1		14.8	0.0		17.8	4.9
LOS	C	B	C	B		B	A		B	A
Approach Delay		14.8		17.6		12.3			11.4	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 51	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.51	
Intersection Signal Delay: 15.5	Intersection LOS: B
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	981	5	28	671	68	7	15	5	72	22	92
Future Volume (veh/h)	87	981	5	28	671	68	7	15	5	72	22	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	1066	5	30	729	69	8	16	2	78	24	54
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	143	1867	9	63	1476	139	202	336	393	414	109	392
Arrive On Green	0.08	0.35	0.35	0.04	0.31	0.31	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	5329	25	1810	4821	453	368	1377	1610	1084	446	1604
Grp Volume(v), veh/h	95	692	379	30	522	276	24	0	2	102	0	54
Grp Sat Flow(s),veh/h/ln	1810	1729	1896	1810	1729	1817	1745	0	1610	1530	0	1604
Q Serve(g_s), s	2.2	6.9	6.9	0.7	5.3	5.3	0.0	0.0	0.0	1.6	0.0	1.1
Cycle Q Clear(g_c), s	2.2	6.9	6.9	0.7	5.3	5.3	0.4	0.0	0.0	2.2	0.0	1.1
Prop In Lane	1.00		0.01	1.00		0.25	0.33		1.00	0.76		1.00
Lane Grp Cap(c), veh/h	143	1212	664	63	1059	556	539	0	393	523	0	392
V/C Ratio(X)	0.66	0.57	0.57	0.47	0.49	0.50	0.04	0.00	0.01	0.20	0.00	0.14
Avail Cap(c_a), veh/h	390	2084	1142	233	1784	937	1452	0	1276	1321	0	1241
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	11.3	11.3	20.2	12.1	12.1	12.3	0.0	12.2	13.0	0.0	12.6
Incr Delay (d2), s/veh	2.0	0.4	0.8	2.0	0.4	0.7	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	1.9	2.1	0.3	1.5	1.6	0.2	0.0	0.0	0.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	11.7	12.0	22.2	12.4	12.8	12.4	0.0	12.2	13.1	0.0	12.8
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		1166			828			26			156	
Approach Delay, s/veh		12.6			12.9			12.4			13.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.1	20.7		15.8	8.0	18.9		15.8				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.5	25.7		33.0	9.2	22.0		* 34				
Max Q Clear Time (g_c+I1), s	2.7	8.9		4.2	4.2	7.3		2.4				
Green Ext Time (p_c), s	0.0	6.0		0.7	0.0	4.1		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		12.7
HCM 6th LOS		B

Notes

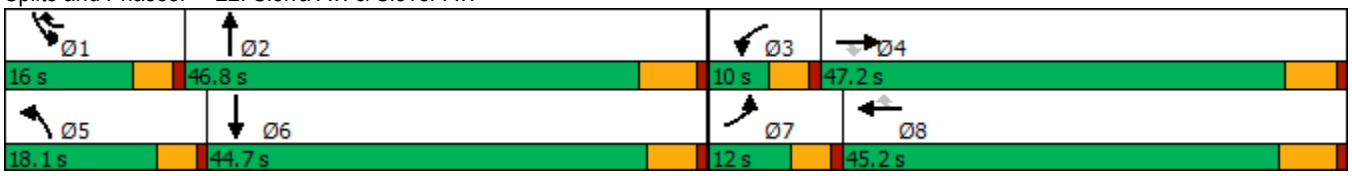
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

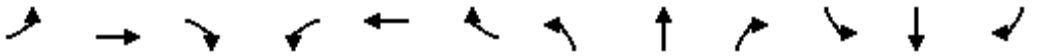
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	318	653	137	206	438	740	222	1061	655	1001
Future Volume (vph)	318	653	137	206	438	740	222	1061	655	1001
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	12.0	47.2	47.2	10.0	45.2	16.0	18.1	46.8	16.0	44.7
Total Split (%)	10.0%	39.3%	39.3%	8.3%	37.7%	13.3%	15.1%	39.0%	13.3%	37.3%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 93.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	653	137	206	438	740	222	1061	168	655	1001	99
Future Volume (veh/h)	318	653	137	206	438	740	222	1061	168	655	1001	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	331	680	79	215	456	373	231	1105	154	682	1043	89
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	291	973	426	212	892	1049	311	1754	242	449	1651	141
Arrive On Green	0.08	0.27	0.27	0.06	0.25	0.25	0.09	0.30	0.30	0.13	0.34	0.34
Sat Flow, veh/h	3510	3610	1579	3510	3610	2781	3510	5844	808	3510	4867	415
Grp Volume(v), veh/h	331	680	79	215	456	373	231	925	334	682	741	391
Grp Sat Flow(s),veh/h/ln	1755	1805	1579	1755	1805	1390	1755	1634	1750	1755	1729	1824
Q Serve(g_s), s	7.4	15.1	3.4	5.4	9.7	8.6	5.7	14.5	14.7	11.4	16.1	16.1
Cycle Q Clear(g_c), s	7.4	15.1	3.4	5.4	9.7	8.6	5.7	14.5	14.7	11.4	16.1	16.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.46	1.00		0.23
Lane Grp Cap(c), veh/h	291	973	426	212	892	1049	311	1471	525	449	1173	619
V/C Ratio(X)	1.14	0.70	0.19	1.01	0.51	0.36	0.74	0.63	0.64	1.52	0.63	0.63
Avail Cap(c_a), veh/h	291	1675	733	212	1578	1578	531	2231	796	449	1523	803
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	29.3	25.1	41.9	28.9	20.1	39.7	26.9	27.0	38.9	24.8	24.8
Incr Delay (d2), s/veh	94.9	0.9	0.2	64.8	0.5	0.2	1.3	0.4	1.3	245.4	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	6.2	1.2	4.1	3.9	2.5	2.4	5.3	5.9	19.9	6.1	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	135.8	30.3	25.3	106.7	29.4	20.3	41.0	27.4	28.3	284.3	25.3	25.9
LnGrp LOS	F	C	C	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		1090			1044			1490			1814	
Approach Delay, s/veh		61.9			42.1			29.7			122.8	
Approach LOS		E			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.0	33.0	10.0	30.2	12.5	36.5	12.0	28.2
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	11.4	40.6	5.4	* 41	13.5	* 39	7.4	39.0
Max Q Clear Time (g_c+I1), s	13.4	16.7	7.4	17.1	7.7	18.1	9.4	11.7
Green Ext Time (p_c), s	0.0	8.6	0.0	4.6	0.2	7.1	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	69.6
HCM 6th LOS	E

Notes

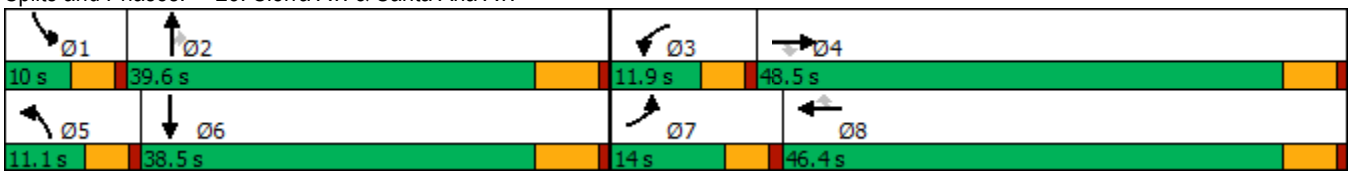
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

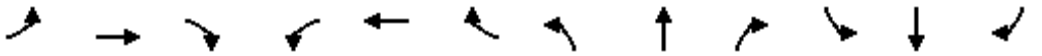
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	137	142	115	76	135	79	172	1359	57	127	1095
Future Volume (vph)	137	142	115	76	135	79	172	1359	57	127	1095
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	14.0	48.5	48.5	11.9	46.4	46.4	11.1	39.6	39.6	10.0	38.5
Total Split (%)	12.7%	44.1%	44.1%	10.8%	42.2%	42.2%	10.1%	36.0%	36.0%	9.1%	35.0%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 81.2
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	142	115	76	135	79	172	1359	57	127	1095	100
Future Volume (veh/h)	137	142	115	76	135	79	172	1359	57	127	1095	100
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	145	19	78	138	43	176	1387	50	130	1117	87
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	177	695	310	102	546	243	266	1962	600	236	1813	141
Arrive On Green	0.10	0.19	0.19	0.06	0.15	0.15	0.08	0.38	0.38	0.07	0.37	0.37
Sat Flow, veh/h	1810	3610	1608	1810	3610	1610	3510	5187	1586	3510	4907	382
Grp Volume(v), veh/h	140	145	19	78	138	43	176	1387	50	130	787	417
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1610	1755	1729	1586	1755	1729	1831
Q Serve(g_s), s	5.2	2.3	0.7	2.9	2.3	1.6	3.3	15.5	1.4	2.4	12.6	12.7
Cycle Q Clear(g_c), s	5.2	2.3	0.7	2.9	2.3	1.6	3.3	15.5	1.4	2.4	12.6	12.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	177	695	310	102	546	243	266	1962	600	236	1278	677
V/C Ratio(X)	0.79	0.21	0.06	0.76	0.25	0.18	0.66	0.71	0.08	0.55	0.62	0.62
Avail Cap(c_a), veh/h	250	2285	1018	194	2174	969	335	2544	778	278	1640	869
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	23.1	22.5	31.7	25.5	25.2	30.6	18.0	13.6	30.8	17.5	17.5
Incr Delay (d2), s/veh	6.8	0.1	0.1	4.3	0.2	0.3	1.7	0.6	0.1	0.8	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	2.4	0.9	0.2	1.3	0.9	0.6	1.3	5.2	0.4	1.0	4.2	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	23.3	22.5	36.0	25.7	25.5	32.3	18.6	13.7	31.5	18.0	18.4
LnGrp LOS	D	C	C	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		304			259			1613			1334	
Approach Delay, s/veh		29.5			28.8			19.9			19.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	32.0	8.5	18.5	9.8	31.4	11.3	15.7
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.4	33.4	7.3	43.1	6.5	32.3	9.4	41.0
Max Q Clear Time (g_c+I1), s	4.4	17.5	4.9	4.3	5.3	14.7	7.2	4.3
Green Ext Time (p_c), s	0.0	8.1	0.0	0.9	0.0	6.8	0.0	1.0

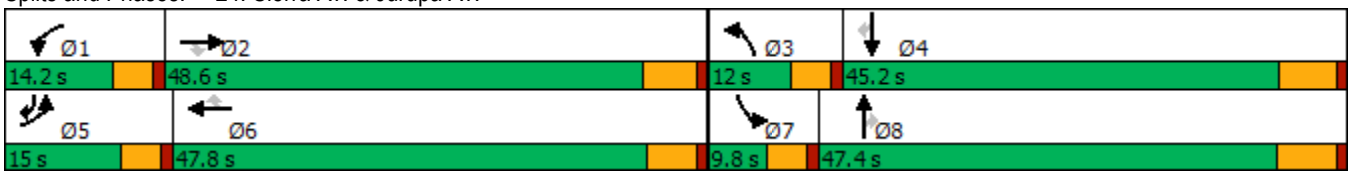
Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

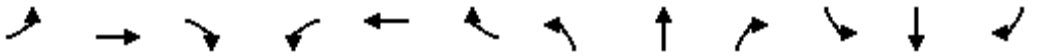
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	427	321	292	140	262	84	265	911	98	88	576	253
Future Volume (vph)	427	321	292	140	262	84	265	911	98	88	576	253
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	15.0	48.6	48.6	14.2	47.8	47.8	12.0	47.4	47.4	9.8	45.2	15.0
Total Split (%)	12.5%	40.5%	40.5%	11.8%	39.8%	39.8%	10.0%	39.5%	39.5%	8.2%	37.7%	12.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 81.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	427	321	292	140	262	84	265	911	98	88	576	253
Future Volume (veh/h)	427	321	292	140	262	84	265	911	98	88	576	253
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	440	331	158	144	270	27	273	939	58	91	594	194
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	519	806	359	235	513	229	364	1247	549	207	1086	722
Arrive On Green	0.15	0.22	0.22	0.07	0.14	0.14	0.10	0.35	0.35	0.06	0.30	0.30
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3610	1590	3510	3610	1610
Grp Volume(v), veh/h	440	331	158	144	270	27	273	939	58	91	594	194
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1590	1755	1805	1610
Q Serve(g_s), s	8.6	5.5	5.9	2.8	4.9	1.0	5.3	16.2	1.7	1.8	9.7	5.3
Cycle Q Clear(g_c), s	8.6	5.5	5.9	2.8	4.9	1.0	5.3	16.2	1.7	1.8	9.7	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	519	806	359	235	513	229	364	1247	549	207	1086	722
V/C Ratio(X)	0.85	0.41	0.44	0.61	0.53	0.12	0.75	0.75	0.11	0.44	0.55	0.27
Avail Cap(c_a), veh/h	519	2196	979	479	2176	970	369	2099	924	259	2001	1131
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	23.4	23.5	31.9	28.0	26.3	30.7	20.4	15.6	32.0	20.6	12.2
Incr Delay (d2), s/veh	11.9	0.3	0.8	1.0	0.8	0.2	7.3	0.9	0.1	0.5	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	2.2	2.0	1.1	2.0	0.4	2.4	5.7	0.5	0.7	3.6	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	23.7	24.4	32.9	28.8	26.6	37.9	21.3	15.7	32.5	21.0	12.4
LnGrp LOS	D	C	C	C	C	C	D	C	B	C	C	B
Approach Vol, veh/h		929			441			1270			879	
Approach Delay, s/veh		32.1			30.0			24.6			20.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	21.5	11.9	27.7	15.0	15.8	8.8	30.8
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	9.6	42.8	7.4	* 39	10.4	* 42	5.2	40.9
Max Q Clear Time (g_c+I1), s	4.8	7.9	7.3	11.7	10.6	6.9	3.8	18.2
Green Ext Time (p_c), s	0.1	2.6	0.0	4.4	0.0	1.8	0.0	6.1

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

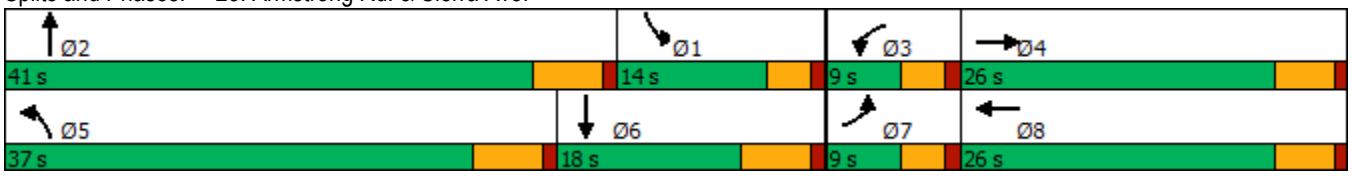
Notes

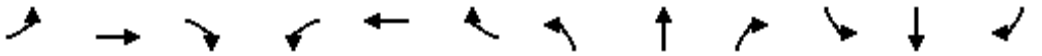
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	111	45	738	10	24	1267	701	11	215
Future Volume (vph)	111	45	738	10	24	1267	701	11	215
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0		9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0		9.0	26.0	37.0	41.0	14.0	18.0
Total Split (%)	10.0%	28.9%		10.0%	28.9%	41.1%	45.6%	15.6%	20.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	Max	None	Max
Act Effct Green (s)	5.8	9.7	71.7	5.0	6.2	31.5	46.9	10.1	12.4
Actuated g/C Ratio	0.08	0.14	1.00	0.07	0.09	0.44	0.65	0.14	0.17
v/c Ratio	0.79	0.09	0.47	0.08	0.15	0.85	0.61	0.04	0.78
Control Delay	73.7	28.3	1.0	34.9	22.0	26.0	13.2	29.5	47.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.7	28.3	1.0	34.9	22.0	26.0	13.2	29.5	47.4
LOS	E	C	A	C	C	C	B	C	D
Approach Delay		11.4			24.3		21.3		46.7
Approach LOS		B			C		C		D

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 71.7	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	45	738	10	24	20	1267	701	27	11	215	31
Future Volume (veh/h)	111	45	738	10	24	20	1267	701	27	11	215	31
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	46	0	10	25	21	1306	723	27	11	222	24
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	126	424		23	119	89	1456	894	33	171	288	31
Arrive On Green	0.07	0.12	0.00	0.01	0.06	0.06	0.41	0.49	0.49	0.09	0.17	0.17
Sat Flow, veh/h	1810	3610	1610	1810	1974	1467	3510	1820	68	1810	1682	182
Grp Volume(v), veh/h	114	46	0	10	23	23	1306	0	750	11	0	246
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1636	1755	0	1888	1810	0	1864
Q Serve(g_s), s	4.5	0.8	0.0	0.4	0.9	1.0	24.9	0.0	24.1	0.4	0.0	9.1
Cycle Q Clear(g_c), s	4.5	0.8	0.0	0.4	0.9	1.0	24.9	0.0	24.1	0.4	0.0	9.1
Prop In Lane	1.00		1.00	1.00		0.90	1.00		0.04	1.00		0.10
Lane Grp Cap(c), veh/h	126	424		23	109	99	1456	0	928	171	0	319
V/C Ratio(X)	0.91	0.11		0.44	0.21	0.24	0.90	0.00	0.81	0.06	0.00	0.77
Avail Cap(c_a), veh/h	126	1055		126	528	478	1529	0	928	252	0	319
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.2	28.3	0.0	35.2	32.1	32.2	19.6	0.0	15.4	29.6	0.0	28.4
Incr Delay (d2), s/veh	51.2	0.1	0.0	4.9	0.9	1.2	7.4	0.0	7.5	0.1	0.0	16.4
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	3.6	0.3	0.0	0.2	0.4	0.4	9.9	0.0	10.1	0.2	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.4	28.4	0.0	40.1	33.0	33.4	27.0	0.0	23.0	29.7	0.0	44.8
LnGrp LOS	F	C		D	C	C	C	A	C	C	A	D
Approach Vol, veh/h		160	A		56			2056			257	
Approach Delay, s/veh		68.3			34.4			25.5			44.1	
Approach LOS		E			C			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	41.0	4.9	13.4	35.5	18.0	9.0	9.3
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 35	5.0	21.0	31.3	12.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	2.4	26.1	2.4	2.8	26.9	11.1	6.5	3.0
Green Ext Time (p_c), s	0.0	4.2	0.0	0.1	2.9	0.2	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

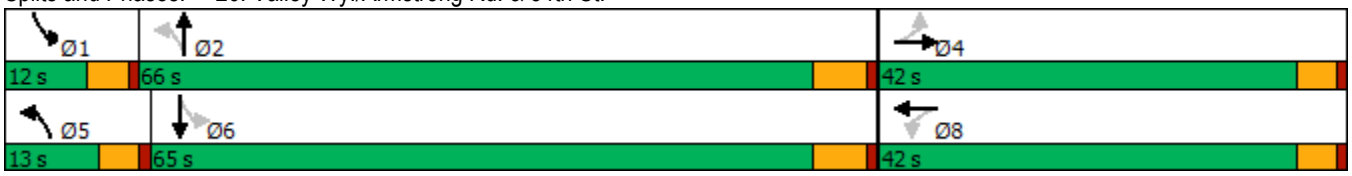
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

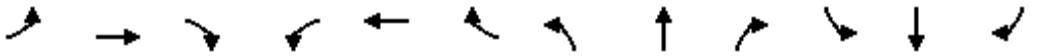
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	134	14	52	21	17	1848	10	881
Future Volume (vph)	134	14	52	21	17	1848	10	881
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	13.0	66.0	12.0	65.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	10.8%	55.0%	10.0%	54.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	14.9	14.9		14.9	68.0	65.8	67.0	63.9
Actuated g/C Ratio	0.16	0.16		0.16	0.73	0.71	0.72	0.69
v/c Ratio	0.63	0.08		0.36	0.04	0.77	0.06	0.40
Control Delay	49.4	24.2		35.7	4.4	13.3	4.9	8.1
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	24.2		35.7	4.4	13.3	4.9	8.1
LOS	D	C		D	A	B	A	A
Approach Delay		45.8		35.7		13.2		8.0
Approach LOS		D		D		B		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.9	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 13.8	Intersection LOS: B
Intersection Capacity Utilization 72.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	134	14	9	52	21	11	17	1848	56	10	881	76
Future Volume (veh/h)	134	14	9	52	21	11	17	1848	56	10	881	76
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	138	14	7	54	22	8	18	1905	47	10	908	66
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	266	141	71	172	64	18	457	2506	62	186	2348	171
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.02	0.70	0.70	0.01	0.69	0.69
Sat Flow, veh/h	1401	1194	597	877	540	149	1810	3600	88	1810	3412	248
Grp Volume(v), veh/h	138	0	21	84	0	0	18	951	1001	10	480	494
Grp Sat Flow(s),veh/h/ln	1401	0	1791	1566	0	0	1810	1805	1884	1810	1805	1855
Q Serve(g_s), s	3.0	0.0	0.9	3.1	0.0	0.0	0.3	29.3	29.8	0.1	9.8	9.8
Cycle Q Clear(g_c), s	7.2	0.0	0.9	4.2	0.0	0.0	0.3	29.3	29.8	0.1	9.8	9.8
Prop In Lane	1.00		0.33	0.64		0.10	1.00		0.05	1.00		0.13
Lane Grp Cap(c), veh/h	266	0	212	253	0	0	457	1256	1311	186	1242	1277
V/C Ratio(X)	0.52	0.00	0.10	0.33	0.00	0.00	0.04	0.76	0.76	0.05	0.39	0.39
Avail Cap(c_a), veh/h	706	0	774	734	0	0	596	1256	1311	319	1242	1277
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	0.0	34.0	35.4	0.0	0.0	4.3	8.4	8.5	9.0	5.7	5.7
Incr Delay (d2), s/veh	1.6	0.0	0.2	0.8	0.0	0.0	0.0	4.3	4.3	0.0	0.9	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	2.9	0.0	0.4	1.7	0.0	0.0	0.1	9.0	9.6	0.0	2.9	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	0.0	34.2	36.2	0.0	0.0	4.3	12.7	12.8	9.1	6.6	6.6
LnGrp LOS	D	A	C	D	A	A	A	B	B	A	A	A
Approach Vol, veh/h		159			84			1970			984	
Approach Delay, s/veh		37.7			36.2			12.7			6.7	
Approach LOS		D			D			B			A	

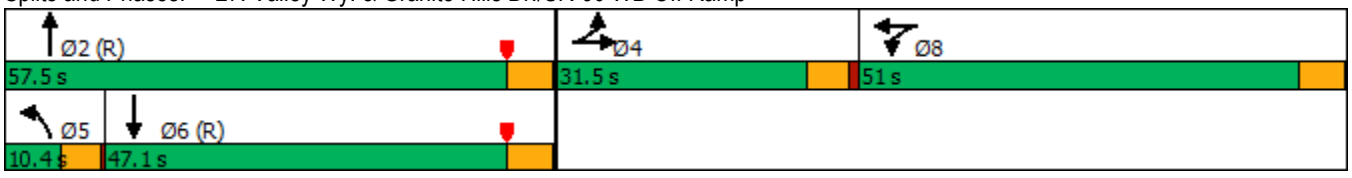
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	66.0		14.8	6.4	65.3		14.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	7.4	60.2		37.4	8.4	59.2		37.4				
Max Q Clear Time (g_c+I1), s	2.1	31.8		9.2	2.3	11.8		6.2				
Green Ext Time (p_c), s	0.0	17.6		0.5	0.0	6.7		0.5				

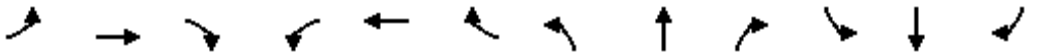
Intersection Summary			
HCM 6th Ctrl Delay		12.7	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	284	38	37	1267	797
Future Volume (vph)	0	284	38	37	1267	797
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	31.5	51.0	51.0	10.4	57.5	47.1
Total Split (%)	22.5%	36.4%	36.4%	7.4%	41.1%	33.6%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	26.1	45.7	45.7	5.8	52.2	43.9
Actuated g/C Ratio	0.19	0.33	0.33	0.04	0.37	0.31
v/c Ratio	0.99	0.51	1.07	0.53	0.99	0.77
Control Delay	104.6	41.8	95.4	89.5	65.2	49.4
Queue Delay	35.1	0.0	0.0	0.0	0.0	0.4
Total Delay	139.7	41.8	95.4	89.5	65.2	49.8
LOS	F	D	F	F	E	D
Approach Delay	139.7		77.9		65.9	49.8
Approach LOS	F		E		E	D

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 125	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 72.0	Intersection LOS: E
Intersection Capacity Utilization 102.3%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	217	0	92	284	38	551	37	1267	0	0	797	25
Future Volume (veh/h)	217	0	92	284	38	551	37	1267	0	0	797	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	228	0	97	299	40	486	39	1334	0	0	839	20
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	227	0	97	591	40	484	51	1346	0	0	1124	27
Arrive On Green	0.19	0.00	0.19	0.33	0.33	0.33	0.01	0.12	0.00	0.00	0.31	0.31
Sat Flow, veh/h	1219	0	519	1810	122	1483	1810	3705	0	0	3697	86
Grp Volume(v), veh/h	325	0	0	299	0	526	39	1334	0	0	420	439
Grp Sat Flow(s),veh/h/ln	1738	0	0	1810	0	1605	1810	1805	0	0	1805	1883
Q Serve(g_s), s	26.1	0.0	0.0	18.7	0.0	45.7	3.0	51.7	0.0	0.0	29.2	29.2
Cycle Q Clear(g_c), s	26.1	0.0	0.0	18.7	0.0	45.7	3.0	51.7	0.0	0.0	29.2	29.2
Prop In Lane	0.70		0.30	1.00		0.92	1.00		0.00	0.00		0.05
Lane Grp Cap(c), veh/h	324	0	0	591	0	524	51	1346	0	0	563	588
V/C Ratio(X)	1.00	0.00	0.00	0.51	0.00	1.00	0.77	0.99	0.00	0.00	0.75	0.75
Avail Cap(c_a), veh/h	324	0	0	591	0	524	75	1346	0	0	563	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.93	0.93	0.00	0.00	0.92	0.92
Uniform Delay (d), s/veh	57.0	0.0	0.0	38.0	0.0	47.2	68.9	61.2	0.0	0.0	43.2	43.2
Incr Delay (d2), s/veh	50.8	0.0	0.0	0.7	0.0	40.3	22.6	21.6	0.0	0.0	8.1	7.8
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	15.8	0.0	0.0	8.2	0.0	23.5	1.7	29.1	0.0	0.0	14.0	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	107.8	0.0	0.0	38.7	0.0	87.5	91.5	82.8	0.0	0.0	51.3	51.0
LnGrp LOS	F	A	A	D	A	F	F	F	A	A	D	D
Approach Vol, veh/h		325			825			1373			859	
Approach Delay, s/veh		107.8			69.8			83.0			51.1	
Approach LOS		F			E			F			D	

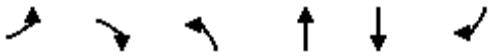
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		57.5		31.5	8.5	49.0		51.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		52.2		26.1	5.8	41.8		45.7				
Max Q Clear Time (g_c+I1), s		53.7		28.1	5.0	31.2		47.7				
Green Ext Time (p_c), s		0.0		0.0	0.0	2.4		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			74.1									
HCM 6th LOS			E									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	145	1304	942
Future Volume (vph)	145	1304	942
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	10.0	140.0	130.0
Total Split (%)	7.1%	100.0%	92.9%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	5.4	140.0	124.2
Actuated g/C Ratio	0.04	1.00	0.89
v/c Ratio	2.26	0.39	0.41
Control Delay	638.8	0.3	1.3
Queue Delay	0.0	9.4	0.0
Total Delay	638.8	9.7	1.3
LOS	F	A	A
Approach Delay		72.7	1.3
Approach LOS		E	A

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 134.2 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 40	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.26	
Intersection Signal Delay: 40.7	Intersection LOS: D
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	145	1304	942	230
Future Volume (veh/h)	0	0	145	1304	942	230
Initial Q (Qb), veh			20	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.98
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			156	1402	1013	247
Peak Hour Factor			0.93	0.93	0.93	0.93
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			70	3460	2542	617
Arrive On Green			0.04	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2961	696
Grp Volume(v), veh/h			156	1402	637	623
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1756
Q Serve(g_s), s			5.4	3.7	0.0	0.0
Cycle Q Clear(g_c), s			5.4	3.7	0.0	0.0
Prop In Lane			1.00			0.40
Lane Grp Cap(c), veh/h			70	3460	1601	1558
V/C Ratio(X)			2.24	0.41	0.40	0.40
Avail Cap(c_a), veh/h			70	3460	1601	1558
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.54	0.54	0.65	0.65
Uniform Delay (d), s/veh			67.3	0.2	0.0	0.0
Incr Delay (d2), s/veh			579.9	0.2	0.5	0.5
Initial Q Delay(d3),s/veh			1031.6	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			33.7	0.1	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			1678.8	0.4	0.5	0.5
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				1558	1260	
Approach Delay, s/veh				168.4	0.5	
Approach LOS				F	A	

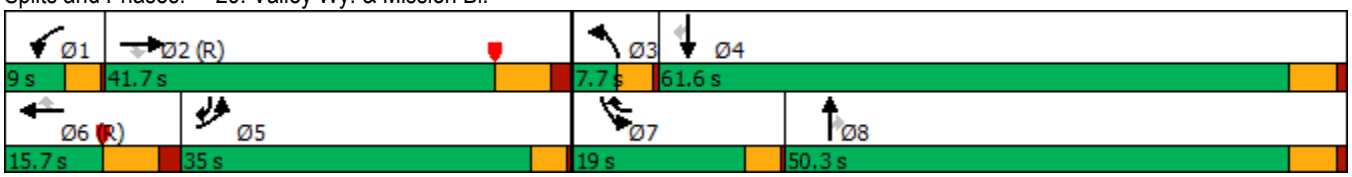
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			10.0	130.0
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			5.4	124.2
Max Q Clear Time (g_c+I1), s	5.7			7.4	2.0
Green Ext Time (p_c), s	14.7			0.0	10.8

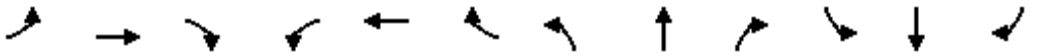
Intersection Summary	
HCM 6th Ctrl Delay	93.3
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	765	736	48	62	160	416	11	331	77	369	367	207
Future Volume (vph)	765	736	48	62	160	416	11	331	77	369	367	207
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	35.0	41.7	41.7	9.0	15.7	19.0	7.7	50.3	50.3	19.0	61.6	35.0
Total Split (%)	29.2%	34.8%	34.8%	7.5%	13.1%	15.8%	6.4%	41.9%	41.9%	15.8%	51.3%	29.2%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	31.3	58.5	58.5	9.6	36.7	55.2	4.0	17.1	17.1	15.1	34.4	67.3
Actuated g/C Ratio	0.26	0.49	0.49	0.08	0.31	0.46	0.03	0.14	0.14	0.13	0.29	0.56
v/c Ratio	0.87	0.44	0.06	0.45	0.15	0.51	0.09	0.67	0.23	0.87	0.37	0.13
Control Delay	54.2	22.0	0.1	62.2	31.9	8.3	58.1	55.0	2.2	72.0	35.1	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	22.0	0.1	62.2	31.9	8.3	58.1	55.0	2.2	72.0	35.1	1.3
LOS	D	C	A	E	C	A	E	E	A	E	D	A
Approach Delay		37.2			19.5			45.4			42.1	
Approach LOS		D			B			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 36.3	Intersection LOS: D
Intersection Capacity Utilization 69.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	765	736	48	62	160	416	11	331	77	369	367	207
Future Volume (veh/h)	765	736	48	62	160	416	11	331	77	369	367	207
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	797	767	29	65	167	406	11	345	37	384	382	142
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	1631	1879	833	80	262	318	36	529	232	438	942	2051
Arrive On Green	0.46	0.52	0.52	0.04	0.07	0.07	0.01	0.15	0.15	0.12	0.26	0.26
Sat Flow, veh/h	3510	3610	1600	1810	3610	1610	3510	3610	1583	3510	3610	2812
Grp Volume(v), veh/h	797	767	29	65	167	406	11	345	37	384	382	142
Grp Sat Flow(s),veh/h/ln	1755	1805	1600	1810	1805	1610	1755	1805	1583	1755	1805	1406
Q Serve(g_s), s	18.9	15.5	1.1	4.3	5.4	6.1	0.4	10.8	2.5	12.9	10.5	0.3
Cycle Q Clear(g_c), s	18.9	15.5	1.1	4.3	5.4	6.1	0.4	10.8	2.5	12.9	10.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1631	1879	833	80	262	318	36	529	232	438	942	2051
V/C Ratio(X)	0.49	0.41	0.03	0.81	0.64	1.28	0.31	0.65	0.16	0.88	0.41	0.07
Avail Cap(c_a), veh/h	1631	1879	833	80	262	318	117	1354	594	448	1694	2636
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)	0.72	0.72	0.72	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	22.3	17.5	14.1	56.9	54.1	23.6	59.0	48.3	44.8	51.6	36.6	1.2
Incr Delay (d2), s/veh	0.1	0.5	0.1	42.7	11.3	147.5	1.8	1.4	0.3	16.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	6.2	0.4	2.9	2.8	18.7	0.2	4.9	1.0	6.5	4.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	18.0	14.1	99.6	65.5	171.1	60.7	49.7	45.1	67.8	36.9	1.2
LnGrp LOS	C	B	B	F	E	F	E	D	D	E	D	A
Approach Vol, veh/h		1593			638			393			908	
Approach Delay, s/veh		20.1			136.1			49.6			44.4	
Approach LOS		C			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	69.5	4.9	36.6	62.8	15.7	18.7	22.9
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	5.3	34.7	4.0	56.3	31.3	* 8.7	15.3	45.0
Max Q Clear Time (g_c+I1), s	6.3	17.5	2.4	12.5	20.9	8.1	14.9	12.8
Green Ext Time (p_c), s	0.0	6.2	0.0	3.0	1.3	0.2	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	50.6
HCM 6th LOS	D

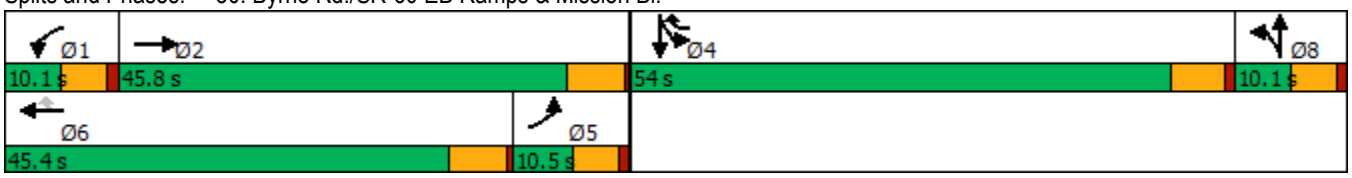
Notes

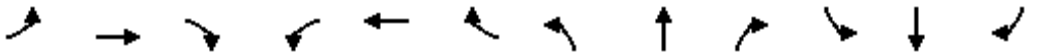
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	63	448	6	290	88	1	1169	6
Future Volume (vph)	63	448	6	290	88	1	1169	6
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	10.5	45.8	10.1	45.4	54.0	10.1	54.0	54.0
Total Split (%)	8.8%	38.2%	8.4%	37.8%	45.0%	8.4%	45.0%	45.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	None	None	None	None	None
Act Effct Green (s)	23.6	40.4	5.0	13.4	65.7	5.0	47.6	47.6
Actuated g/C Ratio	0.23	0.39	0.05	0.13	0.64	0.05	0.46	0.46
v/c Ratio	0.16	0.34	0.07	0.65	0.09	0.13	0.85	0.83
Control Delay	35.6	23.9	52.3	49.9	1.5	43.0	37.9	35.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	23.9	52.3	49.9	1.5	43.0	37.9	35.9
LOS	D	C	D	D	A	D	D	D
Approach Delay		25.4		38.8		43.0		36.9
Approach LOS		C		D		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 72.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	448	8	6	290	88	6	1	5	1169	6	89
Future Volume (veh/h)	63	448	8	6	290	88	6	1	5	1169	6	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	66	472	7	6	305	34	6	1	5	1303	0	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	484	1375	20	14	404	818	12	2	10	1434	753	0
Arrive On Green	0.27	0.38	0.38	0.01	0.11	0.11	0.01	0.01	0.01	0.40	0.00	0.00
Sat Flow, veh/h	1810	3640	54	1810	3610	1610	864	144	720	3619	1900	0
Grp Volume(v), veh/h	66	234	245	6	305	34	12	0	0	1303	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1889	1810	1805	1610	1727	0	0	1810	1900	0
Q Serve(g_s), s	2.9	9.8	9.9	0.4	8.7	1.1	0.7	0.0	0.0	36.1	0.0	0.0
Cycle Q Clear(g_c), s	2.9	9.8	9.9	0.4	8.7	1.1	0.7	0.0	0.0	36.1	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.50		0.42	1.00		0.00
Lane Grp Cap(c), veh/h	484	682	713	14	404	818	24	0	0	1434	753	0
V/C Ratio(X)	0.14	0.34	0.34	0.43	0.75	0.04	0.49	0.00	0.00	0.91	0.00	0.00
Avail Cap(c_a), veh/h	484	682	713	85	1350	1240	81	0	0	1643	862	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	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	29.6	23.6	23.6	52.5	45.7	13.1	52.0	0.0	0.0	30.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	1.4	1.3	20.0	1.1	0.0	5.7	0.0	0.0	7.2	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	1.3	4.2	4.4	0.2	3.8	0.8	0.4	0.0	0.0	16.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	25.0	24.9	72.5	46.8	13.1	57.7	0.0	0.0	37.4	0.0	0.0
LnGrp LOS	C	C	C	E	D	B	E	A	A	D	A	A
Approach Vol, veh/h		545			345			12			1303	
Approach Delay, s/veh		25.5			44.0			57.7			37.4	
Approach LOS		C			D			E			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	45.8		47.9	34.1	17.6		6.6				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.0	40.1		48.2	5.4	* 40		5.0				
Max Q Clear Time (g_c+I1), s	2.4	11.9		38.1	4.9	10.7		2.7				
Green Ext Time (p_c), s	0.0	1.5		4.0	0.0	1.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		35.6
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.2:

E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P
				CALC LCC	DATE 04/04/19
Jurisdiction: City of Fontana				CHK CS	DATE 04/11/19
Major Street: Cypress Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 1				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,350** vpd Minor Street Future ADT = **69** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **4,350** / *1* **69**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **4,350** / *1* **69**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 4% B: 8%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P	
				CALC	LCC	DATE	04/04/19
Jurisdiction:	City of Fontana			CHK	CH	DATE	04/04/19
Major Street:	Cypress Av			Critical Approach Speed (Major)		45	mph
Minor Street:	Driveway 2			Critical Approach Speed (Minor)		25	mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **4,495** vpd

Minor Street Future ADT = **242** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,495**	*1* **242**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **4,495**	*1* **242**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A 14% B 28%		2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P
				CALC LCC	DATE 04/04/19
Jurisdiction: **City of Fontana**				CHK CH	DATE 04/04/19
Major Street: **Cypress Av**				Critical Approach Speed (Major)	45 mph
Minor Street: **Driveway 3**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **4,824** vpd Minor Street Future ADT = **255** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street / Minor Street				
1 **4,824** / *1* **255**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach	Urban	Rural	Urban	Rural
Major Street / Minor Street				
1 **4,824** / *1* **255**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 15% B: 30%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P
				CALC LCC	DATE 04/04/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/04/19
Major Street: Cypress Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 4				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **5,033** vpd

Minor Street Future ADT = **76** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX / XX (RURAL: XX)				
Number of lanes for moving traffic on each approach				
Major Street: *1* **5,033**	8,000	5,600	2,400	1,680
Major Street: *2* +	9,600	6,720	2,400	1,680
Major Street: *2* +	9,600	6,720	3,200	2,240
Major Street: *1*	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street: *1* **5,033**	12,000	8,400	1,200	850
Major Street: *2* +	14,400	10,080	1,200	850
Major Street: *2* +	14,400	10,080	1,600	1,120
Major Street: *1*	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 5% B: 9%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

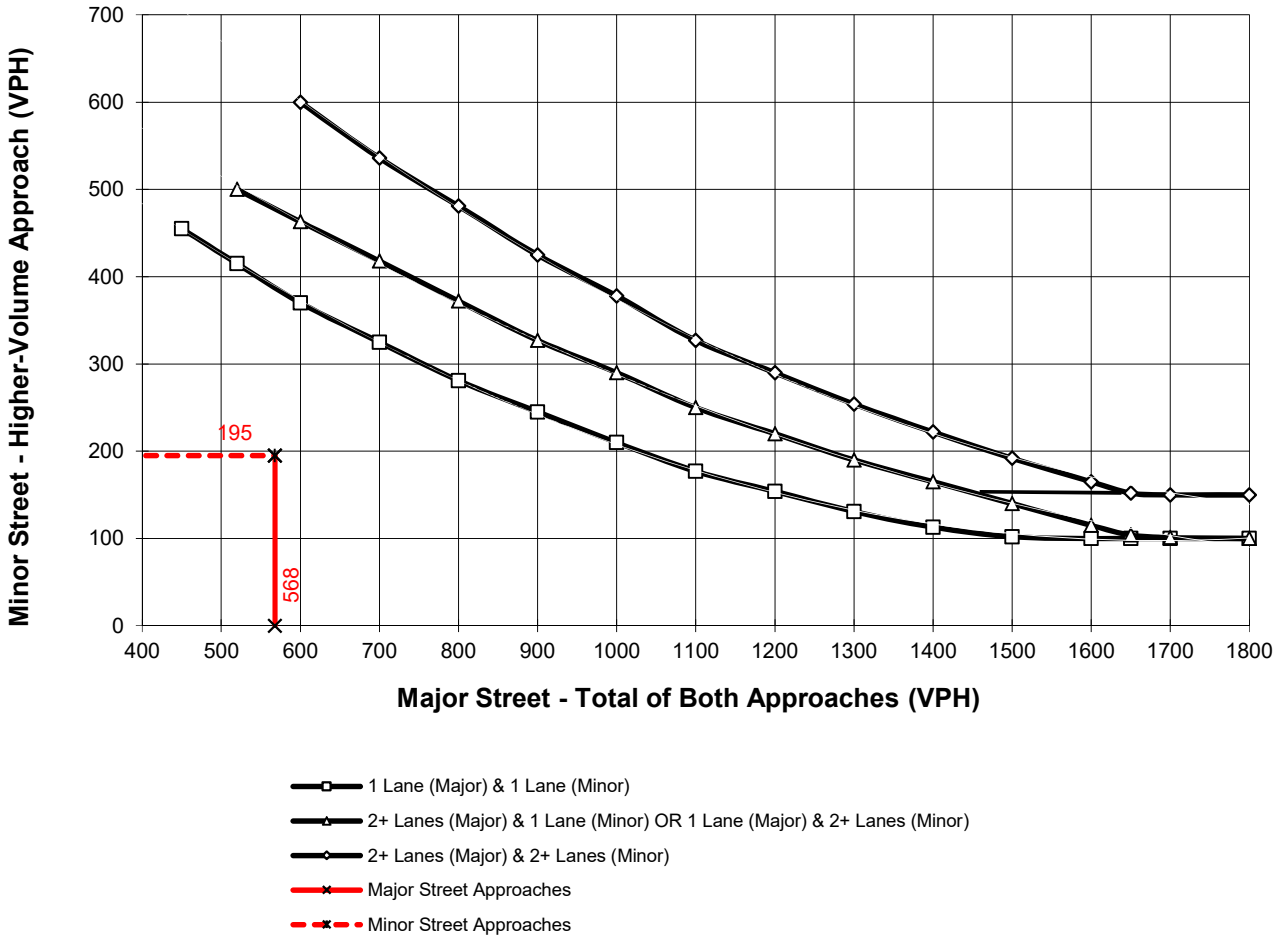
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

Major Street Name = **Santa Ana Av**
Total of Both Approaches (VPH) = **568**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Juniper Av**
High Volume Approach (VPH) = **195**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P
				CALC LCC	DATE 04/04/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/04/19
Major Street: Juniper Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 5				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,550** vpd Minor Street Future ADT = **97** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,550** / *1* **97**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,550** / *1* **97**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 4% B: 8%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC LCC	DATE	04/04/19
Jurisdiction: **City of Fontana**				CHK CH	DATE	04/04/19
Major Street: **Juniper Av**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 6**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,613** vpd Minor Street Future ADT = **240** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,613** / *1* **240**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,613** / *1* **240**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 10% B: 20%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC LCC	DATE	04/04/19
Jurisdiction: **City of Fontana**				CHK CH	DATE	04/04/19
Major Street: **Juniper Av**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 7**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,876** vpd Minor Street Future ADT = **255** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,876** / *1* **255**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,876** / *1* **255**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 11% B: 21%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC LCC	DATE	04/04/19
Jurisdiction: City of Fontana				CHK CH	DATE	04/04/19
Major Street: Juniper Av				Critical Approach Speed (Major)		40 mph
Minor Street: Driveway 8				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **3,152** vpd Minor Street Future ADT = **241** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
XX	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied **XX**				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,152** / *1* **241**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied **XX**				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **3,152** / *1* **241**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied **XX**	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 10% **B** 20%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC LCC	DATE	04/04/19
Jurisdiction: **City of Fontana**				CHK CH	DATE	04/04/19
Major Street: **Juniper Av**				Critical Approach Speed (Major)		40 mph
Minor Street: **Driveway 9**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **3,276** vpd Minor Street Future ADT = **77** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied: XX / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **3,276** / 1 **77**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **3,276** / 1 **77**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 3% B: 6%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 5.3:

E+P CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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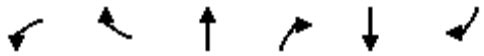
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	522	515	859	387	1238	577
v/c Ratio	0.85	0.49	0.29	0.37	0.60	0.36
Control Delay	43.1	18.1	16.7	7.3	17.1	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	18.1	16.7	7.3	17.1	0.6
Queue Length 50th (ft)	303	96	132	35	258	0
Queue Length 95th (ft)	380	128	139	100	396	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	794	1317	2945	1058	2049	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.39	0.29	0.37	0.60	0.36

Intersection Summary

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	386	384	1273	710	1089
v/c Ratio	0.51	0.87	0.62	0.84	0.44
Control Delay	35.9	46.9	24.9	41.6	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	46.9	24.9	41.6	6.7
Queue Length 50th (ft)	109	169	220	163	118
Queue Length 95th (ft)	147	#274	305	291	125
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	945	518	2044	980	2461
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.41	0.74	0.62	0.72	0.44

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	275	506	1236	389	893	494
v/c Ratio	0.72	0.79	0.34	0.32	0.35	0.31
Control Delay	46.9	41.2	10.0	4.6	7.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	41.2	10.0	4.6	7.1	0.5
Queue Length 50th (ft)	164	149	111	12	105	0
Queue Length 95th (ft)	233	197	255	113	170	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	703	1127	3617	1211	2517	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.45	0.34	0.32	0.35	0.31

Intersection Summary

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	474	246	1666	490	666
v/c Ratio	0.76	0.51	0.66	0.78	0.26
Control Delay	47.2	9.4	19.2	41.7	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	9.4	19.2	41.7	6.7
Queue Length 50th (ft)	147	6	258	159	105
Queue Length 95th (ft)	196	70	354	208	151
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	735	527	2535	770	2605
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.47	0.66	0.64	0.26

Intersection Summary

APPENDIX 5.4:

E+P CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	WB E of Citrus	1740	5
2	Diverge	Basic	WB Off-Ramp	1500	5
3	Basic	Basic	Between Off and Loop On Ramp	1215	4
4	Merge	Merge	WB Loop On-Ramp	1500	4
5	Basic	Basic	Between On Ramps	1450	4
6	Merge	Merge	WB On Ramp	1500	4
7	Basic	Basic	WB W of Citrus	6460	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7467	11000	0.68	48.2	31.0	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.926	7467	1012	11000	2100	0.68	0.48	50.0	-	29.9	-	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6442	8800	0.73	48.2	33.4	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.893	6805	363	9000	1900	0.76	0.19	45.7	47.0	37.2	26.3	C

Segment 5: Basic

Time	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

Period			(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
1	0.92	0.980	6772		8800		0.77		48.2		35.1		E

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	7355	583	9000	2100	0.82	0.28	45.6	47.0	40.3	27.8	C

Segment 7: Basic

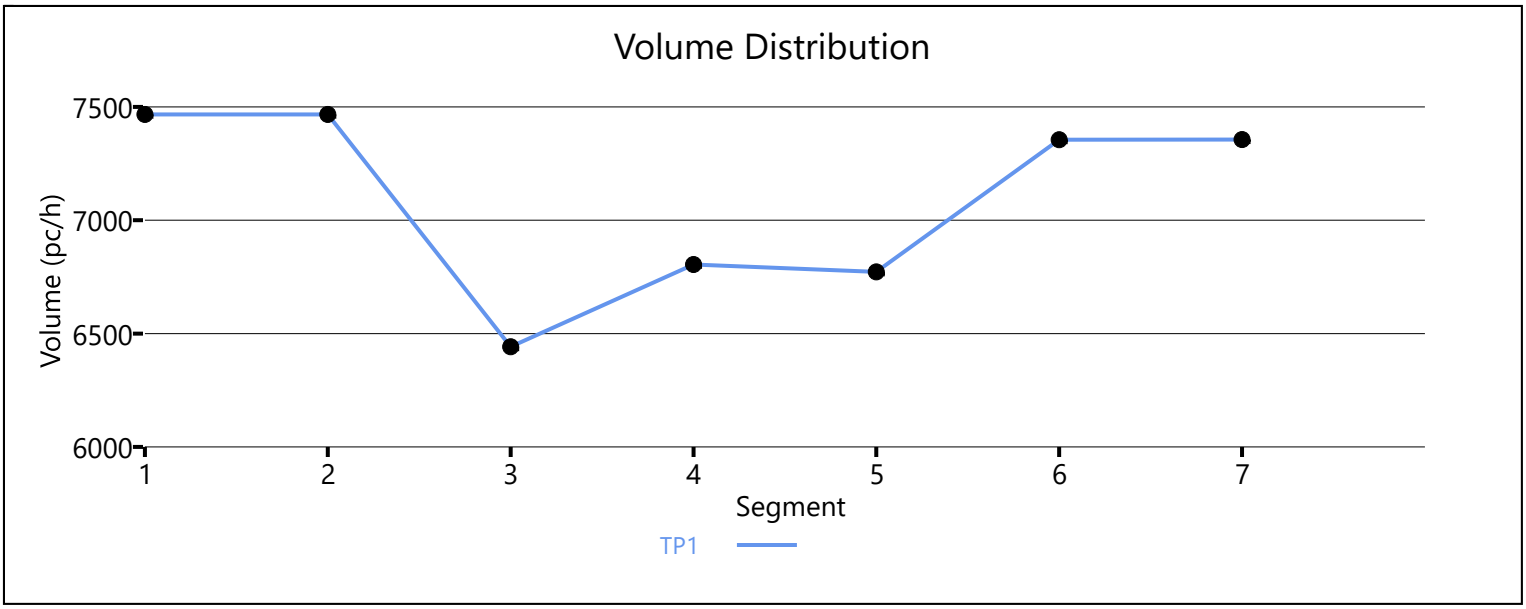
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7356	8800	0.84	48.2	38.2	E

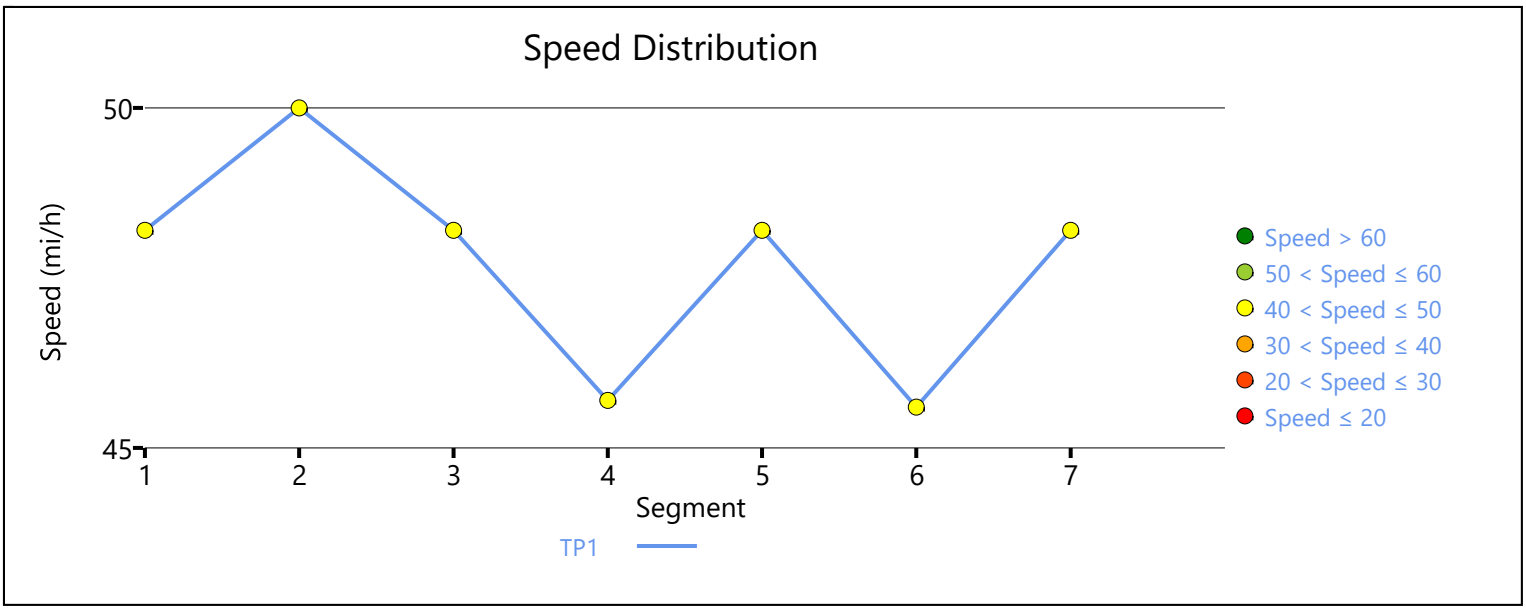
Facility Time Period Results

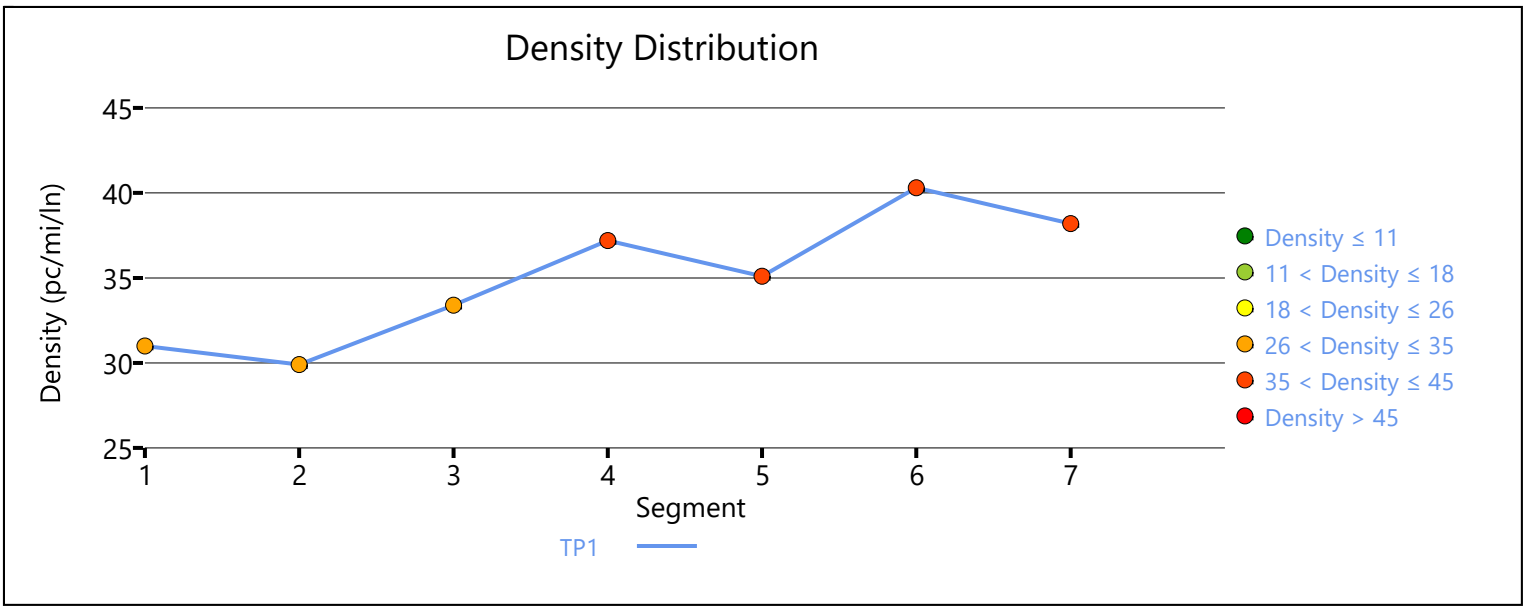
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	47.9	35.7	34.9	3.6	E

Facility Overall Results

Space Mean Speed, mi/h	47.9	Density, veh/mi/ln	34.9
Average Travel Time, min	3.6	Density, pc/mi/ln	35.7







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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6720	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1877
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.78
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	66.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	28.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6097	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1336
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.56
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	74.0
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	18.1
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6573	11685	0.56	63.7	20.6	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.901	6573	730	11750	2100	0.56	0.35	65.0	-	20.2	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	5842	9348	0.62	63.7	22.9	C

Segment 4: Merge

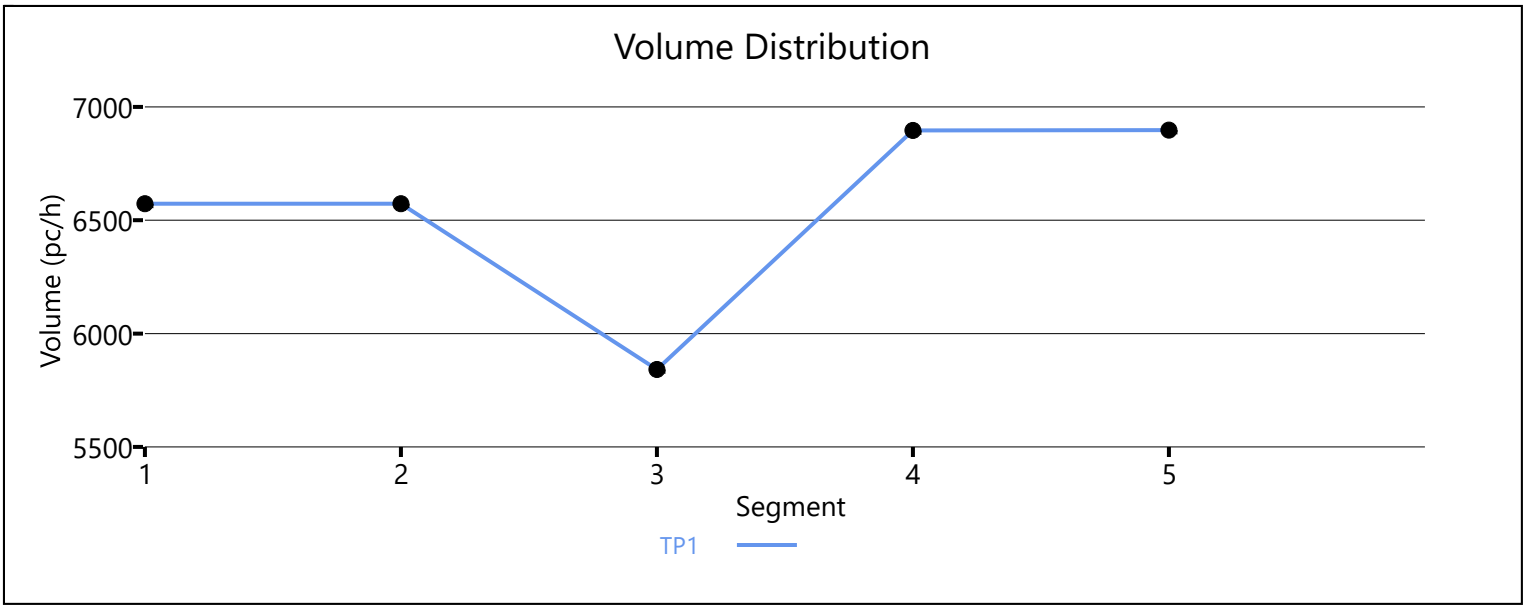
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.926	6896	1054	9400	2100	0.62	0.50	64.9	-	22.5	-	C

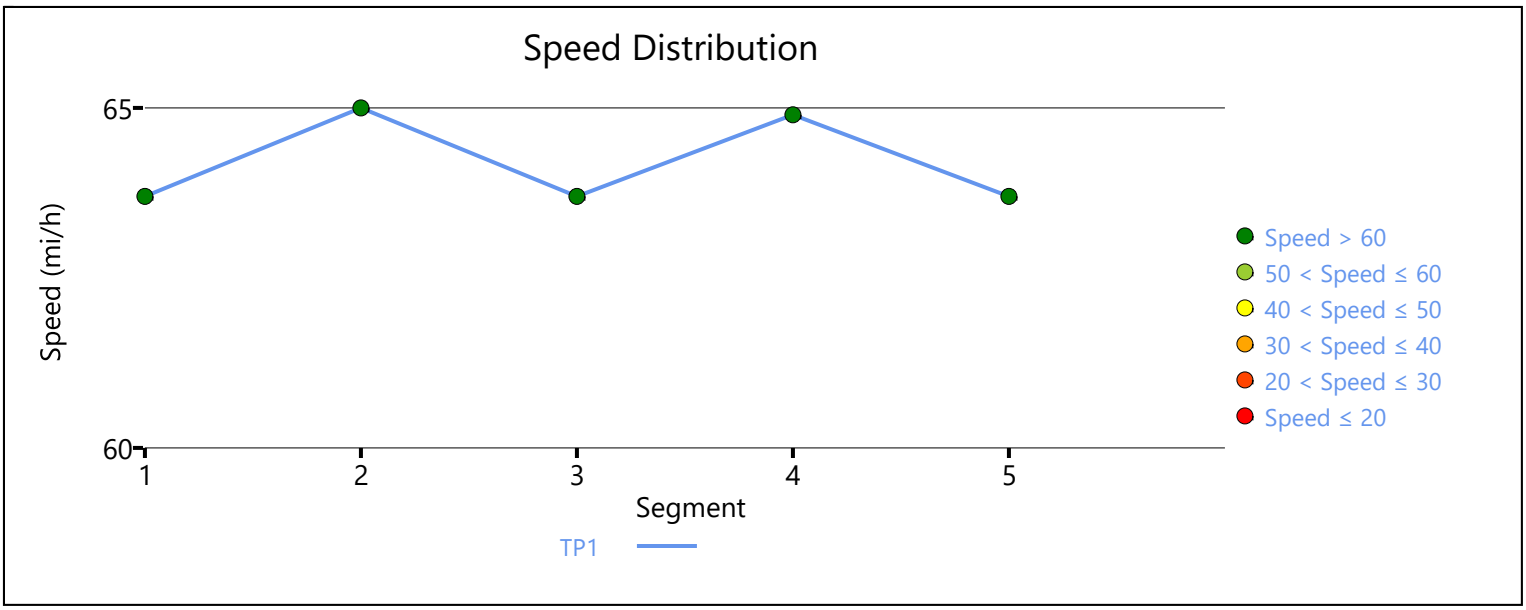
Segment 5: Basic

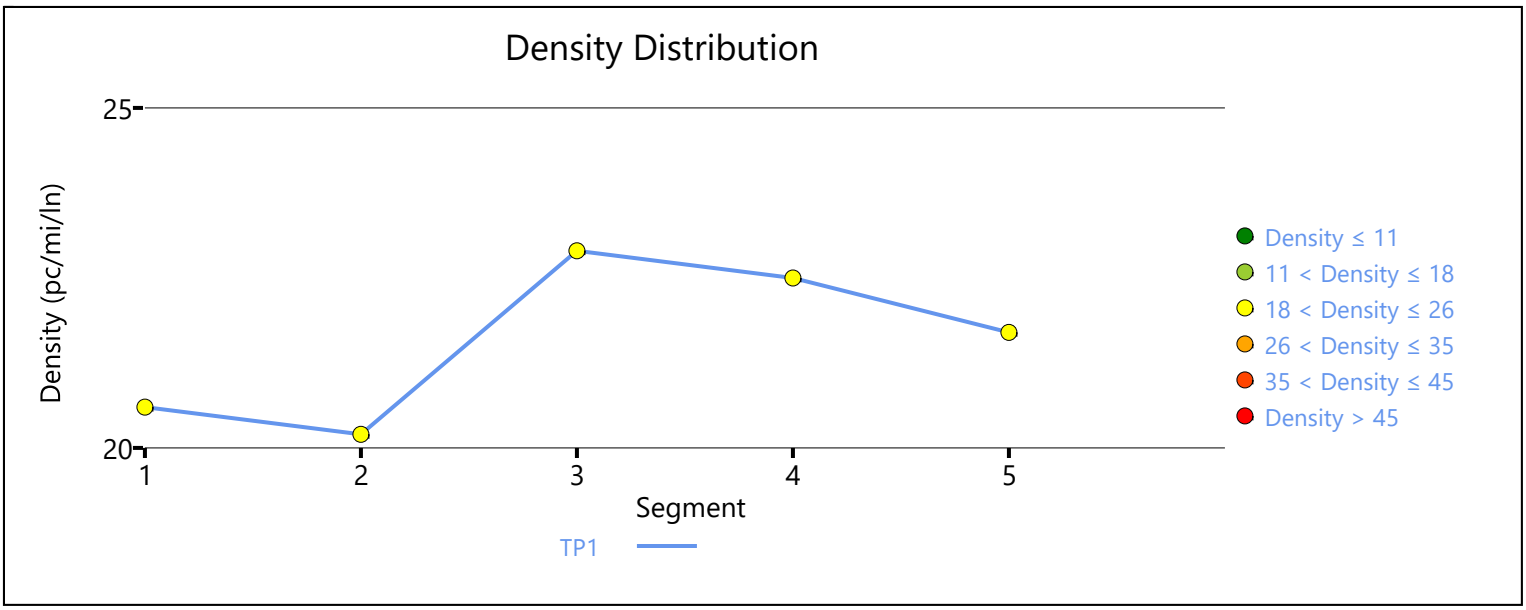
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6898	11685	0.59	63.7	21.7	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	64.0	21.2	20.8	2.7	C

Facility Overall Results			
Space Mean Speed, mi/h	64.0	Density, veh/mi/ln	20.8
Average Travel Time, min	2.7	Density, pc/mi/ln	21.2







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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	GP Lane, ft	ML Type	ML Lanes
1	Basic	Basic	WB E of Citrus	1740	5	Continuous Access	1
2	Diverge	Basic	WB Off-Ramp	1500	5	Continuous Access	1
3	Basic	Basic	Between Off and Loop On Ramp	1215	4	Continuous Access	1
4	Merge	Merge	WB Loop On-Ramp	1500	4	Continuous Access	1
5	Basic	Basic	Between On Ramps	1450	4	Continuous Access	1
6	Merge	Merge	WB On Ramp	1500	4	Continuous Access	1
7	Basic	Basic	WB W of Citrus	6460	4	Continuous Access	1

Facility Segment Data

Segment 1: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6837	11660	0.59	63.2	21.6	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 2: Diverge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	6837	770	11750	2100	0.58	0.37	65.0	-	21.0	-	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 3: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6060	9328	0.65	63.2	24.0	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 4: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	6443	383	9400	1900	0.69	0.20	58.6	56.5	27.5	25.2	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 5: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6481	9328	0.69	62.9	25.8	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 6: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	6987	506	9400	2100	0.74	0.24	58.4	56.7	29.9	26.3	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 7: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6992	9328	0.75	62.0	28.2	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

General Purpose Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.9	26.0	25.3	2.8	D

Managed Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	75.4	0.0	0.0	2.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.9	21.0	20.5	2.8	C

General Purpos Lane Overall Results

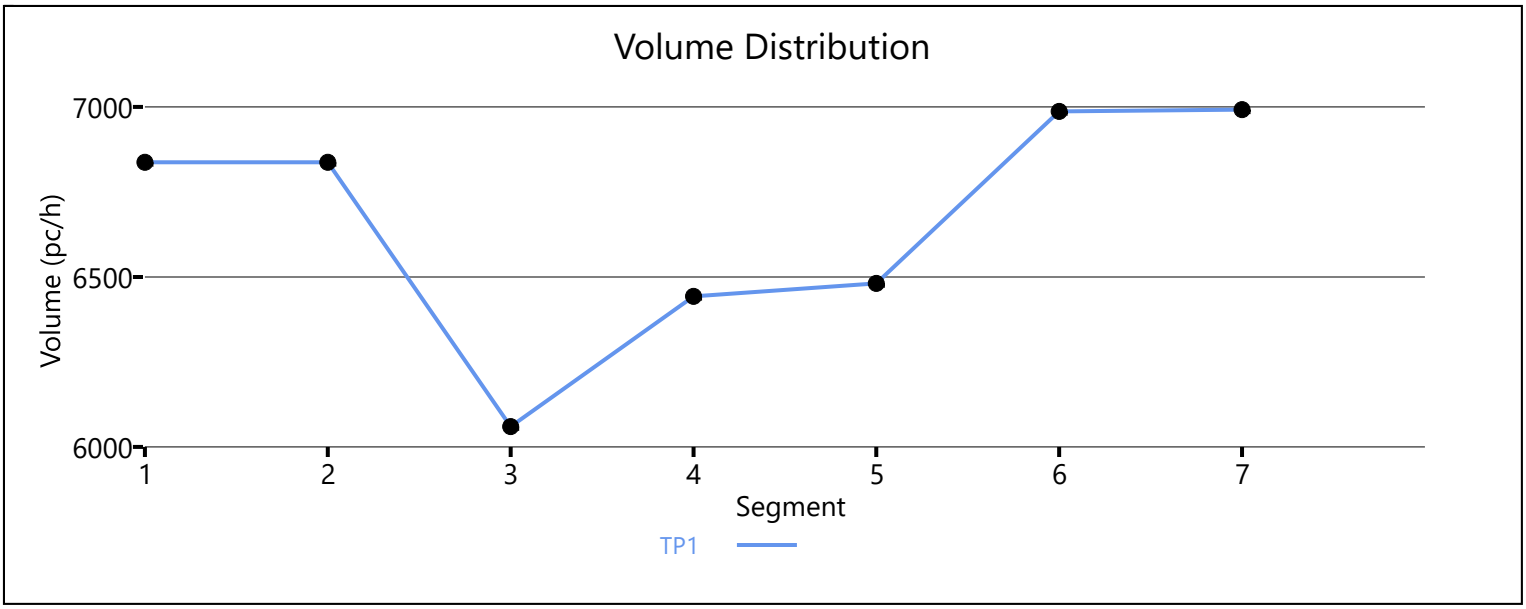
Space Mean Speed, mi/h	61.9	Density, veh/mi/ln	25.3
Average Travel Time, min	2.8	Density, pc/mi/ln	26.0

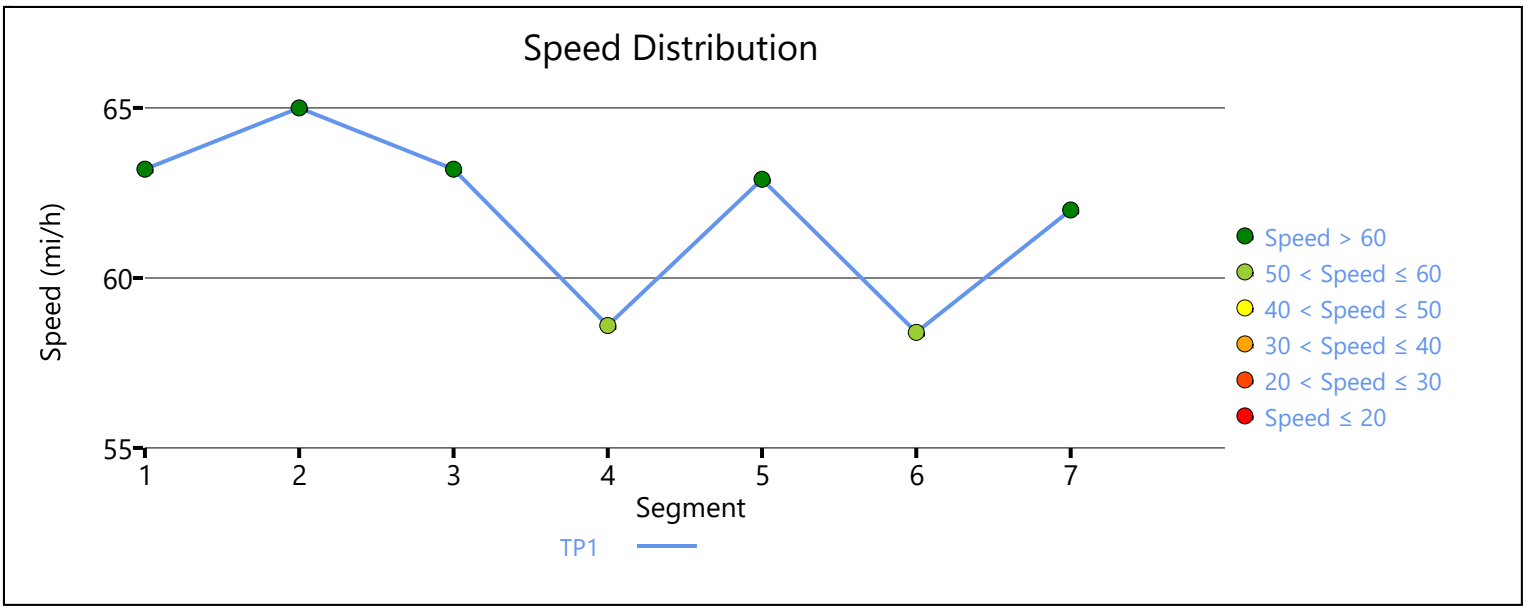
Managed Lane Overall Results

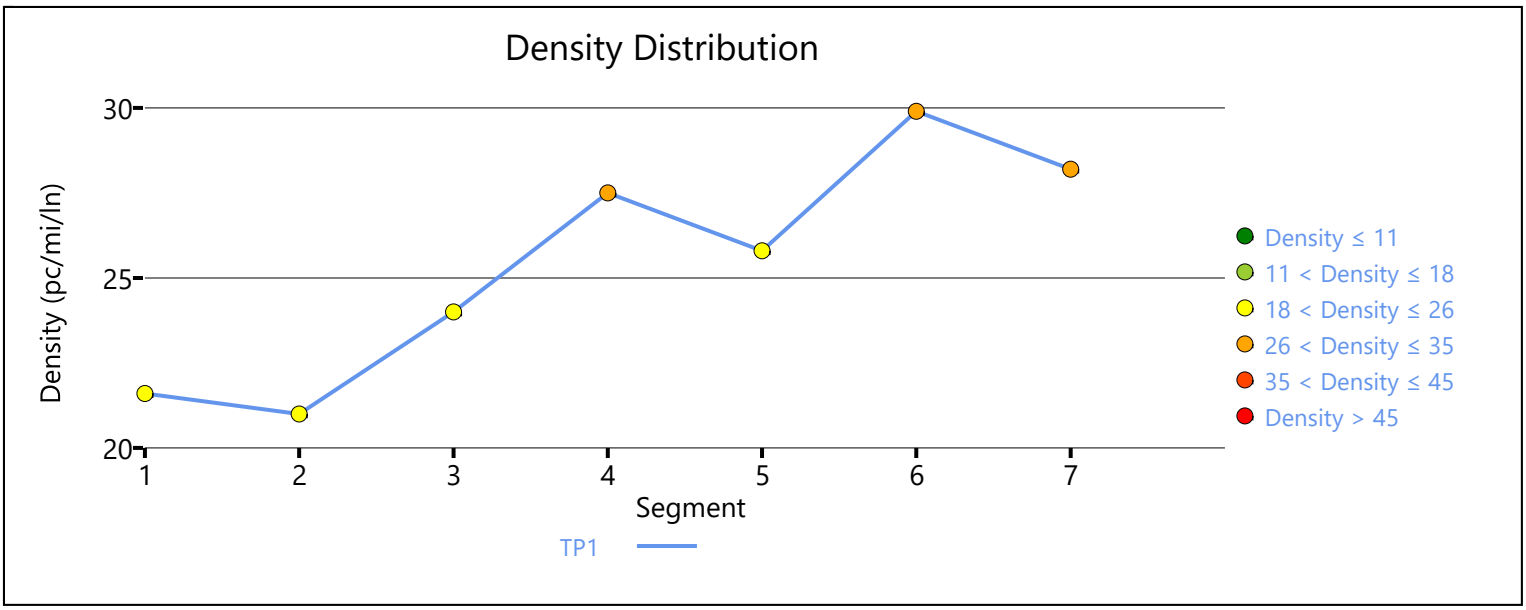
Space Mean Speed, mi/h	75.4	Density, veh/mi/ln	0.0
Average Travel Time, min	2.3	Density, pc/mi/ln	0.0

Facility Overall Results

Space Mean Speed, mi/h	61.9	Density, veh/mi/ln	20.5
Average Travel Time, min	2.8	Density, pc/mi/ln	21.0







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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6251	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1679
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.70
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	70.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	24.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5324	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1144
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.48
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	75.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6396	11185	0.57	53.7	23.8	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.962	6396	733	11250	2100	0.57	0.35	55.0	-	23.3	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	5677	8948	0.63	53.7	26.4	D

Segment 4: Merge

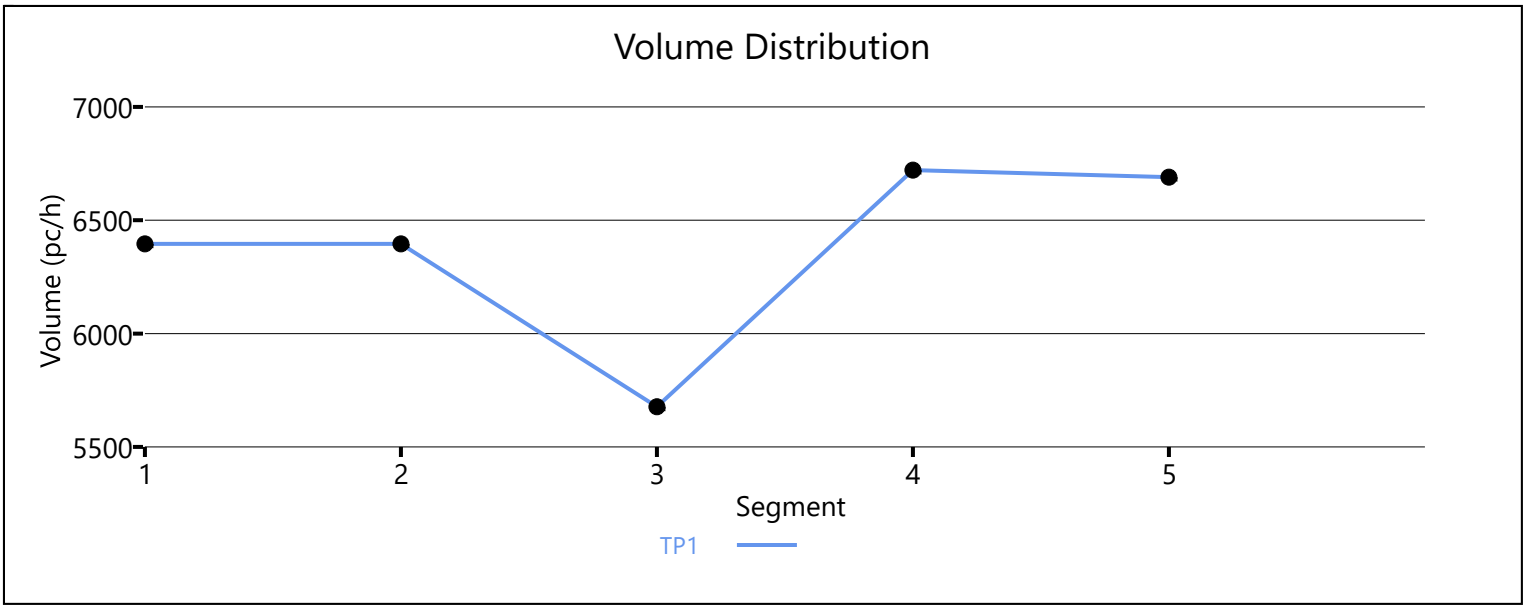
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	6721	1044	9000	2100	0.63	0.50	55.0	-	25.8	-	C

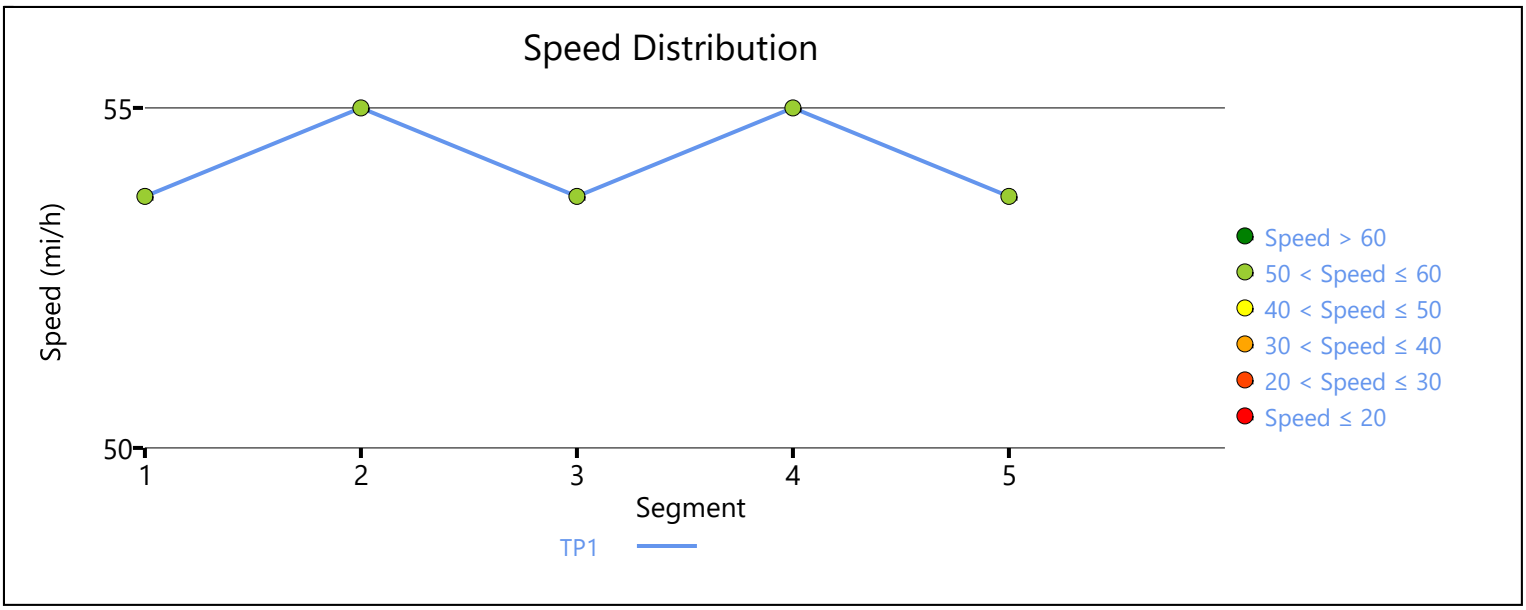
Segment 5: Basic

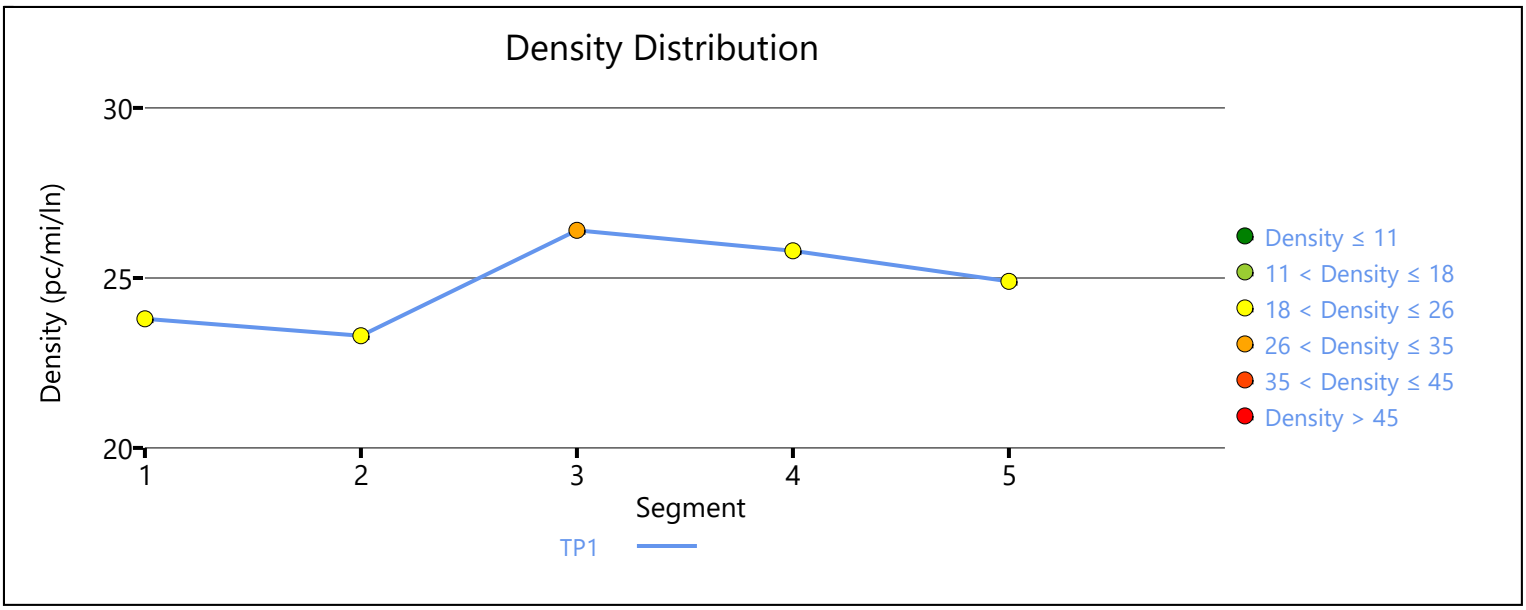
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6690	11185	0.60	53.7	24.9	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	54.0	24.4	23.9	3.2	C

Facility Overall Results			
Space Mean Speed, mi/h	54.0	Density, veh/mi/ln	23.9
Average Travel Time, min	3.2	Density, pc/mi/ln	24.4







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APPENDIX 6.1:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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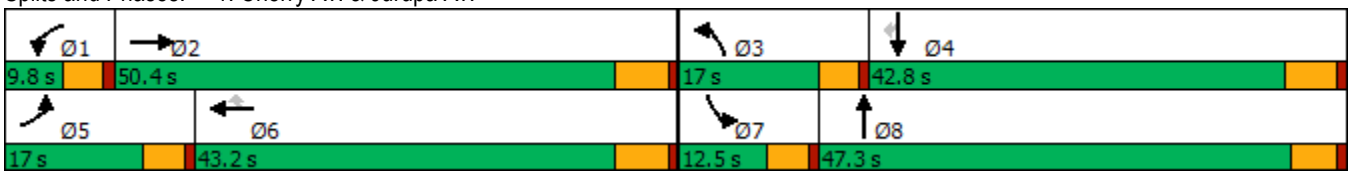
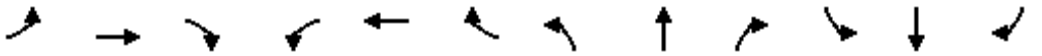
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	255	734	46	831	135	271	480	87	296	282
Future Volume (vph)	255	734	46	831	135	271	480	87	296	282
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	17.0	50.4	9.8	43.2	43.2	17.0	47.3	12.5	42.8	42.8
Total Split (%)	14.2%	42.0%	8.2%	36.0%	36.0%	14.2%	39.4%	10.4%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 100.8
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	734	151	46	831	135	271	480	57	87	296	282
Future Volume (veh/h)	255	734	151	46	831	135	271	480	57	87	296	282
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.97	1.00		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	311	895	97	56	1013	95	330	585	53	106	361	201
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	366	1781	192	126	1108	468	373	1763	158	160	1099	424
Arrive On Green	0.10	0.38	0.38	0.04	0.31	0.31	0.11	0.36	0.36	0.05	0.30	0.30
Sat Flow, veh/h	3510	4744	512	3510	3610	1525	3510	4829	433	3510	3610	1393
Grp Volume(v), veh/h	311	651	341	56	1013	95	330	417	221	106	361	201
Grp Sat Flow(s),veh/h/ln	1755	1729	1798	1755	1805	1525	1755	1729	1804	1755	1805	1393
Q Serve(g_s), s	10.2	16.9	17.0	1.8	31.6	5.4	10.8	10.2	10.4	3.5	9.0	13.7
Cycle Q Clear(g_c), s	10.2	16.9	17.0	1.8	31.6	5.4	10.8	10.2	10.4	3.5	9.0	13.7
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	366	1298	675	126	1108	468	373	1262	658	160	1099	424
V/C Ratio(X)	0.85	0.50	0.50	0.44	0.91	0.20	0.89	0.33	0.34	0.66	0.33	0.47
Avail Cap(c_a), veh/h	373	1321	687	156	1156	489	373	1262	658	238	1144	441
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	28.1	28.1	55.1	39.0	29.9	51.5	26.8	26.8	54.8	31.4	33.0
Incr Delay (d2), s/veh	15.6	0.3	0.6	0.9	10.9	0.2	20.9	0.2	0.3	1.7	0.2	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	5.1	6.7	7.1	0.8	15.0	2.0	5.8	4.2	4.5	1.5	3.8	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.0	28.4	28.7	56.1	49.9	30.1	72.4	26.9	27.1	56.6	31.6	33.8
LnGrp LOS	E	C	C	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1303			1164			968			668	
Approach Delay, s/veh		37.7			48.5			42.5			36.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	49.6	17.0	41.3	16.8	41.6	9.9	48.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.2	44.6	12.4	37.0	12.4	37.4	7.9	* 42
Max Q Clear Time (g_c+I1), s	3.8	19.0	12.8	15.7	12.2	33.6	5.5	12.4
Green Ext Time (p_c), s	0.0	6.5	0.0	2.9	0.0	2.3	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	41.6
HCM 6th LOS	D

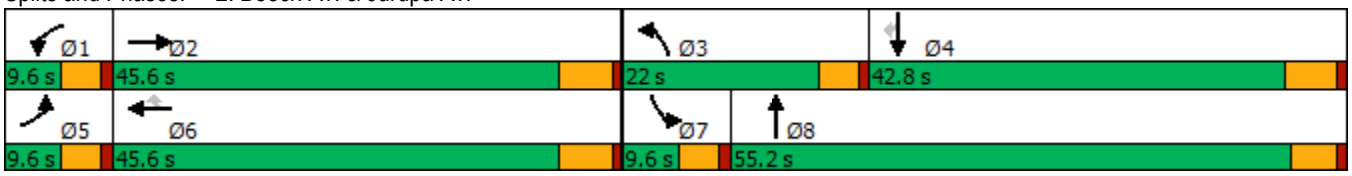
Notes

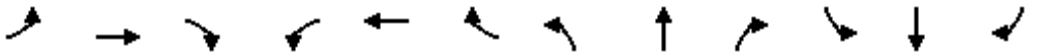
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	101	656	4	631	53	232	90	13	3	51
Future Volume (vph)	101	656	4	631	53	232	90	13	3	51
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	9.6	45.6	9.6	45.6	45.6	22.0	55.2	9.6	42.8	42.8
Total Split (%)	8.0%	38.0%	8.0%	38.0%	38.0%	18.3%	46.0%	8.0%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 75.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	656	32	4	631	53	232	90	13	13	3	51
Future Volume (veh/h)	101	656	32	4	631	53	232	90	13	13	3	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	104	676	29	4	651	30	239	93	7	13	3	29
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	245	1515	65	19	1206	374	293	1106	82	29	646	288
Arrive On Green	0.07	0.30	0.30	0.01	0.23	0.23	0.16	0.32	0.32	0.02	0.18	0.18
Sat Flow, veh/h	3510	5100	218	3510	5187	1610	1810	3405	254	1810	3610	1607
Grp Volume(v), veh/h	104	458	247	4	651	30	239	49	51	13	3	29
Grp Sat Flow(s),veh/h/ln	1755	1729	1860	1755	1729	1610	1810	1805	1854	1810	1805	1607
Q Serve(g_s), s	1.7	6.3	6.3	0.1	6.4	0.8	7.4	1.1	1.1	0.4	0.0	0.9
Cycle Q Clear(g_c), s	1.7	6.3	6.3	0.1	6.4	0.8	7.4	1.1	1.1	0.4	0.0	0.9
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	245	1027	552	19	1206	374	293	586	602	29	646	288
V/C Ratio(X)	0.42	0.45	0.45	0.21	0.54	0.08	0.82	0.08	0.08	0.44	0.00	0.10
Avail Cap(c_a), veh/h	301	2360	1269	301	3539	1099	540	1550	1593	155	2290	1020
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	16.6	16.6	28.9	19.6	17.5	23.6	13.7	13.7	28.4	19.7	20.0
Incr Delay (d2), s/veh	0.4	0.3	0.6	2.0	0.4	0.1	2.1	0.1	0.1	3.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.1	2.3	0.0	2.2	0.3	3.1	0.4	0.4	0.2	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	16.9	17.2	30.9	20.0	17.6	25.7	13.7	13.7	32.2	19.7	20.2
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	C
Approach Vol, veh/h		809			685			339			45	
Approach Delay, s/veh		18.2			20.0			22.2			23.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	23.1	14.1	16.2	8.7	19.4	5.5	24.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	39.8	17.4	37.0	5.0	39.8	5.0	* 50
Max Q Clear Time (g_c+I1), s	2.1	8.3	9.4	2.9	3.7	8.4	2.4	3.1
Green Ext Time (p_c), s	0.0	4.4	0.2	0.1	0.0	4.5	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

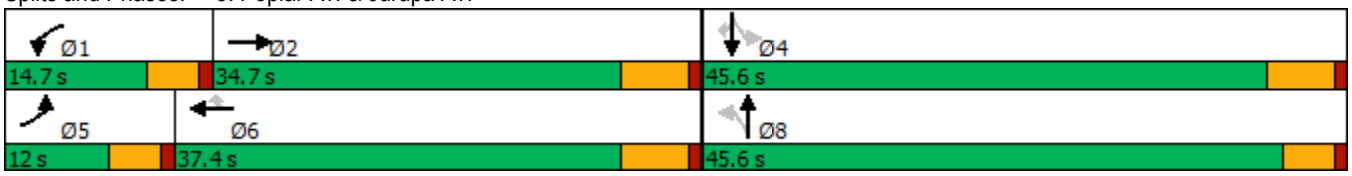
Notes

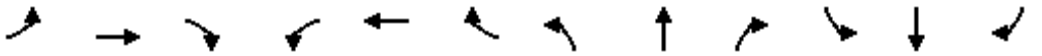
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	66	710	82	733	37	124	82	15	34	42
Future Volume (vph)	66	710	82	733	37	124	82	15	34	42
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	12.0	34.7	14.7	37.4	37.4	45.6	45.6	45.6	45.6	45.6
Total Split (%)	12.6%	36.5%	15.5%	39.4%	39.4%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 53.9
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	710	43	82	733	37	124	82	151	15	34	42
Future Volume (veh/h)	66	710	43	82	733	37	124	82	151	15	34	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	763	38	88	788	29	133	88	78	16	37	25
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	122	1471	73	139	1558	484	484	464	373	425	464	393
Arrive On Green	0.07	0.29	0.29	0.08	0.30	0.30	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	5056	251	1810	5187	1610	1360	1903	1527	1239	1900	1608
Grp Volume(v), veh/h	71	521	280	88	788	29	133	83	83	16	37	25
Grp Sat Flow(s),veh/h/ln	1810	1729	1848	1810	1729	1610	1360	1805	1625	1239	1900	1608
Q Serve(g_s), s	1.6	5.2	5.3	2.0	5.2	0.5	3.5	1.5	1.7	0.4	0.6	0.5
Cycle Q Clear(g_c), s	1.6	5.2	5.3	2.0	5.2	0.5	4.1	1.5	1.7	2.1	0.6	0.5
Prop In Lane	1.00		0.14	1.00		1.00	1.00		0.94	1.00		1.00
Lane Grp Cap(c), veh/h	122	1006	538	139	1558	484	484	441	397	425	464	393
V/C Ratio(X)	0.58	0.52	0.52	0.63	0.51	0.06	0.27	0.19	0.21	0.04	0.08	0.06
Avail Cap(c_a), veh/h	321	2396	1280	438	3929	1220	1489	1774	1597	1304	1813	1534
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	12.3	12.4	18.7	12.0	10.4	13.7	12.5	12.6	13.4	12.2	12.1
Incr Delay (d2), s/veh	1.7	0.4	0.8	1.8	0.3	0.1	0.3	0.2	0.3	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.5	1.6	0.7	1.4	0.1	0.9	0.5	0.5	0.1	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.5	12.8	13.1	20.5	12.3	10.4	14.0	12.7	12.8	13.4	12.2	12.2
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		872			905			299			78	
Approach Delay, s/veh		13.5			13.0			13.3			12.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	17.9		16.0	7.4	18.3		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	10.1	28.9		39.8	7.4	31.6		* 41				
Max Q Clear Time (g_c+I1), s	4.0	7.3		4.1	3.6	7.2		6.1				
Green Ext Time (p_c), s	0.0	4.7		0.3	0.0	5.3		1.3				

Intersection Summary		
HCM 6th Ctrl Delay		13.2
HCM 6th LOS		B

Notes

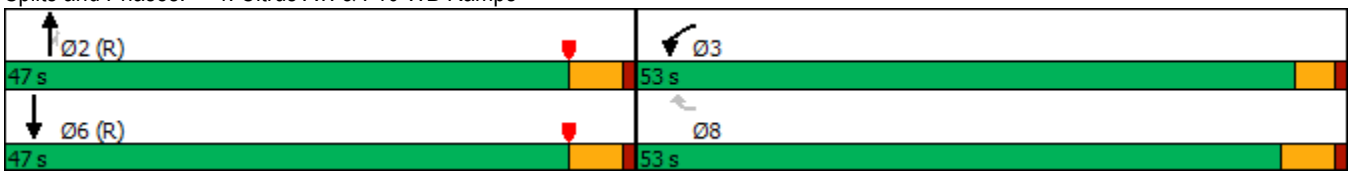
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

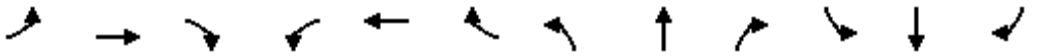
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	766	504	858	465	1287	565
Future Volume (vph)	766	504	858	465	1287	565
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	53.0	53.0	47.0	47.0	47.0	
Total Split (%)	53.0%	53.0%	47.0%	47.0%	47.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	766	0	504	0	858	465	0	1287	565
Future Volume (veh/h)	0	0	0	766	0	504	0	858	465	0	1287	565
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				815	0	330	0	913	485	0	1369	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				845	0	1323	0	2299	697	0	1600	
Arrive On Green				0.47	0.00	0.47	0.00	0.89	0.89	0.00	0.44	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1571	0	3705	1610
Grp Volume(v), veh/h				815	0	330	0	913	485	0	1369	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1571	0	1805	1610
Q Serve(g_s), s				43.7	0.0	7.0	0.0	3.1	9.2	0.0	34.0	0.0
Cycle Q Clear(g_c), s				43.7	0.0	7.0	0.0	3.1	9.2	0.0	34.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				845	0	1323	0	2299	697	0	1600	
V/C Ratio(X)				0.97	0.00	0.25	0.00	0.40	0.70	0.00	0.86	
Avail Cap(c_a), veh/h				887	0	1389	0	2299	697	0	1600	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.25	0.25	0.00	1.00	0.00
Uniform Delay (d), s/veh				25.9	0.0	16.1	0.0	3.3	3.7	0.0	25.0	0.0
Incr Delay (d2), s/veh				21.3	0.0	0.0	0.0	0.1	1.5	0.0	6.1	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				21.7	0.0	2.1	0.0	0.8	1.5	0.0	14.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.2	0.0	16.1	0.0	3.5	5.1	0.0	31.1	0.0
LnGrp LOS				D	A	B	A	A	A	A	C	
Approach Vol, veh/h					1145			1398			1369	A
Approach Delay, s/veh					38.2			4.0			31.1	
Approach LOS					D			A			C	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	49.3		49.3		50.7			
Change Period (Y+Rc), s	5.0		5.0		4.0			
Max Green Setting (Gmax), s	42.0		42.0		49.0			
Max Q Clear Time (g_c+I1), s	11.2		36.0		45.7			
Green Ext Time (p_c), s	5.2		3.2		1.0			

Intersection Summary		
HCM 6th Ctrl Delay	23.5	
HCM 6th LOS	C	

Notes

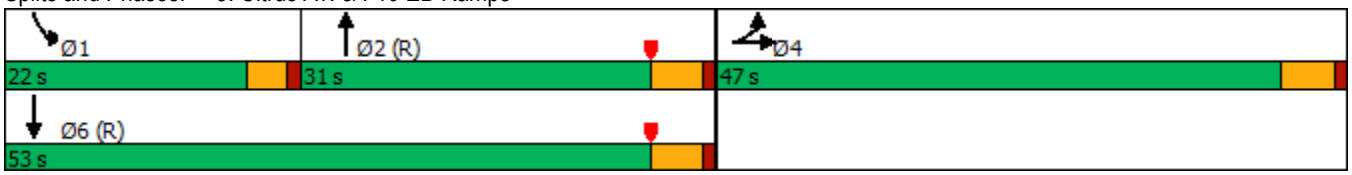
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

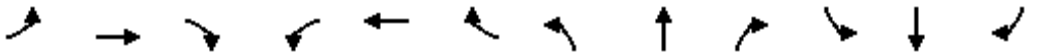
Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	369	4	955	681	1408
Future Volume (vph)	369	4	955	681	1408
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	47.0	47.0	31.0	22.0	53.0
Total Split (%)	47.0%	47.0%	31.0%	22.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	4	767	0	0	0	0	955	426	681	1408	0
Future Volume (veh/h)	369	4	767	0	0	0	0	955	426	681	1408	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	401	4	735				0	1038	340	740	1530	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1474	4	673				0	1001	328	632	1733	0
Arrive On Green	0.42	0.42	0.42				0.00	0.26	0.26	0.36	0.96	0.00
Sat Flow, veh/h	3510	9	1603				0	4019	1260	3510	3705	0
Grp Volume(v), veh/h	401	0	739				0	933	445	740	1530	0
Grp Sat Flow(s),veh/h/ln	1755	0	1612				0	1729	1650	1755	1805	0
Q Serve(g_s), s	7.5	0.0	42.0				0.0	26.0	26.0	18.0	11.1	0.0
Cycle Q Clear(g_c), s	7.5	0.0	42.0				0.0	26.0	26.0	18.0	11.1	0.0
Prop In Lane	1.00		0.99				0.00		0.76	1.00		0.00
Lane Grp Cap(c), veh/h	1474	0	677				0	899	429	632	1733	0
V/C Ratio(X)	0.27	0.00	1.09				0.00	1.04	1.04	1.17	0.88	0.00
Avail Cap(c_a), veh/h	1474	0	677				0	899	429	632	1733	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.67	0.67	0.31	0.31	0.00
Uniform Delay (d), s/veh	19.0	0.0	29.0				0.0	37.0	37.0	32.0	1.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	62.3				0.0	34.8	45.7	82.6	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	26.3				0.0	14.7	15.3	12.8	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	0.0	91.3				0.0	71.8	82.7	114.6	3.6	0.0
LnGrp LOS	B	A	F				A	F	F	F	A	A
Approach Vol, veh/h		1140						1378			2270	
Approach Delay, s/veh		65.9						75.3			39.8	
Approach LOS		E						E			D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.0	31.0		47.0		53.0
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	18.0	26.0		42.0		48.0
Max Q Clear Time (g_c+I1), s	20.0	28.0		44.0		13.1
Green Ext Time (p_c), s	0.0	0.0		0.0		8.7

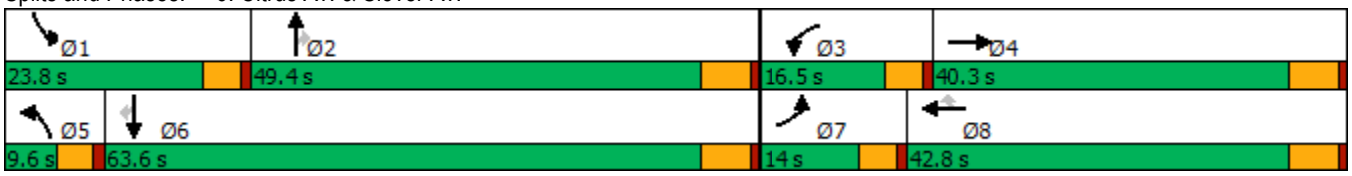
Intersection Summary	
HCM 6th Ctrl Delay	56.2
HCM 6th LOS	E

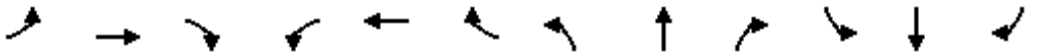
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	318	210	103	498	209	51	804	52	217	1044	816
Future Volume (vph)	318	210	103	498	209	51	804	52	217	1044	816
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	14.0	40.3	16.5	42.8	42.8	9.6	49.4	49.4	23.8	63.6	63.6
Total Split (%)	10.8%	31.0%	12.7%	32.9%	32.9%	7.4%	38.0%	38.0%	18.3%	48.9%	48.9%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 119
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	210	53	103	498	209	51	804	52	217	1044	816
Future Volume (veh/h)	318	210	53	103	498	209	51	804	52	217	1044	816
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		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	366	241	55	118	572	186	59	924	29	249	1200	805
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	625	140	144	771	341	76	1963	598	276	929	777
Arrive On Green	0.08	0.21	0.21	0.08	0.21	0.21	0.04	0.38	0.38	0.15	0.49	0.49
Sat Flow, veh/h	3510	2928	656	1810	3610	1597	1810	5187	1580	1810	1900	1590
Grp Volume(v), veh/h	366	147	149	118	572	186	59	924	29	249	1200	805
Grp Sat Flow(s),veh/h/ln	1755	1805	1779	1810	1805	1597	1810	1729	1580	1810	1900	1590
Q Serve(g_s), s	9.4	8.2	8.5	7.6	17.5	12.3	3.8	15.9	1.4	16.0	57.8	57.8
Cycle Q Clear(g_c), s	9.4	8.2	8.5	7.6	17.5	12.3	3.8	15.9	1.4	16.0	57.8	57.8
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	385	380	144	771	341	76	1963	598	276	929	777
V/C Ratio(X)	1.31	0.38	0.39	0.82	0.74	0.55	0.77	0.47	0.05	0.90	1.29	1.04
Avail Cap(c_a), veh/h	279	527	519	182	1130	500	77	1963	598	294	929	777
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	39.8	39.9	53.6	43.4	41.4	56.1	27.8	23.3	49.2	30.2	30.2
Incr Delay (d2), s/veh	163.4	0.6	0.7	16.5	1.5	1.4	34.9	0.2	0.0	26.9	139.4	41.8
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	10.4	3.6	3.7	4.0	7.7	4.8	2.4	6.3	0.5	9.1	60.0	29.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	217.8	40.4	40.6	70.1	44.9	42.7	91.0	28.0	23.3	76.1	169.7	72.0
LnGrp LOS	F	D	D	E	D	D	F	C	C	E	F	F
Approach Vol, veh/h		662			876			1012			2254	
Approach Delay, s/veh		138.5			47.9			31.5			124.5	
Approach LOS		F			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.6	50.5	14.0	31.0	9.6	63.6	14.0	31.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	19.2	43.6	11.9	34.5	5.0	57.8	9.4	37.0
Max Q Clear Time (g_c+I1), s	18.0	17.9	9.6	10.5	5.8	59.8	11.4	19.5
Green Ext Time (p_c), s	0.0	6.5	0.0	1.5	0.0	0.0	0.0	3.8

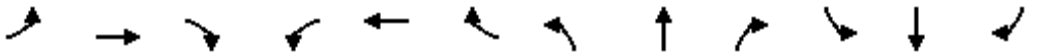
Intersection Summary	
HCM 6th Ctrl Delay	92.8
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	81	75	57	152	39	580	285	524
Future Volume (vph)	75	81	75	57	152	39	580	285	524
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	12.6	33.6	33.6	11.4	32.4	13.6	43.0	32.0	61.4
Total Split (%)	10.5%	28.0%	28.0%	9.5%	27.0%	11.3%	35.8%	26.7%	51.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 105
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	81	75	57	152	153	39	580	206	285	524	116
Future Volume (veh/h)	75	81	75	57	152	153	39	580	206	285	524	116
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	101	109	92	77	205	150	53	784	263	385	708	141
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	300	254	99	287	199	72	912	306	420	1608	320
Arrive On Green	0.07	0.16	0.16	0.05	0.14	0.14	0.04	0.34	0.34	0.23	0.54	0.54
Sat Flow, veh/h	1810	1900	1610	1810	2025	1404	1810	2655	890	1810	3000	597
Grp Volume(v), veh/h	101	109	92	77	182	173	53	533	514	385	426	423
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1624	1810	1805	1740	1810	1805	1793
Q Serve(g_s), s	5.2	4.8	4.8	4.0	9.1	9.7	2.7	26.0	26.0	19.6	13.5	13.6
Cycle Q Clear(g_c), s	5.2	4.8	4.8	4.0	9.1	9.7	2.7	26.0	26.0	19.6	13.5	13.6
Prop In Lane	1.00		1.00	1.00		0.86	1.00		0.51	1.00		0.33
Lane Grp Cap(c), veh/h	128	300	254	99	256	230	72	620	598	420	967	961
V/C Ratio(X)	0.79	0.36	0.36	0.78	0.71	0.75	0.74	0.86	0.86	0.92	0.44	0.44
Avail Cap(c_a), veh/h	153	567	481	130	516	464	172	718	692	525	1070	1063
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.2	35.5	35.5	44.1	38.7	38.9	44.9	28.9	28.9	35.4	13.3	13.3
Incr Delay (d2), s/veh	16.6	0.7	0.9	13.7	3.6	4.9	5.4	9.2	9.6	16.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.2	1.9	2.1	4.1	4.0	1.3	12.1	11.7	10.2	5.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	36.3	36.4	57.8	42.3	43.9	50.2	38.1	38.5	52.0	13.6	13.6
LnGrp LOS	E	D	D	E	D	D	D	D	D	D	B	B
Approach Vol, veh/h		302			432			1100			1234	
Approach Delay, s/veh		44.2			45.7			38.9			25.6	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.5	37.8	9.8	20.3	8.4	56.0	11.3	18.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	27.4	37.6	6.8	28.2	9.0	56.0	8.0	27.0
Max Q Clear Time (g_c+I1), s	21.6	28.0	6.0	6.8	4.7	15.6	7.2	11.7
Green Ext Time (p_c), s	0.3	4.4	0.0	0.8	0.0	5.8	0.0	1.7

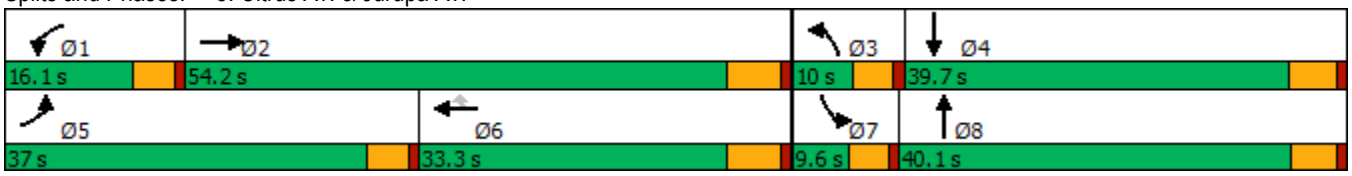
Intersection Summary	
HCM 6th Ctrl Delay	35.0
HCM 6th LOS	D

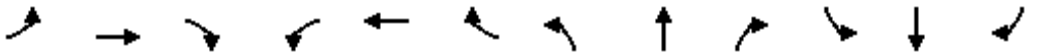
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	504	426	70	619	113	61	303	65	118
Future Volume (vph)	504	426	70	619	113	61	303	65	118
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	37.0	54.2	16.1	33.3	33.3	10.0	40.1	9.6	39.7
Total Split (%)	30.8%	45.2%	13.4%	27.8%	27.8%	8.3%	33.4%	8.0%	33.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 96.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	504	426	14	70	619	113	61	303	116	65	118	191
Future Volume (veh/h)	504	426	14	70	619	113	61	303	116	65	118	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	548	463	13	76	673	84	66	329	101	71	128	148
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	588	2436	68	99	1035	320	86	474	143	92	319	284
Arrive On Green	0.32	0.47	0.47	0.05	0.20	0.20	0.05	0.17	0.17	0.05	0.18	0.18
Sat Flow, veh/h	1810	5185	145	1810	5187	1605	1810	2730	825	1810	1805	1610
Grp Volume(v), veh/h	548	308	168	76	673	84	66	216	214	71	128	148
Grp Sat Flow(s),veh/h/ln	1810	1729	1872	1810	1729	1605	1810	1805	1750	1810	1805	1610
Q Serve(g_s), s	23.8	4.2	4.2	3.4	9.7	3.6	2.9	9.1	9.4	3.1	5.1	6.8
Cycle Q Clear(g_c), s	23.8	4.2	4.2	3.4	9.7	3.6	2.9	9.1	9.4	3.1	5.1	6.8
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	588	1625	879	99	1035	320	86	314	304	92	319	284
V/C Ratio(X)	0.93	0.19	0.19	0.77	0.65	0.26	0.76	0.69	0.71	0.78	0.40	0.52
Avail Cap(c_a), veh/h	722	2062	1116	256	1757	544	120	778	754	111	763	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	12.5	12.5	37.9	29.9	27.4	38.2	31.5	31.6	38.1	29.6	30.3
Incr Delay (d2), s/veh	15.6	0.1	0.1	4.7	0.7	0.4	10.4	2.7	3.0	19.0	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	11.7	1.4	1.6	1.5	3.8	1.4	1.5	4.0	4.0	1.8	2.2	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	12.6	12.6	42.6	30.6	27.9	48.7	34.2	34.6	57.0	30.4	31.8
LnGrp LOS	D	B	B	D	C	C	D	C	C	E	C	C
Approach Vol, veh/h		1024			833			496			347	
Approach Delay, s/veh		28.4			31.4			36.3			36.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	43.9	8.5	19.7	31.0	22.0	8.7	19.5
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	11.5	48.4	5.4	34.3	32.4	27.5	5.0	* 35
Max Q Clear Time (g_c+I1), s	5.4	6.2	4.9	8.8	25.8	11.7	5.1	11.4
Green Ext Time (p_c), s	0.0	2.9	0.0	1.5	0.6	4.0	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	616	749	74	0	61
Future Vol, veh/h	0	616	749	74	0	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	655	797	79	0	65

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	438
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	489
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	489
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

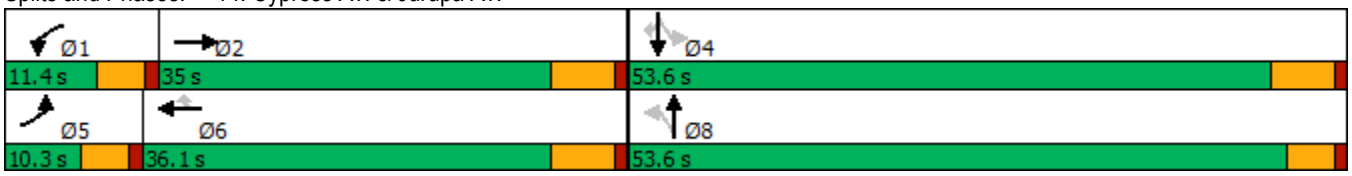
Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

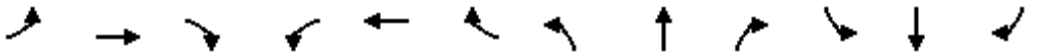
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	489
HCM Lane V/C Ratio	-	-	-	0.133
HCM Control Delay (s)	-	-	-	13.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	94	521	50	721	69	29	80	55	32	68
Future Volume (vph)	94	521	50	721	69	29	80	55	32	68
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.3	35.0	11.4	36.1	36.1	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.3%	35.0%	11.4%	36.1%	36.1%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 55.4
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	521	15	50	721	69	29	80	130	55	32	68
Future Volume (veh/h)	94	521	15	50	721	69	29	80	130	55	32	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	97	537	15	52	743	58	30	82	83	57	33	35
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	146	1626	45	98	1487	462	486	212	214	378	465	394
Arrive On Green	0.08	0.31	0.31	0.05	0.29	0.29	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	5188	144	1810	5187	1610	1354	865	876	1239	1900	1610
Grp Volume(v), veh/h	97	357	195	52	743	58	30	0	165	57	33	35
Grp Sat Flow(s),veh/h/ln	1810	1729	1874	1810	1729	1610	1354	0	1741	1239	1900	1610
Q Serve(g_s), s	2.2	3.3	3.3	1.2	5.0	1.1	0.7	0.0	3.3	1.7	0.6	0.7
Cycle Q Clear(g_c), s	2.2	3.3	3.3	1.2	5.0	1.1	1.3	0.0	3.3	5.0	0.6	0.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	146	1084	587	98	1487	462	486	0	426	378	465	394
V/C Ratio(X)	0.66	0.33	0.33	0.53	0.50	0.13	0.06	0.00	0.39	0.15	0.07	0.09
Avail Cap(c_a), veh/h	247	2416	1309	294	3761	1167	1742	0	2041	1491	2173	1842
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	1.00	1.00
Uniform Delay (d), s/veh	18.7	11.0	11.0	19.2	12.4	11.0	12.6	0.0	13.2	15.2	12.1	12.2
Incr Delay (d2), s/veh	1.9	0.2	0.3	1.6	0.3	0.1	0.1	0.0	0.6	0.2	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.9	1.0	0.4	1.4	0.3	0.2	0.0	1.2	0.4	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	11.2	11.3	20.9	12.7	11.1	12.7	0.0	13.7	15.4	12.2	12.3
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		649			853			195			125	
Approach Delay, s/veh		12.6			13.1			13.6			13.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	18.9		16.0	8.0	17.8		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	6.8	29.2		47.8	5.7	30.3		* 49				
Max Q Clear Time (g_c+I1), s	3.2	5.3		7.0	4.2	7.0		5.3				
Green Ext Time (p_c), s	0.0	3.2		0.4	0.0	5.0		1.2				

Intersection Summary		
HCM 6th Ctrl Delay		13.0
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	16
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	235	24	27	478	15	24	26	21	38	35	15
Future Vol, veh/h	6	235	24	27	478	15	24	26	21	38	35	15
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	322	33	37	655	21	33	36	29	52	48	21
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

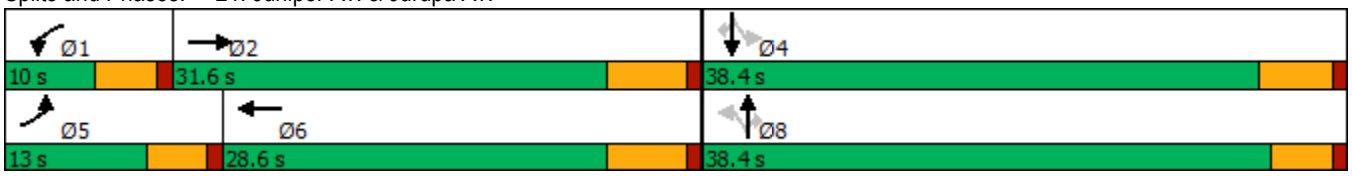
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	18.4	16.2	11.2	11.9
HCM LOS	C	C	B	B

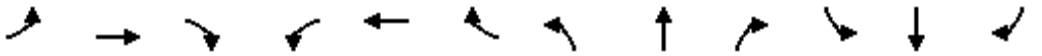
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	48%	0%	2%	10%	0%	52%	0%
Vol Thru, %	52%	0%	89%	90%	94%	48%	0%
Vol Right, %	0%	100%	9%	0%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	21	265	266	254	73	15
LT Vol	24	0	6	27	0	38	0
Through Vol	26	0	235	239	239	35	0
RT Vol	0	21	24	0	15	0	15
Lane Flow Rate	68	29	363	364	348	100	21
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.146	0.054	0.614	0.592	0.557	0.212	0.038
Departure Headway (Hd)	7.677	6.71	6.087	5.853	5.76	7.621	6.635
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	466	531	592	616	626	470	538
Service Time	5.448	4.481	4.135	3.601	3.508	5.39	4.402
HCM Lane V/C Ratio	0.146	0.055	0.613	0.591	0.556	0.213	0.039
HCM Control Delay	11.8	9.9	18.4	16.8	15.6	12.4	9.7
HCM Lane LOS	B	A	C	C	C	B	A
HCM 95th-tile Q	0.5	0.2	4.2	3.9	3.4	0.8	0.1

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	38	653	13	781	5	5	18	36	6	44
Future Volume (vph)	38	653	13	781	5	5	18	36	6	44
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.0	31.6	10.0	28.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	16.3%	39.5%	12.5%	35.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 45.3
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	653	3	13	781	28	5	5	18	36	6	44
Future Volume (veh/h)	38	653	3	13	781	28	5	5	18	36	6	44
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	40	680	2	14	814	26	5	5	8	38	6	14
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	81	1731	5	33	1534	49	304	261	411	485	65	411
Arrive On Green	0.05	0.32	0.32	0.02	0.30	0.30	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	5339	16	1810	5163	165	654	1022	1610	1232	255	1610
Grp Volume(v), veh/h	40	440	242	14	545	295	10	0	8	44	0	14
Grp Sat Flow(s),veh/h/ln	1810	1729	1897	1810	1729	1870	1675	0	1610	1487	0	1610
Q Serve(g_s), s	0.8	3.9	3.9	0.3	5.2	5.2	0.0	0.0	0.1	0.5	0.0	0.3
Cycle Q Clear(g_c), s	0.8	3.9	3.9	0.3	5.2	5.2	0.2	0.0	0.1	0.8	0.0	0.3
Prop In Lane	1.00		0.01	1.00		0.09	0.50		1.00	0.86		1.00
Lane Grp Cap(c), veh/h	81	1121	615	33	1027	556	565	0	411	550	0	411
V/C Ratio(X)	0.49	0.39	0.39	0.43	0.53	0.53	0.02	0.00	0.02	0.08	0.00	0.03
Avail Cap(c_a), veh/h	388	2275	1248	249	2010	1087	1549	0	1388	1414	0	1355
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.3	10.3	10.3	19.1	11.5	11.5	10.9	0.0	10.9	11.2	0.0	11.0
Incr Delay (d2), s/veh	1.7	0.2	0.4	3.3	0.4	0.8	0.0	0.0	0.0	0.1	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	1.0	1.1	0.1	1.4	1.5	0.1	0.0	0.0	0.2	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.0	10.5	10.7	22.3	11.9	12.3	11.0	0.0	11.0	11.2	0.0	11.0
LnGrp LOS	B	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		722			854			18			58	
Approach Delay, s/veh		11.1			12.2			11.0			11.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	18.5		15.4	6.4	17.5		15.4				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	8.4	22.8		* 34				
Max Q Clear Time (g_c+I1), s	2.3	5.9		2.8	2.8	7.2		2.2				
Green Ext Time (p_c), s	0.0	3.8		0.2	0.0	4.4		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		11.7	
HCM 6th LOS		B	

Notes

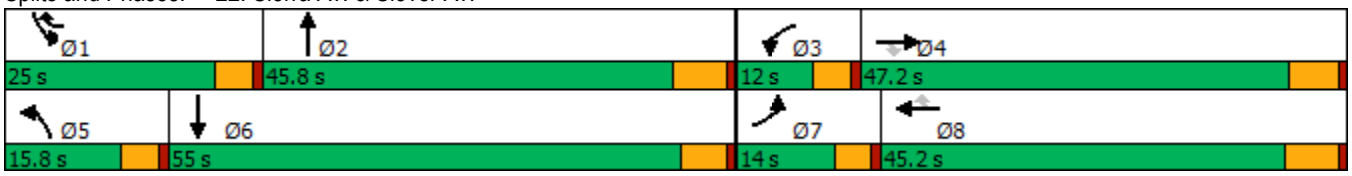
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

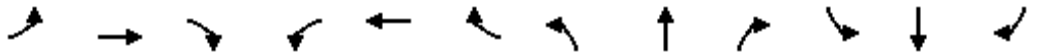
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	267	268	84	225	296	486	158	1076	641	991
Future Volume (vph)	267	268	84	225	296	486	158	1076	641	991
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	14.0	47.2	47.2	12.0	45.2	25.0	15.8	45.8	25.0	55.0
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.8%	19.2%	12.2%	35.2%	19.2%	42.3%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 98.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	267	268	84	225	296	486	158	1076	132	641	991	270
Future Volume (veh/h)	267	268	84	225	296	486	158	1076	132	641	991	270
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	287	288	46	242	318	249	170	1157	126	689	1066	237
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	359	616	275	288	544	1036	245	1758	190	759	1859	413
Arrive On Green	0.10	0.17	0.17	0.08	0.15	0.15	0.07	0.29	0.29	0.22	0.44	0.44
Sat Flow, veh/h	3510	3610	1610	3510	3610	2811	3510	6031	653	3510	4244	943
Grp Volume(v), veh/h	287	288	46	242	318	249	170	939	344	689	868	435
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1406	1755	1634	1782	1755	1729	1729
Q Serve(g_s), s	7.2	6.5	2.2	6.1	7.4	5.5	4.3	15.1	15.3	17.3	17.0	17.0
Cycle Q Clear(g_c), s	7.2	6.5	2.2	6.1	7.4	5.5	4.3	15.1	15.3	17.3	17.0	17.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		0.55
Lane Grp Cap(c), veh/h	359	616	275	288	544	1036	245	1429	519	759	1514	757
V/C Ratio(X)	0.80	0.47	0.17	0.84	0.58	0.24	0.69	0.66	0.66	0.91	0.57	0.57
Avail Cap(c_a), veh/h	366	1657	739	288	1561	1828	436	2152	782	794	1901	951
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.6	33.7	31.9	40.8	35.7	19.8	41.0	28.0	28.1	34.5	19.0	19.0
Incr Delay (d2), s/veh	10.8	0.6	0.3	18.5	1.0	0.1	1.3	0.5	1.5	13.4	0.3	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	2.7	0.8	3.2	3.1	1.7	1.8	5.6	6.3	8.3	6.2	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.4	34.3	32.2	59.3	36.7	20.0	42.3	28.5	29.5	47.8	19.4	19.7
LnGrp LOS	D	C	C	E	D	B	D	C	C	D	B	B
Approach Vol, veh/h		621			809			1453			1992	
Approach Delay, s/veh		41.6			38.3			30.4			29.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.1	32.5	12.0	21.6	10.9	45.7	13.8	19.8
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	20.4	39.6	7.4	* 41	11.2	* 50	9.4	39.0
Max Q Clear Time (g_c+I1), s	19.3	17.3	8.1	8.5	6.3	19.0	9.2	9.4
Green Ext Time (p_c), s	0.2	8.5	0.0	1.9	0.1	9.8	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

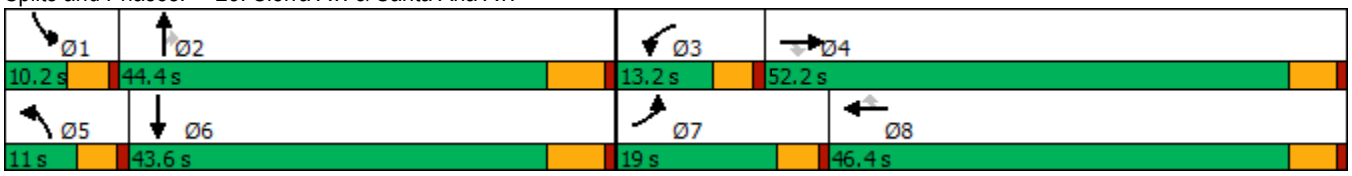
Notes

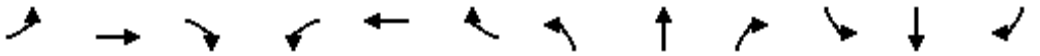
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	136	101	88	43	142	91	107	1279	55	94	782
Future Volume (vph)	136	101	88	43	142	91	107	1279	55	94	782
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	19.0	52.2	52.2	13.2	46.4	46.4	11.0	44.4	44.4	10.2	43.6
Total Split (%)	15.8%	43.5%	43.5%	11.0%	38.7%	38.7%	9.2%	37.0%	37.0%	8.5%	36.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 85.5
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	136	101	88	43	142	91	107	1279	55	94	782	309
Future Volume (veh/h)	136	101	88	43	142	91	107	1279	55	94	782	309
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	149	111	45	47	156	40	118	1405	57	103	859	321
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	189	739	330	78	518	231	226	2033	623	218	1450	539
Arrive On Green	0.10	0.20	0.20	0.04	0.14	0.14	0.06	0.39	0.39	0.06	0.39	0.39
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	3510	5187	1589	3510	3723	1385
Grp Volume(v), veh/h	149	111	45	47	156	40	118	1405	57	103	798	382
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1755	1729	1589	1755	1729	1649
Q Serve(g_s), s	5.6	1.8	1.6	1.8	2.7	1.5	2.3	15.7	1.6	2.0	12.8	12.8
Cycle Q Clear(g_c), s	5.6	1.8	1.6	1.8	2.7	1.5	2.3	15.7	1.6	2.0	12.8	12.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.84
Lane Grp Cap(c), veh/h	189	739	330	78	518	231	226	2033	623	218	1347	642
V/C Ratio(X)	0.79	0.15	0.14	0.61	0.30	0.17	0.52	0.69	0.09	0.47	0.59	0.60
Avail Cap(c_a), veh/h	374	2424	1081	223	2123	947	322	2843	871	282	1855	885
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	22.7	22.7	32.8	26.7	26.2	31.6	17.7	13.4	31.6	16.9	16.9
Incr Delay (d2), s/veh	2.8	0.1	0.2	2.8	0.3	0.4	0.7	0.4	0.1	0.6	0.4	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	2.4	0.7	0.6	0.8	1.1	0.6	0.9	5.2	0.5	0.8	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	22.8	22.9	35.6	27.1	26.6	32.3	18.1	13.4	32.2	17.3	17.8
LnGrp LOS	C	C	C	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		305			243			1580			1283	
Approach Delay, s/veh		27.9			28.6			19.0			18.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	33.5	7.6	19.7	9.1	33.4	11.9	15.4
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.6	38.2	8.6	46.8	6.4	37.4	14.4	41.0
Max Q Clear Time (g_c+I1), s	4.0	17.7	3.8	3.8	4.3	14.8	7.6	4.7
Green Ext Time (p_c), s	0.0	9.5	0.0	0.8	0.0	7.6	0.1	1.1

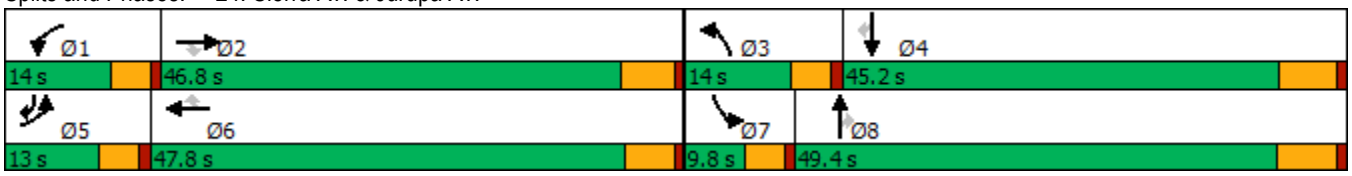
Intersection Summary	
HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

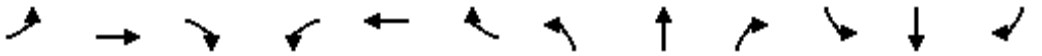
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	252	223	135	294	141	286	778	56	54	489	233
Future Volume (vph)	260	252	223	135	294	141	286	778	56	54	489	233
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	13.0	46.8	46.8	14.0	47.8	47.8	14.0	49.4	49.4	9.8	45.2	13.0
Total Split (%)	10.8%	39.0%	39.0%	11.7%	39.8%	39.8%	11.7%	41.2%	41.2%	8.2%	37.7%	10.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 76.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	260	252	223	135	294	141	286	778	56	54	489	233
Future Volume (veh/h)	260	252	223	135	294	141	286	778	56	54	489	233
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	268	260	109	139	303	92	295	802	30	56	504	128
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	377	732	326	263	614	273	407	1140	508	177	904	576
Arrive On Green	0.11	0.20	0.20	0.07	0.17	0.17	0.12	0.32	0.32	0.05	0.25	0.25
Sat Flow, veh/h	3510	3610	1610	3510	3610	1607	3510	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	268	260	109	139	303	92	295	802	30	56	504	128
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1607	1755	1805	1610	1755	1805	1610
Q Serve(g_s), s	4.5	3.7	3.5	2.3	4.6	3.0	4.9	11.8	0.8	0.9	7.3	3.3
Cycle Q Clear(g_c), s	4.5	3.7	3.5	2.3	4.6	3.0	4.9	11.8	0.8	0.9	7.3	3.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	377	732	326	263	614	273	407	1140	508	177	904	576
V/C Ratio(X)	0.71	0.36	0.33	0.53	0.49	0.34	0.73	0.70	0.06	0.32	0.56	0.22
Avail Cap(c_a), veh/h	489	2453	1094	547	2537	1129	547	2566	1145	303	2333	1214
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	20.7	20.6	26.9	22.7	22.0	25.8	18.2	14.4	27.6	19.7	13.5
Incr Delay (d2), s/veh	2.0	0.3	0.6	0.6	0.6	0.7	1.8	0.8	0.0	0.4	0.5	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.4	1.1	0.9	1.8	1.0	1.8	4.0	0.2	0.4	2.6	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	21.0	21.2	27.5	23.3	22.8	27.5	19.0	14.4	28.0	20.2	13.7
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	C	B
Approach Vol, veh/h		637			534			1127			688	
Approach Delay, s/veh		23.9			24.3			21.1			19.7	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	18.0	11.6	21.6	11.1	16.1	7.6	25.6
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	9.4	41.0	9.4	* 39	8.4	* 42	5.2	42.9
Max Q Clear Time (g_c+I1), s	4.3	5.7	6.9	9.3	6.5	6.6	2.9	13.8
Green Ext Time (p_c), s	0.1	1.9	0.1	3.5	0.1	2.2	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

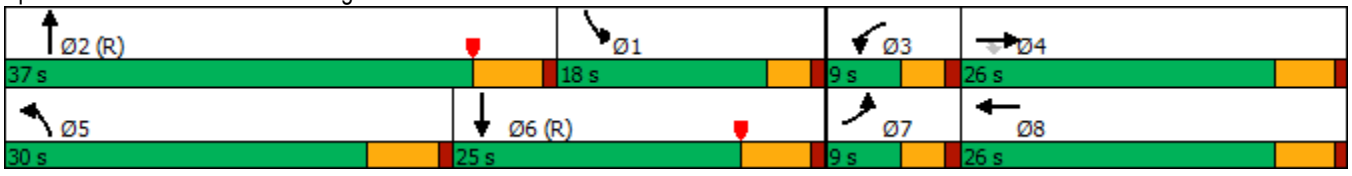
Notes

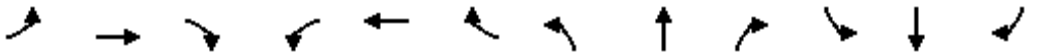
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	59	43	747	342	183	968	295	12	375
Future Volume (vph)	59	43	747	342	183	968	295	12	375
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0	26.0	9.0	26.0	30.0	37.0	18.0	25.0
Total Split (%)	10.0%	28.9%	28.9%	10.0%	28.9%	33.3%	41.1%	20.0%	27.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	18.3	18.3	5.0	20.1	27.0	48.4	10.8	19.3
Actuated g/C Ratio	0.06	0.20	0.20	0.06	0.22	0.30	0.54	0.12	0.21
v/c Ratio	0.63	0.06	0.95	3.68	0.33	0.99	0.39	0.06	1.13
Control Delay	70.0	27.4	29.8	1245.2	24.6	60.0	15.7	34.9	118.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.0	27.4	29.8	1245.2	24.6	60.0	15.7	34.9	118.8
LOS	E	C	C	F	C	E	B	C	F
Approach Delay		32.4			732.0		47.9		116.5
Approach LOS		C			F		D		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 14 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.68	
Intersection Signal Delay: 179.1	Intersection LOS: F
Intersection Capacity Utilization 100.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	43	747	342	183	65	968	295	70	12	375	50
Future Volume (veh/h)	59	43	747	342	183	65	968	295	70	12	375	50
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		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	46	0	368	197	57	1041	317	75	13	403	31
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	81	344		101	293	82	948	516	122	497	614	47
Arrive On Green	0.04	0.10	0.00	0.06	0.11	0.11	0.27	0.35	0.35	0.27	0.35	0.35
Sat Flow, veh/h	1810	3610	1610	1810	2767	776	3510	1485	351	1810	1742	134
Grp Volume(v), veh/h	63	46	0	368	126	128	1041	0	392	13	0	434
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1738	1755	0	1836	1810	0	1876
Q Serve(g_s), s	3.1	1.1	0.0	5.0	6.1	6.4	24.3	0.0	15.9	0.5	0.0	17.5
Cycle Q Clear(g_c), s	3.1	1.1	0.0	5.0	6.1	6.4	24.3	0.0	15.9	0.5	0.0	17.5
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.19	1.00		0.07
Lane Grp Cap(c), veh/h	81	344		101	191	184	948	0	639	497	0	661
V/C Ratio(X)	0.77	0.13		3.66	0.66	0.69	1.10	0.00	0.61	0.03	0.00	0.66
Avail Cap(c_a), veh/h	101	842		101	421	406	948	0	639	497	0	661
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	0.00	1.00	1.00	1.00	0.83	0.00	0.83	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	37.3	0.0	42.5	38.7	38.8	32.8	0.0	24.3	23.8	0.0	24.6
Incr Delay (d2), s/veh	19.9	0.2	0.0	1221.4	3.9	4.6	57.7	0.0	3.6	0.0	0.0	5.0
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	1.7	0.4	0.0	36.3	2.9	2.9	17.1	0.0	7.0	0.2	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	37.5	0.0	1263.9	42.5	43.4	90.6	0.0	28.0	23.9	0.0	29.6
LnGrp LOS	E	D		F	D	D	F	A	C	C	A	C
Approach Vol, veh/h		109	A		622			1433			447	
Approach Delay, s/veh		51.9			765.3			73.5			29.4	
Approach LOS		D			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.4	37.0	9.0	13.6	30.0	37.4	8.0	14.5
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	14.0	* 31	5.0	21.0	24.3	19.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	2.5	17.9	7.0	3.1	26.3	19.5	5.1	8.4
Green Ext Time (p_c), s	0.0	2.5	0.0	0.1	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	229.8
HCM 6th LOS	F

Notes

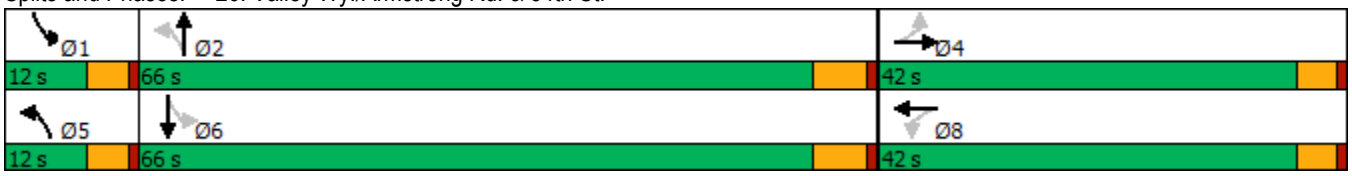
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

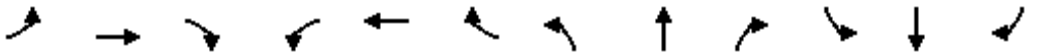
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	85	14	106	68	67	1187	6	1364
Future Volume (vph)	85	14	106	68	67	1187	6	1364
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	12.0	66.0	12.0	66.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	10.0%	55.0%	10.0%	55.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	18.4	18.4		18.4	71.2	68.7	66.9	61.8
Actuated g/C Ratio	0.19	0.19		0.19	0.72	0.69	0.67	0.62
v/c Ratio	0.44	0.18		0.73	0.35	0.54	0.02	0.74
Control Delay	42.6	14.9		53.3	9.8	10.0	5.7	17.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	14.9		53.3	9.8	10.0	5.7	17.5
LOS	D	B		D	A	A	A	B
Approach Delay		31.6		53.3		10.0		17.5
Approach LOS		C		D		A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 75.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	14	42	106	68	13	67	1187	54	6	1364	138
Future Volume (veh/h)	85	14	42	106	68	13	67	1187	54	6	1364	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	92	15	43	115	74	14	73	1290	59	7	1483	147
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	280	76	218	187	101	17	253	2312	106	279	2063	203
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.04	0.66	0.66	0.01	0.62	0.62
Sat Flow, veh/h	1330	428	1228	726	568	96	1810	3512	160	1810	3312	325
Grp Volume(v), veh/h	92	0	58	203	0	0	73	662	687	7	802	828
Grp Sat Flow(s),veh/h/ln	1330	0	1656	1390	0	0	1810	1805	1867	1810	1805	1833
Q Serve(g_s), s	0.0	0.0	2.9	11.1	0.0	0.0	1.3	19.1	19.2	0.1	29.2	30.0
Cycle Q Clear(g_c), s	7.1	0.0	2.9	14.0	0.0	0.0	1.3	19.1	19.2	0.1	29.2	30.0
Prop In Lane	1.00		0.74	0.57		0.07	1.00		0.09	1.00		0.18
Lane Grp Cap(c), veh/h	280	0	294	305	0	0	253	1188	1229	279	1124	1141
V/C Ratio(X)	0.33	0.00	0.20	0.67	0.00	0.00	0.29	0.56	0.56	0.03	0.71	0.73
Avail Cap(c_a), veh/h	559	0	641	627	0	0	311	1188	1229	402	1124	1141
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	33.9	39.1	0.0	0.0	11.7	8.9	8.9	7.9	12.4	12.5
Incr Delay (d2), s/veh	0.7	0.0	0.3	2.5	0.0	0.0	0.2	1.9	1.8	0.0	3.9	4.0
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	2.0	0.0	1.2	4.9	0.0	0.0	0.5	6.5	6.7	0.0	10.7	11.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	0.0	34.2	41.6	0.0	0.0	12.0	10.8	10.8	7.9	16.3	16.6
LnGrp LOS	D	A	C	D	A	A	B	B	B	A	B	B
Approach Vol, veh/h		150			203			1422			1637	
Approach Delay, s/veh		35.5			41.6			10.8			16.4	
Approach LOS		D			D			B			B	

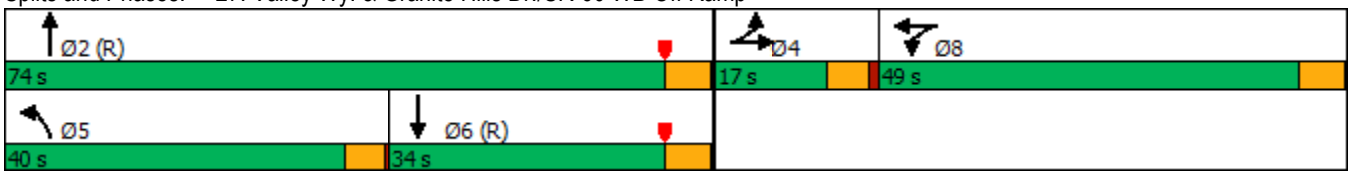
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	69.4		21.8	8.9	66.0		21.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	7.4	60.2		37.4	7.4	60.2		37.4				
Max Q Clear Time (g_c+I1), s	2.1	21.2		9.1	3.3	32.0		16.0				
Green Ext Time (p_c), s	0.0	10.9		0.6	0.0	13.4		1.2				

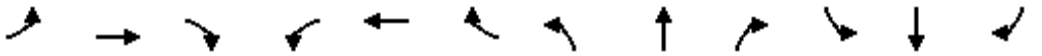
Intersection Summary												
HCM 6th Ctrl Delay			16.4									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	187	111	100	850	1655
Future Volume (vph)	0	187	111	100	850	1655
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	17.0	49.0	49.0	40.0	74.0	34.0
Total Split (%)	12.1%	35.0%	35.0%	28.6%	52.9%	24.3%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.6	43.7	43.7	13.4	68.7	50.7
Actuated g/C Ratio	0.08	0.31	0.31	0.10	0.49	0.36
v/c Ratio	1.81	0.34	1.05	0.60	0.49	1.32
Control Delay	424.5	39.2	86.6	74.1	25.2	187.3
Queue Delay	603.4	0.0	0.0	0.0	0.0	1.8
Total Delay	1027.8	39.2	86.6	74.1	25.2	189.2
LOS	F	D	F	E	C	F
Approach Delay	1027.8		75.7		30.3	189.2
Approach LOS	F		E		C	F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.81	
Intersection Signal Delay: 179.0	Intersection LOS: F
Intersection Capacity Utilization 121.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	0	176	187	111	516	100	850	0	0	1655	20
Future Volume (veh/h)	70	0	176	187	111	516	100	850	0	0	1655	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	72	0	181	193	114	422	103	876	0	0	1706	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	0	99	565	110	409	129	1771	0	0	1411	17
Arrive On Green	0.08	0.00	0.08	0.31	0.31	0.31	0.02	0.16	0.00	0.00	0.39	0.39
Sat Flow, veh/h	473	0	1189	1810	354	1310	1810	3705	0	0	3746	45
Grp Volume(v), veh/h	253	0	0	193	0	536	103	876	0	0	842	885
Grp Sat Flow(s),veh/h/ln	1662	0	0	1810	0	1664	1810	1805	0	0	1805	1891
Q Serve(g_s), s	11.6	0.0	0.0	11.5	0.0	43.7	7.9	30.9	0.0	0.0	54.1	54.1
Cycle Q Clear(g_c), s	11.6	0.0	0.0	11.5	0.0	43.7	7.9	30.9	0.0	0.0	54.1	54.1
Prop In Lane	0.28		0.72	1.00		0.79	1.00		0.00	0.00		0.02
Lane Grp Cap(c), veh/h	138	0	0	565	0	519	129	1771	0	0	698	731
V/C Ratio(X)	1.84	0.00	0.00	0.34	0.00	1.03	0.80	0.49	0.00	0.00	1.21	1.21
Avail Cap(c_a), veh/h	138	0	0	565	0	519	458	1771	0	0	698	731
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.97	0.97	0.00	0.00	0.60	0.60
Uniform Delay (d), s/veh	64.2	0.0	0.0	37.1	0.0	48.2	67.4	42.8	0.0	0.0	42.9	42.9
Incr Delay (d2), s/veh	403.4	0.0	0.0	0.4	0.0	47.9	10.4	1.0	0.0	0.0	101.4	102.5
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	20.3	0.0	0.0	5.1	0.0	24.4	4.1	15.2	0.0	0.0	42.7	45.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	467.6	0.0	0.0	37.4	0.0	96.1	77.8	43.8	0.0	0.0	144.4	145.5
LnGrp LOS	F	A	A	D	A	F	E	D	A	A	F	F
Approach Vol, veh/h		253			729			979			1727	
Approach Delay, s/veh		467.6			80.5			47.4			144.9	
Approach LOS		F			F			D			F	

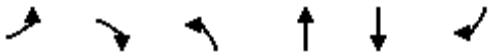
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		74.0		17.0	14.6	59.4		49.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		68.7		11.6	35.4	28.7		43.7				
Max Q Clear Time (g_c+I1), s		32.9		13.6	9.9	56.1		45.7				
Green Ext Time (p_c), s		3.9		0.0	0.2	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			128.4									
HCM 6th LOS			F									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	293	950	1265
Future Volume (vph)	293	950	1265
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	14.8	140.0	125.2
Total Split (%)	10.6%	100.0%	89.4%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	10.2	140.0	119.4
Actuated g/C Ratio	0.07	1.00	0.85
v/c Ratio	2.38	0.28	0.76
Control Delay	670.6	0.2	20.4
Queue Delay	0.0	0.3	0.0
Total Delay	670.6	0.4	20.4
LOS	F	A	C
Approach Delay		158.5	20.4
Approach LOS		F	C

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.38	
Intersection Signal Delay: 73.1	Intersection LOS: E
Intersection Capacity Utilization 84.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	293	950	1265	754
Future Volume (veh/h)	0	0	293	950	1265	754
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.97
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			312	1011	1346	802
Peak Hour Factor			0.94	0.94	0.94	0.94
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			132	3460	1921	1021
Arrive On Green			0.07	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2347	1197
Grp Volume(v), veh/h			312	1011	1046	1102
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1644
Q Serve(g_s), s			10.2	2.3	0.0	0.0
Cycle Q Clear(g_c), s			10.2	2.3	0.0	0.0
Prop In Lane			1.00			0.73
Lane Grp Cap(c), veh/h			132	3460	1539	1402
V/C Ratio(X)			2.37	0.29	0.68	0.79
Avail Cap(c_a), veh/h			132	3460	1539	1402
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.39	0.39	0.09	0.09
Uniform Delay (d), s/veh			64.9	0.2	0.0	0.0
Incr Delay (d2), s/veh			624.0	0.1	0.2	0.4
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			27.5	0.0	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			688.9	0.3	0.2	0.4
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				1323	2148	
Approach Delay, s/veh				162.7	0.3	
Approach LOS				F	A	

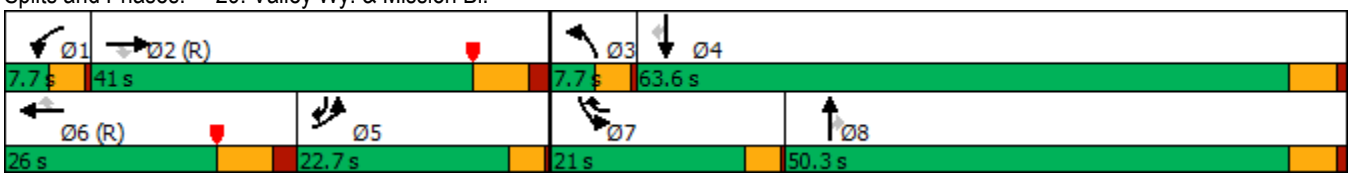
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			14.8	125.2
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			10.2	119.4
Max Q Clear Time (g_c+I1), s	4.3			12.2	2.0
Green Ext Time (p_c), s	8.3			0.0	45.0

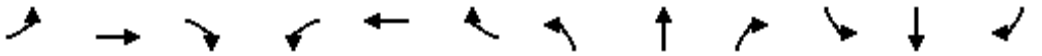
Intersection Summary	
HCM 6th Ctrl Delay	62.2
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	346	356	26	46	237	645	5	500	33	336	462	467
Future Volume (vph)	346	356	26	46	237	645	5	500	33	336	462	467
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	22.7	41.0	41.0	7.7	26.0	21.0	7.7	50.3	50.3	21.0	63.6	22.7
Total Split (%)	18.9%	34.2%	34.2%	6.4%	21.7%	17.5%	6.4%	41.9%	41.9%	17.5%	53.0%	18.9%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	19.0	52.7	52.7	8.4	40.2	60.8	4.0	23.8	23.8	17.3	43.2	63.8
Actuated g/C Ratio	0.16	0.44	0.44	0.07	0.34	0.51	0.03	0.20	0.20	0.14	0.36	0.53
v/c Ratio	0.66	0.24	0.04	0.38	0.21	0.77	0.04	0.74	0.07	0.70	0.37	0.29
Control Delay	53.8	23.4	0.1	61.5	30.2	18.3	57.0	51.3	0.3	57.2	29.1	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	23.4	0.1	61.5	30.2	18.3	57.0	51.3	0.3	57.2	29.1	1.3
LOS	D	C	A	E	C	B	E	D	A	E	C	A
Approach Delay		37.0			23.4			48.2			26.3	
Approach LOS		D			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 31.2	Intersection LOS: C
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	346	356	26	46	237	645	5	500	33	336	462	467
Future Volume (veh/h)	346	356	26	46	237	645	5	500	33	336	462	467
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	364	375	10	48	249	640	5	526	24	354	486	450
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	1141	1724	758	60	572	445	18	744	331	418	1155	1798
Arrive On Green	0.33	0.48	0.48	0.03	0.16	0.16	0.01	0.21	0.21	0.12	0.32	0.32
Sat Flow, veh/h	3510	3610	1587	1810	3610	1601	3510	3610	1608	3510	3610	2740
Grp Volume(v), veh/h	364	375	10	48	249	640	5	526	24	354	486	450
Grp Sat Flow(s),veh/h/ln	1755	1805	1587	1810	1805	1601	1755	1805	1608	1755	1805	1370
Q Serve(g_s), s	9.4	7.3	0.4	3.2	7.5	14.9	0.2	16.3	1.4	11.9	12.7	0.8
Cycle Q Clear(g_c), s	9.4	7.3	0.4	3.2	7.5	14.9	0.2	16.3	1.4	11.9	12.7	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1141	1724	758	60	572	445	18	744	331	418	1155	1798
V/C Ratio(X)	0.32	0.22	0.01	0.80	0.44	1.44	0.28	0.71	0.07	0.85	0.42	0.25
Avail Cap(c_a), veh/h	1141	1724	758	60	572	445	117	1354	603	506	1754	2252
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)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57
Uniform Delay (d), s/veh	30.5	18.3	16.5	57.6	45.7	20.4	59.5	44.3	38.4	51.8	32.1	3.4
Incr Delay (d2), s/veh	0.1	0.3	0.0	47.8	2.4	209.6	3.1	1.3	0.1	6.6	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	3.8	3.0	0.1	2.2	3.5	31.9	0.1	7.3	0.6	5.5	5.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	18.5	16.5	105.4	48.1	230.0	62.5	45.5	38.5	58.4	32.2	3.5
LnGrp LOS	C	B	B	F	D	F	E	D	D	E	C	A
Approach Vol, veh/h		749			937			555			1290	
Approach Delay, s/veh		24.4			175.2			45.4			29.4	
Approach LOS		C			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	64.3	4.3	43.7	46.0	26.0	18.0	30.0
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	4.0	34.0	4.0	58.3	19.0	* 19	17.3	45.0
Max Q Clear Time (g_c+I1), s	5.2	9.3	2.2	14.7	11.4	16.9	13.9	18.3
Green Ext Time (p_c), s	0.0	3.2	0.0	5.4	0.4	1.2	0.4	3.7

Intersection Summary	
HCM 6th Ctrl Delay	69.5
HCM 6th LOS	E

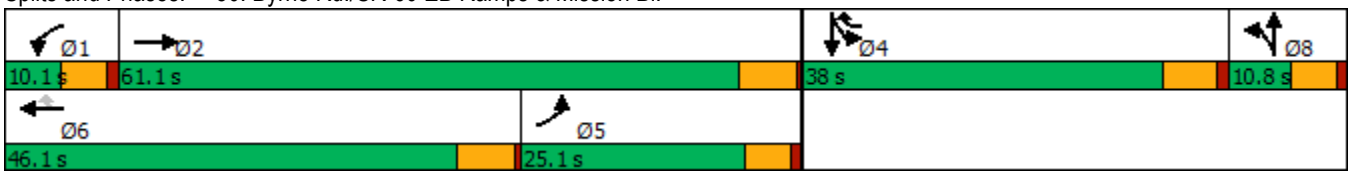
Notes

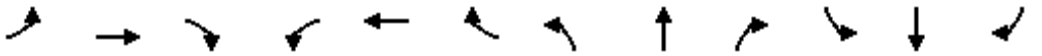
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	148	279	5	337	363	1	434	2
Future Volume (vph)	148	279	5	337	363	1	434	2
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	25.1	61.1	10.1	46.1	38.0	10.8	38.0	38.0
Total Split (%)	20.9%	50.9%	8.4%	38.4%	31.7%	9.0%	31.7%	31.7%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	None	None	None	None	None
Act Effct Green (s)	37.1	56.6	5.1	15.9	39.6	5.4	23.8	23.8
Actuated g/C Ratio	0.37	0.57	0.05	0.16	0.40	0.05	0.24	0.24
v/c Ratio	0.26	0.17	0.07	0.70	0.49	0.25	0.73	0.71
Control Delay	27.5	13.0	53.8	47.8	3.0	45.8	46.9	44.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.5	13.0	53.8	47.8	3.0	45.8	46.9	44.4
LOS	C	B	D	D	A	D	D	D
Approach Delay		18.0		24.8		45.8		45.7
Approach LOS		B		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.6	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 29.5	Intersection LOS: C
Intersection Capacity Utilization 56.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	279	6	5	337	363	14	1	7	434	2	54
Future Volume (veh/h)	148	279	6	5	337	363	14	1	7	434	2	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	178	336	6	6	406	318	17	1	3	555	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	636	2044	36	14	770	638	32	2	6	673	353	0
Arrive On Green	0.35	0.56	0.56	0.01	0.21	0.21	0.02	0.02	0.02	0.19	0.00	0.00
Sat Flow, veh/h	1810	3627	65	1810	3610	1587	1443	85	255	3619	1900	0
Grp Volume(v), veh/h	178	167	175	6	406	318	21	0	0	555	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1886	1810	1805	1587	1782	0	0	1810	1900	0
Q Serve(g_s), s	7.0	4.4	4.4	0.3	9.8	14.8	1.1	0.0	0.0	14.5	0.0	0.0
Cycle Q Clear(g_c), s	7.0	4.4	4.4	0.3	9.8	14.8	1.1	0.0	0.0	14.5	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.81		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	636	1017	1063	14	770	638	40	0	0	673	353	0
V/C Ratio(X)	0.28	0.16	0.16	0.43	0.53	0.50	0.53	0.00	0.00	0.83	0.00	0.00
Avail Cap(c_a), veh/h	636	1017	1063	92	1484	951	103	0	0	1185	622	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	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.9	10.3	10.3	48.6	34.3	22.2	47.6	0.0	0.0	38.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.3	19.7	0.2	0.2	4.1	0.0	0.0	2.6	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	2.8	1.6	1.7	0.2	4.1	7.2	0.6	0.0	0.0	6.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.1	10.7	10.7	68.3	34.5	22.4	51.6	0.0	0.0	41.1	0.0	0.0
LnGrp LOS	C	B	B	E	C	C	D	A	A	D	A	A
Approach Vol, veh/h		520			730			21			555	
Approach Delay, s/veh		14.9			29.5			51.6			41.1	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	61.1		24.1	40.3	26.7		7.3				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.0	55.4		32.2	20.0	* 40		5.7				
Max Q Clear Time (g_c+I1), s	2.3	6.4		16.5	9.0	16.8		3.1				
Green Ext Time (p_c), s	0.0	1.1		1.8	0.3	2.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		29.1
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

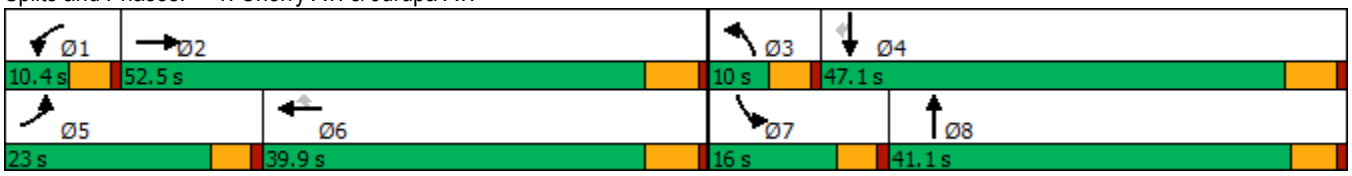
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

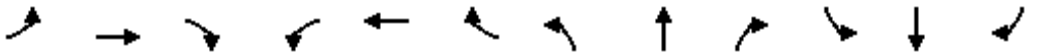
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	348	1154	70	688	114	59	330	188	468	247
Future Volume (vph)	348	1154	70	688	114	59	330	188	468	247
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	23.0	52.5	10.4	39.9	39.9	10.0	41.1	16.0	47.1	47.1
Total Split (%)	19.2%	43.8%	8.7%	33.3%	33.3%	8.3%	34.3%	13.3%	39.3%	39.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 85.6
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	1154	127	70	688	114	59	330	73	188	468	247
Future Volume (veh/h)	348	1154	127	70	688	114	59	330	73	188	468	247
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	362	1202	104	73	717	82	61	344	50	196	488	168
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	474	1818	157	191	1059	471	175	867	123	292	803	351
Arrive On Green	0.14	0.37	0.37	0.05	0.29	0.29	0.05	0.19	0.19	0.08	0.22	0.22
Sat Flow, veh/h	3510	4861	420	3510	3610	1607	3510	4590	651	3510	3610	1576
Grp Volume(v), veh/h	362	855	451	73	717	82	61	257	137	196	488	168
Grp Sat Flow(s),veh/h/ln	1755	1729	1824	1755	1805	1607	1755	1729	1783	1755	1805	1576
Q Serve(g_s), s	6.9	14.3	14.3	1.4	12.2	2.6	1.2	4.5	4.7	3.8	8.4	6.4
Cycle Q Clear(g_c), s	6.9	14.3	14.3	1.4	12.2	2.6	1.2	4.5	4.7	3.8	8.4	6.4
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	474	1293	682	191	1059	471	175	653	337	292	803	351
V/C Ratio(X)	0.76	0.66	0.66	0.38	0.68	0.17	0.35	0.39	0.41	0.67	0.61	0.48
Avail Cap(c_a), veh/h	930	2325	1226	293	1772	789	273	1792	924	576	2146	937
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.0	18.1	18.1	31.7	21.6	18.3	31.9	24.7	24.8	30.9	24.3	23.5
Incr Delay (d2), s/veh	1.0	0.6	1.1	0.5	0.8	0.2	0.4	0.4	0.8	1.0	0.7	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	2.7	4.9	5.3	0.6	4.6	0.9	0.5	1.8	1.9	1.5	3.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	18.7	19.2	32.2	22.4	18.5	32.4	25.1	25.5	31.9	25.0	24.5
LnGrp LOS	C	B	B	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		1668			872			455			852	
Approach Delay, s/veh		21.3			22.9			26.2			26.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	31.8	8.1	21.2	14.0	26.2	10.4	18.9
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.8	46.7	5.4	41.3	18.4	34.1	11.4	* 36
Max Q Clear Time (g_c+I1), s	3.4	16.3	3.2	10.4	8.9	14.2	5.8	6.7
Green Ext Time (p_c), s	0.0	9.7	0.0	3.7	0.5	4.6	0.2	2.5

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

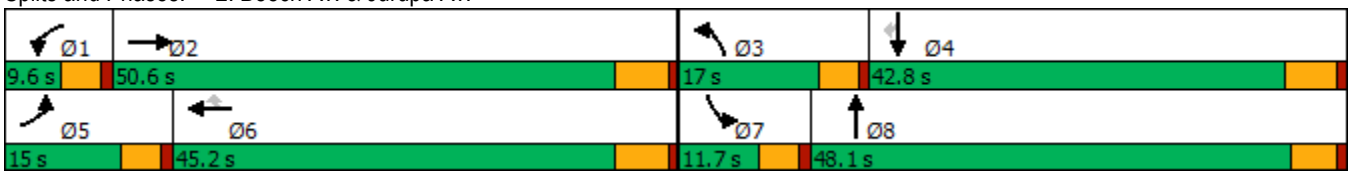
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	161	1284	24	738	20	100	39	42	39	79
Future Volume (vph)	161	1284	24	738	20	100	39	42	39	79
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	15.0	50.6	9.6	45.2	45.2	17.0	48.1	11.7	42.8	42.8
Total Split (%)	12.5%	42.2%	8.0%	37.7%	37.7%	14.2%	40.1%	9.8%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 77.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	1284	214	24	738	20	100	39	20	42	39	79
Future Volume (veh/h)	161	1284	214	24	738	20	100	39	20	42	39	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	1366	205	26	785	18	106	41	15	45	41	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	265	2017	303	100	2055	638	137	475	165	76	530	237
Arrive On Green	0.08	0.44	0.44	0.03	0.40	0.40	0.08	0.18	0.18	0.04	0.15	0.15
Sat Flow, veh/h	3510	4552	683	3510	5187	1610	1810	2630	911	1810	3610	1610
Grp Volume(v), veh/h	171	1038	533	26	785	18	106	27	29	45	41	33
Grp Sat Flow(s),veh/h/ln	1755	1729	1777	1755	1729	1610	1810	1805	1736	1810	1805	1610
Q Serve(g_s), s	3.2	16.3	16.3	0.5	7.3	0.5	3.9	0.9	0.9	1.7	0.7	1.2
Cycle Q Clear(g_c), s	3.2	16.3	16.3	0.5	7.3	0.5	3.9	0.9	0.9	1.7	0.7	1.2
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	265	1532	787	100	2055	638	137	326	314	76	530	237
V/C Ratio(X)	0.65	0.68	0.68	0.26	0.38	0.03	0.77	0.08	0.09	0.59	0.08	0.14
Avail Cap(c_a), veh/h	536	2276	1170	258	3003	932	330	1140	1097	189	1963	875
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	15.1	15.1	32.4	14.6	12.5	30.9	23.2	23.2	32.0	25.0	25.3
Incr Delay (d2), s/veh	1.0	0.5	1.0	0.5	0.1	0.0	3.4	0.1	0.1	2.7	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.3	5.5	0.2	2.4	0.2	1.7	0.4	0.4	0.7	0.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	15.6	16.1	32.9	14.7	12.6	34.3	23.3	23.3	34.7	25.1	25.5
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1742			829			162			119	
Approach Delay, s/veh		17.3			15.3			30.5			28.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	35.9	9.8	15.8	9.7	32.8	7.5	18.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	44.8	12.4	37.0	10.4	39.4	7.1	* 43
Max Q Clear Time (g_c+I1), s	2.5	18.3	5.9	3.2	5.2	9.3	3.7	2.9
Green Ext Time (p_c), s	0.0	11.9	0.1	0.3	0.1	5.5	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

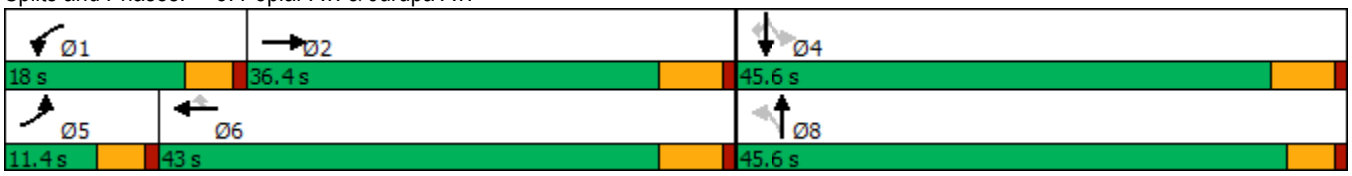
Notes

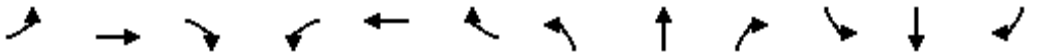
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	49	1300	142	685	35	52	40	53	88	58
Future Volume (vph)	49	1300	142	685	35	52	40	53	88	58
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	11.4	36.4	18.0	43.0	43.0	45.6	45.6	45.6	45.6	45.6
Total Split (%)	11.4%	36.4%	18.0%	43.0%	43.0%	45.6%	45.6%	45.6%	45.6%	45.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 68.7
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1300	81	142	685	35	52	40	106	53	88	58
Future Volume (veh/h)	49	1300	81	142	685	35	52	40	106	53	88	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	1327	72	145	699	33	53	41	57	54	90	45
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	89	2034	110	187	2380	738	325	344	307	346	362	306
Arrive On Green	0.05	0.40	0.40	0.10	0.46	0.46	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1810	5035	273	1810	5187	1609	1273	1805	1610	1318	1900	1608
Grp Volume(v), veh/h	50	911	488	145	699	33	53	41	57	54	90	45
Grp Sat Flow(s),veh/h/ln	1810	1729	1850	1810	1729	1609	1273	1805	1610	1318	1900	1608
Q Serve(g_s), s	1.5	11.5	11.5	4.2	4.5	0.6	2.0	1.0	1.6	1.9	2.2	1.3
Cycle Q Clear(g_c), s	1.5	11.5	11.5	4.2	4.5	0.6	4.1	1.0	1.6	3.5	2.2	1.3
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	89	1397	748	187	2380	738	325	344	307	346	362	306
V/C Ratio(X)	0.56	0.65	0.65	0.77	0.29	0.04	0.16	0.12	0.19	0.16	0.25	0.15
Avail Cap(c_a), veh/h	229	1971	1054	452	3593	1115	1055	1378	1229	1072	1408	1192
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.0	12.9	12.9	23.5	9.1	8.0	20.2	18.0	18.2	19.7	18.5	18.1
Incr Delay (d2), s/veh	2.1	0.5	1.0	2.6	0.1	0.0	0.2	0.2	0.3	0.2	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.4	3.7	1.7	1.2	0.2	0.5	0.4	0.5	0.5	0.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	13.5	13.9	26.0	9.2	8.1	20.5	18.2	18.5	19.9	18.8	18.3
LnGrp LOS	C	B	B	C	A	A	C	B	B	B	B	B
Approach Vol, veh/h		1449			877			151			189	
Approach Delay, s/veh		14.1			11.9			19.1			19.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	27.5		16.0	7.2	30.4		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	13.4	30.6		39.8	6.8	37.2		* 41				
Max Q Clear Time (g_c+I1), s	6.2	13.5		5.5	3.5	6.5		6.1				
Green Ext Time (p_c), s	0.1	8.2		0.7	0.0	4.9		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		14.0
HCM 6th LOS		B

Notes

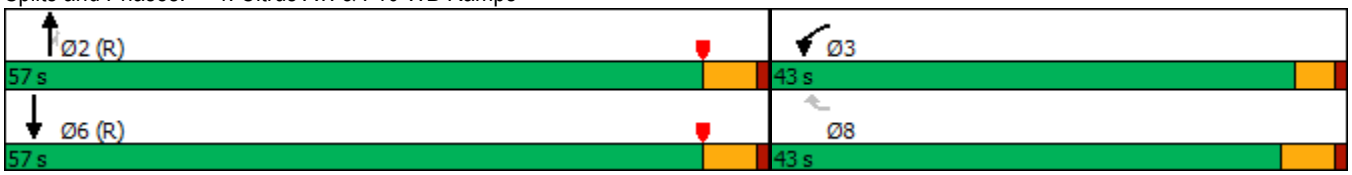
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

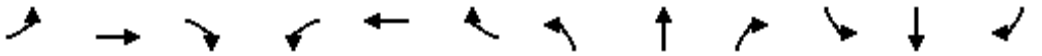
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	344	502	1259	554	908	490
Future Volume (vph)	344	502	1259	554	908	490
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	43.0	43.0	57.0	57.0	57.0	
Total Split (%)	43.0%	43.0%	57.0%	57.0%	57.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	344	0	502	0	1259	554	0	908	490
Future Volume (veh/h)	0	0	0	344	0	502	0	1259	554	0	908	490
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				362	0	402	0	1325	548	0	956	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				410	0	642	0	3546	1097	0	2468	
Arrive On Green				0.23	0.00	0.23	0.00	1.00	1.00	0.00	0.68	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1605	0	3705	1610
Grp Volume(v), veh/h				362	0	402	0	1325	548	0	956	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1605	0	1805	1610
Q Serve(g_s), s				19.3	0.0	12.8	0.0	0.0	0.0	0.0	11.4	0.0
Cycle Q Clear(g_c), s				19.3	0.0	12.8	0.0	0.0	0.0	0.0	11.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				410	0	642	0	3546	1097	0	2468	
V/C Ratio(X)				0.88	0.00	0.63	0.00	0.37	0.50	0.00	0.39	
Avail Cap(c_a), veh/h				706	0	1105	0	3546	1097	0	2468	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.51	0.51	0.00	1.00	0.00
Uniform Delay (d), s/veh				37.4	0.0	34.9	0.0	0.0	0.0	0.0	6.8	0.0
Incr Delay (d2), s/veh				3.3	0.0	0.4	0.0	0.2	0.8	0.0	0.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.5	0.0	4.2	0.0	0.1	0.3	0.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.7	0.0	35.2	0.0	0.2	0.8	0.0	7.3	0.0
LnGrp LOS				D	A	D	A	A	A	A	A	
Approach Vol, veh/h					764			1873			956	A
Approach Delay, s/veh					37.8			0.4			7.3	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			6		8			
Phs Duration (G+Y+Rc), s	73.4			73.4		26.6			
Change Period (Y+Rc), s	5.0			5.0		4.0			
Max Green Setting (Gmax), s	52.0			52.0		39.0			
Max Q Clear Time (g_c+I1), s	2.0			13.4		21.3			
Green Ext Time (p_c), s	8.6			4.4		1.3			

Intersection Summary	
HCM 6th Ctrl Delay	10.2
HCM 6th LOS	B

Notes

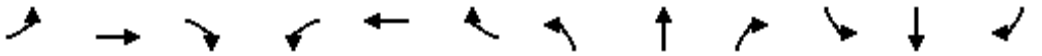
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	475	11	1336	490	766
Future Volume (vph)	475	11	1336	490	766
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	26.0	26.0	51.0	23.0	74.0
Total Split (%)	26.0%	26.0%	51.0%	23.0%	74.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	11	351	0	0	0	0	1336	606	490	766	0
Future Volume (veh/h)	475	11	351	0	0	0	0	1336	606	490	766	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	495	11	291				0	1392	450	510	798	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	719	12	319				0	1915	615	569	2510	0
Arrive On Green	0.20	0.20	0.20				0.00	0.49	0.49	0.32	1.00	0.00
Sat Flow, veh/h	3510	59	1560				0	4055	1246	3510	3705	0
Grp Volume(v), veh/h	495	0	302				0	1238	604	510	798	0
Grp Sat Flow(s),veh/h/ln	1755	0	1619				0	1729	1672	1755	1805	0
Q Serve(g_s), s	13.1	0.0	18.2				0.0	28.3	28.6	13.8	0.0	0.0
Cycle Q Clear(g_c), s	13.1	0.0	18.2				0.0	28.3	28.6	13.8	0.0	0.0
Prop In Lane	1.00		0.96				0.00		0.75	1.00		0.00
Lane Grp Cap(c), veh/h	719	0	331				0	1705	824	569	2510	0
V/C Ratio(X)	0.69	0.00	0.91				0.00	0.73	0.73	0.90	0.32	0.00
Avail Cap(c_a), veh/h	737	0	340				0	1705	824	667	2510	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.46	0.46	0.85	0.85	0.00
Uniform Delay (d), s/veh	36.8	0.0	38.9				0.0	20.0	20.1	33.0	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	26.6				0.0	1.3	2.7	10.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	9.3				0.0	10.4	10.6	5.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	0.0	65.4				0.0	21.3	22.8	43.7	0.3	0.0
LnGrp LOS	D	A	E				A	C	C	D	A	A
Approach Vol, veh/h		797						1842			1308	
Approach Delay, s/veh		49.0						21.8			17.2	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	20.2	54.3		25.5		74.5
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	19.0	46.0		21.0		69.0
Max Q Clear Time (g_c+I1), s	15.8	30.6		20.2		2.0
Green Ext Time (p_c), s	0.4	7.6		0.2		3.5

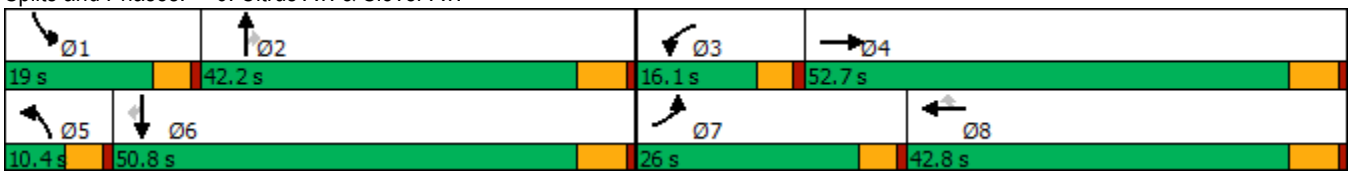
Intersection Summary		
HCM 6th Ctrl Delay		25.8
HCM 6th LOS		C

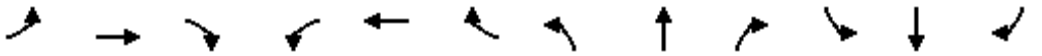
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	690	899	68	298	205	63	982	108	233	535	317
Future Volume (vph)	690	899	68	298	205	63	982	108	233	535	317
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	26.0	52.7	16.1	42.8	42.8	10.4	42.2	42.2	19.0	50.8	50.8
Total Split (%)	20.0%	40.5%	12.4%	32.9%	32.9%	8.0%	32.5%	32.5%	14.6%	39.1%	39.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 112.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	690	899	39	68	298	205	63	982	108	233	535	317
Future Volume (veh/h)	690	899	39	68	298	205	63	982	108	233	535	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	719	936	41	71	310	170	66	1023	48	243	557	239
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	760	1139	50	92	569	253	85	1398	432	264	699	593
Arrive On Green	0.22	0.32	0.32	0.05	0.16	0.16	0.05	0.27	0.27	0.15	0.37	0.37
Sat Flow, veh/h	3510	3520	154	1810	3610	1607	1810	5187	1601	1810	1900	1610
Grp Volume(v), veh/h	719	480	497	71	310	170	66	1023	48	243	557	239
Grp Sat Flow(s),veh/h/ln	1755	1805	1870	1810	1805	1607	1810	1729	1601	1810	1900	1610
Q Serve(g_s), s	19.9	24.2	24.2	3.8	7.8	9.8	3.6	17.7	2.2	13.1	25.9	10.9
Cycle Q Clear(g_c), s	19.9	24.2	24.2	3.8	7.8	9.8	3.6	17.7	2.2	13.1	25.9	10.9
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	760	584	605	92	569	253	85	1398	432	264	699	593
V/C Ratio(X)	0.95	0.82	0.82	0.77	0.54	0.67	0.77	0.73	0.11	0.92	0.80	0.40
Avail Cap(c_a), veh/h	760	857	887	211	1352	602	106	1911	590	264	865	733
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.1	30.8	30.8	46.3	38.3	39.2	46.6	32.8	27.2	41.6	27.9	23.2
Incr Delay (d2), s/veh	20.3	4.2	4.1	5.1	0.8	3.1	18.6	0.9	0.1	34.6	4.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	10.5	10.8	1.8	3.4	3.9	2.0	7.1	0.8	8.1	11.7	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	35.0	34.9	51.4	39.2	42.3	65.1	33.8	27.3	76.3	32.2	23.6
LnGrp LOS	E	D	C	D	D	D	E	C	C	E	C	C
Approach Vol, veh/h		1696			551			1137			1039	
Approach Delay, s/veh		44.9			41.7			35.3			40.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	32.4	9.6	37.8	9.3	42.2	26.0	21.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	14.4	36.4	11.5	46.9	5.8	45.0	21.4	37.0
Max Q Clear Time (g_c+I1), s	15.1	19.7	5.8	26.2	5.6	27.9	21.9	11.8
Green Ext Time (p_c), s	0.0	6.2	0.0	5.7	0.0	3.8	0.0	2.4

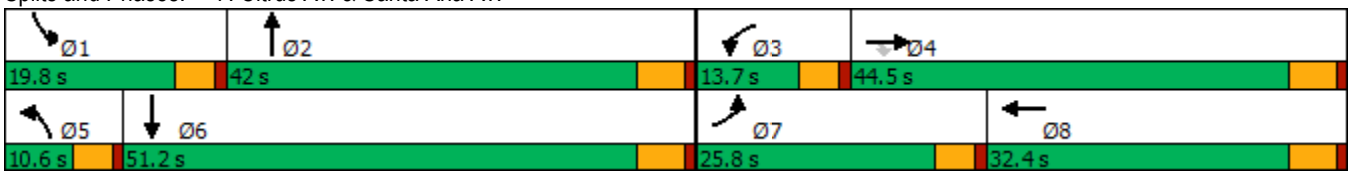
Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

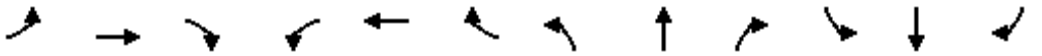
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	176	107	53	50	101	25	662	111	405
Future Volume (vph)	176	107	53	50	101	25	662	111	405
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	25.8	44.5	44.5	13.7	32.4	10.6	42.0	19.8	51.2
Total Split (%)	21.5%	37.1%	37.1%	11.4%	27.0%	8.8%	35.0%	16.5%	42.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 84
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	107	53	50	101	220	25	662	103	111	405	50
Future Volume (veh/h)	176	107	53	50	101	220	25	662	103	111	405	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	187	114	35	53	107	214	27	704	101	118	431	44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	233	508	424	85	335	295	53	955	137	153	1179	120
Arrive On Green	0.13	0.27	0.27	0.05	0.19	0.19	0.03	0.30	0.30	0.08	0.36	0.36
Sat Flow, veh/h	1810	1900	1586	1810	1805	1589	1810	3169	454	1810	3308	336
Grp Volume(v), veh/h	187	114	35	53	107	214	27	401	404	118	234	241
Grp Sat Flow(s),veh/h/ln	1810	1900	1586	1810	1805	1589	1810	1805	1818	1810	1805	1839
Q Serve(g_s), s	6.7	3.1	1.1	1.9	3.4	8.5	1.0	13.3	13.3	4.3	6.4	6.5
Cycle Q Clear(g_c), s	6.7	3.1	1.1	1.9	3.4	8.5	1.0	13.3	13.3	4.3	6.4	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.18
Lane Grp Cap(c), veh/h	233	508	424	85	335	295	53	544	548	153	643	656
V/C Ratio(X)	0.80	0.22	0.08	0.62	0.32	0.73	0.51	0.74	0.74	0.77	0.36	0.37
Avail Cap(c_a), veh/h	575	1113	929	247	730	643	163	990	997	412	1239	1263
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	19.0	18.3	31.2	23.5	25.6	31.9	20.9	20.9	29.9	15.9	15.9
Incr Delay (d2), s/veh	2.4	0.2	0.1	2.8	0.5	3.4	2.7	2.0	2.0	3.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.3	0.4	0.8	1.4	3.2	0.4	5.3	5.3	1.8	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	19.3	18.4	34.0	24.1	29.0	34.6	22.9	22.9	33.0	16.2	16.2
LnGrp LOS	C	B	B	C	C	C	C	C	C	C	B	B
Approach Vol, veh/h		336			374			832			593	
Approach Delay, s/veh		25.5			28.3			23.3			19.6	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	25.5	7.7	23.2	6.6	29.2	13.2	17.8
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.2	36.6	9.1	39.1	6.0	45.8	21.2	27.0
Max Q Clear Time (g_c+I1), s	6.3	15.3	3.9	5.1	3.0	8.5	8.7	10.5
Green Ext Time (p_c), s	0.1	4.8	0.0	0.7	0.0	2.8	0.2	1.6

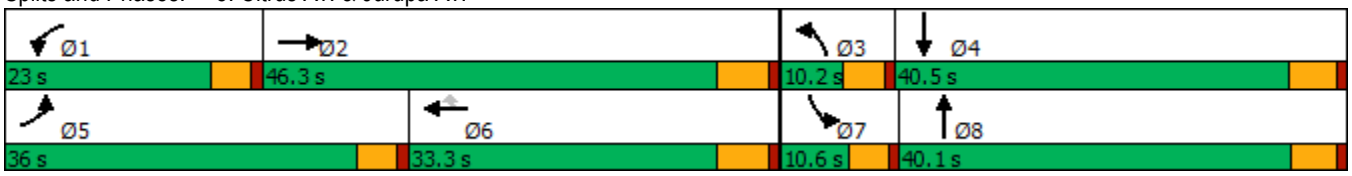
Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

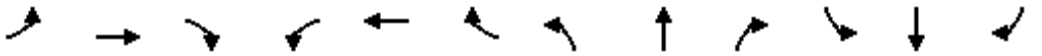
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	447	903	143	619	135	19	153	77	210
Future Volume (vph)	447	903	143	619	135	19	153	77	210
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	36.0	46.3	23.0	33.3	33.3	10.2	40.1	10.6	40.5
Total Split (%)	30.0%	38.6%	19.2%	27.8%	27.8%	8.5%	33.4%	8.8%	33.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 92.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	447	903	53	143	619	135	19	153	96	77	210	150
Future Volume (veh/h)	447	903	53	143	619	135	19	153	96	77	210	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	486	982	43	155	673	73	21	166	81	84	228	133
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	535	2022	88	196	1088	338	43	347	162	108	404	227
Arrive On Green	0.30	0.40	0.40	0.11	0.21	0.21	0.02	0.15	0.15	0.06	0.18	0.18
Sat Flow, veh/h	1810	5095	223	1810	5187	1610	1810	2389	1113	1810	2229	1251
Grp Volume(v), veh/h	486	666	359	155	673	73	21	124	123	84	183	178
Grp Sat Flow(s),veh/h/ln	1810	1729	1859	1810	1729	1610	1810	1805	1697	1810	1805	1675
Q Serve(g_s), s	18.2	10.1	10.2	5.9	8.3	2.6	0.8	4.4	4.7	3.2	6.5	6.9
Cycle Q Clear(g_c), s	18.2	10.1	10.2	5.9	8.3	2.6	0.8	4.4	4.7	3.2	6.5	6.9
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.66	1.00		0.75
Lane Grp Cap(c), veh/h	535	1372	738	196	1088	338	43	263	247	108	327	304
V/C Ratio(X)	0.91	0.49	0.49	0.79	0.62	0.22	0.49	0.47	0.50	0.78	0.56	0.59
Avail Cap(c_a), veh/h	806	1987	1069	472	2024	628	144	896	843	154	899	834
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	15.9	15.9	30.6	25.3	23.0	34.0	27.6	27.8	32.7	26.3	26.4
Incr Delay (d2), s/veh	7.6	0.3	0.5	2.7	0.6	0.3	3.1	1.3	1.6	8.6	1.5	1.8
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	7.9	3.5	3.8	2.5	3.1	1.0	0.4	1.9	1.9	1.6	2.7	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.6	16.1	16.4	33.4	25.9	23.4	37.1	28.9	29.3	41.3	27.8	28.2
LnGrp LOS	C	B	B	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1511			901			268			445	
Approach Delay, s/veh		21.2			26.9			29.7			30.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	33.8	6.3	18.2	25.4	20.6	8.8	15.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	18.4	40.5	5.6	35.1	31.4	27.5	6.0	* 35
Max Q Clear Time (g_c+I1), s	7.9	12.2	2.8	8.9	20.2	10.3	5.2	6.7
Green Ext Time (p_c), s	0.1	6.9	0.0	2.0	0.6	4.1	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	24.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑↱			↱
Traffic Vol, veh/h	0	1137	781	60	0	117
Future Vol, veh/h	0	1137	781	60	0	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1236	849	65	0	127

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	457
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	475
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	475
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

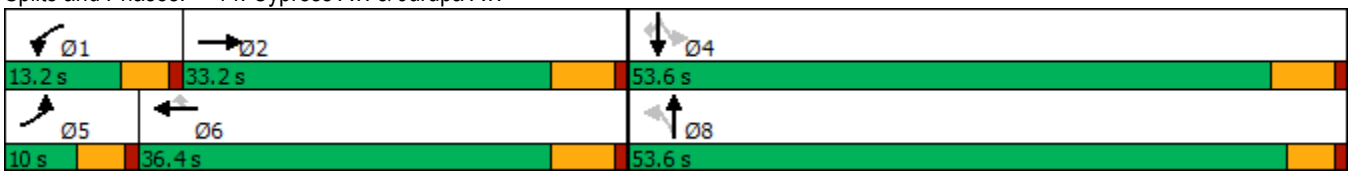
Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.3
HCM LOS			C

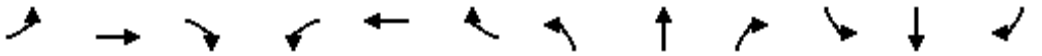
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	475
HCM Lane V/C Ratio	-	-	-	0.268
HCM Control Delay (s)	-	-	-	15.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.1

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	132	1049	125	676	71	10	60	116	52	105
Future Volume (vph)	132	1049	125	676	71	10	60	116	52	105
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.0	33.2	13.2	36.4	36.4	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.0%	33.2%	13.2%	36.4%	36.4%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 63.8
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	132	1049	25	125	676	71	10	60	69	116	52	105
Future Volume (veh/h)	132	1049	25	125	676	71	10	60	69	116	52	105
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	1116	23	133	719	55	11	64	38	123	55	78
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	179	1851	38	172	1814	563	390	235	140	365	400	339
Arrive On Green	0.10	0.35	0.35	0.09	0.35	0.35	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	5231	108	1810	5187	1610	1277	1117	663	1313	1900	1610
Grp Volume(v), veh/h	140	738	401	133	719	55	11	0	102	123	55	78
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1610	1277	0	1781	1313	1900	1610
Q Serve(g_s), s	3.6	8.3	8.3	3.4	5.0	1.1	0.3	0.0	2.3	4.1	1.1	1.9
Cycle Q Clear(g_c), s	3.6	8.3	8.3	3.4	5.0	1.1	1.5	0.0	2.3	6.4	1.1	1.9
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	179	1224	665	172	1814	563	390	0	375	365	400	339
V/C Ratio(X)	0.78	0.60	0.60	0.77	0.40	0.10	0.03	0.00	0.27	0.34	0.14	0.23
Avail Cap(c_a), veh/h	206	1993	1084	327	3339	1037	1437	0	1836	1409	1911	1619
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	1.00	1.00
Uniform Delay (d), s/veh	20.9	12.6	12.6	21.0	11.7	10.4	15.9	0.0	15.7	18.4	15.3	15.6
Incr Delay (d2), s/veh	13.0	0.5	0.9	2.8	0.1	0.1	0.0	0.0	0.4	0.5	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	1.9	2.4	2.7	1.3	1.4	0.3	0.1	0.0	0.9	1.1	0.4	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	13.1	13.5	23.8	11.8	10.5	15.9	0.0	16.1	18.9	15.4	15.9
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		1279			907			113			256	
Approach Delay, s/veh		15.5			13.5			16.1			17.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	22.6		15.8	9.3	22.4		15.8				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	8.6	27.4		47.8	5.4	30.6		* 49				
Max Q Clear Time (g_c+I1), s	5.4	10.3		8.4	5.6	7.0		4.3				
Green Ext Time (p_c), s	0.0	6.5		0.9	0.0	4.8		0.7				

Intersection Summary			
HCM 6th Ctrl Delay		15.0	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	30
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	440	24	51	348	54	31	54	67	65	50	6
Future Vol, veh/h	8	440	24	51	348	54	31	54	67	65	50	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	494	27	57	391	61	35	61	75	73	56	7
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

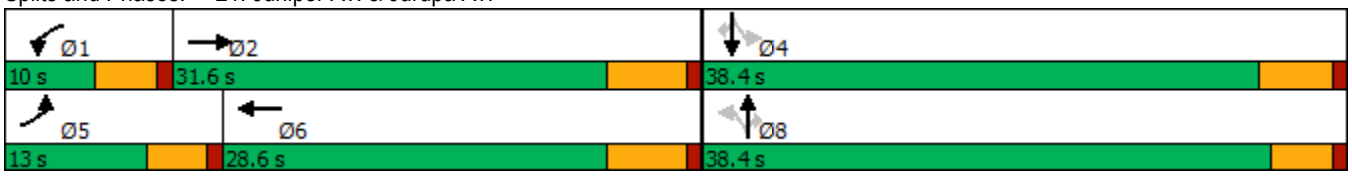
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	54.1	15	12.2	14.2
HCM LOS	F	B	B	B

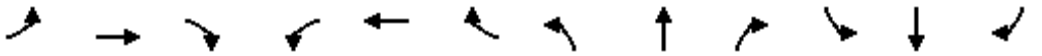
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	36%	0%	2%	23%	0%	57%	0%
Vol Thru, %	64%	0%	93%	77%	76%	43%	0%
Vol Right, %	0%	100%	5%	0%	24%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	67	472	225	228	115	6
LT Vol	31	0	8	51	0	65	0
Through Vol	54	0	440	174	174	50	0
RT Vol	0	67	24	0	54	0	6
Lane Flow Rate	96	75	530	253	256	129	7
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.214	0.15	0.959	0.473	0.459	0.295	0.014
Departure Headway (Hd)	8.072	7.159	6.508	6.735	6.45	8.232	7.214
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	444	500	562	533	558	437	495
Service Time	5.831	4.917	4.508	4.482	4.197	5.99	4.972
HCM Lane V/C Ratio	0.216	0.15	0.943	0.475	0.459	0.295	0.014
HCM Control Delay	13	11.2	54.1	15.4	14.6	14.4	10.1
HCM Lane LOS	B	B	F	C	B	B	B
HCM 95th-tile Q	0.8	0.5	12.8	2.5	2.4	1.2	0

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	80	1143	29	782	7	16	5	35	23	66
Future Volume (vph)	80	1143	29	782	7	16	5	35	23	66
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.0	31.6	10.0	28.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	16.3%	39.5%	12.5%	35.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 51
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	1143	5	29	782	56	7	16	5	35	23	66
Future Volume (veh/h)	80	1143	5	29	782	56	7	16	5	35	23	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	1242	5	32	850	56	8	17	2	38	25	26
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	133	2037	8	66	1716	113	186	327	372	320	181	371
Arrive On Green	0.07	0.38	0.38	0.04	0.35	0.35	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	5333	21	1810	4972	327	350	1414	1610	831	784	1604
Grp Volume(v), veh/h	87	805	442	32	590	316	25	0	2	63	0	26
Grp Sat Flow(s),veh/h/ln	1810	1729	1896	1810	1729	1840	1765	0	1610	1616	0	1604
Q Serve(g_s), s	2.1	8.5	8.5	0.8	6.1	6.1	0.0	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s	2.1	8.5	8.5	0.8	6.1	6.1	0.5	0.0	0.0	1.2	0.0	0.6
Prop In Lane	1.00		0.01	1.00		0.18	0.32		1.00	0.60		1.00
Lane Grp Cap(c), veh/h	133	1321	724	66	1193	635	513	0	372	501	0	371
V/C Ratio(X)	0.65	0.61	0.61	0.48	0.49	0.50	0.05	0.00	0.01	0.13	0.00	0.07
Avail Cap(c_a), veh/h	337	1977	1084	217	1747	930	1389	0	1206	1289	0	1173
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.3	11.2	11.2	21.3	11.7	11.7	13.5	0.0	13.4	13.8	0.0	13.6
Incr Delay (d2), s/veh	2.0	0.5	0.8	2.0	0.3	0.6	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.3	2.6	0.3	1.7	1.9	0.2	0.0	0.0	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.4	11.7	12.1	23.3	12.0	12.3	13.6	0.0	13.4	13.9	0.0	13.6
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		1334			938			27			89	
Approach Delay, s/veh		12.5			12.5			13.5			13.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	23.0		15.8	7.9	21.4		15.8				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	8.4	22.8		* 34				
Max Q Clear Time (g_c+I1), s	2.8	10.5		3.2	4.1	8.1		2.5				
Green Ext Time (p_c), s	0.0	6.8		0.3	0.0	4.7		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		12.6
HCM 6th LOS		B

Notes

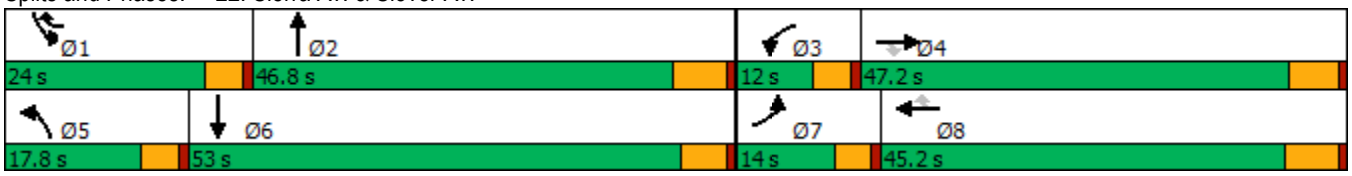
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

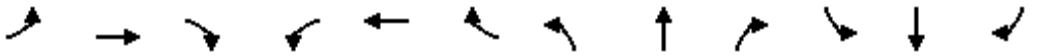
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	348	701	167	256	475	879	256	1438	790	1308
Future Volume (vph)	348	701	167	256	475	879	256	1438	790	1308
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	14.0	47.2	47.2	12.0	45.2	24.0	17.8	46.8	24.0	53.0
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.8%	18.5%	13.7%	36.0%	18.5%	40.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 118.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	701	167	256	475	879	256	1438	234	790	1308	111
Future Volume (veh/h)	348	701	167	256	475	879	256	1438	234	790	1308	111
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	362	730	110	267	495	518	267	1498	223	823	1362	102
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	285	942	412	224	880	1152	327	1859	277	587	1948	146
Arrive On Green	0.08	0.26	0.26	0.06	0.24	0.24	0.09	0.32	0.32	0.17	0.40	0.40
Sat Flow, veh/h	3510	3610	1579	3510	3610	2780	3510	5782	860	3510	4922	369
Grp Volume(v), veh/h	362	730	110	267	495	518	267	1270	451	823	957	507
Grp Sat Flow(s),veh/h/ln	1755	1805	1579	1755	1805	1390	1755	1634	1740	1755	1729	1832
Q Serve(g_s), s	9.4	21.7	6.4	7.4	13.9	15.6	8.7	27.5	27.5	19.4	26.8	26.8
Cycle Q Clear(g_c), s	9.4	21.7	6.4	7.4	13.9	15.6	8.7	27.5	27.5	19.4	26.8	26.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.49	1.00		0.20
Lane Grp Cap(c), veh/h	285	942	412	224	880	1152	327	1576	560	587	1369	725
V/C Ratio(X)	1.27	0.77	0.27	1.19	0.56	0.45	0.82	0.81	0.81	1.40	0.70	0.70
Avail Cap(c_a), veh/h	285	1289	564	224	1214	1409	400	1716	609	587	1419	752
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	39.7	34.0	54.3	38.4	24.7	51.6	36.0	36.0	48.3	29.3	29.3
Incr Delay (d2), s/veh	147.1	2.1	0.3	121.8	0.6	0.3	8.7	2.7	7.3	190.8	1.5	2.8
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	9.8	9.5	2.4	6.9	6.0	4.9	4.1	10.8	12.3	23.8	10.8	11.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	200.4	41.7	34.4	176.0	39.0	25.0	60.3	38.7	43.4	239.1	30.7	32.0
LnGrp LOS	F	D	C	F	D	C	E	D	D	F	C	C
Approach Vol, veh/h		1202			1280			1988			2287	
Approach Delay, s/veh		88.8			61.9			42.7			106.0	
Approach LOS		F			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	43.5	12.0	36.5	15.4	52.1	14.0	34.5
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	19.4	40.6	7.4	* 41	13.2	* 48	9.4	39.0
Max Q Clear Time (g_c+I1), s	21.4	29.5	9.4	23.7	10.7	28.8	11.4	17.6
Green Ext Time (p_c), s	0.0	7.5	0.0	4.6	0.1	9.1	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	76.0
HCM 6th LOS	E

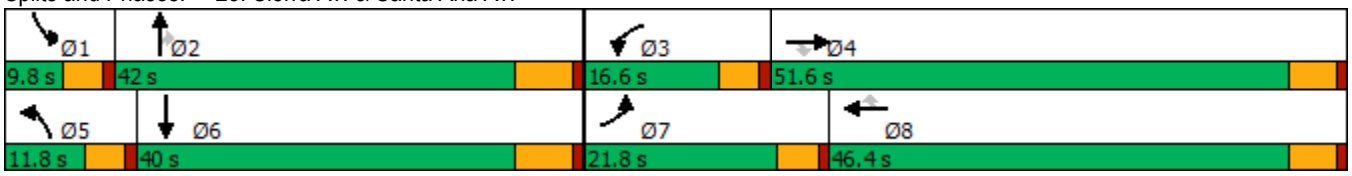
Notes

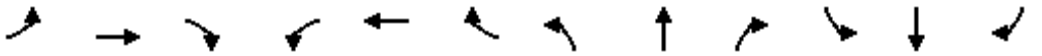
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	266	181	165	82	163	82	191	1616	68	132	1311
Future Volume (vph)	266	181	165	82	163	82	191	1616	68	132	1311
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	21.8	51.6	51.6	16.6	46.4	46.4	11.8	42.0	42.0	9.8	40.0
Total Split (%)	18.2%	43.0%	43.0%	13.8%	38.7%	38.7%	9.8%	35.0%	35.0%	8.2%	33.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 95.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	181	165	82	163	82	191	1616	68	132	1311	171
Future Volume (veh/h)	266	181	165	82	163	82	191	1616	68	132	1311	171
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	271	185	70	84	166	46	195	1649	61	135	1338	159
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	310	853	380	109	452	202	273	2038	623	207	1758	209
Arrive On Green	0.17	0.24	0.24	0.06	0.13	0.13	0.08	0.39	0.39	0.06	0.37	0.37
Sat Flow, veh/h	1810	3610	1608	1810	3610	1610	3510	5187	1586	3510	4699	558
Grp Volume(v), veh/h	271	185	70	84	166	46	195	1649	61	135	985	512
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1610	1755	1729	1586	1755	1729	1799
Q Serve(g_s), s	12.1	3.4	2.9	3.8	3.5	2.1	4.5	23.4	2.0	3.1	20.6	20.6
Cycle Q Clear(g_c), s	12.1	3.4	2.9	3.8	3.5	2.1	4.5	23.4	2.0	3.1	20.6	20.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	310	853	380	109	452	202	273	2038	623	207	1294	673
V/C Ratio(X)	0.87	0.22	0.18	0.77	0.37	0.23	0.71	0.81	0.10	0.65	0.76	0.76
Avail Cap(c_a), veh/h	376	2016	898	262	1789	798	305	2244	686	221	1413	735
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	25.4	25.2	38.3	33.2	32.6	37.3	22.3	15.9	38.1	22.7	22.7
Incr Delay (d2), s/veh	15.4	0.1	0.2	4.3	0.5	0.6	5.3	2.1	0.1	4.5	2.3	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	1.4	1.1	1.7	1.5	0.8	2.0	8.6	0.7	1.4	7.7	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	25.6	25.4	42.6	33.7	33.2	42.5	24.5	15.9	42.6	24.9	26.9
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		526			296			1905			1632	
Approach Delay, s/veh		37.5			36.1			26.1			27.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	38.7	9.6	25.0	11.0	37.2	18.8	15.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.2	35.8	12.0	46.2	7.2	33.8	17.2	41.0
Max Q Clear Time (g_c+I1), s	5.1	25.4	5.8	5.4	6.5	22.6	14.1	5.5
Green Ext Time (p_c), s	0.0	7.1	0.0	1.4	0.0	6.6	0.1	1.1

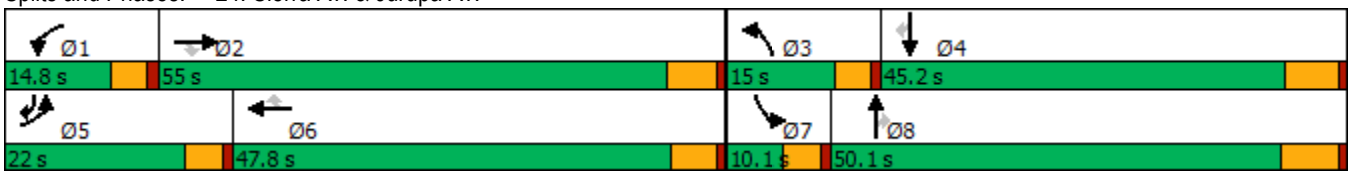
Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

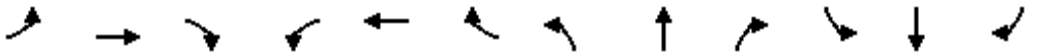
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	505	351	315	146	292	124	307	1046	102	117	730	299
Future Volume (vph)	505	351	315	146	292	124	307	1046	102	117	730	299
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	22.0	55.0	55.0	14.8	47.8	47.8	15.0	50.1	50.1	10.1	45.2	22.0
Total Split (%)	16.9%	42.3%	42.3%	11.4%	36.8%	36.8%	11.5%	38.5%	38.5%	7.8%	34.8%	16.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 98.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	351	315	146	292	124	307	1046	102	117	730	299
Future Volume (veh/h)	505	351	315	146	292	124	307	1046	102	117	730	299
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	521	362	182	151	301	68	316	1078	62	121	753	241
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	610	859	383	230	468	209	398	1354	597	201	1153	794
Arrive On Green	0.17	0.24	0.24	0.07	0.13	0.13	0.11	0.38	0.38	0.06	0.32	0.32
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3610	1590	3510	3610	1610
Grp Volume(v), veh/h	521	362	182	151	301	68	316	1078	62	121	753	241
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1590	1755	1805	1610
Q Serve(g_s), s	11.7	6.9	7.9	3.4	6.5	3.1	7.1	21.7	2.1	2.7	14.6	7.3
Cycle Q Clear(g_c), s	11.7	6.9	7.9	3.4	6.5	3.1	7.1	21.7	2.1	2.7	14.6	7.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	610	859	383	230	468	209	398	1354	597	201	1153	794
V/C Ratio(X)	0.85	0.42	0.47	0.66	0.64	0.33	0.79	0.80	0.10	0.60	0.65	0.30
Avail Cap(c_a), veh/h	750	2180	972	439	1878	838	448	1931	851	237	1728	1051
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.7	26.3	26.7	37.2	33.7	32.2	35.2	22.7	16.6	37.5	23.9	12.3
Incr Delay (d2), s/veh	6.8	0.3	0.9	1.2	1.5	0.9	7.4	1.6	0.1	1.3	0.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	2.8	2.8	1.4	2.8	1.2	3.2	8.1	0.7	1.1	5.6	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	26.6	27.6	38.4	35.2	33.1	42.6	24.2	16.6	38.8	24.5	12.5
LnGrp LOS	D	C	C	D	D	C	D	C	B	D	C	B
Approach Vol, veh/h		1065			520			1456			1115	
Approach Delay, s/veh		33.1			35.8			27.9			23.5	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	25.2	13.8	32.5	18.8	16.4	9.3	37.1
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	10.2	49.2	10.4	* 39	17.4	* 42	5.5	43.6
Max Q Clear Time (g_c+I1), s	5.4	9.9	9.1	16.6	13.7	8.5	4.7	23.7
Green Ext Time (p_c), s	0.1	2.9	0.1	5.5	0.4	2.1	0.0	6.9

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

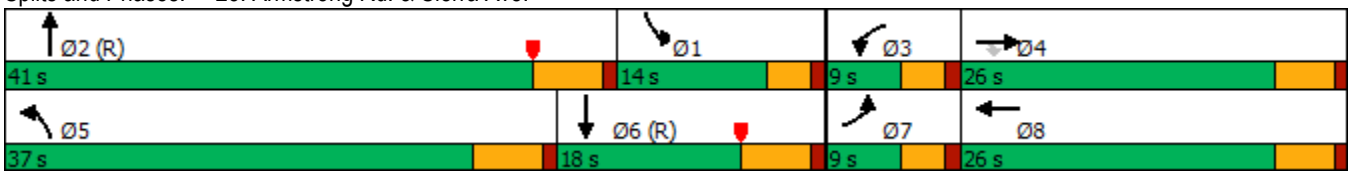
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	126	190	815	195	116	1347	759	52	256
Future Volume (vph)	126	190	815	195	116	1347	759	52	256
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0	26.0	9.0	26.0	37.0	41.0	14.0	18.0
Total Split (%)	10.0%	28.9%	28.9%	10.0%	28.9%	41.1%	45.6%	15.6%	20.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	15.7	15.7	5.0	15.7	36.6	46.2	10.0	12.3
Actuated g/C Ratio	0.06	0.17	0.17	0.06	0.17	0.41	0.51	0.11	0.14
v/c Ratio	1.30	0.31	0.91	2.01	0.26	0.98	1.17	0.27	1.18
Control Delay	227.5	32.3	18.7	513.5	22.4	47.9	114.9	40.6	149.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	227.5	32.3	18.7	513.5	22.4	47.9	114.9	40.6	149.5
LOS	F	C	B	F	C	D	F	D	F
Approach Delay		44.3			290.6		77.6		133.2
Approach LOS		D			F		E		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 14 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.01	
Intersection Signal Delay: 91.2	Intersection LOS: F
Intersection Capacity Utilization 99.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	190	815	195	116	46	1347	759	318	52	256	42
Future Volume (veh/h)	126	190	815	195	116	46	1347	759	318	52	256	42
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	196	0	201	120	47	1389	782	327	54	264	35
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	301		101	215	80	1221	499	209	438	470	62
Arrive On Green	0.06	0.08	0.00	0.06	0.08	0.08	0.35	0.39	0.39	0.24	0.29	0.29
Sat Flow, veh/h	1810	3610	1610	1810	2570	962	3510	1272	532	1810	1640	217
Grp Volume(v), veh/h	130	196	0	201	83	84	1389	0	1109	54	0	299
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1727	1755	0	1804	1810	0	1858
Q Serve(g_s), s	5.0	4.7	0.0	5.0	4.0	4.2	31.3	0.0	35.3	2.1	0.0	12.3
Cycle Q Clear(g_c), s	5.0	4.7	0.0	5.0	4.0	4.2	31.3	0.0	35.3	2.1	0.0	12.3
Prop In Lane	1.00		1.00	1.00		0.56	1.00		0.29	1.00		0.12
Lane Grp Cap(c), veh/h	101	301		101	151	144	1221	0	708	438	0	532
V/C Ratio(X)	1.29	0.65		2.00	0.55	0.59	1.14	0.00	1.57	0.12	0.00	0.56
Avail Cap(c_a), veh/h	101	842		101	421	403	1221	0	708	438	0	532
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	0.00	1.00	1.00	1.00	0.24	0.00	0.24	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	40.0	0.0	42.5	39.6	39.7	29.3	0.0	27.4	26.6	0.0	27.3
Incr Delay (d2), s/veh	187.5	2.4	0.0	483.1	3.1	3.7	64.8	0.0	256.9	0.0	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	2.1	0.0	15.7	1.9	1.9	22.9	0.0	64.0	0.9	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	230.0	42.3	0.0	525.6	42.7	43.5	94.1	0.0	284.2	26.7	0.0	31.5
LnGrp LOS	F	D		F	D	D	F	A	F	C	A	C
Approach Vol, veh/h		326	A		368			2498			353	
Approach Delay, s/veh		117.2			306.6			178.5			30.8	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.5	41.0	9.0	12.5	37.0	31.5	9.0	12.5
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 35	5.0	21.0	31.3	12.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	4.1	37.3	7.0	6.7	33.3	14.3	7.0	6.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	171.5
HCM 6th LOS	F

Notes

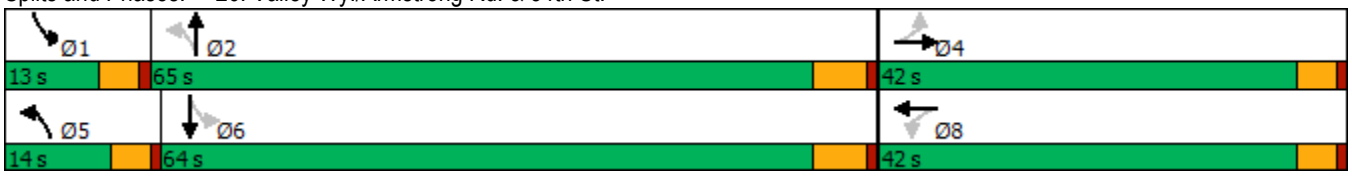
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

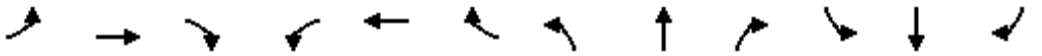
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	140	15	54	22	18	2272	10	1181
Future Volume (vph)	140	15	54	22	18	2272	10	1181
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	14.0	65.0	13.0	64.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	11.7%	54.2%	10.8%	53.3%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	15.1	15.1		15.1	66.8	64.6	65.8	62.7
Actuated g/C Ratio	0.16	0.16		0.16	0.73	0.70	0.72	0.68
v/c Ratio	0.65	0.08		0.36	0.06	0.95	0.06	0.53
Control Delay	49.5	24.0		35.2	4.7	24.2	5.1	9.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	24.0		35.2	4.7	24.2	5.1	9.7
LOS	D	C		D	A	C	A	A
Approach Delay		45.8		35.2		24.0		9.7
Approach LOS		D		D		C		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.9	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 20.5	Intersection LOS: C
Intersection Capacity Utilization 85.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	15	9	54	22	11	18	2272	58	10	1181	79
Future Volume (veh/h)	140	15	9	54	22	11	18	2272	58	10	1181	79
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	144	15	7	56	23	8	19	2342	49	10	1218	69
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	268	146	68	174	65	17	346	2504	52	125	2375	134
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.02	0.69	0.69	0.01	0.68	0.68
Sat Flow, veh/h	1400	1224	571	878	543	144	1810	3616	75	1810	3473	197
Grp Volume(v), veh/h	144	0	22	87	0	0	19	1165	1226	10	632	655
Grp Sat Flow(s),veh/h/ln	1400	0	1795	1565	0	0	1810	1805	1886	1810	1805	1865
Q Serve(g_s), s	3.2	0.0	0.9	3.2	0.0	0.0	0.3	47.8	48.8	0.1	14.6	14.6
Cycle Q Clear(g_c), s	7.5	0.0	0.9	4.3	0.0	0.0	0.3	47.8	48.8	0.1	14.6	14.6
Prop In Lane	1.00		0.32	0.64		0.09	1.00		0.04	1.00		0.11
Lane Grp Cap(c), veh/h	268	0	215	256	0	0	346	1250	1306	125	1234	1275
V/C Ratio(X)	0.54	0.00	0.10	0.34	0.00	0.00	0.05	0.93	0.94	0.08	0.51	0.51
Avail Cap(c_a), veh/h	713	0	786	743	0	0	507	1250	1306	280	1234	1275
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	0.0	33.5	34.9	0.0	0.0	5.1	11.4	11.5	18.4	6.6	6.6
Incr Delay (d2), s/veh	1.7	0.0	0.2	0.8	0.0	0.0	0.0	13.6	14.0	0.1	1.5	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	3.0	0.0	0.4	1.7	0.0	0.0	0.1	17.0	18.2	0.1	4.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	0.0	33.7	35.7	0.0	0.0	5.1	25.0	25.5	18.5	8.1	8.1
LnGrp LOS	D	A	C	D	A	A	A	C	C	B	A	A
Approach Vol, veh/h		166			87			2410			1297	
Approach Delay, s/veh		37.4			35.7			25.1			8.2	
Approach LOS		D			D			C			A	

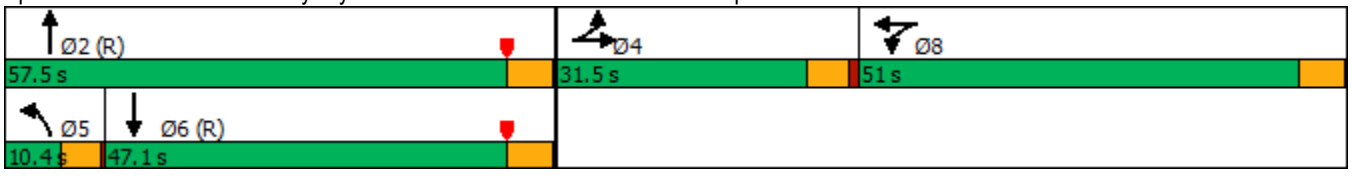
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	65.0		14.8	6.4	64.2		14.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	8.4	59.2		37.4	9.4	58.2		37.4				
Max Q Clear Time (g_c+I1), s	2.1	50.8		9.5	2.3	16.6		6.3				
Green Ext Time (p_c), s	0.0	7.7		0.5	0.0	10.2		0.5				

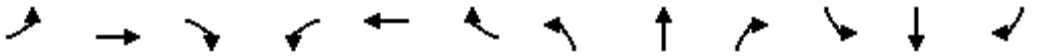
Intersection Summary												
HCM 6th Ctrl Delay			20.3									
HCM 6th LOS			C									

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	295	40	39	1703	1140
Future Volume (vph)	0	295	40	39	1703	1140
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	31.5	51.0	51.0	10.4	57.5	47.1
Total Split (%)	22.5%	36.4%	36.4%	7.4%	41.1%	33.6%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	26.1	45.7	45.7	5.8	52.2	43.9
Actuated g/C Ratio	0.19	0.33	0.33	0.04	0.37	0.31
v/c Ratio	1.04	0.53	1.27	0.55	1.33	1.09
Control Delay	114.1	42.3	168.4	89.9	189.9	98.6
Queue Delay	24.3	0.0	0.0	0.0	0.0	6.7
Total Delay	138.4	42.3	168.4	89.9	189.9	105.2
LOS	F	D	F	F	F	F
Approach Delay	138.4		130.6		187.7	105.2
Approach LOS	F		F		F	F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 147.8	Intersection LOS: F
Intersection Capacity Utilization 121.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	226	0	96	295	40	649	39	1703	0	0	1140	26
Future Volume (veh/h)	226	0	96	295	40	649	39	1703	0	0	1140	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	238	0	101	311	42	589	41	1793	0	0	1200	21
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	227	0	97	591	35	488	53	1346	0	0	1127	20
Arrive On Green	0.19	0.00	0.19	0.33	0.33	0.33	0.01	0.12	0.00	0.00	0.31	0.31
Sat Flow, veh/h	1220	0	518	1810	107	1496	1810	3705	0	0	3724	63
Grp Volume(v), veh/h	339	0	0	311	0	631	41	1793	0	0	597	624
Grp Sat Flow(s),veh/h/ln	1738	0	0	1810	0	1602	1810	1805	0	0	1805	1888
Q Serve(g_s), s	26.1	0.0	0.0	19.6	0.0	45.7	3.2	52.2	0.0	0.0	43.5	43.5
Cycle Q Clear(g_c), s	26.1	0.0	0.0	19.6	0.0	45.7	3.2	52.2	0.0	0.0	43.5	43.5
Prop In Lane	0.70		0.30	1.00		0.93	1.00		0.00	0.00		0.03
Lane Grp Cap(c), veh/h	324	0	0	591	0	523	53	1346	0	0	561	586
V/C Ratio(X)	1.05	0.00	0.00	0.53	0.00	1.21	0.77	1.33	0.00	0.00	1.06	1.06
Avail Cap(c_a), veh/h	324	0	0	591	0	523	75	1346	0	0	561	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.84	0.84	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh	57.0	0.0	0.0	38.4	0.0	47.2	68.8	61.4	0.0	0.0	48.3	48.3
Incr Delay (d2), s/veh	62.7	0.0	0.0	0.9	0.0	109.9	22.6	153.8	0.0	0.0	53.1	52.5
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	16.9	0.0	0.0	8.6	0.0	33.5	1.8	54.0	0.0	0.0	27.2	28.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	119.6	0.0	0.0	39.2	0.0	157.0	91.5	215.2	0.0	0.0	101.3	100.7
LnGrp LOS	F	A	A	D	A	F	F	F	A	A	F	F
Approach Vol, veh/h		339			942			1834			1221	
Approach Delay, s/veh		119.6			118.1			212.4			101.0	
Approach LOS		F			F			F			F	

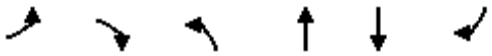
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		57.5		31.5	8.7	48.8		51.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		52.2		26.1	5.8	41.8		45.7				
Max Q Clear Time (g_c+I1), s		54.2		28.1	5.2	45.5		47.7				
Green Ext Time (p_c), s		0.0		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			153.3									
HCM 6th LOS			F									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	167	1742	1138
Future Volume (vph)	167	1742	1138
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	9.9	140.0	130.1
Total Split (%)	7.1%	100.0%	92.9%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	5.3	140.0	124.3
Actuated g/C Ratio	0.04	1.00	0.89
v/c Ratio	2.65	0.52	0.54
Control Delay	805.2	0.5	7.1
Queue Delay	0.0	48.8	0.0
Total Delay	805.2	49.3	7.1
LOS	F	D	A
Approach Delay		115.6	7.1
Approach LOS		F	A

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 134.2 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.65	
Intersection Signal Delay: 67.3	Intersection LOS: E
Intersection Capacity Utilization 62.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	167	1742	1138	395
Future Volume (veh/h)	0	0	167	1742	1138	395
Initial Q (Qb), veh			20	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.98
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			180	1873	1224	425
Peak Hour Factor			0.93	0.93	0.93	0.93
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			69	3460	2340	787
Arrive On Green			0.04	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2731	886
Grp Volume(v), veh/h			180	1873	825	824
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1717
Q Serve(g_s), s			5.3	6.3	0.0	0.0
Cycle Q Clear(g_c), s			5.3	6.3	0.0	0.0
Prop In Lane			1.00			0.52
Lane Grp Cap(c), veh/h			69	3460	1603	1524
V/C Ratio(X)			2.63	0.54	0.52	0.54
Avail Cap(c_a), veh/h			69	3460	1603	1524
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.09	0.09	0.15	0.15
Uniform Delay (d), s/veh			67.3	0.2	0.0	0.0
Incr Delay (d2), s/veh			736.2	0.1	0.2	0.2
Initial Q Delay(d3),s/veh			1051.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			36.4	0.0	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			1854.6	0.3	0.2	0.2
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				2053	1649	
Approach Delay, s/veh				162.9	0.2	
Approach LOS				F	A	

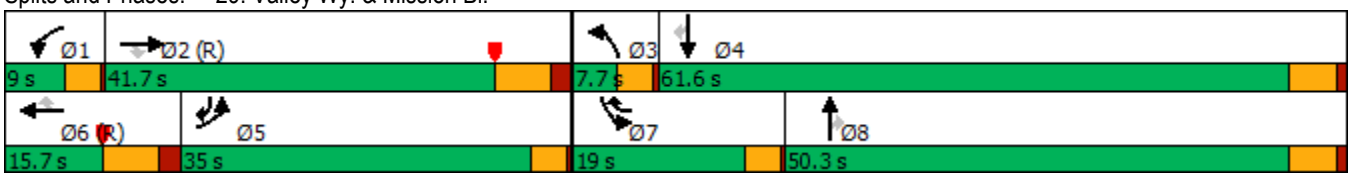
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			9.9	130.1
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			5.3	124.3
Max Q Clear Time (g_c+I1), s	8.3			7.3	2.0
Green Ext Time (p_c), s	28.7			0.0	19.7

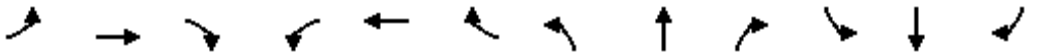
Intersection Summary	
HCM 6th Ctrl Delay	90.4
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1053	785	49	65	171	467	11	453	80	401	459	277
Future Volume (vph)	1053	785	49	65	171	467	11	453	80	401	459	277
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	35.0	41.7	41.7	9.0	15.7	19.0	7.7	50.3	50.3	19.0	61.6	35.0
Total Split (%)	29.2%	34.8%	34.8%	7.5%	13.1%	15.8%	6.4%	41.9%	41.9%	15.8%	51.3%	29.2%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	31.3	53.1	53.1	10.0	31.7	50.3	4.0	22.0	22.0	15.3	39.4	72.3
Actuated g/C Ratio	0.26	0.44	0.44	0.08	0.26	0.42	0.03	0.18	0.18	0.13	0.33	0.60
v/c Ratio	1.20	0.51	0.07	0.46	0.19	0.65	0.09	0.71	0.21	0.94	0.40	0.16
Control Delay	140.3	26.7	0.2	61.7	36.1	15.9	58.1	52.0	2.0	81.6	32.1	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	140.3	26.7	0.2	61.7	36.1	15.9	58.1	52.0	2.0	81.6	32.1	0.9
LOS	F	C	A	E	D	B	E	D	A	F	C	A
Approach Delay		89.4			25.1			44.8			42.0	
Approach LOS		F			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 60.5	Intersection LOS: E
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1053	785	49	65	171	467	11	453	80	401	459	277
Future Volume (veh/h)	1053	785	49	65	171	467	11	453	80	401	459	277
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1097	818	30	68	178	459	11	472	40	418	478	215
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	1491	1735	769	80	262	322	36	662	291	448	1086	2051
Arrive On Green	0.42	0.48	0.48	0.04	0.07	0.07	0.01	0.18	0.18	0.13	0.30	0.30
Sat Flow, veh/h	3510	3610	1599	1810	3610	1610	3510	3610	1584	3510	3610	2815
Grp Volume(v), veh/h	1097	818	30	68	178	459	11	472	40	418	478	215
Grp Sat Flow(s),veh/h/ln	1755	1805	1599	1810	1805	1610	1755	1805	1584	1755	1805	1408
Q Serve(g_s), s	31.4	18.3	1.2	4.5	5.8	6.8	0.4	14.7	2.5	14.2	12.8	0.4
Cycle Q Clear(g_c), s	31.4	18.3	1.2	4.5	5.8	6.8	0.4	14.7	2.5	14.2	12.8	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1491	1735	769	80	262	322	36	662	291	448	1086	2051
V/C Ratio(X)	0.74	0.47	0.04	0.85	0.68	1.43	0.31	0.71	0.14	0.93	0.44	0.10
Avail Cap(c_a), veh/h	1491	1735	769	80	262	322	117	1354	594	448	1694	2525
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)	0.52	0.52	0.52	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.83	0.83
Uniform Delay (d), s/veh	28.9	20.9	16.5	57.0	54.3	21.4	59.0	46.0	41.0	51.8	33.8	1.2
Incr Delay (d2), s/veh	0.9	0.5	0.0	52.4	13.4	208.6	1.8	1.4	0.2	23.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.6	7.4	0.4	3.2	3.1	23.9	0.2	6.7	1.0	7.5	5.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	21.4	16.5	109.3	67.7	230.0	60.7	47.5	41.2	75.4	34.0	1.2
LnGrp LOS	C	C	B	F	E	F	E	D	D	E	C	A
Approach Vol, veh/h		1945			705			523			1111	
Approach Delay, s/veh		26.0			177.4			47.3			43.3	
Approach LOS		C			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	64.7	4.9	41.4	58.0	15.7	19.0	27.3
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	5.3	34.7	4.0	56.3	31.3	* 8.7	15.3	45.0
Max Q Clear Time (g_c+I1), s	6.5	20.3	2.4	14.8	33.4	8.8	16.2	16.7
Green Ext Time (p_c), s	0.0	6.0	0.0	4.1	0.0	0.0	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	58.0
HCM 6th LOS	E

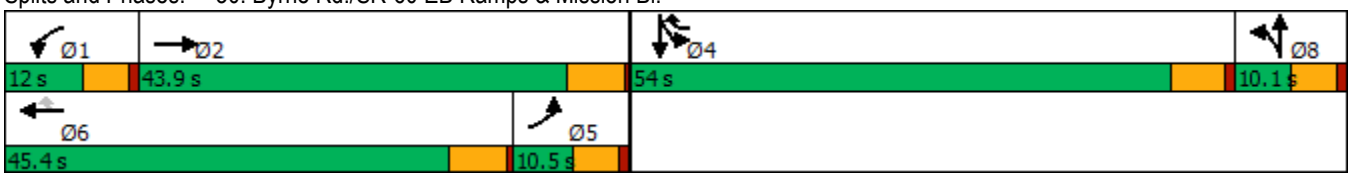
Notes

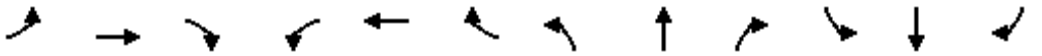
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	475	6	309	149	1	1484	6
Future Volume (vph)	66	475	6	309	149	1	1484	6
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	10.5	43.9	12.0	45.4	54.0	10.1	54.0	54.0
Total Split (%)	8.8%	36.6%	10.0%	37.8%	45.0%	8.4%	45.0%	45.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	None	None	None	None	None
Act Effct Green (s)	21.5	38.4	6.0	13.9	67.1	5.0	48.5	48.5
Actuated g/C Ratio	0.21	0.38	0.06	0.14	0.66	0.05	0.47	0.47
v/c Ratio	0.18	0.38	0.06	0.67	0.14	0.13	1.04	1.02
Control Delay	36.7	25.2	50.0	49.3	1.3	42.5	69.8	64.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	25.2	50.0	49.3	1.3	42.5	69.8	64.1
LOS	D	C	D	D	A	D	E	E
Approach Delay		26.6		33.9		42.5		66.9
Approach LOS		C		C		D		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.3	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 52.5	Intersection LOS: D
Intersection Capacity Utilization 82.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	475	8	6	309	149	6	1	5	1484	6	92
Future Volume (veh/h)	66	475	8	6	309	149	6	1	5	1484	6	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	500	7	6	325	98	6	1	5	1637	0	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	417	1260	18	14	425	892	12	2	10	1579	829	0
Arrive On Green	0.23	0.35	0.35	0.01	0.12	0.12	0.01	0.01	0.01	0.44	0.00	0.00
Sat Flow, veh/h	1810	3644	51	1810	3610	1610	864	144	720	3619	1900	0
Grp Volume(v), veh/h	69	248	259	6	325	98	12	0	0	1637	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1890	1810	1805	1610	1727	0	0	1810	1900	0
Q Serve(g_s), s	3.4	11.5	11.5	0.4	9.6	3.2	0.8	0.0	0.0	48.2	0.0	0.0
Cycle Q Clear(g_c), s	3.4	11.5	11.5	0.4	9.6	3.2	0.8	0.0	0.0	48.2	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.50		0.42	1.00		0.00
Lane Grp Cap(c), veh/h	417	624	653	14	425	892	24	0	0	1579	829	0
V/C Ratio(X)	0.17	0.40	0.40	0.44	0.77	0.11	0.50	0.00	0.00	1.04	0.00	0.00
Avail Cap(c_a), veh/h	417	624	653	113	1297	1281	78	0	0	1579	829	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	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.0	27.4	27.4	54.6	47.3	11.7	54.1	0.0	0.0	31.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.9	1.8	20.2	1.1	0.0	5.8	0.0	0.0	32.8	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	1.5	5.1	5.3	0.2	4.3	2.5	0.4	0.0	0.0	26.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	29.3	29.2	74.8	48.4	11.7	59.9	0.0	0.0	63.9	0.0	0.0
LnGrp LOS	C	C	C	E	D	B	E	A	A	F	A	A
Approach Vol, veh/h		576			429			12			1637	
Approach Delay, s/veh		29.8			40.4			59.9			63.9	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	43.9		54.0	31.1	18.7		6.6				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	6.9	38.2		48.2	5.4	* 40		5.0				
Max Q Clear Time (g_c+I1), s	2.4	13.5		50.2	5.4	11.6		2.8				
Green Ext Time (p_c), s	0.0	1.6		0.0	0.0	1.4		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	52.7	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 6.2:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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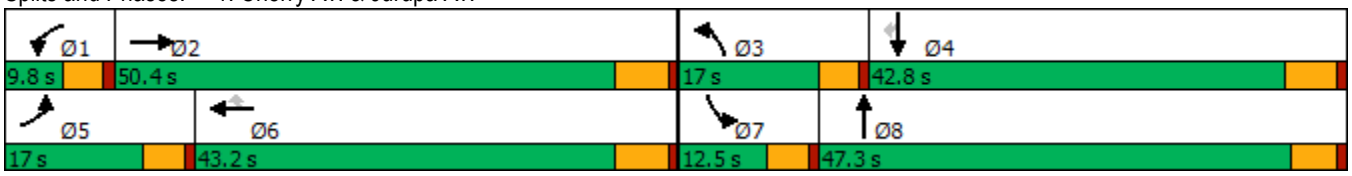
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	255	775	46	843	136	271	480	89	296	282
Future Volume (vph)	255	775	46	843	136	271	480	89	296	282
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	17.0	50.4	9.8	43.2	43.2	17.0	47.3	12.5	42.8	42.8
Total Split (%)	14.2%	42.0%	8.2%	36.0%	36.0%	14.2%	39.4%	10.4%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 101.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	775	151	46	843	136	271	480	57	89	296	282
Future Volume (veh/h)	255	775	151	46	843	136	271	480	57	89	296	282
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.97	1.00		0.86
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	311	945	97	56	1028	96	330	585	53	109	361	201
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	366	1801	184	126	1115	471	372	1752	157	163	1096	423
Arrive On Green	0.10	0.38	0.38	0.04	0.31	0.31	0.11	0.36	0.36	0.05	0.30	0.30
Sat Flow, veh/h	3510	4773	488	3510	3610	1526	3510	4829	433	3510	3610	1392
Grp Volume(v), veh/h	311	684	358	56	1028	96	330	417	221	109	361	201
Grp Sat Flow(s),veh/h/ln	1755	1729	1803	1755	1805	1526	1755	1729	1804	1755	1805	1392
Q Serve(g_s), s	10.2	18.0	18.1	1.8	32.2	5.4	10.9	10.2	10.4	3.6	9.1	13.8
Cycle Q Clear(g_c), s	10.2	18.0	18.1	1.8	32.2	5.4	10.9	10.2	10.4	3.6	9.1	13.8
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	366	1305	680	126	1115	471	372	1255	654	163	1096	423
V/C Ratio(X)	0.85	0.52	0.53	0.45	0.92	0.20	0.89	0.33	0.34	0.67	0.33	0.48
Avail Cap(c_a), veh/h	372	1317	687	156	1153	487	372	1255	654	237	1140	440
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.6	28.3	28.3	55.3	39.1	29.9	51.7	27.0	27.1	55.0	31.6	33.2
Incr Delay (d2), s/veh	15.8	0.4	0.7	0.9	11.9	0.2	21.4	0.2	0.3	1.8	0.2	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	5.2	7.2	7.6	0.8	15.4	2.0	5.8	4.2	4.5	1.6	3.9	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.3	28.7	29.1	56.3	51.0	30.1	73.1	27.2	27.4	56.7	31.7	34.0
LnGrp LOS	E	C	C	E	D	C	E	C	C	E	C	C
Approach Vol, veh/h		1353			1180			968			671	
Approach Delay, s/veh		37.7			49.5			42.9			36.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	50.0	17.0	41.3	16.8	42.0	10.0	48.3
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.2	44.6	12.4	37.0	12.4	37.4	7.9	* 42
Max Q Clear Time (g_c+I1), s	3.8	20.1	12.9	15.8	12.2	34.2	5.6	12.4
Green Ext Time (p_c), s	0.0	6.8	0.0	2.9	0.0	1.9	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	42.0
HCM 6th LOS	D

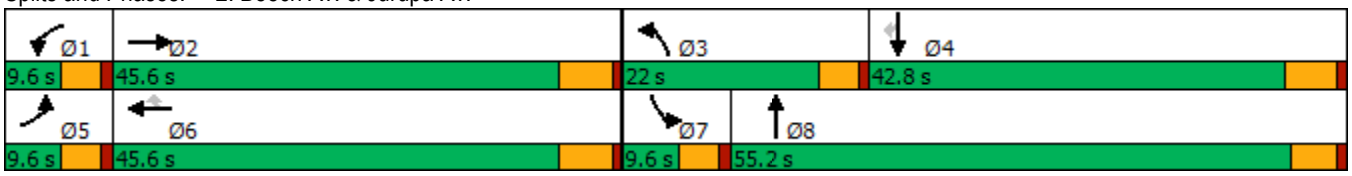
Notes

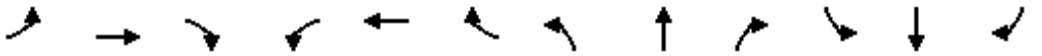
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	101	699	4	644	53	232	90	14	3	51
Future Volume (vph)	101	699	4	644	53	232	90	14	3	51
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	9.6	45.6	9.6	45.6	45.6	22.0	55.2	9.6	42.8	42.8
Total Split (%)	8.0%	38.0%	8.0%	38.0%	38.0%	18.3%	46.0%	8.0%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 75.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	699	32	4	644	53	232	90	13	14	3	51
Future Volume (veh/h)	101	699	32	4	644	53	232	90	13	14	3	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	104	721	29	4	664	30	239	93	7	14	3	29
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	244	1534	61	19	1222	379	293	1099	82	31	643	286
Arrive On Green	0.07	0.30	0.30	0.01	0.24	0.24	0.16	0.32	0.32	0.02	0.18	0.18
Sat Flow, veh/h	3510	5115	205	3510	5187	1610	1810	3405	254	1810	3610	1607
Grp Volume(v), veh/h	104	487	263	4	664	30	239	49	51	14	3	29
Grp Sat Flow(s),veh/h/ln	1755	1729	1862	1755	1729	1610	1810	1805	1854	1810	1805	1607
Q Serve(g_s), s	1.7	6.7	6.8	0.1	6.6	0.9	7.5	1.1	1.1	0.4	0.0	0.9
Cycle Q Clear(g_c), s	1.7	6.7	6.8	0.1	6.6	0.9	7.5	1.1	1.1	0.4	0.0	0.9
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	244	1037	558	19	1222	379	293	582	598	31	643	286
V/C Ratio(X)	0.43	0.47	0.47	0.21	0.54	0.08	0.82	0.08	0.09	0.44	0.00	0.10
Avail Cap(c_a), veh/h	299	2347	1264	299	3521	1093	537	1542	1584	154	2278	1014
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.2	16.7	16.7	29.0	19.6	17.5	23.7	13.8	13.8	28.5	19.8	20.2
Incr Delay (d2), s/veh	0.4	0.3	0.6	2.0	0.4	0.1	2.1	0.1	0.1	3.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.3	2.5	0.0	2.3	0.3	3.1	0.4	0.4	0.2	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	17.1	17.4	31.1	20.0	17.5	25.9	13.9	13.9	32.2	19.8	20.3
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	C
Approach Vol, veh/h		854			698			339			46	
Approach Delay, s/veh		18.3			20.0			22.3			23.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.9	23.4	14.1	16.2	8.7	19.6	5.6	24.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	39.8	17.4	37.0	5.0	39.8	5.0	* 50
Max Q Clear Time (g_c+I1), s	2.1	8.8	9.5	2.9	3.7	8.6	2.4	3.1
Green Ext Time (p_c), s	0.0	4.8	0.2	0.1	0.0	4.6	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

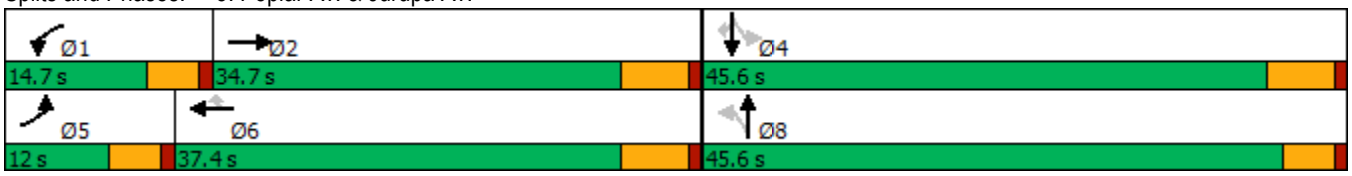
Notes

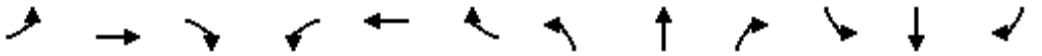
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	66	754	83	746	38	124	82	19	34	42
Future Volume (vph)	66	754	83	746	38	124	82	19	34	42
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	12.0	34.7	14.7	37.4	37.4	45.6	45.6	45.6	45.6	45.6
Total Split (%)	12.6%	36.5%	15.5%	39.4%	39.4%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 54.8
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	754	43	83	746	38	124	82	153	19	34	42
Future Volume (veh/h)	66	754	43	83	746	38	124	82	153	19	34	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	811	38	89	802	30	133	88	81	20	37	25
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	121	1523	71	139	1608	499	477	450	374	416	457	387
Arrive On Green	0.07	0.30	0.30	0.08	0.31	0.31	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	5072	237	1810	5187	1610	1360	1871	1555	1236	1900	1608
Grp Volume(v), veh/h	71	552	297	89	802	30	133	85	84	20	37	25
Grp Sat Flow(s),veh/h/ln	1810	1729	1851	1810	1729	1610	1360	1805	1620	1236	1900	1608
Q Serve(g_s), s	1.6	5.6	5.7	2.0	5.3	0.6	3.6	1.6	1.8	0.6	0.6	0.5
Cycle Q Clear(g_c), s	1.6	5.6	5.7	2.0	5.3	0.6	4.2	1.6	1.8	2.3	0.6	0.5
Prop In Lane	1.00		0.13	1.00		1.00	1.00		0.96	1.00		1.00
Lane Grp Cap(c), veh/h	121	1038	556	139	1608	499	477	434	390	416	457	387
V/C Ratio(X)	0.59	0.53	0.53	0.64	0.50	0.06	0.28	0.19	0.22	0.05	0.08	0.06
Avail Cap(c_a), veh/h	316	2360	1264	432	3871	1202	1466	1748	1569	1280	1786	1512
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	12.3	12.3	19.0	11.9	10.3	14.1	12.8	12.9	13.8	12.5	12.4
Incr Delay (d2), s/veh	1.7	0.4	0.8	1.8	0.2	0.0	0.3	0.2	0.3	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.6	1.8	0.8	1.5	0.1	0.9	0.5	0.5	0.1	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	12.8	13.1	20.8	12.2	10.3	14.4	13.0	13.2	13.9	12.5	12.5
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		920			921			302			82	
Approach Delay, s/veh		13.5			12.9			13.7			12.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	18.5		16.0	7.4	18.9		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	10.1	28.9		39.8	7.4	31.6		* 41				
Max Q Clear Time (g_c+I1), s	4.0	7.7		4.3	3.6	7.3		6.2				
Green Ext Time (p_c), s	0.0	5.1		0.3	0.0	5.4		1.3				

Intersection Summary		
HCM 6th Ctrl Delay		13.3
HCM 6th LOS		B

Notes

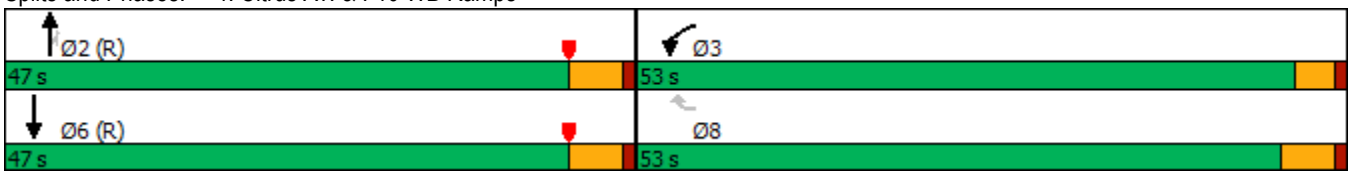
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

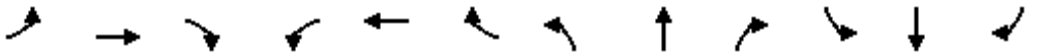
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	766	504	860	477	1295	565
Future Volume (vph)	766	504	860	477	1295	565
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	53.0	53.0	47.0	47.0	47.0	
Total Split (%)	53.0%	53.0%	47.0%	47.0%	47.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	766	0	504	0	860	477	0	1295	565
Future Volume (veh/h)	0	0	0	766	0	504	0	860	477	0	1295	565
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				815	0	330	0	915	497	0	1378	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				845	0	1323	0	2299	697	0	1600	
Arrive On Green				0.47	0.00	0.47	0.00	0.89	0.89	0.00	0.44	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1571	0	3705	1610
Grp Volume(v), veh/h				815	0	330	0	915	497	0	1378	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1571	0	1805	1610
Q Serve(g_s), s				43.7	0.0	7.0	0.0	3.1	9.8	0.0	34.4	0.0
Cycle Q Clear(g_c), s				43.7	0.0	7.0	0.0	3.1	9.8	0.0	34.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				845	0	1323	0	2299	697	0	1600	
V/C Ratio(X)				0.97	0.00	0.25	0.00	0.40	0.71	0.00	0.86	
Avail Cap(c_a), veh/h				887	0	1389	0	2299	697	0	1600	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.23	0.23	0.00	1.00	0.00
Uniform Delay (d), s/veh				25.9	0.0	16.1	0.0	3.3	3.7	0.0	25.1	0.0
Incr Delay (d2), s/veh				21.3	0.0	0.0	0.0	0.1	1.5	0.0	6.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				21.7	0.0	2.1	0.0	0.8	1.6	0.0	14.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.2	0.0	16.1	0.0	3.5	5.2	0.0	31.4	0.0
LnGrp LOS				D	A	B	A	A	A	A	C	
Approach Vol, veh/h					1145			1412			1378	A
Approach Delay, s/veh					38.2			4.1			31.4	
Approach LOS					D			A			C	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	49.3		49.3		50.7			
Change Period (Y+Rc), s	5.0		5.0		4.0			
Max Green Setting (Gmax), s	42.0		42.0		49.0			
Max Q Clear Time (g_c+I1), s	11.8		36.4		45.7			
Green Ext Time (p_c), s	5.2		3.1		1.0			

Intersection Summary		
HCM 6th Ctrl Delay	23.6	
HCM 6th LOS	C	

Notes

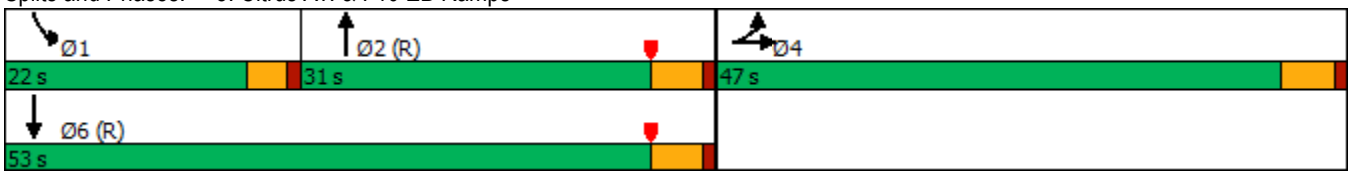
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

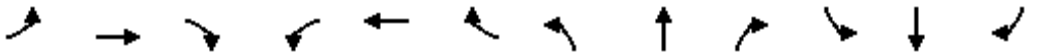
Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	369	4	969	681	1416
Future Volume (vph)	369	4	969	681	1416
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	47.0	47.0	31.0	22.0	53.0
Total Split (%)	47.0%	47.0%	31.0%	22.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 100
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	4	807	0	0	0	0	969	426	681	1416	0
Future Volume (veh/h)	369	4	807	0	0	0	0	969	426	681	1416	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	401	4	778				0	1053	340	740	1539	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	1474	3	673				0	1005	324	632	1733	0
Arrive On Green	0.42	0.42	0.42				0.00	0.26	0.26	0.36	0.96	0.00
Sat Flow, veh/h	3510	8	1603				0	4035	1247	3510	3705	0
Grp Volume(v), veh/h	401	0	782				0	942	451	740	1539	0
Grp Sat Flow(s),veh/h/ln	1755	0	1611				0	1729	1653	1755	1805	0
Q Serve(g_s), s	7.5	0.0	42.0				0.0	26.0	26.0	18.0	11.6	0.0
Cycle Q Clear(g_c), s	7.5	0.0	42.0				0.0	26.0	26.0	18.0	11.6	0.0
Prop In Lane	1.00		0.99				0.00		0.75	1.00		0.00
Lane Grp Cap(c), veh/h	1474	0	677				0	899	430	632	1733	0
V/C Ratio(X)	0.27	0.00	1.16				0.00	1.05	1.05	1.17	0.89	0.00
Avail Cap(c_a), veh/h	1474	0	677				0	899	430	632	1733	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.67	0.67	0.30	0.30	0.00
Uniform Delay (d), s/veh	19.0	0.0	29.0				0.0	37.0	37.0	32.0	1.3	0.0
Incr Delay (d2), s/veh	0.0	0.0	86.0				0.0	38.2	48.9	82.5	2.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	30.8				0.0	15.1	15.7	12.8	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.0	0.0	115.0				0.0	75.2	85.9	114.5	3.6	0.0
LnGrp LOS	B	A	F				A	F	F	F	A	A
Approach Vol, veh/h		1183						1393			2279	
Approach Delay, s/veh		82.5						78.7			39.6	
Approach LOS		F						E			D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.0	31.0		47.0		53.0
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	18.0	26.0		42.0		48.0
Max Q Clear Time (g_c+I1), s	20.0	28.0		44.0		13.6
Green Ext Time (p_c), s	0.0	0.0		0.0		8.8

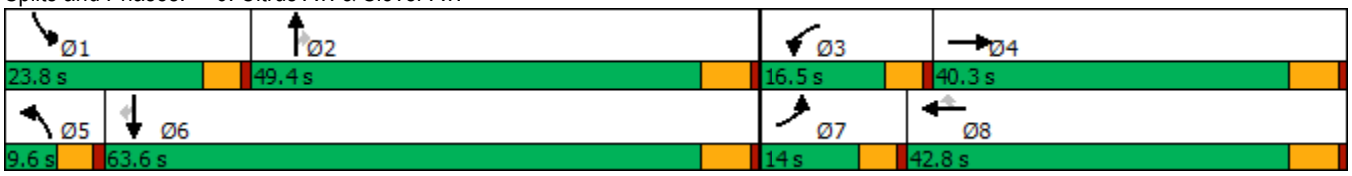
Intersection Summary		
HCM 6th Ctrl Delay		61.3
HCM 6th LOS		E

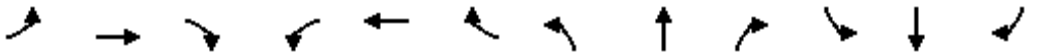
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	318	210	103	498	209	54	818	52	217	1092	816
Future Volume (vph)	318	210	103	498	209	54	818	52	217	1092	816
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	14.0	40.3	16.5	42.8	42.8	9.6	49.4	49.4	23.8	63.6	63.6
Total Split (%)	10.8%	31.0%	12.7%	32.9%	32.9%	7.4%	38.0%	38.0%	18.3%	48.9%	48.9%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 119
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	210	63	103	498	209	54	818	52	217	1092	816
Future Volume (veh/h)	318	210	63	103	498	209	54	818	52	217	1092	816
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		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	366	241	66	118	572	186	62	940	29	249	1255	805
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	279	600	161	144	771	341	77	1964	598	276	929	777
Arrive On Green	0.08	0.21	0.21	0.08	0.21	0.21	0.04	0.38	0.38	0.15	0.49	0.49
Sat Flow, veh/h	3510	2812	753	1810	3610	1597	1810	5187	1580	1810	1900	1590
Grp Volume(v), veh/h	366	153	154	118	572	186	62	940	29	249	1255	805
Grp Sat Flow(s),veh/h/ln	1755	1805	1761	1810	1805	1597	1810	1729	1580	1810	1900	1590
Q Serve(g_s), s	9.4	8.6	8.9	7.6	17.5	12.3	4.0	16.3	1.4	16.0	57.8	57.8
Cycle Q Clear(g_c), s	9.4	8.6	8.9	7.6	17.5	12.3	4.0	16.3	1.4	16.0	57.8	57.8
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	279	385	376	144	771	341	77	1964	598	276	929	777
V/C Ratio(X)	1.31	0.40	0.41	0.82	0.74	0.55	0.81	0.48	0.05	0.90	1.35	1.04
Avail Cap(c_a), veh/h	279	527	514	182	1130	500	77	1964	598	294	929	777
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	54.4	40.0	40.1	53.6	43.5	41.4	56.2	27.9	23.3	49.2	30.2	30.2
Incr Delay (d2), s/veh	163.5	0.7	0.7	16.5	1.5	1.4	43.4	0.2	0.0	26.9	165.3	41.9
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	10.4	3.8	3.8	4.0	7.7	4.8	2.7	6.5	0.5	9.1	66.7	29.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	217.9	40.6	40.8	70.1	45.0	42.8	99.6	28.1	23.3	76.1	195.5	72.1
LnGrp LOS	F	D	D	E	D	D	F	C	C	E	F	F
Approach Vol, veh/h		673			876			1031			2309	
Approach Delay, s/veh		137.1			47.9			32.2			139.6	
Approach LOS		F			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.6	50.6	14.0	31.0	9.6	63.6	14.0	31.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	19.2	43.6	11.9	34.5	5.0	57.8	9.4	37.0
Max Q Clear Time (g_c+I1), s	18.0	18.3	9.6	10.9	6.0	59.8	11.4	19.5
Green Ext Time (p_c), s	0.0	6.6	0.0	1.6	0.0	0.0	0.0	3.8

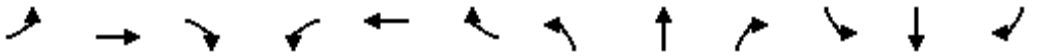
Intersection Summary	
HCM 6th Ctrl Delay	100.2
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	75	83	81	57	153	41	592	302	565
Future Volume (vph)	75	83	81	57	153	41	592	302	565
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	12.6	33.6	33.6	11.4	32.4	13.6	43.0	32.0	61.4
Total Split (%)	10.5%	28.0%	28.0%	9.5%	27.0%	11.3%	35.8%	26.7%	51.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 107
Natural Cycle: 110
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	83	81	57	153	158	41	592	206	302	565	116
Future Volume (veh/h)	75	83	81	57	153	158	41	592	206	302	565	116
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	101	112	100	77	207	157	55	800	263	408	764	141
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	128	302	256	99	285	205	71	911	299	440	1658	306
Arrive On Green	0.07	0.16	0.16	0.05	0.14	0.14	0.04	0.34	0.34	0.24	0.54	0.54
Sat Flow, veh/h	1810	1900	1610	1810	1992	1432	1810	2670	877	1810	3043	561
Grp Volume(v), veh/h	101	112	100	77	186	178	55	541	522	408	453	452
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1619	1810	1805	1742	1810	1805	1799
Q Serve(g_s), s	5.4	5.2	5.5	4.2	9.8	10.4	3.0	27.9	27.9	21.8	15.1	15.1
Cycle Q Clear(g_c), s	5.4	5.2	5.5	4.2	9.8	10.4	3.0	27.9	27.9	21.8	15.1	15.1
Prop In Lane	1.00		1.00	1.00		0.88	1.00		0.50	1.00		0.31
Lane Grp Cap(c), veh/h	128	302	256	99	258	232	71	616	594	440	984	980
V/C Ratio(X)	0.79	0.37	0.39	0.78	0.72	0.77	0.77	0.88	0.88	0.93	0.46	0.46
Avail Cap(c_a), veh/h	146	541	459	124	492	442	164	685	662	501	1021	1017
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	37.2	37.3	46.2	40.5	40.8	47.1	30.7	30.7	36.6	13.7	13.7
Incr Delay (d2), s/veh	19.2	0.8	1.0	16.3	3.8	5.2	6.5	11.6	12.0	21.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	2.4	2.2	2.3	4.5	4.4	1.4	13.4	13.0	11.8	5.6	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.5	38.0	38.3	62.5	44.3	46.1	53.6	42.3	42.7	57.6	14.0	14.0
LnGrp LOS	E	D	D	E	D	D	D	D	D	E	B	B
Approach Vol, veh/h		313			441			1118			1313	
Approach Delay, s/veh		46.6			48.2			43.0			27.6	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.7	39.2	10.0	21.1	8.5	59.4	11.6	19.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	27.4	37.6	6.8	28.2	9.0	56.0	8.0	27.0
Max Q Clear Time (g_c+I1), s	23.8	29.9	6.2	7.5	5.0	17.1	7.4	12.4
Green Ext Time (p_c), s	0.3	3.9	0.0	0.8	0.0	6.3	0.0	1.7

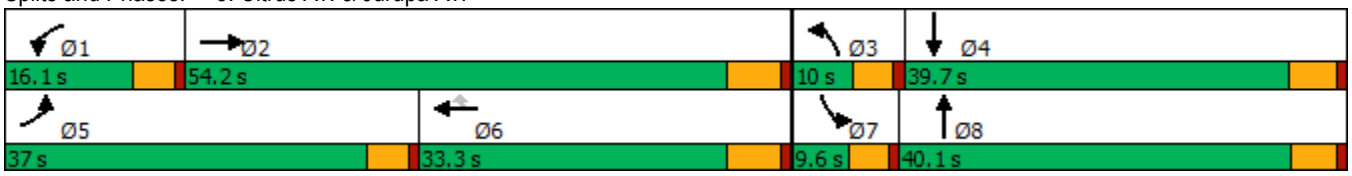
Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

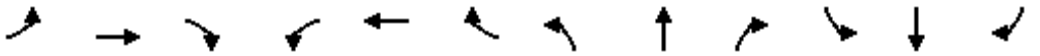
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	504	476	70	634	127	61	303	111	118
Future Volume (vph)	504	476	70	634	127	61	303	111	118
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	37.0	54.2	16.1	33.3	33.3	10.0	40.1	9.6	39.7
Total Split (%)	30.8%	45.2%	13.4%	27.8%	27.8%	8.3%	33.4%	8.0%	33.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 97.1
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	504	476	14	70	634	127	61	303	116	111	118	191
Future Volume (veh/h)	504	476	14	70	634	127	61	303	116	111	118	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	548	517	13	76	689	99	66	329	101	121	128	148
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	586	2446	61	99	1042	323	85	470	142	108	333	297
Arrive On Green	0.32	0.47	0.47	0.05	0.20	0.20	0.05	0.17	0.17	0.06	0.18	0.18
Sat Flow, veh/h	1810	5202	130	1810	5187	1605	1810	2730	825	1810	1805	1610
Grp Volume(v), veh/h	548	343	187	76	689	99	66	216	214	121	128	148
Grp Sat Flow(s),veh/h/ln	1810	1729	1874	1810	1729	1605	1810	1805	1750	1810	1805	1610
Q Serve(g_s), s	24.6	4.9	4.9	3.5	10.3	4.4	3.0	9.4	9.7	5.0	5.2	6.9
Cycle Q Clear(g_c), s	24.6	4.9	4.9	3.5	10.3	4.4	3.0	9.4	9.7	5.0	5.2	6.9
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	586	1626	881	99	1042	323	85	311	301	108	333	297
V/C Ratio(X)	0.94	0.21	0.21	0.77	0.66	0.31	0.78	0.69	0.71	1.12	0.38	0.50
Avail Cap(c_a), veh/h	700	1998	1083	248	1703	527	117	754	731	108	739	659
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	13.1	13.1	39.1	30.8	28.5	39.5	32.6	32.7	39.4	30.0	30.7
Incr Delay (d2), s/veh	16.9	0.1	0.1	4.7	0.7	0.5	13.0	2.8	3.1	122.7	0.7	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.3	1.7	1.9	1.6	4.1	1.7	1.6	4.2	4.2	5.8	2.2	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	13.1	13.2	43.8	31.6	29.0	52.5	35.4	35.8	162.1	30.7	32.0
LnGrp LOS	D	B	B	D	C	C	D	D	D	F	C	C
Approach Vol, veh/h		1078			864			496			397	
Approach Delay, s/veh		29.0			32.4			37.9			71.2	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	45.2	8.5	20.9	31.7	22.6	9.6	19.8
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	11.5	48.4	5.4	34.3	32.4	27.5	5.0	* 35
Max Q Clear Time (g_c+I1), s	5.5	6.9	5.0	8.9	26.6	12.3	7.0	11.7
Green Ext Time (p_c), s	0.0	3.3	0.0	1.5	0.5	4.1	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	37.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	712	778	74	0	61
Future Vol, veh/h	0	712	778	74	0	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	757	828	79	0	65

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	454
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	477
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	477
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	477
HCM Lane V/C Ratio	-	-	-	0.136
HCM Control Delay (s)	-	-	-	13.7
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	262	4	18	350
Future Vol, veh/h	1	2	262	4	18	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	2	285	4	20	380

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	707	287	0	0	289	0
Stage 1	287	-	-	-	-	-
Stage 2	420	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	405	757	-	-	1284	-
Stage 1	766	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	399	757	-	-	1284	-
Mov Cap-2 Maneuver	502	-	-	-	-	-
Stage 1	766	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	647	1284	-
HCM Lane V/C Ratio	-	-	0.005	0.015	-
HCM Control Delay (s)	-	-	10.6	7.8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	2	260	26	6	187
Future Vol, veh/h	8	2	260	26	6	187
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	2	283	28	7	203

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	514	297	0	0	311	0
Stage 1	297	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	524	747	-	-	1261	-
Stage 1	758	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	521	747	-	-	1261	-
Mov Cap-2 Maneuver	596	-	-	-	-	-
Stage 1	758	-	-	-	-	-
Stage 2	819	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	621	1261	-
HCM Lane V/C Ratio	-	-	0.018	0.005	-
HCM Control Delay (s)	-	-	10.9	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	2	285	28	6	194
Future Vol, veh/h	8	2	285	28	6	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	2	310	30	7	211

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	550	325	0	0	340	0
Stage 1	325	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	500	721	-	-	1230	-
Stage 1	737	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	497	721	-	-	1230	-
Mov Cap-2 Maneuver	578	-	-	-	-	-
Stage 1	737	-	-	-	-	-
Stage 2	812	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	602	1230	-
HCM Lane V/C Ratio	-	-	0.018	0.005	-
HCM Control Delay (s)	-	-	11.1	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	312	8	3	200
Future Vol, veh/h	2	1	312	8	3	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	1	339	9	3	217

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	567	344	0	0	348	0
Stage 1	344	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	488	703	-	-	1222	-
Stage 1	722	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	487	703	-	-	1222	-
Mov Cap-2 Maneuver	570	-	-	-	-	-
Stage 1	722	-	-	-	-	-
Stage 2	817	-	-	-	-	-

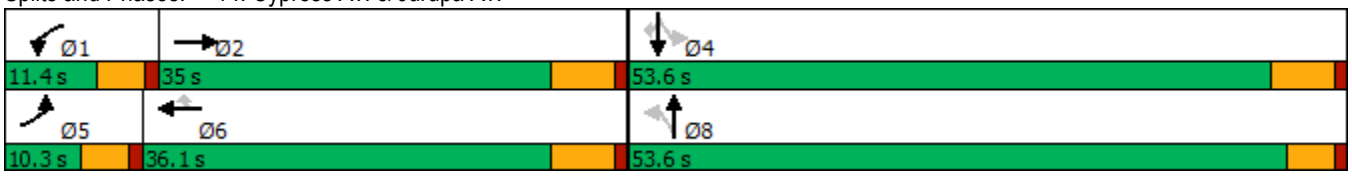
Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.1
HCM LOS	B		

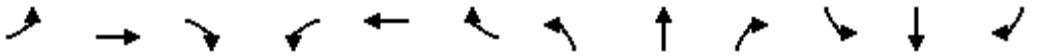
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	608	1222	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	11	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	159	553	50	731	70	29	80	55	32	87
Future Volume (vph)	159	553	50	731	70	29	80	55	32	87
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.3	35.0	11.4	36.1	36.1	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.3%	35.0%	11.4%	36.1%	36.1%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	6.3	23.3	6.4	15.7	15.7	16.7	16.7	15.3	15.3	15.3
Actuated g/C Ratio	0.11	0.42	0.12	0.28	0.28	0.30	0.30	0.28	0.28	0.28
v/c Ratio	0.80	0.27	0.25	0.51	0.14	0.07	0.36	0.19	0.06	0.18
Control Delay	58.3	14.4	32.3	18.9	5.5	14.0	9.1	16.4	14.5	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	14.4	32.3	18.9	5.5	14.0	9.1	16.4	14.5	4.7
LOS	E	B	C	B	A	B	A	B	B	A
Approach Delay		24.0		18.6			9.7		10.2	
Approach LOS		C		B			A		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 55.4	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 61.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	553	15	50	731	70	29	80	130	55	32	87
Future Volume (veh/h)	159	553	15	50	731	70	29	80	130	55	32	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	164	570	15	52	754	59	30	82	83	57	33	55
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	209	1792	47	97	1467	455	456	202	204	353	443	375
Arrive On Green	0.12	0.34	0.34	0.05	0.28	0.28	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	5197	136	1810	5187	1610	1330	865	876	1239	1900	1610
Grp Volume(v), veh/h	164	379	206	52	754	59	30	0	165	57	33	55
Grp Sat Flow(s),veh/h/ln	1810	1729	1875	1810	1729	1610	1330	0	1741	1239	1900	1610
Q Serve(g_s), s	3.9	3.5	3.6	1.2	5.4	1.2	0.8	0.0	3.5	1.8	0.6	1.2
Cycle Q Clear(g_c), s	3.9	3.5	3.6	1.2	5.4	1.2	1.4	0.0	3.5	5.3	0.6	1.2
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.50	1.00		1.00
Lane Grp Cap(c), veh/h	209	1193	647	97	1467	455	456	0	406	353	443	375
V/C Ratio(X)	0.78	0.32	0.32	0.54	0.51	0.13	0.07	0.00	0.41	0.16	0.07	0.15
Avail Cap(c_a), veh/h	235	2298	1246	280	3576	1110	1629	0	1941	1412	2067	1751
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	1.00	1.00
Uniform Delay (d), s/veh	18.9	10.6	10.6	20.3	13.2	11.7	13.7	0.0	14.3	16.5	13.2	13.4
Incr Delay (d2), s/veh	12.4	0.2	0.3	1.7	0.3	0.1	0.1	0.0	0.7	0.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	1.0	1.1	0.5	1.6	0.3	0.2	0.0	1.3	0.4	0.2	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	10.7	10.9	22.0	13.5	11.9	13.8	0.0	14.9	16.7	13.2	13.6
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		749			865			195			145	
Approach Delay, s/veh		15.3			13.9			14.8			14.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	21.0		16.0	9.7	18.2		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	6.8	29.2		47.8	5.7	30.3		* 49				
Max Q Clear Time (g_c+I1), s	3.2	5.6		7.3	5.9	7.4		5.5				
Green Ext Time (p_c), s	0.0	3.4		0.5	0.0	5.1		1.2				

Intersection Summary		
HCM 6th Ctrl Delay		14.6
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	235	24	54	478	15	24	30	29	38	48	15
Future Vol, veh/h	6	235	24	54	478	15	24	30	29	38	48	15
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	322	33	74	655	21	33	41	40	52	66	21
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	19.8	18.7	11.4	12.7
HCM LOS	C	C	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	44%	0%	2%	18%	0%	44%	0%
Vol Thru, %	56%	0%	89%	82%	94%	56%	0%
Vol Right, %	0%	100%	9%	0%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	29	265	293	254	86	15
LT Vol	24	0	6	54	0	38	0
Through Vol	30	0	235	239	239	48	0
RT Vol	0	29	24	0	15	0	15
Lane Flow Rate	74	40	363	401	348	118	21
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.161	0.076	0.635	0.677	0.574	0.253	0.039
Departure Headway (Hd)	7.837	6.887	6.295	6.069	5.934	7.746	6.798
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	456	517	574	594	605	462	524
Service Time	5.623	4.671	4.355	3.83	3.694	5.528	4.58
HCM Lane V/C Ratio	0.162	0.077	0.632	0.675	0.575	0.255	0.04
HCM Control Delay	12.1	10.2	19.8	20.7	16.5	13.2	9.9
HCM Lane LOS	B	B	C	C	C	B	A
HCM 95th-tile Q	0.6	0.2	4.5	5.2	3.6	1	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1	2	80	115	11
Future Vol, veh/h	3	1	2	80	115	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	1	2	87	125	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	222	131	137	0	-	0
Stage 1	131	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	771	924	1459	-	-	-
Stage 1	900	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	770	924	1459	-	-	-
Mov Cap-2 Maneuver	770	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	938	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1459	-	803	-	-
HCM Lane V/C Ratio	0.001	-	0.005	-	-
HCM Control Delay (s)	7.5	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	7	24	79	108	7
Future Vol, veh/h	2	7	24	79	108	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	8	26	86	117	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	259	121	125	0	-	0
Stage 1	121	-	-	-	-	-
Stage 2	138	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	734	936	1474	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	894	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	720	936	1474	-	-	-
Mov Cap-2 Maneuver	720	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	894	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	1.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1474	-	878	-	-
HCM Lane V/C Ratio	0.018	-	0.011	-	-
HCM Control Delay (s)	7.5	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	8	25	101	107	8
Future Vol, veh/h	3	8	25	101	107	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	9	27	110	116	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	285	121	125	0	-	0
Stage 1	121	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	710	936	1474	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	870	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	696	936	1474	-	-	-
Mov Cap-2 Maneuver	696	-	-	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	870	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1474	-	856	-	-
HCM Lane V/C Ratio	0.018	-	0.014	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	8	25	124	108	7
Future Vol, veh/h	2	8	25	124	108	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	9	27	135	117	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	310	121	125	0	-	0
Stage 1	121	-	-	-	-	-
Stage 2	189	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	687	936	1474	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	673	936	1474	-	-	-
Mov Cap-2 Maneuver	673	-	-	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	848	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1474	-	868	-	-
HCM Lane V/C Ratio	0.018	-	0.013	-	-
HCM Control Delay (s)	7.5	0	9.2	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	4	148	109	7
Future Vol, veh/h	2	1	4	148	109	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	1	4	161	118	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	291	122	126	0	-	0
Stage 1	122	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	704	935	1473	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	702	935	1473	-	-	-
Mov Cap-2 Maneuver	702	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	866	-	-	-	-	-

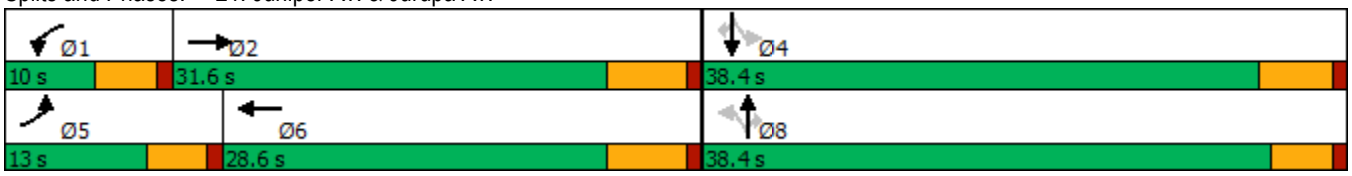
Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.2	0
HCM LOS	A		

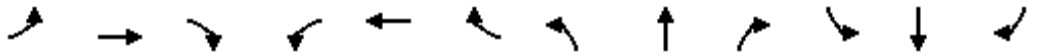
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1473	-	766	-	-
HCM Lane V/C Ratio	0.003	-	0.004	-	-
HCM Control Delay (s)	7.5	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	70	653	13	782	5	5	18	51	6	54
Future Volume (vph)	70	653	13	782	5	5	18	51	6	54
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.0	31.6	10.0	28.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	16.3%	39.5%	12.5%	35.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	6.9	21.1	5.7	16.1		14.8	14.8		13.9	13.9
Actuated g/C Ratio	0.14	0.43	0.12	0.33		0.30	0.30		0.29	0.29
v/c Ratio	0.28	0.30	0.07	0.53		0.02	0.03		0.14	0.10
Control Delay	27.7	10.9	28.5	16.0		14.5	0.1		16.1	1.3
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	27.7	10.9	28.5	16.0		14.5	0.1		16.1	1.3
LOS	C	B	C	B		B	A		B	A
Approach Delay		12.5		16.2		5.1			8.9	
Approach LOS		B		B		A			A	

Intersection Summary			
Cycle Length: 80			
Actuated Cycle Length: 48.7			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 46.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	653	3	13	782	77	5	5	18	51	6	54
Future Volume (veh/h)	70	653	3	13	782	77	5	5	18	51	6	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	73	680	2	14	815	77	5	5	8	53	6	24
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	124	1901	6	33	1472	138	289	247	391	477	46	391
Arrive On Green	0.07	0.36	0.36	0.02	0.31	0.31	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	5339	16	1810	4822	453	650	1018	1610	1282	188	1610
Grp Volume(v), veh/h	73	440	242	14	583	309	10	0	8	59	0	24
Grp Sat Flow(s),veh/h/ln	1810	1729	1897	1810	1729	1818	1669	0	1610	1470	0	1610
Q Serve(g_s), s	1.6	3.9	3.9	0.3	5.8	5.9	0.0	0.0	0.2	1.0	0.0	0.5
Cycle Q Clear(g_c), s	1.6	3.9	3.9	0.3	5.8	5.9	0.2	0.0	0.2	1.2	0.0	0.5
Prop In Lane	1.00		0.01	1.00		0.25	0.50		1.00	0.90		1.00
Lane Grp Cap(c), veh/h	124	1231	675	33	1055	555	536	0	391	523	0	391
V/C Ratio(X)	0.59	0.36	0.36	0.43	0.55	0.56	0.02	0.00	0.02	0.11	0.00	0.06
Avail Cap(c_a), veh/h	369	2165	1188	237	1913	1006	1468	0	1321	1338	0	1289
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.6	9.8	9.8	20.0	12.0	12.0	11.9	0.0	11.9	12.3	0.0	12.0
Incr Delay (d2), s/veh	1.6	0.2	0.3	3.3	0.5	0.9	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.0	1.1	0.1	1.6	1.8	0.1	0.0	0.1	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	10.0	10.1	23.3	12.4	12.9	11.9	0.0	11.9	12.4	0.0	12.1
LnGrp LOS	C	A	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		755			906			18			83	
Approach Delay, s/veh		11.0			12.7			11.9			12.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	20.5		15.4	7.4	18.4		15.4				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	8.4	22.8		* 34				
Max Q Clear Time (g_c+I1), s	2.3	5.9		3.2	3.6	7.9		2.2				
Green Ext Time (p_c), s	0.0	3.8		0.3	0.0	4.7		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		12.0	
HCM 6th LOS		B	

Notes

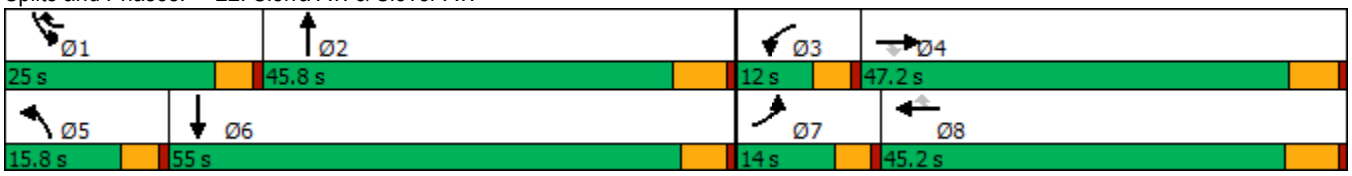
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	269	269	84	225	301	486	158	1087	641	1026
Future Volume (vph)	269	269	84	225	301	486	158	1087	641	1026
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	14.0	47.2	47.2	12.0	45.2	25.0	15.8	45.8	25.0	55.0
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.8%	19.2%	12.2%	35.2%	19.2%	42.3%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 99.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	269	84	225	301	486	158	1087	132	641	1026	276
Future Volume (veh/h)	269	269	84	225	301	486	158	1087	132	641	1026	276
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	289	289	46	242	324	249	170	1169	126	689	1103	244
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	360	625	279	285	549	1039	244	1766	189	757	1863	412
Arrive On Green	0.10	0.17	0.17	0.08	0.15	0.15	0.07	0.29	0.29	0.22	0.44	0.44
Sat Flow, veh/h	3510	3610	1610	3510	3610	2812	3510	6038	647	3510	4248	939
Grp Volume(v), veh/h	289	289	46	242	324	249	170	948	347	689	898	449
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1406	1755	1634	1783	1755	1729	1729
Q Serve(g_s), s	7.3	6.5	2.2	6.2	7.6	5.6	4.3	15.4	15.6	17.4	17.9	17.9
Cycle Q Clear(g_c), s	7.3	6.5	2.2	6.2	7.6	5.6	4.3	15.4	15.6	17.4	17.9	17.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.36	1.00		0.54
Lane Grp Cap(c), veh/h	360	625	279	285	549	1039	244	1434	521	757	1517	759
V/C Ratio(X)	0.80	0.46	0.16	0.85	0.59	0.24	0.70	0.66	0.67	0.91	0.59	0.59
Avail Cap(c_a), veh/h	363	1642	732	285	1547	1816	432	2133	776	787	1884	942
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.9	33.8	32.0	41.3	36.0	20.0	41.4	28.2	28.3	34.8	19.4	19.4
Incr Delay (d2), s/veh	11.4	0.5	0.3	19.7	1.0	0.1	1.3	0.5	1.5	13.8	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.8	0.8	3.3	3.2	1.7	1.8	5.7	6.4	8.4	6.5	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	34.4	32.3	60.9	37.0	20.1	42.7	28.8	29.8	48.6	19.7	20.1
LnGrp LOS	D	C	C	E	D	C	D	C	C	D	B	C
Approach Vol, veh/h		624			815			1465			2036	
Approach Delay, s/veh		42.1			38.9			30.6			29.6	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.2	32.8	12.0	22.0	10.9	46.1	13.9	20.0
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	20.4	39.6	7.4	* 41	11.2	* 50	9.4	39.0
Max Q Clear Time (g_c+I1), s	19.4	17.6	8.2	8.5	6.3	19.9	9.3	9.6
Green Ext Time (p_c), s	0.2	8.6	0.0	1.9	0.1	10.2	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

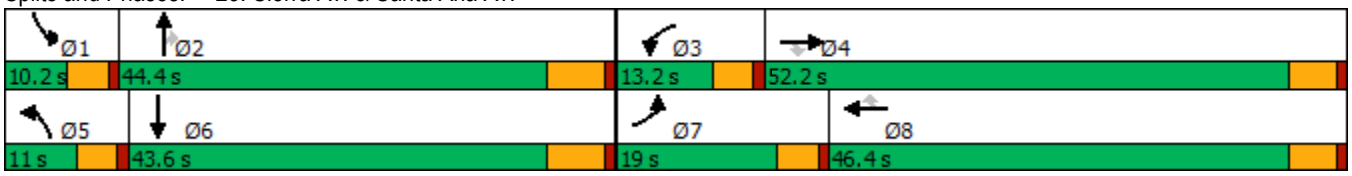
Notes

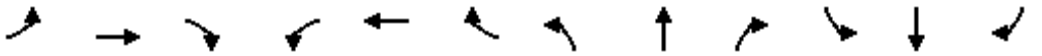
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	140	105	88	52	155	91	107	1285	58	94	803
Future Volume (vph)	140	105	88	52	155	91	107	1285	58	94	803
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	19.0	52.2	52.2	13.2	46.4	46.4	11.0	44.4	44.4	10.2	43.6
Total Split (%)	15.8%	43.5%	43.5%	11.0%	38.7%	38.7%	9.2%	37.0%	37.0%	8.5%	36.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 86.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	105	88	52	155	91	107	1285	58	94	803	323
Future Volume (veh/h)	140	105	88	52	155	91	107	1285	58	94	803	323
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	154	115	45	57	170	40	118	1412	61	103	882	336
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	194	729	325	86	514	229	225	2035	623	216	1443	548
Arrive On Green	0.11	0.20	0.20	0.05	0.14	0.14	0.06	0.39	0.39	0.06	0.39	0.39
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	3510	5187	1589	3510	3699	1404
Grp Volume(v), veh/h	154	115	45	57	170	40	118	1412	61	103	824	394
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1755	1729	1589	1755	1729	1646
Q Serve(g_s), s	5.8	1.8	1.6	2.2	3.0	1.5	2.3	16.0	1.7	2.0	13.4	13.5
Cycle Q Clear(g_c), s	5.8	1.8	1.6	2.2	3.0	1.5	2.3	16.0	1.7	2.0	13.4	13.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.85
Lane Grp Cap(c), veh/h	194	729	325	86	514	229	225	2035	623	216	1348	642
V/C Ratio(X)	0.79	0.16	0.14	0.66	0.33	0.17	0.52	0.69	0.10	0.48	0.61	0.61
Avail Cap(c_a), veh/h	371	2406	1073	222	2108	940	320	2822	864	280	1842	877
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.6	23.1	23.0	32.9	27.1	26.5	31.8	17.8	13.5	31.8	17.2	17.2
Incr Delay (d2), s/veh	2.8	0.1	0.2	3.2	0.4	0.4	0.7	0.4	0.1	0.6	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	2.5	0.7	0.6	1.0	1.2	0.6	0.9	5.3	0.6	0.8	4.5	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	23.2	23.2	36.0	27.5	26.8	32.5	18.2	13.5	32.4	17.6	18.1
LnGrp LOS	C	C	C	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		314			267			1591			1321	
Approach Delay, s/veh		28.2			29.2			19.1			18.9	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	33.7	8.0	19.6	9.1	33.6	12.1	15.4
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.6	38.2	8.6	46.8	6.4	37.4	14.4	41.0
Max Q Clear Time (g_c+I1), s	4.0	18.0	4.2	3.8	4.3	15.5	7.8	5.0
Green Ext Time (p_c), s	0.0	9.5	0.0	0.8	0.0	7.8	0.1	1.1

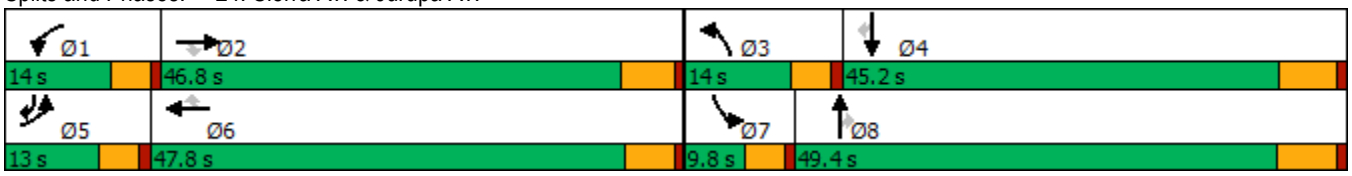
Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

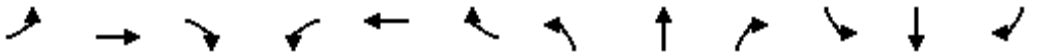
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	269	253	228	135	297	141	303	778	56	54	489	263
Future Volume (vph)	269	253	228	135	297	141	303	778	56	54	489	263
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	13.0	46.8	46.8	14.0	47.8	47.8	14.0	49.4	49.4	9.8	45.2	13.0
Total Split (%)	10.8%	39.0%	39.0%	11.7%	39.8%	39.8%	11.7%	41.2%	41.2%	8.2%	37.7%	10.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 76.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	269	253	228	135	297	141	303	778	56	54	489	263
Future Volume (veh/h)	269	253	228	135	297	141	303	778	56	54	489	263
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	277	261	114	139	306	92	312	802	30	56	504	159
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	386	739	330	262	612	272	423	1138	508	177	885	572
Arrive On Green	0.11	0.20	0.20	0.07	0.17	0.17	0.12	0.32	0.32	0.05	0.25	0.25
Sat Flow, veh/h	3510	3610	1610	3510	3610	1607	3510	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	277	261	114	139	306	92	312	802	30	56	504	159
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1607	1755	1805	1610	1755	1805	1610
Q Serve(g_s), s	4.6	3.8	3.7	2.3	4.7	3.1	5.2	11.8	0.8	0.9	7.4	4.3
Cycle Q Clear(g_c), s	4.6	3.8	3.7	2.3	4.7	3.1	5.2	11.8	0.8	0.9	7.4	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	739	330	262	612	272	423	1138	508	177	885	572
V/C Ratio(X)	0.72	0.35	0.35	0.53	0.50	0.34	0.74	0.70	0.06	0.32	0.57	0.28
Avail Cap(c_a), veh/h	487	2443	1090	545	2527	1125	545	2557	1140	301	2324	1214
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	20.6	20.6	27.0	22.8	22.2	25.7	18.3	14.5	27.8	20.1	14.0
Incr Delay (d2), s/veh	2.4	0.3	0.6	0.6	0.6	0.7	2.5	0.8	0.0	0.4	0.6	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	1.8	1.4	1.2	0.9	1.8	1.0	2.0	4.0	0.2	0.4	2.7	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	20.9	21.2	27.6	23.5	22.9	28.2	19.1	14.5	28.1	20.6	14.2
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	C	B
Approach Vol, veh/h		652			537			1144			719	
Approach Delay, s/veh		24.2			24.4			21.4			19.8	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	18.2	11.9	21.4	11.3	16.1	7.7	25.6
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	9.4	41.0	9.4	* 39	8.4	* 42	5.2	42.9
Max Q Clear Time (g_c+I1), s	4.3	5.8	7.2	9.4	6.6	6.7	2.9	13.8
Green Ext Time (p_c), s	0.1	1.9	0.1	3.6	0.1	2.2	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

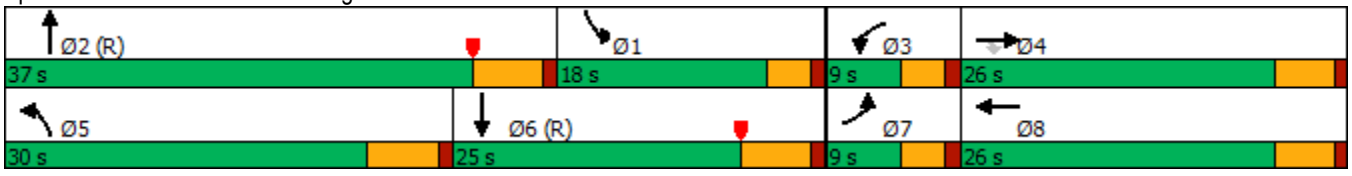
Notes

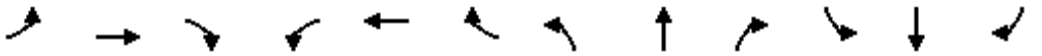
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	59	43	752	342	183	985	295	12	375
Future Volume (vph)	59	43	752	342	183	985	295	12	375
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0	26.0	9.0	26.0	30.0	37.0	18.0	25.0
Total Split (%)	10.0%	28.9%	28.9%	10.0%	28.9%	33.3%	41.1%	20.0%	27.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	18.7	18.7	5.0	20.5	26.6	48.0	10.8	19.3
Actuated g/C Ratio	0.06	0.21	0.21	0.06	0.23	0.30	0.53	0.12	0.21
v/c Ratio	0.63	0.06	0.96	3.68	0.32	1.02	0.40	0.06	1.13
Control Delay	70.0	27.3	30.5	1245.2	24.4	67.5	15.9	34.9	118.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.0	27.3	30.5	1245.2	24.4	67.5	15.9	34.9	118.8
LOS	E	C	C	F	C	E	B	C	F
Approach Delay		33.0			731.9		53.5		116.5
Approach LOS		C			F		D		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 14 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.68	
Intersection Signal Delay: 180.6	Intersection LOS: F
Intersection Capacity Utilization 100.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	43	752	342	183	65	985	295	70	12	375	50
Future Volume (veh/h)	59	43	752	342	183	65	985	295	70	12	375	50
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		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	46	0	368	197	57	1059	317	75	13	403	31
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	81	344		101	293	82	948	516	122	497	614	47
Arrive On Green	0.04	0.10	0.00	0.06	0.11	0.11	0.27	0.35	0.35	0.27	0.35	0.35
Sat Flow, veh/h	1810	3610	1610	1810	2767	776	3510	1485	351	1810	1742	134
Grp Volume(v), veh/h	63	46	0	368	126	128	1059	0	392	13	0	434
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1738	1755	0	1836	1810	0	1876
Q Serve(g_s), s	3.1	1.1	0.0	5.0	6.1	6.4	24.3	0.0	15.9	0.5	0.0	17.5
Cycle Q Clear(g_c), s	3.1	1.1	0.0	5.0	6.1	6.4	24.3	0.0	15.9	0.5	0.0	17.5
Prop In Lane	1.00		1.00	1.00		0.45	1.00		0.19	1.00		0.07
Lane Grp Cap(c), veh/h	81	344		101	191	184	948	0	639	497	0	661
V/C Ratio(X)	0.77	0.13		3.66	0.66	0.69	1.12	0.00	0.61	0.03	0.00	0.66
Avail Cap(c_a), veh/h	101	842		101	421	406	948	0	639	497	0	661
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	0.00	1.00	1.00	1.00	0.82	0.00	0.82	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	37.3	0.0	42.5	38.7	38.8	32.8	0.0	24.3	23.8	0.0	24.6
Incr Delay (d2), s/veh	19.9	0.2	0.0	1221.4	3.9	4.6	64.9	0.0	3.6	0.0	0.0	5.0
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	1.7	0.4	0.0	36.3	2.9	2.9	18.1	0.0	7.0	0.2	0.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.5	37.5	0.0	1263.9	42.5	43.4	97.7	0.0	27.9	23.9	0.0	29.6
LnGrp LOS	E	D		F	D	D	F	A	C	C	A	C
Approach Vol, veh/h		109	A		622			1451			447	
Approach Delay, s/veh		51.9			765.3			78.9			29.4	
Approach LOS		D			F			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.4	37.0	9.0	13.6	30.0	37.4	8.0	14.5
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	14.0	* 31	5.0	21.0	24.3	19.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	2.5	17.9	7.0	3.1	26.3	19.5	5.1	8.4
Green Ext Time (p_c), s	0.0	2.5	0.0	0.1	0.0	0.0	0.0	1.2

Intersection Summary	
HCM 6th Ctrl Delay	231.8
HCM 6th LOS	F

Notes

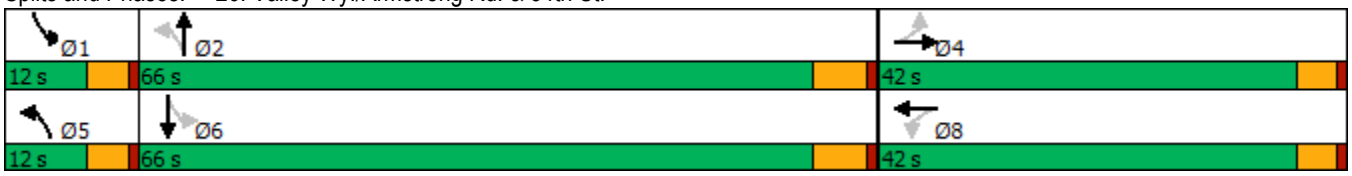
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

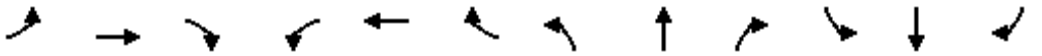
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	94	15	117	75	73	1323	7	1505
Future Volume (vph)	94	15	117	75	73	1323	7	1505
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	12.0	66.0	12.0	66.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	10.0%	55.0%	10.0%	55.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	20.1	20.1		20.1	70.8	68.3	66.5	61.4
Actuated g/C Ratio	0.20	0.20		0.20	0.70	0.68	0.66	0.61
v/c Ratio	0.46	0.18		0.75	0.43	0.62	0.03	0.83
Control Delay	42.4	14.3		53.6	17.2	12.0	6.4	22.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	14.3		53.6	17.2	12.0	6.4	22.0
LOS	D	B		D	B	B	A	C
Approach Delay		31.3		53.6		12.2		22.0
Approach LOS		C		D		B		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100.6	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 81.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	94	15	46	117	75	14	73	1323	60	7	1505	152
Future Volume (veh/h)	94	15	46	117	75	14	73	1323	60	7	1505	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	102	16	47	127	82	15	79	1438	65	8	1636	162
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	295	82	240	199	108	18	212	2262	102	231	2018	197
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.04	0.64	0.64	0.01	0.61	0.61
Sat Flow, veh/h	1319	420	1235	728	554	92	1810	3514	158	1810	3314	324
Grp Volume(v), veh/h	102	0	63	224	0	0	79	737	766	8	881	917
Grp Sat Flow(s),veh/h/ln	1319	0	1655	1374	0	0	1810	1805	1868	1810	1805	1833
Q Serve(g_s), s	0.0	0.0	3.2	12.8	0.0	0.0	1.5	24.3	24.5	0.2	36.8	38.8
Cycle Q Clear(g_c), s	8.1	0.0	3.2	16.0	0.0	0.0	1.5	24.3	24.5	0.2	36.8	38.8
Prop In Lane	1.00		0.75	0.57		0.07	1.00		0.08	1.00		0.18
Lane Grp Cap(c), veh/h	295	0	322	324	0	0	212	1162	1202	231	1099	1116
V/C Ratio(X)	0.35	0.00	0.20	0.69	0.00	0.00	0.37	0.63	0.64	0.03	0.80	0.82
Avail Cap(c_a), veh/h	537	0	626	606	0	0	266	1162	1202	349	1099	1116
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	0.0	33.3	39.3	0.0	0.0	17.2	10.6	10.6	9.5	14.8	15.1
Incr Delay (d2), s/veh	0.7	0.0	0.3	2.6	0.0	0.0	0.4	2.6	2.6	0.0	6.2	6.9
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	2.2	0.0	1.3	5.5	0.0	0.0	0.9	8.6	9.0	0.1	14.2	15.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.0	0.0	33.6	41.9	0.0	0.0	17.6	13.2	13.2	9.5	20.9	22.0
LnGrp LOS	D	A	C	D	A	A	B	B	B	A	C	C
Approach Vol, veh/h		165			224			1582			1806	
Approach Delay, s/veh		35.1			41.9			13.5			21.4	
Approach LOS		D			D			B			C	

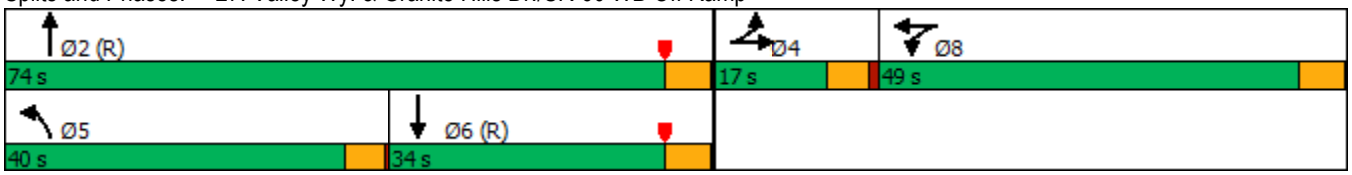
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	69.4		23.8	9.0	66.0		23.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	7.4	60.2		37.4	7.4	60.2		37.4				
Max Q Clear Time (g_c+I1), s	2.2	26.5		10.1	3.5	40.8		18.0				
Green Ext Time (p_c), s	0.0	12.6		0.7	0.0	12.4		1.3				

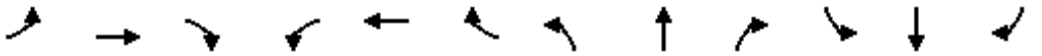
Intersection Summary												
HCM 6th Ctrl Delay			19.9									
HCM 6th LOS			B									

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	438	122	111	1207	1828
Future Volume (vph)	0	438	122	111	1207	1828
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	17.0	49.0	49.0	40.0	74.0	34.0
Total Split (%)	12.1%	35.0%	35.0%	28.6%	52.9%	24.3%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.6	43.7	43.7	14.2	68.7	49.9
Actuated g/C Ratio	0.08	0.31	0.31	0.10	0.49	0.36
v/c Ratio	1.99	0.80	1.24	0.62	0.70	1.52
Control Delay	499.4	56.4	159.7	73.7	30.3	269.0
Queue Delay	603.4	0.0	0.0	0.0	0.0	2.3
Total Delay	1102.7	56.4	159.7	73.7	30.3	271.3
LOS	F	E	F	E	C	F
Approach Delay	1102.7		119.6		33.9	271.3
Approach LOS	F		F		C	F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.99	
Intersection Signal Delay: 214.8	Intersection LOS: F
Intersection Capacity Utilization 133.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	0	193	438	122	568	111	1207	0	0	1828	54
Future Volume (veh/h)	77	0	193	438	122	568	111	1207	0	0	1828	54
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	79	0	199	452	126	476	114	1244	0	0	1885	56
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	39	0	99	565	109	411	141	1771	0	0	1360	40
Arrive On Green	0.08	0.00	0.08	0.31	0.31	0.31	0.03	0.16	0.00	0.00	0.38	0.38
Sat Flow, veh/h	472	0	1190	1810	348	1315	1810	3705	0	0	3673	106
Grp Volume(v), veh/h	278	0	0	452	0	602	114	1244	0	0	946	995
Grp Sat Flow(s),veh/h/ln	1662	0	0	1810	0	1663	1810	1805	0	0	1805	1879
Q Serve(g_s), s	11.6	0.0	0.0	32.1	0.0	43.7	8.8	45.6	0.0	0.0	53.2	53.2
Cycle Q Clear(g_c), s	11.6	0.0	0.0	32.1	0.0	43.7	8.8	45.6	0.0	0.0	53.2	53.2
Prop In Lane	0.28		0.72	1.00		0.79	1.00		0.00	0.00		0.06
Lane Grp Cap(c), veh/h	138	0	0	565	0	519	141	1771	0	0	686	714
V/C Ratio(X)	2.02	0.00	0.00	0.80	0.00	1.16	0.81	0.70	0.00	0.00	1.38	1.39
Avail Cap(c_a), veh/h	138	0	0	565	0	519	458	1771	0	0	686	714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.93	0.93	0.00	0.00	0.45	0.45
Uniform Delay (d), s/veh	64.2	0.0	0.0	44.1	0.0	48.2	67.2	49.0	0.0	0.0	43.4	43.4
Incr Delay (d2), s/veh	482.9	0.0	0.0	8.0	0.0	91.5	9.7	2.2	0.0	0.0	174.7	181.3
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	23.3	0.0	0.0	15.2	0.0	30.7	4.5	22.6	0.0	0.0	56.0	59.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	547.1	0.0	0.0	52.2	0.0	139.7	76.9	51.2	0.0	0.0	218.1	224.7
LnGrp LOS	F	A	A	D	A	F	E	D	A	A	F	F
Approach Vol, veh/h		278			1054			1358			1941	
Approach Delay, s/veh		547.1			102.2			53.3			221.5	
Approach LOS		F			F			D			F	

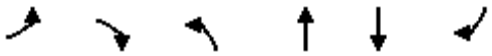
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		74.0		17.0	15.5	58.5		49.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		68.7		11.6	35.4	28.7		43.7				
Max Q Clear Time (g_c+I1), s		47.6		13.6	10.8	55.2		45.7				
Green Ext Time (p_c), s		5.7		0.0	0.3	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			164.6									
HCM 6th LOS			F									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	474	1318	1788
Future Volume (vph)	474	1318	1788
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	14.5	140.0	125.5
Total Split (%)	10.4%	100.0%	89.6%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	9.9	140.0	119.7
Actuated g/C Ratio	0.07	1.00	0.86
v/c Ratio	3.97	0.39	0.90
Control Delay	1369.9	0.3	25.7
Queue Delay	0.0	0.8	0.0
Total Delay	1369.9	1.1	25.7
LOS	F	A	C
Approach Delay		363.1	25.7
Approach LOS		F	C

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.97	
Intersection Signal Delay: 167.9	Intersection LOS: F
Intersection Capacity Utilization 106.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	474	1318	1788	671
Future Volume (veh/h)	0	0	474	1318	1788	671
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.97
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			504	1402	1902	714
Peak Hour Factor			0.94	0.94	0.94	0.94
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			128	3460	2225	776
Arrive On Green			0.07	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2698	908
Grp Volume(v), veh/h			504	1402	1274	1342
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1706
Q Serve(g_s), s			9.9	3.7	0.0	0.0
Cycle Q Clear(g_c), s			9.9	3.7	0.0	0.0
Prop In Lane			1.00			0.53
Lane Grp Cap(c), veh/h			128	3460	1543	1458
V/C Ratio(X)			3.94	0.41	0.83	0.92
Avail Cap(c_a), veh/h			128	3460	1543	1458
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh			65.1	0.2	0.0	0.0
Incr Delay (d2), s/veh			1324.1	0.0	0.5	1.2
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			51.5	0.0	0.2	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			1389.2	0.2	0.5	1.2
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				1906	2616	
Approach Delay, s/veh				367.5	0.9	
Approach LOS				F	A	

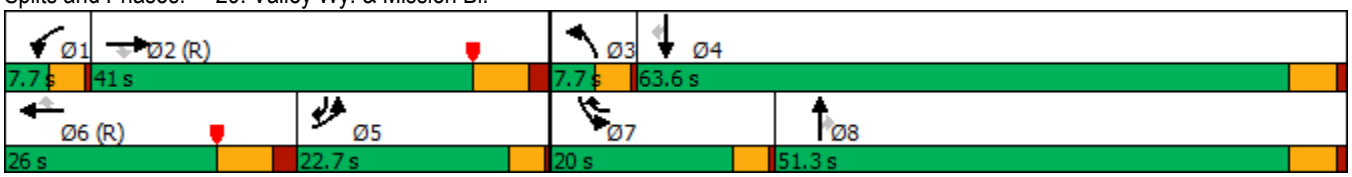
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			14.5	125.5
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			9.9	119.7
Max Q Clear Time (g_c+I1), s	5.7			11.9	2.0
Green Ext Time (p_c), s	14.7			0.0	80.6

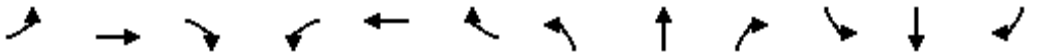
Intersection Summary	
HCM 6th Ctrl Delay	155.4
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	358	356	26	46	237	645	5	504	33	336	463	467
Future Volume (vph)	358	356	26	46	237	645	5	504	33	336	463	467
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	22.7	41.0	41.0	7.7	26.0	20.0	7.7	51.3	51.3	20.0	63.6	22.7
Total Split (%)	18.9%	34.2%	34.2%	6.4%	21.7%	16.7%	6.4%	42.8%	42.8%	16.7%	53.0%	18.9%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	19.0	53.5	53.5	8.4	41.0	60.6	4.0	24.0	24.0	16.3	42.5	63.1
Actuated g/C Ratio	0.16	0.45	0.45	0.07	0.34	0.50	0.03	0.20	0.20	0.14	0.35	0.53
v/c Ratio	0.68	0.23	0.03	0.38	0.20	0.77	0.04	0.74	0.07	0.75	0.38	0.29
Control Delay	54.6	22.9	0.1	61.5	29.6	18.6	57.0	51.1	0.3	60.4	29.7	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.6	22.9	0.1	61.5	29.6	18.6	57.0	51.1	0.3	60.4	29.7	1.3
LOS	D	C	A	E	C	B	E	D	A	E	C	A
Approach Delay		37.5			23.5			48.0			27.4	
Approach LOS		D			C			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 31.7	Intersection LOS: C
Intersection Capacity Utilization 76.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	358	356	26	46	237	645	5	504	33	336	463	467
Future Volume (veh/h)	358	356	26	46	237	645	5	504	33	336	463	467
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	377	375	10	48	249	640	5	531	24	354	487	450
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	1138	1721	757	60	572	444	18	749	334	415	1157	1798
Arrive On Green	0.32	0.48	0.48	0.03	0.16	0.16	0.01	0.21	0.21	0.12	0.32	0.32
Sat Flow, veh/h	3510	3610	1587	1810	3610	1601	3510	3610	1608	3510	3610	2740
Grp Volume(v), veh/h	377	375	10	48	249	640	5	531	24	354	487	450
Grp Sat Flow(s),veh/h/ln	1755	1805	1587	1810	1805	1601	1755	1805	1608	1755	1805	1370
Q Serve(g_s), s	9.8	7.3	0.4	3.2	7.5	14.9	0.2	16.4	1.4	11.9	12.7	0.8
Cycle Q Clear(g_c), s	9.8	7.3	0.4	3.2	7.5	14.9	0.2	16.4	1.4	11.9	12.7	0.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1138	1721	757	60	572	444	18	749	334	415	1157	1798
V/C Ratio(X)	0.33	0.22	0.01	0.80	0.44	1.44	0.28	0.71	0.07	0.85	0.42	0.25
Avail Cap(c_a), veh/h	1138	1721	757	60	572	444	117	1384	616	477	1754	2250
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	0.90	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57
Uniform Delay (d), s/veh	30.7	18.3	16.5	57.6	45.7	20.4	59.5	44.2	38.2	51.9	32.0	3.4
Incr Delay (d2), s/veh	0.1	0.3	0.0	47.8	2.4	211.4	3.1	1.3	0.1	7.7	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	4.0	3.0	0.1	2.2	3.5	32.0	0.1	7.4	0.6	5.5	5.4	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	18.6	16.6	105.4	48.1	231.8	62.5	45.4	38.3	59.6	32.2	3.5
LnGrp LOS	C	B	B	F	D	F	E	D	D	E	C	A
Approach Vol, veh/h		762			937			560			1291	
Approach Delay, s/veh		24.6			176.5			45.3			29.7	
Approach LOS		C			F			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	64.2	4.3	43.8	45.9	26.0	17.9	30.2
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	4.0	34.0	4.0	58.3	19.0	* 19	16.3	46.0
Max Q Clear Time (g_c+I1), s	5.2	9.3	2.2	14.7	11.8	16.9	13.9	18.4
Green Ext Time (p_c), s	0.0	3.2	0.0	5.4	0.4	1.2	0.3	3.7

Intersection Summary	
HCM 6th Ctrl Delay	69.8
HCM 6th LOS	E

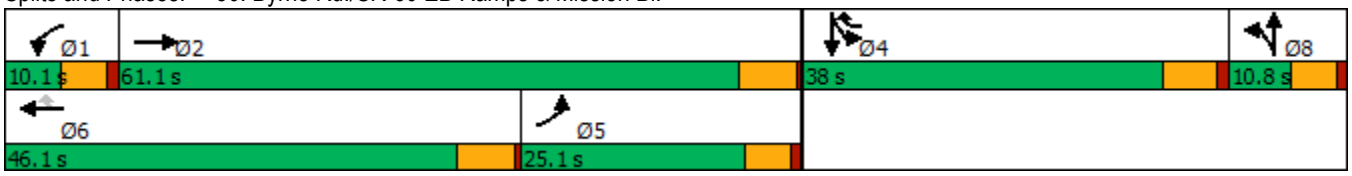
Notes

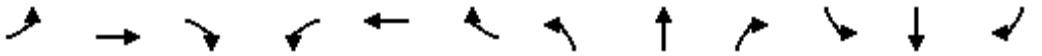
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	148	279	5	337	363	1	446	2
Future Volume (vph)	148	279	5	337	363	1	446	2
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	25.1	61.1	10.1	46.1	38.0	10.8	38.0	38.0
Total Split (%)	20.9%	50.9%	8.4%	38.4%	31.7%	9.0%	31.7%	31.7%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	None	None	None	None	None
Act Effct Green (s)	37.1	56.5	5.1	15.9	40.1	5.4	24.3	24.3
Actuated g/C Ratio	0.37	0.56	0.05	0.16	0.40	0.05	0.24	0.24
v/c Ratio	0.27	0.17	0.07	0.71	0.48	0.25	0.74	0.72
Control Delay	27.8	13.3	54.2	48.2	3.0	46.1	47.0	44.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	13.3	54.2	48.2	3.0	46.1	47.0	44.5
LOS	C	B	D	D	A	D	D	D
Approach Delay		18.2		25.0		46.1		45.8
Approach LOS		B		C		D		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100.1	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 29.8	Intersection LOS: C
Intersection Capacity Utilization 57.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	279	6	5	337	363	14	1	7	446	2	54
Future Volume (veh/h)	148	279	6	5	337	363	14	1	7	446	2	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	178	336	6	6	406	318	17	1	3	569	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	633	2034	36	14	767	643	32	2	6	687	360	0
Arrive On Green	0.35	0.56	0.56	0.01	0.21	0.21	0.02	0.02	0.02	0.19	0.00	0.00
Sat Flow, veh/h	1810	3627	65	1810	3610	1587	1443	85	255	3619	1900	0
Grp Volume(v), veh/h	178	167	175	6	406	318	21	0	0	569	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1886	1810	1805	1587	1782	0	0	1810	1900	0
Q Serve(g_s), s	7.0	4.4	4.4	0.3	9.9	14.8	1.2	0.0	0.0	14.9	0.0	0.0
Cycle Q Clear(g_c), s	7.0	4.4	4.4	0.3	9.9	14.8	1.2	0.0	0.0	14.9	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.81		0.14	1.00		0.00
Lane Grp Cap(c), veh/h	633	1012	1058	14	767	643	40	0	0	687	360	0
V/C Ratio(X)	0.28	0.16	0.17	0.43	0.53	0.49	0.53	0.00	0.00	0.83	0.00	0.00
Avail Cap(c_a), veh/h	633	1012	1058	92	1476	954	103	0	0	1180	619	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	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.2	10.5	10.5	48.8	34.5	22.1	47.8	0.0	0.0	38.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.4	0.3	19.7	0.2	0.2	4.1	0.0	0.0	2.6	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	2.9	1.7	1.7	0.2	4.2	7.2	0.6	0.0	0.0	6.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	10.9	10.8	68.5	34.7	22.3	51.9	0.0	0.0	41.1	0.0	0.0
LnGrp LOS	C	B	B	E	C	C	D	A	A	D	A	A
Approach Vol, veh/h		520			730			21			569	
Approach Delay, s/veh		15.1			29.6			51.9			41.1	
Approach LOS		B			C			D			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	61.1		24.5	40.3	26.7		7.3				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.0	55.4		32.2	20.0	* 40		5.7				
Max Q Clear Time (g_c+I1), s	2.3	6.4		16.9	9.0	16.8		3.2				
Green Ext Time (p_c), s	0.0	1.1		1.8	0.3	2.1		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		29.3
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

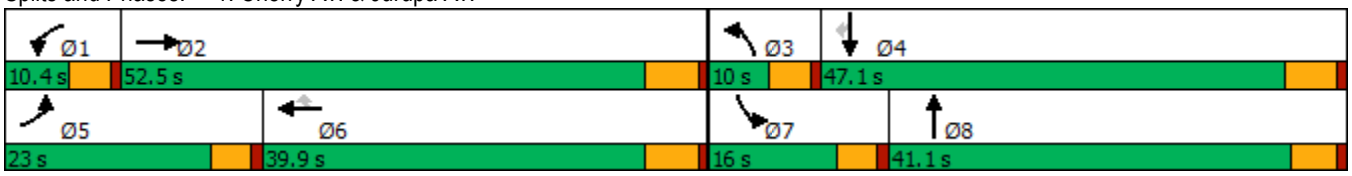
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

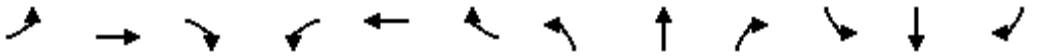
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	348	1168	70	725	116	59	330	189	468	247
Future Volume (vph)	348	1168	70	725	116	59	330	189	468	247
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	23.0	52.5	10.4	39.9	39.9	10.0	41.1	16.0	47.1	47.1
Total Split (%)	19.2%	43.8%	8.7%	33.3%	33.3%	8.3%	34.3%	13.3%	39.3%	39.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 86.5
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	1168	127	70	725	116	59	330	73	189	468	247
Future Volume (veh/h)	348	1168	127	70	725	116	59	330	73	189	468	247
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	362	1217	104	73	755	84	61	344	50	197	488	168
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	473	1834	157	190	1069	476	174	863	122	293	801	350
Arrive On Green	0.13	0.38	0.38	0.05	0.30	0.30	0.05	0.19	0.19	0.08	0.22	0.22
Sat Flow, veh/h	3510	4867	416	3510	3610	1607	3510	4590	651	3510	3610	1576
Grp Volume(v), veh/h	362	865	456	73	755	84	61	257	137	197	488	168
Grp Sat Flow(s),veh/h/ln	1755	1729	1824	1755	1805	1607	1755	1729	1783	1755	1805	1576
Q Serve(g_s), s	7.0	14.5	14.5	1.4	13.0	2.7	1.2	4.6	4.7	3.8	8.5	6.5
Cycle Q Clear(g_c), s	7.0	14.5	14.5	1.4	13.0	2.7	1.2	4.6	4.7	3.8	8.5	6.5
Prop In Lane	1.00		0.23	1.00		1.00	1.00		0.36	1.00		1.00
Lane Grp Cap(c), veh/h	473	1303	688	190	1069	476	174	650	335	293	801	350
V/C Ratio(X)	0.76	0.66	0.66	0.38	0.71	0.18	0.35	0.40	0.41	0.67	0.61	0.48
Avail Cap(c_a), veh/h	924	2309	1218	291	1760	784	271	1780	918	572	2132	931
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	18.1	18.1	31.9	21.9	18.3	32.1	24.9	25.0	31.1	24.5	23.7
Incr Delay (d2), s/veh	1.0	0.6	1.1	0.5	0.9	0.2	0.4	0.4	0.8	1.0	0.8	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	2.7	5.0	5.4	0.6	5.0	1.0	0.5	1.8	2.0	1.5	3.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	18.7	19.2	32.4	22.8	18.4	32.6	25.3	25.8	32.1	25.2	24.7
LnGrp LOS	C	B	B	C	C	B	C	C	C	C	C	C
Approach Vol, veh/h		1683			912			455			853	
Approach Delay, s/veh		21.3			23.1			26.4			26.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	32.2	8.1	21.3	14.0	26.5	10.4	18.9
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.8	46.7	5.4	41.3	18.4	34.1	11.4	* 36
Max Q Clear Time (g_c+I1), s	3.4	16.5	3.2	10.5	9.0	15.0	5.8	6.7
Green Ext Time (p_c), s	0.0	9.8	0.0	3.7	0.5	4.9	0.2	2.5

Intersection Summary	
HCM 6th Ctrl Delay	23.5
HCM 6th LOS	C

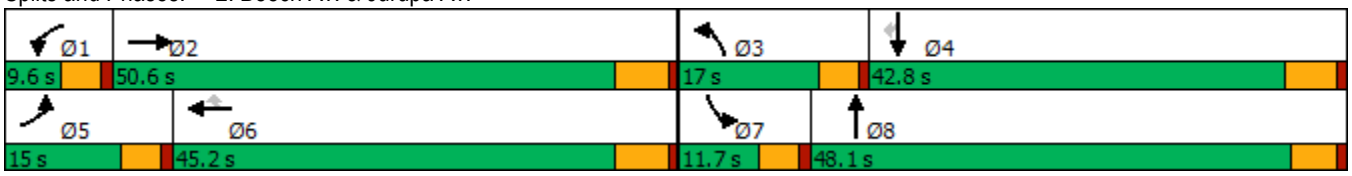
Notes

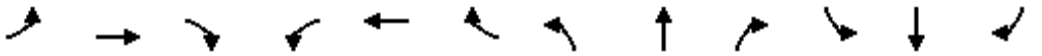
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	161	1299	24	777	21	100	39	42	39	79
Future Volume (vph)	161	1299	24	777	21	100	39	42	39	79
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	15.0	50.6	9.6	45.2	45.2	17.0	48.1	11.7	42.8	42.8
Total Split (%)	12.5%	42.2%	8.0%	37.7%	37.7%	14.2%	40.1%	9.8%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 78
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	1299	214	24	777	21	100	39	20	42	39	79
Future Volume (veh/h)	161	1299	214	24	777	21	100	39	20	42	39	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	171	1382	205	26	827	19	106	41	15	45	41	33
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	264	2032	301	100	2069	642	137	473	164	76	527	235
Arrive On Green	0.08	0.45	0.45	0.03	0.40	0.40	0.08	0.18	0.18	0.04	0.15	0.15
Sat Flow, veh/h	3510	4560	676	3510	5187	1610	1810	2630	911	1810	3610	1610
Grp Volume(v), veh/h	171	1048	539	26	827	19	106	27	29	45	41	33
Grp Sat Flow(s),veh/h/ln	1755	1729	1778	1755	1729	1610	1810	1805	1736	1810	1805	1610
Q Serve(g_s), s	3.2	16.5	16.5	0.5	7.8	0.5	3.9	0.9	0.9	1.7	0.7	1.2
Cycle Q Clear(g_c), s	3.2	16.5	16.5	0.5	7.8	0.5	3.9	0.9	0.9	1.7	0.7	1.2
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	264	1541	792	100	2069	642	137	325	312	76	527	235
V/C Ratio(X)	0.65	0.68	0.68	0.26	0.40	0.03	0.77	0.08	0.09	0.59	0.08	0.14
Avail Cap(c_a), veh/h	533	2263	1164	256	2986	927	328	1134	1091	188	1951	870
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	15.1	15.1	32.5	14.7	12.5	31.0	23.4	23.4	32.2	25.2	25.5
Incr Delay (d2), s/veh	1.0	0.5	1.0	0.5	0.1	0.0	3.4	0.1	0.1	2.7	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	5.4	5.6	0.2	2.6	0.2	1.8	0.4	0.4	0.7	0.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	15.6	16.1	33.0	14.8	12.5	34.5	23.5	23.5	34.9	25.3	25.7
LnGrp LOS	C	B	B	C	B	B	C	C	C	C	C	C
Approach Vol, veh/h		1758			872			162			119	
Approach Delay, s/veh		17.3			15.3			30.7			29.1	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.6	36.3	9.8	15.8	9.8	33.1	7.5	18.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	44.8	12.4	37.0	10.4	39.4	7.1	* 43
Max Q Clear Time (g_c+I1), s	2.5	18.5	5.9	3.2	5.2	9.8	3.7	2.9
Green Ext Time (p_c), s	0.0	12.0	0.1	0.3	0.1	5.8	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

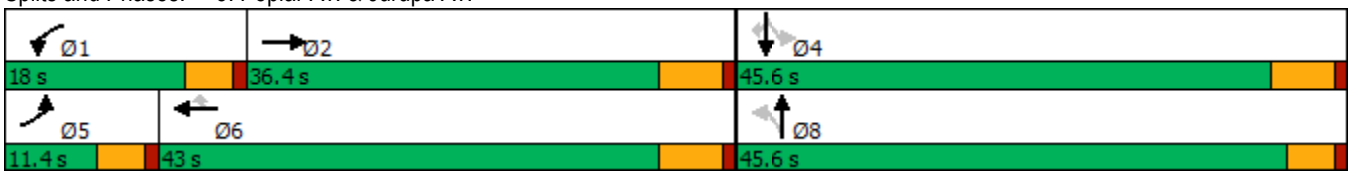
Notes

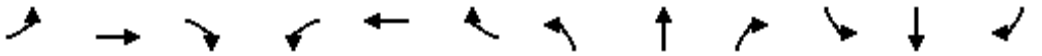
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	49	1315	144	725	39	52	40	54	88	58
Future Volume (vph)	49	1315	144	725	39	52	40	54	88	58
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	11.4	36.4	18.0	43.0	43.0	45.6	45.6	45.6	45.6	45.6
Total Split (%)	11.4%	36.4%	18.0%	43.0%	43.0%	45.6%	45.6%	45.6%	45.6%	45.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 69.2
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	1315	81	144	725	39	52	40	107	54	88	58
Future Volume (veh/h)	49	1315	81	144	725	39	52	40	107	54	88	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	50	1342	72	147	740	37	53	41	58	55	90	45
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	2045	110	190	2396	743	323	342	305	343	360	304
Arrive On Green	0.05	0.41	0.41	0.10	0.46	0.46	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1810	5038	270	1810	5187	1609	1273	1805	1610	1317	1900	1608
Grp Volume(v), veh/h	50	921	493	147	740	37	53	41	58	55	90	45
Grp Sat Flow(s),veh/h/ln	1810	1729	1851	1810	1729	1609	1273	1805	1610	1317	1900	1608
Q Serve(g_s), s	1.5	11.7	11.7	4.3	4.8	0.7	2.0	1.0	1.6	2.0	2.2	1.3
Cycle Q Clear(g_c), s	1.5	11.7	11.7	4.3	4.8	0.7	4.2	1.0	1.6	3.6	2.2	1.3
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	1404	751	190	2396	743	323	342	305	343	360	304
V/C Ratio(X)	0.57	0.66	0.66	0.77	0.31	0.05	0.16	0.12	0.19	0.16	0.25	0.15
Avail Cap(c_a), veh/h	228	1958	1048	449	3570	1108	1047	1369	1222	1063	1399	1184
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	13.0	13.0	23.6	9.1	8.0	20.4	18.2	18.4	19.9	18.6	18.3
Incr Delay (d2), s/veh	2.1	0.5	1.0	2.5	0.1	0.0	0.2	0.2	0.3	0.2	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.5	3.8	1.7	1.3	0.2	0.5	0.4	0.6	0.5	0.8	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	13.5	14.0	26.1	9.2	8.0	20.7	18.3	18.7	20.2	19.0	18.5
LnGrp LOS	C	B	B	C	A	A	C	B	B	C	B	B
Approach Vol, veh/h		1464			924			152			190	
Approach Delay, s/veh		14.1			11.8			19.3			19.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.3	27.7		16.0	7.2	30.8		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	13.4	30.6		39.8	6.8	37.2		* 41				
Max Q Clear Time (g_c+I1), s	6.3	13.7		5.6	3.5	6.8		6.2				
Green Ext Time (p_c), s	0.1	8.3		0.7	0.0	5.2		0.7				

Intersection Summary		
HCM 6th Ctrl Delay		14.0
HCM 6th LOS		B

Notes

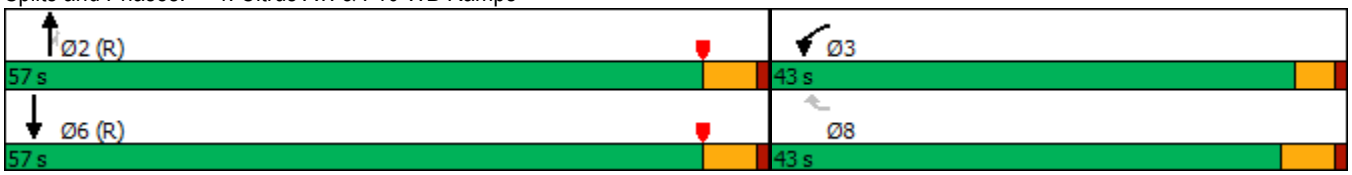
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

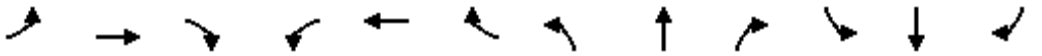
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	344	502	1267	592	911	490
Future Volume (vph)	344	502	1267	592	911	490
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	43.0	43.0	57.0	57.0	57.0	
Total Split (%)	43.0%	43.0%	57.0%	57.0%	57.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	344	0	502	0	1267	592	0	911	490
Future Volume (veh/h)	0	0	0	344	0	502	0	1267	592	0	911	490
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				362	0	402	0	1334	588	0	959	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				410	0	642	0	3546	1097	0	2468	
Arrive On Green				0.23	0.00	0.23	0.00	1.00	0.68	0.00	0.68	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1605	0	3705	1610
Grp Volume(v), veh/h				362	0	402	0	1334	588	0	959	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1605	0	1805	1610
Q Serve(g_s), s				19.3	0.0	12.8	0.0	0.0	18.3	0.0	11.4	0.0
Cycle Q Clear(g_c), s				19.3	0.0	12.8	0.0	0.0	18.3	0.0	11.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				410	0	642	0	3546	1097	0	2468	
V/C Ratio(X)				0.88	0.00	0.63	0.00	0.38	0.54	0.00	0.39	
Avail Cap(c_a), veh/h				706	0	1105	0	3546	1097	0	2468	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.49	0.49	0.00	1.00	0.00
Uniform Delay (d), s/veh				37.4	0.0	34.9	0.0	0.0	7.9	0.0	6.8	0.0
Incr Delay (d2), s/veh				3.3	0.0	0.4	0.0	0.1	0.9	0.0	0.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.5	0.0	4.2	0.0	0.0	5.1	0.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.7	0.0	35.2	0.0	0.1	8.8	0.0	7.3	0.0
LnGrp LOS				D	A	D	A	A	A	A	A	
Approach Vol, veh/h					764			1922			959	A
Approach Delay, s/veh					37.8			2.8			7.3	
Approach LOS					D			A			A	

Timer - Assigned Phs	2			6		8						
Phs Duration (G+Y+Rc), s	73.4			73.4		26.6						
Change Period (Y+Rc), s	5.0			5.0		4.0						
Max Green Setting (Gmax), s	52.0			52.0		39.0						
Max Q Clear Time (g_c+I1), s	20.3			13.4		21.3						
Green Ext Time (p_c), s	8.4			4.4		1.3						

Intersection Summary		
HCM 6th Ctrl Delay	11.3	
HCM 6th LOS	B	

Notes

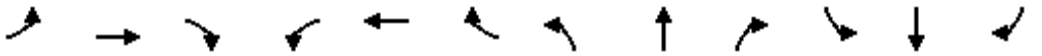
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	475	11	1382	490	769
Future Volume (vph)	475	11	1382	490	769
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	26.0	26.0	51.0	23.0	74.0
Total Split (%)	26.0%	26.0%	51.0%	23.0%	74.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	11	365	0	0	0	0	1382	606	490	769	0
Future Volume (veh/h)	475	11	365	0	0	0	0	1382	606	490	769	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	495	11	305				0	1440	450	510	801	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	737	12	328				0	1913	592	569	2491	0
Arrive On Green	0.21	0.21	0.21				0.00	0.49	0.49	0.32	1.00	0.00
Sat Flow, veh/h	3510	56	1562				0	4092	1214	3510	3705	0
Grp Volume(v), veh/h	495	0	316				0	1268	622	510	801	0
Grp Sat Flow(s),veh/h/ln	1755	0	1619				0	1729	1678	1755	1805	0
Q Serve(g_s), s	13.0	0.0	19.2				0.0	29.7	30.1	13.8	0.0	0.0
Cycle Q Clear(g_c), s	13.0	0.0	19.2				0.0	29.7	30.1	13.8	0.0	0.0
Prop In Lane	1.00		0.97				0.00		0.72	1.00		0.00
Lane Grp Cap(c), veh/h	737	0	340				0	1687	819	569	2491	0
V/C Ratio(X)	0.67	0.00	0.93				0.00	0.75	0.76	0.90	0.32	0.00
Avail Cap(c_a), veh/h	737	0	340				0	1687	819	667	2491	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.44	0.44	0.85	0.85	0.00
Uniform Delay (d), s/veh	36.3	0.0	38.8				0.0	20.7	20.8	33.0	0.0	0.0
Incr Delay (d2), s/veh	1.9	0.0	30.8				0.0	1.4	3.0	10.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	0.0	10.1				0.0	11.0	11.2	5.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	69.6				0.0	22.1	23.8	43.7	0.3	0.0
LnGrp LOS	D	A	E				A	C	C	D	A	A
Approach Vol, veh/h		811						1890			1311	
Approach Delay, s/veh		50.5						22.7			17.2	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	20.2	53.8		26.0		74.0
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	19.0	46.0		21.0		69.0
Max Q Clear Time (g_c+I1), s	15.8	32.1		21.2		2.0
Green Ext Time (p_c), s	0.4	7.4		0.0		3.5

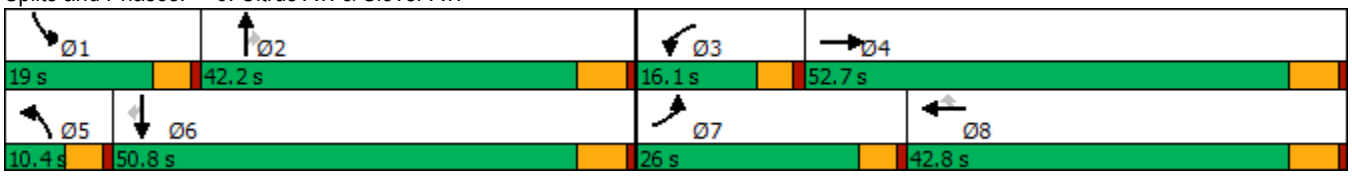
Intersection Summary		
HCM 6th Ctrl Delay		26.5
HCM 6th LOS		C

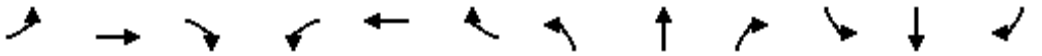
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	690	899	68	298	205	71	1028	108	233	552	317
Future Volume (vph)	690	899	68	298	205	71	1028	108	233	552	317
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	26.0	52.7	16.1	42.8	42.8	10.4	42.2	42.2	19.0	50.8	50.8
Total Split (%)	20.0%	40.5%	12.4%	32.9%	32.9%	8.0%	32.5%	32.5%	14.6%	39.1%	39.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 113.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	690	899	42	68	298	205	71	1028	108	233	552	317
Future Volume (veh/h)	690	899	42	68	298	205	71	1028	108	233	552	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	719	936	44	71	310	170	74	1071	48	243	575	239
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	746	1133	53	92	582	259	95	1434	443	259	697	591
Arrive On Green	0.21	0.32	0.32	0.05	0.16	0.16	0.05	0.28	0.28	0.14	0.37	0.37
Sat Flow, veh/h	3510	3508	165	1810	3610	1607	1810	5187	1601	1810	1900	1610
Grp Volume(v), veh/h	719	482	498	71	310	170	74	1071	48	243	575	239
Grp Sat Flow(s),veh/h/ln	1755	1805	1867	1810	1805	1607	1810	1729	1601	1810	1900	1610
Q Serve(g_s), s	20.4	24.8	24.8	3.9	7.9	10.0	4.1	19.0	2.3	13.4	27.7	11.1
Cycle Q Clear(g_c), s	20.4	24.8	24.8	3.9	7.9	10.0	4.1	19.0	2.3	13.4	27.7	11.1
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	746	583	603	92	582	259	95	1434	443	259	697	591
V/C Ratio(X)	0.96	0.83	0.83	0.77	0.53	0.66	0.78	0.75	0.11	0.94	0.82	0.40
Avail Cap(c_a), veh/h	746	841	870	207	1327	591	104	1876	579	259	849	720
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	31.5	31.5	47.2	38.7	39.6	47.1	33.2	27.2	42.7	28.9	23.7
Incr Delay (d2), s/veh	24.1	4.6	4.4	5.1	0.8	2.8	24.6	1.2	0.1	39.1	5.6	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	10.8	11.2	1.8	3.4	4.0	2.4	7.7	0.8	8.5	12.7	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	36.0	35.9	52.3	39.5	42.4	71.7	34.4	27.3	81.8	34.5	24.1
LnGrp LOS	E	D	D	D	D	D	E	C	C	F	C	C
Approach Vol, veh/h		1699			551			1193			1057	
Approach Delay, s/veh		47.5			42.0			36.4			43.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	33.6	9.7	38.3	9.9	42.7	26.0	22.0
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	14.4	36.4	11.5	46.9	5.8	45.0	21.4	37.0
Max Q Clear Time (g_c+I1), s	15.4	21.0	5.9	26.8	6.1	29.7	22.4	12.0
Green Ext Time (p_c), s	0.0	6.3	0.0	5.7	0.0	3.8	0.0	2.4

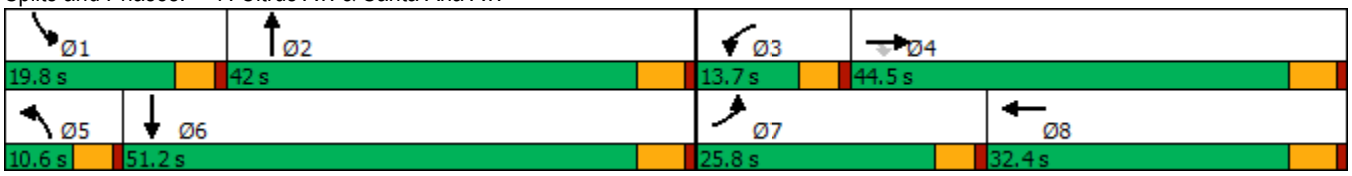
Intersection Summary	
HCM 6th Ctrl Delay	42.9
HCM 6th LOS	D

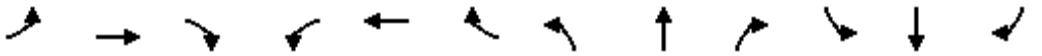
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	176	108	55	50	103	29	697	119	418
Future Volume (vph)	176	108	55	50	103	29	697	119	418
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	25.8	44.5	44.5	13.7	32.4	10.6	42.0	19.8	51.2
Total Split (%)	21.5%	37.1%	37.1%	11.4%	27.0%	8.8%	35.0%	16.5%	42.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 85.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	108	55	50	103	240	29	697	103	119	418	50
Future Volume (veh/h)	176	108	55	50	103	240	29	697	103	119	418	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	187	115	38	53	110	235	31	741	101	127	445	44
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	231	528	440	82	353	310	58	979	133	163	1210	119
Arrive On Green	0.13	0.28	0.28	0.05	0.20	0.20	0.03	0.31	0.31	0.09	0.36	0.36
Sat Flow, veh/h	1810	1900	1586	1810	1805	1589	1810	3192	435	1810	3319	327
Grp Volume(v), veh/h	187	115	38	53	110	235	31	419	423	127	241	248
Grp Sat Flow(s),veh/h/ln	1810	1900	1586	1810	1805	1589	1810	1805	1822	1810	1805	1841
Q Serve(g_s), s	7.2	3.3	1.3	2.1	3.7	10.0	1.2	15.0	15.0	4.9	7.0	7.1
Cycle Q Clear(g_c), s	7.2	3.3	1.3	2.1	3.7	10.0	1.2	15.0	15.0	4.9	7.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.18
Lane Grp Cap(c), veh/h	231	528	440	82	353	310	58	554	559	163	658	671
V/C Ratio(X)	0.81	0.22	0.09	0.64	0.31	0.76	0.53	0.76	0.76	0.78	0.37	0.37
Avail Cap(c_a), veh/h	537	1040	868	231	682	601	152	925	934	385	1158	1181
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.3	19.8	19.1	33.5	24.6	27.1	34.0	22.3	22.4	31.8	16.6	16.7
Incr Delay (d2), s/veh	2.6	0.2	0.1	3.1	0.5	3.8	2.8	2.1	2.1	3.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.4	0.4	0.9	1.5	3.8	0.5	6.0	6.1	2.1	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.8	20.0	19.2	36.6	25.1	30.9	36.8	24.5	24.5	34.8	17.0	17.0
LnGrp LOS	C	C	B	D	C	C	D	C	C	C	B	B
Approach Vol, veh/h		340			398			873			616	
Approach Delay, s/veh		27.0			30.1			24.9			20.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	27.3	7.9	25.2	6.9	31.4	13.7	19.3
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.2	36.6	9.1	39.1	6.0	45.8	21.2	27.0
Max Q Clear Time (g_c+I1), s	6.9	17.0	4.1	5.3	3.2	9.1	9.2	12.0
Green Ext Time (p_c), s	0.1	4.9	0.0	0.7	0.0	2.9	0.2	1.7

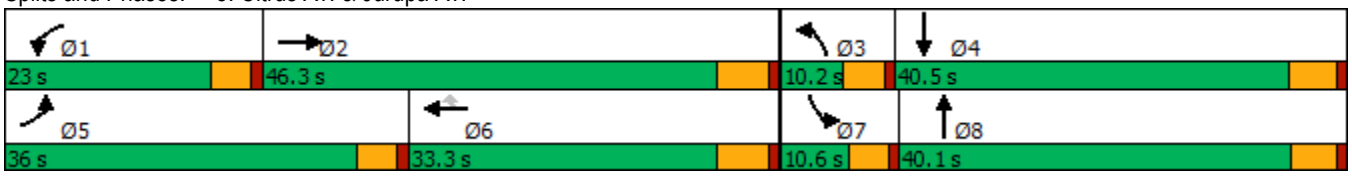
Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

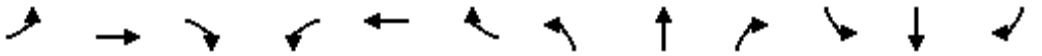
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	447	920	143	665	174	19	153	91	210
Future Volume (vph)	447	920	143	665	174	19	153	91	210
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	36.0	46.3	23.0	33.3	33.3	10.2	40.1	10.6	40.5
Total Split (%)	30.0%	38.6%	19.2%	27.8%	27.8%	8.5%	33.4%	8.8%	33.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 93.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	447	920	53	143	665	174	19	153	96	91	210	150
Future Volume (veh/h)	447	920	53	143	665	174	19	153	96	91	210	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	486	1000	43	155	723	115	21	166	81	99	228	133
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	532	2067	89	195	1136	353	43	333	155	127	415	233
Arrive On Green	0.29	0.41	0.41	0.11	0.22	0.22	0.02	0.14	0.14	0.07	0.19	0.19
Sat Flow, veh/h	1810	5099	219	1810	5187	1610	1810	2389	1113	1810	2229	1251
Grp Volume(v), veh/h	486	678	365	155	723	115	21	124	123	99	183	178
Grp Sat Flow(s),veh/h/ln	1810	1729	1860	1810	1729	1610	1810	1805	1697	1810	1805	1675
Q Serve(g_s), s	19.1	10.7	10.7	6.2	9.3	4.4	0.8	4.7	5.0	4.0	6.8	7.1
Cycle Q Clear(g_c), s	19.1	10.7	10.7	6.2	9.3	4.4	0.8	4.7	5.0	4.0	6.8	7.1
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.66	1.00		0.75
Lane Grp Cap(c), veh/h	532	1402	754	195	1136	353	43	252	237	127	336	312
V/C Ratio(X)	0.91	0.48	0.48	0.79	0.64	0.33	0.49	0.49	0.52	0.78	0.54	0.57
Avail Cap(c_a), veh/h	772	1903	1024	452	1938	602	138	859	807	148	861	799
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	16.2	16.2	32.0	26.1	24.2	35.5	29.3	29.4	33.6	27.1	27.3
Incr Delay (d2), s/veh	9.2	0.3	0.5	2.8	0.6	0.5	3.2	1.5	1.8	16.8	1.4	1.7
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	8.6	3.7	4.0	2.6	3.5	1.6	0.4	2.0	2.0	2.2	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	16.4	16.7	34.8	26.7	24.7	38.7	30.7	31.2	50.4	28.5	28.9
LnGrp LOS	C	B	B	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1529			993			268			460	
Approach Delay, s/veh		22.2			27.7			31.6			33.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	35.6	6.3	19.1	26.2	21.9	9.8	15.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	18.4	40.5	5.6	35.1	31.4	27.5	6.0	* 35
Max Q Clear Time (g_c+I1), s	8.2	12.7	2.8	9.1	21.1	11.3	6.0	7.0
Green Ext Time (p_c), s	0.1	7.0	0.0	2.0	0.6	4.5	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑↱			↱
Traffic Vol, veh/h	0	1169	866	60	0	117
Future Vol, veh/h	0	1169	866	60	0	117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1271	941	65	0	127

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	503
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	444
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	444
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	444
HCM Lane V/C Ratio	-	-	-	0.286
HCM Control Delay (s)	-	-	-	16.3
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.2

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	7	408	2	18	265
Future Vol, veh/h	4	7	408	2	18	265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	8	443	2	20	288

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	772	444	0	0	445	0
Stage 1	444	-	-	-	-	-
Stage 2	328	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	371	618	-	-	1126	-
Stage 1	651	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	364	618	-	-	1126	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	721	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	558	1126	-
HCM Lane V/C Ratio	-	-	0.021	0.017	-
HCM Control Delay (s)	-	-	11.6	8.3	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	7	318	8	3	243
Future Vol, veh/h	21	7	318	8	3	243
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	8	346	9	3	264

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	621	351	0	0	355	0
Stage 1	351	-	-	-	-	-
Stage 2	270	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	454	697	-	-	1215	-
Stage 1	717	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	453	697	-	-	1215	-
Mov Cap-2 Maneuver	546	-	-	-	-	-
Stage 1	717	-	-	-	-	-
Stage 2	778	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	577	1215	-
HCM Lane V/C Ratio	-	-	0.053	0.003	-
HCM Control Delay (s)	-	-	11.6	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	7	319	9	3	282
Future Vol, veh/h	23	7	319	9	3	282
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	8	347	10	3	307

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	665	352	0	0	357	0
Stage 1	352	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	428	696	-	-	1213	-
Stage 1	716	-	-	-	-	-
Stage 2	746	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	427	696	-	-	1213	-
Mov Cap-2 Maneuver	528	-	-	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	560	1213	-
HCM Lane V/C Ratio	-	-	0.058	0.003	-
HCM Control Delay (s)	-	-	11.8	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	3	324	3	1	304
Future Vol, veh/h	9	3	324	3	1	304
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	3	352	3	1	330

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	686	354	0	0	355	0
Stage 1	354	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	416	694	-	-	1215	-
Stage 1	715	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	416	694	-	-	1215	-
Mov Cap-2 Maneuver	520	-	-	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	730	-	-	-	-	-

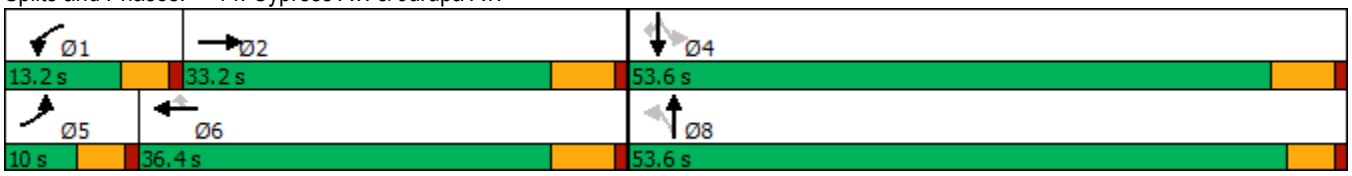
Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

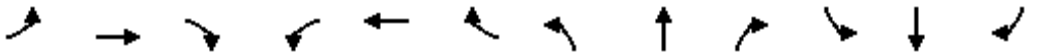
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	555	1215	-
HCM Lane V/C Ratio	-	-	0.024	0.001	-
HCM Control Delay (s)	-	-	11.6	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	153	1059	125	704	71	10	60	117	52	162
Future Volume (vph)	153	1059	125	704	71	10	60	117	52	162
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.0	33.2	13.2	36.4	36.4	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.0%	33.2%	13.2%	36.4%	36.4%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	5.8	21.4	8.9	24.5	24.5	17.8	17.8	16.5	16.5	16.5
Actuated g/C Ratio	0.09	0.33	0.14	0.38	0.38	0.28	0.28	0.26	0.26	0.26
v/c Ratio	1.01	0.67	0.53	0.38	0.11	0.03	0.25	0.38	0.11	0.32
Control Delay	110.5	22.1	40.5	16.6	5.4	15.7	10.0	22.3	17.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	110.5	22.1	40.5	16.6	5.4	15.7	10.0	22.3	17.7	4.6
LOS	F	C	D	B	A	B	B	C	B	A
Approach Delay		33.1		19.1			10.4		12.9	
Approach LOS		C		B			B		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 64	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 61.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	1059	25	125	704	71	10	60	69	117	52	162
Future Volume (veh/h)	153	1059	25	125	704	71	10	60	69	117	52	162
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	163	1127	23	133	749	55	11	64	38	124	55	138
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	205	1862	38	172	1751	544	376	234	139	363	398	338
Arrive On Green	0.11	0.36	0.36	0.09	0.34	0.34	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	5232	107	1810	5187	1610	1209	1117	663	1313	1900	1610
Grp Volume(v), veh/h	163	745	405	133	749	55	11	0	102	124	55	138
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1610	1209	0	1781	1313	1900	1610
Q Serve(g_s), s	4.2	8.4	8.4	3.4	5.3	1.1	0.4	0.0	2.3	4.2	1.1	3.5
Cycle Q Clear(g_c), s	4.2	8.4	8.4	3.4	5.3	1.1	1.5	0.0	2.3	6.5	1.1	3.5
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.37	1.00		1.00
Lane Grp Cap(c), veh/h	205	1231	669	172	1751	544	376	0	373	363	398	338
V/C Ratio(X)	0.80	0.61	0.61	0.77	0.43	0.10	0.03	0.00	0.27	0.34	0.14	0.41
Avail Cap(c_a), veh/h	205	1986	1080	326	3327	1033	1364	0	1829	1403	1904	1613
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	1.00	1.00
Uniform Delay (d), s/veh	20.6	12.6	12.6	21.1	12.2	10.8	15.9	0.0	15.8	18.5	15.3	16.3
Incr Delay (d2), s/veh	17.9	0.5	0.9	2.8	0.2	0.1	0.0	0.0	0.4	0.6	0.2	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	2.5	2.4	2.7	1.3	1.5	0.3	0.1	0.0	0.9	1.1	0.4	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	13.1	13.5	23.9	12.4	10.9	16.0	0.0	16.2	19.1	15.5	17.1
LnGrp LOS	D	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		1313			937			113			317	
Approach Delay, s/veh		16.4			13.9			16.2			17.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.1	22.8		15.8	10.0	21.9		15.8				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	8.6	27.4		47.8	5.4	30.6		* 49				
Max Q Clear Time (g_c+I1), s	5.4	10.4		8.5	6.2	7.3		4.3				
Green Ext Time (p_c), s	0.0	6.5		1.1	0.0	5.0		0.7				

Intersection Summary			
HCM 6th Ctrl Delay		15.7	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	34.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	440	24	63	348	54	31	70	100	65	56	6
Future Vol, veh/h	8	440	24	63	348	54	31	70	100	65	56	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	494	27	71	391	61	35	79	112	73	63	7
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	65.5	16.7	13	15
HCM LOS	F	C	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	31%	0%	2%	27%	0%	54%	0%
Vol Thru, %	69%	0%	93%	73%	76%	46%	0%
Vol Right, %	0%	100%	5%	0%	24%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	101	100	472	237	228	121	6
LT Vol	31	0	8	63	0	65	0
Through Vol	70	0	440	174	174	56	0
RT Vol	0	100	24	0	54	0	6
Lane Flow Rate	113	112	530	266	256	136	7
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.255	0.226	1.001	0.526	0.484	0.317	0.014
Departure Headway (Hd)	8.282	7.396	6.797	7.107	6.801	8.596	7.589
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	437	489	536	509	530	421	474
Service Time	5.982	5.096	4.819	4.836	4.53	6.296	5.289
HCM Lane V/C Ratio	0.259	0.229	0.989	0.523	0.483	0.323	0.015
HCM Control Delay	13.8	12.2	65.5	17.5	15.8	15.2	10.4
HCM Lane LOS	B	B	F	C	C	C	B
HCM 95th-tile Q	1	0.9	14.1	3	2.6	1.3	0

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	2	1	187	138	5
Future Vol, veh/h	13	2	1	187	138	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	2	1	203	150	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	358	153	155	0	-	0
Stage 1	153	-	-	-	-	-
Stage 2	205	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	644	898	1438	-	-	-
Stage 1	880	-	-	-	-	-
Stage 2	834	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	643	898	1438	-	-	-
Mov Cap-2 Maneuver	643	-	-	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	834	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1438	-	668	-	-
HCM Lane V/C Ratio	0.001	-	0.024	-	-
HCM Control Delay (s)	7.5	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	19	7	179	137	3
Future Vol, veh/h	9	19	7	179	137	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	21	8	195	149	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	362	151	152	0	-	0
Stage 1	151	-	-	-	-	-
Stage 2	211	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	641	901	1441	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	829	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	637	901	1441	-	-	-
Mov Cap-2 Maneuver	637	-	-	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	829	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1441	-	795	-	-
HCM Lane V/C Ratio	0.005	-	0.038	-	-
HCM Control Delay (s)	7.5	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	20	7	176	152	4
Future Vol, veh/h	10	20	7	176	152	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	22	8	191	165	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	374	167	169	0	-	0
Stage 1	167	-	-	-	-	-
Stage 2	207	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	631	882	1421	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	627	882	1421	-	-	-
Mov Cap-2 Maneuver	627	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1421	-	777	-	-
HCM Lane V/C Ratio	0.005	-	0.042	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	20	7	175	169	3
Future Vol, veh/h	8	20	7	175	169	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	22	8	190	184	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	392	186	187	0	-	0
Stage 1	186	-	-	-	-	-
Stage 2	206	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	616	861	1399	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	612	861	1399	-	-	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1399	-	771	-	-
HCM Lane V/C Ratio	0.005	-	0.039	-	-
HCM Control Delay (s)	7.6	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	5	2	175	186	3
Future Vol, veh/h	8	5	2	175	186	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	5	2	190	202	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	398	204	205	0	-	0
Stage 1	204	-	-	-	-	-
Stage 2	194	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	611	842	1378	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	844	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	610	842	1378	-	-	-
Mov Cap-2 Maneuver	610	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	844	-	-	-	-	-

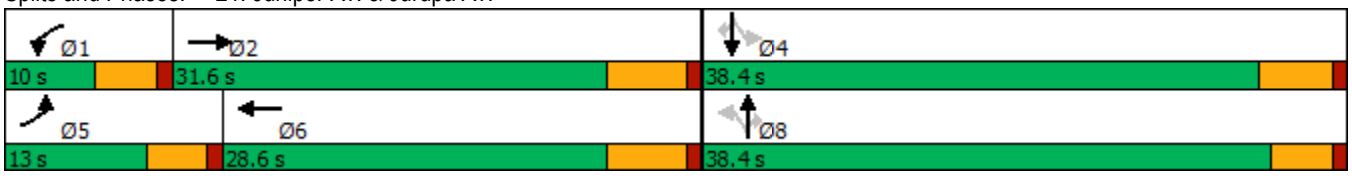
Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.1	0
HCM LOS	B		

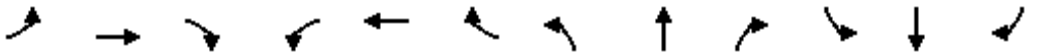
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1378	-	682	-	-
HCM Lane V/C Ratio	0.002	-	0.021	-	-
HCM Control Delay (s)	7.6	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	90	1144	29	782	7	16	5	73	23	94
Future Volume (vph)	90	1144	29	782	7	16	5	73	23	94
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.0	31.6	10.0	28.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	16.3%	39.5%	12.5%	35.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	7.2	24.0	5.6	18.0		14.8	14.8		13.9	13.9
Actuated g/C Ratio	0.14	0.45	0.11	0.34		0.28	0.28		0.26	0.26
v/c Ratio	0.40	0.53	0.17	0.53		0.05	0.01		0.28	0.21
Control Delay	30.9	13.7	30.5	17.0		15.7	0.0		19.1	5.2
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	30.9	13.7	30.5	17.0		15.7	0.0		19.1	5.2
LOS	C	B	C	B		B	A		B	A
Approach Delay		15.0		17.4		13.1			12.2	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 53.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.53	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	1144	5	29	782	70	7	16	5	73	23	94
Future Volume (veh/h)	90	1144	5	29	782	70	7	16	5	73	23	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	98	1243	5	32	850	71	8	17	2	79	25	56
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	142	2038	8	66	1661	138	185	325	372	389	105	371
Arrive On Green	0.08	0.38	0.38	0.04	0.34	0.34	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	5333	21	1810	4878	406	346	1407	1610	1076	456	1604
Grp Volume(v), veh/h	98	806	442	32	602	319	25	0	2	104	0	56
Grp Sat Flow(s),veh/h/ln	1810	1729	1896	1810	1729	1826	1753	0	1610	1532	0	1604
Q Serve(g_s), s	2.4	8.5	8.5	0.8	6.3	6.3	0.0	0.0	0.0	1.8	0.0	1.3
Cycle Q Clear(g_c), s	2.4	8.5	8.5	0.8	6.3	6.3	0.5	0.0	0.0	2.4	0.0	1.3
Prop In Lane	1.00		0.01	1.00		0.22	0.32		1.00	0.76		1.00
Lane Grp Cap(c), veh/h	142	1322	725	66	1177	622	511	0	372	494	0	371
V/C Ratio(X)	0.69	0.61	0.61	0.48	0.51	0.51	0.05	0.00	0.01	0.21	0.00	0.15
Avail Cap(c_a), veh/h	337	1976	1084	216	1746	922	1376	0	1206	1248	0	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.3	11.2	11.2	21.3	11.9	11.9	13.5	0.0	13.4	14.2	0.0	13.8
Incr Delay (d2), s/veh	2.2	0.5	0.8	2.0	0.3	0.7	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.3	2.6	0.3	1.8	1.9	0.2	0.0	0.0	0.7	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	11.7	12.1	23.3	12.2	12.6	13.6	0.0	13.4	14.4	0.0	14.0
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		1346			953			27			160	
Approach Delay, s/veh		12.6			12.7			13.5			14.3	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	23.1		15.8	8.1	21.2		15.8				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	8.4	22.8		* 34				
Max Q Clear Time (g_c+I1), s	2.8	10.5		4.4	4.4	8.3		2.5				
Green Ext Time (p_c), s	0.0	6.8		0.7	0.0	4.8		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		12.8
HCM 6th LOS		B

Notes

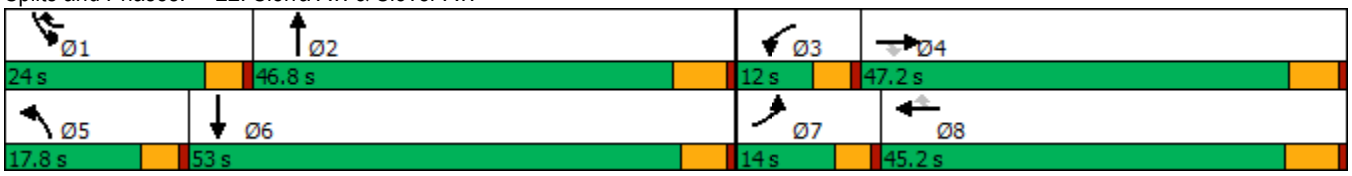
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

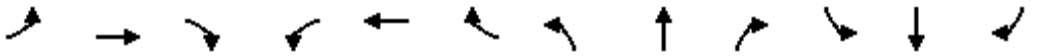
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	355	707	167	256	477	879	256	1471	790	1320
Future Volume (vph)	355	707	167	256	477	879	256	1471	790	1320
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	14.0	47.2	47.2	12.0	45.2	24.0	17.8	46.8	24.0	53.0
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.8%	18.5%	13.7%	36.0%	18.5%	40.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 119.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	707	167	256	477	879	256	1471	234	790	1320	113
Future Volume (veh/h)	355	707	167	256	477	879	256	1471	234	790	1320	113
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	370	736	110	267	497	518	267	1532	223	823	1375	104
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	283	946	414	223	884	1152	326	1875	273	584	1950	148
Arrive On Green	0.08	0.26	0.26	0.06	0.24	0.24	0.09	0.32	0.32	0.17	0.40	0.40
Sat Flow, veh/h	3510	3610	1579	3510	3610	2780	3510	5802	844	3510	4918	372
Grp Volume(v), veh/h	370	736	110	267	497	518	267	1294	461	823	967	512
Grp Sat Flow(s),veh/h/ln	1755	1805	1579	1755	1805	1390	1755	1634	1743	1755	1729	1832
Q Serve(g_s), s	9.4	22.1	6.4	7.4	14.1	15.7	8.7	28.3	28.4	19.4	27.3	27.3
Cycle Q Clear(g_c), s	9.4	22.1	6.4	7.4	14.1	15.7	8.7	28.3	28.4	19.4	27.3	27.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		0.20
Lane Grp Cap(c), veh/h	283	946	414	223	884	1152	326	1584	564	584	1371	726
V/C Ratio(X)	1.31	0.78	0.27	1.20	0.56	0.45	0.82	0.82	0.82	1.41	0.71	0.71
Avail Cap(c_a), veh/h	283	1281	560	223	1207	1400	397	1706	607	584	1411	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	39.9	34.2	54.6	38.6	24.9	52.0	36.3	36.3	48.6	29.5	29.5
Incr Delay (d2), s/veh	161.9	2.2	0.3	124.7	0.6	0.3	8.9	3.0	8.1	194.6	1.6	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	9.7	2.4	7.0	6.0	4.9	4.1	11.2	12.8	24.0	11.0	12.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	215.6	42.1	34.5	179.3	39.1	25.1	60.9	39.4	44.4	243.3	31.1	32.4
LnGrp LOS	F	D	C	F	D	C	E	D	D	F	C	C
Approach Vol, veh/h		1216			1282			2022			2302	
Approach Delay, s/veh		94.2			62.7			43.4			107.2	
Approach LOS		F			E			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	43.9	12.0	36.8	15.4	52.5	14.0	34.8
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	19.4	40.6	7.4	* 41	13.2	* 48	9.4	39.0
Max Q Clear Time (g_c+I1), s	21.4	30.4	9.4	24.1	10.7	29.3	11.4	17.7
Green Ext Time (p_c), s	0.0	7.1	0.0	4.6	0.1	9.1	0.0	5.1

Intersection Summary	
HCM 6th Ctrl Delay	77.6
HCM 6th LOS	E

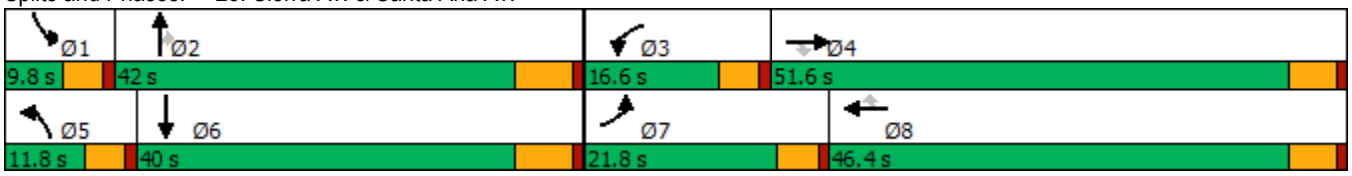
Notes

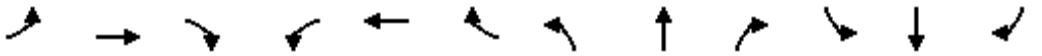
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	283	197	165	84	169	82	191	1632	75	132	1317
Future Volume (vph)	283	197	165	84	169	82	191	1632	75	132	1317
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	21.8	51.6	51.6	16.6	46.4	46.4	11.8	42.0	42.0	9.8	40.0
Total Split (%)	18.2%	43.0%	43.0%	13.8%	38.7%	38.7%	9.8%	35.0%	35.0%	8.2%	33.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 95.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	197	165	84	169	82	191	1632	75	132	1317	177
Future Volume (veh/h)	283	197	165	84	169	82	191	1632	75	132	1317	177
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	289	201	70	86	172	46	195	1665	69	135	1344	166
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	873	389	111	444	198	272	2028	620	206	1741	215
Arrive On Green	0.18	0.24	0.24	0.06	0.12	0.12	0.08	0.39	0.39	0.06	0.37	0.37
Sat Flow, veh/h	1810	3610	1608	1810	3610	1610	3510	5187	1586	3510	4676	578
Grp Volume(v), veh/h	289	201	70	86	172	46	195	1665	69	135	994	516
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1610	1755	1729	1586	1755	1729	1796
Q Serve(g_s), s	13.1	3.8	2.9	3.9	3.7	2.2	4.6	24.3	2.3	3.2	21.3	21.3
Cycle Q Clear(g_c), s	13.1	3.8	2.9	3.9	3.7	2.2	4.6	24.3	2.3	3.2	21.3	21.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	327	873	389	111	444	198	272	2028	620	206	1288	669
V/C Ratio(X)	0.88	0.23	0.18	0.77	0.39	0.23	0.72	0.82	0.11	0.65	0.77	0.77
Avail Cap(c_a), veh/h	369	1978	881	258	1756	783	300	2203	674	217	1386	720
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.7	25.7	25.3	39.0	34.0	33.4	38.0	23.0	16.3	38.8	23.3	23.3
Incr Delay (d2), s/veh	18.7	0.1	0.2	4.2	0.6	0.6	5.7	2.4	0.1	4.9	2.6	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	1.5	1.1	1.8	1.6	0.8	2.1	9.0	0.8	1.4	8.1	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.4	25.8	25.5	43.2	34.6	34.0	43.7	25.5	16.4	43.8	25.9	28.1
LnGrp LOS	D	C	C	D	C	C	D	C	B	D	C	C
Approach Vol, veh/h		560			304			1929			1645	
Approach Delay, s/veh		39.5			36.9			27.0			28.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	39.2	9.8	25.8	11.1	37.6	19.8	15.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.2	35.8	12.0	46.2	7.2	33.8	17.2	41.0
Max Q Clear Time (g_c+I1), s	5.2	26.3	5.9	5.8	6.6	23.3	15.1	5.7
Green Ext Time (p_c), s	0.0	6.7	0.0	1.5	0.0	6.3	0.1	1.2

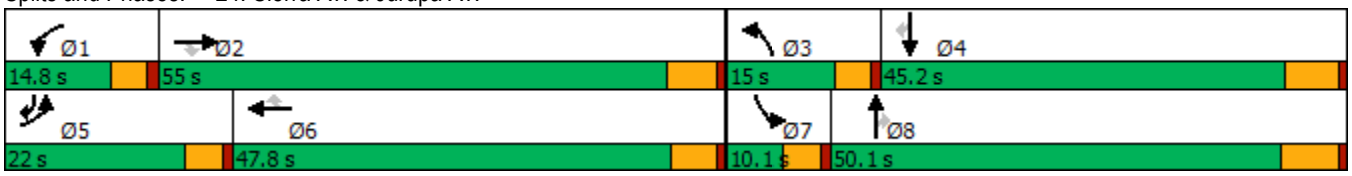
Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

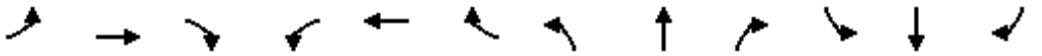
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	528	354	328	146	293	124	312	1046	102	117	730	307
Future Volume (vph)	528	354	328	146	293	124	312	1046	102	117	730	307
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	22.0	55.0	55.0	14.8	47.8	47.8	15.0	50.1	50.1	10.1	45.2	22.0
Total Split (%)	16.9%	42.3%	42.3%	11.4%	36.8%	36.8%	11.5%	38.5%	38.5%	7.8%	34.8%	16.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 98.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	528	354	328	146	293	124	312	1046	102	117	730	307
Future Volume (veh/h)	528	354	328	146	293	124	312	1046	102	117	730	307
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	544	365	195	151	302	68	322	1078	62	121	753	249
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	630	880	392	229	467	208	402	1349	594	199	1141	798
Arrive On Green	0.18	0.24	0.24	0.07	0.13	0.13	0.11	0.37	0.37	0.06	0.32	0.32
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3610	1590	3510	3610	1610
Grp Volume(v), veh/h	544	365	195	151	302	68	322	1078	62	121	753	249
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1590	1755	1805	1610
Q Serve(g_s), s	12.4	7.0	8.6	3.5	6.6	3.2	7.4	22.0	2.1	2.8	14.9	7.6
Cycle Q Clear(g_c), s	12.4	7.0	8.6	3.5	6.6	3.2	7.4	22.0	2.1	2.8	14.9	7.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	630	880	392	229	467	208	402	1349	594	199	1141	798
V/C Ratio(X)	0.86	0.42	0.50	0.66	0.65	0.33	0.80	0.80	0.10	0.61	0.66	0.31
Avail Cap(c_a), veh/h	740	2152	960	434	1854	827	442	1907	840	234	1706	1050
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	26.3	26.9	37.7	34.1	32.7	35.6	23.1	16.8	38.0	24.4	12.4
Incr Delay (d2), s/veh	8.2	0.3	1.0	1.2	1.5	0.9	8.3	1.7	0.1	1.5	0.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	2.8	3.1	1.5	2.8	1.2	3.3	8.2	0.7	1.2	5.8	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	26.6	27.8	38.9	35.6	33.6	43.9	24.7	16.9	39.6	25.0	12.6
LnGrp LOS	D	C	C	D	D	C	D	C	B	D	C	B
Approach Vol, veh/h		1104			521			1462			1123	
Approach Delay, s/veh		33.9			36.3			28.6			23.9	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	25.9	14.0	32.6	19.4	16.5	9.3	37.4
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	10.2	49.2	10.4	* 39	17.4	* 42	5.5	43.6
Max Q Clear Time (g_c+I1), s	5.5	10.6	9.4	16.9	14.4	8.6	4.8	24.0
Green Ext Time (p_c), s	0.1	2.9	0.1	5.5	0.4	2.1	0.0	6.8

Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

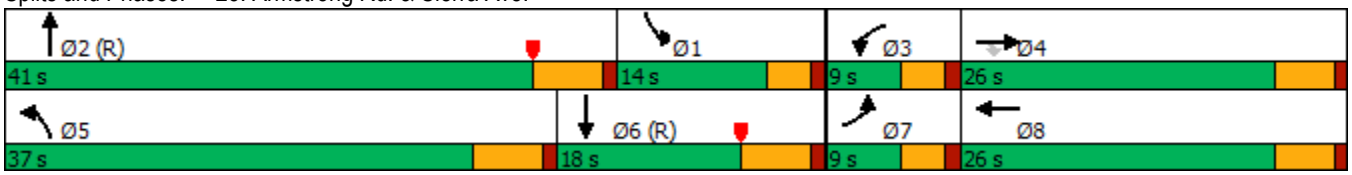
Notes

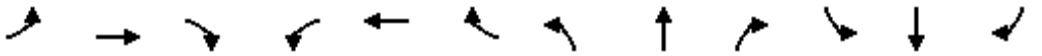
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	126	190	828	195	116	1352	759	52	256
Future Volume (vph)	126	190	828	195	116	1352	759	52	256
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0	26.0	9.0	26.0	37.0	41.0	14.0	18.0
Total Split (%)	10.0%	28.9%	28.9%	10.0%	28.9%	41.1%	45.6%	15.6%	20.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	16.2	16.2	5.0	16.2	36.1	45.7	10.0	12.3
Actuated g/C Ratio	0.06	0.18	0.18	0.06	0.18	0.40	0.51	0.11	0.14
v/c Ratio	1.30	0.30	0.92	2.01	0.25	0.99	1.19	0.27	1.18
Control Delay	227.5	31.9	20.1	513.5	22.0	52.2	120.2	40.6	149.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	227.5	31.9	20.1	513.5	22.0	52.2	120.2	40.6	149.5
LOS	F	C	C	F	C	D	F	D	F
Approach Delay		44.9			290.5		82.3		133.2
Approach LOS		D			F		F		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 14 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.01	
Intersection Signal Delay: 93.9	Intersection LOS: F
Intersection Capacity Utilization 99.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	190	828	195	116	46	1352	759	318	52	256	42
Future Volume (veh/h)	126	190	828	195	116	46	1352	759	318	52	256	42
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	196	0	201	120	47	1394	782	327	54	264	35
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	301		101	215	80	1221	499	209	438	470	62
Arrive On Green	0.06	0.08	0.00	0.06	0.08	0.08	0.35	0.39	0.39	0.24	0.29	0.29
Sat Flow, veh/h	1810	3610	1610	1810	2570	962	3510	1272	532	1810	1640	217
Grp Volume(v), veh/h	130	196	0	201	83	84	1394	0	1109	54	0	299
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1727	1755	0	1804	1810	0	1858
Q Serve(g_s), s	5.0	4.7	0.0	5.0	4.0	4.2	31.3	0.0	35.3	2.1	0.0	12.3
Cycle Q Clear(g_c), s	5.0	4.7	0.0	5.0	4.0	4.2	31.3	0.0	35.3	2.1	0.0	12.3
Prop In Lane	1.00		1.00	1.00		0.56	1.00		0.29	1.00		0.12
Lane Grp Cap(c), veh/h	101	301		101	151	144	1221	0	708	438	0	532
V/C Ratio(X)	1.29	0.65		2.00	0.55	0.59	1.14	0.00	1.57	0.12	0.00	0.56
Avail Cap(c_a), veh/h	101	842		101	421	403	1221	0	708	438	0	532
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	0.00	1.00	1.00	1.00	0.24	0.00	0.24	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	40.0	0.0	42.5	39.6	39.7	29.3	0.0	27.4	26.6	0.0	27.3
Incr Delay (d2), s/veh	187.5	2.4	0.0	483.1	3.1	3.7	66.5	0.0	256.9	0.0	0.0	4.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.3	2.1	0.0	15.7	1.9	1.9	23.2	0.0	64.0	0.9	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	230.0	42.3	0.0	525.6	42.7	43.5	95.9	0.0	284.2	26.7	0.0	31.5
LnGrp LOS	F	D		F	D	D	F	A	F	C	A	C
Approach Vol, veh/h		326	A		368			2503			353	
Approach Delay, s/veh		117.2			306.6			179.3			30.8	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.5	41.0	9.0	12.5	37.0	31.5	9.0	12.5
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 35	5.0	21.0	31.3	12.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	4.1	37.3	7.0	6.7	33.3	14.3	7.0	6.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	172.1
HCM 6th LOS	F

Notes

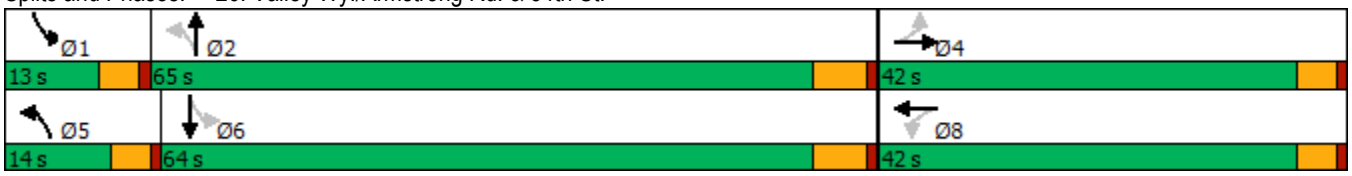
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

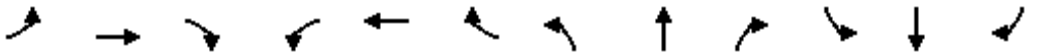
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	154	16	60	24	19	2505	11	1313
Future Volume (vph)	154	16	60	24	19	2505	11	1313
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	14.0	65.0	13.0	64.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	11.7%	54.2%	10.8%	53.3%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	16.3	16.3		16.3	66.4	64.2	65.4	62.3
Actuated g/C Ratio	0.18	0.18		0.18	0.72	0.69	0.71	0.67
v/c Ratio	0.68	0.08		0.37	0.08	1.06	0.06	0.60
Control Delay	50.8	23.2		34.8	5.3	54.9	5.6	11.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	23.2		34.8	5.3	54.9	5.6	11.4
LOS	D	C		C	A	D	A	B
Approach Delay		46.9		34.8		54.5		11.4
Approach LOS		D		C		D		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.7	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay: 39.5	Intersection LOS: D
Intersection Capacity Utilization 92.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	16	10	60	24	13	19	2505	64	11	1313	87
Future Volume (veh/h)	154	16	10	60	24	13	19	2505	64	11	1313	87
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	16	8	62	25	10	20	2582	55	11	1354	78
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	281	159	79	185	69	21	298	2462	52	107	2333	134
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.02	0.68	0.68	0.01	0.67	0.67
Sat Flow, veh/h	1395	1194	597	881	518	161	1810	3614	77	1810	3470	199
Grp Volume(v), veh/h	159	0	24	97	0	0	20	1285	1352	11	703	729
Grp Sat Flow(s),veh/h/ln	1395	0	1791	1559	0	0	1810	1805	1886	1810	1805	1864
Q Serve(g_s), s	3.9	0.0	1.0	3.7	0.0	0.0	0.3	59.2	59.2	0.2	18.2	18.3
Cycle Q Clear(g_c), s	8.8	0.0	1.0	4.8	0.0	0.0	0.3	59.2	59.2	0.2	18.2	18.3
Prop In Lane	1.00		0.33	0.64		0.10	1.00		0.04	1.00		0.11
Lane Grp Cap(c), veh/h	281	0	238	275	0	0	298	1229	1285	107	1214	1254
V/C Ratio(X)	0.57	0.00	0.10	0.35	0.00	0.00	0.07	1.04	1.05	0.10	0.58	0.58
Avail Cap(c_a), veh/h	696	0	771	729	0	0	454	1229	1285	258	1214	1254
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	33.1	34.7	0.0	0.0	6.1	13.9	13.9	24.0	7.6	7.7
Incr Delay (d2), s/veh	1.8	0.0	0.2	0.8	0.0	0.0	0.0	38.2	40.2	0.2	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.5	1.9	0.0	0.0	0.1	29.1	31.1	0.1	5.7	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.1	0.0	33.3	35.5	0.0	0.0	6.2	52.1	54.1	24.1	9.7	9.6
LnGrp LOS	D	A	C	D	A	A	A	F	F	C	A	A
Approach Vol, veh/h		183			97			2657			1443	
Approach Delay, s/veh		37.5			35.5			52.8			9.8	
Approach LOS		D			D			D			A	

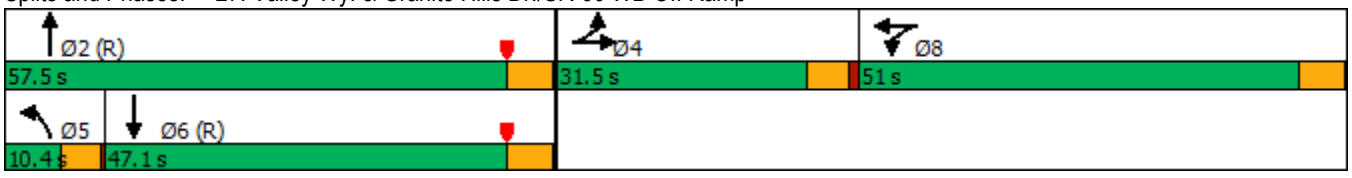
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.8	65.0		16.2	6.5	64.3		16.2				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	8.4	59.2		37.4	9.4	58.2		37.4				
Max Q Clear Time (g_c+I1), s	2.2	61.2		10.8	2.3	20.3		6.8				
Green Ext Time (p_c), s	0.0	0.0		0.6	0.0	12.0		0.5				

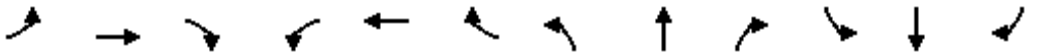
Intersection Summary			
HCM 6th Ctrl Delay		37.6	
HCM 6th LOS		D	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	450	44	155	1765	2140
Future Volume (vph)	0	450	44	155	1765	2140
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	31.5	51.0	51.0	10.4	57.5	47.1
Total Split (%)	22.5%	36.4%	36.4%	7.4%	41.1%	33.6%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	26.1	45.7	45.7	5.8	52.2	41.8
Actuated g/C Ratio	0.19	0.33	0.33	0.04	0.37	0.30
v/c Ratio	1.68	0.80	1.41	2.20	1.38	2.37
Control Delay	354.1	55.0	228.6	604.5	210.1	641.4
Queue Delay	2.5	0.0	0.0	0.0	0.0	6.3
Total Delay	356.5	55.0	228.6	604.5	210.1	647.8
LOS	F	D	F	F	F	F
Approach Delay	356.5		163.9		241.9	647.8
Approach LOS	F		F		F	F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.37	
Intersection Signal Delay: 397.1	Intersection LOS: F
Intersection Capacity Utilization 169.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	249	0	260	450	44	713	155	1765	0	0	2140	255
Future Volume (veh/h)	249	0	260	450	44	713	155	1765	0	0	2140	255
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	262	0	274	474	46	657	163	1858	0	0	2253	262
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	154	0	161	591	34	489	75	1346	0	0	974	111
Arrive On Green	0.19	0.00	0.19	0.33	0.33	0.33	0.01	0.12	0.00	0.00	0.30	0.30
Sat Flow, veh/h	826	0	864	1810	105	1497	1810	3705	0	0	3356	371
Grp Volume(v), veh/h	536	0	0	474	0	703	163	1858	0	0	1225	1290
Grp Sat Flow(s),veh/h/ln	1690	0	0	1810	0	1602	1810	1805	0	0	1805	1827
Q Serve(g_s), s	26.1	0.0	0.0	33.5	0.0	45.7	5.8	52.2	0.0	0.0	41.8	41.8
Cycle Q Clear(g_c), s	26.1	0.0	0.0	33.5	0.0	45.7	5.8	52.2	0.0	0.0	41.8	41.8
Prop In Lane	0.49		0.51	1.00		0.93	1.00		0.00	0.00		0.20
Lane Grp Cap(c), veh/h	315	0	0	591	0	523	75	1346	0	0	539	546
V/C Ratio(X)	1.70	0.00	0.00	0.80	0.00	1.34	2.17	1.38	0.00	0.00	2.27	2.36
Avail Cap(c_a), veh/h	315	0	0	591	0	523	75	1346	0	0	539	546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.80	0.80	0.00	0.00	0.77	0.77
Uniform Delay (d), s/veh	57.0	0.0	0.0	43.0	0.0	47.2	69.0	61.4	0.0	0.0	49.1	49.1
Incr Delay (d2), s/veh	329.0	0.0	0.0	7.9	0.0	167.4	561.9	175.0	0.0	0.0	577.6	618.3
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	39.7	0.0	0.0	15.8	0.0	41.9	14.4	58.0	0.0	0.0	104.7	112.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	386.0	0.0	0.0	50.9	0.0	214.5	630.9	236.4	0.0	0.0	626.7	667.4
LnGrp LOS	F	A	A	D	A	F	F	F	A	A	F	F
Approach Vol, veh/h		536			1177			2021			2515	
Approach Delay, s/veh		386.0			148.6			268.2			647.6	
Approach LOS		F			F			F			F	

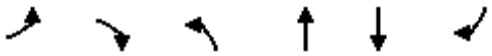
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		57.5		31.5	10.4	47.1		51.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		52.2		26.1	5.8	41.8		45.7				
Max Q Clear Time (g_c+I1), s		54.2		28.1	7.8	43.8		47.7				
Green Ext Time (p_c), s		0.0		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			408.5									
HCM 6th LOS			F									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	184	1921	2406
Future Volume (vph)	184	1921	2406
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	9.7	140.0	130.3
Total Split (%)	6.9%	100.0%	93.1%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	5.1	140.0	124.5
Actuated g/C Ratio	0.04	1.00	0.89
v/c Ratio	3.05	0.57	0.98
Control Delay	980.8	0.7	36.0
Queue Delay	0.0	48.7	0.0
Total Delay	980.8	49.4	36.0
LOS	F	D	D
Approach Delay		130.8	36.0
Approach LOS		F	D

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 134.2 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.05	
Intersection Signal Delay: 76.3	Intersection LOS: E
Intersection Capacity Utilization 99.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	184	1921	2406	443
Future Volume (veh/h)	0	0	184	1921	2406	443
Initial Q (Qb), veh			20	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.98
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			198	2066	2587	476
Peak Hour Factor			0.93	0.93	0.93	0.93
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			66	3460	2713	482
Arrive On Green			0.04	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	3146	542
Grp Volume(v), veh/h			198	2066	1492	1571
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1788
Q Serve(g_s), s			5.1	7.8	0.0	0.0
Cycle Q Clear(g_c), s			5.1	7.8	0.0	0.0
Prop In Lane			1.00			0.30
Lane Grp Cap(c), veh/h			66	3460	1605	1590
V/C Ratio(X)			3.00	0.60	0.93	0.99
Avail Cap(c_a), veh/h			66	3460	1605	1590
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh			67.4	0.3	0.0	0.0
Incr Delay (d2), s/veh			905.3	0.1	1.3	4.5
Initial Q Delay(d3),s/veh			1092.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			38.9	0.0	0.6	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			2065.0	0.4	1.3	4.5
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				2264	3063	
Approach Delay, s/veh				180.9	2.9	
Approach LOS				F	A	

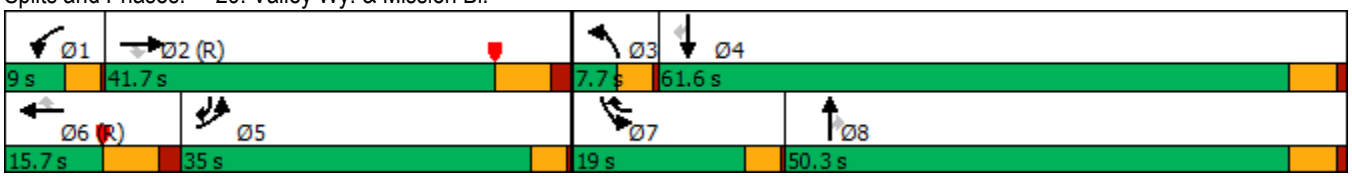
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			9.7	130.3
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			5.1	124.5
Max Q Clear Time (g_c+I1), s	9.8			7.1	2.0
Green Ext Time (p_c), s	37.6			0.0	111.4

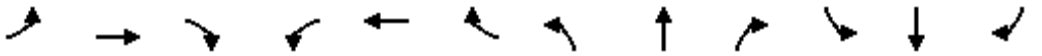
Intersection Summary	
HCM 6th Ctrl Delay	78.6
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1057	785	49	65	171	467	11	454	80	401	462	277
Future Volume (vph)	1057	785	49	65	171	467	11	454	80	401	462	277
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	35.0	41.7	41.7	9.0	15.7	19.0	7.7	50.3	50.3	19.0	61.6	35.0
Total Split (%)	29.2%	34.8%	34.8%	7.5%	13.1%	15.8%	6.4%	41.9%	41.9%	15.8%	51.3%	29.2%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	31.3	53.0	53.0	10.0	31.7	50.3	4.0	22.0	22.0	15.3	39.5	72.4
Actuated g/C Ratio	0.26	0.44	0.44	0.08	0.26	0.42	0.03	0.18	0.18	0.13	0.33	0.60
v/c Ratio	1.21	0.51	0.07	0.46	0.19	0.65	0.09	0.72	0.21	0.94	0.41	0.16
Control Delay	142.0	26.8	0.2	61.7	36.1	16.0	58.1	52.0	2.0	81.6	32.1	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	142.0	26.8	0.2	61.7	36.1	16.0	58.1	52.0	2.0	81.6	32.1	0.9
LOS	F	C	A	E	D	B	E	D	A	F	C	A
Approach Delay		90.5			25.1			44.8			42.0	
Approach LOS		F			C			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay: 61.0	Intersection LOS: E
Intersection Capacity Utilization 83.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1057	785	49	65	171	467	11	454	80	401	462	277
Future Volume (veh/h)	1057	785	49	65	171	467	11	454	80	401	462	277
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1101	818	30	68	178	459	11	473	40	418	481	215
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	1490	1734	768	80	262	322	36	663	291	448	1087	2051
Arrive On Green	0.42	0.48	0.48	0.04	0.07	0.07	0.01	0.18	0.18	0.13	0.30	0.30
Sat Flow, veh/h	3510	3610	1599	1810	3610	1610	3510	3610	1584	3510	3610	2815
Grp Volume(v), veh/h	1101	818	30	68	178	459	11	473	40	418	481	215
Grp Sat Flow(s),veh/h/ln	1755	1805	1599	1810	1805	1610	1755	1805	1584	1755	1805	1408
Q Serve(g_s), s	31.6	18.3	1.2	4.5	5.8	6.8	0.4	14.8	2.5	14.2	12.9	0.4
Cycle Q Clear(g_c), s	31.6	18.3	1.2	4.5	5.8	6.8	0.4	14.8	2.5	14.2	12.9	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1490	1734	768	80	262	322	36	663	291	448	1087	2051
V/C Ratio(X)	0.74	0.47	0.04	0.85	0.68	1.43	0.31	0.71	0.14	0.93	0.44	0.10
Avail Cap(c_a), veh/h	1490	1734	768	80	262	322	117	1354	594	448	1694	2524
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)	0.51	0.51	0.51	1.00	1.00	1.00	1.00	1.00	1.00	0.82	0.82	0.82
Uniform Delay (d), s/veh	28.9	20.9	16.5	57.0	54.3	21.4	59.0	46.0	41.0	51.8	33.8	1.2
Incr Delay (d2), s/veh	0.9	0.5	0.0	52.4	13.4	208.6	1.8	1.4	0.2	23.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	7.4	0.4	3.2	3.1	23.9	0.2	6.7	1.0	7.5	5.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	21.4	16.6	109.3	67.7	230.0	60.7	47.4	41.2	75.2	34.0	1.2
LnGrp LOS	C	C	B	F	E	F	E	D	D	E	C	A
Approach Vol, veh/h		1949			705			524			1114	
Approach Delay, s/veh		26.1			177.4			47.2			43.2	
Approach LOS		C			F			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	64.6	4.9	41.4	57.9	15.7	19.0	27.4
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	5.3	34.7	4.0	56.3	31.3	* 8.7	15.3	45.0
Max Q Clear Time (g_c+I1), s	6.5	20.3	2.4	14.9	33.6	8.8	16.2	16.8
Green Ext Time (p_c), s	0.0	6.0	0.0	4.1	0.0	0.0	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	58.0
HCM 6th LOS	E

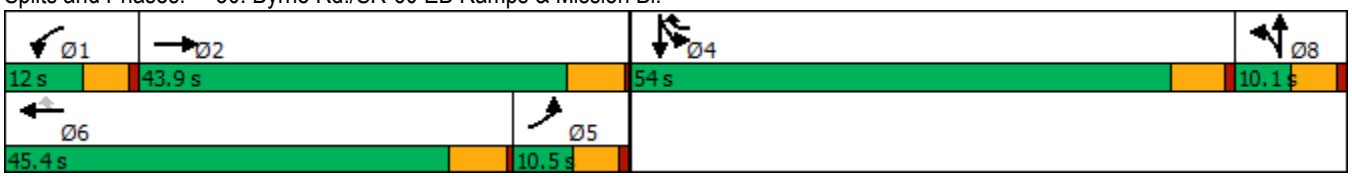
Notes

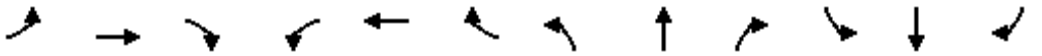
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	66	475	6	309	149	1	1488	6
Future Volume (vph)	66	475	6	309	149	1	1488	6
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	10.5	43.9	12.0	45.4	54.0	10.1	54.0	54.0
Total Split (%)	8.8%	36.6%	10.0%	37.8%	45.0%	8.4%	45.0%	45.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	Max	None	None	None	None	None	None
Act Effct Green (s)	21.5	38.4	6.0	13.9	67.1	5.0	48.5	48.5
Actuated g/C Ratio	0.21	0.38	0.06	0.14	0.66	0.05	0.47	0.47
v/c Ratio	0.18	0.38	0.06	0.67	0.14	0.13	1.04	1.02
Control Delay	36.7	25.2	50.0	49.3	1.3	42.5	70.8	64.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	25.2	50.0	49.3	1.3	42.5	70.8	64.4
LOS	D	C	D	D	A	D	E	E
Approach Delay		26.6		33.9		42.5		67.7
Approach LOS		C		C		D		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 102.3	
Natural Cycle: 135	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 52.9	Intersection LOS: D
Intersection Capacity Utilization 82.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	475	8	6	309	149	6	1	5	1488	6	92
Future Volume (veh/h)	66	475	8	6	309	149	6	1	5	1488	6	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	69	500	7	6	325	98	6	1	5	1641	0	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	417	1260	18	14	425	892	12	2	10	1579	829	0
Arrive On Green	0.23	0.35	0.35	0.01	0.12	0.12	0.01	0.01	0.01	0.44	0.00	0.00
Sat Flow, veh/h	1810	3644	51	1810	3610	1610	864	144	720	3619	1900	0
Grp Volume(v), veh/h	69	248	259	6	325	98	12	0	0	1641	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1890	1810	1805	1610	1727	0	0	1810	1900	0
Q Serve(g_s), s	3.4	11.5	11.5	0.4	9.6	3.2	0.8	0.0	0.0	48.2	0.0	0.0
Cycle Q Clear(g_c), s	3.4	11.5	11.5	0.4	9.6	3.2	0.8	0.0	0.0	48.2	0.0	0.0
Prop In Lane	1.00		0.03	1.00		1.00	0.50		0.42	1.00		0.00
Lane Grp Cap(c), veh/h	417	624	653	14	425	892	24	0	0	1579	829	0
V/C Ratio(X)	0.17	0.40	0.40	0.44	0.77	0.11	0.50	0.00	0.00	1.04	0.00	0.00
Avail Cap(c_a), veh/h	417	624	653	113	1297	1281	78	0	0	1579	829	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	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	34.0	27.4	27.4	54.6	47.3	11.7	54.1	0.0	0.0	31.1	0.0	0.0
Incr Delay (d2), s/veh	0.2	1.9	1.8	20.2	1.1	0.0	5.8	0.0	0.0	33.6	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	1.5	5.1	5.3	0.2	4.3	2.5	0.4	0.0	0.0	26.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	29.3	29.2	74.8	48.4	11.7	59.9	0.0	0.0	64.7	0.0	0.0
LnGrp LOS	C	C	C	E	D	B	E	A	A	F	A	A
Approach Vol, veh/h		576			429			12			1641	
Approach Delay, s/veh		29.8			40.4			59.9			64.7	
Approach LOS		C			D			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	43.9		54.0	31.1	18.7		6.6				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	6.9	38.2		48.2	5.4	* 40		5.0				
Max Q Clear Time (g_c+I1), s	2.4	13.5		50.2	5.4	11.6		2.8				
Green Ext Time (p_c), s	0.0	1.6		0.0	0.0	1.4		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		53.2
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 6.3:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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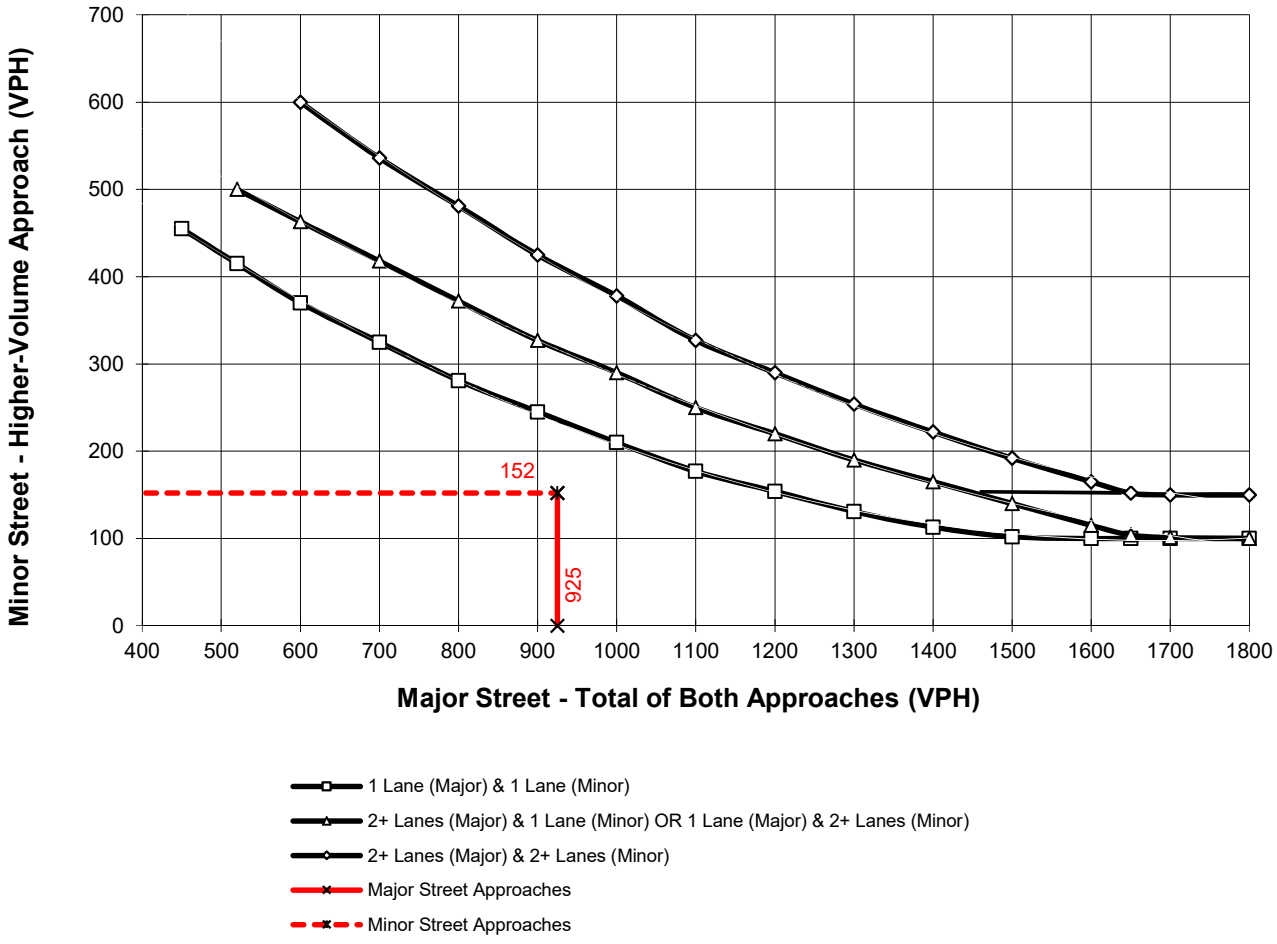
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year Cumulative (2022) Without Project Conditions - Weekday AM Peak Hou**

Major Street Name = **Santa Ana Av**
Total of Both Approaches (VPH) = **925**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Juniper Av**
High Volume Approach (VPH) = **152**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 6.4:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LCC	DATE 04/04/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/04/19
Major Street: Cypress Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 1				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **7,169** vpd Minor Street Future ADT = **69** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **7,169** / *1* **69**	8,000	5,600 *	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **7,169** / *1* **69**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A 4% B 8%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LCC	DATE 04/04/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/04/19
Major Street: Cypress Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 2				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,505** vpd Minor Street Future ADT = **830** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **6,505**	*1* **830**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **6,505**	*1* **830**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 49% B 77%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LCC	DATE 04/04/19
Jurisdiction: **City of Fontana**				CHK CH	DATE 04/04/19
Major Street: **Cypress Av**				Critical Approach Speed (Major)	45 mph
Minor Street: **Driveway 3**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **6,117** vpd Minor Street Future ADT = **255** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **6,117** / *1* **255**	8,000	5,600 *	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **6,117** / *1* **255**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A 15% B 30%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LCC	DATE 04/04/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/04/19
Major Street: Cypress Av				Critical Approach Speed (Major)	45 mph
Minor Street: Driveway 4				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,353** vpd Minor Street Future ADT = **76** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements EADT			
	XX				
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **6,353**	*1* **76**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach					
Major Street	Minor Street				
1 **6,353**	*1* **76**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	A 5% B 9%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

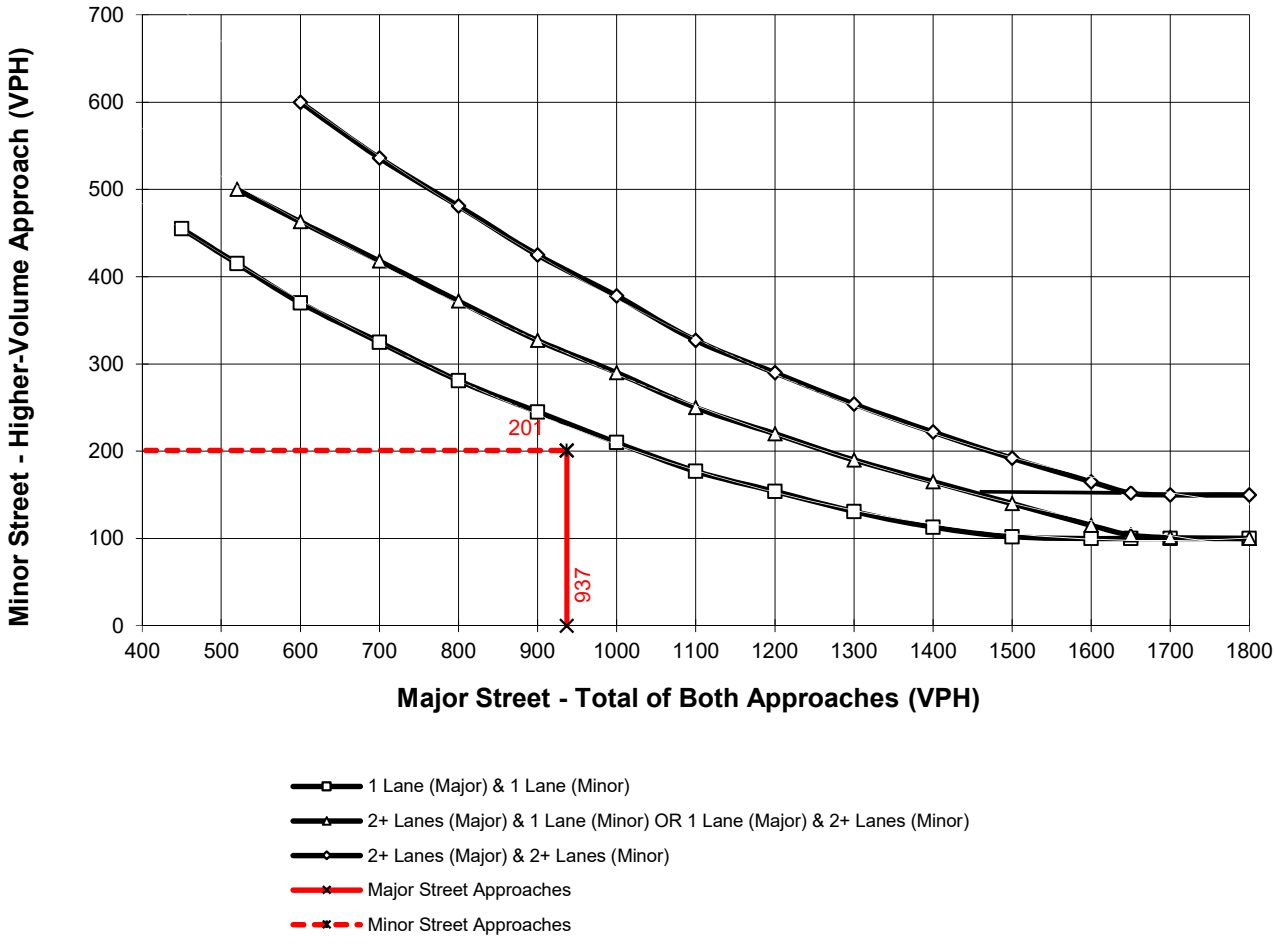
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year Cumulative (2022) With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Santa Ana Av**
Total of Both Approaches (VPH) = **937**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Juniper Av**
High Volume Approach (VPH) = **201**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LCC	DATE 04/04/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/04/19
Major Street: Juniper Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 5				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,635** vpd Minor Street Future ADT = **97** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,635** / 1 **97**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,635** / 1 **97**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 4% B: 8%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	**OYC (2022) WP**
				CALC LCC	DATE 04/04/19
Jurisdiction: **City of Fontana**				CHK CH	DATE 04/04/19
Major Street: **Juniper Av**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 6**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,698** vpd Minor Street Future ADT = **240** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
XX Satisfied / XX Not Satisfied				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,698** / *1* **240**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / XX Not Satisfied				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **2,698** / *1* **240**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / XX Not Satisfied				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 10% B: 20%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	**OYC (2022) WP**
				CALC LCC	DATE 04/04/19
Jurisdiction: **City of Fontana**				CHK CH	DATE 04/04/19
Major Street: **Juniper Av**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 7**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,961** vpd Minor Street Future ADT = **255** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach: Major Street / Minor Street				
1 **2,961** / *1* **255**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)				
Number of lanes for moving traffic on each approach: Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **2,961** / *1* **255**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 11% B: 21%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	OYC (2022) WP
				CALC LCC	DATE 04/04/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/04/19
Major Street: Juniper Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 8				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **3,237** vpd Minor Street Future ADT = **241** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
XX	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,237** / *1* **241**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **3,237** / *1* **241**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A **10%** B **20%**				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM		TRAFFIC CONDITIONS		OYC (2022) WP
				CALC	LCC	DATE	04/04/19
Jurisdiction:	City of Fontana			CHK	CH	DATE	04/04/19
Major Street:	Juniper Av				Critical Approach Speed (Major)		40 mph
Minor Street:	Driveway 9				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **3,361** vpd Minor Street Future ADT = **77** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX / XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,361** / 1 **77**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,361** / 1 **77**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 3% B: 6%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 6.5:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	815	536	913	495	1369	601
v/c Ratio	0.95	0.39	0.40	0.51	0.87	0.37
Control Delay	47.3	14.5	28.1	10.2	33.6	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.5	0.0
Total Delay	47.3	14.5	28.1	10.2	34.1	0.7
Queue Length 50th (ft)	464	93	131	79	418	0
Queue Length 95th (ft)	#727	137	m130	m73	#563	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	884	1417	2261	963	1574	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	35	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.38	0.40	0.51	0.89	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	401	838	1501	740	1530
v/c Ratio	0.27	1.22	1.10	1.17	0.88
Control Delay	19.6	139.9	91.2	128.6	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.3
Total Delay	19.6	139.9	91.2	128.6	22.5
Queue Length 50th (ft)	84	~658	~382	~294	266
Queue Length 95th (ft)	118	#895	#478	m#363	m414
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	1470	687	1360	630	1732
Starvation Cap Reductn	0	0	0	0	23
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	1.22	1.10	1.17	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	362	528	1325	583	956	516
v/c Ratio	0.80	0.73	0.39	0.47	0.40	0.32
Control Delay	48.6	36.3	13.6	6.0	9.3	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	36.3	13.6	6.0	9.3	0.5
Queue Length 50th (ft)	217	157	188	86	133	0
Queue Length 95th (ft)	289	197	268	m105	218	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	703	1117	3425	1233	2384	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.47	0.39	0.47	0.40	0.32

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	495	377	2023	510	798
v/c Ratio	0.77	0.76	0.80	0.83	0.31
Control Delay	47.1	24.4	22.9	45.6	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	24.4	22.9	45.6	6.9
Queue Length 50th (ft)	154	79	369	167	133
Queue Length 95th (ft)	206	186	456	182	89
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	735	531	2534	665	2583
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.67	0.71	0.80	0.77	0.31

Intersection Summary

APPENDIX 6.6:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	815	536	915	507	1378	601
v/c Ratio	0.95	0.39	0.40	0.52	0.88	0.37
Control Delay	47.3	14.6	27.9	10.3	34.0	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.6	0.0
Total Delay	47.3	14.6	27.9	10.3	34.5	0.7
Queue Length 50th (ft)	464	94	131	81	423	0
Queue Length 95th (ft)	#727	137	m128	m72	#570	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	884	1417	2261	970	1574	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	37	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.38	0.40	0.52	0.90	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	401	881	1516	740	1539
v/c Ratio	0.27	1.28	1.12	1.17	0.89
Control Delay	19.6	165.7	95.7	128.6	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.3
Total Delay	19.6	165.7	95.7	128.6	22.8
Queue Length 50th (ft)	84	~717	~390	~295	269
Queue Length 95th (ft)	118	#956	#486	m#360	m421
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	1470	687	1359	630	1732
Starvation Cap Reductn	0	0	0	0	23
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.27	1.28	1.12	1.17	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	362	528	1334	623	959	516
v/c Ratio	0.80	0.73	0.39	0.50	0.40	0.32
Control Delay	48.6	36.4	13.7	6.1	9.3	0.5
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	48.6	36.4	13.7	6.2	9.3	0.5
Queue Length 50th (ft)	217	157	186	93	133	0
Queue Length 95th (ft)	289	197	261	m105	220	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	703	1116	3425	1247	2384	1615
Starvation Cap Reductn	0	0	0	82	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.47	0.39	0.53	0.40	0.32

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	495	391	2071	510	801
v/c Ratio	0.77	0.79	0.82	0.83	0.31
Control Delay	47.1	26.9	23.7	46.1	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.1	26.9	23.7	46.1	6.7
Queue Length 50th (ft)	154	90	386	167	136
Queue Length 95th (ft)	206	200	476	182	93
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	735	530	2534	665	2583
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.67	0.74	0.82	0.77	0.31

Intersection Summary

APPENDIX 6.7:

OPENING YEAR CUMULATIVE (2022) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	WB E of Citrus	1740	5
2	Diverge	Basic	WB Off-Ramp	1500	5
3	Basic	Basic	Between Off and Loop On Ramp	1215	4
4	Merge	Merge	WB Loop On-Ramp	1500	4
5	Basic	Basic	Between On Ramps	1450	4
6	Merge	Merge	WB On Ramp	1500	4
7	Basic	Basic	WB W of Citrus	6460	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8065	11000	0.73	48.2	33.5	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.943	8065	1329	11000	2100	0.73	0.63	50.0	-	32.3	-	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6713	8800	0.76	48.2	34.8	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.917	7187	474	9000	1900	0.80	0.25	45.5	46.8	39.5	27.9	C

Segment 5: Basic

Time	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

Period			(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
1	0.92	0.980	7156		8800		0.81		48.2		37.1		E

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	7765	609	9000	2100	0.86	0.29	45.3	46.8	42.9	29.2	D

Segment 7: Basic

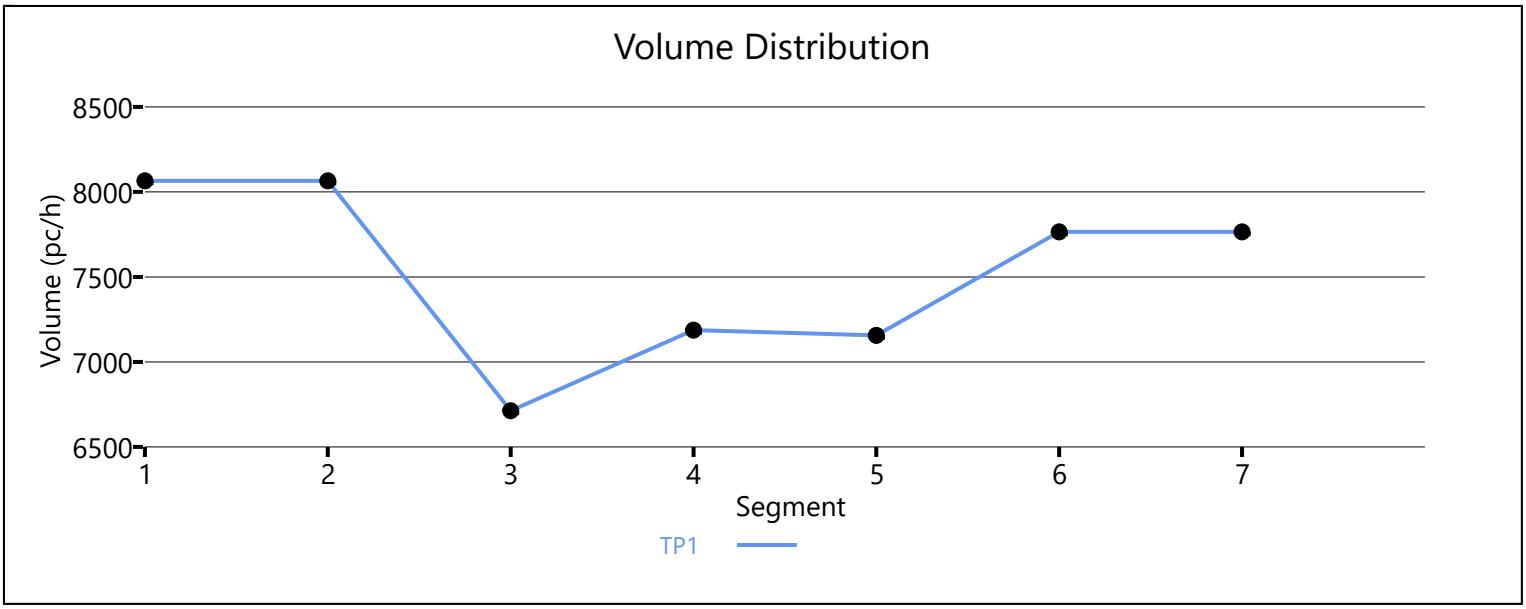
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7765	8800	0.88	48.2	40.3	E

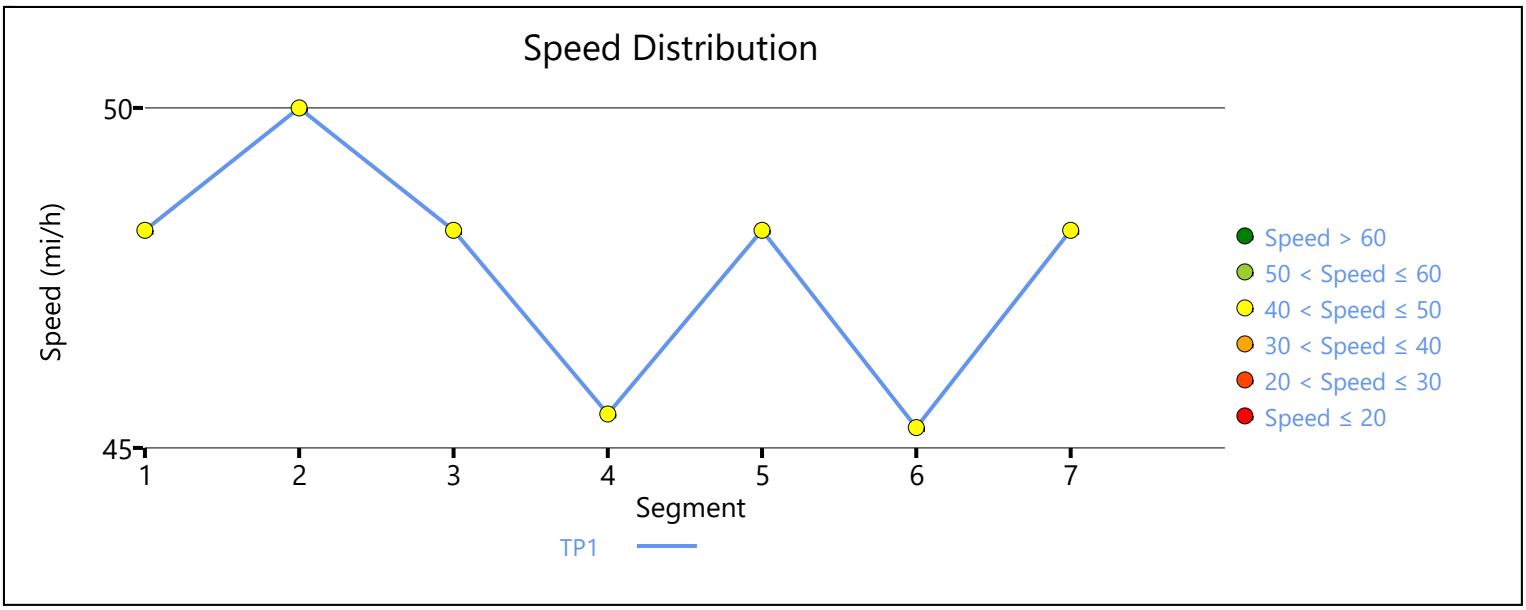
Facility Time Period Results

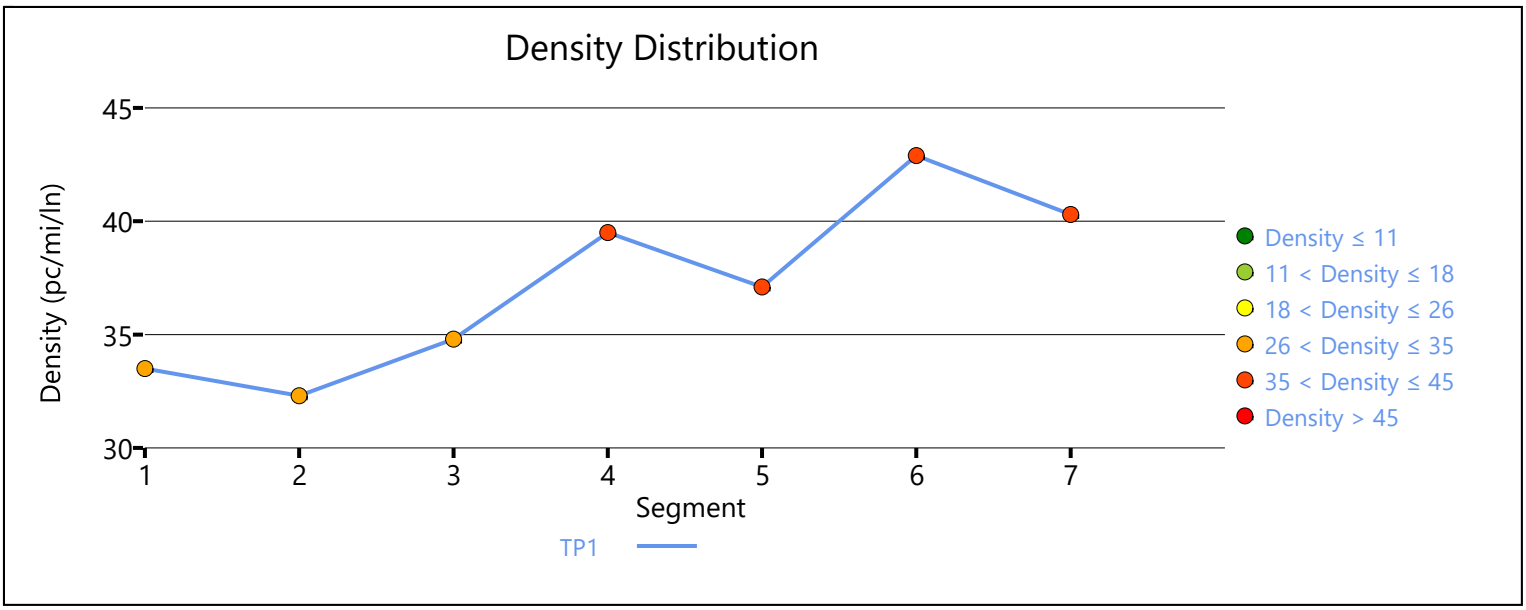
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	47.8	37.9	37.1	3.7	E

Facility Overall Results

Space Mean Speed, mi/h	47.8	Density, veh/mi/ln	37.1
Average Travel Time, min	3.7	Density, pc/mi/ln	37.9







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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7088	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1980
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.5
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6909	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1485
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	72.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7311	11685	0.63	63.7	23.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	7311	1207	11750	2100	0.62	0.57	64.9	-	22.5	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	6088	9348	0.65	63.6	23.9	C

Segment 4: Merge

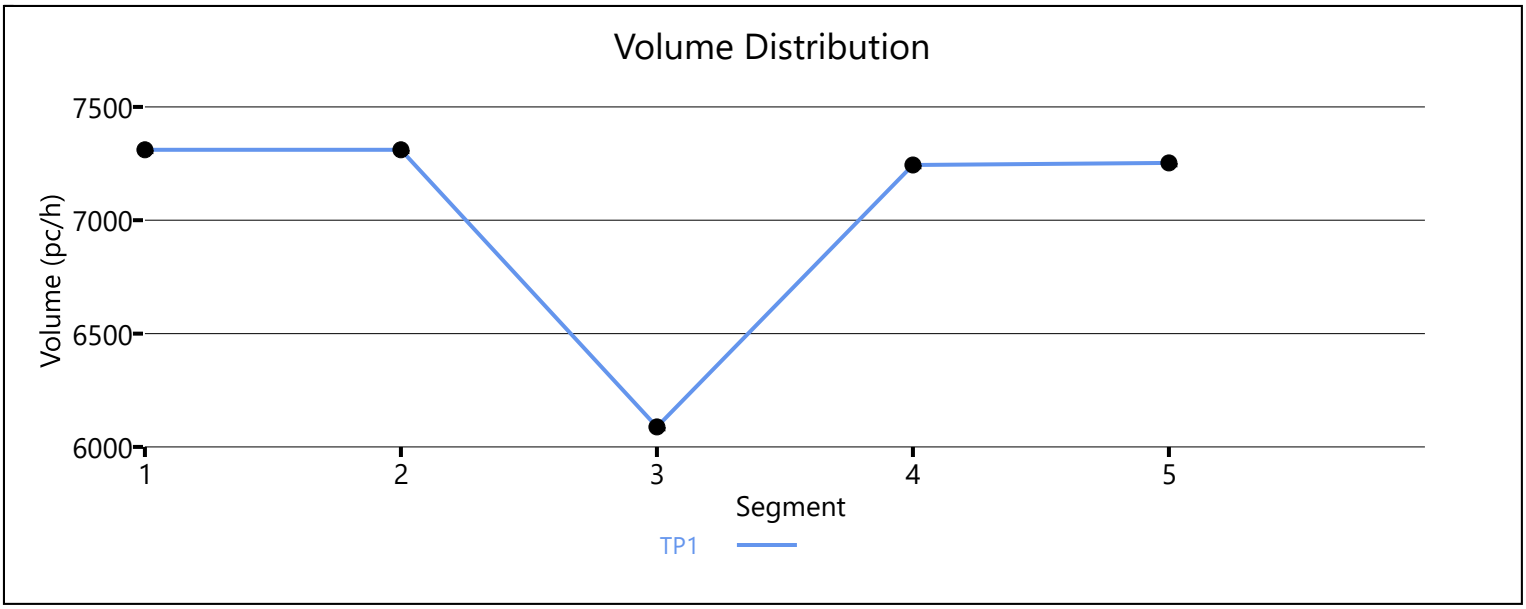
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.935	7244	1156	9400	2100	0.65	0.55	64.8	-	23.5	-	C

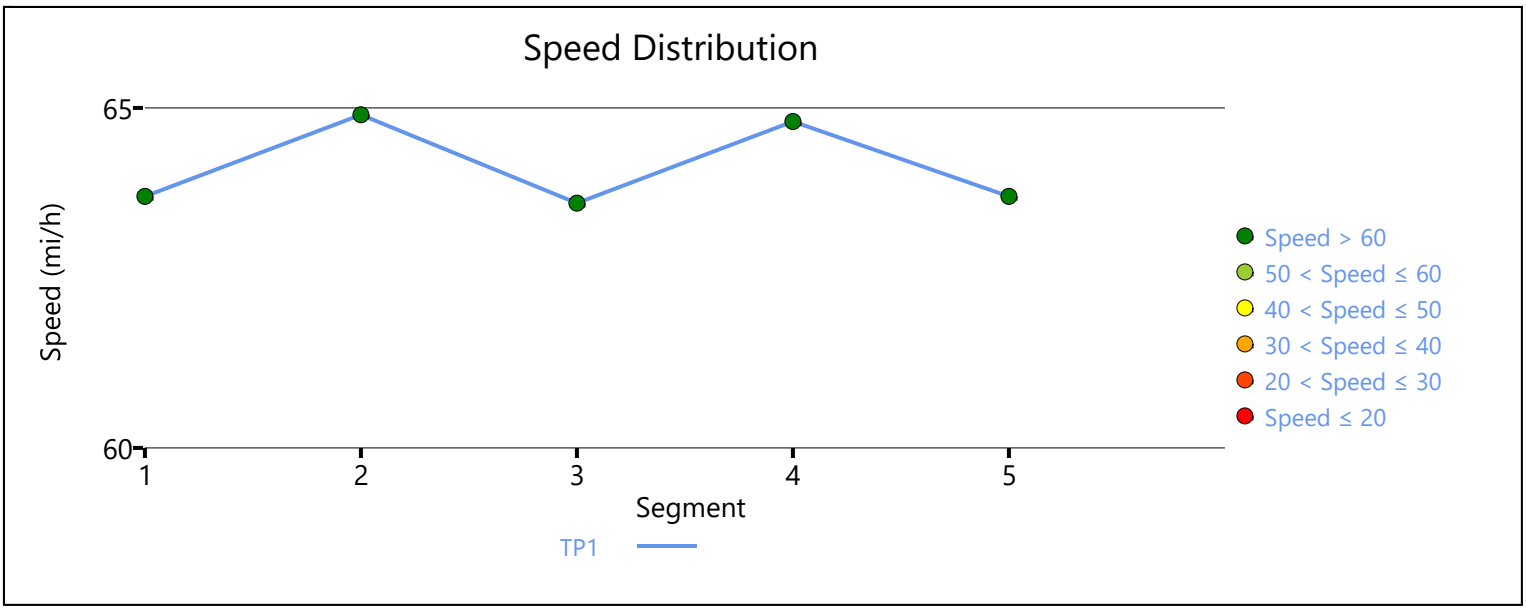
Segment 5: Basic

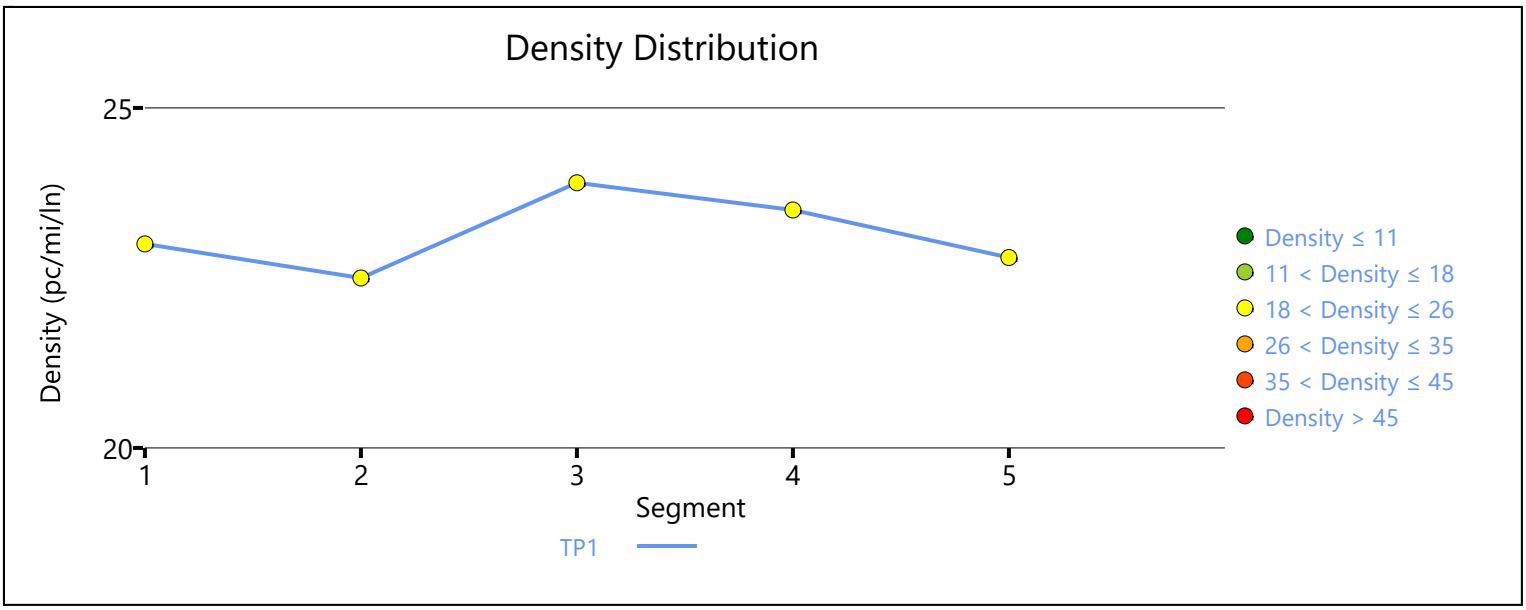
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7253	11685	0.62	63.7	22.8	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	63.9	23.1	22.6	2.7	C

Facility Overall Results			
Space Mean Speed, mi/h	63.9	Density, veh/mi/ln	22.6
Average Travel Time, min	2.7	Density, pc/mi/ln	23.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	GP Lane, ft	ML Type	ML Lanes
1	Basic	Basic	WB E of Citrus	1740	5	Continuous Access	1
2	Diverge	Basic	WB Off-Ramp	1500	5	Continuous Access	1
3	Basic	Basic	Between Off and Loop On Ramp	1215	4	Continuous Access	1
4	Merge	Merge	WB Loop On-Ramp	1500	4	Continuous Access	1
5	Basic	Basic	Between On Ramps	1450	4	Continuous Access	1
6	Merge	Merge	WB On Ramp	1500	4	Continuous Access	1
7	Basic	Basic	WB W of Citrus	6460	4	Continuous Access	1

Facility Segment Data

Segment 1: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7207	11660	0.62	63.2	22.8	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 2: Diverge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	7207	883	11750	2100	0.61	0.42	65.0	-	22.2	-	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 3: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6314	9328	0.68	63.0	25.0	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 4: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.962	6899	585	9400	1900	0.73	0.31	58.1	56.0	29.7	27.5	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 5: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6889	9328	0.74	62.2	27.7	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 6: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	7417	528	9400	2100	0.79	0.25	58.0	56.3	32.0	27.8	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 7: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7417	9328	0.80	61.0	30.4	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

General Purpose Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.2	27.9	27.3	2.9	D

Managed Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	75.4	0.0	0.0	2.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.2	22.5	22.0	2.9	C

General Purpos Lane Overall Results

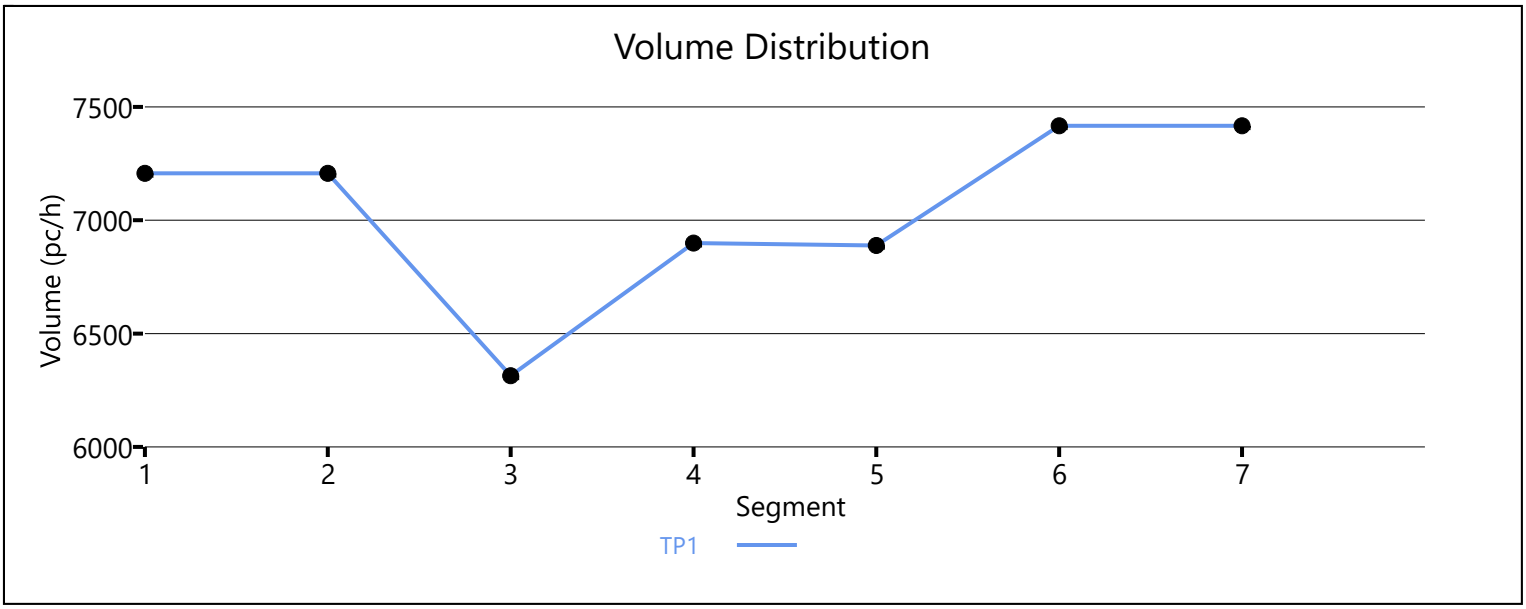
Space Mean Speed, mi/h	61.2	Density, veh/mi/ln	27.3
Average Travel Time, min	2.9	Density, pc/mi/ln	27.9

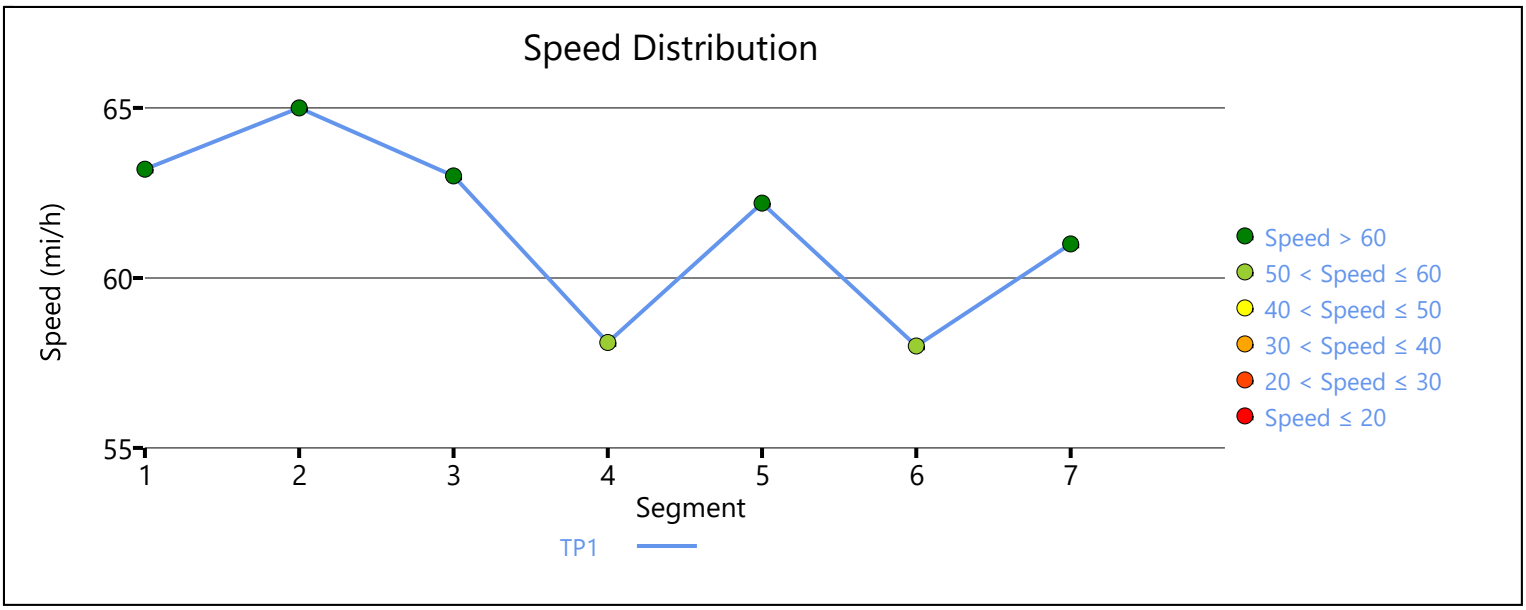
Managed Lane Overall Results

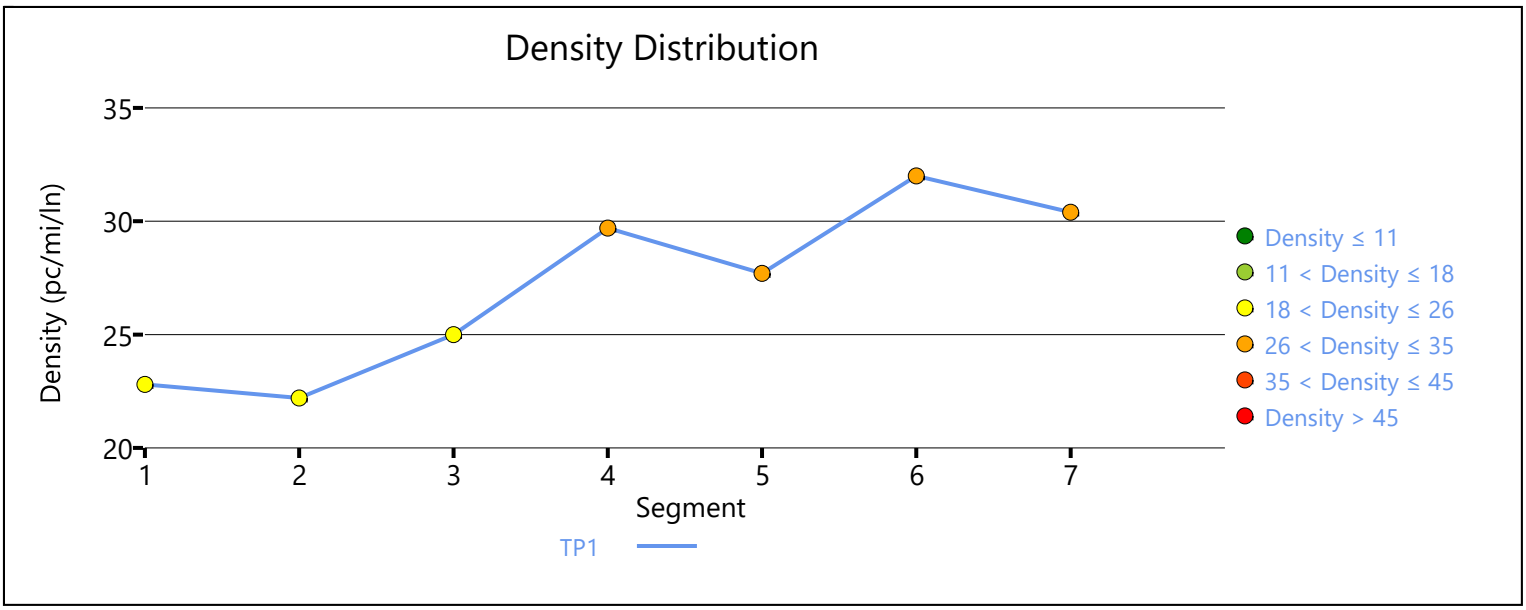
Space Mean Speed, mi/h	75.4	Density, veh/mi/ln	0.0
Average Travel Time, min	2.3	Density, pc/mi/ln	0.0

Facility Overall Results

Space Mean Speed, mi/h	61.2	Density, veh/mi/ln	22.0
Average Travel Time, min	2.9	Density, pc/mi/ln	22.5







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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6523	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1787
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.74
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.2
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5661	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1217
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	74.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6798	11185	0.61	53.7	25.3	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.971	6798	891	11250	2100	0.60	0.42	55.0	-	24.7	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	5915	8948	0.66	53.7	27.5	D

Segment 4: Merge

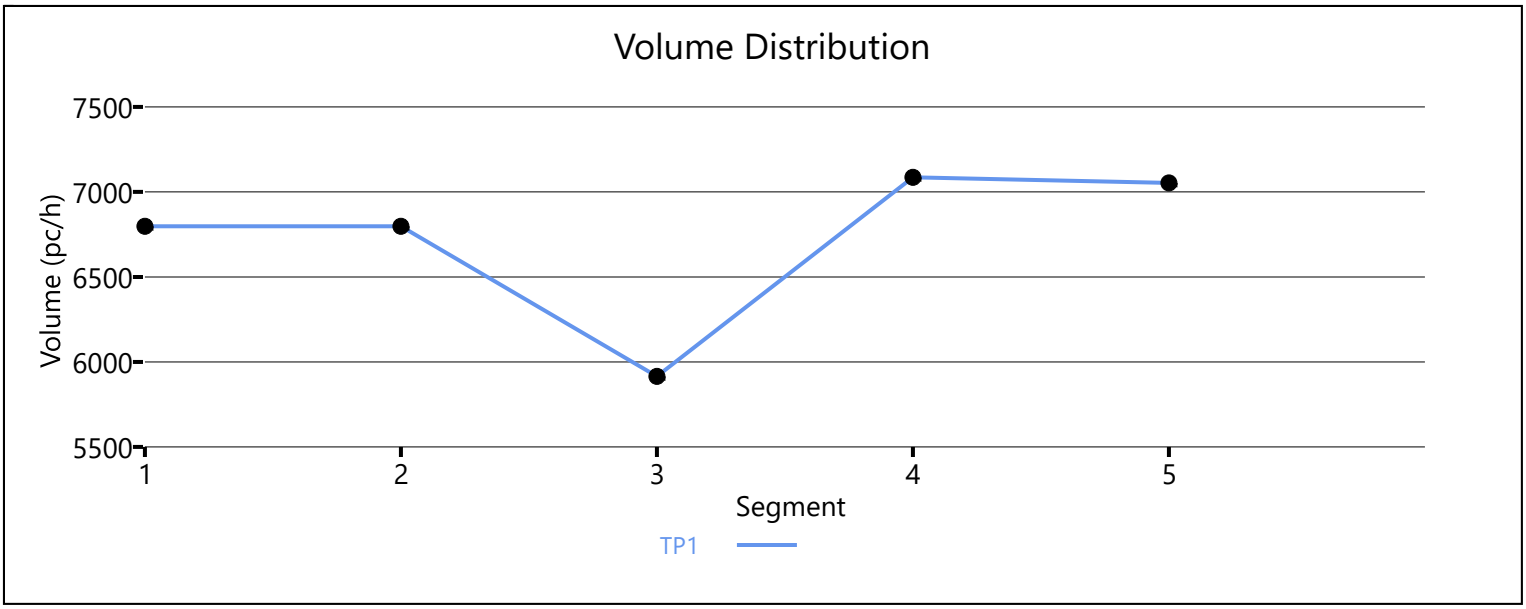
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	7086	1171	9000	2100	0.66	0.56	55.0	-	26.9	-	D

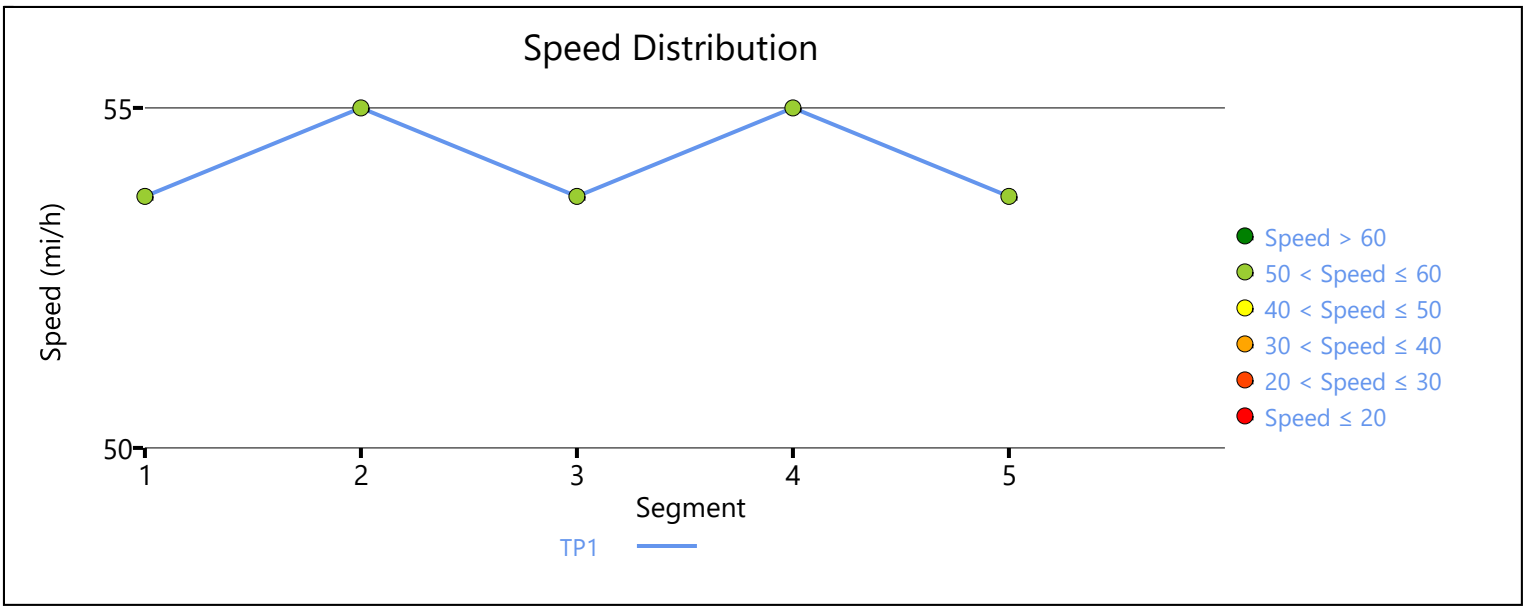
Segment 5: Basic

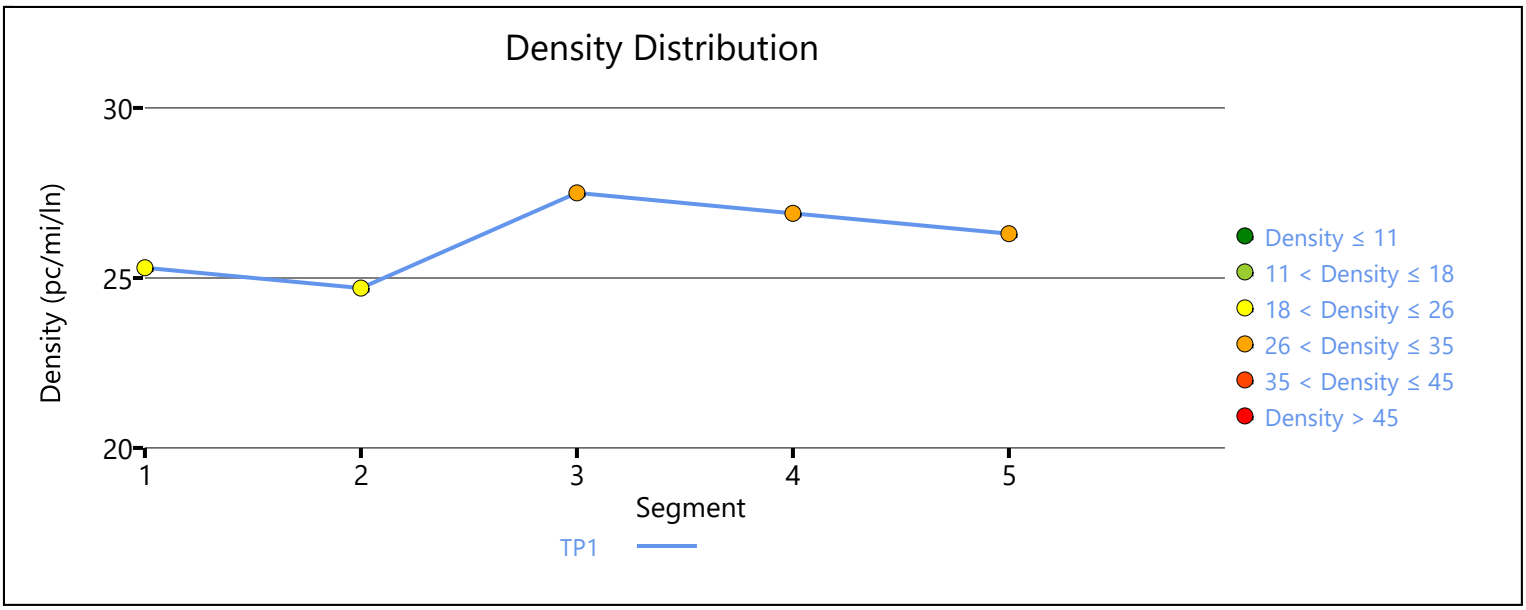
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7053	11185	0.63	53.7	26.3	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	54.0	25.8	25.3	3.2	C

Facility Overall Results			
Space Mean Speed, mi/h	54.0	Density, veh/mi/ln	25.3
Average Travel Time, min	3.2	Density, pc/mi/ln	25.8







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APPENDIX 6.8:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	WB E of Citrus	1740	5
2	Diverge	Basic	WB Off-Ramp	1500	5
3	Basic	Basic	Between Off and Loop On Ramp	1215	4
4	Merge	Merge	WB Loop On-Ramp	1500	4
5	Basic	Basic	Between On Ramps	1450	4
6	Merge	Merge	WB On Ramp	1500	4
7	Basic	Basic	WB W of Citrus	6460	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8065	11000	0.73	48.2	33.5	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.943	8065	1329	11000	2100	0.73	0.63	50.0	-	32.3	-	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6713	8800	0.76	48.2	34.8	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.917	7197	484	9000	1900	0.80	0.25	45.5	46.8	39.5	28.0	C

Segment 5: Basic

Time	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

Period			(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
1	0.92	0.980	7165		8800		0.81		48.2		37.2		E

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	7774	609	9000	2100	0.86	0.29	45.3	46.8	42.9	29.2	D

Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7774	8800	0.88	48.2	40.3	E

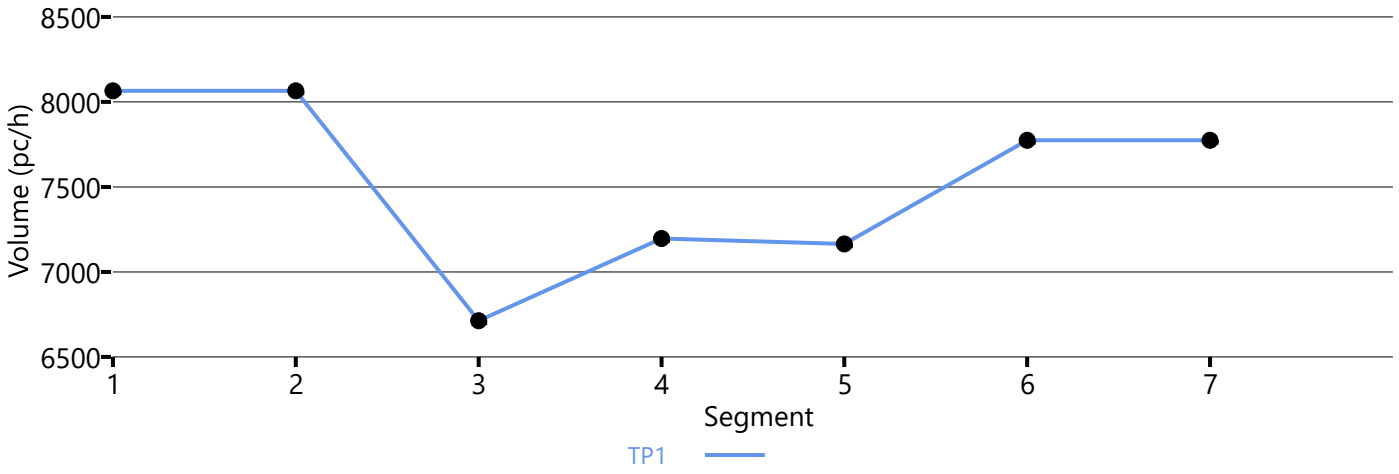
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	47.8	37.9	37.1	3.7	E

Facility Overall Results

Space Mean Speed, mi/h	47.8	Density, veh/mi/ln	37.1
Average Travel Time, min	3.7	Density, pc/mi/ln	37.9

Volume Distribution



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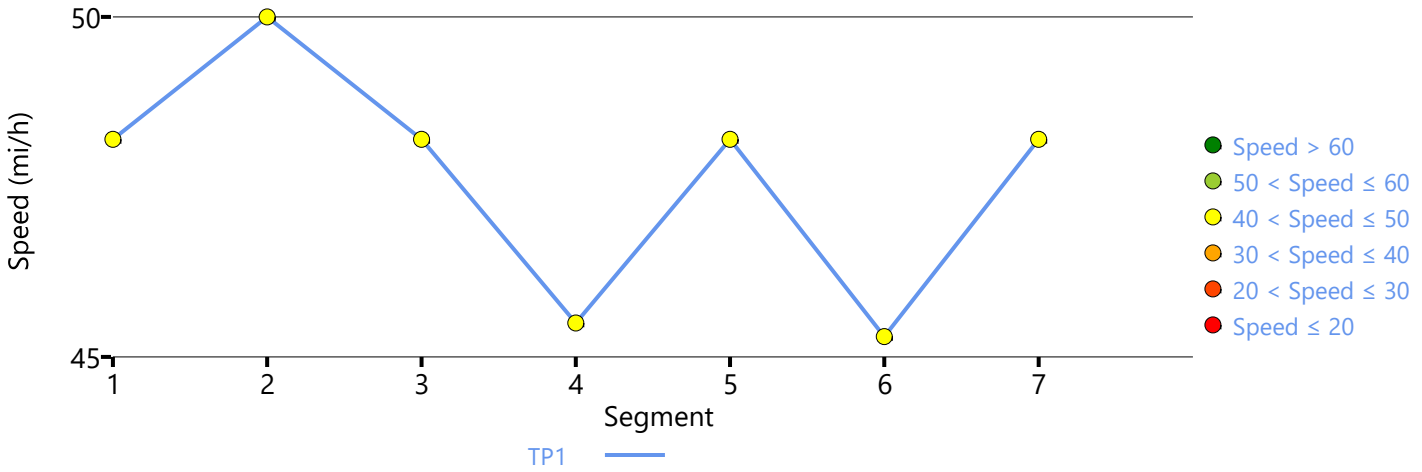
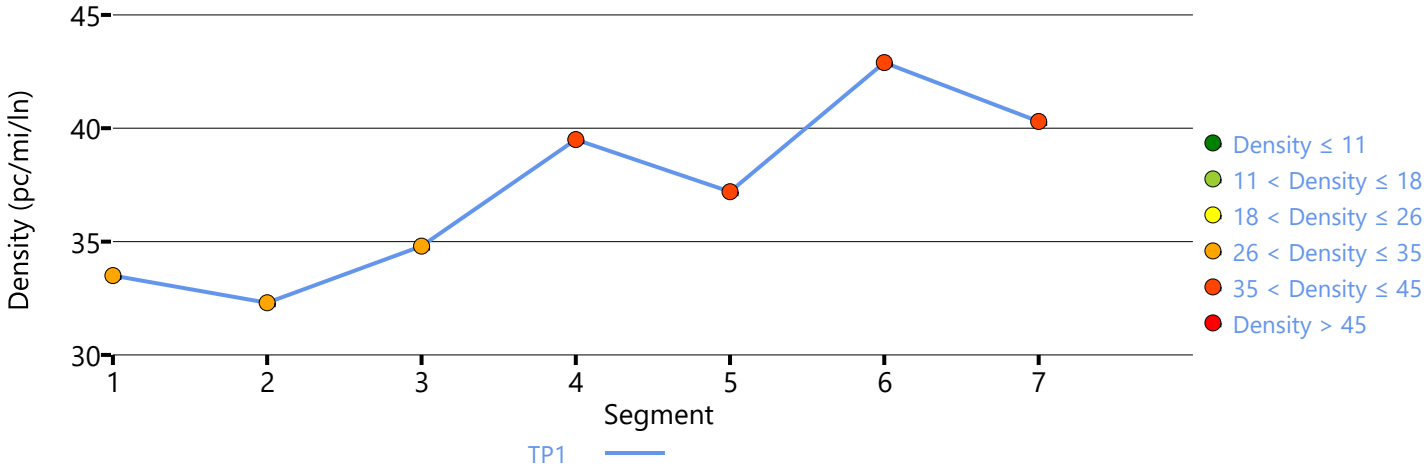


Density Distribution



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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7095	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1982
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.83
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.8
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6935	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1490
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.62
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	72.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	20.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	C
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7341	11685	0.63	63.7	23.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	7341	1238	11750	2100	0.62	0.59	64.9	-	22.6	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	6088	9348	0.65	63.6	23.9	C

Segment 4: Merge

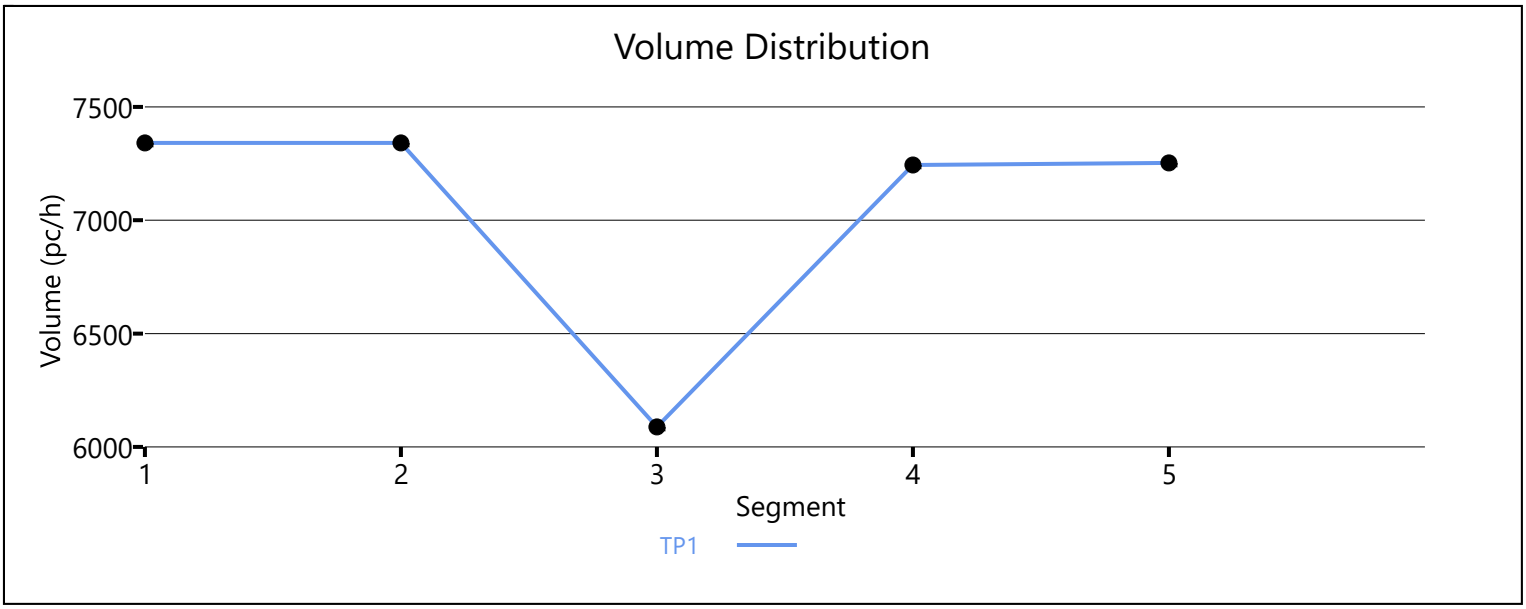
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.935	7244	1156	9400	2100	0.65	0.55	64.8	-	23.5	-	C

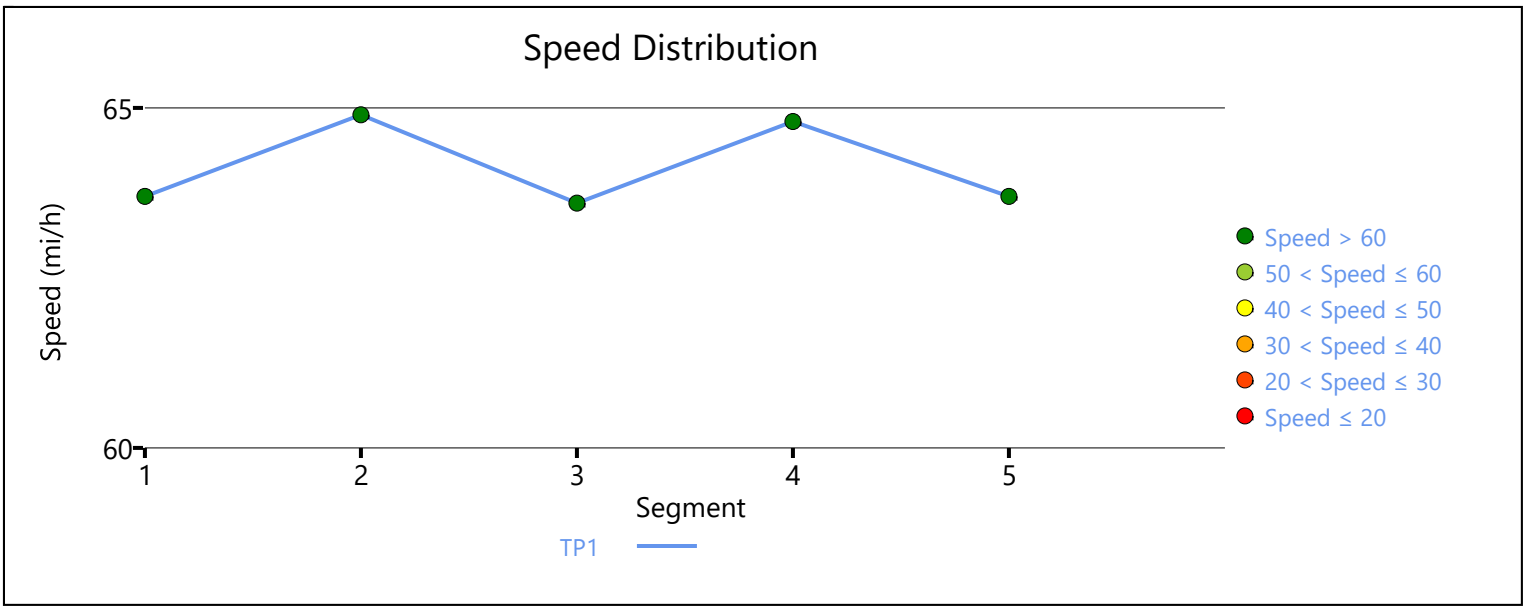
Segment 5: Basic

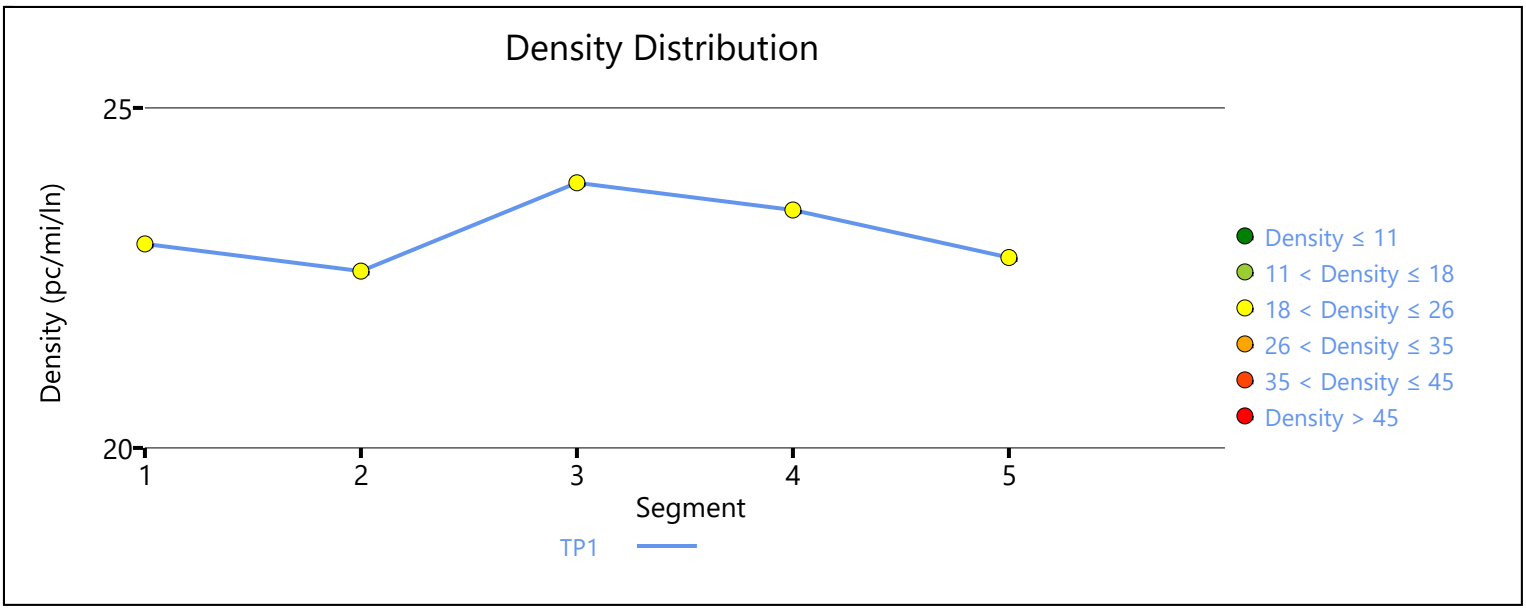
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7253	11685	0.62	63.7	22.8	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	63.9	23.1	22.6	2.7	C

Facility Overall Results			
Space Mean Speed, mi/h	63.9	Density, veh/mi/ln	22.6
Average Travel Time, min	2.7	Density, pc/mi/ln	23.1







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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	GP Lane, ft	ML Type	ML Lanes
1	Basic	Basic	WB E of Citrus	1740	5	Continuous Access	1
2	Diverge	Basic	WB Off-Ramp	1500	5	Continuous Access	1
3	Basic	Basic	Between Off and Loop On Ramp	1215	4	Continuous Access	1
4	Merge	Merge	WB Loop On-Ramp	1500	4	Continuous Access	1
5	Basic	Basic	Between On Ramps	1450	4	Continuous Access	1
6	Merge	Merge	WB On Ramp	1500	4	Continuous Access	1
7	Basic	Basic	WB W of Citrus	6460	4	Continuous Access	1

Facility Segment Data

Segment 1: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7207	11660	0.62	63.2	22.8	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 2: Diverge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	7207	883	11750	2100	0.61	0.42	65.0	-	22.2	-	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 3: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6314	9328	0.68	63.0	25.0	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 4: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	6939	625	9400	1900	0.74	0.33	58.1	55.9	29.9	27.8	C

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 5: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6985	9328	0.75	62.0	28.2	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 6: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	7513	528	9400	2100	0.80	0.25	57.9	56.2	32.4	28.1	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 7: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7518	9328	0.81	60.6	31.0	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

General Purpose Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.0	28.2	27.4	2.9	D

Managed Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	75.4	0.0	0.0	2.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	61.0	22.8	22.2	2.9	C

General Purpos Lane Overall Results

Space Mean Speed, mi/h	61.0	Density, veh/mi/ln	27.4
Average Travel Time, min	2.9	Density, pc/mi/ln	28.2

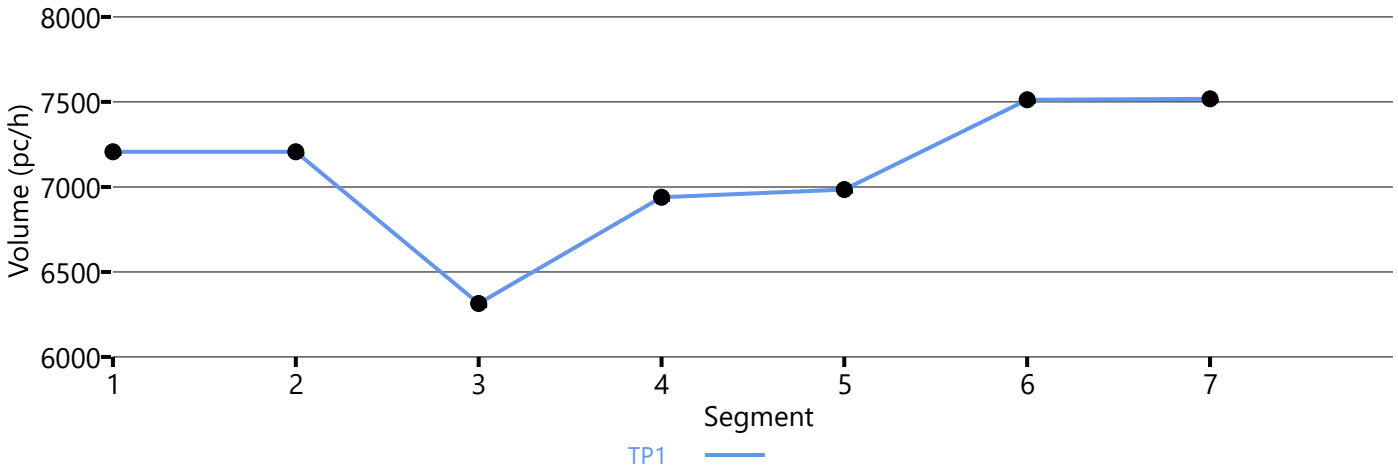
Managed Lane Overall Results

Space Mean Speed, mi/h	75.4	Density, veh/mi/ln	0.0
Average Travel Time, min	2.3	Density, pc/mi/ln	0.0

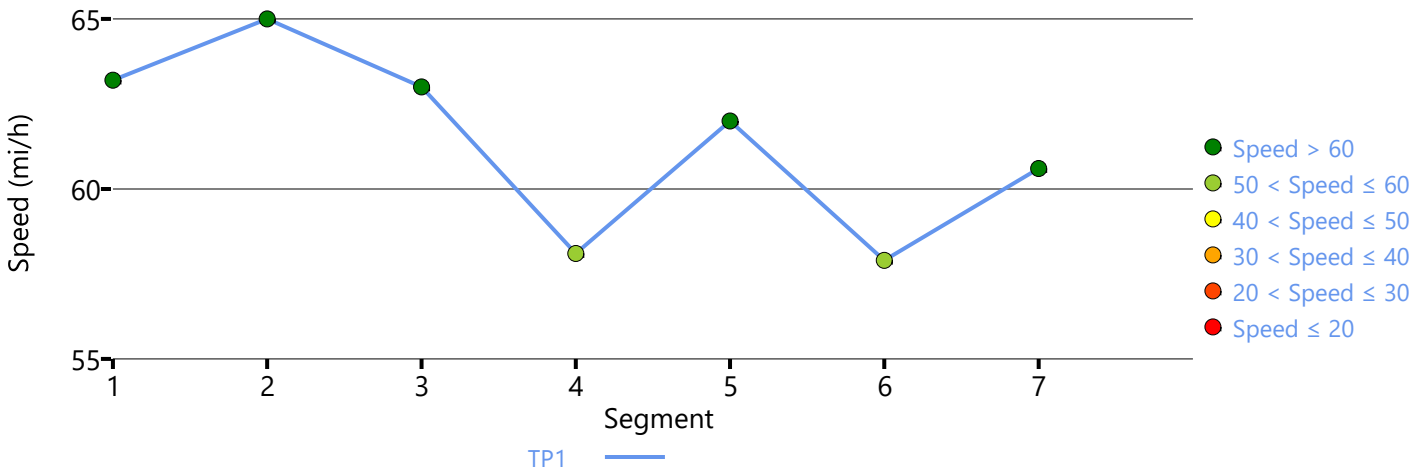
Facility Overall Results

Space Mean Speed, mi/h	61.0	Density, veh/mi/ln	22.2
Average Travel Time, min	2.9	Density, pc/mi/ln	22.8

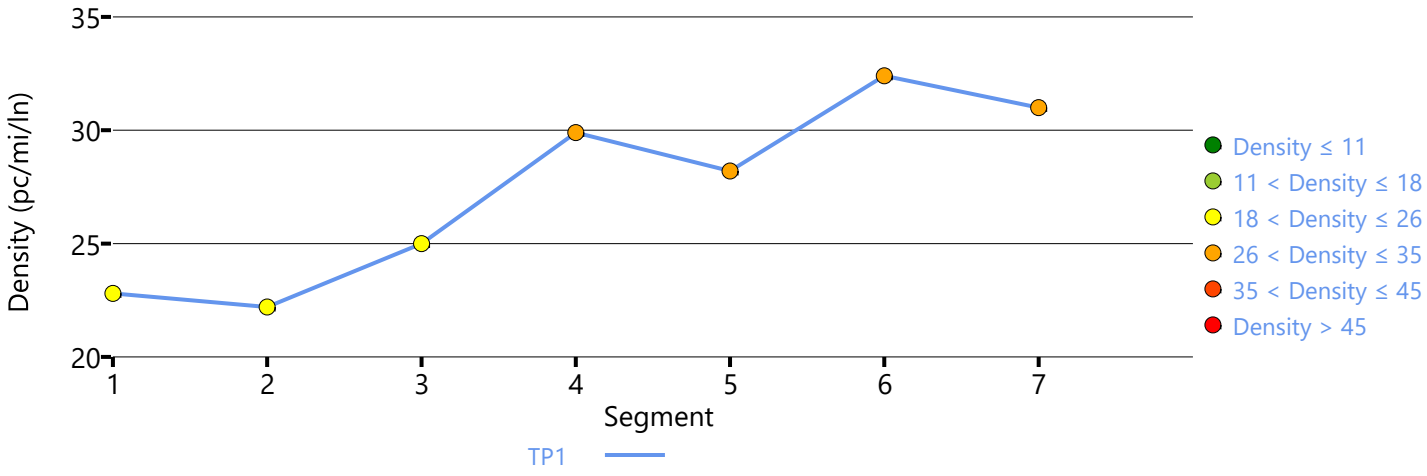
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/03/2019
Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6551	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1794
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.75
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	68.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	26.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

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Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5672	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1219
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	74.8
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.3
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

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Agency	Urban Crossroads, Inc.	Analysis Year	OYC (2022) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6810	11185	0.61	53.7	25.4	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.971	6810	903	11250	2100	0.61	0.43	55.0	-	24.8	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	5915	8948	0.66	53.7	27.5	D

Segment 4: Merge

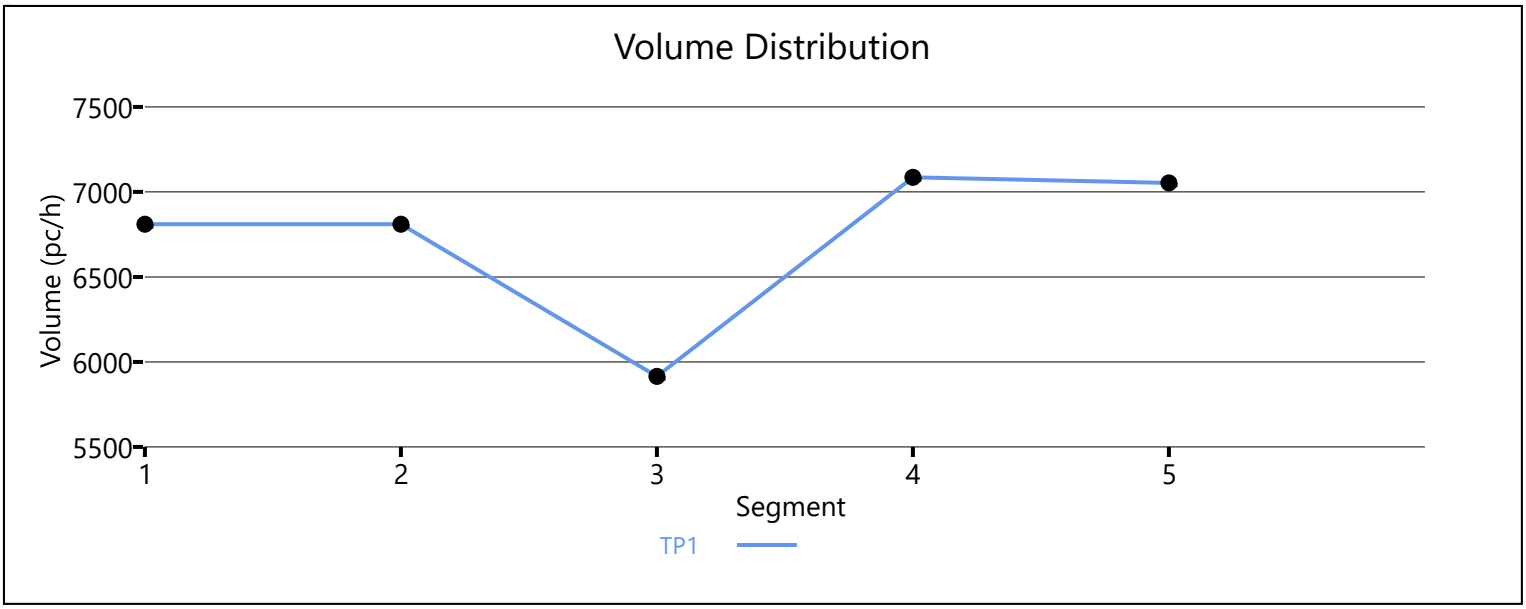
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	7086	1171	9000	2100	0.66	0.56	55.0	-	26.9	-	D

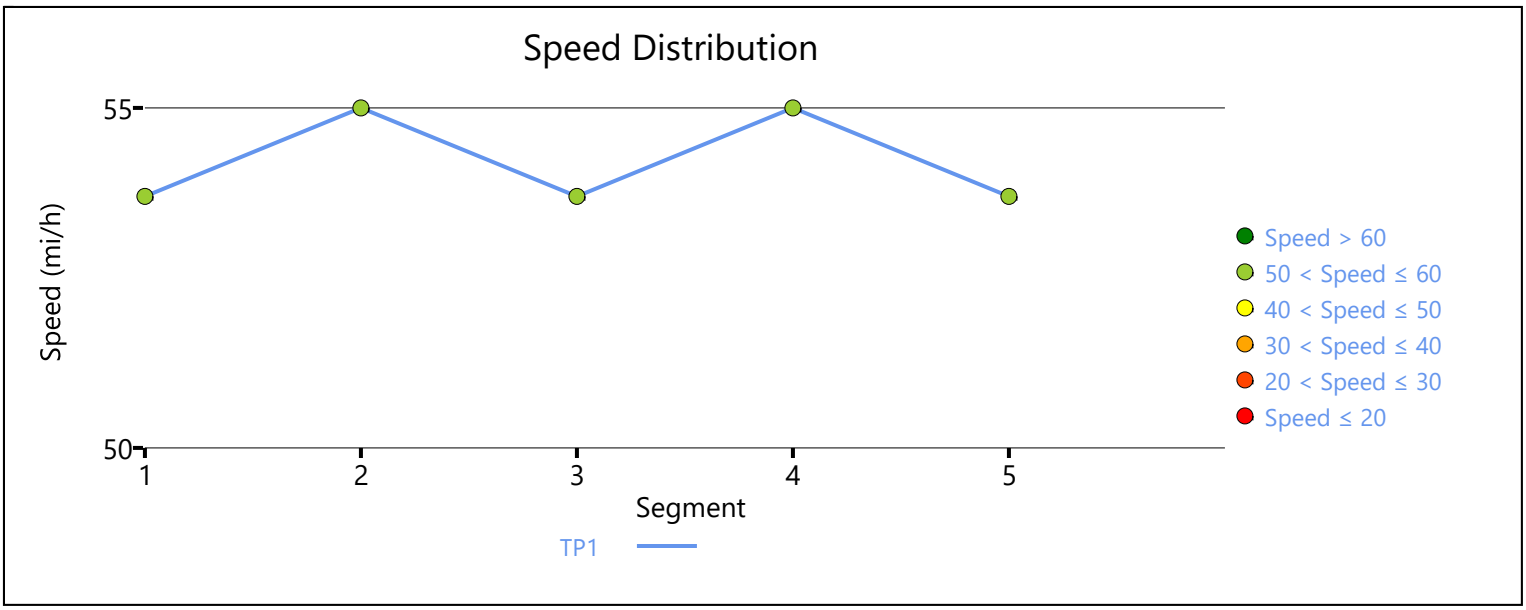
Segment 5: Basic

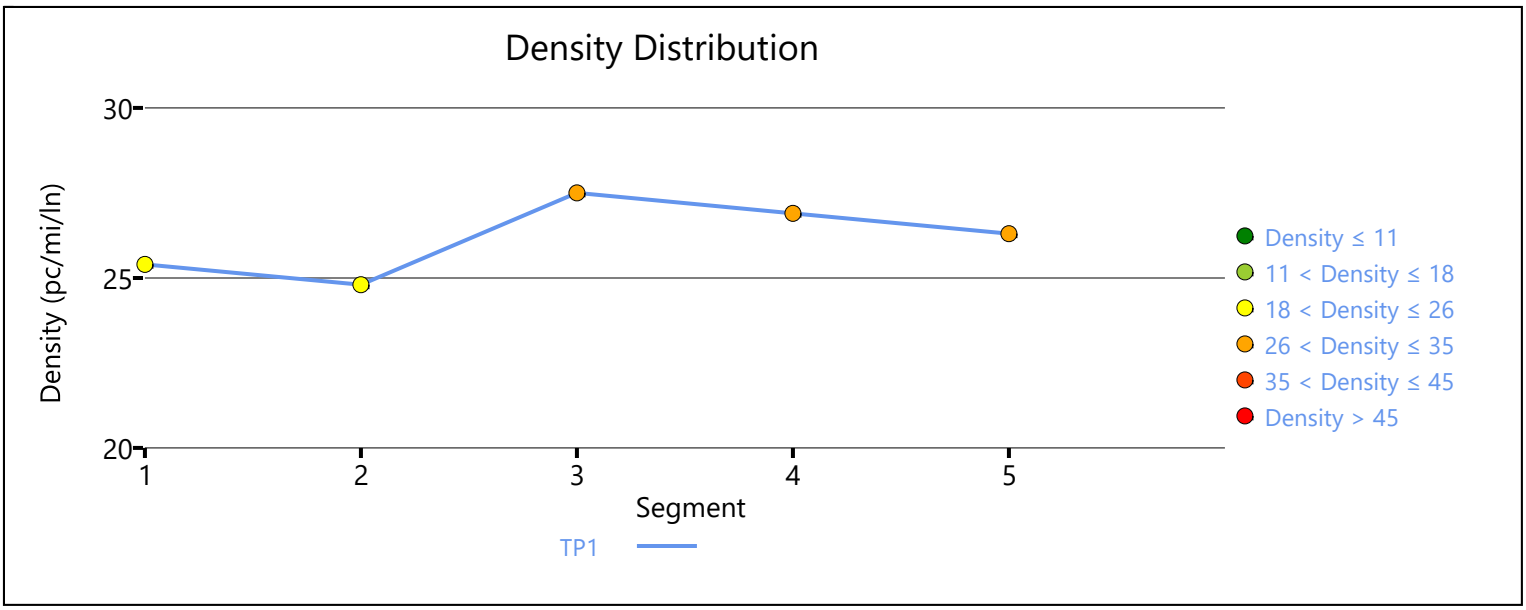
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7053	11185	0.63	53.7	26.3	D

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	54.0	25.9	25.4	3.2	C

Facility Overall Results			
Space Mean Speed, mi/h	54.0	Density, veh/mi/ln	25.4
Average Travel Time, min	3.2	Density, pc/mi/ln	25.9







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APPENDIX 6.9:

OPENING YEAR CUMULATIVE (2022) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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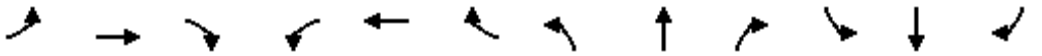
Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	369	4	807	969	681	1416
Future Volume (vph)	369	4	807	969	681	1416
Turn Type	Split	NA	Perm	NA	Prot	NA
Protected Phases	4	4		2	1	6
Permitted Phases			4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	25.0	9.0	10.0
Total Split (s)	37.0	37.0	37.0	37.0	26.0	63.0
Total Split (%)	37.0%	37.0%	37.0%	37.0%	26.0%	63.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	4.0	5.0
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	369	4	807	0	0	0	0	969	426	681	1416	0
Future Volume (veh/h)	369	4	807	0	0	0	0	969	426	681	1416	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	269	0	923				0	1053	340	740	1539	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	555	0	988				0	1288	416	772	2142	0
Arrive On Green	0.31	0.00	0.31				0.00	0.33	0.33	0.44	1.00	0.00
Sat Flow, veh/h	1810	0	3220				0	4035	1247	3510	3705	0
Grp Volume(v), veh/h	269	0	923				0	942	451	740	1539	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1654	1755	1805	0
Q Serve(g_s), s	12.1	0.0	27.9				0.0	25.0	25.0	20.4	0.0	0.0
Cycle Q Clear(g_c), s	12.1	0.0	27.9				0.0	25.0	25.0	20.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.75	1.00		0.00
Lane Grp Cap(c), veh/h	555	0	988				0	1153	551	772	2142	0
V/C Ratio(X)	0.48	0.00	0.93				0.00	0.82	0.82	0.96	0.72	0.00
Avail Cap(c_a), veh/h	579	0	1031				0	1153	551	772	2142	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.79	0.79	0.30	0.30	0.00
Uniform Delay (d), s/veh	28.2	0.0	33.7				0.0	30.5	30.5	27.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	14.2				0.0	5.2	10.3	9.7	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	12.1				0.0	10.5	10.8	6.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	0.0	47.9				0.0	35.7	40.8	37.3	0.6	0.0
LnGrp LOS	C	A	D				A	D	D	D	A	A
Approach Vol, veh/h		1192						1393			2279	
Approach Delay, s/veh		43.5						37.4			12.5	
Approach LOS		D						D			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	26.0	38.3		35.7		64.3
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	22.0	32.0		32.0		58.0
Max Q Clear Time (g_c+I1), s	22.4	27.0		29.9		2.0
Green Ext Time (p_c), s	0.0	2.7		0.8		9.3

Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

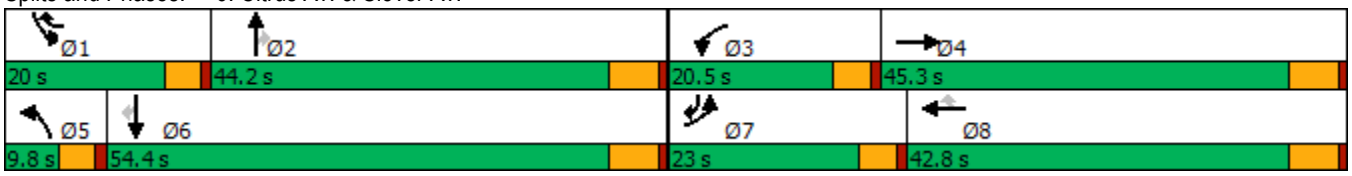
Notes

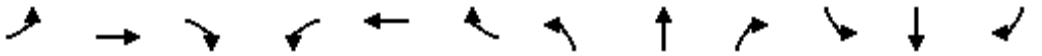
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	318	210	103	498	209	54	818	52	217	1092	816
Future Volume (vph)	318	210	103	498	209	54	818	52	217	1092	816
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	1	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	37.8	9.6	42.8	9.6	9.6	41.8	41.8	9.6	35.8	9.6
Total Split (s)	23.0	45.3	20.5	42.8	20.0	9.8	44.2	44.2	20.0	54.4	23.0
Total Split (%)	17.7%	34.8%	15.8%	32.9%	15.4%	7.5%	34.0%	34.0%	15.4%	41.8%	17.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary
Cycle Length: 130
Actuated Cycle Length: 114.9
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	318	210	63	103	498	209	54	818	52	217	1092	816
Future Volume (veh/h)	318	210	63	103	498	209	54	818	52	217	1092	816
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		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	366	241	66	118	572	186	62	940	29	249	1255	805
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	431	730	195	146	783	567	80	1758	535	247	1557	884
Arrive On Green	0.12	0.26	0.26	0.08	0.22	0.22	0.04	0.34	0.34	0.14	0.43	0.43
Sat Flow, veh/h	3510	2813	753	1810	3610	1597	1810	5187	1579	1810	3610	1590
Grp Volume(v), veh/h	366	153	154	118	572	186	62	940	29	249	1255	805
Grp Sat Flow(s),veh/h/ln	1755	1805	1761	1810	1805	1597	1810	1729	1579	1810	1805	1590
Q Serve(g_s), s	11.5	7.7	8.0	7.2	16.6	9.6	3.8	16.5	1.4	15.4	34.1	48.6
Cycle Q Clear(g_c), s	11.5	7.7	8.0	7.2	16.6	9.6	3.8	16.5	1.4	15.4	34.1	48.6
Prop In Lane	1.00		0.43	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	431	468	457	146	783	567	80	1758	535	247	1557	884
V/C Ratio(X)	0.85	0.33	0.34	0.81	0.73	0.33	0.77	0.53	0.05	1.01	0.81	0.91
Avail Cap(c_a), veh/h	573	633	617	255	1185	744	84	1768	538	247	1557	884
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.4	33.8	33.9	51.0	41.0	26.6	53.3	30.1	25.1	48.6	27.9	22.7
Incr Delay (d2), s/veh	7.1	0.4	0.4	4.1	1.3	0.3	31.1	0.3	0.0	59.0	3.2	13.4
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	5.3	3.3	3.4	3.3	7.3	3.6	2.4	6.6	0.5	10.8	14.4	20.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.5	34.2	34.3	55.0	42.4	27.0	84.4	30.4	25.1	107.6	31.2	36.1
LnGrp LOS	E	C	C	E	D	C	F	C	C	F	C	D
Approach Vol, veh/h		673			876			1031			2309	
Approach Delay, s/veh		45.8			40.8			33.5			41.1	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	44.0	13.7	35.0	9.6	54.4	18.4	30.3
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	15.4	38.4	15.9	39.5	5.2	48.6	18.4	37.0
Max Q Clear Time (g_c+I1), s	17.4	18.5	9.2	10.0	5.8	50.6	13.5	18.6
Green Ext Time (p_c), s	0.0	6.1	0.1	1.6	0.0	0.0	0.3	3.9

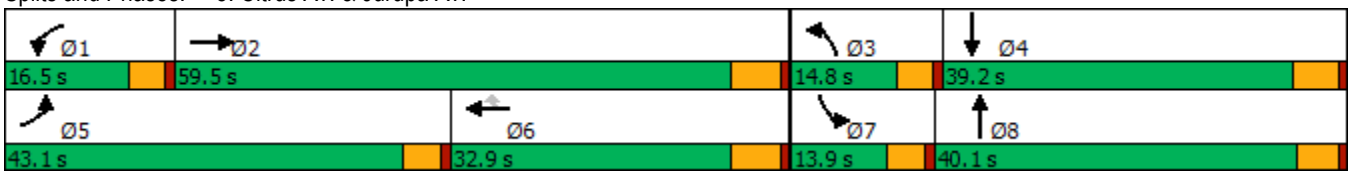
Intersection Summary	
HCM 6th Ctrl Delay	40.1
HCM 6th LOS	D

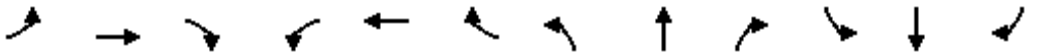
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	504	476	70	634	127	61	303	111	118
Future Volume (vph)	504	476	70	634	127	61	303	111	118
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	43.1	59.5	16.5	32.9	32.9	14.8	40.1	13.9	39.2
Total Split (%)	33.2%	45.8%	12.7%	25.3%	25.3%	11.4%	30.8%	10.7%	30.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 110.1
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	504	476	14	70	634	127	61	303	116	111	118	191
Future Volume (veh/h)	504	476	14	70	634	127	61	303	116	111	118	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	548	517	13	76	689	99	66	329	101	121	128	148
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	586	2416	61	99	1013	314	86	461	139	152	371	331
Arrive On Green	0.32	0.46	0.46	0.05	0.20	0.20	0.05	0.17	0.17	0.08	0.21	0.21
Sat Flow, veh/h	1810	5202	130	1810	5187	1605	1810	2730	825	1810	1805	1610
Grp Volume(v), veh/h	548	343	187	76	689	99	66	216	214	121	128	148
Grp Sat Flow(s),veh/h/ln	1810	1729	1874	1810	1729	1605	1810	1805	1750	1810	1805	1610
Q Serve(g_s), s	26.3	5.3	5.3	3.7	11.0	4.7	3.2	10.1	10.4	5.9	5.4	7.2
Cycle Q Clear(g_c), s	26.3	5.3	5.3	3.7	11.0	4.7	3.2	10.1	10.4	5.9	5.4	7.2
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.47	1.00		1.00
Lane Grp Cap(c), veh/h	586	1606	871	99	1013	314	86	305	296	152	371	331
V/C Ratio(X)	0.94	0.21	0.21	0.77	0.68	0.32	0.77	0.71	0.73	0.80	0.35	0.45
Avail Cap(c_a), veh/h	780	2078	1126	241	1573	487	207	707	685	188	683	609
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.3	14.2	14.2	41.7	33.4	30.8	42.1	35.1	35.2	40.2	30.4	31.1
Incr Delay (d2), s/veh	13.8	0.1	0.1	4.7	0.8	0.6	5.4	3.0	3.4	13.9	0.6	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	12.6	1.9	2.0	1.7	4.4	1.8	1.5	4.5	4.6	3.1	2.3	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	14.3	14.4	46.4	34.2	31.4	47.5	38.1	38.6	54.1	30.9	32.0
LnGrp LOS	D	B	B	D	C	C	D	D	D	D	C	C
Approach Vol, veh/h		1078			864			496			397	
Approach Delay, s/veh		28.9			34.9			39.5			38.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	47.3	8.8	23.8	33.5	23.3	12.1	20.5
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	11.9	53.7	10.2	33.8	38.5	27.1	9.3	* 35
Max Q Clear Time (g_c+I1), s	5.7	7.3	5.2	9.2	28.3	13.0	7.9	12.4
Green Ext Time (p_c), s	0.0	3.3	0.0	1.5	0.7	3.9	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	33.9
HCM 6th LOS	C

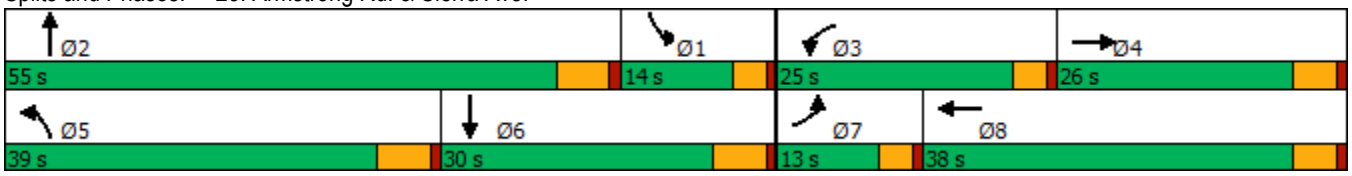
Notes

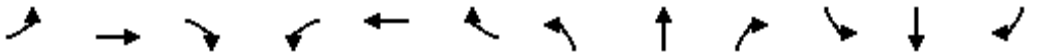
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	59	43	752	342	183	985	295	12	375
Future Volume (vph)	59	43	752	342	183	985	295	12	375
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0		9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	13.0	26.0		25.0	38.0	39.0	55.0	14.0	30.0
Total Split (%)	10.8%	21.7%		20.8%	31.7%	32.5%	45.8%	11.7%	25.0%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	Max	None	Max
Act Effct Green (s)	7.5	6.8	103.7	21.1	20.0	33.4	60.7	10.0	24.4
Actuated g/C Ratio	0.07	0.07	1.00	0.20	0.19	0.32	0.59	0.10	0.24
v/c Ratio	0.48	0.19	0.50	1.01	0.38	0.94	0.19	0.07	1.04
Control Delay	59.7	48.8	1.1	91.5	33.2	51.2	10.9	45.3	92.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	48.8	1.1	91.5	33.2	51.2	10.9	45.3	92.6
LOS	E	D	A	F	C	D	B	D	F
Approach Delay		7.5			67.0		40.3		91.3
Approach LOS		A			E		D		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 103.7	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 43.4	Intersection LOS: D
Intersection Capacity Utilization 91.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	43	752	342	183	65	985	295	70	12	375	50
Future Volume (veh/h)	59	43	752	342	183	65	985	295	70	12	375	50
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	63	46	0	368	197	36	1059	317	37	13	403	27
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	82	174		366	627	112	1118	1549	179	140	412	28
Arrive On Green	0.05	0.05	0.00	0.20	0.21	0.21	0.32	0.48	0.48	0.08	0.23	0.23
Sat Flow, veh/h	1810	3610	1610	1810	3051	547	3510	3259	377	1810	1761	118
Grp Volume(v), veh/h	63	46	0	368	115	118	1059	174	180	13	0	430
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1793	1755	1805	1832	1810	0	1879
Q Serve(g_s), s	3.6	1.3	0.0	21.0	5.6	5.8	30.5	5.8	5.9	0.7	0.0	23.6
Cycle Q Clear(g_c), s	3.6	1.3	0.0	21.0	5.6	5.8	30.5	5.8	5.9	0.7	0.0	23.6
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.21	1.00		0.06
Lane Grp Cap(c), veh/h	82	174		366	371	369	1118	858	871	140	0	440
V/C Ratio(X)	0.77	0.26		1.00	0.31	0.32	0.95	0.20	0.21	0.09	0.00	0.98
Avail Cap(c_a), veh/h	157	731		366	574	570	1127	858	871	174	0	440
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	49.0	47.6	0.0	41.4	35.0	35.0	34.5	15.8	15.8	44.5	0.0	39.4
Incr Delay (d2), s/veh	5.7	0.8	0.0	48.1	0.5	0.5	15.9	0.5	0.5	0.1	0.0	37.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.6	0.0	14.2	2.5	2.6	14.6	2.4	2.4	0.3	0.0	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	48.4	0.0	89.5	35.4	35.5	50.4	16.3	16.4	44.6	0.0	77.0
LnGrp LOS	D	D		F	D	D	D	B	B	D	A	E
Approach Vol, veh/h		109	A		601			1413			443	
Approach Delay, s/veh		52.0			68.6			41.9			76.0	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	55.0	25.0	10.0	38.7	30.0	8.7	26.3
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 49	21.0	21.0	33.3	24.3	9.0	33.0
Max Q Clear Time (g_c+I1), s	2.7	7.9	23.0	3.3	32.5	25.6	5.6	7.8
Green Ext Time (p_c), s	0.0	2.9	0.0	0.1	0.5	0.0	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	54.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

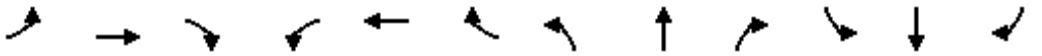
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	475	11	365	1382	490	769
Future Volume (vph)	475	11	365	1382	490	769
Turn Type	Split	NA	Perm	NA	Prot	NA
Protected Phases	4	4		2	1	6
Permitted Phases			4			
Detector Phase	4	4	4	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	10.0	25.0	9.0	10.0
Total Split (s)	28.0	28.0	28.0	51.0	21.0	72.0
Total Split (%)	28.0%	28.0%	28.0%	51.0%	21.0%	72.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	4.0	5.0
Lead/Lag				Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	
Recall Mode	None	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	475	11	365	0	0	0	0	1382	606	490	769	0
Future Volume (veh/h)	475	11	365	0	0	0	0	1382	606	490	769	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	594	0	207				0	1440	450	510	801	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	681	0	303				0	2005	621	564	2569	0
Arrive On Green	0.19	0.00	0.19				0.00	0.51	0.51	0.32	1.00	0.00
Sat Flow, veh/h	3619	0	1610				0	4093	1214	3510	3705	0
Grp Volume(v), veh/h	594	0	207				0	1268	622	510	801	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1729	1678	1755	1805	0
Q Serve(g_s), s	15.9	0.0	12.0				0.0	28.3	28.8	13.9	0.0	0.0
Cycle Q Clear(g_c), s	15.9	0.0	12.0				0.0	28.3	28.8	13.9	0.0	0.0
Prop In Lane	1.00		1.00				0.00		0.72	1.00		0.00
Lane Grp Cap(c), veh/h	681	0	303				0	1768	858	564	2569	0
V/C Ratio(X)	0.87	0.00	0.68				0.00	0.72	0.72	0.90	0.31	0.00
Avail Cap(c_a), veh/h	832	0	370				0	1768	858	597	2569	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.46	0.46	0.85	0.85	0.00
Uniform Delay (d), s/veh	39.4	0.0	37.8				0.0	18.9	19.0	33.2	0.0	0.0
Incr Delay (d2), s/veh	7.5	0.0	2.4				0.0	1.2	2.5	14.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	4.7				0.0	10.3	10.5	5.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	0.0	40.2				0.0	20.0	21.5	47.4	0.3	0.0
LnGrp LOS	D	A	D				A	C	C	D	A	A
Approach Vol, veh/h		801						1890			1311	
Approach Delay, s/veh		45.2						20.5			18.6	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	20.1	56.1		23.8		76.2
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	17.0	46.0		23.0		67.0
Max Q Clear Time (g_c+I1), s	15.9	30.8		17.9		2.0
Green Ext Time (p_c), s	0.2	7.8		0.9		3.5

Intersection Summary		
HCM 6th Ctrl Delay		24.8
HCM 6th LOS		C

Notes

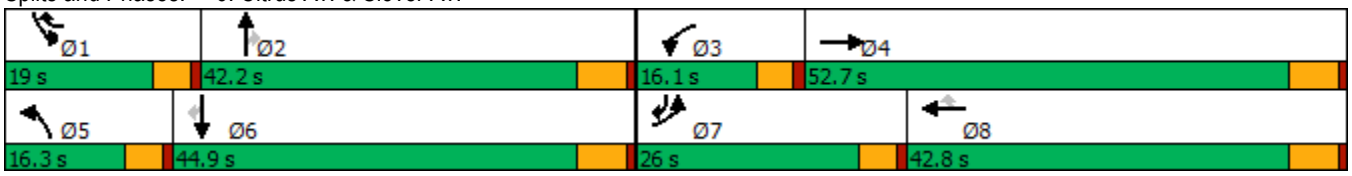
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	690	899	68	298	205	71	1028	108	233	552	317
Future Volume (vph)	690	899	68	298	205	71	1028	108	233	552	317
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	1	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	37.8	9.6	42.8	9.6	9.6	41.8	41.8	9.6	35.8	9.6
Total Split (s)	26.0	52.7	16.1	42.8	19.0	16.3	42.2	42.2	19.0	44.9	26.0
Total Split (%)	20.0%	40.5%	12.4%	32.9%	14.6%	12.5%	32.5%	32.5%	14.6%	34.5%	20.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 112.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	690	899	42	68	298	205	71	1028	108	233	552	317
Future Volume (veh/h)	690	899	42	68	298	205	71	1028	108	233	552	317
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	719	936	44	71	310	170	74	1071	48	243	575	239
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	746	1133	53	92	582	489	96	1434	443	259	1324	933
Arrive On Green	0.21	0.32	0.32	0.05	0.16	0.16	0.05	0.28	0.28	0.14	0.37	0.37
Sat Flow, veh/h	3510	3508	165	1810	3610	1607	1810	5187	1601	1810	3610	1610
Grp Volume(v), veh/h	719	482	498	71	310	170	74	1071	48	243	575	239
Grp Sat Flow(s),veh/h/ln	1755	1805	1867	1810	1805	1607	1810	1729	1601	1810	1805	1610
Q Serve(g_s), s	20.4	24.8	24.8	3.9	7.9	8.3	4.1	19.0	2.3	13.4	12.1	7.4
Cycle Q Clear(g_c), s	20.4	24.8	24.8	3.9	7.9	8.3	4.1	19.0	2.3	13.4	12.1	7.4
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	746	583	603	92	582	489	96	1434	443	259	1324	933
V/C Ratio(X)	0.96	0.83	0.83	0.77	0.53	0.35	0.77	0.75	0.11	0.94	0.43	0.26
Avail Cap(c_a), veh/h	746	841	870	207	1327	821	210	1876	579	259	1402	968
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	31.5	31.5	47.2	38.7	27.2	47.1	33.2	27.2	42.7	24.0	10.5
Incr Delay (d2), s/veh	24.1	4.6	4.4	5.1	0.8	0.4	4.9	1.2	0.1	39.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	10.8	11.2	1.8	3.4	3.1	1.9	7.7	0.8	8.5	4.9	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	36.0	35.9	52.3	39.5	27.7	52.0	34.4	27.3	81.8	24.2	10.6
LnGrp LOS	E	D	D	D	D	C	D	C	C	F	C	B
Approach Vol, veh/h		1699			551			1193			1057	
Approach Delay, s/veh		47.5			37.5			35.2			34.4	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	33.6	9.7	38.3	9.9	42.7	26.0	22.0
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	14.4	36.4	11.5	46.9	11.7	39.1	21.4	37.0
Max Q Clear Time (g_c+I1), s	15.4	21.0	5.9	26.8	6.1	14.1	22.4	10.3
Green Ext Time (p_c), s	0.0	6.3	0.0	5.7	0.0	4.5	0.0	2.4

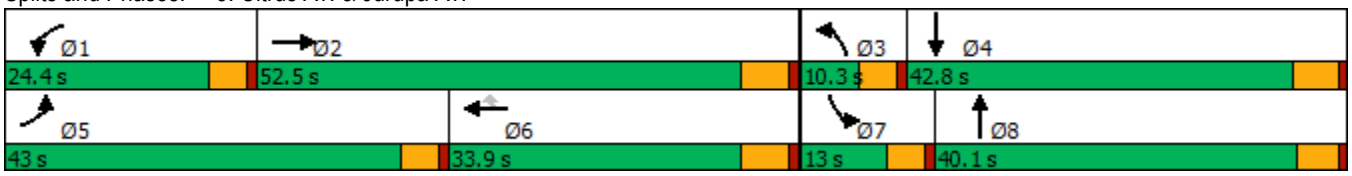
Intersection Summary	
HCM 6th Ctrl Delay	40.0
HCM 6th LOS	D

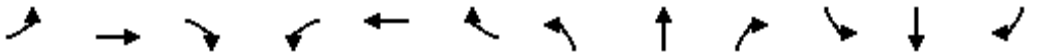
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	447	920	143	665	174	19	153	91	210
Future Volume (vph)	447	920	143	665	174	19	153	91	210
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	43.0	52.5	24.4	33.9	33.9	10.3	40.1	13.0	42.8
Total Split (%)	33.1%	40.4%	18.8%	26.1%	26.1%	7.9%	30.8%	10.0%	32.9%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 96.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	447	920	53	143	665	174	19	153	96	91	210	150
Future Volume (veh/h)	447	920	53	143	665	174	19	153	96	91	210	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	486	1000	43	155	723	115	21	166	81	99	228	133
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	533	2072	89	195	1138	353	43	332	155	128	414	232
Arrive On Green	0.29	0.41	0.41	0.11	0.22	0.22	0.02	0.14	0.14	0.07	0.19	0.19
Sat Flow, veh/h	1810	5099	219	1810	5187	1610	1810	2389	1113	1810	2229	1251
Grp Volume(v), veh/h	486	678	365	155	723	115	21	124	123	99	183	178
Grp Sat Flow(s),veh/h/ln	1810	1729	1860	1810	1729	1610	1810	1805	1697	1810	1805	1675
Q Serve(g_s), s	19.1	10.7	10.7	6.2	9.3	4.4	0.8	4.7	5.0	4.0	6.8	7.2
Cycle Q Clear(g_c), s	19.1	10.7	10.7	6.2	9.3	4.4	0.8	4.7	5.0	4.0	6.8	7.2
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.66	1.00		0.75
Lane Grp Cap(c), veh/h	533	1405	756	195	1138	353	43	251	236	128	335	311
V/C Ratio(X)	0.91	0.48	0.48	0.79	0.64	0.33	0.49	0.49	0.52	0.78	0.55	0.57
Avail Cap(c_a), veh/h	941	2187	1177	485	1974	613	140	856	804	206	914	848
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	16.2	16.2	32.1	26.1	24.2	35.6	29.4	29.5	33.7	27.2	27.4
Incr Delay (d2), s/veh	3.5	0.3	0.5	2.8	0.6	0.5	3.2	1.5	1.8	3.8	1.4	1.7
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	7.8	3.7	4.0	2.6	3.5	1.6	0.4	2.0	2.1	1.8	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	16.4	16.7	34.9	26.7	24.8	38.8	30.9	31.3	37.5	28.6	29.0
LnGrp LOS	C	B	B	C	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1529			993			268			460	
Approach Delay, s/veh		20.4			27.8			31.7			30.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	35.8	6.3	19.1	26.4	22.0	9.8	15.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	19.8	46.7	5.7	37.4	38.4	28.1	8.4	* 35
Max Q Clear Time (g_c+I1), s	8.2	12.7	2.8	9.2	21.1	11.3	6.0	7.0
Green Ext Time (p_c), s	0.1	7.3	0.0	2.1	0.6	4.5	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	25.0
HCM 6th LOS	C

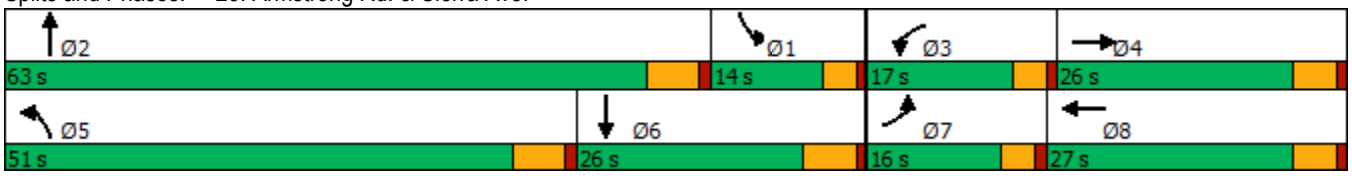
Notes

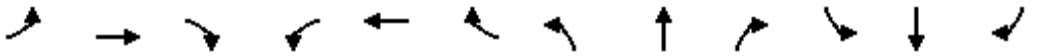
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	126	190	828	195	116	1352	759	52	256
Future Volume (vph)	126	190	828	195	116	1352	759	52	256
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0		9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	16.0	26.0		17.0	27.0	51.0	63.0	14.0	26.0
Total Split (%)	13.3%	21.7%		14.2%	22.5%	42.5%	52.5%	11.7%	21.7%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	Max	None	Max
Act Effct Green (s)	10.9	11.3	110.3	13.0	13.4	45.3	60.2	10.0	20.3
Actuated g/C Ratio	0.10	0.10	1.00	0.12	0.12	0.41	0.55	0.09	0.18
v/c Ratio	0.73	0.53	0.53	0.95	0.37	0.97	0.58	0.33	0.89
Control Delay	72.0	52.4	1.2	99.0	35.8	50.0	17.9	53.8	70.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.0	52.4	1.2	99.0	35.8	50.0	17.9	53.8	70.9
LOS	E	D	A	F	D	D	B	D	E
Approach Delay		17.5			70.3		35.8		68.4
Approach LOS		B			E		D		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.3	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 36.5	Intersection LOS: D
Intersection Capacity Utilization 87.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	190	828	195	116	46	1352	759	318	52	256	42
Future Volume (veh/h)	126	190	828	195	116	46	1352	759	318	52	256	42
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	130	196	0	201	120	23	1394	782	274	54	264	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	284		220	341	64	1466	1402	491	135	333	27
Arrive On Green	0.09	0.08	0.00	0.12	0.11	0.11	0.42	0.53	0.53	0.07	0.19	0.19
Sat Flow, veh/h	1810	3610	1610	1810	3035	568	3510	2622	918	1810	1735	138
Grp Volume(v), veh/h	130	196	0	201	70	73	1394	538	518	54	0	285
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1798	1755	1805	1735	1810	0	1873
Q Serve(g_s), s	7.6	5.7	0.0	11.8	3.8	4.0	41.1	21.2	21.2	3.0	0.0	15.5
Cycle Q Clear(g_c), s	7.6	5.7	0.0	11.8	3.8	4.0	41.1	21.2	21.2	3.0	0.0	15.5
Prop In Lane	1.00		1.00	1.00		0.32	1.00		0.53	1.00		0.07
Lane Grp Cap(c), veh/h	159	284		220	203	202	1466	966	928	135	0	360
V/C Ratio(X)	0.82	0.69		0.92	0.35	0.36	0.95	0.56	0.56	0.40	0.00	0.79
Avail Cap(c_a), veh/h	203	708		220	371	369	1485	966	928	169	0	360
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	48.0	48.1	0.0	46.5	43.9	44.0	30.1	16.5	16.5	47.3	0.0	41.2
Incr Delay (d2), s/veh	14.8	3.0	0.0	37.6	1.0	1.1	13.5	2.3	2.4	0.7	0.0	16.3
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	3.9	2.5	0.0	7.6	1.8	1.9	18.7	8.5	8.2	1.4	0.0	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.8	51.1	0.0	84.1	44.9	45.1	43.7	18.8	18.9	48.0	0.0	57.5
LnGrp LOS	E	D		F	D	D	D	B	B	D	A	E
Approach Vol, veh/h		326	A		344			2450			339	
Approach Delay, s/veh		55.8			67.9			33.0			56.0	
Approach LOS		E			E			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	63.0	17.0	13.4	50.4	26.3	13.4	17.0
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 57	13.0	21.0	45.3	20.3	12.0	22.0
Max Q Clear Time (g_c+I1), s	5.0	23.2	13.8	7.7	43.1	17.5	9.6	6.0
Green Ext Time (p_c), s	0.0	11.3	0.0	0.8	1.6	0.5	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 7.1:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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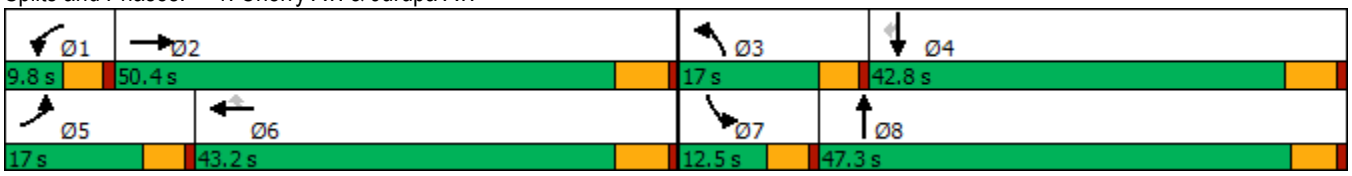
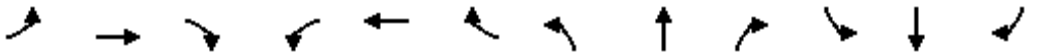
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	280	807	50	914	148	299	528	99	332	419
Future Volume (vph)	280	807	50	914	148	299	528	99	332	419
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	17.0	50.4	9.8	43.2	43.2	17.0	47.3	12.5	42.8	42.8
Total Split (%)	14.2%	42.0%	8.2%	36.0%	36.0%	14.2%	39.4%	10.4%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 118.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	807	166	50	914	148	299	528	63	99	332	419
Future Volume (veh/h)	280	807	166	50	914	148	299	528	63	99	332	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.97	1.00		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	341	984	115	61	1115	110	365	644	60	121	405	368
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	364	1785	208	127	1127	477	364	1736	160	175	1108	428
Arrive On Green	0.10	0.38	0.38	0.04	0.31	0.31	0.10	0.36	0.36	0.05	0.31	0.31
Sat Flow, veh/h	3510	4701	548	3510	3610	1527	3510	4815	444	3510	3610	1395
Grp Volume(v), veh/h	341	723	376	61	1115	110	365	461	243	121	405	368
Grp Sat Flow(s),veh/h/ln	1755	1729	1791	1755	1805	1527	1755	1729	1801	1755	1805	1395
Q Serve(g_s), s	11.5	19.6	19.7	2.0	36.8	6.4	12.4	11.8	12.0	4.1	10.5	29.8
Cycle Q Clear(g_c), s	11.5	19.6	19.7	2.0	36.8	6.4	12.4	11.8	12.0	4.1	10.5	29.8
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	364	1313	680	127	1127	477	364	1247	649	175	1108	428
V/C Ratio(X)	0.94	0.55	0.55	0.48	0.99	0.23	1.00	0.37	0.37	0.69	0.37	0.86
Avail Cap(c_a), veh/h	364	1313	680	152	1127	477	364	1247	649	232	1115	431
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	29.1	29.2	56.6	41.0	30.5	53.7	28.3	28.3	56.0	32.4	39.1
Incr Delay (d2), s/veh	31.3	0.5	1.0	1.0	24.1	0.2	48.2	0.2	0.4	2.7	0.2	15.9
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	6.5	7.9	8.3	0.9	19.3	2.4	7.9	4.9	5.2	1.8	4.5	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.6	29.6	30.1	57.6	65.0	30.8	101.9	28.4	28.7	58.7	32.6	55.0
LnGrp LOS	F	C	C	E	E	C	F	C	C	E	C	D
Approach Vol, veh/h		1440			1286			1069			894	
Approach Delay, s/veh		42.8			61.7			53.6			45.3	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	51.3	17.0	42.5	17.0	43.2	10.6	49.0
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.2	44.6	12.4	37.0	12.4	37.4	7.9	* 42
Max Q Clear Time (g_c+I1), s	4.0	21.7	14.4	31.8	13.5	38.8	6.1	14.0
Green Ext Time (p_c), s	0.0	7.1	0.0	1.9	0.0	0.0	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	50.9
HCM 6th LOS	D

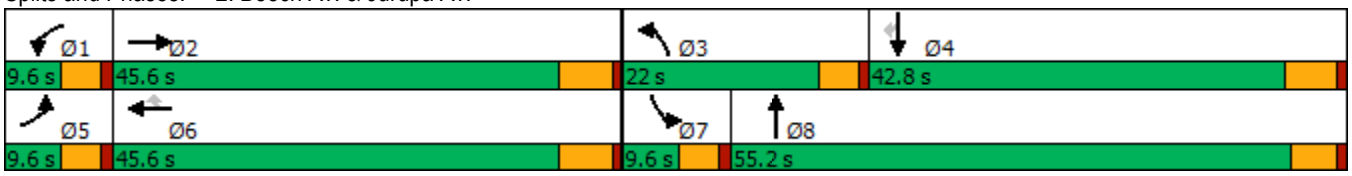
Notes

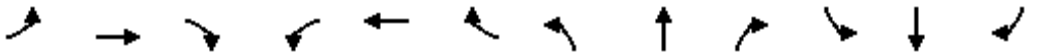
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	111	721	6	694	68	256	98	26	6	78
Future Volume (vph)	111	721	6	694	68	256	98	26	6	78
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	9.6	45.6	9.6	45.6	45.6	22.0	55.2	9.6	42.8	42.8
Total Split (%)	8.0%	38.0%	8.0%	38.0%	38.0%	18.3%	46.0%	8.0%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 78.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	721	35	6	694	68	256	98	18	26	6	78
Future Volume (veh/h)	111	721	35	6	694	68	256	98	18	26	6	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	743	32	6	715	45	264	101	13	27	6	56
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	245	1568	67	28	1274	395	317	1017	129	54	616	274
Arrive On Green	0.07	0.31	0.31	0.01	0.25	0.25	0.18	0.32	0.32	0.03	0.17	0.17
Sat Flow, veh/h	3510	5099	219	3510	5187	1610	1810	3223	408	1810	3610	1607
Grp Volume(v), veh/h	114	503	272	6	715	45	264	56	58	27	6	56
Grp Sat Flow(s),veh/h/ln	1755	1729	1860	1755	1729	1610	1810	1805	1826	1810	1805	1607
Q Serve(g_s), s	1.9	7.2	7.3	0.1	7.4	1.3	8.6	1.3	1.4	0.9	0.1	1.8
Cycle Q Clear(g_c), s	1.9	7.2	7.3	0.1	7.4	1.3	8.6	1.3	1.4	0.9	0.1	1.8
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	245	1063	572	28	1274	395	317	570	576	54	616	274
V/C Ratio(X)	0.47	0.47	0.48	0.22	0.56	0.11	0.83	0.10	0.10	0.50	0.01	0.20
Avail Cap(c_a), veh/h	286	2243	1206	286	3364	1044	513	1474	1491	147	2177	969
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	17.2	17.2	30.3	20.3	18.0	24.4	14.8	14.8	29.3	21.1	21.9
Incr Delay (d2), s/veh	0.5	0.3	0.6	1.4	0.4	0.1	2.9	0.1	0.1	2.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.5	2.7	0.0	2.6	0.5	3.6	0.5	0.5	0.4	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	17.6	17.9	31.7	20.6	18.1	27.4	14.9	14.9	31.9	21.2	22.2
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	C	C
Approach Vol, veh/h		889			766			378			89	
Approach Delay, s/veh		19.0			20.6			23.6			25.1	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	24.7	15.3	16.3	8.9	20.9	6.4	25.2
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	39.8	17.4	37.0	5.0	39.8	5.0	* 50
Max Q Clear Time (g_c+I1), s	2.1	9.3	10.6	3.8	3.9	9.4	2.9	3.4
Green Ext Time (p_c), s	0.0	4.9	0.2	0.2	0.0	5.0	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

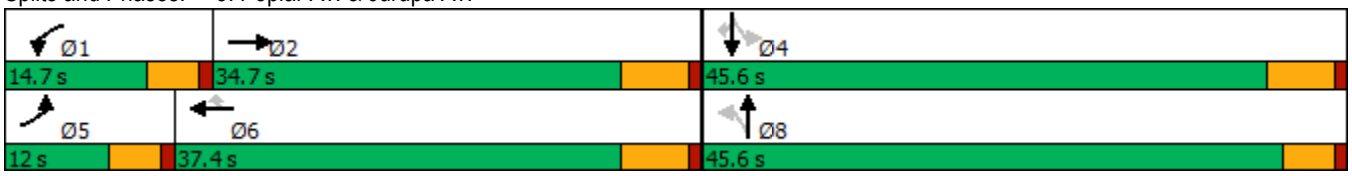
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

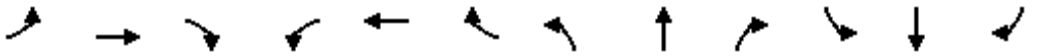
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	73	781	103	806	52	136	90	17	38	46
Future Volume (vph)	73	781	103	806	52	136	90	17	38	46
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	12.0	34.7	14.7	37.4	37.4	45.6	45.6	45.6	45.6	45.6
Total Split (%)	12.6%	36.5%	15.5%	39.4%	39.4%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary

Cycle Length: 95
Actuated Cycle Length: 56.1
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	781	47	103	806	52	136	90	183	17	38	46
Future Volume (veh/h)	73	781	47	103	806	52	136	90	183	17	38	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	840	43	111	867	45	146	97	113	18	41	29
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	127	1547	79	154	1666	517	460	424	378	377	446	378
Arrive On Green	0.07	0.31	0.31	0.09	0.32	0.32	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	5047	258	1810	5187	1610	1350	1805	1610	1190	1900	1608
Grp Volume(v), veh/h	78	575	308	111	867	45	146	97	113	18	41	29
Grp Sat Flow(s),veh/h/ln	1810	1729	1847	1810	1729	1610	1350	1805	1610	1190	1900	1608
Q Serve(g_s), s	1.8	6.0	6.0	2.6	5.9	0.8	4.1	1.9	2.5	0.5	0.7	0.6
Cycle Q Clear(g_c), s	1.8	6.0	6.0	2.6	5.9	0.8	4.8	1.9	2.5	3.1	0.7	0.6
Prop In Lane	1.00		0.14	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	127	1060	566	154	1666	517	460	424	378	377	446	378
V/C Ratio(X)	0.61	0.54	0.54	0.72	0.52	0.09	0.32	0.23	0.30	0.05	0.09	0.08
Avail Cap(c_a), veh/h	309	2304	1231	421	3779	1173	1420	1706	1522	1190	1744	1476
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	12.5	12.5	19.3	12.0	10.3	14.9	13.4	13.6	14.9	13.0	12.9
Incr Delay (d2), s/veh	1.8	0.4	0.8	2.4	0.3	0.1	0.4	0.3	0.4	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.7	1.9	1.0	1.6	0.2	1.0	0.6	0.8	0.1	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	12.9	13.3	21.7	12.2	10.3	15.3	13.7	14.1	15.0	13.1	13.0
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		961			1023			356			88	
Approach Delay, s/veh		13.8			13.2			14.5			13.4	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	19.1		16.0	7.6	19.7		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	10.1	28.9		39.8	7.4	31.6		* 41				
Max Q Clear Time (g_c+I1), s	4.6	8.0		5.1	3.8	7.9		6.8				
Green Ext Time (p_c), s	0.1	5.3		0.3	0.0	5.9		1.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.6	
HCM 6th LOS		B	

Notes

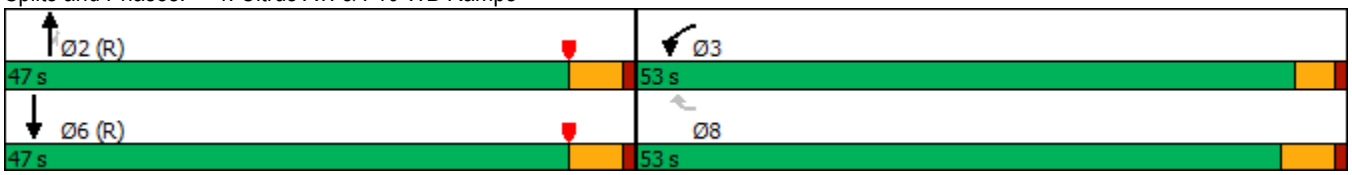
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

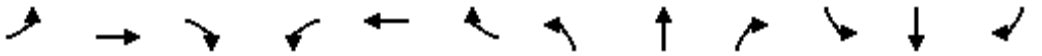
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	568	422	934	468	1416	594
Future Volume (vph)	568	422	934	468	1416	594
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	53.0	53.0	47.0	47.0	47.0	
Total Split (%)	53.0%	53.0%	47.0%	47.0%	47.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	568	0	422	0	934	468	0	1416	594
Future Volume (veh/h)	0	0	0	568	0	422	0	934	468	0	1416	594
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				604	0	243	0	994	488	0	1506	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				644	0	1009	0	2874	871	0	2000	
Arrive On Green				0.36	0.00	0.36	0.00	1.00	1.00	0.00	0.55	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1573	0	3705	1610
Grp Volume(v), veh/h				604	0	243	0	994	488	0	1506	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1573	0	1805	1610
Q Serve(g_s), s				32.3	0.0	6.0	0.0	0.0	0.0	0.0	31.9	0.0
Cycle Q Clear(g_c), s				32.3	0.0	6.0	0.0	0.0	0.0	0.0	31.9	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				644	0	1009	0	2874	871	0	2000	
V/C Ratio(X)				0.94	0.00	0.24	0.00	0.35	0.56	0.00	0.75	
Avail Cap(c_a), veh/h				887	0	1389	0	2874	871	0	2000	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.44	0.44	0.00	1.00	0.00
Uniform Delay (d), s/veh				31.1	0.0	22.7	0.0	0.0	0.0	0.0	17.1	0.0
Incr Delay (d2), s/veh				12.2	0.0	0.0	0.0	0.1	1.2	0.0	2.7	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				15.2	0.0	1.9	0.0	0.0	0.3	0.0	12.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.3	0.0	22.7	0.0	0.1	1.2	0.0	19.7	0.0
LnGrp LOS				D	A	C	A	A	A	A	B	
Approach Vol, veh/h					847			1482			1506	A
Approach Delay, s/veh					37.4			0.5			19.7	
Approach LOS					D			A			B	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	60.4		60.4		39.6			
Change Period (Y+Rc), s	5.0		5.0		4.0			
Max Green Setting (Gmax), s	42.0		42.0		49.0			
Max Q Clear Time (g_c+I1), s	2.0		33.9		34.3			
Green Ext Time (p_c), s	5.8		4.4		1.3			

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

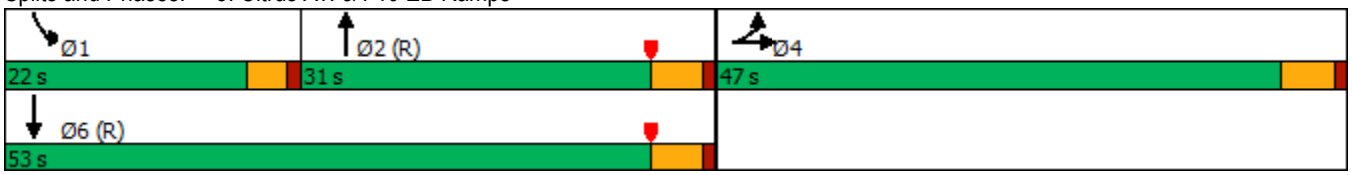
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

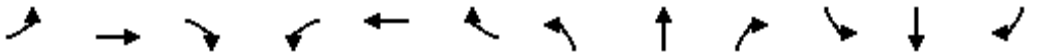
Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	352	4	1050	625	1359
Future Volume (vph)	352	4	1050	625	1359
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	47.0	47.0	31.0	22.0	53.0
Total Split (%)	47.0%	47.0%	31.0%	22.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	4	314	0	0	0	0	1050	412	625	1359	0
Future Volume (veh/h)	352	4	314	0	0	0	0	1050	412	625	1359	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	383	4	242				0	1141	325	679	1477	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	641	5	290				0	1987	566	632	2589	0
Arrive On Green	0.18	0.18	0.18				0.00	0.50	0.50	0.36	1.00	0.00
Sat Flow, veh/h	3510	26	1588				0	4167	1138	3510	3705	0
Grp Volume(v), veh/h	383	0	246				0	987	479	679	1477	0
Grp Sat Flow(s),veh/h/ln	1755	0	1614				0	1729	1677	1755	1805	0
Q Serve(g_s), s	10.0	0.0	14.7				0.0	20.1	20.1	18.0	0.0	0.0
Cycle Q Clear(g_c), s	10.0	0.0	14.7				0.0	20.1	20.1	18.0	0.0	0.0
Prop In Lane	1.00		0.98				0.00		0.68	1.00		0.00
Lane Grp Cap(c), veh/h	641	0	295				0	1720	834	632	2589	0
V/C Ratio(X)	0.60	0.00	0.83				0.00	0.57	0.57	1.07	0.57	0.00
Avail Cap(c_a), veh/h	1474	0	678				0	1720	834	632	2589	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.72	0.72	0.46	0.46	0.00
Uniform Delay (d), s/veh	37.5	0.0	39.4				0.0	17.7	17.7	32.0	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	2.4				0.0	1.0	2.1	47.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.0	5.8				0.0	7.4	7.4	9.6	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	0.0	41.8				0.0	18.7	19.8	79.0	0.4	0.0
LnGrp LOS	D	A	D				A	B	B	F	A	A
Approach Vol, veh/h		629						1466			2156	
Approach Delay, s/veh		39.4						19.0			25.2	
Approach LOS		D						B			C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.0	54.7		23.3		76.7
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	18.0	26.0		42.0		48.0
Max Q Clear Time (g_c+I1), s	20.0	22.1		16.7		2.0
Green Ext Time (p_c), s	0.0	2.3		1.6		8.5

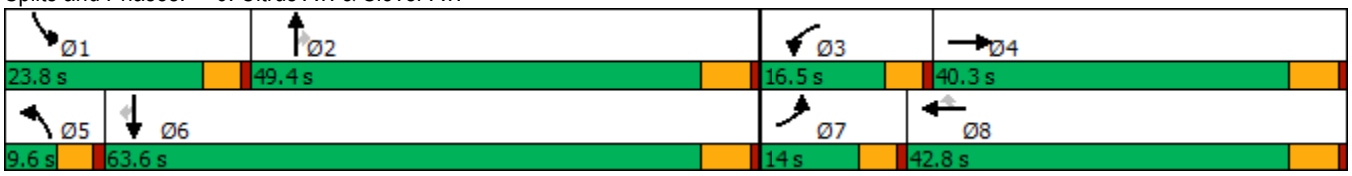
Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

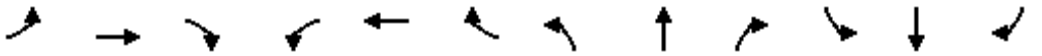
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	222	231	136	548	337	56	903	83	262	792	619
Future Volume (vph)	222	231	136	548	337	56	903	83	262	792	619
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	14.0	40.3	16.5	42.8	42.8	9.6	49.4	49.4	23.8	63.6	63.6
Total Split (%)	10.8%	31.0%	12.7%	32.9%	32.9%	7.4%	38.0%	38.0%	18.3%	48.9%	48.9%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 121.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	231	58	136	548	337	56	903	83	262	792	619
Future Volume (veh/h)	222	231	58	136	548	337	56	903	83	262	792	619
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		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	255	266	61	156	630	333	64	1038	64	301	910	578
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	266	676	152	173	907	402	73	1821	554	280	884	740
Arrive On Green	0.08	0.23	0.23	0.10	0.25	0.25	0.04	0.35	0.35	0.15	0.47	0.47
Sat Flow, veh/h	3510	2924	659	1810	3610	1599	1810	5187	1579	1810	1900	1590
Grp Volume(v), veh/h	255	162	165	156	630	333	64	1038	64	301	910	578
Grp Sat Flow(s),veh/h/ln	1755	1805	1778	1810	1805	1599	1810	1729	1579	1810	1900	1590
Q Serve(g_s), s	9.0	9.4	9.7	10.6	19.7	24.5	4.4	20.2	3.4	19.2	57.8	37.9
Cycle Q Clear(g_c), s	9.0	9.4	9.7	10.6	19.7	24.5	4.4	20.2	3.4	19.2	57.8	37.9
Prop In Lane	1.00		0.37	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	417	411	173	907	402	73	1821	554	280	884	740
V/C Ratio(X)	0.96	0.39	0.40	0.90	0.69	0.83	0.88	0.57	0.12	1.08	1.03	0.78
Avail Cap(c_a), veh/h	266	501	494	173	1075	476	73	1821	554	280	884	740
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	40.3	40.5	55.6	42.2	44.0	59.3	32.7	27.3	52.5	33.2	27.9
Incr Delay (d2), s/veh	43.8	0.6	0.6	40.2	1.6	10.1	64.0	0.4	0.1	75.5	38.0	5.4
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	5.5	4.2	4.2	6.7	8.7	10.5	3.3	8.2	1.3	14.3	34.0	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.0	40.9	41.1	95.8	43.7	54.1	123.3	33.1	27.4	128.0	71.2	33.3
LnGrp LOS	F	D	D	F	D	D	F	C	C	F	F	C
Approach Vol, veh/h		582			1119			1166			1789	
Approach Delay, s/veh		67.3			54.1			37.8			68.5	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.8	49.4	16.5	34.5	9.6	63.6	14.0	37.0
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	19.2	43.6	11.9	34.5	5.0	57.8	9.4	37.0
Max Q Clear Time (g_c+I1), s	21.2	22.2	12.6	11.7	6.4	59.8	11.0	26.5
Green Ext Time (p_c), s	0.0	7.1	0.0	1.6	0.0	0.0	0.0	3.7

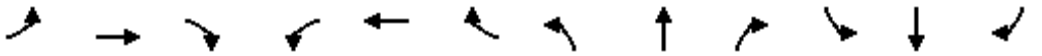
Intersection Summary	
HCM 6th Ctrl Delay	57.2
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	83	89	83	63	167	43	638	313	577
Future Volume (vph)	83	89	83	63	167	43	638	313	577
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	12.6	33.6	33.6	11.4	32.4	13.6	43.0	32.0	61.4
Total Split (%)	10.5%	28.0%	28.0%	9.5%	27.0%	11.3%	35.8%	26.7%	51.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.9
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	89	83	63	167	168	43	638	227	313	577	128
Future Volume (veh/h)	83	89	83	63	167	168	43	638	227	313	577	128
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	120	103	85	226	170	58	862	292	423	780	157
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	134	311	263	108	298	214	75	910	308	449	1648	332
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.04	0.34	0.34	0.25	0.55	0.55
Sat Flow, veh/h	1810	1900	1610	1810	1995	1430	1810	2648	895	1810	2994	603
Grp Volume(v), veh/h	112	120	103	85	203	193	58	587	567	423	470	467
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1620	1810	1805	1739	1810	1805	1792
Q Serve(g_s), s	6.6	6.1	6.2	5.0	11.7	12.4	3.4	34.3	34.4	24.8	17.2	17.2
Cycle Q Clear(g_c), s	6.6	6.1	6.2	5.0	11.7	12.4	3.4	34.3	34.4	24.8	17.2	17.2
Prop In Lane	1.00		1.00	1.00		0.88	1.00		0.51	1.00		0.34
Lane Grp Cap(c), veh/h	134	311	263	108	270	242	75	620	598	449	993	986
V/C Ratio(X)	0.84	0.39	0.39	0.79	0.75	0.79	0.77	0.95	0.95	0.94	0.47	0.47
Avail Cap(c_a), veh/h	134	495	419	114	450	404	150	627	604	458	993	986
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.5	40.4	40.5	50.2	44.1	44.5	51.4	34.6	34.6	39.9	14.8	14.8
Incr Delay (d2), s/veh	33.5	0.8	0.9	25.8	4.2	5.9	6.1	23.4	24.5	27.2	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	2.9	2.5	3.0	5.4	5.3	1.7	18.3	17.9	14.0	6.6	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	83.0	41.2	41.4	76.1	48.4	50.3	57.5	58.0	59.2	67.2	15.2	15.2
LnGrp LOS	F	D	D	E	D	D	E	E	E	E	B	B
Approach Vol, veh/h		335			481			1212			1360	
Approach Delay, s/veh		55.3			54.0			58.5			31.3	
Approach LOS		E			D			E			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.5	42.6	11.1	23.1	9.1	65.0	12.6	21.6
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	27.4	37.6	6.8	28.2	9.0	56.0	8.0	27.0
Max Q Clear Time (g_c+I1), s	26.8	36.4	7.0	8.2	5.4	19.2	8.6	14.4
Green Ext Time (p_c), s	0.1	0.8	0.0	0.8	0.0	6.6	0.0	1.8

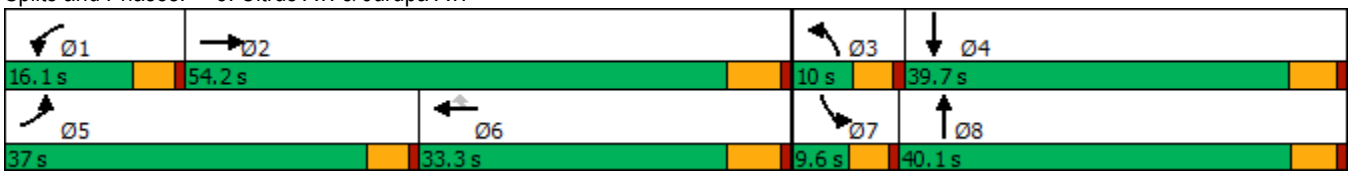
Intersection Summary	
HCM 6th Ctrl Delay	46.6
HCM 6th LOS	D

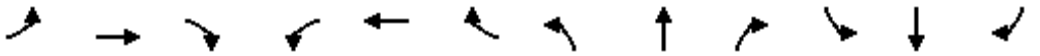
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	554	469	77	681	146	68	334	75	130
Future Volume (vph)	554	469	77	681	146	68	334	75	130
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	37.0	54.2	16.1	33.3	33.3	10.0	40.1	9.6	39.7
Total Split (%)	30.8%	45.2%	13.4%	27.8%	27.8%	8.3%	33.4%	8.0%	33.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 99.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	554	469	15	77	681	146	68	334	128	75	130	210
Future Volume (veh/h)	554	469	15	77	681	146	68	334	128	75	130	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	602	510	14	84	740	120	74	363	114	82	141	168
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	625	2532	69	108	1052	325	95	492	152	96	328	293
Arrive On Green	0.35	0.49	0.49	0.06	0.20	0.20	0.05	0.18	0.18	0.05	0.18	0.18
Sat Flow, veh/h	1810	5188	142	1810	5187	1605	1810	2712	840	1810	1805	1610
Grp Volume(v), veh/h	602	339	185	84	740	120	74	240	237	82	141	168
Grp Sat Flow(s),veh/h/ln	1810	1729	1872	1810	1729	1605	1810	1805	1747	1810	1805	1610
Q Serve(g_s), s	30.6	5.2	5.3	4.3	12.5	6.0	3.8	11.8	12.1	4.2	6.5	8.9
Cycle Q Clear(g_c), s	30.6	5.2	5.3	4.3	12.5	6.0	3.8	11.8	12.1	4.2	6.5	8.9
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	625	1688	914	108	1052	325	95	328	317	96	328	293
V/C Ratio(X)	0.96	0.20	0.20	0.78	0.70	0.37	0.78	0.73	0.75	0.85	0.43	0.57
Avail Cap(c_a), veh/h	625	1783	965	222	1520	470	104	673	652	96	660	588
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	13.6	13.6	43.5	34.8	32.2	43.9	36.3	36.4	44.1	34.1	35.1
Incr Delay (d2), s/veh	27.0	0.1	0.1	4.4	0.9	0.7	24.5	3.2	3.5	45.9	0.9	1.8
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	16.9	1.9	2.0	2.0	5.0	2.4	2.3	5.3	5.3	3.1	2.8	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	13.7	13.8	47.9	35.7	32.9	68.4	39.4	39.9	89.9	35.0	36.8
LnGrp LOS	E	B	B	D	D	C	E	D	D	F	C	D
Approach Vol, veh/h		1126			944			551			391	
Approach Delay, s/veh		36.9			36.4			43.5			47.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	51.6	9.5	22.5	37.0	24.8	9.6	22.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	11.5	48.4	5.4	34.3	32.4	27.5	5.0	* 35
Max Q Clear Time (g_c+I1), s	6.3	7.3	5.8	10.9	32.6	14.5	6.2	14.1
Green Ext Time (p_c), s	0.0	3.2	0.0	1.7	0.0	4.1	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	677	824	111	0	244
Future Vol, veh/h	0	677	824	111	0	244
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	720	877	118	0	260

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	498
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	447
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	447
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

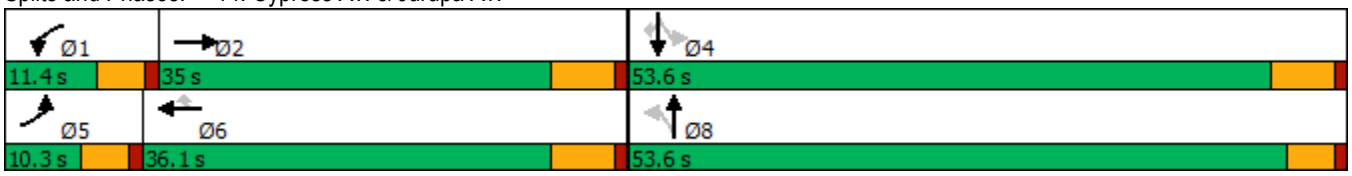
Approach	EB	WB	SB
HCM Control Delay, s	0	0	23.6
HCM LOS			C

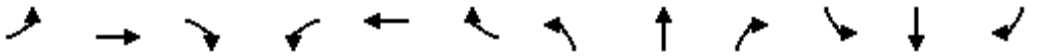
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	447
HCM Lane V/C Ratio	-	-	-	0.581
HCM Control Delay (s)	-	-	-	23.6
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	3.6

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	104	573	55	793	76	32	88	60	35	75
Future Volume (vph)	104	573	55	793	76	32	88	60	35	75
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.3	35.0	11.4	36.1	36.1	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.3%	35.0%	11.4%	36.1%	36.1%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 56.2
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	573	16	55	793	76	32	88	143	60	35	75
Future Volume (veh/h)	104	573	16	55	793	76	32	88	143	60	35	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	107	591	16	57	818	65	33	91	96	62	36	42
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	151	1719	46	104	1581	491	465	200	211	342	450	381
Arrive On Green	0.08	0.33	0.33	0.06	0.30	0.30	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1810	5193	140	1810	5187	1610	1342	846	892	1215	1900	1610
Grp Volume(v), veh/h	107	393	214	57	818	65	33	0	187	62	36	42
Grp Sat Flow(s),veh/h/ln	1810	1729	1875	1810	1729	1610	1342	0	1738	1215	1900	1610
Q Serve(g_s), s	2.5	3.7	3.7	1.3	5.6	1.3	0.8	0.0	4.0	2.0	0.6	0.9
Cycle Q Clear(g_c), s	2.5	3.7	3.7	1.3	5.6	1.3	1.5	0.0	4.0	6.0	0.6	0.9
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	151	1145	621	104	1581	491	465	0	412	342	450	381
V/C Ratio(X)	0.71	0.34	0.34	0.55	0.52	0.13	0.07	0.00	0.45	0.18	0.08	0.11
Avail Cap(c_a), veh/h	239	2336	1266	285	3636	1129	1668	0	1970	1398	2101	1780
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	1.00	1.00
Uniform Delay (d), s/veh	19.3	10.9	10.9	19.8	12.4	10.9	13.4	0.0	14.1	16.7	12.8	12.9
Incr Delay (d2), s/veh	2.3	0.2	0.3	1.7	0.3	0.1	0.1	0.0	0.8	0.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.0	1.1	0.5	1.6	0.3	0.2	0.0	1.5	0.5	0.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.6	11.1	11.2	21.5	12.7	11.0	13.5	0.0	14.9	16.9	12.9	13.1
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		714			940			220			140	
Approach Delay, s/veh		12.7			13.1			14.7			14.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	20.1		16.0	8.2	19.0		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	6.8	29.2		47.8	5.7	30.3		* 49				
Max Q Clear Time (g_c+I1), s	3.3	5.7		8.0	4.5	7.6		6.0				
Green Ext Time (p_c), s	0.0	3.5		0.5	0.0	5.5		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		13.2	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	21.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	258	31	63	525	16	26	29	34	42	39	17
Future Vol, veh/h	7	258	31	63	525	16	26	29	34	42	39	17
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	353	42	86	719	22	36	40	47	58	53	23
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

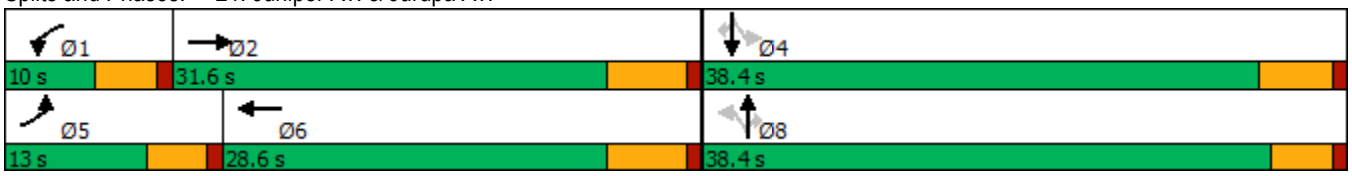
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	24.3	23.1	11.8	12.9
HCM LOS	C	C	B	B

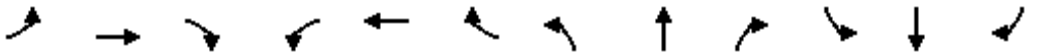
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	47%	0%	2%	19%	0%	52%	0%
Vol Thru, %	53%	0%	87%	81%	94%	48%	0%
Vol Right, %	0%	100%	10%	0%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	34	296	326	279	81	17
LT Vol	26	0	7	63	0	42	0
Through Vol	29	0	258	263	263	39	0
RT Vol	0	34	31	0	16	0	17
Lane Flow Rate	75	47	405	446	382	111	23
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.169	0.092	0.72	0.767	0.642	0.248	0.046
Departure Headway (Hd)	8.091	7.124	6.393	6.195	6.056	8.055	7.065
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	441	500	564	580	595	444	503
Service Time	5.885	4.917	4.458	3.964	3.825	5.846	4.854
HCM Lane V/C Ratio	0.17	0.094	0.718	0.769	0.642	0.25	0.046
HCM Control Delay	12.5	10.6	24.3	26.6	19.1	13.5	10.2
HCM Lane LOS	B	B	C	D	C	B	B
HCM 95th-tile Q	0.6	0.3	5.9	7	4.6	1	0.1

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	47	718	14	859	6	6	19	59	7	67
Future Volume (vph)	47	718	14	859	6	6	19	59	7	67
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.0	31.6	10.0	28.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	16.3%	39.5%	12.5%	35.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 46.3
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	718	3	14	859	36	6	6	19	59	7	67
Future Volume (veh/h)	47	718	3	14	859	36	6	6	19	59	7	67
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	49	748	2	15	895	35	6	6	9	61	7	38
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	95	1858	5	35	1612	63	291	249	395	481	47	395
Arrive On Green	0.05	0.35	0.35	0.02	0.31	0.31	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1810	5341	14	1810	5122	200	645	1013	1610	1278	190	1610
Grp Volume(v), veh/h	49	484	266	15	604	326	12	0	9	68	0	38
Grp Sat Flow(s),veh/h/ln	1810	1729	1897	1810	1729	1864	1659	0	1610	1469	0	1610
Q Serve(g_s), s	1.1	4.3	4.3	0.3	5.9	5.9	0.0	0.0	0.2	1.2	0.0	0.7
Cycle Q Clear(g_c), s	1.1	4.3	4.3	0.3	5.9	5.9	0.2	0.0	0.2	1.4	0.0	0.7
Prop In Lane	1.00		0.01	1.00		0.11	0.50		1.00	0.90		1.00
Lane Grp Cap(c), veh/h	95	1203	660	35	1088	586	539	0	395	528	0	395
V/C Ratio(X)	0.52	0.40	0.40	0.43	0.55	0.56	0.02	0.00	0.02	0.13	0.00	0.10
Avail Cap(c_a), veh/h	373	2189	1201	240	1935	1043	1474	0	1335	1351	0	1304
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.8	10.1	10.1	19.8	11.6	11.6	11.7	0.0	11.7	12.1	0.0	11.9
Incr Delay (d2), s/veh	1.6	0.2	0.4	3.1	0.4	0.8	0.0	0.0	0.0	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.1	1.2	0.1	1.6	1.8	0.1	0.0	0.1	0.4	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	10.3	10.5	22.9	12.0	12.4	11.7	0.0	11.7	12.2	0.0	12.0
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		799			945			21			106	
Approach Delay, s/veh		11.0			12.3			11.7			12.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	20.0		15.4	6.7	18.6		15.4				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	8.4	22.8		* 34				
Max Q Clear Time (g_c+I1), s	2.3	6.3		3.4	3.1	7.9		2.2				
Green Ext Time (p_c), s	0.0	4.2		0.4	0.0	4.9		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		11.7
HCM 6th LOS		B

Notes

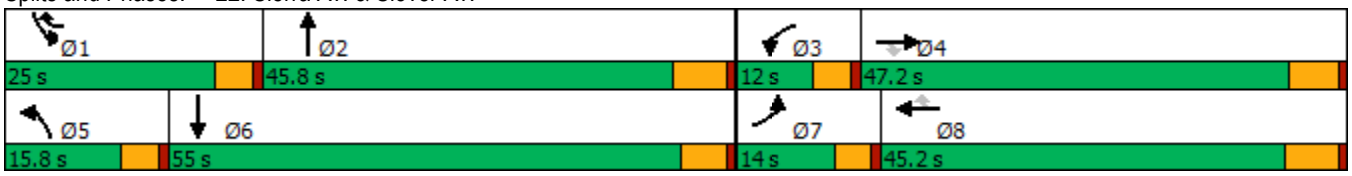
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

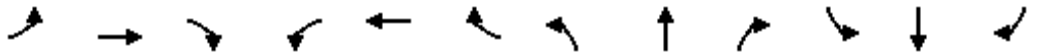
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	239	295	109	248	325	339	207	1184	500	1090
Future Volume (vph)	239	295	109	248	325	339	207	1184	500	1090
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	14.0	47.2	47.2	12.0	45.2	25.0	15.8	45.8	25.0	55.0
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.8%	19.2%	12.2%	35.2%	19.2%	42.3%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 102
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	295	109	248	325	339	207	1184	145	500	1090	263
Future Volume (veh/h)	239	295	109	248	325	339	207	1184	145	500	1090	263
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	257	317	73	267	349	91	223	1273	140	538	1172	230
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	334	597	266	301	563	945	303	1929	211	627	1795	352
Arrive On Green	0.10	0.17	0.17	0.09	0.16	0.16	0.09	0.32	0.32	0.18	0.41	0.41
Sat Flow, veh/h	3510	3610	1610	3510	3610	2812	3510	6023	660	3510	4349	853
Grp Volume(v), veh/h	257	317	73	267	349	91	223	1035	378	538	932	470
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1406	1755	1634	1781	1755	1729	1745
Q Serve(g_s), s	6.2	6.9	3.4	6.5	7.8	1.9	5.4	15.7	15.8	12.8	18.7	18.7
Cycle Q Clear(g_c), s	6.2	6.9	3.4	6.5	7.8	1.9	5.4	15.7	15.8	12.8	18.7	18.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		0.49
Lane Grp Cap(c), veh/h	334	597	266	301	563	945	303	1570	570	627	1427	720
V/C Ratio(X)	0.77	0.53	0.27	0.89	0.62	0.10	0.74	0.66	0.66	0.86	0.65	0.65
Avail Cap(c_a), veh/h	382	1729	771	301	1629	1776	455	2246	816	829	1985	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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	33.0	31.5	39.1	34.1	19.8	38.5	25.3	25.3	34.4	20.4	20.4
Incr Delay (d2), s/veh	6.7	0.7	0.6	25.2	1.1	0.0	1.3	0.5	1.3	5.6	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	2.8	2.9	1.3	3.7	3.3	0.6	2.2	5.6	6.3	5.6	6.8	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	33.7	32.1	64.3	35.2	19.8	39.8	25.8	26.7	40.0	20.9	21.4
LnGrp LOS	D	C	C	E	D	B	D	C	C	D	C	C
Approach Vol, veh/h		647			707			1636			1940	
Approach Delay, s/veh		38.0			44.2			27.9			26.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.0	33.9	12.0	20.5	12.1	41.9	12.8	19.7
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	20.4	39.6	7.4	* 41	11.2	* 50	9.4	39.0
Max Q Clear Time (g_c+I1), s	14.8	17.8	8.5	8.9	7.4	20.7	8.2	9.8
Green Ext Time (p_c), s	0.6	9.4	0.0	2.2	0.1	10.6	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

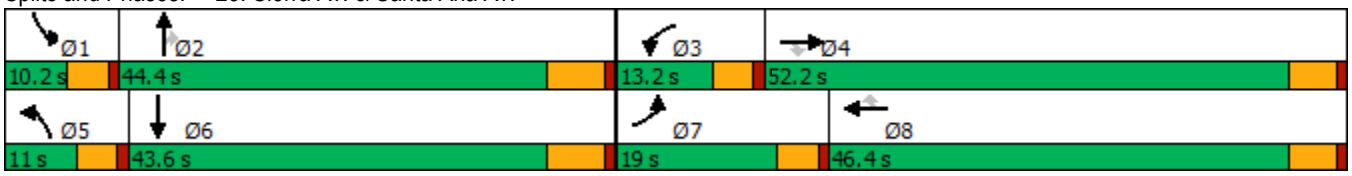
Notes

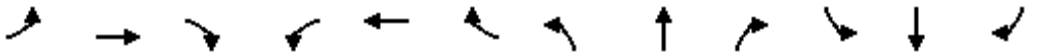
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	149	111	103	48	156	100	122	1407	60	108	892
Future Volume (vph)	149	111	103	48	156	100	122	1407	60	108	892
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	19.0	52.2	52.2	13.2	46.4	46.4	11.0	44.4	44.4	10.2	43.6
Total Split (%)	15.8%	43.5%	43.5%	11.0%	38.7%	38.7%	9.2%	37.0%	37.0%	8.5%	36.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.3
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	111	103	48	156	100	122	1407	60	108	892	340
Future Volume (veh/h)	149	111	103	48	156	100	122	1407	60	108	892	340
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	164	122	61	53	171	50	134	1546	63	119	980	355
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	204	733	327	81	488	218	222	2123	650	217	1531	554
Arrive On Green	0.11	0.20	0.20	0.04	0.14	0.14	0.06	0.41	0.41	0.06	0.41	0.41
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	3510	5187	1589	3510	3754	1359
Grp Volume(v), veh/h	164	122	61	53	171	50	134	1546	63	119	903	432
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1755	1729	1589	1755	1729	1654
Q Serve(g_s), s	6.5	2.1	2.3	2.1	3.2	2.1	2.8	18.6	1.8	2.4	15.5	15.5
Cycle Q Clear(g_c), s	6.5	2.1	2.3	2.1	3.2	2.1	2.8	18.6	1.8	2.4	15.5	15.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.82
Lane Grp Cap(c), veh/h	204	733	327	81	488	218	222	2123	650	217	1410	675
V/C Ratio(X)	0.80	0.17	0.19	0.65	0.35	0.23	0.60	0.73	0.10	0.55	0.64	0.64
Avail Cap(c_a), veh/h	352	2283	1018	210	2000	892	304	2677	820	266	1748	836
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.0	24.3	24.4	34.8	29.1	28.6	33.8	18.4	13.4	33.7	17.6	17.6
Incr Delay (d2), s/veh	2.8	0.1	0.3	3.3	0.4	0.5	1.0	0.8	0.1	0.8	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.8	0.8	1.0	1.3	0.8	1.1	6.3	0.6	1.0	5.2	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.8	24.4	24.7	38.1	29.5	29.1	34.7	19.2	13.5	34.5	18.1	18.7
LnGrp LOS	C	C	C	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		347			274			1743			1454	
Approach Delay, s/veh		29.4			31.1			20.1			19.6	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	36.5	7.9	20.4	9.3	36.4	12.9	15.4
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.6	38.2	8.6	46.8	6.4	37.4	14.4	41.0
Max Q Clear Time (g_c+I1), s	4.4	20.6	4.1	4.3	4.8	17.5	8.5	5.2
Green Ext Time (p_c), s	0.0	9.7	0.0	0.9	0.0	8.4	0.1	1.2

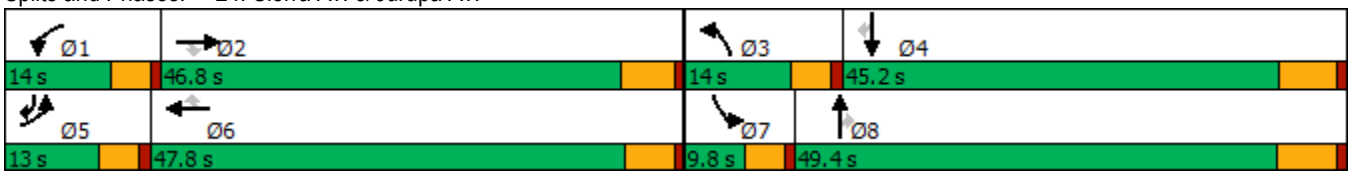
Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	286	277	266	153	323	155	315	855	62	59	651	256
Future Volume (vph)	286	277	266	153	323	155	315	855	62	59	651	256
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	13.0	46.8	46.8	14.0	47.8	47.8	14.0	49.4	49.4	9.8	45.2	13.0
Total Split (%)	10.8%	39.0%	39.0%	11.7%	39.8%	39.8%	11.7%	41.2%	41.2%	8.2%	37.7%	10.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 79.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	286	277	266	153	323	155	315	855	62	59	651	256
Future Volume (veh/h)	286	277	266	153	323	155	315	855	62	59	651	256
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	295	286	153	158	333	107	325	881	36	61	671	152
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	397	721	322	257	577	257	428	1233	550	181	979	619
Arrive On Green	0.11	0.20	0.20	0.07	0.16	0.16	0.12	0.34	0.34	0.05	0.27	0.27
Sat Flow, veh/h	3510	3610	1610	3510	3610	1607	3510	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	295	286	153	158	333	107	325	881	36	61	671	152
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1607	1755	1805	1610	1755	1805	1610
Q Serve(g_s), s	5.2	4.4	5.4	2.8	5.5	3.9	5.8	13.7	1.0	1.1	10.7	4.1
Cycle Q Clear(g_c), s	5.2	4.4	5.4	2.8	5.5	3.9	5.8	13.7	1.0	1.1	10.7	4.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	397	721	322	257	577	257	428	1233	550	181	979	619
V/C Ratio(X)	0.74	0.40	0.48	0.62	0.58	0.42	0.76	0.71	0.07	0.34	0.69	0.25
Avail Cap(c_a), veh/h	458	2299	1026	513	2378	1059	513	2406	1073	284	2187	1158
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	22.4	22.8	29.0	25.0	24.3	27.3	18.5	14.3	29.5	21.0	13.5
Incr Delay (d2), s/veh	4.4	0.4	1.1	0.9	0.9	1.1	4.2	0.8	0.0	0.4	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.7	1.8	1.1	2.2	1.3	2.3	4.6	0.3	0.4	3.9	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	22.7	23.9	29.9	26.0	25.4	31.5	19.2	14.3	29.9	21.9	13.7
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	C	B
Approach Vol, veh/h		734			598			1242			884	
Approach Delay, s/veh		26.7			26.9			22.3			21.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	18.7	12.5	24.0	11.9	16.1	7.9	28.5
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	9.4	41.0	9.4	* 39	8.4	* 42	5.2	42.9
Max Q Clear Time (g_c+I1), s	4.8	7.4	7.8	12.7	7.2	7.5	3.1	15.7
Green Ext Time (p_c), s	0.1	2.2	0.1	4.7	0.1	2.5	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

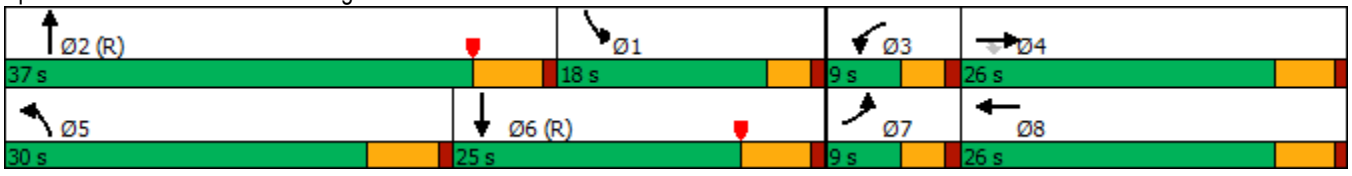
Notes

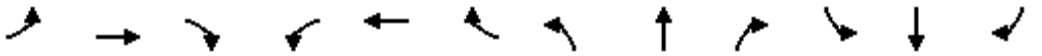
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	73	29	754	44	60	1148	489	42	318
Future Volume (vph)	73	29	754	44	60	1148	489	42	318
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0	26.0	9.0	26.0	30.0	37.0	18.0	25.0
Total Split (%)	10.0%	28.9%	28.9%	10.0%	28.9%	33.3%	41.1%	20.0%	27.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	17.4	17.4	5.0	15.6	31.5	45.7	12.4	19.3
Actuated g/C Ratio	0.06	0.19	0.19	0.06	0.17	0.35	0.51	0.14	0.21
v/c Ratio	0.78	0.04	0.92	0.47	0.17	1.01	0.63	0.18	1.01
Control Delay	88.9	27.3	22.9	57.1	19.2	61.1	26.1	35.4	84.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.9	27.3	22.9	57.1	19.2	61.1	26.1	35.4	84.9
LOS	F	C	C	E	B	E	C	D	F
Approach Delay		28.6			30.9		49.6		80.0
Approach LOS		C			C		D		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 14 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 47.2	Intersection LOS: D
Intersection Capacity Utilization 83.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	29	754	44	60	37	1148	489	70	42	318	63
Future Volume (veh/h)	73	29	754	44	60	37	1148	489	70	42	318	63
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		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	31	0	47	65	27	1234	526	75	45	342	45
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	101	260		69	138	54	948	566	81	570	646	85
Arrive On Green	0.06	0.07	0.00	0.04	0.05	0.05	0.27	0.35	0.35	0.32	0.39	0.39
Sat Flow, veh/h	1810	3610	1610	1810	2518	979	3510	1626	232	1810	1644	216
Grp Volume(v), veh/h	78	31	0	47	45	47	1234	0	601	45	0	387
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1692	1755	0	1858	1810	0	1861
Q Serve(g_s), s	3.8	0.7	0.0	2.3	2.2	2.4	24.3	0.0	28.1	1.6	0.0	14.3
Cycle Q Clear(g_c), s	3.8	0.7	0.0	2.3	2.2	2.4	24.3	0.0	28.1	1.6	0.0	14.3
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.12	1.00		0.12
Lane Grp Cap(c), veh/h	101	260		69	99	93	948	0	646	570	0	731
V/C Ratio(X)	0.78	0.12		0.68	0.46	0.50	1.30	0.00	0.93	0.08	0.00	0.53
Avail Cap(c_a), veh/h	101	842		101	421	395	948	0	646	570	0	731
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	0.00	1.00	1.00	1.00	0.80	0.00	0.80	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.9	39.1	0.0	42.7	41.2	41.3	32.8	0.0	28.3	21.6	0.0	20.9
Incr Delay (d2), s/veh	28.4	0.2	0.0	4.2	3.3	4.2	142.1	0.0	18.6	0.0	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.3	0.0	1.1	1.1	1.1	28.2	0.0	14.6	0.6	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.4	39.3	0.0	46.9	44.5	45.5	175.0	0.0	46.9	21.7	0.0	23.7
LnGrp LOS	E	D		D	D	D	F	A	D	C	A	C
Approach Vol, veh/h		109	A		139			1835			432	
Approach Delay, s/veh		61.5			45.7			133.0			23.5	
Approach LOS		E			D			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.1	37.0	7.5	11.5	30.0	41.1	9.0	9.9
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	14.0	* 31	5.0	21.0	24.3	19.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	3.6	30.1	4.3	2.7	26.3	16.3	5.8	4.4
Green Ext Time (p_c), s	0.0	0.6	0.0	0.1	0.0	0.8	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	106.3
HCM 6th LOS	F

Notes

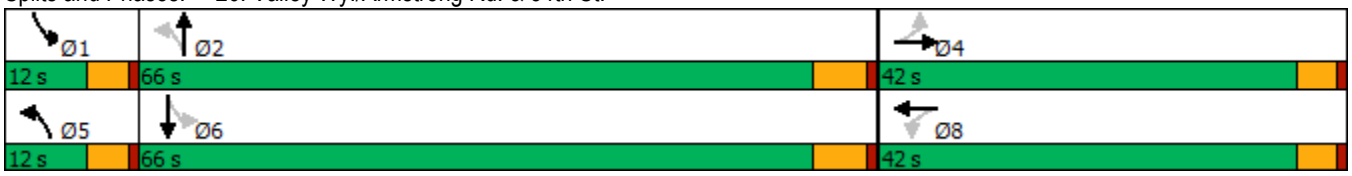
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

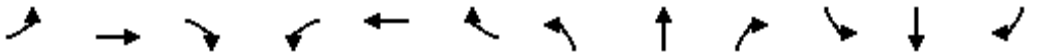
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	75	14	77	104	112	1256	11	951
Future Volume (vph)	75	14	77	104	112	1256	11	951
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	12.0	66.0	12.0	66.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	10.0%	55.0%	10.0%	55.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	19.1	19.1		19.1	72.7	70.1	66.7	60.4
Actuated g/C Ratio	0.19	0.19		0.19	0.72	0.69	0.66	0.60
v/c Ratio	0.48	0.26		0.77	0.42	0.58	0.05	0.63
Control Delay	46.2	11.8		55.4	9.6	10.7	5.9	15.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	11.8		55.4	9.6	10.7	5.9	15.3
LOS	D	B		E	A	B	A	B
Approach Delay		27.4		55.4		10.6		15.3
Approach LOS		C		E		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	14	77	77	104	25	112	1256	62	11	951	252
Future Volume (veh/h)	75	14	77	77	104	25	112	1256	62	11	951	252
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	15	81	84	113	27	122	1365	67	12	1034	271
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	244	49	262	134	153	33	324	2250	110	256	1715	447
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.05	0.64	0.64	0.01	0.61	0.61
Sat Flow, veh/h	1269	254	1373	441	802	170	1810	3499	171	1810	2818	734
Grp Volume(v), veh/h	82	0	96	224	0	0	122	703	729	12	660	645
Grp Sat Flow(s),veh/h/ln	1269	0	1627	1413	0	0	1810	1805	1865	1810	1805	1748
Q Serve(g_s), s	0.0	0.0	5.0	10.6	0.0	0.0	2.4	22.5	22.7	0.2	22.3	22.6
Cycle Q Clear(g_c), s	8.9	0.0	5.0	15.6	0.0	0.0	2.4	22.5	22.7	0.2	22.3	22.6
Prop In Lane	1.00		0.84	0.37		0.12	1.00		0.09	1.00		0.42
Lane Grp Cap(c), veh/h	244	0	311	320	0	0	324	1161	1200	256	1099	1064
V/C Ratio(X)	0.34	0.00	0.31	0.70	0.00	0.00	0.38	0.61	0.61	0.05	0.60	0.61
Avail Cap(c_a), veh/h	482	0	615	620	0	0	371	1161	1200	365	1099	1064
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	34.4	39.3	0.0	0.0	9.8	10.3	10.3	9.0	11.9	12.0
Incr Delay (d2), s/veh	0.8	0.0	0.6	2.8	0.0	0.0	0.3	2.3	2.3	0.0	2.4	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	2.0	5.5	0.0	0.0	0.8	7.9	8.2	0.1	8.2	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	35.0	42.1	0.0	0.0	10.1	12.7	12.6	9.0	14.4	14.6
LnGrp LOS	D	A	C	D	A	A	B	B	B	A	B	B
Approach Vol, veh/h		178			224			1554			1317	
Approach Delay, s/veh		35.8			42.1			12.4			14.4	
Approach LOS		D			D			B			B	

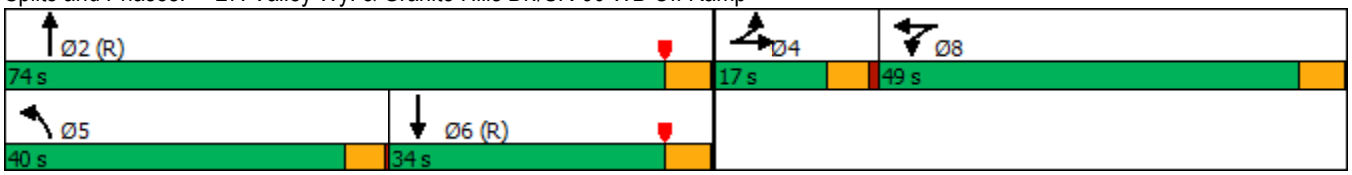
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	69.4		23.5	9.4	66.0		23.5				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	7.4	60.2		37.4	7.4	60.2		37.4				
Max Q Clear Time (g_c+I1), s	2.2	24.7		10.9	4.4	24.6		17.6				
Green Ext Time (p_c), s	0.0	11.8		0.9	0.0	10.5		1.3				

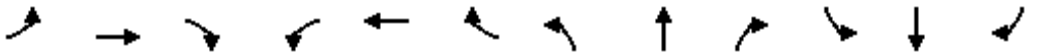
Intersection Summary			
HCM 6th Ctrl Delay		16.5	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	283	107	113	1023	1221
Future Volume (vph)	0	283	107	113	1023	1221
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	17.0	49.0	49.0	40.0	74.0	34.0
Total Split (%)	12.1%	35.0%	35.0%	28.6%	52.9%	24.3%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.6	43.7	43.7	14.4	68.7	49.7
Actuated g/C Ratio	0.08	0.31	0.31	0.10	0.49	0.36
v/c Ratio	1.84	0.52	1.16	0.63	0.60	1.00
Control Delay	439.1	43.5	124.7	73.8	27.3	69.1
Queue Delay	603.2	0.0	0.0	0.0	0.0	36.6
Total Delay	1042.3	43.5	124.7	73.8	27.3	105.7
LOS	F	D	F	E	C	F
Approach Delay	1042.3		100.5		32.0	105.7
Approach LOS	F		F		C	F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.84	
Intersection Signal Delay: 146.0	Intersection LOS: F
Intersection Capacity Utilization 112.9%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	0	187	283	107	563	113	1023	0	0	1221	16
Future Volume (veh/h)	61	0	187	283	107	563	113	1023	0	0	1221	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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	63	0	193	292	110	470	116	1055	0	0	1259	16
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	34	0	103	565	98	419	143	1771	0	0	1382	18
Arrive On Green	0.08	0.00	0.08	0.31	0.31	0.31	0.03	0.16	0.00	0.00	0.38	0.38
Sat Flow, veh/h	407	0	1248	1810	314	1344	1810	3705	0	0	3744	46
Grp Volume(v), veh/h	256	0	0	292	0	580	116	1055	0	0	623	652
Grp Sat Flow(s),veh/h/ln	1655	0	0	1810	0	1658	1810	1805	0	0	1805	1891
Q Serve(g_s), s	11.6	0.0	0.0	18.5	0.0	43.7	8.9	37.9	0.0	0.0	45.8	45.8
Cycle Q Clear(g_c), s	11.6	0.0	0.0	18.5	0.0	43.7	8.9	37.9	0.0	0.0	45.8	45.8
Prop In Lane	0.25		0.75	1.00		0.81	1.00		0.00	0.00		0.02
Lane Grp Cap(c), veh/h	137	0	0	565	0	518	143	1771	0	0	684	716
V/C Ratio(X)	1.87	0.00	0.00	0.52	0.00	1.12	0.81	0.60	0.00	0.00	0.91	0.91
Avail Cap(c_a), veh/h	137	0	0	565	0	518	458	1771	0	0	684	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.95	0.95	0.00	0.00	0.74	0.74
Uniform Delay (d), s/veh	64.2	0.0	0.0	39.5	0.0	48.2	67.1	45.8	0.0	0.0	41.2	41.3
Incr Delay (d2), s/veh	416.5	0.0	0.0	0.8	0.0	77.0	9.9	1.4	0.0	0.0	14.6	14.1
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	20.7	0.0	0.0	8.2	0.0	28.5	4.6	18.7	0.0	0.0	22.3	23.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	480.7	0.0	0.0	40.3	0.0	125.2	77.0	47.2	0.0	0.0	55.8	55.3
LnGrp LOS	F	A	A	D	A	F	E	D	A	A	E	E
Approach Vol, veh/h		256			872			1171			1275	
Approach Delay, s/veh		480.7			96.8			50.1			55.6	
Approach LOS		F			F			D			E	

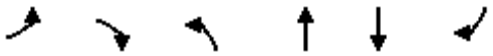
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		74.0		17.0	15.7	58.3		49.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		68.7		11.6	35.4	28.7		43.7				
Max Q Clear Time (g_c+I1), s		39.9		13.6	10.9	47.8		45.7				
Green Ext Time (p_c), s		4.9		0.0	0.3	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			94.3									
HCM 6th LOS			F									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	409	1136	1347
Future Volume (vph)	409	1136	1347
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	14.6	140.0	125.4
Total Split (%)	10.4%	100.0%	89.6%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	10.0	140.0	119.6
Actuated g/C Ratio	0.07	1.00	0.85
v/c Ratio	3.40	0.33	0.61
Control Delay	1117.0	0.3	7.4
Queue Delay	0.0	0.4	0.0
Total Delay	1117.0	0.7	7.4
LOS	F	A	A
Approach Delay		296.0	7.4
Approach LOS		F	A

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.40	
Intersection Signal Delay: 145.2	Intersection LOS: F
Intersection Capacity Utilization 79.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	409	1136	1347	344
Future Volume (veh/h)	0	0	409	1136	1347	344
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.97
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			435	1209	1433	366
Peak Hour Factor			0.94	0.94	0.94	0.94
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			129	3460	2437	600
Arrive On Green			0.07	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2947	702
Grp Volume(v), veh/h			435	1209	887	912
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1750
Q Serve(g_s), s			10.0	2.9	0.0	0.0
Cycle Q Clear(g_c), s			10.0	2.9	0.0	0.0
Prop In Lane			1.00			0.40
Lane Grp Cap(c), veh/h			129	3460	1542	1495
V/C Ratio(X)			3.37	0.35	0.58	0.61
Avail Cap(c_a), veh/h			129	3460	1542	1495
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.09	0.09	0.30	0.30
Uniform Delay (d), s/veh			65.0	0.2	0.0	0.0
Incr Delay (d2), s/veh			1066.3	0.0	0.5	0.6
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			42.8	0.0	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			1131.3	0.2	0.5	0.6
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				1644	1799	
Approach Delay, s/veh				299.5	0.5	
Approach LOS				F	A	

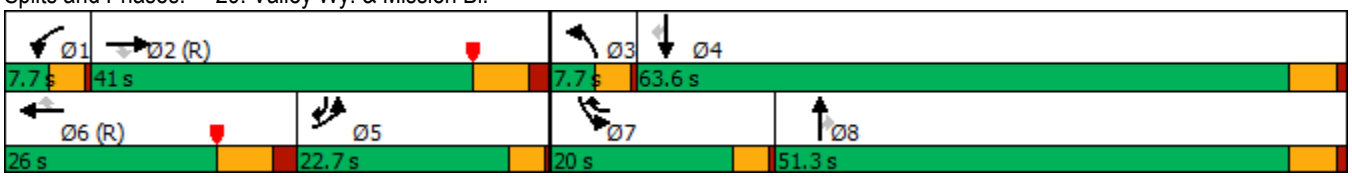
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			14.6	125.4
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			10.0	119.6
Max Q Clear Time (g_c+I1), s	4.9			12.0	2.0
Green Ext Time (p_c), s	11.1			0.0	24.7

Intersection Summary	
HCM 6th Ctrl Delay	143.3
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	836	1066	79	45	248	865	7	512	28	556	310	482
Future Volume (vph)	836	1066	79	45	248	865	7	512	28	556	310	482
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	22.7	41.0	41.0	7.7	26.0	20.0	7.7	51.3	51.3	20.0	63.6	22.7
Total Split (%)	18.9%	34.2%	34.2%	6.4%	21.7%	16.7%	6.4%	42.8%	42.8%	16.7%	53.0%	18.9%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	19.0	53.3	53.3	8.2	40.7	60.3	4.0	24.3	24.3	16.3	42.7	63.3
Actuated g/C Ratio	0.16	0.44	0.44	0.07	0.34	0.50	0.03	0.20	0.20	0.14	0.36	0.53
v/c Ratio	1.59	0.70	0.11	0.38	0.21	1.05	0.06	0.74	0.06	1.23	0.25	0.30
Control Delay	298.2	23.0	4.7	61.7	29.9	64.8	57.3	51.0	0.2	164.8	27.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	298.2	23.0	4.7	61.7	29.9	64.8	57.3	51.0	0.2	164.8	27.6	1.8
LOS	F	C	A	E	C	E	E	D	A	F	C	A
Approach Delay		138.4			57.2			48.5			75.0	
Approach LOS		F			E			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.59	
Intersection Signal Delay: 93.0	Intersection LOS: F
Intersection Capacity Utilization 103.7%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	836	1066	79	45	248	865	7	512	28	556	310	482
Future Volume (veh/h)	836	1066	79	45	248	865	7	512	28	556	310	482
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	880	1122	66	47	261	872	7	539	18	585	326	465
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	1069	1650	725	60	572	472	24	757	337	477	1222	1791
Arrive On Green	0.61	0.91	0.91	0.03	0.16	0.16	0.01	0.21	0.21	0.14	0.34	0.34
Sat Flow, veh/h	3510	3610	1587	1810	3610	1601	3510	3610	1608	3510	3610	2742
Grp Volume(v), veh/h	880	1122	66	47	261	872	7	539	18	585	326	465
Grp Sat Flow(s),veh/h/ln	1755	1805	1587	1810	1805	1601	1755	1805	1608	1755	1805	1371
Q Serve(g_s), s	23.6	8.5	0.5	3.1	7.9	14.5	0.2	16.6	1.1	16.3	7.9	0.9
Cycle Q Clear(g_c), s	23.6	8.5	0.5	3.1	7.9	14.5	0.2	16.6	1.1	16.3	7.9	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1069	1650	725	60	572	472	24	757	337	477	1222	1791
V/C Ratio(X)	0.82	0.68	0.09	0.78	0.46	1.85	0.29	0.71	0.05	1.23	0.27	0.26
Avail Cap(c_a), veh/h	1069	1650	725	60	572	472	117	1384	616	477	1754	2195
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	20.9	3.2	2.8	57.6	45.8	18.2	59.3	44.1	37.9	51.8	28.9	3.5
Incr Delay (d2), s/veh	0.5	0.2	0.0	43.5	2.6	389.1	2.4	1.3	0.1	115.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	1.4	0.2	2.1	3.7	57.0	0.1	7.5	0.4	14.6	3.3	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	3.4	2.8	101.1	48.4	407.3	61.7	45.3	38.0	167.6	28.9	3.5
LnGrp LOS	C	A	A	F	D	F	E	D	D	F	C	A
Approach Vol, veh/h		2068			1180			564			1376	
Approach Delay, s/veh		11.0			315.7			45.3			79.3	
Approach LOS		B			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	61.8	4.5	45.9	43.5	26.0	20.0	30.5
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	4.0	34.0	4.0	58.3	19.0	* 19	16.3	46.0
Max Q Clear Time (g_c+I1), s	5.1	10.5	2.2	9.9	25.6	16.5	18.3	18.6
Green Ext Time (p_c), s	0.0	11.3	0.0	4.2	0.0	1.7	0.0	3.8

Intersection Summary	
HCM 6th Ctrl Delay	102.2
HCM 6th LOS	F

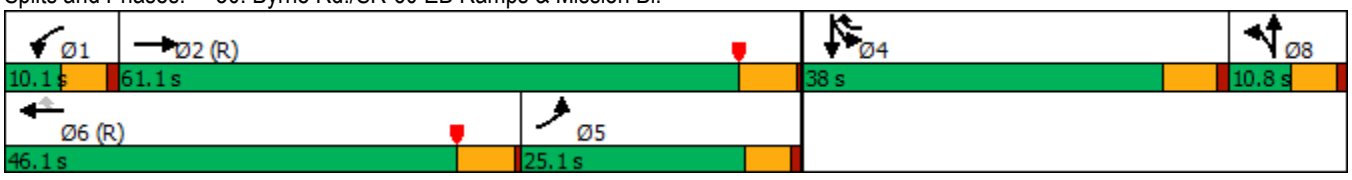
Notes

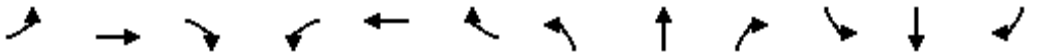
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	314	560	4	398	388	0	1395	2
Future Volume (vph)	314	560	4	398	388	0	1395	2
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	25.1	61.1	10.1	46.1	38.0	10.8	38.0	38.0
Total Split (%)	20.9%	50.9%	8.4%	38.4%	31.7%	9.0%	31.7%	31.7%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	20.0	70.1	5.6	47.2	79.3	5.0	32.2	32.2
Actuated g/C Ratio	0.17	0.58	0.05	0.39	0.66	0.04	0.27	0.27
v/c Ratio	1.14	0.29	0.05	0.31	0.36	0.06	1.88	1.81
Control Delay	139.3	14.2	56.0	36.9	5.8	0.5	430.8	402.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	139.3	14.2	56.0	36.9	5.8	0.5	430.8	402.1
LOS	F	B	E	D	A	A	F	F
Approach Delay		58.9		21.7		0.5		416.7
Approach LOS		E		C		A		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.88	
Intersection Signal Delay: 221.8	Intersection LOS: F
Intersection Capacity Utilization 114.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	560	4	4	398	388	5	0	9	1395	2	164
Future Volume (veh/h)	314	560	4	4	398	388	5	0	9	1395	2	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	341	609	3	4	433	314	5	0	6	1656	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	355	1962	10	9	1215	967	10	0	12	971	510	0
Arrive On Green	0.20	0.53	0.53	0.00	0.11	0.11	0.01	0.00	0.01	0.27	0.00	0.00
Sat Flow, veh/h	1810	3683	18	1810	3610	1588	770	0	925	3619	1900	0
Grp Volume(v), veh/h	341	298	314	4	433	314	11	0	0	1656	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1896	1810	1805	1588	1695	0	0	1810	1900	0
Q Serve(g_s), s	22.4	11.1	11.1	0.3	13.3	13.4	0.8	0.0	0.0	32.2	0.0	0.0
Cycle Q Clear(g_c), s	22.4	11.1	11.1	0.3	13.3	13.4	0.8	0.0	0.0	32.2	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.45		0.55	1.00		0.00
Lane Grp Cap(c), veh/h	355	962	1010	9	1215	967	22	0	0	971	510	0
V/C Ratio(X)	0.96	0.31	0.31	0.43	0.36	0.32	0.51	0.00	0.00	1.71	0.00	0.00
Avail Cap(c_a), veh/h	355	962	1010	75	1215	967	81	0	0	971	510	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	47.7	15.7	15.7	59.7	41.3	16.1	58.9	0.0	0.0	43.9	0.0	0.0
Incr Delay (d2), s/veh	37.1	0.8	0.8	26.8	0.8	0.9	6.7	0.0	0.0	321.8	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	13.4	4.5	4.7	0.2	6.5	9.8	0.4	0.0	0.0	57.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.8	16.5	16.5	86.6	42.1	17.0	65.5	0.0	0.0	365.7	0.0	0.0
LnGrp LOS	F	B	B	F	D	B	E	A	A	F	A	A
Approach Vol, veh/h		953			751			11			1656	
Approach Delay, s/veh		41.0			31.8			65.5			365.7	
Approach LOS		D			C			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	69.6		38.0	29.3	46.1		6.6				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.0	55.4		32.2	20.0	* 40		5.7				
Max Q Clear Time (g_c+I1), s	2.3	13.1		34.2	24.4	15.4		2.8				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	2.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		198.5
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

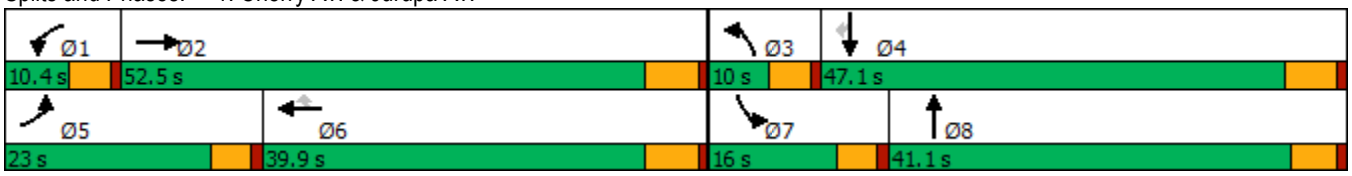
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

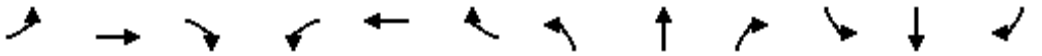
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	504	1270	77	757	125	74	363	206	515	337
Future Volume (vph)	504	1270	77	757	125	74	363	206	515	337
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	23.0	52.5	10.4	39.9	39.9	10.0	41.1	16.0	47.1	47.1
Total Split (%)	19.2%	43.8%	8.7%	33.3%	33.3%	8.3%	34.3%	13.3%	39.3%	39.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 94.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	504	1270	158	77	757	125	74	363	81	206	515	337
Future Volume (veh/h)	504	1270	158	77	757	125	74	363	81	206	515	337
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	525	1323	137	80	789	93	77	378	58	215	536	262
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	614	1957	203	177	1031	459	175	941	141	298	872	381
Arrive On Green	0.17	0.41	0.41	0.05	0.29	0.29	0.05	0.21	0.21	0.08	0.24	0.24
Sat Flow, veh/h	3510	4774	494	3510	3610	1607	3510	4553	682	3510	3610	1578
Grp Volume(v), veh/h	525	958	502	80	789	93	77	285	151	215	536	262
Grp Sat Flow(s),veh/h/ln	1755	1729	1810	1755	1805	1607	1755	1729	1777	1755	1805	1578
Q Serve(g_s), s	12.2	19.0	19.0	1.9	16.7	3.7	1.8	6.0	6.2	5.0	11.1	12.7
Cycle Q Clear(g_c), s	12.2	19.0	19.0	1.9	16.7	3.7	1.8	6.0	6.2	5.0	11.1	12.7
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	614	1418	742	177	1031	459	175	714	367	298	872	381
V/C Ratio(X)	0.86	0.68	0.68	0.45	0.77	0.20	0.44	0.40	0.41	0.72	0.61	0.69
Avail Cap(c_a), veh/h	771	1928	1009	243	1470	654	226	1486	764	478	1780	778
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.5	20.2	20.2	38.6	27.4	22.7	38.7	28.7	28.8	37.4	28.3	28.9
Incr Delay (d2), s/veh	6.5	0.6	1.1	0.7	1.5	0.2	0.7	0.4	0.7	1.2	0.7	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	6.8	7.3	0.8	6.8	1.4	0.8	2.4	2.6	2.1	4.5	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	20.7	21.3	39.3	28.9	22.9	39.3	29.1	29.6	38.6	29.0	31.1
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		1985			962			513			1013	
Approach Delay, s/veh		26.0			29.2			30.8			31.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.8	40.1	8.8	26.0	19.2	29.7	11.7	23.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.8	46.7	5.4	41.3	18.4	34.1	11.4	* 36
Max Q Clear Time (g_c+I1), s	3.9	21.0	3.8	14.7	14.2	18.7	7.0	8.2
Green Ext Time (p_c), s	0.0	10.6	0.0	4.4	0.5	4.7	0.1	2.8

Intersection Summary	
HCM 6th Ctrl Delay	28.5
HCM 6th LOS	C

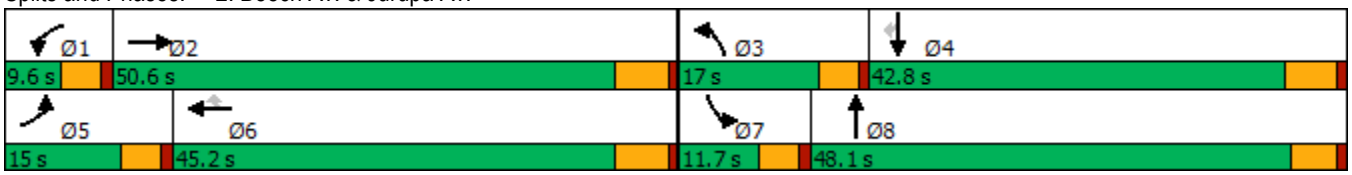
Notes

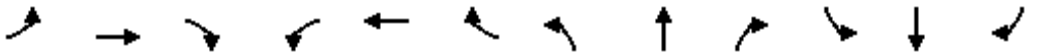
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	186	1412	35	811	38	110	49	86	61	92
Future Volume (vph)	186	1412	35	811	38	110	49	86	61	92
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	15.0	50.6	9.6	45.2	45.2	17.0	48.1	11.7	42.8	42.8
Total Split (%)	12.5%	42.2%	8.0%	37.7%	37.7%	14.2%	40.1%	9.8%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 86.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	1412	236	35	811	38	110	49	25	86	61	92
Future Volume (veh/h)	186	1412	236	35	811	38	110	49	25	86	61	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	198	1502	228	37	863	37	117	52	21	91	65	47
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	289	2104	319	127	2161	671	150	393	150	117	490	219
Arrive On Green	0.08	0.46	0.46	0.04	0.42	0.42	0.08	0.15	0.15	0.06	0.14	0.14
Sat Flow, veh/h	3510	4545	689	3510	5187	1610	1810	2555	974	1810	3610	1610
Grp Volume(v), veh/h	198	1142	588	37	863	37	117	36	37	91	65	47
Grp Sat Flow(s),veh/h/ln	1755	1729	1776	1755	1729	1610	1810	1805	1725	1810	1805	1610
Q Serve(g_s), s	4.0	19.5	19.6	0.8	8.6	1.0	4.7	1.3	1.4	3.6	1.2	1.9
Cycle Q Clear(g_c), s	4.0	19.5	19.6	0.8	8.6	1.0	4.7	1.3	1.4	3.6	1.2	1.9
Prop In Lane	1.00		0.39	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	289	1601	822	127	2161	671	150	278	265	117	490	219
V/C Ratio(X)	0.69	0.71	0.72	0.29	0.40	0.06	0.78	0.13	0.14	0.78	0.13	0.22
Avail Cap(c_a), veh/h	496	2103	1080	238	2774	861	305	1053	1007	174	1813	809
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.9	15.9	15.9	34.6	15.0	12.8	33.1	26.9	27.0	33.9	28.0	28.3
Incr Delay (d2), s/veh	1.1	0.8	1.6	0.5	0.1	0.0	3.3	0.2	0.2	6.0	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.5	6.9	0.3	2.9	0.3	2.1	0.5	0.6	1.7	0.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.0	16.7	17.4	35.1	15.2	12.9	36.4	27.1	27.2	39.9	28.1	28.8
LnGrp LOS	C	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		1928			937			190			203	
Approach Delay, s/veh		18.7			15.9			32.8			33.6	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	39.9	10.7	15.8	10.7	36.5	9.4	17.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	44.8	12.4	37.0	10.4	39.4	7.1	* 43
Max Q Clear Time (g_c+I1), s	2.8	21.6	6.7	3.9	6.0	10.6	5.6	3.4
Green Ext Time (p_c), s	0.0	12.5	0.1	0.5	0.1	6.2	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

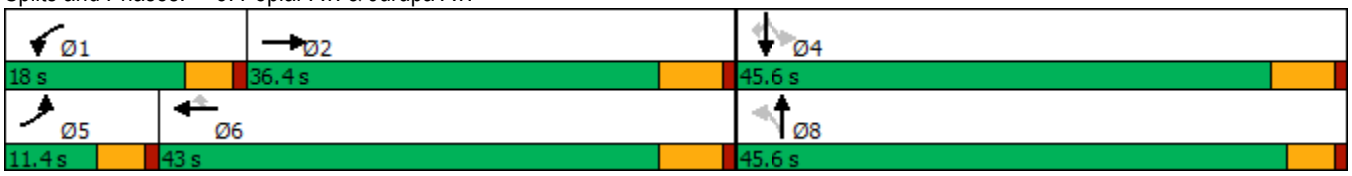
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

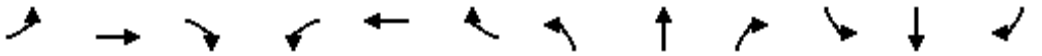
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	54	1430	193	754	45	57	43	65	97	64
Future Volume (vph)	54	1430	193	754	45	57	43	65	97	64
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	11.4	36.4	18.0	43.0	43.0	45.6	45.6	45.6	45.6	45.6
Total Split (%)	11.4%	36.4%	18.0%	43.0%	43.0%	45.6%	45.6%	45.6%	45.6%	45.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 74.3
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	1430	89	193	754	45	57	43	131	65	97	64
Future Volume (veh/h)	54	1430	89	193	754	45	57	43	131	65	97	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	1459	80	197	769	43	58	44	83	66	99	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	2081	114	246	2588	803	285	315	281	289	332	281
Arrive On Green	0.05	0.41	0.41	0.14	0.50	0.50	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1810	5032	276	1810	5187	1609	1256	1805	1610	1284	1900	1607
Grp Volume(v), veh/h	55	1003	536	197	769	43	58	44	83	66	99	51
Grp Sat Flow(s),veh/h/ln	1810	1729	1850	1810	1729	1609	1256	1805	1610	1284	1900	1607
Q Serve(g_s), s	1.7	14.1	14.1	6.2	5.1	0.8	2.5	1.2	2.6	2.8	2.7	1.6
Cycle Q Clear(g_c), s	1.7	14.1	14.1	6.2	5.1	0.8	5.1	1.2	2.6	5.4	2.7	1.6
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	1430	765	246	2588	803	285	315	281	289	332	281
V/C Ratio(X)	0.60	0.70	0.70	0.80	0.30	0.05	0.20	0.14	0.30	0.23	0.30	0.18
Avail Cap(c_a), veh/h	210	1802	964	413	3286	1019	942	1260	1124	935	1288	1089
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	14.2	14.2	24.6	8.7	7.6	23.3	20.5	21.1	23.4	21.1	20.7
Incr Delay (d2), s/veh	2.4	0.9	1.7	2.3	0.1	0.0	0.3	0.2	0.6	0.4	0.5	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	0.7	4.4	4.9	2.5	1.4	0.2	0.7	0.5	0.9	0.8	1.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	15.1	15.9	26.9	8.7	7.6	23.7	20.7	21.7	23.8	21.6	21.0
LnGrp LOS	C	B	B	C	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1594			1009			185			216	
Approach Delay, s/veh		15.9			12.2			22.1			22.1	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	30.1		16.1	7.6	35.1		16.1				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	13.4	30.6		39.8	6.8	37.2		* 41				
Max Q Clear Time (g_c+I1), s	8.2	16.1		7.4	3.7	7.1		7.1				
Green Ext Time (p_c), s	0.1	8.2		0.8	0.0	5.5		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		15.5	
HCM 6th LOS		B	

Notes

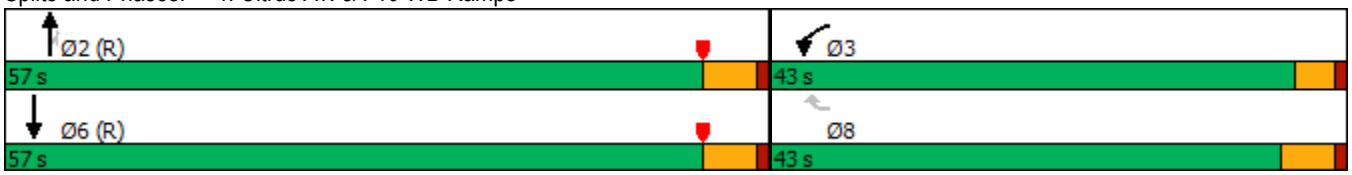
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

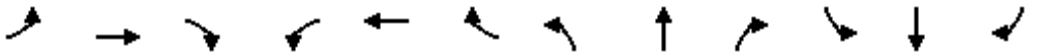
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	345	485	1385	413	948	437
Future Volume (vph)	345	485	1385	413	948	437
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	43.0	43.0	57.0	57.0	57.0	
Total Split (%)	43.0%	43.0%	57.0%	57.0%	57.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	345	0	485	0	1385	413	0	948	437
Future Volume (veh/h)	0	0	0	345	0	485	0	1385	413	0	948	437
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				363	0	385	0	1458	400	0	998	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				410	0	642	0	3544	1097	0	2467	
Arrive On Green				0.23	0.00	0.23	0.00	1.00	1.00	0.00	0.68	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1605	0	3705	1610
Grp Volume(v), veh/h				363	0	385	0	1458	400	0	998	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1605	0	1805	1610
Q Serve(g_s), s				19.4	0.0	12.2	0.0	0.0	0.0	0.0	12.1	0.0
Cycle Q Clear(g_c), s				19.4	0.0	12.2	0.0	0.0	0.0	0.0	12.1	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				410	0	642	0	3544	1097	0	2467	
V/C Ratio(X)				0.89	0.00	0.60	0.00	0.41	0.36	0.00	0.40	
Avail Cap(c_a), veh/h				706	0	1105	0	3544	1097	0	2467	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.57	0.57	0.00	1.00	0.00
Uniform Delay (d), s/veh				37.4	0.0	34.6	0.0	0.0	0.0	0.0	6.9	0.0
Incr Delay (d2), s/veh				3.4	0.0	0.3	0.0	0.2	0.5	0.0	0.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.5	0.0	4.0	0.0	0.1	0.2	0.0	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.8	0.0	34.9	0.0	0.2	0.5	0.0	7.4	0.0
LnGrp LOS				D	A	C	A	A	A	A	A	
Approach Vol, veh/h					748			1858			998	A
Approach Delay, s/veh					37.8			0.3			7.4	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	73.3		73.3		26.7			
Change Period (Y+Rc), s	5.0		5.0		4.0			
Max Green Setting (Gmax), s	52.0		52.0		39.0			
Max Q Clear Time (g_c+I1), s	2.0		14.1		21.4			
Green Ext Time (p_c), s	9.3		4.7		1.3			

Intersection Summary		
HCM 6th Ctrl Delay	10.0	
HCM 6th LOS	B	

Notes

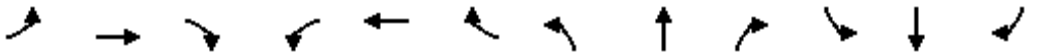
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	485	11	1313	451	842
Future Volume (vph)	485	11	1313	451	842
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	26.0	26.0	51.0	23.0	74.0
Total Split (%)	26.0%	26.0%	51.0%	23.0%	74.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	485	11	267	0	0	0	0	1313	529	451	842	0
Future Volume (veh/h)	485	11	267	0	0	0	0	1313	529	451	842	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	505	11	203				0	1368	370	470	877	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	594	14	261				0	2190	590	532	2638	0
Arrive On Green	0.17	0.17	0.17				0.00	0.54	0.54	0.30	1.00	0.00
Sat Flow, veh/h	3510	83	1539				0	4234	1095	3510	3705	0
Grp Volume(v), veh/h	505	0	214				0	1164	574	470	877	0
Grp Sat Flow(s),veh/h/ln	1755	0	1623				0	1729	1700	1755	1805	0
Q Serve(g_s), s	14.0	0.0	12.6				0.0	23.4	23.5	12.7	0.0	0.0
Cycle Q Clear(g_c), s	14.0	0.0	12.6				0.0	23.4	23.5	12.7	0.0	0.0
Prop In Lane	1.00		0.95				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	594	0	275				0	1864	916	532	2638	0
V/C Ratio(X)	0.85	0.00	0.78				0.00	0.62	0.63	0.88	0.33	0.00
Avail Cap(c_a), veh/h	737	0	341				0	1864	916	667	2638	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.51	0.51	0.84	0.84	0.00
Uniform Delay (d), s/veh	40.3	0.0	39.7				0.0	16.0	16.0	34.0	0.0	0.0
Incr Delay (d2), s/veh	6.6	0.0	6.8				0.0	0.8	1.7	8.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	5.3				0.0	8.3	8.4	5.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	0.0	46.6				0.0	16.8	17.7	42.4	0.3	0.0
LnGrp LOS	D	A	D				A	B	B	D	A	A
Approach Vol, veh/h		719						1738			1347	
Approach Delay, s/veh		46.8						17.1			15.0	
Approach LOS		D						B			B	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.2	58.9		21.9		78.1						
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0						
Max Green Setting (Gmax), s	19.0	46.0		21.0		69.0						
Max Q Clear Time (g_c+I1), s	14.7	25.5		16.0		2.0						
Green Ext Time (p_c), s	0.4	8.1		1.0		4.0						

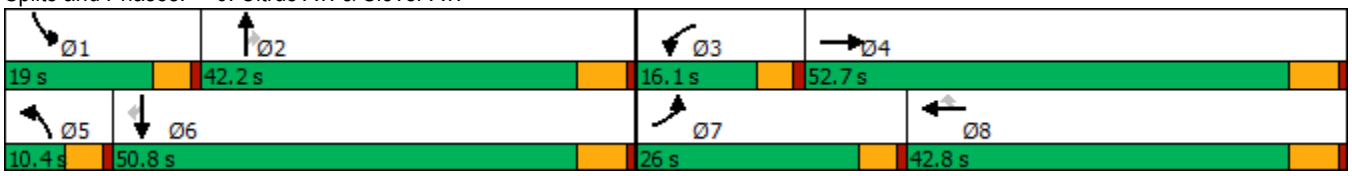
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	634	989	117	327	298	70	910	157	324	498	287
Future Volume (vph)	634	989	117	327	298	70	910	157	324	498	287
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	26.0	52.7	16.1	42.8	42.8	10.4	42.2	42.2	19.0	50.8	50.8
Total Split (%)	20.0%	40.5%	12.4%	32.9%	32.9%	8.0%	32.5%	32.5%	14.6%	39.1%	39.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 117.1
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	634	989	43	117	327	298	70	910	157	324	498	287
Future Volume (veh/h)	634	989	43	117	327	298	70	910	157	324	498	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	660	1030	45	122	341	266	73	948	100	338	519	208
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	696	1209	53	150	823	367	94	1284	396	241	625	530
Arrive On Green	0.20	0.34	0.34	0.08	0.23	0.23	0.05	0.25	0.25	0.13	0.33	0.33
Sat Flow, veh/h	3510	3521	154	1810	3610	1608	1810	5187	1600	1810	1900	1610
Grp Volume(v), veh/h	660	528	547	122	341	266	73	948	100	338	519	208
Grp Sat Flow(s),veh/h/ln	1755	1805	1870	1810	1805	1608	1810	1729	1600	1810	1900	1610
Q Serve(g_s), s	20.0	29.3	29.3	7.2	8.7	16.5	4.3	18.2	5.4	14.4	27.2	10.7
Cycle Q Clear(g_c), s	20.0	29.3	29.3	7.2	8.7	16.5	4.3	18.2	5.4	14.4	27.2	10.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	696	620	642	150	823	367	94	1284	396	241	625	530
V/C Ratio(X)	0.95	0.85	0.85	0.81	0.41	0.73	0.78	0.74	0.25	1.40	0.83	0.39
Avail Cap(c_a), veh/h	696	784	812	193	1237	551	97	1749	540	241	792	671
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	32.9	32.9	48.7	35.5	38.5	50.6	37.4	32.6	46.8	33.4	27.9
Incr Delay (d2), s/veh	22.0	7.3	7.1	14.5	0.3	2.7	28.4	1.1	0.3	203.2	6.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.4	13.3	13.7	3.7	3.7	6.5	2.6	7.5	2.1	19.9	12.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.8	40.2	40.0	63.1	35.9	41.3	78.9	38.5	32.9	249.9	39.4	28.4
LnGrp LOS	E	D	D	E	D	D	E	D	C	F	D	C
Approach Vol, veh/h		1735			729			1121			1065	
Approach Delay, s/veh		49.5			42.4			40.6			104.1	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	32.5	13.5	42.9	10.2	41.3	26.0	30.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	14.4	36.4	11.5	46.9	5.8	45.0	21.4	37.0
Max Q Clear Time (g_c+I1), s	16.4	20.2	9.2	31.3	6.3	29.2	22.0	18.5
Green Ext Time (p_c), s	0.0	5.8	0.0	5.7	0.0	3.3	0.0	2.7

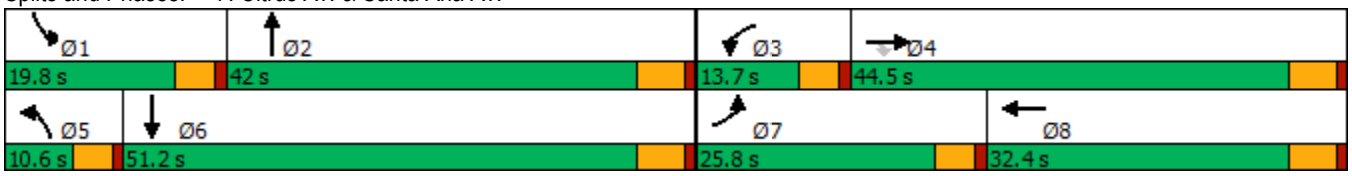
Intersection Summary	
HCM 6th Ctrl Delay	58.7
HCM 6th LOS	E

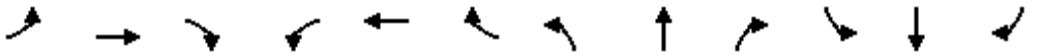
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	194	118	59	55	112	28	728	122	445
Future Volume (vph)	194	118	59	55	112	28	728	122	445
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	25.8	44.5	44.5	13.7	32.4	10.6	42.0	19.8	51.2
Total Split (%)	21.5%	37.1%	37.1%	11.4%	27.0%	8.8%	35.0%	16.5%	42.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 88.5
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	118	59	55	112	242	28	728	113	122	445	55
Future Volume (veh/h)	194	118	59	55	112	242	28	728	113	122	445	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	206	126	42	59	119	237	30	774	111	130	473	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	249	541	452	85	350	308	56	996	143	166	1235	130
Arrive On Green	0.14	0.28	0.28	0.05	0.19	0.19	0.03	0.31	0.31	0.09	0.37	0.37
Sat Flow, veh/h	1810	1900	1586	1810	1805	1589	1810	3169	454	1810	3296	347
Grp Volume(v), veh/h	206	126	42	59	119	237	30	441	444	130	258	265
Grp Sat Flow(s),veh/h/ln	1810	1900	1586	1810	1805	1589	1810	1805	1818	1810	1805	1838
Q Serve(g_s), s	8.4	3.9	1.5	2.4	4.3	10.8	1.2	16.9	16.9	5.4	7.9	8.0
Cycle Q Clear(g_c), s	8.4	3.9	1.5	2.4	4.3	10.8	1.2	16.9	16.9	5.4	7.9	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.19
Lane Grp Cap(c), veh/h	249	541	452	85	350	308	56	567	571	166	677	689
V/C Ratio(X)	0.83	0.23	0.09	0.70	0.34	0.77	0.54	0.78	0.78	0.79	0.38	0.38
Avail Cap(c_a), veh/h	504	976	815	216	640	564	143	868	874	361	1086	1105
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	20.9	20.0	35.8	26.5	29.1	36.4	23.7	23.7	33.9	17.4	17.4
Incr Delay (d2), s/veh	2.7	0.2	0.1	3.8	0.6	4.1	3.0	2.5	2.5	3.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	1.6	0.5	1.1	1.8	4.2	0.6	6.9	7.0	2.4	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	21.1	20.1	39.6	27.1	33.1	39.3	26.2	26.1	36.9	17.7	17.7
LnGrp LOS	C	C	C	D	C	C	D	C	C	D	B	B
Approach Vol, veh/h		374			415			915			653	
Approach Delay, s/veh		28.4			32.3			26.6			21.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.6	29.3	8.2	27.1	6.9	33.9	15.1	20.2
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.2	36.6	9.1	39.1	6.0	45.8	21.2	27.0
Max Q Clear Time (g_c+I1), s	7.4	18.9	4.4	5.9	3.2	10.0	10.4	12.8
Green Ext Time (p_c), s	0.1	5.0	0.0	0.8	0.0	3.1	0.2	1.7

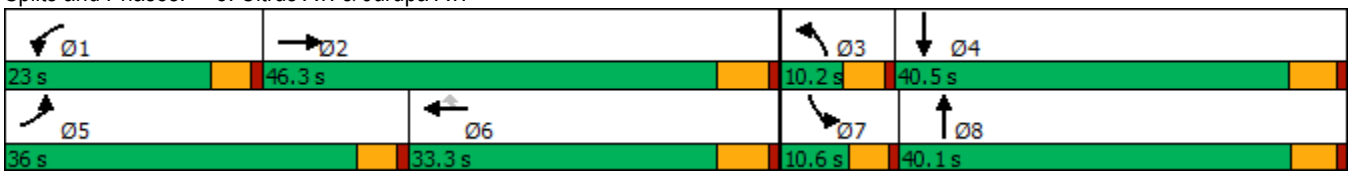
Intersection Summary	
HCM 6th Ctrl Delay	26.5
HCM 6th LOS	C

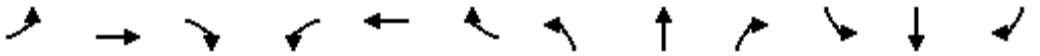
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	492	993	158	681	149	21	168	123	237
Future Volume (vph)	492	993	158	681	149	21	168	123	237
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	36.0	46.3	23.0	33.3	33.3	10.2	40.1	10.6	40.5
Total Split (%)	30.0%	38.6%	19.2%	27.8%	27.8%	8.5%	33.4%	8.8%	33.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 94.2
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	492	993	58	158	681	149	21	168	106	123	237	179
Future Volume (veh/h)	492	993	58	158	681	149	21	168	106	123	237	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	535	1079	48	172	740	88	23	183	92	134	258	165
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	576	2122	94	212	1118	347	45	308	148	138	389	241
Arrive On Green	0.32	0.42	0.42	0.12	0.22	0.22	0.03	0.13	0.13	0.08	0.18	0.18
Sat Flow, veh/h	1810	5090	226	1810	5187	1610	1810	2361	1136	1810	2143	1324
Grp Volume(v), veh/h	535	733	394	172	740	88	23	138	137	134	216	207
Grp Sat Flow(s),veh/h/ln	1810	1729	1859	1810	1729	1610	1810	1805	1692	1810	1805	1662
Q Serve(g_s), s	22.5	12.3	12.4	7.3	10.3	3.6	1.0	5.7	6.0	5.8	8.8	9.2
Cycle Q Clear(g_c), s	22.5	12.3	12.4	7.3	10.3	3.6	1.0	5.7	6.0	5.8	8.8	9.2
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.67	1.00		0.80
Lane Grp Cap(c), veh/h	576	1442	775	212	1118	347	45	236	221	138	328	302
V/C Ratio(X)	0.93	0.51	0.51	0.81	0.66	0.25	0.51	0.59	0.62	0.97	0.66	0.69
Avail Cap(c_a), veh/h	722	1779	956	423	1812	563	129	803	753	138	805	741
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.0	17.0	17.0	33.9	28.2	25.6	37.9	32.2	32.4	36.3	29.9	30.1
Incr Delay (d2), s/veh	14.6	0.3	0.5	2.8	0.7	0.4	3.2	2.3	2.8	67.4	2.3	2.8
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	10.9	4.3	4.7	3.2	4.0	1.3	0.5	2.5	2.5	5.0	3.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	17.3	17.5	36.7	28.9	26.0	41.1	34.5	35.2	103.7	32.2	32.9
LnGrp LOS	D	B	B	D	C	C	D	C	D	F	C	C
Approach Vol, veh/h		1662			1000			298			557	
Approach Delay, s/veh		24.8			30.0			35.3			49.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	38.6	6.6	19.7	29.7	22.8	10.6	15.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	18.4	40.5	5.6	35.1	31.4	27.5	6.0	* 35
Max Q Clear Time (g_c+I1), s	9.3	14.4	3.0	11.2	24.5	12.3	7.8	8.0
Green Ext Time (p_c), s	0.1	7.6	0.0	2.4	0.5	4.4	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑↱			↱
Traffic Vol, veh/h	0	1251	859	280	0	173
Future Vol, veh/h	0	1251	859	280	0	173
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1360	934	304	0	188

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	619
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	374
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	374
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

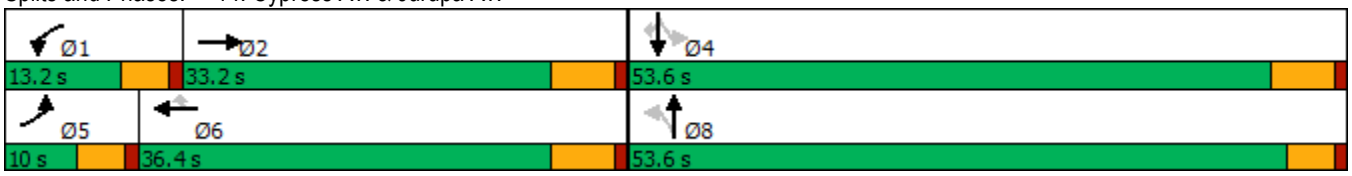
Approach	EB	WB	SB
HCM Control Delay, s	0	0	24
HCM LOS			C

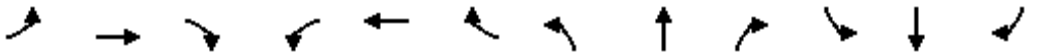
Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	374
HCM Lane V/C Ratio	-	-	-	0.503
HCM Control Delay (s)	-	-	-	24
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	2.7

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	145	1154	137	747	78	11	66	127	57	115
Future Volume (vph)	145	1154	137	747	78	11	66	127	57	115
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.0	33.2	13.2	36.4	36.4	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.0%	33.2%	13.2%	36.4%	36.4%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 67
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	1154	27	137	747	78	11	66	75	127	57	115
Future Volume (veh/h)	145	1154	27	137	747	78	11	66	75	127	57	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	154	1228	25	146	795	62	12	70	45	135	61	88
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	191	1924	39	188	1896	589	374	228	147	344	401	340
Arrive On Green	0.11	0.37	0.37	0.10	0.37	0.37	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	5232	107	1810	5187	1610	1258	1080	695	1298	1900	1610
Grp Volume(v), veh/h	154	812	441	146	795	62	12	0	115	135	61	88
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1610	1258	0	1775	1298	1900	1610
Q Serve(g_s), s	4.2	9.9	9.9	4.0	5.9	1.3	0.4	0.0	2.8	5.0	1.3	2.3
Cycle Q Clear(g_c), s	4.2	9.9	9.9	4.0	5.9	1.3	1.7	0.0	2.8	7.8	1.3	2.3
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	191	1271	691	188	1896	589	374	0	375	344	401	340
V/C Ratio(X)	0.80	0.64	0.64	0.78	0.42	0.11	0.03	0.00	0.31	0.39	0.15	0.26
Avail Cap(c_a), veh/h	191	1857	1010	305	3110	966	1316	0	1704	1286	1780	1508
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	1.00	1.00
Uniform Delay (d), s/veh	22.3	13.3	13.3	22.3	12.1	10.7	17.1	0.0	17.0	20.3	16.4	16.8
Incr Delay (d2), s/veh	20.1	0.5	1.0	2.6	0.1	0.1	0.0	0.0	0.5	0.7	0.2	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.9	3.3	1.6	1.7	0.4	0.1	0.0	1.1	1.3	0.5	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	13.9	14.3	24.9	12.3	10.8	17.1	0.0	17.4	21.0	16.6	17.2
LnGrp LOS	D	B	B	C	B	B	B	A	B	C	B	B
Approach Vol, veh/h		1407			1003			127			284	
Approach Delay, s/veh		17.1			14.0			17.4			18.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.9	24.6		16.6	10.0	24.5		16.6				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	8.6	27.4		47.8	5.4	30.6		* 49				
Max Q Clear Time (g_c+I1), s	6.0	11.9		9.8	6.2	7.9		4.8				
Green Ext Time (p_c), s	0.0	6.9		1.0	0.0	5.4		0.8				

Intersection Summary		
HCM 6th Ctrl Delay		16.2
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	51.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	484	39	75	383	60	49	60	79	71	55	7
Future Vol, veh/h	10	484	39	75	383	60	49	60	79	71	55	7
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	544	44	84	430	67	55	67	89	80	62	8
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

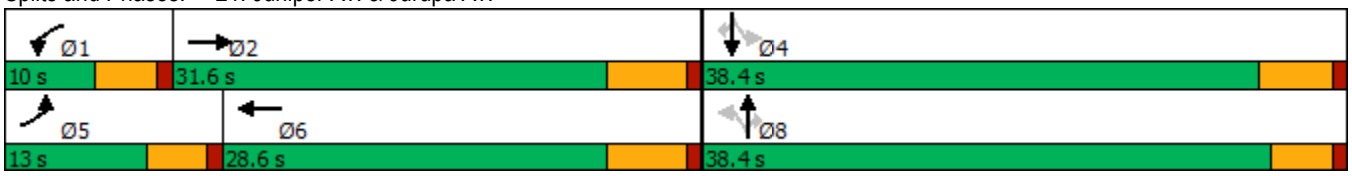
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	105	18.4	13.6	15.6
HCM LOS	F	C	B	C

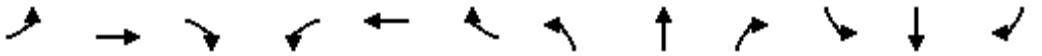
Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	45%	0%	2%	28%	0%	56%	0%
Vol Thru, %	55%	0%	91%	72%	76%	44%	0%
Vol Right, %	0%	100%	7%	0%	24%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	109	79	533	267	252	126	7
LT Vol	49	0	10	75	0	71	0
Through Vol	60	0	484	192	192	55	0
RT Vol	0	79	39	0	60	0	7
Lane Flow Rate	122	89	599	299	283	142	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.28	0.18	1.13	0.58	0.524	0.33	0.016
Departure Headway (Hd)	8.667	7.704	6.795	7.287	6.971	8.875	7.851
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	418	469	533	497	520	408	459
Service Time	6.367	5.404	4.865	4.987	4.671	6.575	5.551
HCM Lane V/C Ratio	0.292	0.19	1.124	0.602	0.544	0.348	0.017
HCM Control Delay	14.7	12.1	105	19.6	17.1	15.9	10.7
HCM Lane LOS	B	B	F	C	C	C	B
HCM 95th-tile Q	1.1	0.6	19.8	3.6	3	1.4	0

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	100	1257	32	860	8	17	6	55	25	89
Future Volume (vph)	100	1257	32	860	8	17	6	55	25	89
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.0	31.6	10.0	28.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	16.3%	39.5%	12.5%	35.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 80
Actuated Cycle Length: 54.2
Natural Cycle: 80
Control Type: Actuated-Uncoordinated

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	1257	6	32	860	70	8	17	6	55	25	89
Future Volume (veh/h)	100	1257	6	32	860	70	8	17	6	55	25	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	109	1366	7	35	935	71	9	18	4	60	27	51
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	146	2138	11	71	1769	134	184	307	359	345	133	357
Arrive On Green	0.08	0.40	0.40	0.04	0.36	0.36	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	5326	27	1810	4917	372	368	1377	1610	967	598	1604
Grp Volume(v), veh/h	109	887	486	35	657	349	27	0	4	87	0	51
Grp Sat Flow(s),veh/h/ln	1810	1729	1895	1810	1729	1832	1745	0	1610	1565	0	1604
Q Serve(g_s), s	2.8	9.7	9.7	0.9	7.0	7.1	0.0	0.0	0.1	1.1	0.0	1.2
Cycle Q Clear(g_c), s	2.8	9.7	9.7	0.9	7.0	7.1	0.5	0.0	0.1	2.0	0.0	1.2
Prop In Lane	1.00		0.01	1.00		0.20	0.33		1.00	0.69		1.00
Lane Grp Cap(c), veh/h	146	1388	761	71	1244	659	491	0	359	478	0	357
V/C Ratio(X)	0.75	0.64	0.64	0.50	0.53	0.53	0.05	0.00	0.01	0.18	0.00	0.14
Avail Cap(c_a), veh/h	324	1901	1042	208	1680	890	1320	0	1160	1215	0	1128
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	11.3	11.3	22.1	11.9	11.9	14.4	0.0	14.2	14.9	0.0	14.6
Incr Delay (d2), s/veh	2.8	0.5	0.9	2.0	0.3	0.7	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.6	2.9	0.4	2.0	2.2	0.2	0.0	0.0	0.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.9	11.8	12.2	24.1	12.2	12.5	14.4	0.0	14.2	15.1	0.0	14.8
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		1482			1041			31			138	
Approach Delay, s/veh		12.8			12.7			14.4			15.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	24.6		15.9	8.4	22.7		15.9				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	8.4	22.8		* 34				
Max Q Clear Time (g_c+I1), s	2.9	11.7		4.0	4.8	9.1		2.5				
Green Ext Time (p_c), s	0.0	7.1		0.6	0.0	5.1		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		12.9
HCM 6th LOS		B

Notes

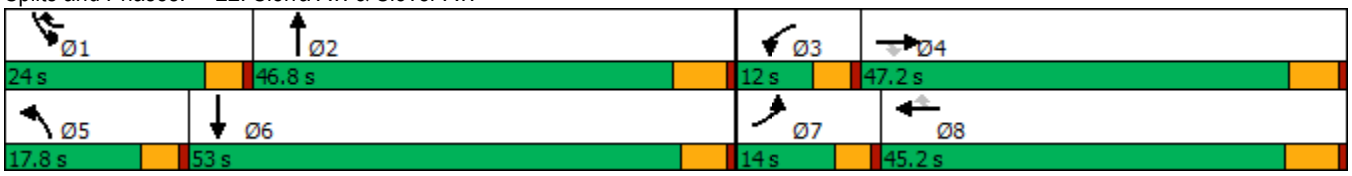
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	284	771	184	281	522	745	281	1582	676	1439
Future Volume (vph)	284	771	184	281	522	745	281	1582	676	1439
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	14.0	47.2	47.2	12.0	45.2	24.0	17.8	46.8	24.0	53.0
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.8%	18.5%	13.7%	36.0%	18.5%	40.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 122.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	284	771	184	281	522	745	281	1582	257	676	1439	85
Future Volume (veh/h)	284	771	184	281	522	745	281	1582	257	676	1439	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	296	803	128	293	544	378	293	1648	247	704	1499	75
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	273	992	434	215	933	1173	348	1879	282	562	1954	98
Arrive On Green	0.08	0.27	0.27	0.06	0.26	0.26	0.10	0.33	0.33	0.16	0.39	0.39
Sat Flow, veh/h	3510	3610	1580	3510	3610	2781	3510	5776	866	3510	5058	253
Grp Volume(v), veh/h	296	803	128	293	544	378	293	1399	496	704	1025	549
Grp Sat Flow(s),veh/h/ln	1755	1805	1580	1755	1805	1391	1755	1634	1739	1755	1729	1854
Q Serve(g_s), s	9.4	25.1	7.7	7.4	15.9	11.1	9.9	32.6	32.6	19.4	31.3	31.3
Cycle Q Clear(g_c), s	9.4	25.1	7.7	7.4	15.9	11.1	9.9	32.6	32.6	19.4	31.3	31.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.14
Lane Grp Cap(c), veh/h	273	992	434	215	933	1173	348	1595	566	562	1336	716
V/C Ratio(X)	1.09	0.81	0.29	1.37	0.58	0.32	0.84	0.88	0.88	1.25	0.77	0.77
Avail Cap(c_a), veh/h	273	1234	540	215	1163	1350	383	1644	583	562	1359	729
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.8	40.9	34.6	56.8	39.2	23.7	53.6	38.6	38.6	50.8	32.4	32.4
Incr Delay (d2), s/veh	79.4	3.3	0.4	191.5	0.6	0.2	13.2	5.6	13.9	127.4	2.7	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	11.2	2.9	8.9	6.9	3.5	4.9	13.3	15.5	18.2	12.9	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	135.2	44.3	35.0	248.3	39.8	23.8	66.8	44.2	52.5	178.2	35.1	37.3
LnGrp LOS	F	D	D	F	D	C	E	D	D	F	D	D
Approach Vol, veh/h		1227			1215			2188			2278	
Approach Delay, s/veh		65.3			85.1			49.1			79.8	
Approach LOS		E			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	45.6	12.0	39.5	16.6	53.0	14.0	37.5
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	19.4	40.6	7.4	* 41	13.2	* 48	9.4	39.0
Max Q Clear Time (g_c+I1), s	21.4	34.6	9.4	27.1	11.9	33.3	11.4	17.9
Green Ext Time (p_c), s	0.0	4.8	0.0	4.7	0.1	8.3	0.0	4.7

Intersection Summary	
HCM 6th Ctrl Delay	68.4
HCM 6th LOS	E

Notes

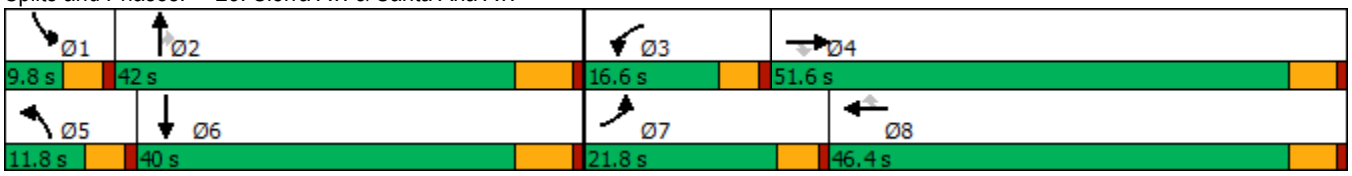
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

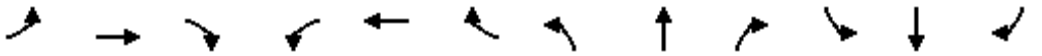
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	293	199	181	90	180	92	210	1778	75	185	1442
Future Volume (vph)	293	199	181	90	180	92	210	1778	75	185	1442
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	21.8	51.6	51.6	16.6	46.4	46.4	11.8	42.0	42.0	9.8	40.0
Total Split (%)	18.2%	43.0%	43.0%	13.8%	38.7%	38.7%	9.8%	35.0%	35.0%	8.2%	33.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	293	199	181	90	180	92	210	1778	75	185	1442	188
Future Volume (veh/h)	293	199	181	90	180	92	210	1778	75	185	1442	188
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	299	203	87	92	184	56	214	1814	69	189	1471	177
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	335	860	383	119	430	192	288	2064	631	209	1762	212
Arrive On Green	0.18	0.24	0.24	0.07	0.12	0.12	0.08	0.40	0.40	0.06	0.38	0.38
Sat Flow, veh/h	1810	3610	1608	1810	3610	1610	3510	5187	1586	3510	4692	564
Grp Volume(v), veh/h	299	203	87	92	184	56	214	1814	69	189	1084	564
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1610	1755	1729	1586	1755	1729	1798
Q Serve(g_s), s	14.1	4.0	3.8	4.4	4.1	2.8	5.2	28.2	2.4	4.7	24.9	24.9
Cycle Q Clear(g_c), s	14.1	4.0	3.8	4.4	4.1	2.8	5.2	28.2	2.4	4.7	24.9	24.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.31
Lane Grp Cap(c), veh/h	335	860	383	119	430	192	288	2064	631	209	1299	675
V/C Ratio(X)	0.89	0.24	0.23	0.78	0.43	0.29	0.74	0.88	0.11	0.90	0.83	0.84
Avail Cap(c_a), veh/h	357	1912	852	249	1697	757	290	2129	651	209	1340	697
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	26.8	26.7	40.1	35.7	35.1	39.1	24.3	16.5	40.8	24.8	24.8
Incr Delay (d2), s/veh	21.8	0.1	0.3	4.0	0.7	0.8	8.7	4.5	0.1	36.0	4.6	8.5
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	7.9	1.6	1.4	2.0	1.8	1.1	2.4	10.9	0.8	2.9	9.8	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	56.5	26.9	27.0	44.2	36.3	35.9	47.8	28.8	16.6	76.8	29.4	33.3
LnGrp LOS	E	C	C	D	D	D	D	C	B	E	C	C
Approach Vol, veh/h		589			332			2097			1837	
Approach Delay, s/veh		42.0			38.4			30.3			35.5	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	40.9	10.3	26.2	11.8	39.0	20.7	15.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.2	35.8	12.0	46.2	7.2	33.8	17.2	41.0
Max Q Clear Time (g_c+I1), s	6.7	30.2	6.4	6.0	7.2	26.9	16.1	6.1
Green Ext Time (p_c), s	0.0	4.5	0.0	1.5	0.0	4.9	0.1	1.3

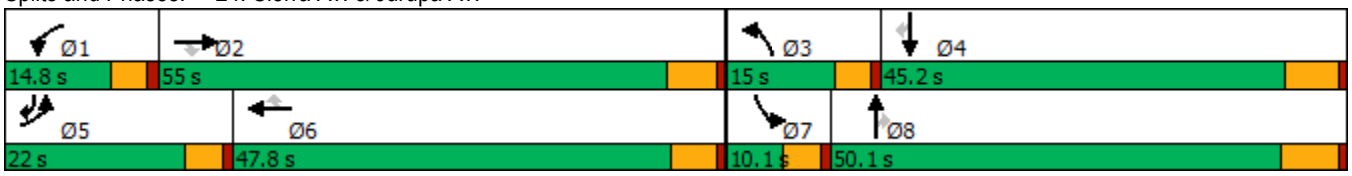
Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

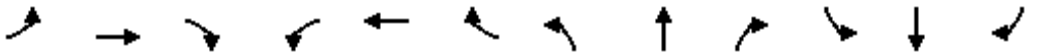
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	555	386	346	160	321	136	338	1151	112	128	803	329
Future Volume (vph)	555	386	346	160	321	136	338	1151	112	128	803	329
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	22.0	55.0	55.0	14.8	47.8	47.8	15.0	50.1	50.1	10.1	45.2	22.0
Total Split (%)	16.9%	42.3%	42.3%	11.4%	36.8%	36.8%	11.5%	38.5%	38.5%	7.8%	34.8%	16.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 105.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	555	386	346	160	321	136	338	1151	112	128	803	329
Future Volume (veh/h)	555	386	346	160	321	136	338	1151	112	128	803	329
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	572	398	214	165	331	80	348	1187	72	132	828	272
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	641	901	402	238	487	217	398	1413	622	199	1208	833
Arrive On Green	0.18	0.25	0.25	0.07	0.13	0.13	0.11	0.39	0.39	0.06	0.33	0.33
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3610	1590	3510	3610	1610
Grp Volume(v), veh/h	572	398	214	165	331	80	348	1187	72	132	828	272
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1590	1755	1805	1610
Q Serve(g_s), s	14.6	8.5	10.5	4.2	8.0	4.1	8.9	27.3	2.6	3.4	18.2	9.0
Cycle Q Clear(g_c), s	14.6	8.5	10.5	4.2	8.0	4.1	8.9	27.3	2.6	3.4	18.2	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	641	901	402	238	487	217	398	1413	622	199	1208	833
V/C Ratio(X)	0.89	0.44	0.53	0.69	0.68	0.37	0.87	0.84	0.12	0.66	0.69	0.33
Avail Cap(c_a), veh/h	666	1938	864	391	1670	745	398	1717	756	211	1536	979
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.6	29.0	29.8	41.8	37.8	36.1	40.0	25.3	17.8	42.4	26.3	12.9
Incr Delay (d2), s/veh	13.5	0.3	1.1	1.4	1.7	1.0	18.2	3.3	0.1	5.4	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.1	3.5	3.8	1.8	3.5	1.6	4.6	10.8	0.9	1.5	7.2	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	29.4	30.9	43.1	39.4	37.1	58.2	28.6	17.9	47.8	27.2	13.1
LnGrp LOS	D	C	C	D	D	D	E	C	B	D	C	B
Approach Vol, veh/h		1184			576			1607			1232	
Approach Delay, s/veh		39.7			40.2			34.5			26.3	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	28.7	15.0	37.2	21.3	18.2	9.8	42.4
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	10.2	49.2	10.4	* 39	17.4	* 42	5.5	43.6
Max Q Clear Time (g_c+I1), s	6.2	12.5	10.9	20.2	16.6	10.0	5.4	29.3
Green Ext Time (p_c), s	0.1	3.2	0.0	5.9	0.1	2.4	0.0	6.6

Intersection Summary	
HCM 6th Ctrl Delay	34.3
HCM 6th LOS	C

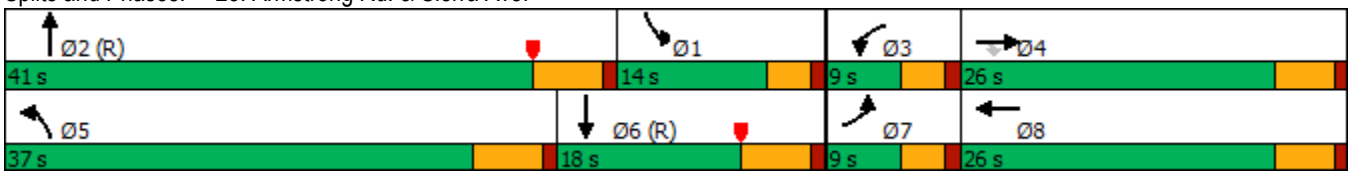
Notes

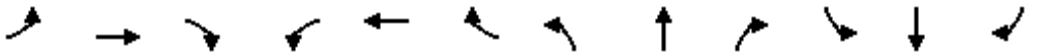
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	184	101	975	54	68	1240	757	43	597
Future Volume (vph)	184	101	975	54	68	1240	757	43	597
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0	26.0	9.0	26.0	37.0	41.0	14.0	18.0
Total Split (%)	10.0%	28.9%	28.9%	10.0%	28.9%	41.1%	45.6%	15.6%	20.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	22.8	22.8	5.0	21.0	31.3	40.9	10.0	12.3
Actuated g/C Ratio	0.06	0.25	0.25	0.06	0.23	0.35	0.45	0.11	0.14
v/c Ratio	1.90	0.11	1.00	0.56	0.15	1.05	0.97	0.22	2.66
Control Delay	466.9	27.5	37.7	63.7	16.7	70.1	52.5	39.5	776.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	466.9	27.5	37.7	63.7	16.7	70.1	52.5	39.5	776.3
LOS	F	C	D	E	B	E	D	D	F
Approach Delay		99.7			31.2		63.2		732.2
Approach LOS		F			C		E		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 14 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.66	
Intersection Signal Delay: 186.5	Intersection LOS: F
Intersection Capacity Utilization 112.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	101	975	54	68	53	1240	757	51	43	597	74
Future Volume (veh/h)	184	101	975	54	68	53	1240	757	51	43	597	74
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	104	0	56	70	55	1278	780	52	44	615	68
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	286		76	132	94	1221	691	46	471	511	57
Arrive On Green	0.06	0.08	0.00	0.04	0.07	0.07	0.35	0.39	0.39	0.26	0.30	0.30
Sat Flow, veh/h	1810	3610	1610	1810	2012	1435	3510	1761	117	1810	1678	186
Grp Volume(v), veh/h	190	104	0	56	62	63	1278	0	832	44	0	683
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1642	1755	0	1879	1810	0	1864
Q Serve(g_s), s	5.0	2.5	0.0	2.8	3.0	3.4	31.3	0.0	35.3	1.7	0.0	27.4
Cycle Q Clear(g_c), s	5.0	2.5	0.0	2.8	3.0	3.4	31.3	0.0	35.3	1.7	0.0	27.4
Prop In Lane	1.00		1.00	1.00		0.87	1.00		0.06	1.00		0.10
Lane Grp Cap(c), veh/h	101	286		76	118	107	1221	0	737	471	0	568
V/C Ratio(X)	1.89	0.36		0.74	0.53	0.59	1.05	0.00	1.13	0.09	0.00	1.20
Avail Cap(c_a), veh/h	101	842		101	421	383	1221	0	737	471	0	568
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	0.00	1.00	1.00	1.00	0.46	0.00	0.46	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	39.3	0.0	42.6	40.7	40.9	29.3	0.0	27.4	25.2	0.0	31.3
Incr Delay (d2), s/veh	435.5	0.8	0.0	11.4	3.6	5.0	31.3	0.0	66.6	0.0	0.0	107.5
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	14.2	1.0	0.0	1.5	1.4	1.5	17.2	0.0	27.7	0.7	0.0	28.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	478.0	40.1	0.0	54.0	44.3	45.9	60.6	0.0	94.0	25.3	0.0	138.8
LnGrp LOS	F	D		D	D	D	F	A	F	C	A	F
Approach Vol, veh/h		294	A		181			2110			727	
Approach Delay, s/veh		323.1			47.8			73.8			131.9	
Approach LOS		F			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.1	41.0	7.8	12.1	37.0	33.1	9.0	10.9
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 35	5.0	21.0	31.3	12.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	3.7	37.3	4.8	4.5	33.3	29.4	7.0	5.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	107.2
HCM 6th LOS	F

Notes

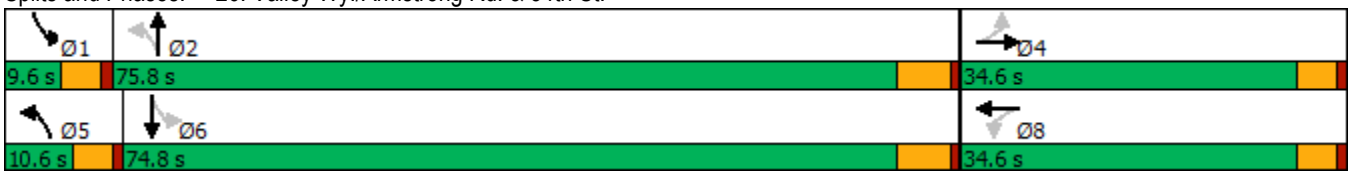
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

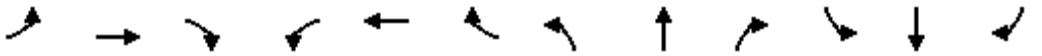
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	177	21	59	38	16	1862	20	1271
Future Volume (vph)	177	21	59	38	16	1862	20	1271
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	34.6	34.6	34.6	34.6	10.6	75.8	9.6	74.8
Total Split (%)	28.8%	28.8%	28.8%	28.8%	8.8%	63.2%	8.0%	62.3%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	24.8	24.8		24.8	75.2	72.1	75.0	72.0
Actuated g/C Ratio	0.22	0.22		0.22	0.68	0.65	0.68	0.65
v/c Ratio	0.64	0.15		0.33	0.08	0.84	0.14	0.68
Control Delay	50.1	17.2		37.0	7.2	21.4	8.5	15.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	17.2		37.0	7.2	21.4	8.5	15.6
LOS	D	B		D	A	C	A	B
Approach Delay		41.8		37.0		21.2		15.5
Approach LOS		D		D		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.9	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 77.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	21	38	59	38	13	16	1862	41	20	1271	243
Future Volume (veh/h)	177	21	38	59	38	13	16	1862	41	20	1271	243
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	182	22	37	61	39	10	16	1920	10	21	1310	239
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	284	103	174	167	98	21	246	2474	13	182	2064	373
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.02	0.67	0.67	0.02	0.68	0.68
Sat Flow, veh/h	1378	636	1069	695	605	130	1810	3682	19	1810	3055	551
Grp Volume(v), veh/h	182	0	59	110	0	0	16	940	990	21	768	781
Grp Sat Flow(s),veh/h/ln	1378	0	1705	1430	0	0	1810	1805	1897	1810	1805	1801
Q Serve(g_s), s	6.1	0.0	3.1	4.9	0.0	0.0	0.3	37.2	37.3	0.4	25.0	25.9
Cycle Q Clear(g_c), s	14.1	0.0	3.1	8.0	0.0	0.0	0.3	37.2	37.3	0.4	25.0	25.9
Prop In Lane	1.00		0.63	0.55		0.09	1.00		0.01	1.00		0.31
Lane Grp Cap(c), veh/h	284	0	277	286	0	0	246	1212	1274	182	1220	1217
V/C Ratio(X)	0.64	0.00	0.21	0.38	0.00	0.00	0.06	0.78	0.78	0.12	0.63	0.64
Avail Cap(c_a), veh/h	457	0	491	479	0	0	318	1212	1274	229	1220	1217
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	0.0	37.9	40.1	0.0	0.0	8.3	11.7	11.7	12.3	9.5	9.7
Incr Delay (d2), s/veh	2.4	0.0	0.4	0.8	0.0	0.0	0.0	4.9	4.7	0.1	2.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	0.0	1.3	2.7	0.0	0.0	0.1	13.3	14.0	0.2	8.6	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	0.0	38.2	40.9	0.0	0.0	8.4	16.6	16.4	12.4	12.0	12.3
LnGrp LOS	D	A	D	D	A	A	A	B	B	B	B	B
Approach Vol, veh/h		241			110			1946			1570	
Approach Delay, s/veh		43.3			40.9			16.5			12.1	
Approach LOS		D			D			B			B	

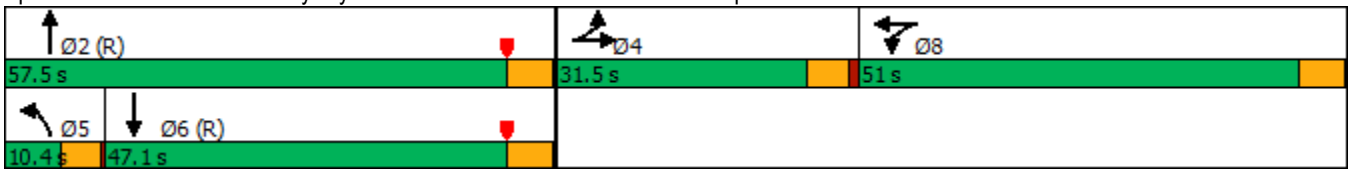
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	75.8		21.5	6.5	76.2		21.5				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	70.0		30.0	6.0	69.0		30.0				
Max Q Clear Time (g_c+I1), s	2.4	39.3		16.1	2.3	27.9		10.0				
Green Ext Time (p_c), s	0.0	18.1		0.7	0.0	14.4		0.5				

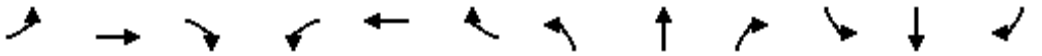
Intersection Summary			
HCM 6th Ctrl Delay		17.1	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	609	42	72	1867	1448
Future Volume (vph)	0	609	42	72	1867	1448
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	31.5	51.0	51.0	10.4	57.5	47.1
Total Split (%)	22.5%	36.4%	36.4%	7.4%	41.1%	33.6%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	26.1	45.7	45.7	5.8	52.2	41.8
Actuated g/C Ratio	0.19	0.33	0.33	0.04	0.37	0.30
v/c Ratio	1.77	1.09	1.22	1.03	1.46	1.42
Control Delay	391.6	107.4	152.9	165.9	243.9	233.3
Queue Delay	2.6	0.0	0.0	0.0	0.0	3.5
Total Delay	394.3	107.4	152.9	165.9	243.9	236.8
LOS	F	F	F	F	F	F
Approach Delay	394.3		130.7		241.0	236.8
Approach LOS	F		F		F	F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.77	
Intersection Signal Delay: 229.2	Intersection LOS: F
Intersection Capacity Utilization 135.7%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	0	242	609	42	599	72	1867	0	0	1448	9
Future Volume (veh/h)	297	0	242	609	42	599	72	1867	0	0	1448	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	313	0	255	641	44	537	76	1965	0	0	1524	3
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	175	0	143	591	40	484	75	1346	0	0	1104	2
Arrive On Green	0.19	0.00	0.19	0.33	0.33	0.33	0.01	0.12	0.00	0.00	0.30	0.30
Sat Flow, veh/h	939	0	765	1810	122	1483	1810	3705	0	0	3791	7
Grp Volume(v), veh/h	568	0	0	641	0	581	76	1965	0	0	744	783
Grp Sat Flow(s),veh/h/ln	1703	0	0	1810	0	1605	1810	1805	0	0	1805	1899
Q Serve(g_s), s	26.1	0.0	0.0	45.7	0.0	45.7	5.8	52.2	0.0	0.0	41.8	41.8
Cycle Q Clear(g_c), s	26.1	0.0	0.0	45.7	0.0	45.7	5.8	52.2	0.0	0.0	41.8	41.8
Prop In Lane	0.55		0.45	1.00		0.92	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	318	0	0	591	0	524	75	1346	0	0	539	567
V/C Ratio(X)	1.79	0.00	0.00	1.09	0.00	1.11	1.01	1.46	0.00	0.00	1.38	1.38
Avail Cap(c_a), veh/h	318	0	0	591	0	524	75	1346	0	0	539	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.79	0.79	0.00	0.00	0.68	0.68
Uniform Delay (d), s/veh	57.0	0.0	0.0	47.2	0.0	47.2	69.0	61.4	0.0	0.0	49.1	49.1
Incr Delay (d2), s/veh	367.3	0.0	0.0	62.2	0.0	72.7	96.2	210.2	0.0	0.0	179.2	179.0
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	43.4	0.0	0.0	30.0	0.0	28.2	4.7	64.5	0.0	0.0	45.0	47.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	424.3	0.0	0.0	109.4	0.0	119.8	165.2	271.6	0.0	0.0	228.3	228.1
LnGrp LOS	F	A	A	F	A	F	F	F	A	A	F	F
Approach Vol, veh/h		568			1222			2041			1527	
Approach Delay, s/veh		424.3			114.4			267.7			228.2	
Approach LOS		F			F			F			F	

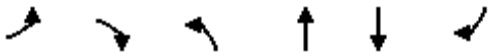
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		57.5		31.5	10.4	47.1		51.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		52.2		26.1	5.8	41.8		45.7				
Max Q Clear Time (g_c+I1), s		54.2		28.1	7.8	43.8		47.7				
Green Ext Time (p_c), s		0.0		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			238.1									
HCM 6th LOS			F									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	366	1939	1341
Future Volume (vph)	366	1939	1341
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	9.8	140.0	130.2
Total Split (%)	7.0%	100.0%	93.0%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	5.2	140.0	124.4
Actuated g/C Ratio	0.04	1.00	0.89
v/c Ratio	5.88	0.58	0.83
Control Delay	2238.6	0.7	16.7
Queue Delay	0.0	48.7	0.0
Total Delay	2238.6	49.4	16.7
LOS	F	D	B
Approach Delay		397.4	16.7
Approach LOS		F	B

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 134.2 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 5.88	
Intersection Signal Delay: 207.3	Intersection LOS: F
Intersection Capacity Utilization 96.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	366	1939	1341	958
Future Volume (veh/h)	0	0	366	1939	1341	958
Initial Q (Qb), veh			20	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.98
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			394	2085	1442	1030
Peak Hour Factor			0.93	0.93	0.93	0.93
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			67	3460	1875	1175
Arrive On Green			0.04	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2205	1322
Grp Volume(v), veh/h			394	2085	1204	1268
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1627
Q Serve(g_s), s			5.2	7.9	0.0	0.0
Cycle Q Clear(g_c), s			5.2	7.9	0.0	0.0
Prop In Lane			1.00			0.81
Lane Grp Cap(c), veh/h			67	3460	1604	1446
V/C Ratio(X)			5.86	0.60	0.75	0.88
Avail Cap(c_a), veh/h			67	3460	1604	1446
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh			67.4	0.3	0.0	0.0
Incr Delay (d2), s/veh			2190.9	0.1	0.3	0.8
Initial Q Delay(d3),s/veh			1071.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			63.3	0.0	0.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			3329.5	0.4	0.3	0.8
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				2479	2472	
Approach Delay, s/veh				529.5	0.6	
Approach LOS				F	A	

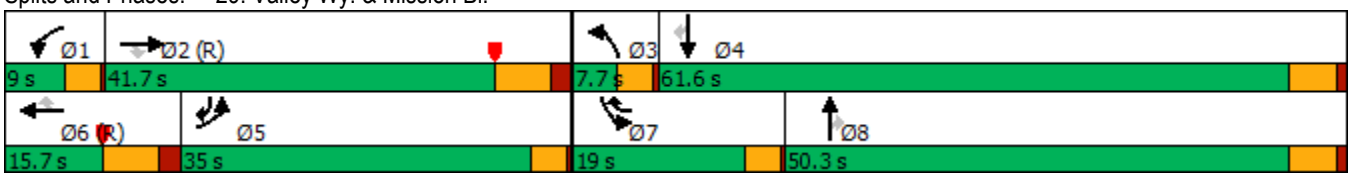
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			9.8	130.2
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			5.2	124.4
Max Q Clear Time (g_c+I1), s	9.9			7.2	2.0
Green Ext Time (p_c), s	38.6			0.0	72.2

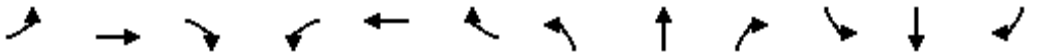
Intersection Summary	
HCM 6th Ctrl Delay	265.4
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	751	1313	28	77	268	1296	17	459	91	689	366	286
Future Volume (vph)	751	1313	28	77	268	1296	17	459	91	689	366	286
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	35.0	41.7	41.7	9.0	15.7	19.0	7.7	50.3	50.3	19.0	61.6	35.0
Total Split (%)	29.2%	34.8%	34.8%	7.5%	13.1%	15.8%	6.4%	41.9%	41.9%	15.8%	51.3%	29.2%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	31.3	51.1	51.1	11.8	31.5	50.1	4.0	22.2	22.2	15.3	38.1	71.0
Actuated g/C Ratio	0.26	0.43	0.43	0.10	0.26	0.42	0.03	0.18	0.18	0.13	0.32	0.59
v/c Ratio	0.86	0.89	0.04	0.45	0.29	1.80	0.16	0.72	0.23	1.61	0.33	0.17
Control Delay	43.8	33.3	0.0	59.3	37.5	384.6	59.5	52.0	3.3	319.0	32.1	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	33.3	0.0	59.3	37.5	384.6	59.5	52.0	3.3	319.0	32.1	1.0
LOS	D	C	A	E	D	F	E	D	A	F	C	A
Approach Delay		36.6			312.7			44.4			172.9	
Approach LOS		D			F			D			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.80	
Intersection Signal Delay: 150.1	Intersection LOS: F
Intersection Capacity Utilization 126.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	751	1313	28	77	268	1296	17	459	91	689	366	286
Future Volume (veh/h)	751	1313	28	77	268	1296	17	459	91	689	366	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	782	1368	8	80	279	1323	18	478	52	718	381	224
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	1484	1728	765	80	262	322	53	670	294	448	1076	2037
Arrive On Green	0.56	0.64	0.64	0.04	0.07	0.07	0.02	0.19	0.19	0.13	0.30	0.30
Sat Flow, veh/h	3510	3610	1599	1810	3610	1610	3510	3610	1584	3510	3610	2815
Grp Volume(v), veh/h	782	1368	8	80	279	1323	18	478	52	718	381	224
Grp Sat Flow(s),veh/h/ln	1755	1805	1599	1810	1805	1610	1755	1805	1584	1755	1805	1407
Q Serve(g_s), s	16.6	33.3	0.2	5.3	8.7	6.9	0.6	14.9	3.3	15.3	9.9	0.5
Cycle Q Clear(g_c), s	16.6	33.3	0.2	5.3	8.7	6.9	0.6	14.9	3.3	15.3	9.9	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1484	1728	765	80	262	322	53	670	294	448	1076	2037
V/C Ratio(X)	0.53	0.79	0.01	1.00	1.07	4.11	0.34	0.71	0.18	1.60	0.35	0.11
Avail Cap(c_a), veh/h	1484	1728	765	80	262	322	117	1354	594	448	1694	2519
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.15	0.15	0.15	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44
Uniform Delay (d), s/veh	18.8	17.4	11.4	57.3	55.6	21.3	58.5	45.9	41.2	52.4	33.1	1.3
Incr Delay (d2), s/veh	0.0	0.6	0.0	100.9	74.2	1406.1	1.4	1.4	0.3	276.5	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	5.6	10.3	0.1	4.6	6.6	131.0	0.3	6.8	1.3	23.7	4.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.8	18.0	11.4	158.3	129.8	1427.4	59.9	47.3	41.4	328.8	33.1	1.3
LnGrp LOS	B	B	B	F	F	F	E	D	D	F	C	A
Approach Vol, veh/h		2158			1682			548			1323	
Approach Delay, s/veh		18.3			1151.8			47.2			188.2	
Approach LOS		B			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	64.4	5.5	41.1	57.7	15.7	19.0	27.6
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	5.3	34.7	4.0	56.3	31.3	* 8.7	15.3	45.0
Max Q Clear Time (g_c+I1), s	7.3	35.3	2.6	11.9	18.6	10.7	17.3	16.9
Green Ext Time (p_c), s	0.0	0.0	0.0	3.4	1.3	0.0	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	394.3
HCM 6th LOS	F

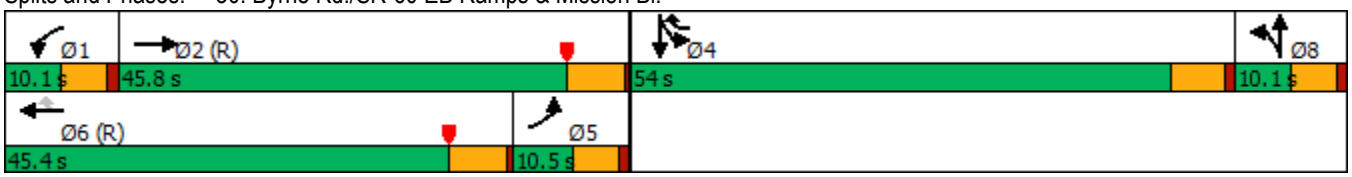
Notes

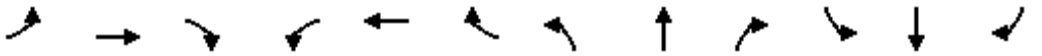
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	175	1036	14	369	188	4	1059	38
Future Volume (vph)	175	1036	14	369	188	4	1059	38
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	10.5	45.8	10.1	45.4	54.0	10.1	54.0	54.0
Total Split (%)	8.8%	38.2%	8.4%	37.8%	45.0%	8.4%	45.0%	45.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	5.4	48.2	5.1	41.7	91.0	5.0	48.2	48.2
Actuated g/C Ratio	0.04	0.40	0.04	0.35	0.76	0.04	0.40	0.40
v/c Ratio	2.27	0.76	0.20	0.31	0.16	0.57	1.25	1.15
Control Delay	635.4	36.8	59.0	42.6	0.5	44.8	156.3	115.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	635.4	36.8	59.0	42.6	0.5	44.8	156.3	115.1
LOS	F	D	E	D	A	D	F	F
Approach Delay		122.2		29.1		44.8		136.4
Approach LOS		F		C		D		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.27	
Intersection Signal Delay: 111.9	Intersection LOS: F
Intersection Capacity Utilization 98.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	1036	13	14	369	188	16	4	41	1059	38	481
Future Volume (veh/h)	175	1036	13	14	369	188	16	4	41	1059	38	481
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	1091	13	15	388	139	17	4	43	820	453	485
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	380	1934	23	30	1194	1179	19	4	47	727	337	361
Arrive On Green	0.21	0.53	0.53	0.01	0.11	0.11	0.04	0.04	0.04	0.40	0.40	0.40
Sat Flow, veh/h	1810	3653	44	1810	3610	1610	445	105	1125	1810	839	899
Grp Volume(v), veh/h	184	539	565	15	388	139	64	0	0	820	0	938
Grp Sat Flow(s),veh/h/ln	1810	1805	1891	1810	1805	1610	1675	0	0	1810	0	1738
Q Serve(g_s), s	10.7	24.0	24.1	1.0	11.9	3.8	4.6	0.0	0.0	48.2	0.0	48.2
Cycle Q Clear(g_c), s	10.7	24.0	24.1	1.0	11.9	3.8	4.6	0.0	0.0	48.2	0.0	48.2
Prop In Lane	1.00		0.02	1.00		1.00	0.27		0.67	1.00		0.52
Lane Grp Cap(c), veh/h	380	956	1001	30	1194	1179	70	0	0	727	0	698
V/C Ratio(X)	0.48	0.56	0.56	0.51	0.32	0.12	0.92	0.00	0.00	1.13	0.00	1.34
Avail Cap(c_a), veh/h	380	956	1001	75	1194	1179	70	0	0	727	0	698
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.7	18.9	18.9	59.2	41.1	6.4	57.3	0.0	0.0	35.9	0.0	35.9
Incr Delay (d2), s/veh	1.0	2.4	2.3	12.2	0.7	0.2	78.1	0.0	0.0	74.6	0.0	164.1
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	4.8	10.0	10.4	0.5	5.8	4.0	3.5	0.0	0.0	34.9	0.0	50.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	21.4	21.2	71.4	41.8	6.6	135.4	0.0	0.0	110.5	0.0	200.0
LnGrp LOS	D	C	C	E	D	A	F	A	A	F	A	F
Approach Vol, veh/h		1288			542			64			1758	
Approach Delay, s/veh		24.3			33.6			135.4			158.2	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	69.8		54.0	31.5	45.4		10.1				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.0	40.1		48.2	5.4	* 40		5.0				
Max Q Clear Time (g_c+I1), s	3.0	26.1		50.2	12.7	13.9		6.6				
Green Ext Time (p_c), s	0.0	3.6		0.0	0.0	1.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		92.1
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.2:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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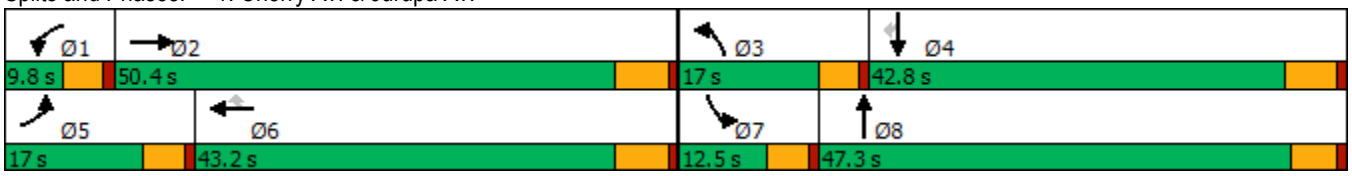
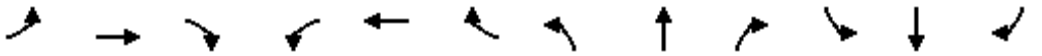
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	280	848	50	926	149	299	528	101	332	419
Future Volume (vph)	280	848	50	926	149	299	528	101	332	419
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	17.0	50.4	9.8	43.2	43.2	17.0	47.3	12.5	42.8	42.8
Total Split (%)	14.2%	42.0%	8.2%	36.0%	36.0%	14.2%	39.4%	10.4%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 118.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	280	848	166	50	926	149	299	528	63	101	332	419
Future Volume (veh/h)	280	848	166	50	926	149	299	528	63	101	332	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.97	1.00		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	341	1034	115	61	1129	112	365	644	60	123	405	368
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	364	1795	199	127	1127	477	364	1733	160	177	1108	428
Arrive On Green	0.10	0.38	0.38	0.04	0.31	0.31	0.10	0.36	0.36	0.05	0.31	0.31
Sat Flow, veh/h	3510	4729	525	3510	3610	1527	3510	4815	444	3510	3610	1395
Grp Volume(v), veh/h	341	756	393	61	1129	112	365	461	243	123	405	368
Grp Sat Flow(s),veh/h/ln	1755	1729	1796	1755	1805	1527	1755	1729	1801	1755	1805	1395
Q Serve(g_s), s	11.5	20.8	20.8	2.0	37.4	6.5	12.4	11.8	12.0	4.1	10.5	29.8
Cycle Q Clear(g_c), s	11.5	20.8	20.8	2.0	37.4	6.5	12.4	11.8	12.0	4.1	10.5	29.8
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	364	1313	682	127	1127	477	364	1244	648	177	1108	428
V/C Ratio(X)	0.94	0.58	0.58	0.48	1.00	0.23	1.00	0.37	0.38	0.69	0.37	0.86
Avail Cap(c_a), veh/h	364	1313	682	152	1127	477	364	1244	648	232	1115	431
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	29.5	29.5	56.6	41.2	30.6	53.7	28.3	28.4	55.9	32.4	39.1
Incr Delay (d2), s/veh	31.3	0.6	1.2	1.0	27.1	0.3	48.2	0.2	0.4	3.1	0.2	15.9
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	6.5	8.4	8.8	0.9	20.1	0.0	7.9	4.9	5.2	1.9	4.5	11.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.6	30.1	30.7	57.6	68.3	30.8	101.9	28.5	28.7	59.0	32.6	55.0
LnGrp LOS	F	C	C	E	F	C	F	C	C	E	C	D
Approach Vol, veh/h		1490			1302			1069			896	
Approach Delay, s/veh		42.7			64.6			53.6			45.4	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	51.3	17.0	42.5	17.0	43.2	10.7	48.9
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.2	44.6	12.4	37.0	12.4	37.4	7.9	* 42
Max Q Clear Time (g_c+I1), s	4.0	22.8	14.4	31.8	13.5	39.4	6.1	14.0
Green Ext Time (p_c), s	0.0	7.4	0.0	1.9	0.0	0.0	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	51.7
HCM 6th LOS	D

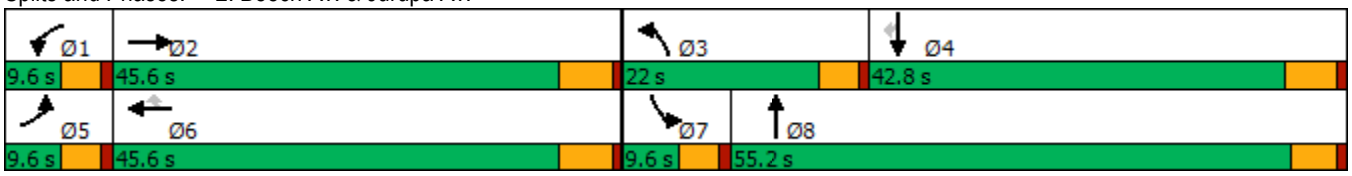
Notes

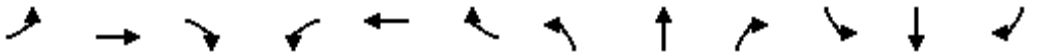
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	111	764	6	707	68	256	98	27	6	78
Future Volume (vph)	111	764	6	707	68	256	98	27	6	78
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	9.6	45.6	9.6	45.6	45.6	22.0	55.2	9.6	42.8	42.8
Total Split (%)	8.0%	38.0%	8.0%	38.0%	38.0%	18.3%	46.0%	8.0%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 78.5
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	764	35	6	707	68	256	98	18	27	6	78
Future Volume (veh/h)	111	764	35	6	707	68	256	98	18	27	6	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	114	788	32	6	729	45	264	101	13	28	6	56
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	244	1587	64	28	1290	401	317	1011	128	56	612	273
Arrive On Green	0.07	0.31	0.31	0.01	0.25	0.25	0.17	0.31	0.31	0.03	0.17	0.17
Sat Flow, veh/h	3510	5113	207	3510	5187	1610	1810	3223	408	1810	3610	1607
Grp Volume(v), veh/h	114	532	288	6	729	45	264	56	58	28	6	56
Grp Sat Flow(s),veh/h/ln	1755	1729	1862	1755	1729	1610	1810	1805	1826	1810	1805	1607
Q Serve(g_s), s	1.9	7.7	7.8	0.1	7.6	1.3	8.7	1.4	1.4	0.9	0.1	1.8
Cycle Q Clear(g_c), s	1.9	7.7	7.8	0.1	7.6	1.3	8.7	1.4	1.4	0.9	0.1	1.8
Prop In Lane	1.00		0.11	1.00		1.00	1.00		0.22	1.00		1.00
Lane Grp Cap(c), veh/h	244	1073	578	28	1290	401	317	566	573	56	612	273
V/C Ratio(X)	0.47	0.50	0.50	0.22	0.56	0.11	0.83	0.10	0.10	0.50	0.01	0.21
Avail Cap(c_a), veh/h	284	2230	1201	284	3345	1038	510	1465	1483	147	2164	964
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.6	17.3	17.4	30.4	20.3	17.9	24.6	15.0	15.0	29.4	21.3	22.0
Incr Delay (d2), s/veh	0.5	0.4	0.7	1.4	0.4	0.1	3.1	0.1	0.1	2.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.6	2.9	0.0	2.7	0.5	3.7	0.5	0.5	0.4	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.1	17.7	18.0	31.8	20.7	18.0	27.7	15.1	15.1	32.0	21.3	22.4
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	C	C
Approach Vol, veh/h		934			780			378			90	
Approach Delay, s/veh		19.1			20.6			23.9			25.3	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.1	25.0	15.4	16.3	8.9	21.2	6.5	25.2
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	39.8	17.4	37.0	5.0	39.8	5.0	* 50
Max Q Clear Time (g_c+I1), s	2.1	9.8	10.7	3.8	3.9	9.6	2.9	3.4
Green Ext Time (p_c), s	0.0	5.3	0.2	0.2	0.0	5.1	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

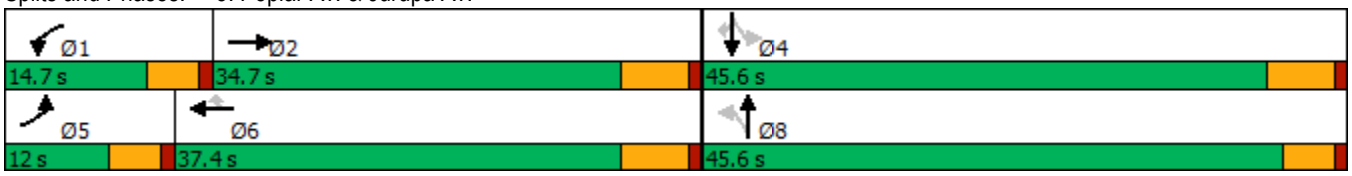
Notes

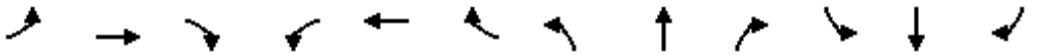
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	73	825	104	819	53	136	90	21	38	46
Future Volume (vph)	73	825	104	819	53	136	90	21	38	46
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	12.0	34.7	14.7	37.4	37.4	45.6	45.6	45.6	45.6	45.6
Total Split (%)	12.6%	36.5%	15.5%	39.4%	39.4%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 95
Actuated Cycle Length: 57.2
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	825	47	104	819	53	136	90	185	21	38	46
Future Volume (veh/h)	73	825	47	104	819	53	136	90	185	21	38	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	887	43	112	881	46	146	97	115	23	41	29
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	126	1604	78	153	1721	534	452	417	372	368	439	372
Arrive On Green	0.07	0.32	0.32	0.08	0.33	0.33	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1810	5063	245	1810	5187	1610	1350	1805	1610	1188	1900	1608
Grp Volume(v), veh/h	78	605	325	112	881	46	146	97	115	23	41	29
Grp Sat Flow(s),veh/h/ln	1810	1729	1850	1810	1729	1610	1350	1805	1610	1188	1900	1608
Q Serve(g_s), s	1.8	6.4	6.4	2.7	6.0	0.9	4.2	1.9	2.6	0.7	0.7	0.6
Cycle Q Clear(g_c), s	1.8	6.4	6.4	2.7	6.0	0.9	4.9	1.9	2.6	3.3	0.7	0.6
Prop In Lane	1.00		0.13	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	126	1096	586	153	1721	534	452	417	372	368	439	372
V/C Ratio(X)	0.62	0.55	0.55	0.73	0.51	0.09	0.32	0.23	0.31	0.06	0.09	0.08
Avail Cap(c_a), veh/h	304	2266	1212	414	3717	1154	1396	1678	1497	1165	1715	1451
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	12.5	12.5	19.7	11.9	10.1	15.3	13.8	14.0	15.4	13.3	13.3
Incr Delay (d2), s/veh	1.8	0.4	0.8	2.5	0.2	0.1	0.4	0.3	0.5	0.1	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.8	2.0	1.0	1.7	0.2	1.1	0.7	0.8	0.2	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	12.9	13.3	22.2	12.1	10.2	15.7	14.1	14.5	15.5	13.4	13.4
LnGrp LOS	C	B	B	C	B	B	B	B	B	B	B	B
Approach Vol, veh/h		1008			1039			358			93	
Approach Delay, s/veh		13.7			13.1			14.9			13.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	19.8		16.0	7.7	20.4		16.0				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	10.1	28.9		39.8	7.4	31.6		* 41				
Max Q Clear Time (g_c+I1), s	4.7	8.4		5.3	3.8	8.0		6.9				
Green Ext Time (p_c), s	0.1	5.6		0.3	0.0	6.0		1.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.6	
HCM 6th LOS		B	

Notes

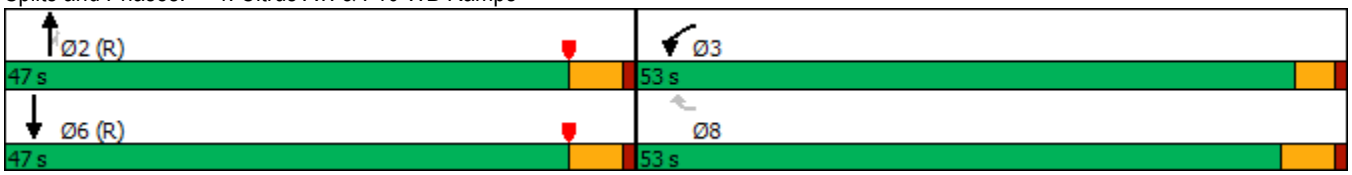
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

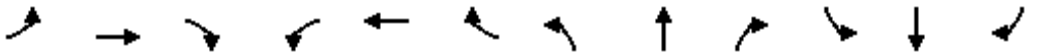
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	568	422	936	480	1424	594
Future Volume (vph)	568	422	936	480	1424	594
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	53.0	53.0	47.0	47.0	47.0	
Total Split (%)	53.0%	53.0%	47.0%	47.0%	47.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	568	0	422	0	936	480	0	1424	594
Future Volume (veh/h)	0	0	0	568	0	422	0	936	480	0	1424	594
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		0.98	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				604	0	243	0	996	501	0	1515	0
Peak Hour Factor				0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				644	0	1009	0	2874	871	0	2000	
Arrive On Green				0.36	0.00	0.36	0.00	1.00	1.00	0.00	0.55	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1573	0	3705	1610
Grp Volume(v), veh/h				604	0	243	0	996	501	0	1515	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1573	0	1805	1610
Q Serve(g_s), s				32.3	0.0	6.0	0.0	0.0	0.0	0.0	32.2	0.0
Cycle Q Clear(g_c), s				32.3	0.0	6.0	0.0	0.0	0.0	0.0	32.2	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				644	0	1009	0	2874	871	0	2000	
V/C Ratio(X)				0.94	0.00	0.24	0.00	0.35	0.57	0.00	0.76	
Avail Cap(c_a), veh/h				887	0	1389	0	2874	871	0	2000	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.35	0.35	0.00	1.00	0.00
Uniform Delay (d), s/veh				31.1	0.0	22.7	0.0	0.0	0.0	0.0	17.1	0.0
Incr Delay (d2), s/veh				12.2	0.0	0.0	0.0	0.1	1.0	0.0	2.7	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				15.2	0.0	1.9	0.0	0.0	0.2	0.0	12.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.3	0.0	22.7	0.0	0.1	1.0	0.0	19.9	0.0
LnGrp LOS				D	A	C	A	A	A	A	B	
Approach Vol, veh/h					847			1497			1515	A
Approach Delay, s/veh					37.4			0.4			19.9	
Approach LOS					D			A			B	

Timer - Assigned Phs	2			6		8			
Phs Duration (G+Y+Rc), s	60.4			60.4		39.6			
Change Period (Y+Rc), s	5.0			5.0		4.0			
Max Green Setting (Gmax), s	42.0			42.0		49.0			
Max Q Clear Time (g_c+I1), s	2.0			34.2		34.3			
Green Ext Time (p_c), s	5.9			4.3		1.3			

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

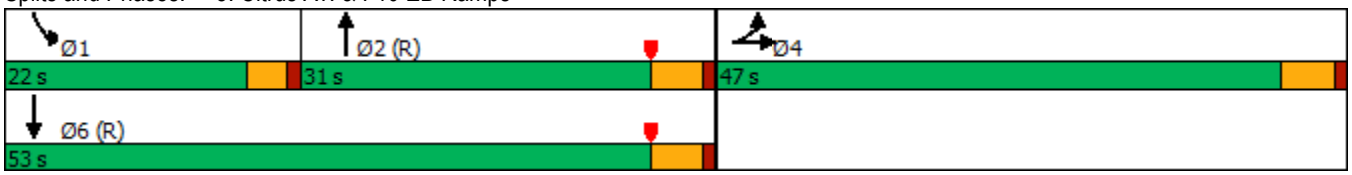
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

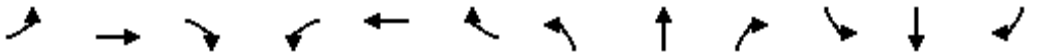
Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	352	4	1064	625	1367
Future Volume (vph)	352	4	1064	625	1367
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	47.0	47.0	31.0	22.0	53.0
Total Split (%)	47.0%	47.0%	31.0%	22.0%	53.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	352	4	354	0	0	0	0	1064	412	625	1367	0
Future Volume (veh/h)	352	4	354	0	0	0	0	1064	412	625	1367	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	383	4	286				0	1157	325	679	1486	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	739	5	335				0	1883	529	632	2489	0
Arrive On Green	0.21	0.21	0.21				0.00	0.47	0.47	0.36	1.00	0.00
Sat Flow, veh/h	3510	22	1591				0	4181	1126	3510	3705	0
Grp Volume(v), veh/h	383	0	290				0	998	484	679	1486	0
Grp Sat Flow(s),veh/h/ln	1755	0	1614				0	1729	1679	1755	1805	0
Q Serve(g_s), s	9.7	0.0	17.3				0.0	21.5	21.5	18.0	0.0	0.0
Cycle Q Clear(g_c), s	9.7	0.0	17.3				0.0	21.5	21.5	18.0	0.0	0.0
Prop In Lane	1.00		0.99				0.00		0.67	1.00		0.00
Lane Grp Cap(c), veh/h	739	0	340				0	1624	788	632	2489	0
V/C Ratio(X)	0.52	0.00	0.85				0.00	0.61	0.61	1.07	0.60	0.00
Avail Cap(c_a), veh/h	1474	0	678				0	1624	788	632	2489	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.71	0.71	0.46	0.46	0.00
Uniform Delay (d), s/veh	35.0	0.0	38.0				0.0	19.8	19.8	32.0	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	2.4				0.0	1.2	2.5	47.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	6.7				0.0	8.1	8.2	9.6	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.2	0.0	40.4				0.0	21.0	22.3	79.0	0.5	0.0
LnGrp LOS	D	A	D				A	C	C	F	A	A
Approach Vol, veh/h		673						1482			2165	
Approach Delay, s/veh		37.4						21.4			25.1	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.0	52.0		26.0		74.0
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0
Max Green Setting (Gmax), s	18.0	26.0		42.0		48.0
Max Q Clear Time (g_c+I1), s	20.0	23.5		19.3		2.0
Green Ext Time (p_c), s	0.0	1.6		1.7		8.6

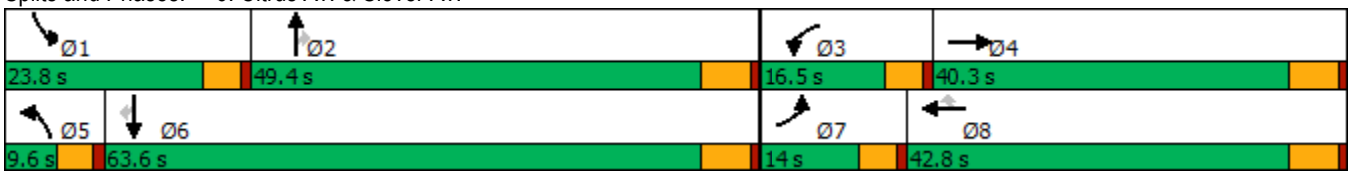
Intersection Summary	
HCM 6th Ctrl Delay	25.8
HCM 6th LOS	C

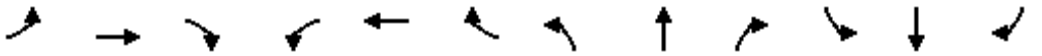
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	222	231	136	548	337	59	917	83	262	840	619
Future Volume (vph)	222	231	136	548	337	59	917	83	262	840	619
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	14.0	40.3	16.5	42.8	42.8	9.6	49.4	49.4	23.8	63.6	63.6
Total Split (%)	10.8%	31.0%	12.7%	32.9%	32.9%	7.4%	38.0%	38.0%	18.3%	48.9%	48.9%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 121.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	231	68	136	548	337	59	917	83	262	840	619
Future Volume (veh/h)	222	231	68	136	548	337	59	917	83	262	840	619
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		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	255	266	72	156	630	333	68	1054	64	301	966	578
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	266	652	173	173	907	402	73	1821	554	280	884	740
Arrive On Green	0.08	0.23	0.23	0.10	0.25	0.25	0.04	0.35	0.35	0.15	0.47	0.47
Sat Flow, veh/h	3510	2819	748	1810	3610	1599	1810	5187	1579	1810	1900	1590
Grp Volume(v), veh/h	255	168	170	156	630	333	68	1054	64	301	966	578
Grp Sat Flow(s),veh/h/ln	1755	1805	1762	1810	1805	1599	1810	1729	1579	1810	1900	1590
Q Serve(g_s), s	9.0	9.8	10.2	10.6	19.7	24.5	4.7	20.6	3.4	19.2	57.8	37.9
Cycle Q Clear(g_c), s	9.0	9.8	10.2	10.6	19.7	24.5	4.7	20.6	3.4	19.2	57.8	37.9
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	266	417	407	173	907	402	73	1821	554	280	884	740
V/C Ratio(X)	0.96	0.40	0.42	0.90	0.69	0.83	0.93	0.58	0.12	1.08	1.09	0.78
Avail Cap(c_a), veh/h	266	501	489	173	1075	476	73	1821	554	280	884	740
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.2	40.5	40.6	55.6	42.2	44.0	59.4	32.8	27.3	52.5	33.2	27.9
Incr Delay (d2), s/veh	43.8	0.6	0.7	40.2	1.6	10.1	81.7	0.5	0.1	75.5	58.7	5.4
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	5.5	4.3	4.4	6.7	8.7	10.5	3.7	8.4	1.3	14.3	39.1	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	101.0	41.1	41.3	95.8	43.7	54.1	141.1	33.3	27.4	128.0	91.9	33.3
LnGrp LOS	F	D	D	F	D	D	F	C	C	F	F	C
Approach Vol, veh/h		593			1119			1186			1845	
Approach Delay, s/veh		66.9			54.1			39.2			79.4	
Approach LOS		E			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.8	49.4	16.5	34.5	9.6	63.6	14.0	37.0
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	19.2	43.6	11.9	34.5	5.0	57.8	9.4	37.0
Max Q Clear Time (g_c+I1), s	21.2	22.6	12.6	12.2	6.7	59.8	11.0	26.5
Green Ext Time (p_c), s	0.0	7.2	0.0	1.7	0.0	0.0	0.0	3.7

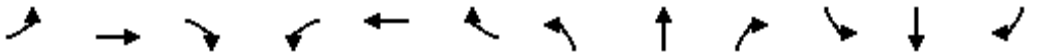
Intersection Summary	
HCM 6th Ctrl Delay	61.8
HCM 6th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	83	91	89	63	168	45	650	330	618
Future Volume (vph)	83	91	89	63	168	45	650	330	618
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	12.6	33.6	33.6	11.4	32.4	13.6	43.0	32.0	61.4
Total Split (%)	10.5%	28.0%	28.0%	9.5%	27.0%	11.3%	35.8%	26.7%	51.2%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 108.9
Natural Cycle: 120
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	83	91	89	63	168	173	45	650	227	330	618	128
Future Volume (veh/h)	83	91	89	63	168	173	45	650	227	330	618	128
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	112	123	111	85	227	177	61	878	292	446	835	157
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	314	266	108	298	221	79	913	303	452	1665	313
Arrive On Green	0.07	0.17	0.17	0.06	0.15	0.15	0.04	0.34	0.34	0.25	0.55	0.55
Sat Flow, veh/h	1810	1900	1610	1810	1962	1457	1810	2663	883	1810	3032	570
Grp Volume(v), veh/h	112	123	111	85	208	196	61	595	575	446	497	495
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1614	1810	1805	1741	1810	1805	1797
Q Serve(g_s), s	6.7	6.3	6.8	5.1	12.1	12.9	3.7	35.4	35.6	26.9	18.8	18.8
Cycle Q Clear(g_c), s	6.7	6.3	6.8	5.1	12.1	12.9	3.7	35.4	35.6	26.9	18.8	18.8
Prop In Lane	1.00		1.00	1.00		0.90	1.00		0.51	1.00		0.32
Lane Grp Cap(c), veh/h	132	314	266	108	274	245	79	619	597	452	991	987
V/C Ratio(X)	0.85	0.39	0.42	0.79	0.76	0.80	0.77	0.96	0.96	0.99	0.50	0.50
Avail Cap(c_a), veh/h	132	489	414	112	445	398	149	619	597	452	991	987
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.2	40.9	41.0	50.9	44.6	44.9	51.9	35.3	35.4	40.9	15.4	15.4
Incr Delay (d2), s/veh	36.0	0.8	1.0	26.6	4.3	6.0	5.9	26.6	27.9	38.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	3.0	2.7	3.1	5.6	5.4	1.8	19.4	19.0	16.4	7.2	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	86.2	41.7	42.1	77.4	48.9	50.9	57.7	61.9	63.3	79.4	15.8	15.8
LnGrp LOS	F	D	D	E	D	D	E	E	E	E	B	B
Approach Vol, veh/h		346			489			1231			1438	
Approach Delay, s/veh		56.2			54.6			62.3			35.5	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	32.0	43.0	11.1	23.5	9.4	65.6	12.6	22.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	27.4	37.6	6.8	28.2	9.0	56.0	8.0	27.0
Max Q Clear Time (g_c+I1), s	28.9	37.6	7.1	8.8	5.7	20.8	8.7	14.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.9	0.0	7.1	0.0	1.8

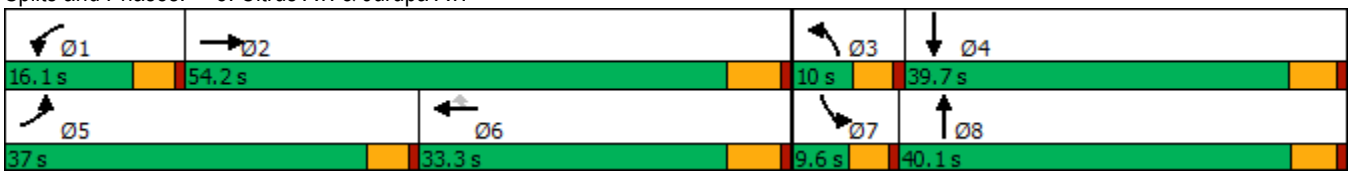
Intersection Summary	
HCM 6th Ctrl Delay	49.7
HCM 6th LOS	D

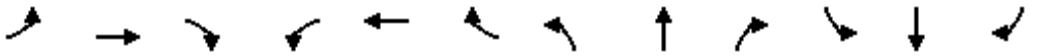
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	554	519	77	696	160	68	334	121	130
Future Volume (vph)	554	519	77	696	160	68	334	121	130
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	37.0	54.2	16.1	33.3	33.3	10.0	40.1	9.6	39.7
Total Split (%)	30.8%	45.2%	13.4%	27.8%	27.8%	8.3%	33.4%	8.0%	33.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 100
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	554	519	15	77	696	160	68	334	128	121	130	210
Future Volume (veh/h)	554	519	15	77	696	160	68	334	128	121	130	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	602	564	14	84	757	135	74	363	114	132	141	168
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	622	2548	63	108	1069	331	95	491	152	96	328	292
Arrive On Green	0.34	0.49	0.49	0.06	0.21	0.21	0.05	0.18	0.18	0.05	0.18	0.18
Sat Flow, veh/h	1810	5204	129	1810	5187	1605	1810	2712	840	1810	1805	1610
Grp Volume(v), veh/h	602	374	204	84	757	135	74	240	237	132	141	168
Grp Sat Flow(s),veh/h/ln	1810	1729	1875	1810	1729	1605	1810	1805	1747	1810	1805	1610
Q Serve(g_s), s	30.9	5.8	5.9	4.3	12.8	6.9	3.8	11.8	12.1	5.0	6.5	9.0
Cycle Q Clear(g_c), s	30.9	5.8	5.9	4.3	12.8	6.9	3.8	11.8	12.1	5.0	6.5	9.0
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	622	1693	918	108	1069	331	95	327	317	96	328	292
V/C Ratio(X)	0.97	0.22	0.22	0.78	0.71	0.41	0.78	0.73	0.75	1.38	0.43	0.57
Avail Cap(c_a), veh/h	622	1774	962	221	1512	468	104	670	648	96	656	586
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.5	13.8	13.8	43.7	34.8	32.5	44.1	36.5	36.6	44.7	34.3	35.3
Incr Delay (d2), s/veh	28.1	0.1	0.1	4.4	0.9	0.8	24.8	3.2	3.6	221.7	0.9	1.8
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	17.2	2.1	2.3	2.0	5.2	2.7	2.3	5.4	5.3	8.1	2.9	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.6	13.8	13.9	48.1	35.7	33.3	68.9	39.6	40.1	266.3	35.2	37.1
LnGrp LOS	E	B	B	D	D	C	E	D	D	F	D	D
Approach Vol, veh/h		1180			976			551			441	
Approach Delay, s/veh		36.7			36.4			43.8			105.1	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	52.0	9.6	22.5	37.0	25.2	9.6	22.5
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	11.5	48.4	5.4	34.3	32.4	27.5	5.0	* 35
Max Q Clear Time (g_c+I1), s	6.3	7.9	5.8	11.0	32.9	14.8	7.0	14.1
Green Ext Time (p_c), s	0.0	3.6	0.0	1.7	0.0	4.2	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	47.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	773	853	111	0	244
Future Vol, veh/h	0	773	853	111	0	244
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	822	907	118	0	260

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	513
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	437
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	437
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	24.6
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	437
HCM Lane V/C Ratio	-	-	-	0.594
HCM Control Delay (s)	-	-	-	24.6
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	3.8

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	2	288	4	18	302
Future Vol, veh/h	1	2	288	4	18	302
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	2	313	4	20	328

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	683	315	0	0	317	0
Stage 1	315	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	418	730	-	-	1255	-
Stage 1	744	-	-	-	-	-
Stage 2	704	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	411	730	-	-	1255	-
Mov Cap-2 Maneuver	515	-	-	-	-	-
Stage 1	744	-	-	-	-	-
Stage 2	693	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	641	1255	-
HCM Lane V/C Ratio	-	-	0.005	0.016	-
HCM Control Delay (s)	-	-	10.6	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	2	273	26	6	175
Future Vol, veh/h	8	2	273	26	6	175
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	2	297	28	7	190

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	515	311	0	0	325	0
Stage 1	311	-	-	-	-	-
Stage 2	204	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	523	734	-	-	1246	-
Stage 1	748	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	520	734	-	-	1246	-
Mov Cap-2 Maneuver	595	-	-	-	-	-
Stage 1	748	-	-	-	-	-
Stage 2	830	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	618	1246	-
HCM Lane V/C Ratio	-	-	0.018	0.005	-
HCM Control Delay (s)	-	-	10.9	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	2	298	28	6	182
Future Vol, veh/h	8	2	298	28	6	182
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	2	324	30	7	198

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	551	339	0	0	354	0
Stage 1	339	-	-	-	-	-
Stage 2	212	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	499	708	-	-	1216	-
Stage 1	726	-	-	-	-	-
Stage 2	828	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	496	708	-	-	1216	-
Mov Cap-2 Maneuver	576	-	-	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	598	1216	-
HCM Lane V/C Ratio	-	-	0.018	0.005	-
HCM Control Delay (s)	-	-	11.1	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	325	8	3	188
Future Vol, veh/h	2	1	325	8	3	188
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	1	353	9	3	204

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	568	358	0	0	362	0
Stage 1	358	-	-	-	-	-
Stage 2	210	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	488	691	-	-	1208	-
Stage 1	712	-	-	-	-	-
Stage 2	830	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	487	691	-	-	1208	-
Mov Cap-2 Maneuver	568	-	-	-	-	-
Stage 1	712	-	-	-	-	-
Stage 2	828	-	-	-	-	-

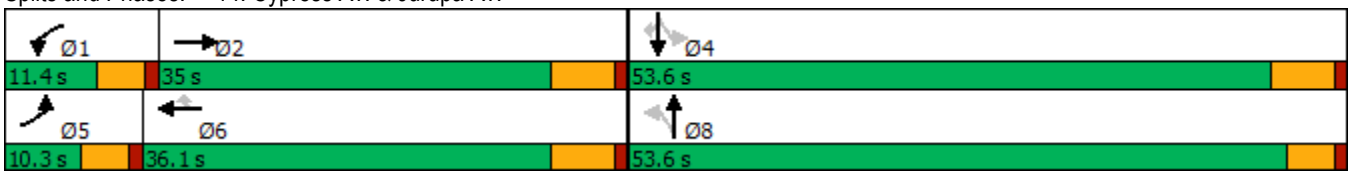
Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.1
HCM LOS	B		

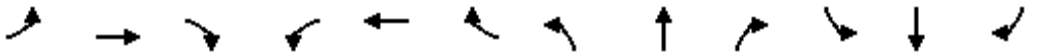
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	604	1208	-
HCM Lane V/C Ratio	-	-	0.005	0.003	-
HCM Control Delay (s)	-	-	11	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	169	605	55	803	77	32	88	60	35	94
Future Volume (vph)	169	605	55	803	77	32	88	60	35	94
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.3	35.0	11.4	36.1	36.1	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.3%	35.0%	11.4%	36.1%	36.1%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	6.3	21.6	6.5	16.7	16.7	16.7	16.7	15.3	15.3	15.3
Actuated g/C Ratio	0.11	0.38	0.12	0.30	0.30	0.30	0.30	0.27	0.27	0.27
v/c Ratio	0.86	0.32	0.28	0.54	0.15	0.08	0.41	0.22	0.07	0.19
Control Delay	68.4	15.9	32.8	19.0	6.1	14.3	10.3	17.3	14.8	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	15.9	32.8	19.0	6.1	14.3	10.3	17.3	14.8	4.7
LOS	E	B	C	B	A	B	B	B	B	A
Approach Delay		27.1		18.7			10.8		10.5	
Approach LOS		C		B			B		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 56.3	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 20.1	Intersection LOS: C
Intersection Capacity Utilization 64.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	605	16	55	803	77	32	88	143	60	35	94
Future Volume (veh/h)	169	605	16	55	803	77	32	88	143	60	35	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	624	16	57	828	66	33	91	96	62	36	62
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	221	1898	49	102	1552	482	433	190	200	316	426	361
Arrive On Green	0.12	0.36	0.36	0.06	0.30	0.30	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	5201	133	1810	5187	1610	1318	846	892	1214	1900	1610
Grp Volume(v), veh/h	174	414	226	57	828	66	33	0	187	62	36	62
Grp Sat Flow(s),veh/h/ln	1810	1729	1876	1810	1729	1610	1318	0	1738	1214	1900	1610
Q Serve(g_s), s	4.3	4.0	4.0	1.4	6.1	1.4	0.9	0.0	4.3	2.1	0.7	1.4
Cycle Q Clear(g_c), s	4.3	4.0	4.0	1.4	6.1	1.4	1.6	0.0	4.3	6.4	0.7	1.4
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	221	1262	685	102	1552	482	433	0	390	316	426	361
V/C Ratio(X)	0.79	0.33	0.33	0.56	0.53	0.14	0.08	0.00	0.48	0.20	0.08	0.17
Avail Cap(c_a), veh/h	226	2209	1199	269	3439	1067	1551	0	1863	1314	1987	1684
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	1.00	1.00
Uniform Delay (d), s/veh	19.5	10.5	10.5	21.0	13.4	11.7	14.7	0.0	15.4	18.2	14.0	14.3
Incr Delay (d2), s/veh	15.1	0.2	0.3	1.8	0.3	0.1	0.1	0.0	0.9	0.3	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	1.1	1.2	0.5	1.8	0.4	0.3	0.0	1.6	0.5	0.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	10.6	10.8	22.8	13.6	11.8	14.7	0.0	16.3	18.5	14.1	14.5
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	B	B
Approach Vol, veh/h		814			951			220			160	
Approach Delay, s/veh		15.8			14.1			16.1			16.0	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.2	22.5		16.1	10.2	19.5		16.1				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	6.8	29.2		47.8	5.7	30.3		* 49				
Max Q Clear Time (g_c+I1), s	3.4	6.0		8.4	6.3	8.1		6.3				
Green Ext Time (p_c), s	0.0	3.7		0.6	0.0	5.6		1.4				

Intersection Summary			
HCM 6th Ctrl Delay		15.1	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	26.6
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	258	31	90	525	16	26	33	42	42	52	17
Future Vol, veh/h	7	258	31	90	525	16	26	33	42	42	52	17
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	353	42	123	719	22	36	45	58	58	71	23
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	26.8	31.1	12.2	13.9
HCM LOS	D	D	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	44%	0%	2%	26%	0%	45%	0%
Vol Thru, %	56%	0%	87%	74%	94%	55%	0%
Vol Right, %	0%	100%	10%	0%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	42	296	353	279	94	17
LT Vol	26	0	7	90	0	42	0
Through Vol	33	0	258	263	263	52	0
RT Vol	0	42	31	0	16	0	17
Lane Flow Rate	81	58	405	483	382	129	23
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.188	0.118	0.745	0.875	0.673	0.296	0.047
Departure Headway (Hd)	8.364	7.411	6.715	6.521	6.35	8.289	7.333
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	431	486	543	560	572	435	490
Service Time	6.085	5.131	4.715	4.221	4.05	6.011	5.055
HCM Lane V/C Ratio	0.188	0.119	0.746	0.863	0.668	0.297	0.047
HCM Control Delay	13	11.1	26.8	39	21.1	14.5	10.4
HCM Lane LOS	B	B	D	E	C	B	B
HCM 95th-tile Q	0.7	0.4	6.4	9.8	5.1	1.2	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	1	2	98	162	11
Future Vol, veh/h	3	1	2	98	162	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	1	2	107	176	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	293	182	188	0	-	0
Stage 1	182	-	-	-	-	-
Stage 2	111	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	702	866	1398	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	701	866	1398	-	-	-
Mov Cap-2 Maneuver	701	-	-	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	919	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1398	-	736	-	-
HCM Lane V/C Ratio	0.002	-	0.006	-	-
HCM Control Delay (s)	7.6	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	7	24	97	155	7
Future Vol, veh/h	2	7	24	97	155	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	8	26	105	168	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	329	172	176	0	-	0
Stage 1	172	-	-	-	-	-
Stage 2	157	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	670	877	1412	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	657	877	1412	-	-	-
Mov Cap-2 Maneuver	657	-	-	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	876	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	1.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1412	-	816	-	-
HCM Lane V/C Ratio	0.018	-	0.012	-	-
HCM Control Delay (s)	7.6	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	8	25	119	154	8
Future Vol, veh/h	3	8	25	119	154	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	3	9	27	129	167	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	355	172	176	0	-	0
Stage 1	172	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	647	877	1412	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	853	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	633	877	1412	-	-	-
Mov Cap-2 Maneuver	633	-	-	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	853	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	1.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1412	-	794	-	-
HCM Lane V/C Ratio	0.019	-	0.015	-	-
HCM Control Delay (s)	7.6	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	8	25	142	155	7
Future Vol, veh/h	2	8	25	142	155	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	9	27	154	168	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	380	172	176	0	-	0
Stage 1	172	-	-	-	-	-
Stage 2	208	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	626	877	1412	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	832	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	613	877	1412	-	-	-
Mov Cap-2 Maneuver	613	-	-	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	832	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1412	-	807	-	-
HCM Lane V/C Ratio	0.019	-	0.013	-	-
HCM Control Delay (s)	7.6	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	4	166	156	7
Future Vol, veh/h	2	1	4	166	156	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	2	1	4	180	170	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	362	174	178	0	-	0
Stage 1	174	-	-	-	-	-
Stage 2	188	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	641	875	1410	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	639	875	1410	-	-	-
Mov Cap-2 Maneuver	639	-	-	-	-	-
Stage 1	858	-	-	-	-	-
Stage 2	849	-	-	-	-	-

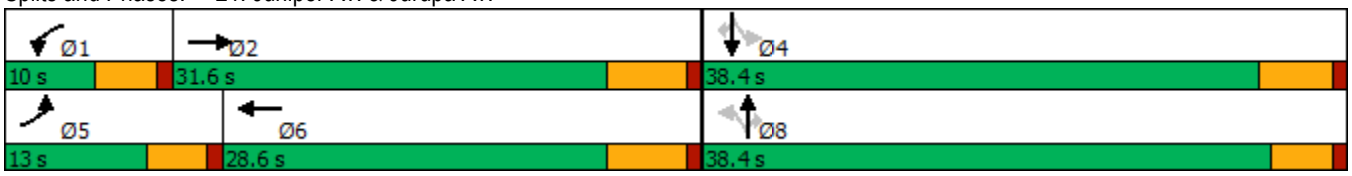
Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.2	0
HCM LOS	B		

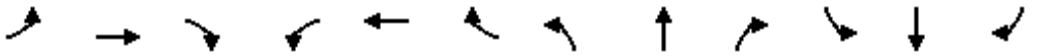
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1410	-	702	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.6	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	79	718	14	860	6	6	19	74	7	77
Future Volume (vph)	79	718	14	860	6	6	19	74	7	77
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.0	31.6	10.0	28.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	16.3%	39.5%	12.5%	35.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	7.1	22.2	5.7	17.2		14.9	14.9		14.0	14.0
Actuated g/C Ratio	0.14	0.44	0.11	0.34		0.30	0.30		0.28	0.28
v/c Ratio	0.32	0.33	0.07	0.56		0.02	0.04		0.21	0.15
Control Delay	28.6	10.9	29.3	16.3		15.1	0.1		17.6	3.5
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	28.6	10.9	29.3	16.3		15.1	0.1		17.6	3.5
LOS	C	B	C	B		B	A		B	A
Approach Delay		12.6		16.5		5.7			10.7	
Approach LOS		B		B		A			B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 49.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 14.3	Intersection LOS: B
Intersection Capacity Utilization 48.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	718	3	14	860	85	6	6	19	74	7	77
Future Volume (veh/h)	79	718	3	14	860	85	6	6	19	74	7	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	748	2	15	896	86	6	6	9	77	7	48
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	118	1784	5	32	1380	132	125	94	549	200	13	549
Arrive On Green	0.07	0.33	0.33	0.02	0.29	0.29	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1810	5341	14	1810	4814	460	58	274	1610	192	37	1610
Grp Volume(v), veh/h	82	484	266	15	643	339	12	0	9	84	0	48
Grp Sat Flow(s),veh/h/ln	1810	1729	1897	1810	1729	1816	333	0	1610	230	0	1610
Q Serve(g_s), s	2.3	5.6	5.6	0.4	8.4	8.4	0.1	0.0	0.2	2.5	0.0	1.0
Cycle Q Clear(g_c), s	2.3	5.6	5.6	0.4	8.4	8.4	16.4	0.0	0.2	17.5	0.0	1.0
Prop In Lane	1.00		0.01	1.00		0.25	0.50		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	118	1155	634	32	991	521	218	0	549	212	0	549
V/C Ratio(X)	0.70	0.42	0.42	0.46	0.65	0.65	0.05	0.00	0.02	0.40	0.00	0.09
Avail Cap(c_a), veh/h	296	1735	952	190	1533	805	722	0	1058	649	0	1033
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.5	13.3	13.3	25.0	16.1	16.1	13.2	0.0	11.2	23.2	0.0	11.5
Incr Delay (d2), s/veh	2.7	0.2	0.4	3.8	0.7	1.4	0.1	0.0	0.0	1.2	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.7	1.9	0.2	2.7	3.0	0.1	0.0	0.1	1.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	13.5	13.7	28.8	16.8	17.5	13.3	0.0	11.2	24.4	0.0	11.6
LnGrp LOS	C	B	B	C	B	B	B	A	B	C	A	B
Approach Vol, veh/h		832			997			21			132	
Approach Delay, s/veh		14.8			17.2			12.4			19.8	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	23.2		24.1	8.0	20.8		24.1				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	8.4	22.8		* 34				
Max Q Clear Time (g_c+I1), s	2.4	7.6		19.5	4.3	10.4		18.4				
Green Ext Time (p_c), s	0.0	4.1		0.4	0.0	4.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		16.3
HCM 6th LOS		B

Notes

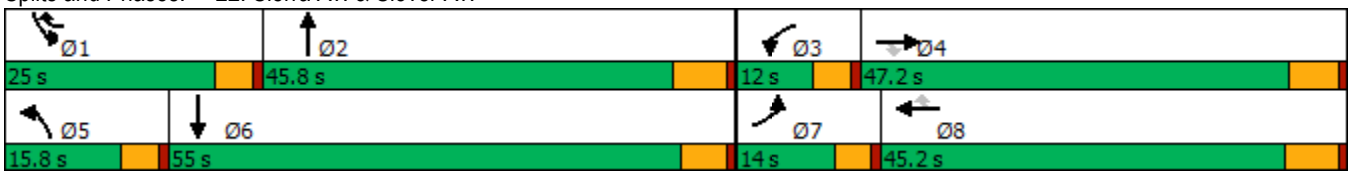
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

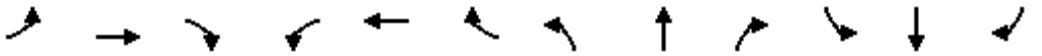
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	241	296	109	248	330	339	207	1195	500	1125
Future Volume (vph)	241	296	109	248	330	339	207	1195	500	1125
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	14.0	47.2	47.2	12.0	45.2	25.0	15.8	45.8	25.0	55.0
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.8%	19.2%	12.2%	35.2%	19.2%	42.3%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 102.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	241	296	109	248	330	339	207	1195	145	500	1125	269
Future Volume (veh/h)	241	296	109	248	330	339	207	1195	145	500	1125	269
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	259	318	73	267	355	91	223	1285	140	538	1210	236
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	335	606	270	298	568	948	302	1935	210	626	1800	351
Arrive On Green	0.10	0.17	0.17	0.08	0.16	0.16	0.09	0.32	0.32	0.18	0.41	0.41
Sat Flow, veh/h	3510	3610	1610	3510	3610	2812	3510	6029	654	3510	4354	849
Grp Volume(v), veh/h	259	318	73	267	355	91	223	1044	381	538	961	485
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1406	1755	1634	1781	1755	1729	1746
Q Serve(g_s), s	6.3	7.0	3.4	6.6	8.0	1.9	5.4	16.0	16.1	13.0	19.7	19.7
Cycle Q Clear(g_c), s	6.3	7.0	3.4	6.6	8.0	1.9	5.4	16.0	16.1	13.0	19.7	19.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.37	1.00		0.49
Lane Grp Cap(c), veh/h	335	606	270	298	568	948	302	1574	572	626	1429	721
V/C Ratio(X)	0.77	0.52	0.27	0.90	0.63	0.10	0.74	0.66	0.67	0.86	0.67	0.67
Avail Cap(c_a), veh/h	379	1714	765	298	1615	1764	451	2227	809	821	1967	993
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.5	33.1	31.6	39.5	34.3	19.9	38.9	25.5	25.6	34.7	20.8	20.8
Incr Delay (d2), s/veh	7.1	0.7	0.5	26.8	1.1	0.0	1.3	0.5	1.3	5.9	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.0	1.3	3.8	3.4	0.6	2.3	5.8	6.5	5.7	7.2	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.6	33.8	32.1	66.3	35.5	19.9	40.2	26.0	26.9	40.6	21.3	21.9
LnGrp LOS	D	C	C	E	D	B	D	C	C	D	C	C
Approach Vol, veh/h		650			713			1648			1984	
Approach Delay, s/veh		38.3			45.0			28.1			26.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.2	34.2	12.0	20.8	12.1	42.2	12.9	19.9
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	20.4	39.6	7.4	* 41	11.2	* 50	9.4	39.0
Max Q Clear Time (g_c+I1), s	15.0	18.1	8.6	9.0	7.4	21.7	8.3	10.0
Green Ext Time (p_c), s	0.6	9.5	0.0	2.2	0.1	10.9	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	31.3
HCM 6th LOS	C

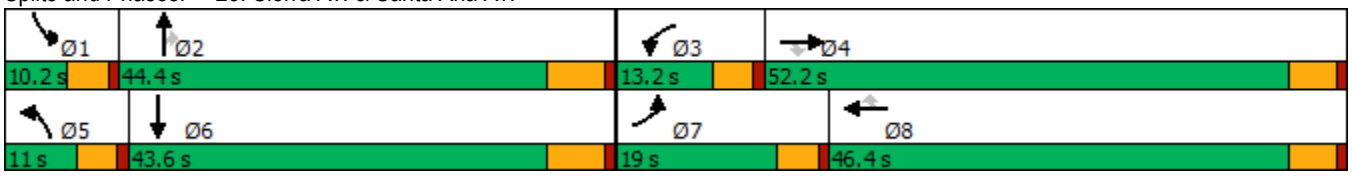
Notes

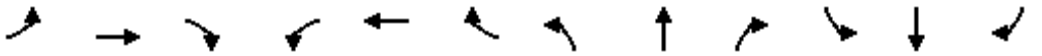
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	153	115	103	57	169	100	122	1413	63	108	913
Future Volume (vph)	153	115	103	57	169	100	122	1413	63	108	913
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	19.0	52.2	52.2	13.2	46.4	46.4	11.0	44.4	44.4	10.2	43.6
Total Split (%)	15.8%	43.5%	43.5%	11.0%	38.7%	38.7%	9.2%	37.0%	37.0%	8.5%	36.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 90.7
Natural Cycle: 105
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	115	103	57	169	100	122	1413	63	108	913	354
Future Volume (veh/h)	153	115	103	57	169	100	122	1413	63	108	913	354
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	168	126	61	63	186	50	134	1553	66	119	1003	370
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	208	724	323	89	485	216	221	2125	651	216	1523	562
Arrive On Green	0.12	0.20	0.20	0.05	0.13	0.13	0.06	0.41	0.41	0.06	0.41	0.41
Sat Flow, veh/h	1810	3610	1610	1810	3610	1610	3510	5187	1589	3510	3733	1376
Grp Volume(v), veh/h	168	126	61	63	186	50	134	1553	66	119	929	444
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1610	1755	1729	1589	1755	1729	1651
Q Serve(g_s), s	6.7	2.2	2.3	2.6	3.5	2.1	2.8	18.8	1.9	2.5	16.2	16.2
Cycle Q Clear(g_c), s	6.7	2.2	2.3	2.6	3.5	2.1	2.8	18.8	1.9	2.5	16.2	16.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	208	724	323	89	485	216	221	2125	651	216	1411	674
V/C Ratio(X)	0.81	0.17	0.19	0.71	0.38	0.23	0.61	0.73	0.10	0.55	0.66	0.66
Avail Cap(c_a), veh/h	350	2270	1012	209	1989	887	302	2662	815	264	1738	830
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	24.6	24.7	34.9	29.4	28.8	34.0	18.5	13.5	33.9	17.8	17.8
Incr Delay (d2), s/veh	2.8	0.1	0.3	3.9	0.5	0.5	1.0	0.8	0.1	0.8	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	2.9	0.9	0.9	1.2	1.5	0.8	1.1	6.4	0.6	1.0	5.5	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.9	24.8	25.0	38.8	29.9	29.3	35.0	19.3	13.6	34.8	18.5	19.2
LnGrp LOS	C	C	C	D	C	C	C	B	B	C	B	B
Approach Vol, veh/h		355			299			1753			1492	
Approach Delay, s/veh		29.6			31.7			20.3			20.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	36.7	8.2	20.3	9.3	36.6	13.2	15.4
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.6	38.2	8.6	46.8	6.4	37.4	14.4	41.0
Max Q Clear Time (g_c+I1), s	4.5	20.8	4.6	4.3	4.8	18.2	8.7	5.5
Green Ext Time (p_c), s	0.0	9.7	0.0	1.0	0.0	8.5	0.1	1.3

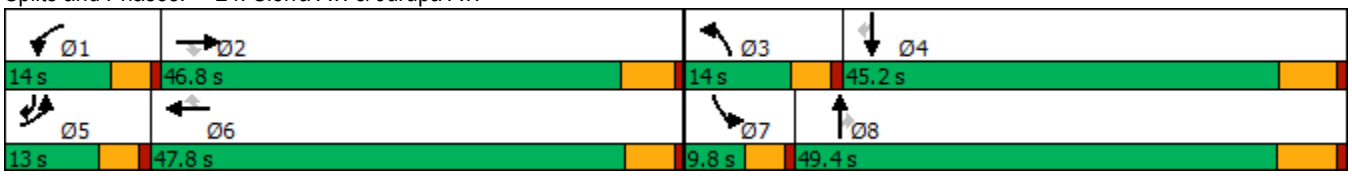
Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	295	278	271	153	326	155	332	855	62	59	651	286
Future Volume (vph)	295	278	271	153	326	155	332	855	62	59	651	286
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	13.0	46.8	46.8	14.0	47.8	47.8	14.0	49.4	49.4	9.8	45.2	13.0
Total Split (%)	10.8%	39.0%	39.0%	11.7%	39.8%	39.8%	11.7%	41.2%	41.2%	8.2%	37.7%	10.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 80
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	278	271	153	326	155	332	855	62	59	651	286
Future Volume (veh/h)	295	278	271	153	326	155	332	855	62	59	651	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	304	287	158	158	336	107	342	881	36	61	671	183
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	404	730	326	253	575	256	443	1249	557	180	979	622
Arrive On Green	0.11	0.20	0.20	0.07	0.16	0.16	0.13	0.35	0.35	0.05	0.27	0.27
Sat Flow, veh/h	3510	3610	1610	3510	3610	1607	3510	3610	1610	3510	3610	1610
Grp Volume(v), veh/h	304	287	158	158	336	107	342	881	36	61	671	183
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1607	1755	1805	1610	1755	1805	1610
Q Serve(g_s), s	5.5	4.5	5.7	2.9	5.6	3.9	6.2	13.8	1.0	1.1	10.9	5.2
Cycle Q Clear(g_c), s	5.5	4.5	5.7	2.9	5.6	3.9	6.2	13.8	1.0	1.1	10.9	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	404	730	326	253	575	256	443	1249	557	180	979	622
V/C Ratio(X)	0.75	0.39	0.49	0.62	0.58	0.42	0.77	0.71	0.06	0.34	0.69	0.29
Avail Cap(c_a), veh/h	450	2261	1008	504	2338	1041	504	2366	1055	279	2151	1144
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	22.6	23.1	29.5	25.5	24.8	27.7	18.5	14.3	30.0	21.4	13.9
Incr Delay (d2), s/veh	5.2	0.3	1.1	0.9	0.9	1.1	5.4	0.7	0.0	0.4	0.9	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	2.4	1.7	1.9	1.2	2.3	1.4	2.6	4.7	0.3	0.4	4.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	23.0	24.2	30.5	26.4	25.9	33.1	19.3	14.4	30.4	22.2	14.2
LnGrp LOS	C	C	C	C	C	C	C	B	B	C	C	B
Approach Vol, veh/h		749			601			1259			915	
Approach Delay, s/veh		27.4			27.4			22.9			21.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	19.0	12.9	24.3	12.1	16.2	8.0	29.2
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	9.4	41.0	9.4	* 39	8.4	* 42	5.2	42.9
Max Q Clear Time (g_c+I1), s	4.9	7.7	8.2	12.9	7.5	7.6	3.1	15.8
Green Ext Time (p_c), s	0.1	2.2	0.1	4.9	0.1	2.5	0.0	5.8

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

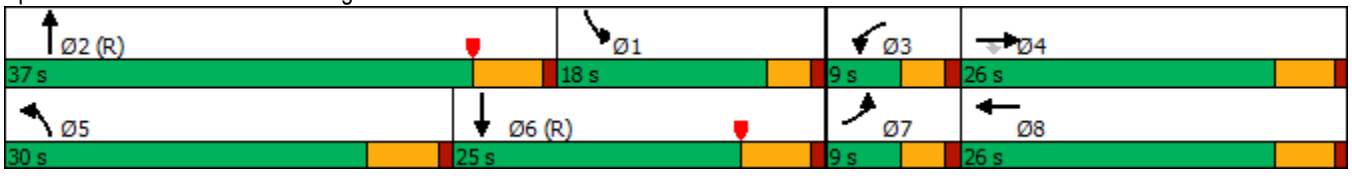
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	73	29	759	44	60	1165	489	42	318
Future Volume (vph)	73	29	759	44	60	1165	489	42	318
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0	26.0	9.0	26.0	30.0	37.0	18.0	25.0
Total Split (%)	10.0%	28.9%	28.9%	10.0%	28.9%	33.3%	41.1%	20.0%	27.8%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	17.5	17.5	5.0	15.7	31.4	45.6	12.4	19.3
Actuated g/C Ratio	0.06	0.19	0.19	0.06	0.17	0.35	0.51	0.14	0.21
v/c Ratio	0.78	0.04	0.93	0.47	0.17	1.03	0.63	0.18	1.01
Control Delay	88.9	27.3	23.7	57.1	19.2	65.6	26.1	35.4	84.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.9	27.3	23.7	57.1	19.2	65.6	26.1	35.4	84.9
LOS	F	C	C	E	B	E	C	D	F
Approach Delay		29.3			30.9		52.8		80.0
Approach LOS		C			C		D		E

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 14 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 49.0	Intersection LOS: D
Intersection Capacity Utilization 84.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	29	759	44	60	37	1165	489	70	42	318	63
Future Volume (veh/h)	73	29	759	44	60	37	1165	489	70	42	318	63
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		0.97	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	31	0	47	65	27	1253	526	75	45	342	45
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	101	260		69	138	54	948	566	81	570	646	85
Arrive On Green	0.06	0.07	0.00	0.04	0.05	0.05	0.27	0.35	0.35	0.32	0.39	0.39
Sat Flow, veh/h	1810	3610	1610	1810	2518	979	3510	1626	232	1810	1644	216
Grp Volume(v), veh/h	78	31	0	47	45	47	1253	0	601	45	0	387
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1692	1755	0	1858	1810	0	1861
Q Serve(g_s), s	3.8	0.7	0.0	2.3	2.2	2.4	24.3	0.0	28.1	1.6	0.0	14.3
Cycle Q Clear(g_c), s	3.8	0.7	0.0	2.3	2.2	2.4	24.3	0.0	28.1	1.6	0.0	14.3
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.12	1.00		0.12
Lane Grp Cap(c), veh/h	101	260		69	99	93	948	0	646	570	0	731
V/C Ratio(X)	0.78	0.12		0.68	0.46	0.50	1.32	0.00	0.93	0.08	0.00	0.53
Avail Cap(c_a), veh/h	101	842		101	421	395	948	0	646	570	0	731
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	0.00	1.00	1.00	1.00	0.79	0.00	0.79	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.9	39.1	0.0	42.7	41.2	41.3	32.8	0.0	28.3	21.6	0.0	20.9
Incr Delay (d2), s/veh	28.4	0.2	0.0	4.2	3.3	4.2	150.8	0.0	18.5	0.0	0.0	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.3	0.0	1.1	1.1	1.1	29.4	0.0	14.6	0.6	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.4	39.3	0.0	46.9	44.5	45.5	183.7	0.0	46.7	21.7	0.0	23.7
LnGrp LOS	E	D		D	D	D	F	A	D	C	A	C
Approach Vol, veh/h		109	A		139			1854			432	
Approach Delay, s/veh		61.5			45.7			139.3			23.5	
Approach LOS		E			D			F			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.1	37.0	7.5	11.5	30.0	41.1	9.0	9.9
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	14.0	* 31	5.0	21.0	24.3	19.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	3.6	30.1	4.3	2.7	26.3	16.3	5.8	4.4
Green Ext Time (p_c), s	0.0	0.6	0.0	0.1	0.0	0.8	0.0	0.4

Intersection Summary		
HCM 6th Ctrl Delay		111.1
HCM 6th LOS		F

Notes

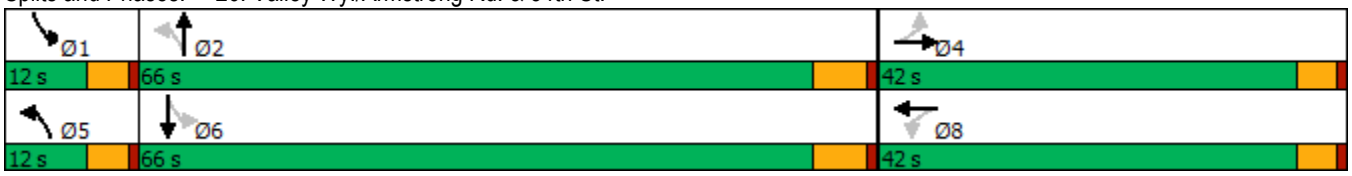
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

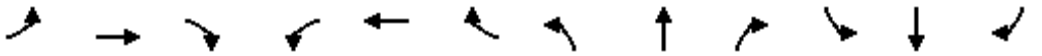
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	75	14	77	104	112	1273	11	956
Future Volume (vph)	75	14	77	104	112	1273	11	956
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	42.0	42.0	42.0	42.0	12.0	66.0	12.0	66.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	10.0%	55.0%	10.0%	55.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	19.1	19.1		19.1	72.7	70.1	66.7	60.4
Actuated g/C Ratio	0.19	0.19		0.19	0.72	0.69	0.66	0.60
v/c Ratio	0.48	0.26		0.77	0.42	0.59	0.05	0.63
Control Delay	46.2	11.8		55.4	9.7	10.8	5.9	15.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	11.8		55.4	9.7	10.8	5.9	15.4
LOS	D	B		E	A	B	A	B
Approach Delay		27.4		55.4		10.7		15.3
Approach LOS		C		E		B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 16.5	Intersection LOS: B
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	14	77	77	104	25	112	1273	62	11	956	252
Future Volume (veh/h)	75	14	77	77	104	25	112	1273	62	11	956	252
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	82	15	81	84	113	27	122	1384	67	12	1039	271
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	244	49	262	134	153	33	322	2252	109	251	1717	445
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.05	0.64	0.64	0.01	0.61	0.61
Sat Flow, veh/h	1269	254	1373	441	802	170	1810	3501	169	1810	2822	732
Grp Volume(v), veh/h	82	0	96	224	0	0	122	712	739	12	662	648
Grp Sat Flow(s),veh/h/ln	1269	0	1627	1413	0	0	1810	1805	1865	1810	1805	1748
Q Serve(g_s), s	0.0	0.0	5.0	10.6	0.0	0.0	2.4	23.0	23.2	0.2	22.4	22.8
Cycle Q Clear(g_c), s	8.9	0.0	5.0	15.6	0.0	0.0	2.4	23.0	23.2	0.2	22.4	22.8
Prop In Lane	1.00		0.84	0.37		0.12	1.00		0.09	1.00		0.42
Lane Grp Cap(c), veh/h	244	0	311	320	0	0	322	1161	1200	251	1099	1064
V/C Ratio(X)	0.34	0.00	0.31	0.70	0.00	0.00	0.38	0.61	0.62	0.05	0.60	0.61
Avail Cap(c_a), veh/h	482	0	615	620	0	0	369	1161	1200	361	1099	1064
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	34.4	39.3	0.0	0.0	9.9	10.4	10.4	9.1	12.0	12.0
Incr Delay (d2), s/veh	0.8	0.0	0.6	2.8	0.0	0.0	0.3	2.4	2.4	0.0	2.5	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	2.0	5.5	0.0	0.0	0.8	8.1	8.4	0.1	8.3	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	35.0	42.1	0.0	0.0	10.1	12.8	12.8	9.1	14.4	14.6
LnGrp LOS	D	A	C	D	A	A	B	B	B	A	B	B
Approach Vol, veh/h		178			224			1573			1322	
Approach Delay, s/veh		35.8			42.1			12.6			14.5	
Approach LOS		D			D			B			B	

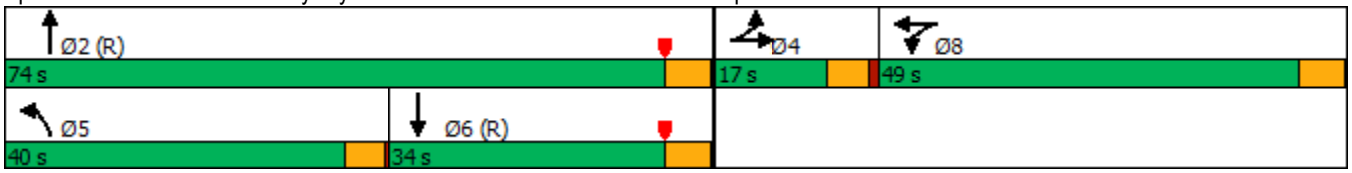
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	69.4		23.5	9.4	66.0		23.5				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	7.4	60.2		37.4	7.4	60.2		37.4				
Max Q Clear Time (g_c+I1), s	2.2	25.2		10.9	4.4	24.8		17.6				
Green Ext Time (p_c), s	0.0	12.0		0.9	0.0	10.5		1.3				

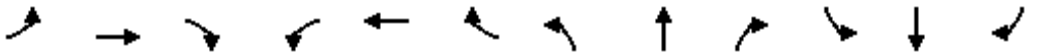
Intersection Summary			
HCM 6th Ctrl Delay		16.6	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	283	107	113	1040	1226
Future Volume (vph)	0	283	107	113	1040	1226
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	17.0	49.0	49.0	40.0	74.0	34.0
Total Split (%)	12.1%	35.0%	35.0%	28.6%	52.9%	24.3%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	11.6	43.7	43.7	14.4	68.7	49.7
Actuated g/C Ratio	0.08	0.31	0.31	0.10	0.49	0.36
v/c Ratio	1.84	0.52	1.16	0.63	0.61	1.00
Control Delay	439.1	43.5	126.3	73.8	27.6	70.1
Queue Delay	603.2	0.0	0.0	0.0	0.0	35.7
Total Delay	1042.3	43.5	126.3	73.8	27.6	105.8
LOS	F	D	F	E	C	F
Approach Delay	1042.3		101.7		32.1	105.8
Approach LOS	F		F		C	F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.84	
Intersection Signal Delay: 145.8	Intersection LOS: F
Intersection Capacity Utilization 113.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	0	187	283	107	563	113	1040	0	0	1226	16
Future Volume (veh/h)	61	0	187	283	107	563	113	1040	0	0	1226	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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	63	0	193	292	110	470	116	1072	0	0	1264	16
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	34	0	103	565	98	419	143	1771	0	0	1382	17
Arrive On Green	0.08	0.00	0.08	0.31	0.31	0.31	0.03	0.16	0.00	0.00	0.38	0.38
Sat Flow, veh/h	407	0	1248	1810	314	1344	1810	3705	0	0	3745	46
Grp Volume(v), veh/h	256	0	0	292	0	580	116	1072	0	0	625	655
Grp Sat Flow(s),veh/h/ln	1655	0	0	1810	0	1658	1810	1805	0	0	1805	1891
Q Serve(g_s), s	11.6	0.0	0.0	18.5	0.0	43.7	8.9	38.6	0.0	0.0	46.1	46.1
Cycle Q Clear(g_c), s	11.6	0.0	0.0	18.5	0.0	43.7	8.9	38.6	0.0	0.0	46.1	46.1
Prop In Lane	0.25		0.75	1.00		0.81	1.00		0.00	0.00		0.02
Lane Grp Cap(c), veh/h	137	0	0	565	0	518	143	1771	0	0	684	716
V/C Ratio(X)	1.87	0.00	0.00	0.52	0.00	1.12	0.81	0.61	0.00	0.00	0.91	0.91
Avail Cap(c_a), veh/h	137	0	0	565	0	518	458	1771	0	0	684	716
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.95	0.95	0.00	0.00	0.74	0.74
Uniform Delay (d), s/veh	64.2	0.0	0.0	39.5	0.0	48.2	67.1	46.1	0.0	0.0	41.3	41.3
Incr Delay (d2), s/veh	416.5	0.0	0.0	0.8	0.0	77.0	9.9	1.5	0.0	0.0	15.0	14.5
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	20.7	0.0	0.0	8.2	0.0	28.5	4.6	19.0	0.0	0.0	22.5	23.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	480.7	0.0	0.0	40.3	0.0	125.2	77.0	47.5	0.0	0.0	56.3	55.8
LnGrp LOS	F	A	A	D	A	F	E	D	A	A	E	E
Approach Vol, veh/h		256			872			1188			1280	
Approach Delay, s/veh		480.7			96.8			50.4			56.0	
Approach LOS		F			F			D			E	

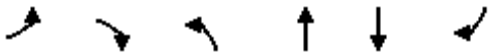
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		74.0		17.0	15.7	58.3		49.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		68.7		11.6	35.4	28.7		43.7				
Max Q Clear Time (g_c+I1), s		40.6		13.6	10.9	48.1		45.7				
Green Ext Time (p_c), s		5.0		0.0	0.3	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			94.3									
HCM 6th LOS			F									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	409	1153	1348
Future Volume (vph)	409	1153	1348
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	14.5	140.0	125.5
Total Split (%)	10.4%	100.0%	89.6%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	9.9	140.0	119.7
Actuated g/C Ratio	0.07	1.00	0.86
v/c Ratio	3.43	0.34	0.61
Control Delay	1128.9	0.3	7.5
Queue Delay	0.0	0.5	0.0
Total Delay	1128.9	0.7	7.5
LOS	F	A	A
Approach Delay		296.0	7.5
Approach LOS		F	A

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 3.43	
Intersection Signal Delay: 145.8	Intersection LOS: F
Intersection Capacity Utilization 79.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	409	1153	1348	348
Future Volume (veh/h)	0	0	409	1153	1348	348
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.97
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			435	1227	1434	370
Peak Hour Factor			0.94	0.94	0.94	0.94
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			128	3460	2434	605
Arrive On Green			0.07	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2941	707
Grp Volume(v), veh/h			435	1227	889	915
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1748
Q Serve(g_s), s			9.9	3.0	0.0	0.0
Cycle Q Clear(g_c), s			9.9	3.0	0.0	0.0
Prop In Lane			1.00			0.40
Lane Grp Cap(c), veh/h			128	3460	1543	1495
V/C Ratio(X)			3.40	0.35	0.58	0.61
Avail Cap(c_a), veh/h			128	3460	1543	1495
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.09	0.09	0.29	0.29
Uniform Delay (d), s/veh			65.1	0.2	0.0	0.0
Incr Delay (d2), s/veh			1081.6	0.0	0.5	0.5
Initial Q Delay(d3),s/veh			0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			42.9	0.0	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			1146.6	0.2	0.5	0.5
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				1662	1804	
Approach Delay, s/veh				300.3	0.5	
Approach LOS				F	A	

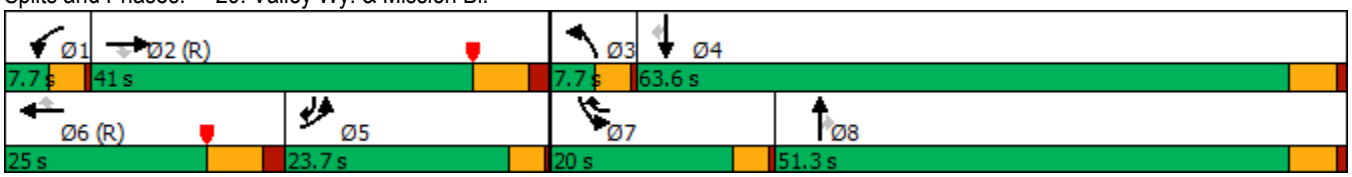
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			14.5	125.5
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			9.9	119.7
Max Q Clear Time (g_c+I1), s	5.0			11.9	2.0
Green Ext Time (p_c), s	11.4			0.0	24.9

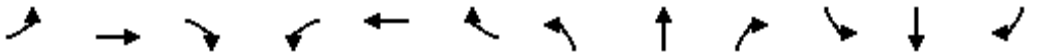
Intersection Summary	
HCM 6th Ctrl Delay	144.2
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	848	1066	79	45	248	865	7	516	28	556	311	482
Future Volume (vph)	848	1066	79	45	248	865	7	516	28	556	311	482
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	23.7	41.0	41.0	7.7	25.0	20.0	7.7	51.3	51.3	20.0	63.6	23.7
Total Split (%)	19.8%	34.2%	34.2%	6.4%	20.8%	16.7%	6.4%	42.8%	42.8%	16.7%	53.0%	19.8%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	20.0	53.2	53.2	8.2	39.6	59.2	4.0	24.4	24.4	16.3	42.9	64.5
Actuated g/C Ratio	0.17	0.44	0.44	0.07	0.33	0.49	0.03	0.20	0.20	0.14	0.36	0.54
v/c Ratio	1.53	0.70	0.11	0.38	0.22	1.07	0.06	0.74	0.06	1.23	0.25	0.30
Control Delay	273.8	23.5	5.1	61.7	30.8	71.8	57.3	50.9	0.2	164.8	27.5	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	273.8	23.5	5.1	61.7	30.8	71.8	57.3	50.9	0.2	164.8	27.5	1.8
LOS	F	C	A	E	C	E	E	D	A	F	C	A
Approach Delay		129.3			62.6			48.4			75.0	
Approach LOS		F			E			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.53	
Intersection Signal Delay: 90.7	Intersection LOS: F
Intersection Capacity Utilization 104.2%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	848	1066	79	45	248	865	7	516	28	556	311	482
Future Volume (veh/h)	848	1066	79	45	248	865	7	516	28	556	311	482
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	893	1122	66	47	261	872	7	543	18	585	327	465
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	1095	1646	724	60	542	459	24	761	339	477	1226	1815
Arrive On Green	0.62	0.91	0.91	0.03	0.15	0.15	0.01	0.21	0.21	0.14	0.34	0.34
Sat Flow, veh/h	3510	3610	1587	1810	3610	1601	3510	3610	1608	3510	3610	2742
Grp Volume(v), veh/h	893	1122	66	47	261	872	7	543	18	585	327	465
Grp Sat Flow(s),veh/h/ln	1755	1805	1587	1810	1805	1601	1755	1805	1608	1755	1805	1371
Q Serve(g_s), s	23.4	8.7	0.5	3.1	7.9	13.7	0.2	16.8	1.1	16.3	7.9	0.9
Cycle Q Clear(g_c), s	23.4	8.7	0.5	3.1	7.9	13.7	0.2	16.8	1.1	16.3	7.9	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1095	1646	724	60	542	459	24	761	339	477	1226	1815
V/C Ratio(X)	0.82	0.68	0.09	0.78	0.48	1.90	0.29	0.71	0.05	1.23	0.27	0.26
Avail Cap(c_a), veh/h	1095	1646	724	60	542	459	117	1384	616	477	1754	2216
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00	0.76	0.76	0.76
Uniform Delay (d), s/veh	19.9	3.3	2.9	57.6	46.7	18.2	59.3	44.0	37.8	51.8	28.8	3.2
Incr Delay (d2), s/veh	0.4	0.2	0.0	43.5	3.1	413.4	2.4	1.3	0.1	115.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	1.4	0.2	2.1	3.7	58.6	0.1	7.6	0.4	14.6	3.3	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.4	3.5	2.9	101.1	49.8	431.6	61.7	45.3	37.9	167.6	28.9	3.3
LnGrp LOS	C	A	A	F	D	F	E	D	D	F	C	A
Approach Vol, veh/h		2081			1180			568			1377	
Approach Delay, s/veh		10.7			334.0			45.2			79.2	
Approach LOS		B			F			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.7	61.7	4.5	46.1	44.4	25.0	20.0	30.6
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	4.0	34.0	4.0	58.3	20.0	* 18	16.3	46.0
Max Q Clear Time (g_c+I1), s	5.1	10.7	2.2	9.9	25.4	15.7	18.3	18.8
Green Ext Time (p_c), s	0.0	11.3	0.0	4.2	0.0	1.6	0.0	3.8

Intersection Summary	
HCM 6th Ctrl Delay	105.9
HCM 6th LOS	F

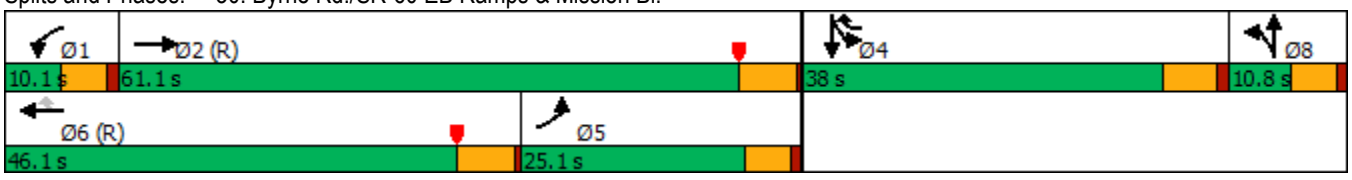
Notes

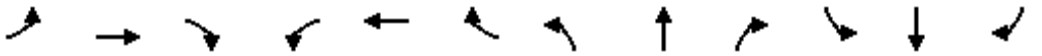
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	314	560	4	398	388	0	1407	2
Future Volume (vph)	314	560	4	398	388	0	1407	2
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	25.1	61.1	10.1	46.1	38.0	10.8	38.0	38.0
Total Split (%)	20.9%	50.9%	8.4%	38.4%	31.7%	9.0%	31.7%	31.7%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	20.0	70.1	5.6	47.2	79.3	5.0	32.2	32.2
Actuated g/C Ratio	0.17	0.58	0.05	0.39	0.66	0.04	0.27	0.27
v/c Ratio	1.14	0.29	0.05	0.31	0.36	0.06	1.90	1.82
Control Delay	139.3	14.2	56.0	36.8	5.8	0.5	438.3	406.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	139.3	14.2	56.0	36.8	5.8	0.5	438.3	406.8
LOS	F	B	E	D	A	A	F	F
Approach Delay		58.9		21.7		0.5		422.9
Approach LOS		E		C		A		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.90	
Intersection Signal Delay: 225.5	Intersection LOS: F
Intersection Capacity Utilization 114.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	560	4	4	398	388	5	0	9	1407	2	164
Future Volume (veh/h)	314	560	4	4	398	388	5	0	9	1407	2	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	341	609	3	4	433	314	5	0	6	1669	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	355	1962	10	9	1215	967	10	0	12	971	510	0
Arrive On Green	0.20	0.53	0.53	0.00	0.11	0.11	0.01	0.00	0.01	0.27	0.00	0.00
Sat Flow, veh/h	1810	3683	18	1810	3610	1588	770	0	925	3619	1900	0
Grp Volume(v), veh/h	341	298	314	4	433	314	11	0	0	1669	0	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1896	1810	1805	1588	1695	0	0	1810	1900	0
Q Serve(g_s), s	22.4	11.1	11.1	0.3	13.3	13.4	0.8	0.0	0.0	32.2	0.0	0.0
Cycle Q Clear(g_c), s	22.4	11.1	11.1	0.3	13.3	13.4	0.8	0.0	0.0	32.2	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.45		0.55	1.00		0.00
Lane Grp Cap(c), veh/h	355	962	1010	9	1215	967	22	0	0	971	510	0
V/C Ratio(X)	0.96	0.31	0.31	0.43	0.36	0.32	0.51	0.00	0.00	1.72	0.00	0.00
Avail Cap(c_a), veh/h	355	962	1010	75	1215	967	81	0	0	971	510	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.97	0.97	0.97	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	47.7	15.7	15.7	59.7	41.3	16.1	58.9	0.0	0.0	43.9	0.0	0.0
Incr Delay (d2), s/veh	37.1	0.8	0.8	26.8	0.8	0.9	6.7	0.0	0.0	327.8	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	13.4	4.5	4.7	0.2	6.5	9.8	0.4	0.0	0.0	58.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.8	16.5	16.5	86.6	42.1	17.0	65.5	0.0	0.0	371.7	0.0	0.0
LnGrp LOS	F	B	B	F	D	B	E	A	A	F	A	A
Approach Vol, veh/h		953			751			11			1669	
Approach Delay, s/veh		41.0			31.8			65.5			371.7	
Approach LOS		D			C			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.7	69.6		38.0	29.3	46.1		6.6				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.0	55.4		32.2	20.0	* 40		5.7				
Max Q Clear Time (g_c+I1), s	2.3	13.1		34.2	24.4	15.4		2.8				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	2.2		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	202.1	
HCM 6th LOS	F	

Notes

User approved volume balancing among the lanes for turning movement.

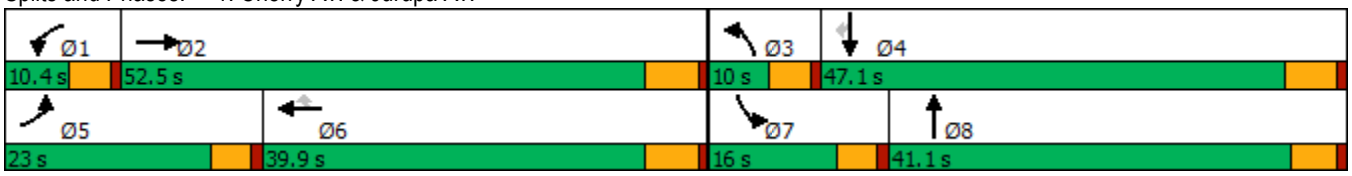
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

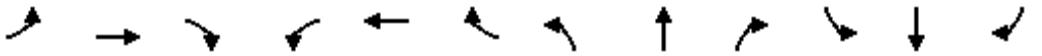
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	504	1284	77	794	127	74	363	207	515	337
Future Volume (vph)	504	1284	77	794	127	74	363	207	515	337
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	31.8	9.6	39.8	39.8	9.6	41.1	9.6	42.8	42.8
Total Split (s)	23.0	52.5	10.4	39.9	39.9	10.0	41.1	16.0	47.1	47.1
Total Split (%)	19.2%	43.8%	8.7%	33.3%	33.3%	8.3%	34.3%	13.3%	39.3%	39.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 1: Cherry Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	504	1284	158	77	794	127	74	363	81	207	515	337
Future Volume (veh/h)	504	1284	158	77	794	127	74	363	81	207	515	337
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		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	525	1338	137	80	827	95	77	378	58	216	536	262
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	611	1999	205	174	1061	472	172	931	139	297	866	379
Arrive On Green	0.17	0.42	0.42	0.05	0.29	0.29	0.05	0.20	0.20	0.08	0.24	0.24
Sat Flow, veh/h	3510	4780	489	3510	3610	1607	3510	4553	682	3510	3610	1578
Grp Volume(v), veh/h	525	968	507	80	827	95	77	285	151	216	536	262
Grp Sat Flow(s),veh/h/ln	1755	1729	1811	1755	1805	1607	1755	1729	1777	1755	1805	1578
Q Serve(g_s), s	12.4	19.4	19.4	1.9	18.0	3.8	1.8	6.1	6.3	5.1	11.3	13.0
Cycle Q Clear(g_c), s	12.4	19.4	19.4	1.9	18.0	3.8	1.8	6.1	6.3	5.1	11.3	13.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	611	1446	757	174	1061	472	172	707	363	297	866	379
V/C Ratio(X)	0.86	0.67	0.67	0.46	0.78	0.20	0.45	0.40	0.42	0.73	0.62	0.69
Avail Cap(c_a), veh/h	755	1887	988	238	1439	640	222	1455	748	468	1742	761
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	20.1	20.1	39.5	27.7	22.7	39.6	29.5	29.6	38.2	29.0	29.6
Incr Delay (d2), s/veh	7.1	0.6	1.1	0.7	2.0	0.2	0.7	0.4	0.8	1.3	0.7	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	7.0	7.5	0.8	7.4	1.4	0.8	2.5	2.7	2.1	4.7	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	20.7	21.2	40.2	29.6	22.9	40.2	29.9	30.4	39.5	29.7	31.9
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		2000			1002			513			1014	
Approach Delay, s/veh		26.3			29.8			31.6			32.4	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	41.6	8.8	26.3	19.5	30.9	11.8	23.3
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.8	46.7	5.4	41.3	18.4	34.1	11.4	* 36
Max Q Clear Time (g_c+I1), s	3.9	21.4	3.8	15.0	14.4	20.0	7.1	8.3
Green Ext Time (p_c), s	0.0	10.7	0.0	4.3	0.5	4.7	0.1	2.8

Intersection Summary	
HCM 6th Ctrl Delay	29.0
HCM 6th LOS	C

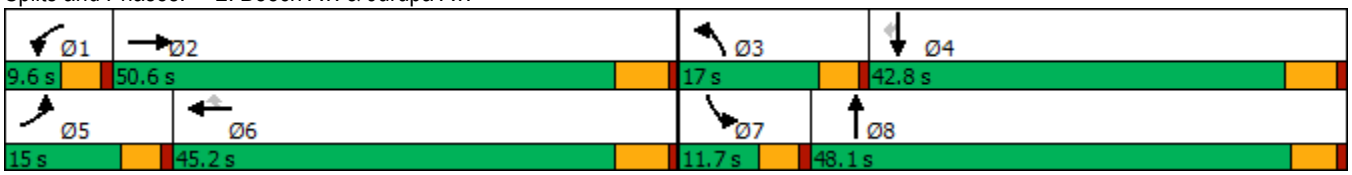
Notes

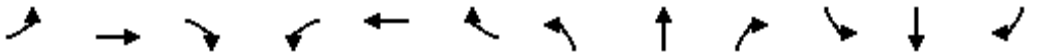
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	186	1427	35	850	39	110	49	86	61	92
Future Volume (vph)	186	1427	35	850	39	110	49	86	61	92
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	5	2	1	6		3	8	7	4	
Permitted Phases					6					4
Detector Phase	5	2	1	6	6	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	30.8	9.6	44.8	44.8	9.6	46.4	9.6	42.8	42.8
Total Split (s)	15.0	50.6	9.6	45.2	45.2	17.0	48.1	11.7	42.8	42.8
Total Split (%)	12.5%	42.2%	8.0%	37.7%	37.7%	14.2%	40.1%	9.8%	35.7%	35.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 86.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 2: Beech Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	1427	236	35	850	39	110	49	25	86	61	92
Future Volume (veh/h)	186	1427	236	35	850	39	110	49	25	86	61	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	198	1518	228	37	904	38	117	52	21	91	65	47
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	289	2117	317	126	2173	674	150	391	149	117	488	217
Arrive On Green	0.08	0.47	0.47	0.04	0.42	0.42	0.08	0.15	0.15	0.06	0.14	0.14
Sat Flow, veh/h	3510	4553	683	3510	5187	1610	1810	2555	974	1810	3610	1610
Grp Volume(v), veh/h	198	1152	594	37	904	38	117	36	37	91	65	47
Grp Sat Flow(s),veh/h/ln	1755	1729	1777	1755	1729	1610	1810	1805	1725	1810	1805	1610
Q Serve(g_s), s	4.1	19.8	19.9	0.8	9.1	1.0	4.7	1.3	1.4	3.7	1.2	1.9
Cycle Q Clear(g_c), s	4.1	19.8	19.9	0.8	9.1	1.0	4.7	1.3	1.4	3.7	1.2	1.9
Prop In Lane	1.00		0.38	1.00		1.00	1.00		0.56	1.00		1.00
Lane Grp Cap(c), veh/h	289	1608	827	126	2173	674	150	276	264	117	488	217
V/C Ratio(X)	0.69	0.72	0.72	0.29	0.42	0.06	0.78	0.13	0.14	0.78	0.13	0.22
Avail Cap(c_a), veh/h	493	2092	1075	237	2760	857	303	1048	1001	173	1804	805
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	15.9	15.9	34.8	15.1	12.8	33.3	27.1	27.1	34.1	28.2	28.5
Incr Delay (d2), s/veh	1.1	0.8	1.6	0.5	0.1	0.0	3.3	0.2	0.2	6.2	0.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.6	7.0	0.3	3.1	0.3	2.1	0.5	0.6	1.7	0.5	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	16.7	17.5	35.2	15.3	12.8	36.6	27.3	27.4	40.3	28.3	29.0
LnGrp LOS	C	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		1944			979			190			203	
Approach Delay, s/veh		18.7			15.9			33.0			33.9	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	40.2	10.7	15.8	10.7	36.8	9.4	17.1
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	* 5.8
Max Green Setting (Gmax), s	5.0	44.8	12.4	37.0	10.4	39.4	7.1	* 43
Max Q Clear Time (g_c+I1), s	2.8	21.9	6.7	3.9	6.1	11.1	5.7	3.4
Green Ext Time (p_c), s	0.0	12.6	0.1	0.5	0.1	6.5	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

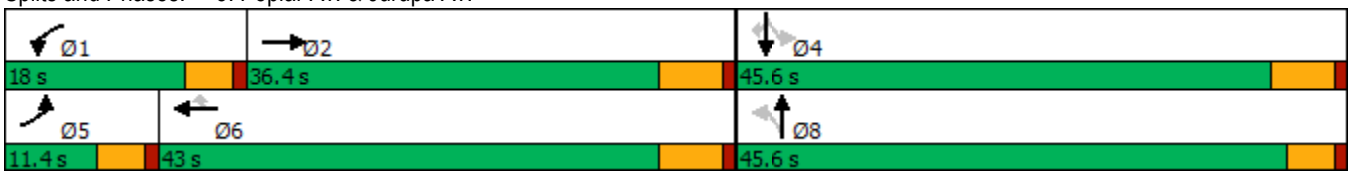
Notes

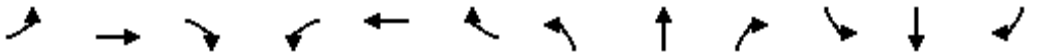
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	54	1445	195	794	49	57	43	66	97	64
Future Volume (vph)	54	1445	195	794	49	57	43	66	97	64
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.8	9.6	36.8	36.8	45.6	45.6	41.8	41.8	41.8
Total Split (s)	11.4	36.4	18.0	43.0	43.0	45.6	45.6	45.6	45.6	45.6
Total Split (%)	11.4%	36.4%	18.0%	43.0%	43.0%	45.6%	45.6%	45.6%	45.6%	45.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 74.8
Natural Cycle: 95
Control Type: Actuated-Uncoordinated

Splits and Phases: 3: Poplar Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	1445	89	195	794	49	57	43	132	66	97	64
Future Volume (veh/h)	54	1445	89	195	794	49	57	43	132	66	97	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	55	1474	80	199	810	47	58	44	84	67	99	51
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	2090	113	248	2603	807	283	313	280	286	330	279
Arrive On Green	0.05	0.42	0.42	0.14	0.50	0.50	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1810	5035	273	1810	5187	1609	1256	1805	1610	1282	1900	1607
Grp Volume(v), veh/h	55	1012	542	199	810	47	58	44	84	67	99	51
Grp Sat Flow(s),veh/h/ln	1810	1729	1850	1810	1729	1609	1256	1805	1610	1282	1900	1607
Q Serve(g_s), s	1.8	14.3	14.3	6.3	5.4	0.9	2.5	1.2	2.7	2.8	2.7	1.6
Cycle Q Clear(g_c), s	1.8	14.3	14.3	6.3	5.4	0.9	5.2	1.2	2.7	5.5	2.7	1.6
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	1435	768	248	2603	807	283	313	280	286	330	279
V/C Ratio(X)	0.60	0.71	0.71	0.80	0.31	0.06	0.21	0.14	0.30	0.23	0.30	0.18
Avail Cap(c_a), veh/h	208	1791	958	411	3267	1013	936	1253	1118	928	1280	1083
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	14.3	14.3	24.7	8.7	7.6	23.5	20.7	21.3	23.7	21.3	20.8
Incr Delay (d2), s/veh	2.4	0.9	1.8	2.3	0.1	0.0	0.4	0.2	0.6	0.4	0.5	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	0.7	4.5	5.0	2.5	1.5	0.2	0.7	0.5	1.0	0.8	1.1	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	15.2	16.1	27.0	8.8	7.6	23.9	20.9	21.9	24.1	21.8	21.1
LnGrp LOS	C	B	B	C	A	A	C	C	C	C	C	C
Approach Vol, veh/h		1609			1056			186			217	
Approach Delay, s/veh		16.0			12.1			22.3			22.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	30.3		16.1	7.6	35.4		16.1				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	13.4	30.6		39.8	6.8	37.2		* 41				
Max Q Clear Time (g_c+I1), s	8.3	16.3		7.5	3.8	7.4		7.2				
Green Ext Time (p_c), s	0.1	8.2		0.8	0.0	5.8		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		15.5	
HCM 6th LOS		B	

Notes

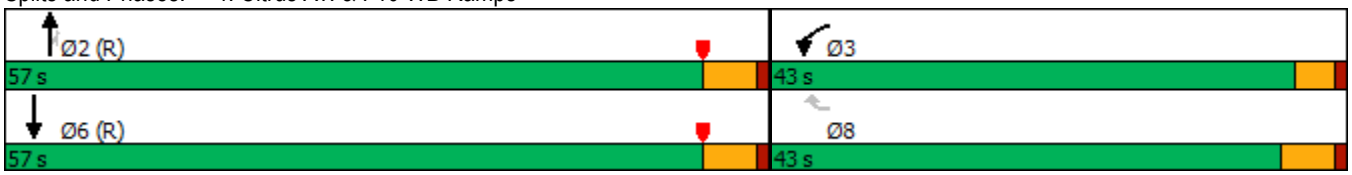
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

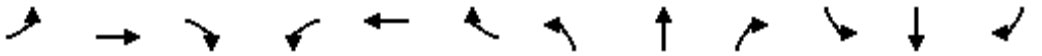
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	345	485	1393	451	951	437
Future Volume (vph)	345	485	1393	451	951	437
Turn Type	Prot	Perm	NA	Perm	NA	Free
Protected Phases	3		2		6	
Permitted Phases		8		2		Free
Detector Phase	3	8	2	2	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.6	26.6	26.6	26.6	26.6	
Total Split (s)	43.0	43.0	57.0	57.0	57.0	
Total Split (%)	43.0%	43.0%	57.0%	57.0%	57.0%	
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	5.0	5.0	5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated

Splits and Phases: 4: Citrus Av. & I-10 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	345	0	485	0	1393	451	0	951	437
Future Volume (veh/h)	0	0	0	345	0	485	0	1393	451	0	951	437
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	0	1900	0	1900	1900	0	1900	1900
Adj Flow Rate, veh/h				363	0	385	0	1466	440	0	1001	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				410	0	642	0	3544	1097	0	2467	
Arrive On Green				0.23	0.00	0.23	0.00	1.00	0.68	0.00	0.68	0.00
Sat Flow, veh/h				1810	0	2834	0	5358	1605	0	3705	1610
Grp Volume(v), veh/h				363	0	385	0	1466	440	0	1001	0
Grp Sat Flow(s),veh/h/ln				1810	0	1417	0	1729	1605	0	1805	1610
Q Serve(g_s), s				19.4	0.0	12.2	0.0	0.0	12.0	0.0	12.1	0.0
Cycle Q Clear(g_c), s				19.4	0.0	12.2	0.0	0.0	12.0	0.0	12.1	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				410	0	642	0	3544	1097	0	2467	
V/C Ratio(X)				0.89	0.00	0.60	0.00	0.41	0.40	0.00	0.41	
Avail Cap(c_a), veh/h				706	0	1105	0	3544	1097	0	2467	
HCM Platoon Ratio				1.00	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	0.55	0.55	0.00	1.00	0.00
Uniform Delay (d), s/veh				37.4	0.0	34.6	0.0	0.0	6.9	0.0	6.9	0.0
Incr Delay (d2), s/veh				3.4	0.0	0.3	0.0	0.2	0.6	0.0	0.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.5	0.0	4.0	0.0	0.1	3.4	0.0	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				40.8	0.0	34.9	0.0	0.2	7.5	0.0	7.4	0.0
LnGrp LOS				D	A	C	A	A	A	A	A	
Approach Vol, veh/h					748			1906			1001	A
Approach Delay, s/veh					37.8			1.9			7.4	
Approach LOS					D			A			A	

Timer - Assigned Phs	2		6		8			
Phs Duration (G+Y+Rc), s	73.3		73.3		26.7			
Change Period (Y+Rc), s	5.0		5.0		4.0			
Max Green Setting (Gmax), s	52.0		52.0		39.0			
Max Q Clear Time (g_c+I1), s	14.0		14.1		21.4			
Green Ext Time (p_c), s	9.2		4.7		1.3			

Intersection Summary		
HCM 6th Ctrl Delay	10.8	
HCM 6th LOS	B	

Notes

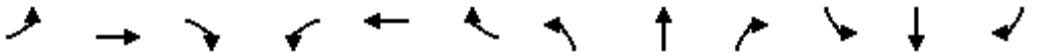
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Configurations					
Traffic Volume (vph)	485	11	1359	451	845
Future Volume (vph)	485	11	1359	451	845
Turn Type	Split	NA	NA	Prot	NA
Protected Phases	4	4	2	1	6
Permitted Phases					
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	10.0	25.0	9.0	10.0
Total Split (s)	26.0	26.0	51.0	23.0	74.0
Total Split (%)	26.0%	26.0%	51.0%	23.0%	74.0%
Yellow Time (s)	4.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	4.0	5.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	C-Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: Citrus Av. & I-10 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	485	11	281	0	0	0	0	1359	529	451	845	0
Future Volume (veh/h)	485	11	281	0	0	0	0	1359	529	451	845	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	505	11	218				0	1416	370	470	880	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	595	13	262				0	2208	574	532	2637	0
Arrive On Green	0.17	0.17	0.17				0.00	0.54	0.54	0.30	1.00	0.00
Sat Flow, veh/h	3510	78	1544				0	4268	1066	3510	3705	0
Grp Volume(v), veh/h	505	0	229				0	1194	592	470	880	0
Grp Sat Flow(s),veh/h/ln	1755	0	1622				0	1729	1705	1755	1805	0
Q Serve(g_s), s	14.0	0.0	13.7				0.0	24.3	24.5	12.7	0.0	0.0
Cycle Q Clear(g_c), s	14.0	0.0	13.7				0.0	24.3	24.5	12.7	0.0	0.0
Prop In Lane	1.00		0.95				0.00		0.63	1.00		0.00
Lane Grp Cap(c), veh/h	595	0	275				0	1863	919	532	2637	0
V/C Ratio(X)	0.85	0.00	0.83				0.00	0.64	0.64	0.88	0.33	0.00
Avail Cap(c_a), veh/h	737	0	341				0	1863	919	667	2637	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.49	0.49	0.84	0.84	0.00
Uniform Delay (d), s/veh	40.3	0.0	40.2				0.0	16.2	16.3	34.0	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.0	11.3				0.0	0.8	1.7	8.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	6.1				0.0	8.7	8.8	5.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	0.0	51.4				0.0	17.1	18.0	42.4	0.3	0.0
LnGrp LOS	D	A	D				A	B	B	D	A	A
Approach Vol, veh/h		734						1786			1350	
Approach Delay, s/veh		48.2						17.4			15.0	
Approach LOS		D						B			B	

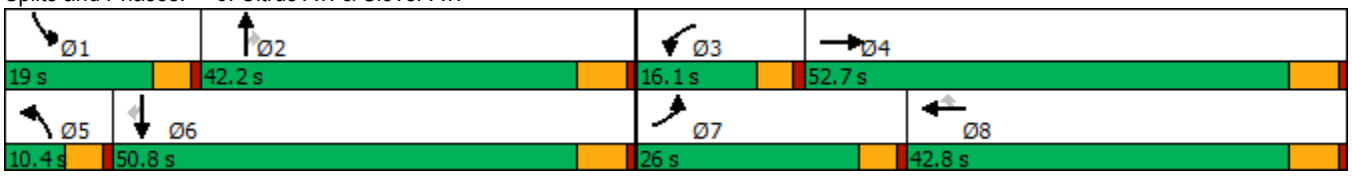
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.2	58.9		22.0		78.0						
Change Period (Y+Rc), s	4.0	5.0		5.0		5.0						
Max Green Setting (Gmax), s	19.0	46.0		21.0		69.0						
Max Q Clear Time (g_c+I1), s	14.7	26.5		16.0		2.0						
Green Ext Time (p_c), s	0.4	8.2		1.0		4.0						

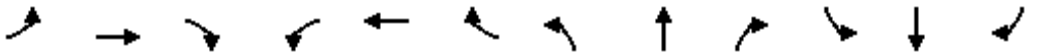
Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	634	989	117	327	298	78	956	157	324	515	287
Future Volume (vph)	634	989	117	327	298	78	956	157	324	515	287
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	37.8	9.6	42.8	42.8	9.6	41.8	41.8	9.6	35.8	35.8
Total Split (s)	26.0	52.7	16.1	42.8	42.8	10.4	42.2	42.2	19.0	50.8	50.8
Total Split (%)	20.0%	40.5%	12.4%	32.9%	32.9%	8.0%	32.5%	32.5%	14.6%	39.1%	39.1%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary
Cycle Length: 130
Actuated Cycle Length: 118.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	634	989	46	117	327	298	78	956	157	324	515	287
Future Volume (veh/h)	634	989	46	117	327	298	78	956	157	324	515	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	660	1030	48	122	341	266	81	996	100	338	536	208
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	683	1202	56	150	833	371	95	1321	408	237	632	536
Arrive On Green	0.19	0.34	0.34	0.08	0.23	0.23	0.05	0.25	0.25	0.13	0.33	0.33
Sat Flow, veh/h	3510	3509	164	1810	3610	1608	1810	5187	1601	1810	1900	1610
Grp Volume(v), veh/h	660	530	548	122	341	266	81	996	100	338	536	208
Grp Sat Flow(s),veh/h/ln	1755	1805	1868	1810	1805	1608	1810	1729	1601	1810	1900	1610
Q Serve(g_s), s	20.5	30.0	30.0	7.3	8.8	16.8	4.9	19.5	5.5	14.4	28.8	10.9
Cycle Q Clear(g_c), s	20.5	30.0	30.0	7.3	8.8	16.8	4.9	19.5	5.5	14.4	28.8	10.9
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	683	618	640	150	833	371	95	1321	408	237	632	536
V/C Ratio(X)	0.97	0.86	0.86	0.82	0.41	0.72	0.85	0.75	0.25	1.43	0.85	0.39
Avail Cap(c_a), veh/h	683	770	797	189	1215	541	95	1717	530	237	777	659
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	33.6	33.6	49.6	35.9	39.0	51.7	37.8	32.6	47.8	34.1	28.1
Incr Delay (d2), s/veh	26.0	7.9	7.7	15.5	0.3	2.6	45.7	1.4	0.3	214.7	7.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	13.8	14.2	3.8	3.8	6.6	3.4	8.1	2.1	20.4	13.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	70.0	41.6	41.3	65.1	36.3	41.6	97.4	39.2	32.9	262.5	41.4	28.6
LnGrp LOS	E	D	D	E	D	D	F	D	C	F	D	C
Approach Vol, veh/h		1738			729			1177			1082	
Approach Delay, s/veh		52.3			43.0			42.7			108.0	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	33.8	13.7	43.5	10.4	42.4	26.0	31.2
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	14.4	36.4	11.5	46.9	5.8	45.0	21.4	37.0
Max Q Clear Time (g_c+I1), s	16.4	21.5	9.3	32.0	6.9	30.8	22.5	18.8
Green Ext Time (p_c), s	0.0	5.9	0.0	5.6	0.0	3.3	0.0	2.7

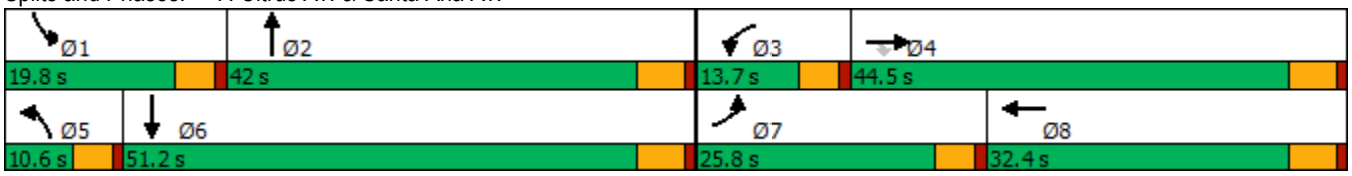
Intersection Summary	
HCM 6th Ctrl Delay	61.2
HCM 6th LOS	E

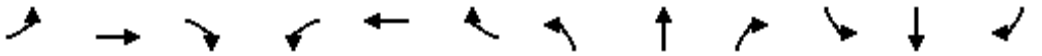
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	194	119	61	55	114	32	763	130	458
Future Volume (vph)	194	119	61	55	114	32	763	130	458
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	32.4	32.4	9.6	32.4	9.6	32.4	9.6	35.4
Total Split (s)	25.8	44.5	44.5	13.7	32.4	10.6	42.0	19.8	51.2
Total Split (%)	21.5%	37.1%	37.1%	11.4%	27.0%	8.8%	35.0%	16.5%	42.7%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	4.4	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 90.4
Natural Cycle: 90
Control Type: Actuated-Uncoordinated

Splits and Phases: 7: Citrus Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	194	119	61	55	114	262	32	763	113	130	458	55
Future Volume (veh/h)	194	119	61	55	114	262	32	763	113	130	458	55
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	206	127	44	59	121	259	34	812	111	138	487	50
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	247	561	468	82	368	324	60	1017	139	173	1261	129
Arrive On Green	0.14	0.30	0.30	0.05	0.20	0.20	0.03	0.32	0.32	0.10	0.38	0.38
Sat Flow, veh/h	1810	1900	1586	1810	1805	1589	1810	3190	436	1810	3306	338
Grp Volume(v), veh/h	206	127	44	59	121	259	34	459	464	138	265	272
Grp Sat Flow(s),veh/h/ln	1810	1900	1586	1810	1805	1589	1810	1805	1822	1810	1805	1839
Q Serve(g_s), s	9.1	4.1	1.6	2.6	4.7	12.6	1.5	19.0	19.0	6.1	8.7	8.8
Cycle Q Clear(g_c), s	9.1	4.1	1.6	2.6	4.7	12.6	1.5	19.0	19.0	6.1	8.7	8.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.18
Lane Grp Cap(c), veh/h	247	561	468	82	368	324	60	575	580	173	689	702
V/C Ratio(X)	0.83	0.23	0.09	0.72	0.33	0.80	0.57	0.80	0.80	0.80	0.38	0.39
Avail Cap(c_a), veh/h	470	910	760	202	597	526	133	810	817	337	1013	1032
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	21.7	20.8	38.4	27.7	30.9	38.9	25.4	25.4	36.1	18.3	18.3
Incr Delay (d2), s/veh	2.8	0.2	0.1	4.4	0.5	4.6	3.2	3.8	3.8	3.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.8	0.6	1.2	2.0	5.0	0.7	8.1	8.1	2.7	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.2	21.9	20.9	42.9	28.2	35.4	42.1	29.2	29.2	39.2	18.6	18.7
LnGrp LOS	D	C	C	D	C	D	D	C	C	D	B	B
Approach Vol, veh/h		377			439			957			675	
Approach Delay, s/veh		30.1			34.5			29.7			22.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.4	31.4	8.3	29.5	7.3	36.5	15.7	22.0
Change Period (Y+Rc), s	4.6	5.4	4.6	5.4	4.6	5.4	4.6	5.4
Max Green Setting (Gmax), s	15.2	36.6	9.1	39.1	6.0	45.8	21.2	27.0
Max Q Clear Time (g_c+I1), s	8.1	21.0	4.6	6.1	3.5	10.8	11.1	14.6
Green Ext Time (p_c), s	0.1	5.0	0.0	0.8	0.0	3.2	0.2	1.7

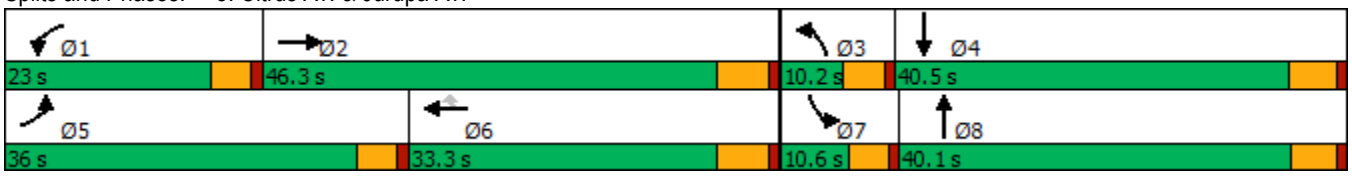
Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

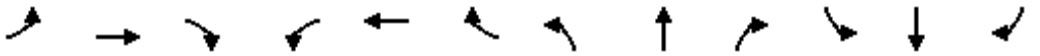
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	492	1010	158	727	188	21	168	137	237
Future Volume (vph)	492	1010	158	727	188	21	168	137	237
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	36.0	46.3	23.0	33.3	33.3	10.2	40.1	10.6	40.5
Total Split (%)	30.0%	38.6%	19.2%	27.8%	27.8%	8.5%	33.4%	8.8%	33.8%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	492	1010	58	158	727	188	21	168	106	137	237	179
Future Volume (veh/h)	492	1010	58	158	727	188	21	168	106	137	237	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	535	1098	48	172	790	130	23	183	92	149	258	165
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	575	2174	95	211	1171	363	45	302	145	135	381	235
Arrive On Green	0.32	0.43	0.43	0.12	0.23	0.23	0.02	0.13	0.13	0.07	0.18	0.18
Sat Flow, veh/h	1810	5095	223	1810	5187	1610	1810	2361	1136	1810	2143	1324
Grp Volume(v), veh/h	535	745	401	172	790	130	23	138	137	149	216	207
Grp Sat Flow(s),veh/h/ln	1810	1729	1859	1810	1729	1610	1810	1805	1692	1810	1805	1662
Q Serve(g_s), s	23.0	12.7	12.7	7.5	11.2	5.5	1.0	5.8	6.2	6.0	9.0	9.4
Cycle Q Clear(g_c), s	23.0	12.7	12.7	7.5	11.2	5.5	1.0	5.8	6.2	6.0	9.0	9.4
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.67	1.00		0.80
Lane Grp Cap(c), veh/h	575	1476	793	211	1171	363	45	231	217	135	321	295
V/C Ratio(X)	0.93	0.50	0.51	0.81	0.67	0.36	0.51	0.60	0.63	1.10	0.67	0.70
Avail Cap(c_a), veh/h	707	1743	937	414	1775	551	126	786	737	135	788	726
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	16.8	16.8	34.6	28.4	26.2	38.7	33.1	33.2	37.2	30.9	31.0
Incr Delay (d2), s/veh	15.5	0.3	0.5	2.9	0.7	0.6	3.3	2.5	3.0	107.7	2.5	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	4.4	4.8	3.2	4.3	2.1	0.5	2.6	2.6	6.6	3.9	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	17.1	17.3	37.5	29.1	26.8	42.0	35.5	36.3	144.9	33.3	34.1
LnGrp LOS	D	B	B	D	C	C	D	D	D	F	C	C
Approach Vol, veh/h		1681			1092			298			572	
Approach Delay, s/veh		25.1			30.2			36.4			62.7	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	40.1	6.6	19.7	30.1	23.9	10.6	15.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	18.4	40.5	5.6	35.1	31.4	27.5	6.0	* 35
Max Q Clear Time (g_c+I1), s	9.5	14.7	3.0	11.4	25.0	13.2	8.0	8.2
Green Ext Time (p_c), s	0.1	7.7	0.0	2.4	0.5	4.7	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑↱			↱
Traffic Vol, veh/h	0	1283	944	280	0	173
Future Vol, veh/h	0	1283	944	280	0	173
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	1395	1026	304	0	188

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	665
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	7.1
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.9
Pot Cap-1 Maneuver	0	-	-	-	0	349
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	349
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	26.7
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	349
HCM Lane V/C Ratio	-	-	-	0.539
HCM Control Delay (s)	-	-	-	26.7
HCM Lane LOS	-	-	-	D
HCM 95th %tile Q(veh)	-	-	-	3

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	7	376	2	18	325
Future Vol, veh/h	4	7	376	2	18	325
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	4	8	409	2	20	353

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	803	410	0	0	411	0
Stage 1	410	-	-	-	-	-
Stage 2	393	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	355	646	-	-	1159	-
Stage 1	674	-	-	-	-	-
Stage 2	686	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	349	646	-	-	1159	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	674	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	567	1159	-
HCM Lane V/C Ratio	-	-	0.021	0.017	-
HCM Control Delay (s)	-	-	11.5	8.2	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	7	301	8	3	288
Future Vol, veh/h	21	7	301	8	3	288
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	8	327	9	3	313

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	651	332	0	0	336	0
Stage 1	332	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	436	714	-	-	1235	-
Stage 1	731	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	435	714	-	-	1235	-
Mov Cap-2 Maneuver	534	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	740	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	570	1235	-
HCM Lane V/C Ratio	-	-	0.053	0.003	-
HCM Control Delay (s)	-	-	11.7	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	23	7	302	9	3	327
Future Vol, veh/h	23	7	302	9	3	327
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	8	328	10	3	355

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	694	333	0	0	338	0
Stage 1	333	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	412	713	-	-	1232	-
Stage 1	731	-	-	-	-	-
Stage 2	710	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	411	713	-	-	1232	-
Mov Cap-2 Maneuver	516	-	-	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	709	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	552	1232	-
HCM Lane V/C Ratio	-	-	0.059	0.003	-
HCM Control Delay (s)	-	-	11.9	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	3	307	3	1	349
Future Vol, veh/h	9	3	307	3	1	349
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	3	334	3	1	379

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	717	336	0	0	337	0
Stage 1	336	-	-	-	-	-
Stage 2	381	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	399	711	-	-	1234	-
Stage 1	728	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	399	711	-	-	1234	-
Mov Cap-2 Maneuver	506	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	694	-	-	-	-	-

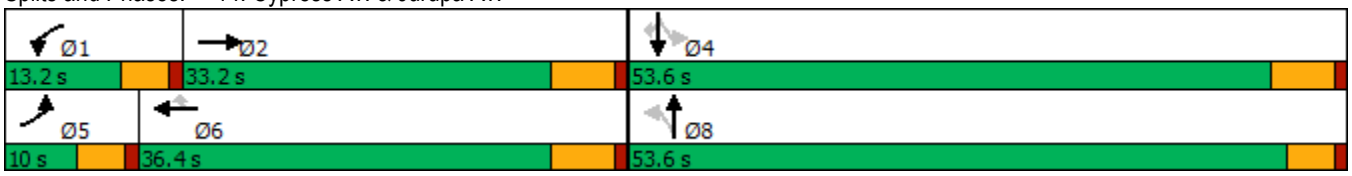
Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

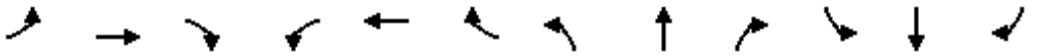
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	545	1234	-
HCM Lane V/C Ratio	-	-	0.024	0.001	-
HCM Control Delay (s)	-	-	11.8	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	166	1164	137	775	78	11	66	128	57	172
Future Volume (vph)	166	1164	137	775	78	11	66	128	57	172
Turn Type	Prot	NA	Prot	NA	Perm	Perm	NA	Perm	NA	Perm
Protected Phases	5	2	1	6			8		4	
Permitted Phases					6	8		4		4
Detector Phase	5	2	1	6	6	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	35.8	35.8	53.6	53.6	36.8	36.8	36.8
Total Split (s)	10.0	33.2	13.2	36.4	36.4	53.6	53.6	53.6	53.6	53.6
Total Split (%)	10.0%	33.2%	13.2%	36.4%	36.4%	53.6%	53.6%	53.6%	53.6%	53.6%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	4.6	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes					
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min
Act Effct Green (s)	5.7	24.1	9.1	27.5	27.5	18.2	18.2	17.0	17.0	17.0
Actuated g/C Ratio	0.08	0.36	0.14	0.41	0.41	0.27	0.27	0.25	0.25	0.25
v/c Ratio	1.16	0.68	0.60	0.39	0.12	0.03	0.28	0.43	0.13	0.34
Control Delay	157.7	22.5	44.5	16.5	5.6	16.5	10.5	24.5	18.8	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	157.7	22.5	44.5	16.5	5.6	16.5	10.5	24.5	18.8	4.7
LOS	F	C	D	B	A	B	B	C	B	A
Approach Delay		39.1		19.5			10.9		14.0	
Approach LOS		D		B			B		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 67.2	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 27.7	Intersection LOS: C
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 14: Cypress Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	166	1164	27	137	775	78	11	66	75	128	57	172
Future Volume (veh/h)	166	1164	27	137	775	78	11	66	75	128	57	172
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	177	1238	25	146	824	62	12	70	45	136	61	149
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	189	1925	39	188	1903	591	364	232	149	348	408	346
Arrive On Green	0.10	0.37	0.37	0.10	0.37	0.37	0.21	0.21	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	5233	106	1810	5187	1610	1190	1080	695	1298	1900	1610
Grp Volume(v), veh/h	177	818	445	146	824	62	12	0	115	136	61	149
Grp Sat Flow(s),veh/h/ln	1810	1729	1881	1810	1729	1610	1190	0	1775	1298	1900	1610
Q Serve(g_s), s	5.0	10.1	10.1	4.1	6.2	1.3	0.4	0.0	2.8	5.1	1.3	4.1
Cycle Q Clear(g_c), s	5.0	10.1	10.1	4.1	6.2	1.3	1.8	0.0	2.8	7.9	1.3	4.1
Prop In Lane	1.00		0.06	1.00		1.00	1.00		0.39	1.00		1.00
Lane Grp Cap(c), veh/h	189	1272	692	188	1903	591	364	0	381	348	408	346
V/C Ratio(X)	0.94	0.64	0.64	0.78	0.43	0.10	0.03	0.00	0.30	0.39	0.15	0.43
Avail Cap(c_a), veh/h	189	1836	998	301	3075	955	1238	0	1685	1271	1759	1491
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	1.00	1.00
Uniform Delay (d), s/veh	22.9	13.5	13.5	22.6	12.3	10.8	17.2	0.0	17.0	20.3	16.4	17.5
Incr Delay (d2), s/veh	46.5	0.5	1.0	2.6	0.2	0.1	0.0	0.0	0.4	0.7	0.2	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	4.3	3.0	3.4	1.6	1.8	0.4	0.1	0.0	1.1	1.4	0.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	69.4	14.1	14.5	25.2	12.5	10.8	17.2	0.0	17.5	21.0	16.6	18.4
LnGrp LOS	E	B	B	C	B	B	B	A	B	C	B	B
Approach Vol, veh/h		1440			1032			127			346	
Approach Delay, s/veh		21.0			14.2			17.4			19.1	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	24.8		16.9	10.0	24.7		16.9				
Change Period (Y+Rc), s	4.6	5.8		5.8	4.6	5.8		* 5.8				
Max Green Setting (Gmax), s	8.6	27.4		47.8	5.4	30.6		* 49				
Max Q Clear Time (g_c+I1), s	6.1	12.1		9.9	7.0	8.2		4.8				
Green Ext Time (p_c), s	0.0	6.9		1.2	0.0	5.6		0.8				

Intersection Summary		
HCM 6th Ctrl Delay		18.2
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	57.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	484	39	87	383	60	49	76	112	71	61	7
Future Vol, veh/h	10	484	39	87	383	60	49	76	112	71	61	7
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	544	44	98	430	67	55	85	126	80	69	8
Number of Lanes	0	1	0	0	2	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	124.5	20.7	14.6	16.6
HCM LOS	F	C	B	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	39%	0%	2%	31%	0%	54%	0%
Vol Thru, %	61%	0%	91%	69%	76%	46%	0%
Vol Right, %	0%	100%	7%	0%	24%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	112	533	279	252	132	7
LT Vol	49	0	10	87	0	71	0
Through Vol	76	0	484	192	192	61	0
RT Vol	0	112	39	0	60	0	7
Lane Flow Rate	140	126	599	313	283	148	8
Geometry Grp	7	7	6	7	7	7	7
Degree of Util (X)	0.323	0.258	1.18	0.631	0.545	0.355	0.017
Departure Headway (Hd)	8.822	7.887	7.096	7.662	7.329	9.189	8.175
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	410	458	509	476	495	395	440
Service Time	6.522	5.587	5.177	5.362	5.029	6.889	5.875
HCM Lane V/C Ratio	0.341	0.275	1.177	0.658	0.572	0.375	0.018
HCM Control Delay	15.7	13.3	124.5	22.6	18.5	16.9	11
HCM Lane LOS	C	B	F	C	C	C	B
HCM 95th-tile Q	1.4	1	21.6	4.3	3.2	1.6	0.1

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	13	2	1	202	150	5
Future Vol, veh/h	13	2	1	202	150	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	14	2	1	220	163	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	388	166	168	0	-	0
Stage 1	166	-	-	-	-	-
Stage 2	222	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	619	884	1422	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	618	884	1422	-	-	-
Mov Cap-2 Maneuver	618	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	820	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1422	-	644	-	-
HCM Lane V/C Ratio	0.001	-	0.025	-	-
HCM Control Delay (s)	7.5	0	10.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	19	7	194	149	3
Future Vol, veh/h	9	19	7	194	149	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	10	21	8	211	162	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	391	164	165	0	-	0
Stage 1	164	-	-	-	-	-
Stage 2	227	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	617	886	1426	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	613	886	1426	-	-	-
Mov Cap-2 Maneuver	613	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1426	-	775	-	-
HCM Lane V/C Ratio	0.005	-	0.039	-	-
HCM Control Delay (s)	7.5	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	20	7	191	164	4
Future Vol, veh/h	10	20	7	191	164	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	11	22	8	208	178	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	404	180	182	0	-	0
Stage 1	180	-	-	-	-	-
Stage 2	224	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	606	868	1405	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	818	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	602	868	1405	-	-	-
Mov Cap-2 Maneuver	602	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	818	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1405	-	757	-	-
HCM Lane V/C Ratio	0.005	-	0.043	-	-
HCM Control Delay (s)	7.6	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	20	7	210	213	3
Future Vol, veh/h	8	20	7	210	213	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	22	8	228	232	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	478	234	235	0	-	0
Stage 1	234	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	550	810	1344	-	-	-
Stage 1	810	-	-	-	-	-
Stage 2	801	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	546	810	1344	-	-	-
Mov Cap-2 Maneuver	546	-	-	-	-	-
Stage 1	804	-	-	-	-	-
Stage 2	801	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1344	-	712	-	-
HCM Lane V/C Ratio	0.006	-	0.043	-	-
HCM Control Delay (s)	7.7	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	5	2	210	230	3
Future Vol, veh/h	8	5	2	210	230	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	5	2	228	250	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	484	252	253	0	-	0
Stage 1	252	-	-	-	-	-
Stage 2	232	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	545	792	1324	-	-	-
Stage 1	795	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	544	792	1324	-	-	-
Mov Cap-2 Maneuver	544	-	-	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	811	-	-	-	-	-

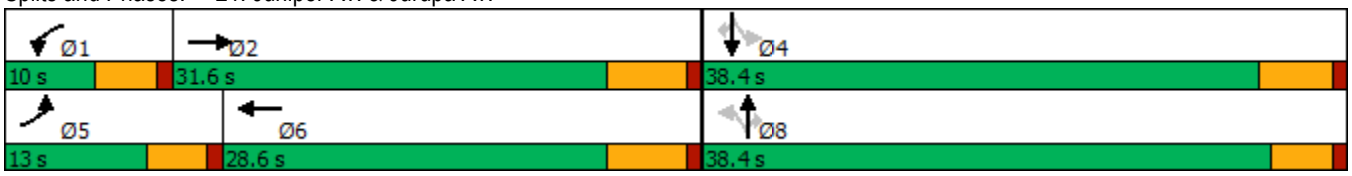
Approach	EB	NB	SB
HCM Control Delay, s	11	0.1	0
HCM LOS	B		

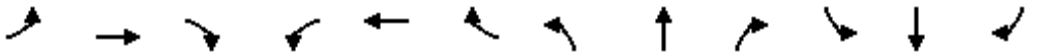
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1324	-	618	-	-
HCM Lane V/C Ratio	0.002	-	0.023	-	-
HCM Control Delay (s)	7.7	0	11	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	110	1258	32	860	8	17	6	93	25	117
Future Volume (vph)	110	1258	32	860	8	17	6	93	25	117
Turn Type	Prot	NA	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	5	2	1	6		8			4	
Permitted Phases					8		8	4		4
Detector Phase	5	2	1	6	8	8	8	4	4	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	37.6	37.6	37.6	38.4	38.4	38.4
Total Split (s)	13.0	31.6	10.0	28.6	38.4	38.4	38.4	38.4	38.4	38.4
Total Split (%)	16.3%	39.5%	12.5%	35.8%	48.0%	48.0%	48.0%	48.0%	48.0%	48.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	3.6	4.4	4.4	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8		4.6	4.6		5.4	5.4
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	7.7	25.4	5.6	19.0		15.1	15.1		14.3	14.3
Actuated g/C Ratio	0.14	0.46	0.10	0.35		0.28	0.28		0.26	0.26
v/c Ratio	0.47	0.57	0.19	0.58		0.06	0.01		0.35	0.25
Control Delay	34.0	14.3	31.7	17.6		16.1	0.0		20.7	5.1
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	34.0	14.3	31.7	17.6		16.1	0.0		20.7	5.1
LOS	C	B	C	B		B	A		C	A
Approach Delay		15.9		18.1		12.8			12.9	
Approach LOS		B		B		B			B	

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 54.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 16.4	Intersection LOS: B
Intersection Capacity Utilization 56.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 21: Juniper Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	1258	6	32	860	84	8	17	6	93	25	117
Future Volume (veh/h)	110	1258	6	32	860	84	8	17	6	93	25	117
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	120	1367	7	35	935	86	9	18	4	101	27	81
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	155	2139	11	71	1716	157	183	305	359	386	88	357
Arrive On Green	0.09	0.40	0.40	0.04	0.35	0.35	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1810	5326	27	1810	4833	443	364	1368	1610	1118	396	1604
Grp Volume(v), veh/h	120	888	486	35	668	353	27	0	4	128	0	81
Grp Sat Flow(s),veh/h/ln	1810	1729	1895	1810	1729	1819	1733	0	1610	1513	0	1604
Q Serve(g_s), s	3.0	9.7	9.7	0.9	7.3	7.3	0.0	0.0	0.1	2.7	0.0	1.9
Cycle Q Clear(g_c), s	3.0	9.7	9.7	0.9	7.3	7.3	0.5	0.0	0.1	3.3	0.0	1.9
Prop In Lane	1.00		0.01	1.00		0.24	0.33		1.00	0.79		1.00
Lane Grp Cap(c), veh/h	155	1389	761	71	1227	646	488	0	359	474	0	357
V/C Ratio(X)	0.77	0.64	0.64	0.50	0.54	0.55	0.06	0.00	0.01	0.27	0.00	0.23
Avail Cap(c_a), veh/h	324	1901	1042	208	1680	883	1308	0	1160	1191	0	1128
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	11.3	11.3	22.1	12.1	12.1	14.4	0.0	14.2	15.4	0.0	14.9
Incr Delay (d2), s/veh	3.1	0.5	0.9	2.0	0.4	0.7	0.0	0.0	0.0	0.3	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.6	2.9	0.4	2.1	2.2	0.2	0.0	0.0	1.0	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	11.8	12.2	24.1	12.5	12.8	14.4	0.0	14.2	15.7	0.0	15.3
LnGrp LOS	C	B	B	C	B	B	B	A	B	B	A	B
Approach Vol, veh/h		1494			1056			31			209	
Approach Delay, s/veh		12.9			13.0			14.4			15.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.4	24.7		15.9	8.6	22.5		15.9				
Change Period (Y+Rc), s	4.6	5.8		5.4	4.6	5.8		* 5.4				
Max Green Setting (Gmax), s	5.4	25.8		33.0	8.4	22.8		* 34				
Max Q Clear Time (g_c+I1), s	2.9	11.7		5.3	5.0	9.3		2.5				
Green Ext Time (p_c), s	0.0	7.2		0.9	0.0	5.2		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		13.2
HCM 6th LOS		B

Notes

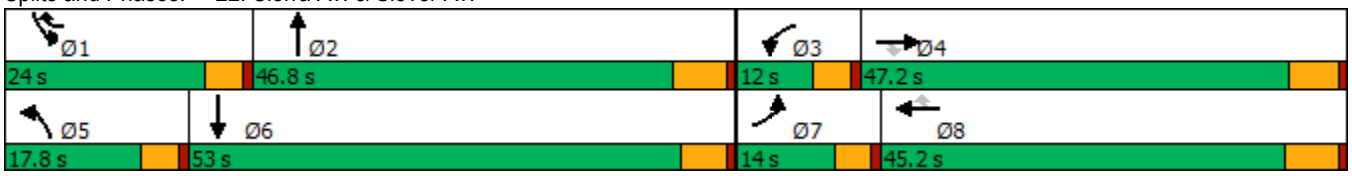
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

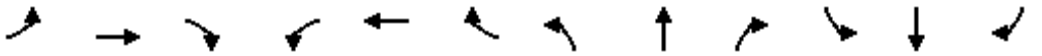
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	291	777	184	281	524	745	281	1615	676	1451
Future Volume (vph)	291	777	184	281	524	745	281	1615	676	1451
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	1	5	2	1	6
Permitted Phases			4			8				
Detector Phase	7	4	4	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	46.8	46.8	9.6	45.2	9.6	9.6	45.2	9.6	39.4
Total Split (s)	14.0	47.2	47.2	12.0	45.2	24.0	17.8	46.8	24.0	53.0
Total Split (%)	10.8%	36.3%	36.3%	9.2%	34.8%	18.5%	13.7%	36.0%	18.5%	40.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	5.2	3.6	3.6	5.2	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	6.2	4.6	4.6	6.2	4.6	5.4
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 122.8
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 22: Sierra Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	777	184	281	524	745	281	1615	257	676	1451	87
Future Volume (veh/h)	291	777	184	281	524	745	281	1615	257	676	1451	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	303	809	128	293	546	378	293	1682	247	704	1511	77
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	271	996	436	214	936	1173	348	1890	278	560	1954	100
Arrive On Green	0.08	0.28	0.28	0.06	0.26	0.26	0.10	0.33	0.33	0.16	0.39	0.39
Sat Flow, veh/h	3510	3610	1580	3510	3610	2781	3510	5793	851	3510	5053	257
Grp Volume(v), veh/h	303	809	128	293	546	378	293	1423	506	704	1034	554
Grp Sat Flow(s),veh/h/ln	1755	1805	1580	1755	1805	1391	1755	1634	1742	1755	1729	1853
Q Serve(g_s), s	9.4	25.4	7.8	7.4	16.1	11.1	10.0	33.5	33.5	19.4	31.8	31.8
Cycle Q Clear(g_c), s	9.4	25.4	7.8	7.4	16.1	11.1	10.0	33.5	33.5	19.4	31.8	31.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.49	1.00		0.14
Lane Grp Cap(c), veh/h	271	996	436	214	936	1173	348	1599	568	560	1337	716
V/C Ratio(X)	1.12	0.81	0.29	1.37	0.58	0.32	0.84	0.89	0.89	1.26	0.77	0.77
Avail Cap(c_a), veh/h	271	1229	538	214	1157	1344	381	1636	582	560	1353	725
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	56.1	41.1	34.7	57.1	39.3	23.8	53.9	38.9	38.9	51.1	32.6	32.6
Incr Delay (d2), s/veh	89.8	3.5	0.4	194.2	0.6	0.2	13.4	6.4	15.5	129.8	2.8	5.1
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	7.4	11.4	2.9	8.9	6.9	3.5	4.9	13.8	16.1	18.4	13.2	14.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	145.9	44.6	35.1	251.3	39.9	23.9	67.2	45.3	54.4	181.0	35.5	37.8
LnGrp LOS	F	D	D	F	D	C	E	D	D	F	D	D
Approach Vol, veh/h		1240			1217			2222			2292	
Approach Delay, s/veh		68.4			85.8			50.3			80.7	
Approach LOS		E			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	45.9	12.0	39.8	16.7	53.2	14.0	37.8
Change Period (Y+Rc), s	4.6	6.2	4.6	* 6.2	4.6	* 6.2	4.6	6.2
Max Green Setting (Gmax), s	19.4	40.6	7.4	* 41	13.2	* 48	9.4	39.0
Max Q Clear Time (g_c+I1), s	21.4	35.5	9.4	27.4	12.0	33.8	11.4	18.1
Green Ext Time (p_c), s	0.0	4.2	0.0	4.7	0.1	8.2	0.0	4.8

Intersection Summary	
HCM 6th Ctrl Delay	69.7
HCM 6th LOS	E

Notes

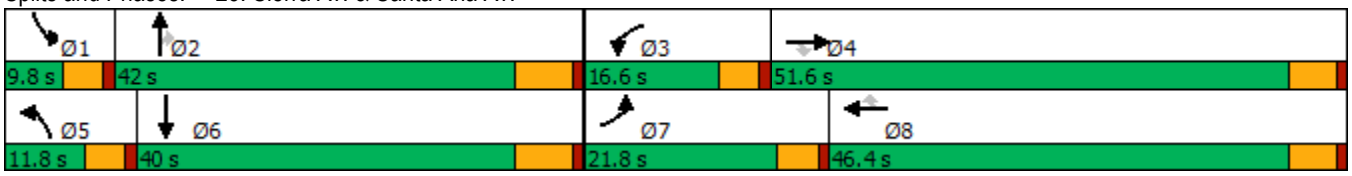
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

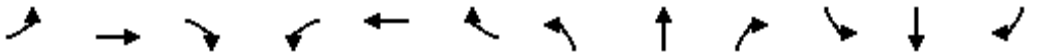
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	310	215	181	92	186	92	210	1794	82	185	1448
Future Volume (vph)	310	215	181	92	186	92	210	1794	82	185	1448
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases			4			8			2		
Detector Phase	7	4	4	3	8	8	5	2	2	1	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	9.6	47.4	47.4	9.6	46.4	46.4	9.6	37.2	37.2	9.6	37.2
Total Split (s)	21.8	51.6	51.6	16.6	46.4	46.4	11.8	42.0	42.0	9.8	40.0
Total Split (%)	18.2%	43.0%	43.0%	13.8%	38.7%	38.7%	9.8%	35.0%	35.0%	8.2%	33.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	4.4	3.6	5.2	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.4	5.4	4.6	5.4	5.4	4.6	6.2	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 95.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 23: Sierra Av. & Santa Ana Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	215	181	92	186	92	210	1794	82	185	1448	194
Future Volume (veh/h)	310	215	181	92	186	92	210	1794	82	185	1448	194
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	316	219	87	94	190	56	214	1831	76	189	1478	183
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	350	880	392	121	424	189	286	2051	627	206	1743	216
Arrive On Green	0.19	0.24	0.24	0.07	0.12	0.12	0.08	0.40	0.40	0.06	0.37	0.37
Sat Flow, veh/h	1810	3610	1608	1810	3610	1610	3510	5187	1586	3510	4675	578
Grp Volume(v), veh/h	316	219	87	94	190	56	214	1831	76	189	1093	568
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1810	1805	1610	1755	1729	1586	1755	1729	1796
Q Serve(g_s), s	15.1	4.3	3.8	4.5	4.3	2.8	5.3	29.2	2.7	4.7	25.6	25.7
Cycle Q Clear(g_c), s	15.1	4.3	3.8	4.5	4.3	2.8	5.3	29.2	2.7	4.7	25.6	25.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.32
Lane Grp Cap(c), veh/h	350	880	392	121	424	189	286	2051	627	206	1289	670
V/C Ratio(X)	0.90	0.25	0.22	0.78	0.45	0.30	0.75	0.89	0.12	0.92	0.85	0.85
Avail Cap(c_a), veh/h	352	1885	840	245	1673	746	286	2099	642	206	1321	686
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	26.9	26.7	40.6	36.4	35.7	39.8	25.0	17.0	41.4	25.4	25.5
Incr Delay (d2), s/veh	24.9	0.1	0.3	4.0	0.7	0.9	9.4	5.3	0.1	39.4	5.3	9.6
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	8.7	1.8	1.4	2.1	1.9	1.1	2.5	11.4	0.9	3.1	10.2	11.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	27.1	27.0	44.6	37.1	36.6	49.1	30.3	17.1	80.8	30.7	35.1
LnGrp LOS	E	C	C	D	D	D	D	C	B	F	C	D
Approach Vol, veh/h		622			340			2121			1850	
Approach Delay, s/veh		43.7			39.1			31.7			37.2	
Approach LOS		D			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	41.2	10.5	27.0	11.8	39.2	21.7	15.8
Change Period (Y+Rc), s	4.6	6.2	4.6	5.4	4.6	6.2	4.6	5.4
Max Green Setting (Gmax), s	5.2	35.8	12.0	46.2	7.2	33.8	17.2	41.0
Max Q Clear Time (g_c+I1), s	6.7	31.2	6.5	6.3	7.3	27.7	17.1	6.3
Green Ext Time (p_c), s	0.0	3.8	0.0	1.6	0.0	4.5	0.0	1.3

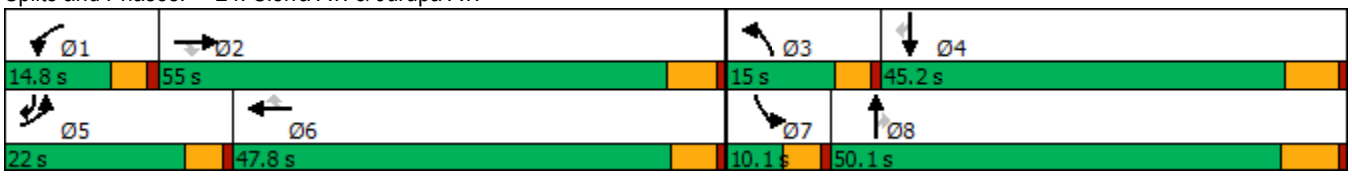
Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

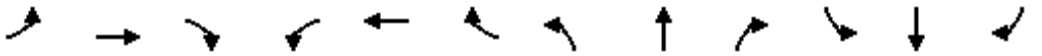
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	578	389	359	160	322	136	343	1151	112	128	803	337
Future Volume (vph)	578	389	359	160	322	136	343	1151	112	128	803	337
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	41.8	41.8	9.6	46.4	46.4	9.6	42.5	42.5	9.6	45.2	9.6
Total Split (s)	22.0	55.0	55.0	14.8	47.8	47.8	15.0	50.1	50.1	10.1	45.2	22.0
Total Split (%)	16.9%	42.3%	42.3%	11.4%	36.8%	36.8%	11.5%	38.5%	38.5%	7.8%	34.8%	16.9%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.4	4.4	3.6	5.5	5.5	3.6	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.4	5.4	4.6	6.5	6.5	4.6	6.2	4.6
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 105.7
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 24: Sierra Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	578	389	359	160	322	136	343	1151	112	128	803	337
Future Volume (veh/h)	578	389	359	160	322	136	343	1151	112	128	803	337
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		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	596	401	227	165	332	80	354	1187	72	132	828	280
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	658	919	410	237	486	217	393	1407	620	198	1207	840
Arrive On Green	0.19	0.25	0.25	0.07	0.13	0.13	0.11	0.39	0.39	0.06	0.33	0.33
Sat Flow, veh/h	3510	3610	1610	3510	3610	1610	3510	3610	1590	3510	3610	1610
Grp Volume(v), veh/h	596	401	227	165	332	80	354	1187	72	132	828	280
Grp Sat Flow(s),veh/h/ln	1755	1805	1610	1755	1805	1610	1755	1805	1590	1755	1805	1610
Q Serve(g_s), s	15.4	8.6	11.4	4.3	8.1	4.2	9.2	27.7	2.7	3.4	18.4	9.3
Cycle Q Clear(g_c), s	15.4	8.6	11.4	4.3	8.1	4.2	9.2	27.7	2.7	3.4	18.4	9.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	658	919	410	237	486	217	393	1407	620	198	1207	840
V/C Ratio(X)	0.91	0.44	0.55	0.70	0.68	0.37	0.90	0.84	0.12	0.67	0.69	0.33
Avail Cap(c_a), veh/h	658	1913	853	386	1649	735	393	1696	747	208	1517	978
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	29.0	30.0	42.3	38.3	36.6	40.7	25.7	18.1	42.9	26.7	12.9
Incr Delay (d2), s/veh	15.8	0.3	1.2	1.4	1.7	1.0	22.4	3.5	0.1	5.7	0.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	3.6	4.1	1.8	3.6	1.6	4.9	11.0	0.9	1.6	7.3	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.7	29.3	31.2	43.7	40.0	37.6	63.1	29.2	18.2	48.6	27.6	13.1
LnGrp LOS	D	C	C	D	D	D	E	C	B	D	C	B
Approach Vol, veh/h		1224			577			1613			1240	
Approach Delay, s/veh		41.1			40.7			36.2			26.6	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.9	29.4	15.0	37.5	22.0	18.3	9.8	42.7
Change Period (Y+Rc), s	4.6	5.8	4.6	* 6.5	4.6	* 5.8	4.6	6.5
Max Green Setting (Gmax), s	10.2	49.2	10.4	* 39	17.4	* 42	5.5	43.6
Max Q Clear Time (g_c+I1), s	6.3	13.4	11.2	20.4	17.4	10.1	5.4	29.7
Green Ext Time (p_c), s	0.1	3.3	0.0	5.9	0.0	2.4	0.0	6.4

Intersection Summary	
HCM 6th Ctrl Delay	35.5
HCM 6th LOS	D

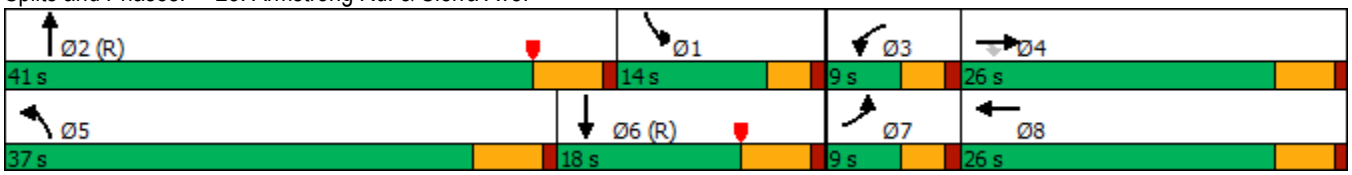
Notes

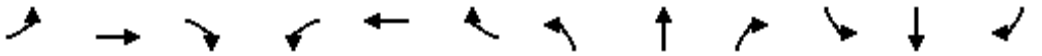
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	184	101	988	54	68	1245	757	43	597
Future Volume (vph)	184	101	988	54	68	1245	757	43	597
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			4						
Detector Phase	7	4	4	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0	26.0	9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	9.0	26.0	26.0	9.0	26.0	37.0	41.0	14.0	18.0
Total Split (%)	10.0%	28.9%	28.9%	10.0%	28.9%	41.1%	45.6%	15.6%	20.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	5.0	22.8	22.8	5.0	21.0	31.3	40.9	10.0	12.3
Actuated g/C Ratio	0.06	0.25	0.25	0.06	0.23	0.35	0.45	0.11	0.14
v/c Ratio	1.90	0.11	1.01	0.56	0.15	1.06	0.97	0.22	2.66
Control Delay	466.9	27.5	41.5	63.7	16.7	71.7	52.5	39.5	776.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	466.9	27.5	41.5	63.7	16.7	71.7	52.5	39.5	776.3
LOS	F	C	D	E	B	E	D	D	F
Approach Delay		102.0			31.2		64.2		732.2
Approach LOS		F			C		E		F

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 14 (16%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.66	
Intersection Signal Delay: 187.2	Intersection LOS: F
Intersection Capacity Utilization 113.5%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	101	988	54	68	53	1245	757	51	43	597	74
Future Volume (veh/h)	184	101	988	54	68	53	1245	757	51	43	597	74
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	104	0	56	70	55	1284	780	52	44	615	68
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	286		76	132	94	1221	691	46	471	511	57
Arrive On Green	0.06	0.08	0.00	0.04	0.07	0.07	0.35	0.39	0.39	0.26	0.30	0.30
Sat Flow, veh/h	1810	3610	1610	1810	2012	1435	3510	1761	117	1810	1678	186
Grp Volume(v), veh/h	190	104	0	56	62	63	1284	0	832	44	0	683
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1642	1755	0	1879	1810	0	1864
Q Serve(g_s), s	5.0	2.5	0.0	2.8	3.0	3.4	31.3	0.0	35.3	1.7	0.0	27.4
Cycle Q Clear(g_c), s	5.0	2.5	0.0	2.8	3.0	3.4	31.3	0.0	35.3	1.7	0.0	27.4
Prop In Lane	1.00		1.00	1.00		0.87	1.00		0.06	1.00		0.10
Lane Grp Cap(c), veh/h	101	286		76	118	107	1221	0	737	471	0	568
V/C Ratio(X)	1.89	0.36		0.74	0.53	0.59	1.05	0.00	1.13	0.09	0.00	1.20
Avail Cap(c_a), veh/h	101	842		101	421	383	1221	0	737	471	0	568
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	0.00	1.00	1.00	1.00	0.50	0.00	0.50	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.5	39.3	0.0	42.6	40.7	40.9	29.3	0.0	27.4	25.2	0.0	31.3
Incr Delay (d2), s/veh	435.5	0.8	0.0	11.4	3.6	5.0	33.6	0.0	67.3	0.0	0.0	107.5
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	14.2	1.0	0.0	1.5	1.4	1.5	17.6	0.0	27.9	0.7	0.0	28.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	478.0	40.1	0.0	54.0	44.3	45.9	63.0	0.0	94.6	25.3	0.0	138.8
LnGrp LOS	F	D		D	D	D	F	A	F	C	A	F
Approach Vol, veh/h		294	A		181			2116			727	
Approach Delay, s/veh		323.1			47.8			75.4			131.9	
Approach LOS		F			D			E			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.1	41.0	7.8	12.1	37.0	33.1	9.0	10.9
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 35	5.0	21.0	31.3	12.3	5.0	21.0
Max Q Clear Time (g_c+I1), s	3.7	37.3	4.8	4.5	33.3	29.4	7.0	5.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	108.2
HCM 6th LOS	F

Notes

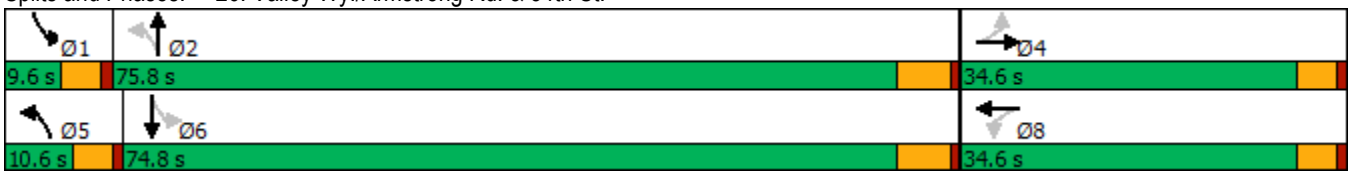
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

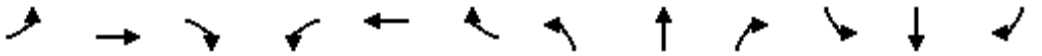
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	177	21	59	38	16	1867	20	1284
Future Volume (vph)	177	21	59	38	16	1867	20	1284
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	32.6	32.6	34.6	34.6	9.6	20.8	9.6	25.8
Total Split (s)	34.6	34.6	34.6	34.6	10.6	75.8	9.6	74.8
Total Split (%)	28.8%	28.8%	28.8%	28.8%	8.8%	63.2%	8.0%	62.3%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6		4.6	4.6	5.8	4.6	5.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effct Green (s)	24.8	24.8		24.8	75.2	72.1	75.0	72.0
Actuated g/C Ratio	0.22	0.22		0.22	0.68	0.65	0.68	0.65
v/c Ratio	0.64	0.15		0.33	0.08	0.84	0.14	0.69
Control Delay	50.1	17.2		37.0	7.2	21.5	8.5	15.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	17.2		37.0	7.2	21.5	8.5	15.7
LOS	D	B		D	A	C	A	B
Approach Delay		41.8		37.0		21.3		15.6
Approach LOS		D		D		C		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.9	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 20.7	Intersection LOS: C
Intersection Capacity Utilization 78.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 26: Valley Wy./Armstrong Rd. & 34th St.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	21	38	59	38	13	16	1867	41	20	1284	243
Future Volume (veh/h)	177	21	38	59	38	13	16	1867	41	20	1284	243
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		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	182	22	37	61	39	10	16	1925	10	21	1324	239
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	284	103	174	167	98	21	243	2474	13	181	2068	369
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.02	0.67	0.67	0.02	0.68	0.68
Sat Flow, veh/h	1378	636	1069	695	605	130	1810	3682	19	1810	3060	546
Grp Volume(v), veh/h	182	0	59	110	0	0	16	943	992	21	775	788
Grp Sat Flow(s),veh/h/ln	1378	0	1705	1430	0	0	1810	1805	1897	1810	1805	1802
Q Serve(g_s), s	6.1	0.0	3.1	4.9	0.0	0.0	0.3	37.4	37.5	0.4	25.4	26.3
Cycle Q Clear(g_c), s	14.1	0.0	3.1	8.0	0.0	0.0	0.3	37.4	37.5	0.4	25.4	26.3
Prop In Lane	1.00		0.63	0.55		0.09	1.00		0.01	1.00		0.30
Lane Grp Cap(c), veh/h	284	0	277	286	0	0	243	1212	1274	181	1220	1218
V/C Ratio(X)	0.64	0.00	0.21	0.38	0.00	0.00	0.07	0.78	0.78	0.12	0.64	0.65
Avail Cap(c_a), veh/h	457	0	491	479	0	0	315	1212	1274	229	1220	1218
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.6	0.0	37.9	40.1	0.0	0.0	8.4	11.8	11.8	12.4	9.6	9.7
Incr Delay (d2), s/veh	2.4	0.0	0.4	0.8	0.0	0.0	0.0	4.9	4.8	0.1	2.5	2.7
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	4.7	0.0	1.3	2.7	0.0	0.0	0.1	13.4	14.1	0.2	8.7	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.0	0.0	38.2	40.9	0.0	0.0	8.5	16.7	16.5	12.5	12.1	12.4
LnGrp LOS	D	A	D	D	A	A	A	B	B	B	B	B
Approach Vol, veh/h		241			110			1951			1584	
Approach Delay, s/veh		43.3			40.9			16.5			12.3	
Approach LOS		D			D			B			B	

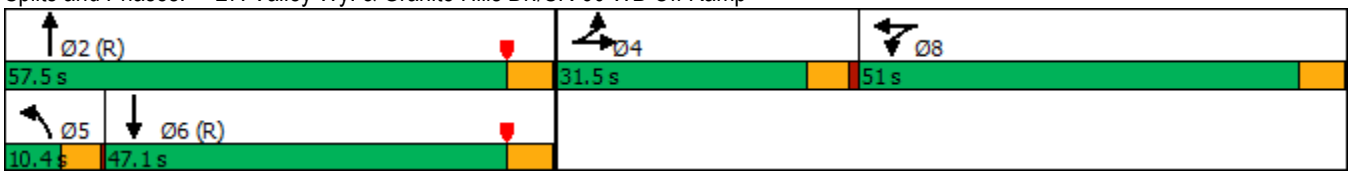
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	75.8		21.5	6.5	76.2		21.5				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	70.0		30.0	6.0	69.0		30.0				
Max Q Clear Time (g_c+I1), s	2.4	39.5		16.1	2.3	28.3		10.0				
Green Ext Time (p_c), s	0.0	18.1		0.7	0.0	14.6		0.5				

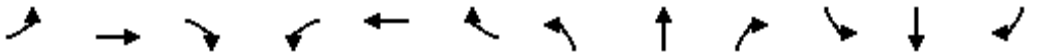
Intersection Summary			
HCM 6th Ctrl Delay		17.2	
HCM 6th LOS		B	

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT
Lane Configurations						
Traffic Volume (vph)	0	609	42	72	1872	1461
Future Volume (vph)	0	609	42	72	1872	1461
Turn Type	NA	Split	NA	Prot	NA	NA
Protected Phases	4	8	8	5	2	6
Permitted Phases						
Detector Phase	4	8	8	5	2	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.4	38.3	38.3	9.6	29.3	32.3
Total Split (s)	31.5	51.0	51.0	10.4	57.5	47.1
Total Split (%)	22.5%	36.4%	36.4%	7.4%	41.1%	33.6%
Yellow Time (s)	4.4	4.8	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.4	5.3	5.3	4.6	5.3	5.3
Lead/Lag				Lead		Lag
Lead-Lag Optimize?				Yes		Yes
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	26.1	45.7	45.7	5.8	52.2	41.8
Actuated g/C Ratio	0.19	0.33	0.33	0.04	0.37	0.30
v/c Ratio	1.77	1.09	1.22	1.03	1.46	1.44
Control Delay	391.6	107.4	152.9	165.8	245.8	238.8
Queue Delay	2.6	0.0	0.0	0.0	0.0	3.6
Total Delay	394.2	107.4	152.9	165.8	245.8	242.4
LOS	F	F	F	F	F	F
Approach Delay	394.2		130.7		242.8	242.4
Approach LOS	F		F		F	F

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.77	
Intersection Signal Delay: 231.5	Intersection LOS: F
Intersection Capacity Utilization 135.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 27: Valley Wy. & Granite Hills Dr./SR-60 WB Off Ramp





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	0	242	609	42	599	72	1872	0	0	1461	9
Future Volume (veh/h)	297	0	242	609	42	599	72	1872	0	0	1461	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h	313	0	255	641	44	537	76	1971	0	0	1538	3
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	175	0	143	591	40	484	75	1346	0	0	1104	2
Arrive On Green	0.19	0.00	0.19	0.33	0.33	0.33	0.01	0.12	0.00	0.00	0.30	0.30
Sat Flow, veh/h	939	0	765	1810	122	1483	1810	3705	0	0	3791	7
Grp Volume(v), veh/h	568	0	0	641	0	581	76	1971	0	0	751	790
Grp Sat Flow(s),veh/h/ln	1703	0	0	1810	0	1605	1810	1805	0	0	1805	1899
Q Serve(g_s), s	26.1	0.0	0.0	45.7	0.0	45.7	5.8	52.2	0.0	0.0	41.8	41.8
Cycle Q Clear(g_c), s	26.1	0.0	0.0	45.7	0.0	45.7	5.8	52.2	0.0	0.0	41.8	41.8
Prop In Lane	0.55		0.45	1.00		0.92	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	318	0	0	591	0	524	75	1346	0	0	539	567
V/C Ratio(X)	1.79	0.00	0.00	1.09	0.00	1.11	1.01	1.46	0.00	0.00	1.39	1.39
Avail Cap(c_a), veh/h	318	0	0	591	0	524	75	1346	0	0	539	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	0.79	0.79	0.00	0.00	0.67	0.67
Uniform Delay (d), s/veh	57.0	0.0	0.0	47.2	0.0	47.2	69.0	61.4	0.0	0.0	49.1	49.1
Incr Delay (d2), s/veh	367.3	0.0	0.0	62.2	0.0	72.7	96.2	212.2	0.0	0.0	184.6	184.4
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	43.4	0.0	0.0	30.0	0.0	28.2	4.7	64.9	0.0	0.0	45.9	48.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	424.3	0.0	0.0	109.4	0.0	119.8	165.2	273.6	0.0	0.0	233.7	233.5
LnGrp LOS	F	A	A	F	A	F	F	F	A	A	F	F
Approach Vol, veh/h		568			1222			2047			1541	
Approach Delay, s/veh		424.3			114.4			269.6			233.6	
Approach LOS		F			F			F			F	

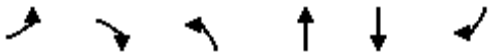
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		57.5		31.5	10.4	47.1		51.0				
Change Period (Y+Rc), s		5.3		5.4	4.6	5.3		5.3				
Max Green Setting (Gmax), s		52.2		26.1	5.8	41.8		45.7				
Max Q Clear Time (g_c+I1), s		54.2		28.1	7.8	43.8		47.7				
Green Ext Time (p_c), s		0.0		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			240.3									
HCM 6th LOS			F									

Lane Group	NBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	366	1944	1344
Future Volume (vph)	366	1944	1344
Turn Type	Prot	NA	NA
Protected Phases	5	2	6
Permitted Phases			
Detector Phase	5	2	6
Switch Phase			
Minimum Initial (s)	5.0	10.0	10.0
Minimum Split (s)	9.6	15.8	20.8
Total Split (s)	9.7	140.0	130.3
Total Split (%)	6.9%	100.0%	93.1%
Yellow Time (s)	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8
Lead/Lag	Lead		Lag
Lead-Lag Optimize?	Yes		Yes
Recall Mode	None	C-Max	C-Max
Act Effct Green (s)	5.1	140.0	124.5
Actuated g/C Ratio	0.04	1.00	0.89
v/c Ratio	6.06	0.58	0.84
Control Delay	2320.5	0.7	17.1
Queue Delay	0.0	48.7	0.0
Total Delay	2320.5	49.4	17.1
LOS	F	D	B
Approach Delay		409.6	17.1
Approach LOS		F	B

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 140	
Offset: 134.2 (96%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 6.06	
Intersection Signal Delay: 213.3	Intersection LOS: F
Intersection Capacity Utilization 97.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 28: Valley Wy. & SR-60 WB On Ramp



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	366	1944	1344	967
Future Volume (veh/h)	0	0	366	1944	1344	967
Initial Q (Qb), veh			20	0	0	0
Ped-Bike Adj(A_pbT)			1.00			0.98
Parking Bus, Adj			1.00	1.00	1.00	1.00
Work Zone On Approach				No	No	
Adj Sat Flow, veh/h/ln			1900	1900	1900	1900
Adj Flow Rate, veh/h			394	2090	1445	1040
Peak Hour Factor			0.93	0.93	0.93	0.93
Percent Heavy Veh, %			0	0	0	0
Cap, veh/h			66	3460	1871	1180
Arrive On Green			0.04	0.96	1.00	1.00
Sat Flow, veh/h			1810	3705	2199	1327
Grp Volume(v), veh/h			394	2090	1211	1274
Grp Sat Flow(s),veh/h/ln			1810	1805	1805	1626
Q Serve(g_s), s			5.1	8.0	0.0	0.0
Cycle Q Clear(g_c), s			5.1	8.0	0.0	0.0
Prop In Lane			1.00			0.82
Lane Grp Cap(c), veh/h			66	3460	1605	1446
V/C Ratio(X)			5.98	0.60	0.75	0.88
Avail Cap(c_a), veh/h			66	3460	1605	1446
HCM Platoon Ratio			1.00	1.00	2.00	2.00
Upstream Filter(I)			0.09	0.09	0.09	0.09
Uniform Delay (d), s/veh			67.4	0.3	0.0	0.0
Incr Delay (d2), s/veh			2242.6	0.1	0.3	0.8
Initial Q Delay(d3),s/veh			1092.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln			63.4	0.0	0.1	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh			3402.3	0.4	0.3	0.8
LnGrp LOS			F	A	A	A
Approach Vol, veh/h				2484	2485	
Approach Delay, s/veh				540.0	0.6	
Approach LOS				F	A	

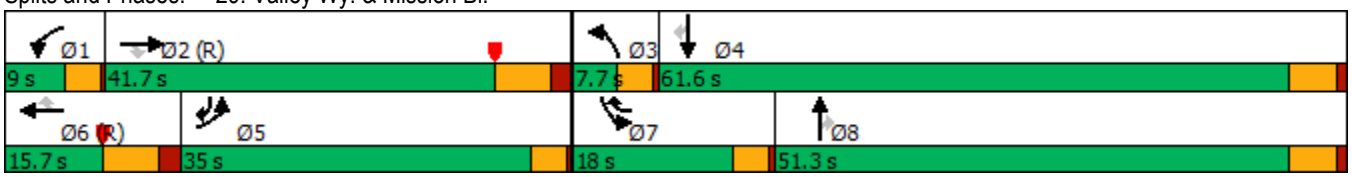
Timer - Assigned Phs	2			5	6
Phs Duration (G+Y+Rc), s	140.0			9.7	130.3
Change Period (Y+Rc), s	5.8			4.6	5.8
Max Green Setting (Gmax), s	134.2			5.1	124.5
Max Q Clear Time (g_c+I1), s	10.0			7.1	2.0
Green Ext Time (p_c), s	38.9			0.0	73.4

Intersection Summary	
HCM 6th Ctrl Delay	270.2
HCM 6th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	755	1313	28	77	268	1296	17	460	91	689	369	286
Future Volume (vph)	755	1313	28	77	268	1296	17	460	91	689	369	286
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	5	2		1	6	7	3	8		7	4	5
Permitted Phases			2			6			8			4
Detector Phase	5	2	2	1	6	7	3	8	8	7	4	5
Switch Phase												
Minimum Initial (s)	4.0	6.0	6.0	4.0	6.0	4.0	4.0	5.0	5.0	4.0	5.0	4.0
Minimum Split (s)	7.7	41.0	41.0	7.7	13.0	7.7	7.7	49.3	49.3	7.7	36.3	7.7
Total Split (s)	35.0	41.7	41.7	9.0	15.7	18.0	7.7	51.3	51.3	18.0	61.6	35.0
Total Split (%)	29.2%	34.8%	34.8%	7.5%	13.1%	15.0%	6.4%	42.8%	42.8%	15.0%	51.3%	29.2%
Yellow Time (s)	3.2	5.0	5.0	3.2	5.0	3.2	3.2	4.3	4.3	3.2	4.3	3.2
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	0.5	0.5	1.0	1.0	0.5	1.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.7	7.0	7.0	3.7	7.0	3.7	3.7	5.3	5.3	3.7	5.3	3.7
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	31.3	52.0	52.0	11.8	32.5	50.1	4.0	22.2	22.2	14.3	37.2	70.1
Actuated g/C Ratio	0.26	0.43	0.43	0.10	0.27	0.42	0.03	0.18	0.18	0.12	0.31	0.58
v/c Ratio	0.86	0.87	0.04	0.45	0.29	1.79	0.16	0.72	0.23	1.72	0.34	0.17
Control Delay	43.9	32.2	0.0	59.3	36.7	382.4	59.5	51.8	3.3	367.2	32.9	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	32.2	0.0	59.3	36.7	382.4	59.5	51.8	3.3	367.2	32.9	1.0
LOS	D	C	A	E	D	F	E	D	A	F	C	A
Approach Delay		36.0			310.8			44.3			197.6	
Approach LOS		D			F			D			F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.79	
Intersection Signal Delay: 155.1	Intersection LOS: F
Intersection Capacity Utilization 126.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 29: Valley Wy. & Mission Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	755	1313	28	77	268	1296	17	460	91	689	369	286
Future Volume (veh/h)	755	1313	28	77	268	1296	17	460	91	689	369	286
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	786	1368	8	80	279	1323	18	479	52	718	384	224
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	1512	1756	778	80	262	309	53	671	295	418	1047	2037
Arrive On Green	0.57	0.65	0.65	0.04	0.07	0.07	0.02	0.19	0.19	0.12	0.29	0.29
Sat Flow, veh/h	3510	3610	1599	1810	3610	1610	3510	3610	1584	3510	3610	2814
Grp Volume(v), veh/h	786	1368	8	80	279	1323	18	479	52	718	384	224
Grp Sat Flow(s),veh/h/ln	1755	1805	1599	1810	1805	1610	1755	1805	1584	1755	1805	1407
Q Serve(g_s), s	16.3	32.4	0.2	5.3	8.7	6.5	0.6	14.9	3.3	14.3	10.1	0.5
Cycle Q Clear(g_c), s	16.3	32.4	0.2	5.3	8.7	6.5	0.6	14.9	3.3	14.3	10.1	0.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1512	1756	778	80	262	309	53	671	295	418	1047	2037
V/C Ratio(X)	0.52	0.78	0.01	1.00	1.07	4.29	0.34	0.71	0.18	1.72	0.37	0.11
Avail Cap(c_a), veh/h	1512	1756	778	80	262	309	117	1384	607	418	1694	2541
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.14	0.14	0.14	1.00	1.00	1.00	1.00	1.00	1.00	0.44	0.44	0.44
Uniform Delay (d), s/veh	18.1	16.6	10.9	57.3	55.6	21.7	58.5	45.8	41.1	52.8	33.8	1.3
Incr Delay (d2), s/veh	0.0	0.5	0.0	100.9	74.2	1486.7	1.4	1.4	0.3	326.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.5	9.8	0.1	4.6	6.6	132.5	0.3	6.8	1.3	25.1	4.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	17.1	10.9	158.3	129.8	1508.3	59.9	47.3	41.4	379.7	33.9	1.3
LnGrp LOS	B	B	B	F	F	F	E	D	D	F	C	A
Approach Vol, veh/h		2162			1682			549			1326	
Approach Delay, s/veh		17.4			1215.5			47.1			215.6	
Approach LOS		B			F			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	65.4	5.5	40.1	58.7	15.7	18.0	27.6
Change Period (Y+Rc), s	3.7	7.0	3.7	5.3	7.0	* 7	3.7	5.3
Max Green Setting (Gmax), s	5.3	34.7	4.0	56.3	31.3	* 8.7	14.3	46.0
Max Q Clear Time (g_c+I1), s	7.3	34.4	2.6	12.1	18.3	10.7	16.3	16.9
Green Ext Time (p_c), s	0.0	0.3	0.0	3.4	1.4	0.0	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	418.6
HCM 6th LOS	F

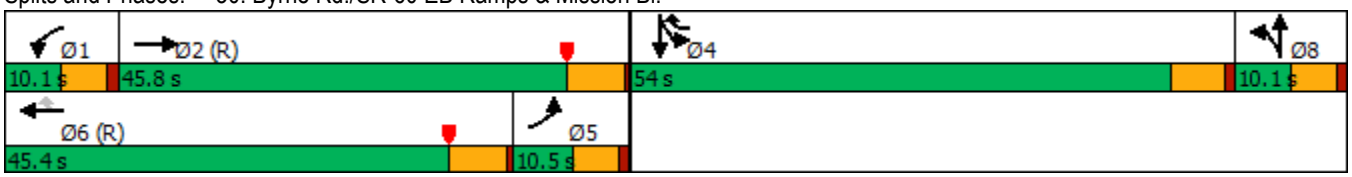
Notes

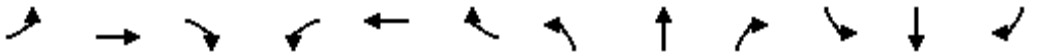
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	175	1036	14	369	188	4	1063	38
Future Volume (vph)	175	1036	14	369	188	4	1063	38
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA
Protected Phases	5	2	1	6	4	8	4	4
Permitted Phases					6			
Detector Phase	5	2	1	6	4	8	4	4
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8
Total Split (s)	10.5	45.8	10.1	45.4	54.0	10.1	54.0	54.0
Total Split (%)	8.8%	38.2%	8.4%	37.8%	45.0%	8.4%	45.0%	45.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8
Lead/Lag	Lag	Lag	Lead	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes	Yes				
Recall Mode	None	C-Max	None	C-Max	None	None	None	None
Act Effct Green (s)	5.4	48.2	5.1	41.7	91.0	5.0	48.2	48.2
Actuated g/C Ratio	0.04	0.40	0.04	0.35	0.76	0.04	0.40	0.40
v/c Ratio	2.27	0.76	0.20	0.31	0.16	0.57	1.25	1.15
Control Delay	635.4	36.8	59.2	42.8	0.5	44.8	158.1	115.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	635.4	36.8	59.2	42.8	0.5	44.8	158.1	115.7
LOS	F	D	E	D	A	D	F	F
Approach Delay		122.2		29.3		44.8		137.6
Approach LOS		F		C		D		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow, Master Intersection	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 2.27	
Intersection Signal Delay: 112.5	Intersection LOS: F
Intersection Capacity Utilization 98.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	1036	13	14	369	188	16	4	41	1063	38	481
Future Volume (veh/h)	175	1036	13	14	369	188	16	4	41	1063	38	481
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	1091	13	15	388	139	17	4	43	822	456	485
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	380	1934	23	30	1194	1179	19	4	47	727	338	360
Arrive On Green	0.21	0.53	0.53	0.01	0.11	0.11	0.04	0.04	0.04	0.40	0.40	0.40
Sat Flow, veh/h	1810	3653	44	1810	3610	1610	445	105	1125	1810	843	896
Grp Volume(v), veh/h	184	539	565	15	388	139	64	0	0	822	0	941
Grp Sat Flow(s),veh/h/ln	1810	1805	1891	1810	1805	1610	1675	0	0	1810	0	1739
Q Serve(g_s), s	10.7	24.0	24.1	1.0	11.9	3.8	4.6	0.0	0.0	48.2	0.0	48.2
Cycle Q Clear(g_c), s	10.7	24.0	24.1	1.0	11.9	3.8	4.6	0.0	0.0	48.2	0.0	48.2
Prop In Lane	1.00		0.02	1.00		1.00	0.27		0.67	1.00		0.52
Lane Grp Cap(c), veh/h	380	956	1001	30	1194	1179	70	0	0	727	0	698
V/C Ratio(X)	0.48	0.56	0.56	0.51	0.32	0.12	0.92	0.00	0.00	1.13	0.00	1.35
Avail Cap(c_a), veh/h	380	956	1001	75	1194	1179	70	0	0	727	0	698
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.7	18.9	18.9	59.2	41.1	6.4	57.3	0.0	0.0	35.9	0.0	35.9
Incr Delay (d2), s/veh	1.0	2.4	2.3	12.2	0.7	0.2	78.1	0.0	0.0	75.6	0.0	165.8
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	4.8	10.0	10.4	0.5	5.8	4.0	3.5	0.0	0.0	35.1	0.0	51.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	21.4	21.2	71.4	41.8	6.6	135.4	0.0	0.0	111.5	0.0	201.7
LnGrp LOS	D	C	C	E	D	A	F	A	A	F	A	F
Approach Vol, veh/h		1288			542			64			1763	
Approach Delay, s/veh		24.3			33.6			135.4			159.6	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	69.8		54.0	31.5	45.4		10.1				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.0	40.1		48.2	5.4	* 40		5.0				
Max Q Clear Time (g_c+I1), s	3.0	26.1		50.2	12.7	13.9		6.6				
Green Ext Time (p_c), s	0.0	3.6		0.0	0.0	1.7		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		92.9
HCM 6th LOS		F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.3:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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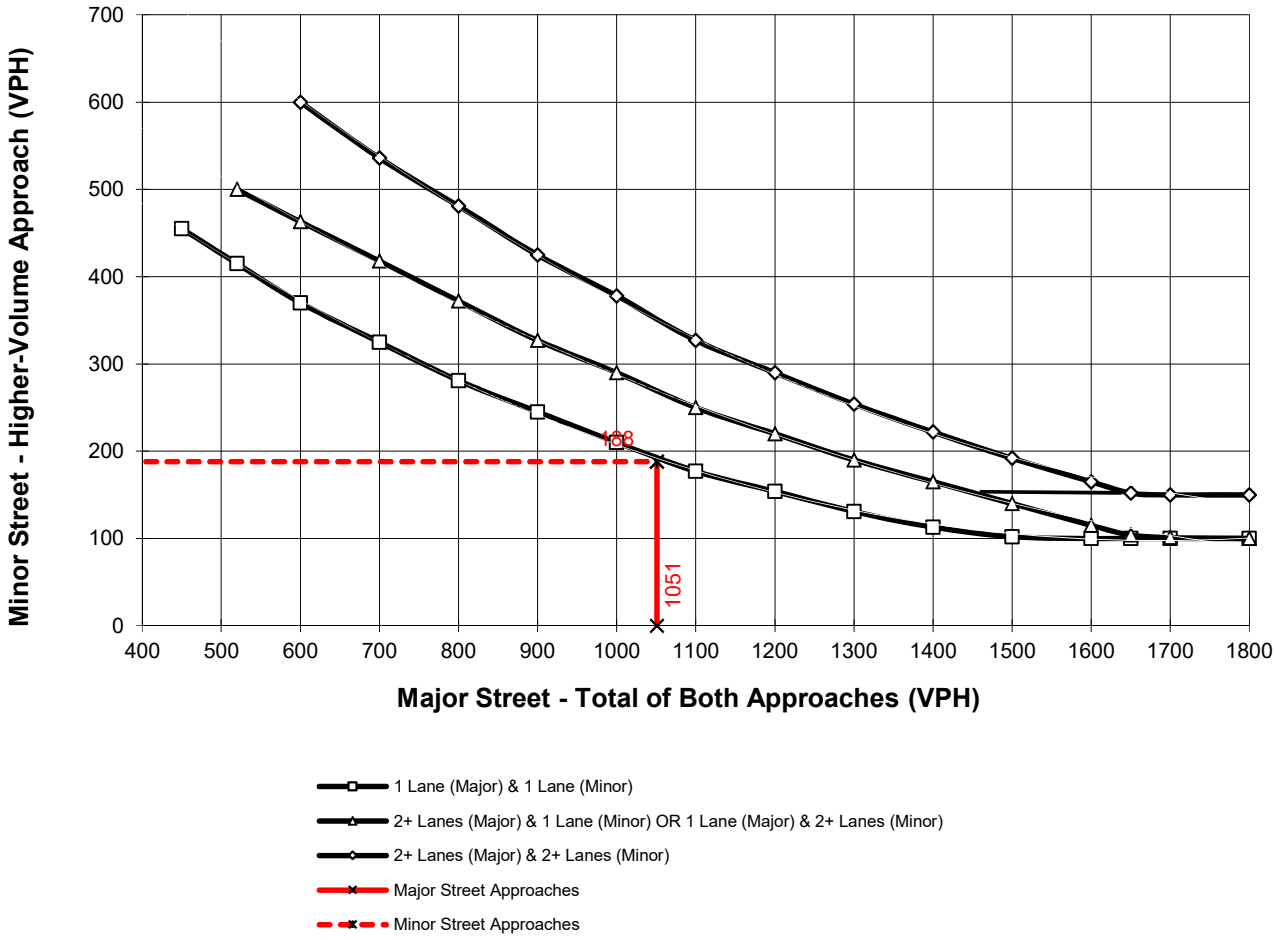
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Horizon Year (2040) Without Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Santa Ana Av**
Total of Both Approaches (VPH) = **1051**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Juniper Av**
High Volume Approach (VPH) = **188**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 7.4:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LCC	DATE 04/08/19
Jurisdiction: **City of Fontana**				CHK CH	DATE 04/08/19
Major Street: **Cypress Av**				Critical Approach Speed (Major)	45 mph
Minor Street: **Driveway 1**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **7,560** vpd Minor Street Future ADT = **69** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Number of lanes for moving traffic on each approach		Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Major Street	Minor Street	Urban	Rural	Urban	Rural
CONDITION A - Minimum Vehicular Volume						
Satisfied / Not Satisfied XX / XX						
	1 **7,560**	*1* **69**	8,000	5,600 *	2,400	1,680
	2 +	*1*	9,600	6,720	2,400	1,680
	2 +	*2* +	9,600	6,720	3,200	2,240
	1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic						
Satisfied / Not Satisfied XX						
	1 **7,560**	*1* **69**	12,000	8,400	1,200	850
	2 +	*1*	14,400	10,080	1,200	850
	2 +	*2* +	14,400	10,080	1,600	1,120
	1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B						
Satisfied / Not Satisfied XX			2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 4%	**B** 8%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LCC	DATE 04/08/19
Jurisdiction: **City of Fontana**				CHK CH	DATE 04/08/19
Major Street: **Cypress Av**				Critical Approach Speed (Major)	45 mph
Minor Street: **Driveway 2**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **6,876** vpd Minor Street Future ADT = **830** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements EADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **6,876** / *1* **830**	8,000	5,600 *	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **6,876** / *1* **830**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX				
No one condition satisfied, but following conditions fulfilled 80% of more ….. A 49% B 82%	2 CONDITIONS 80%		2 CONDITIONS 80%	

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LCC	DATE 04/08/19
Jurisdiction: **City of Fontana**				CHK CH	DATE 04/08/19
Major Street: **Cypress Av**				Critical Approach Speed (Major)	45 mph
Minor Street: **Driveway 3**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **6,375** vpd Minor Street Future ADT = **255** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach		Minimum Requirements EADT			
Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
		Urban	Rural	Urban	Rural
1 **6,375**	*1* **255**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,375**	*1* **255**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 15% **B** 30%

2 CONDITIONS 80%

2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		HY (2040) WP
				CALC LCC	DATE	04/08/19
Jurisdiction: City of Fontana				CHK CH	DATE	04/08/19
Major Street: Cypress Av				Critical Approach Speed (Major)		45 mph
Minor Street: Driveway 4				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **6,584** vpd

Minor Street Future ADT = **76** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach		Minimum Requirements EADT			
Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
		Urban	Rural	Urban	Rural
1 **6,584**	*1* **76**	8,000	5,600 *	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **6,584**	*1* **76**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 5% **B** 9%

2 CONDITIONS 80%

2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

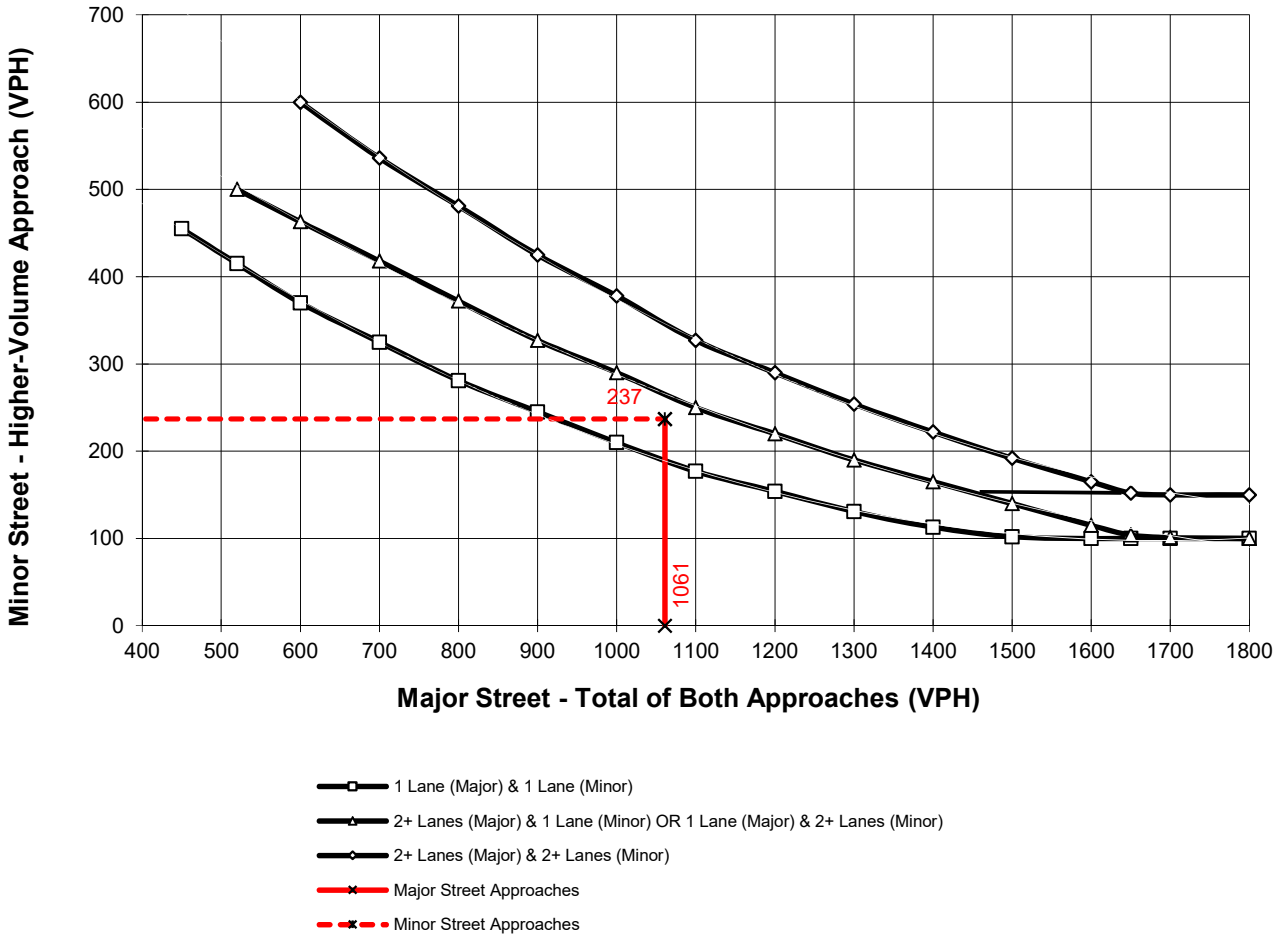
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Horizon Year (2040) With Project Conditions - Weekday AM Peak Hour**

Major Street Name = **Santa Ana Av**
Total of Both Approaches (VPH) = **1061**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Juniper Av**
High Volume Approach (VPH) = **237**
Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LCC	DATE 04/08/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/08/19
Major Street: Juniper Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 5				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane

Minor Street Approach Lanes = **1** lane

Major Street Future ADT = **2,846** vpd

Minor Street Future ADT = **97** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,846** / 1 **97**	8,000	5,600	2,400	1,680
2 + / 1	9,600	6,720	2,400	1,680
2 + / 2 +	9,600	6,720	3,200	2,240
1 / 2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied (XX)	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,846** / 1 **97**	12,000	8,400	1,200	850
2 + / 1	14,400	10,080	1,200	850
2 + / 2 +	14,400	10,080	1,600	1,120
1 / 2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied (XX)	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 4% B: 8%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LCC	DATE 04/08/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/08/19
Major Street: Juniper Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 6				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **2,909** vpd Minor Street Future ADT = **240** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **2,909** / *1* **240**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **2,909** / *1* **240**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 10% B: 20%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LCC	DATE 04/08/19
Jurisdiction: **City of Fontana**				CHK CH	DATE 04/08/19
Major Street: **Juniper Av**				Critical Approach Speed (Major)	40 mph
Minor Street: **Driveway 7**				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **3,172** vpd Minor Street Future ADT = **255** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **3,172**	1 **255**	8,000	5,600	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **3,172**	1 **255**	12,000	8,400	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 11% B: 21%

2 CONDITIONS 80%

2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LCC	DATE 04/08/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/08/19
Major Street: Juniper Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 8				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **3,448** vpd Minor Street Future ADT = **241** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,448** / *1* **241**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX	Urban	Rural	Urban	Rural
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,448** / *1* **241**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 10% B: 20%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	HY (2040) WP
				CALC LCC	DATE 04/08/19
Jurisdiction: City of Fontana				CHK CH	DATE 04/08/19
Major Street: Juniper Av				Critical Approach Speed (Major)	40 mph
Minor Street: Driveway 9				Critical Approach Speed (Minor)	25 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **3,472** vpd Minor Street Future ADT = **77** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); …….. [ ]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Minimum Requirements EADT			
	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
CONDITION A - Minimum Vehicular Volume	Urban	Rural	Urban	Rural
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street				
1 **3,472** / *1* **77**	8,000	5,600	2,400	1,680
2 + / *1*	9,600	6,720	2,400	1,680
2 + / *2* +	9,600	6,720	3,200	2,240
1 / *2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied / Not Satisfied: XX				
Number of lanes for moving traffic on each approach				
Major Street / Minor Street	Urban	Rural	Urban	Rural
1 **3,472** / *1* **77**	12,000	8,400	1,200	850
2 + / *1*	14,400	10,080	1,200	850
2 + / *2* +	14,400	10,080	1,600	1,120
1 / *2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B				
Satisfied / Not Satisfied: XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 3% B: 6%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 7.5:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	604	449	994	498	1506	632
v/c Ratio	0.85	0.39	0.37	0.47	0.81	0.39
Control Delay	38.8	18.2	18.4	7.9	26.4	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	18.2	18.4	7.9	26.4	0.7
Queue Length 50th (ft)	339	93	113	39	408	0
Queue Length 95th (ft)	418	117	m152	m95	#653	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	884	1404	2670	1049	1858	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.32	0.37	0.47	0.81	0.39

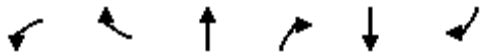
Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	383	345	1589	679	1477
v/c Ratio	0.42	0.79	0.93	0.73	0.64
Control Delay	30.8	45.4	42.8	46.0	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	30.8	45.4	42.8	46.0	9.6
Queue Length 50th (ft)	104	195	339	221	172
Queue Length 95th (ft)	126	261	#526	m286	273
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	1470	689	1706	932	2304
Starvation Cap Reductn	0	0	0	0	159
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.26	0.50	0.93	0.73	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	363	511	1458	435	998	460
v/c Ratio	0.80	0.72	0.43	0.37	0.42	0.28
Control Delay	48.6	37.1	12.6	4.7	9.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	37.1	12.6	4.7	9.5	0.4
Queue Length 50th (ft)	217	156	175	35	141	0
Queue Length 95th (ft)	289	195	271	122	231	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	703	1106	3423	1182	2382	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.46	0.43	0.37	0.42	0.28

Intersection Summary

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	505	289	1919	470	877
v/c Ratio	0.78	0.62	0.75	0.80	0.34
Control Delay	47.9	17.3	21.1	44.0	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	17.3	21.1	44.0	7.2
Queue Length 50th (ft)	157	45	331	154	162
Queue Length 95th (ft)	210	127	419	165	102
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	735	504	2571	665	2584
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.57	0.75	0.71	0.34

Intersection Summary

APPENDIX 7.6:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	604	449	996	511	1515	632
v/c Ratio	0.85	0.39	0.37	0.48	0.82	0.39
Control Delay	38.8	18.2	19.5	8.7	26.6	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	18.2	19.5	8.7	26.6	0.7
Queue Length 50th (ft)	339	93	127	73	412	0
Queue Length 95th (ft)	418	117	m144	m85	#660	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	884	1404	2670	1056	1858	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.32	0.37	0.48	0.82	0.39

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	383	389	1605	679	1486
v/c Ratio	0.38	0.81	1.00	0.74	0.67
Control Delay	28.3	44.6	57.3	46.0	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	28.3	44.6	57.3	46.0	11.0
Queue Length 50th (ft)	99	220	~387	211	182
Queue Length 95th (ft)	120	288	#535	m#321	279
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	1470	689	1601	912	2205
Starvation Cap Reductn	0	0	0	0	127
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.26	0.56	1.00	0.74	0.72

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	363	511	1466	475	1001	460
v/c Ratio	0.80	0.72	0.43	0.40	0.42	0.28
Control Delay	48.6	37.2	12.9	4.9	9.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	37.2	12.9	4.9	9.5	0.4
Queue Length 50th (ft)	217	156	184	51	142	0
Queue Length 95th (ft)	289	195	267	131	232	0
Internal Link Dist (ft)			575		670	
Turn Bay Length (ft)		450		165		
Base Capacity (vph)	703	1105	3423	1196	2382	1615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.46	0.43	0.40	0.42	0.28

Intersection Summary

Lane Group	EBL	EBT	NBT	SBL	SBT
Lane Group Flow (vph)	505	304	1967	470	880
v/c Ratio	0.78	0.65	0.77	0.80	0.34
Control Delay	47.9	19.4	21.8	44.6	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.9	19.4	21.8	44.6	7.0
Queue Length 50th (ft)	157	54	347	154	157
Queue Length 95th (ft)	210	141	438	167	101
Internal Link Dist (ft)		1340	1172		575
Turn Bay Length (ft)	550			250	
Base Capacity (vph)	735	503	2571	665	2584
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.60	0.77	0.71	0.34

Intersection Summary

APPENDIX 7.7:

HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	WB E of Citrus	1740	5
2	Diverge	Basic	WB Off-Ramp	1500	5
3	Basic	Basic	Between Off and Loop On Ramp	1215	4
4	Merge	Merge	WB Loop On-Ramp	1500	4
5	Basic	Basic	Between On Ramps	1450	4
6	Merge	Merge	WB On Ramp	1500	4
7	Basic	Basic	WB W of Citrus	6460	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	9729	11000	0.88	48.2	40.4	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	8522	1173	11000	2100	0.88	0.56	24.1	-	70.6	-	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7235	8800	0.97	26.6	67.9	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.909	7687	560	9000	1900	1.01	0.29	29.7	45.9	64.8	34.3	F

Segment 5: Basic

Time	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

Period			(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
1	0.92	0.980	7595		8800		1.03		29.5		64.3		F

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	8194	659	9000	2100	1.08	0.31	35.6	45.4	57.6	35.8	F

Segment 7: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		8194		8800		1.10		48.2		41.0		F

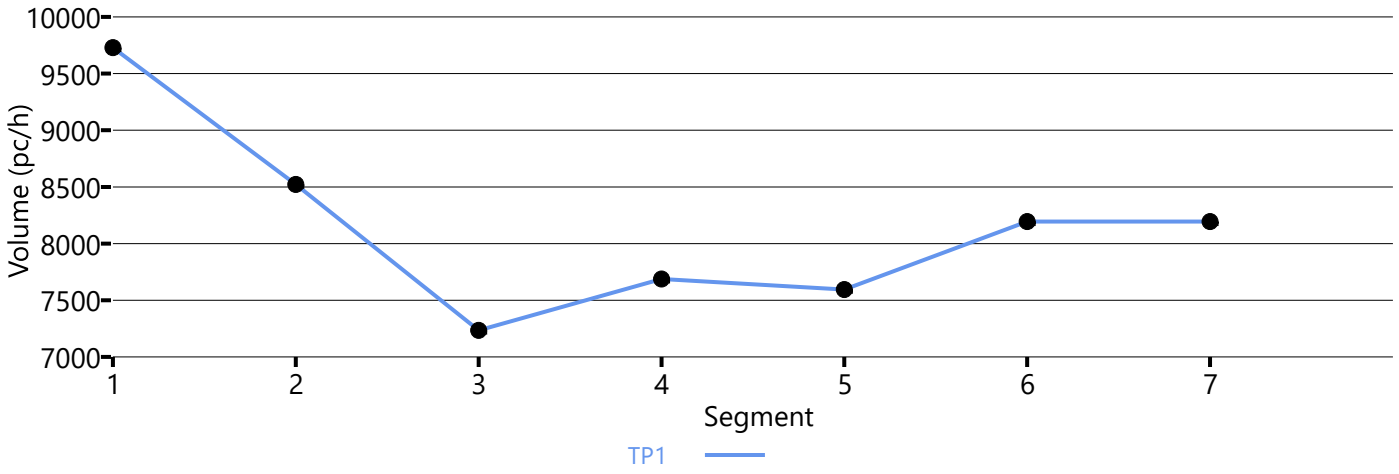
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	33.6	56.8	55.5	5.2	F

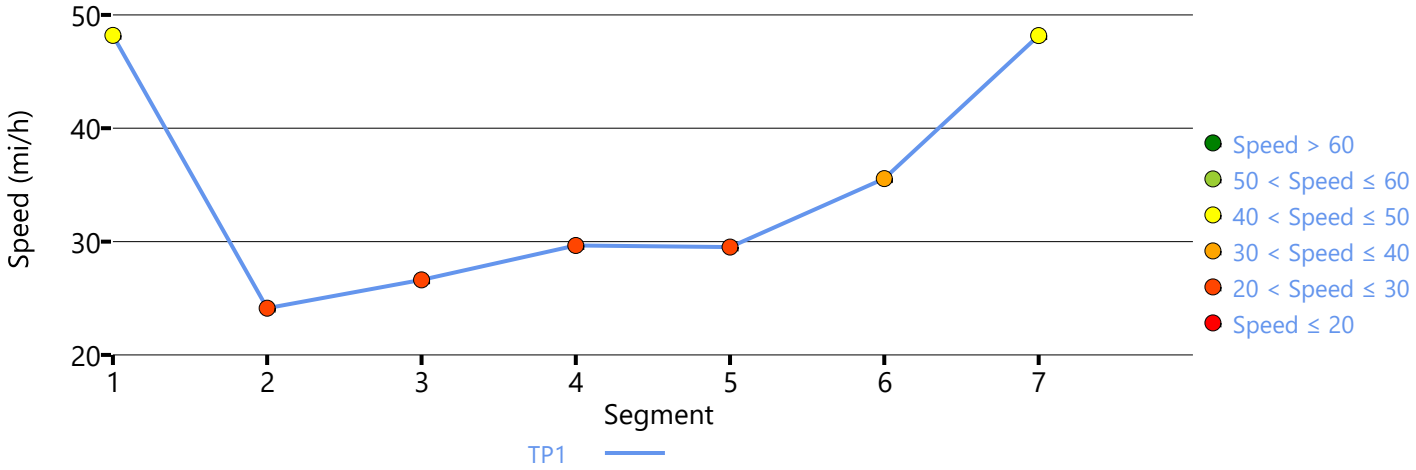
Facility Overall Results

Space Mean Speed, mi/h	33.6	Density, veh/mi/ln	55.5
Average Travel Time, min	5.2	Density, pc/mi/ln	56.8

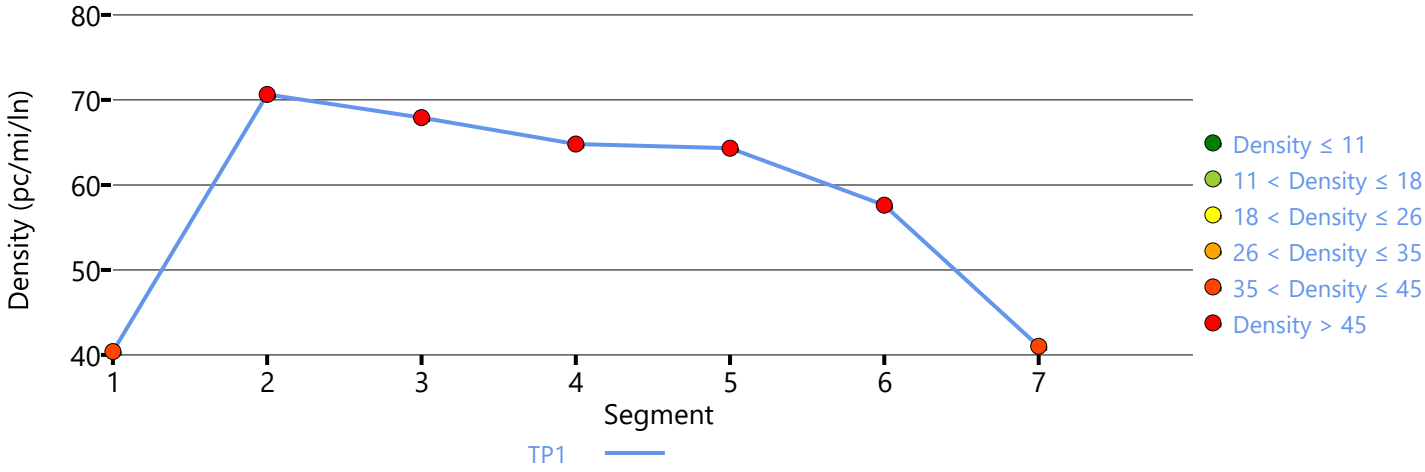
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9056	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	2530
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.05
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6013	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1292
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.54
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	74.4
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6954	11685	0.60	63.7	21.8	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.893	6954	816	11750	2100	0.59	0.39	65.0	-	21.4	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	6148	9348	0.66	63.6	24.2	C

Segment 4: Merge

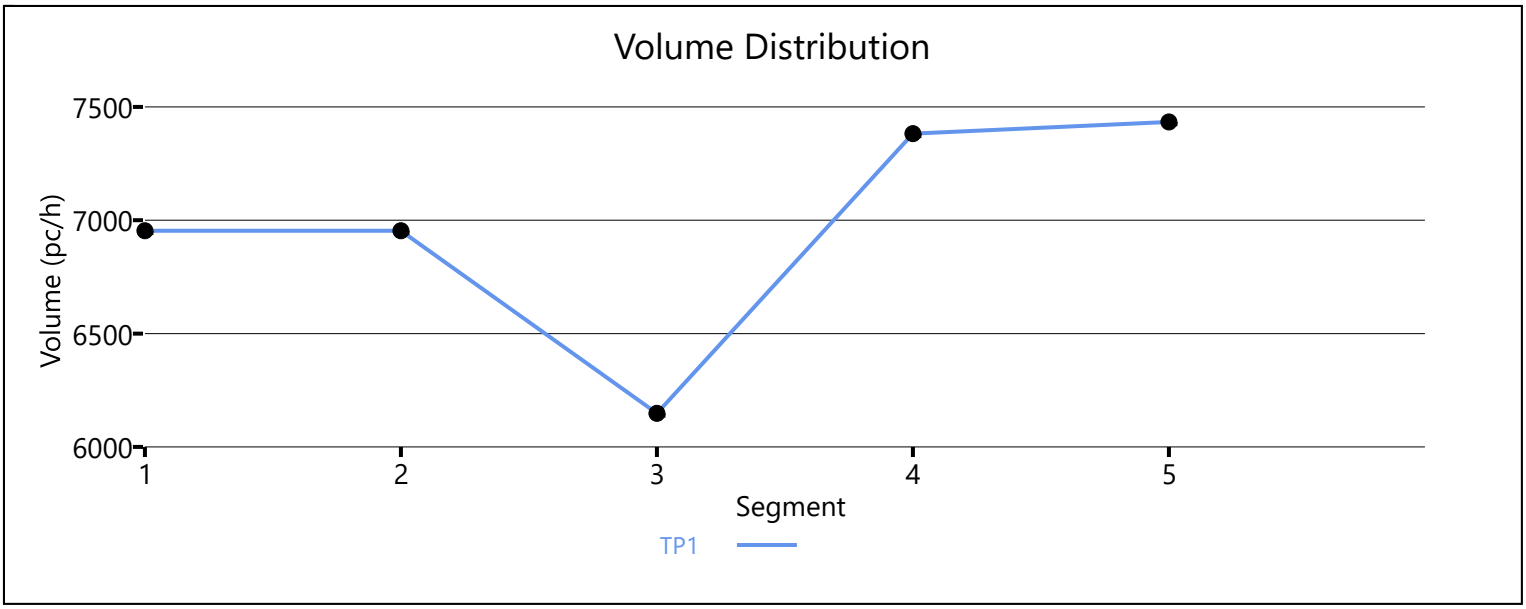
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.917	7382	1234	9400	2100	0.65	0.59	64.7	-	23.8	-	C

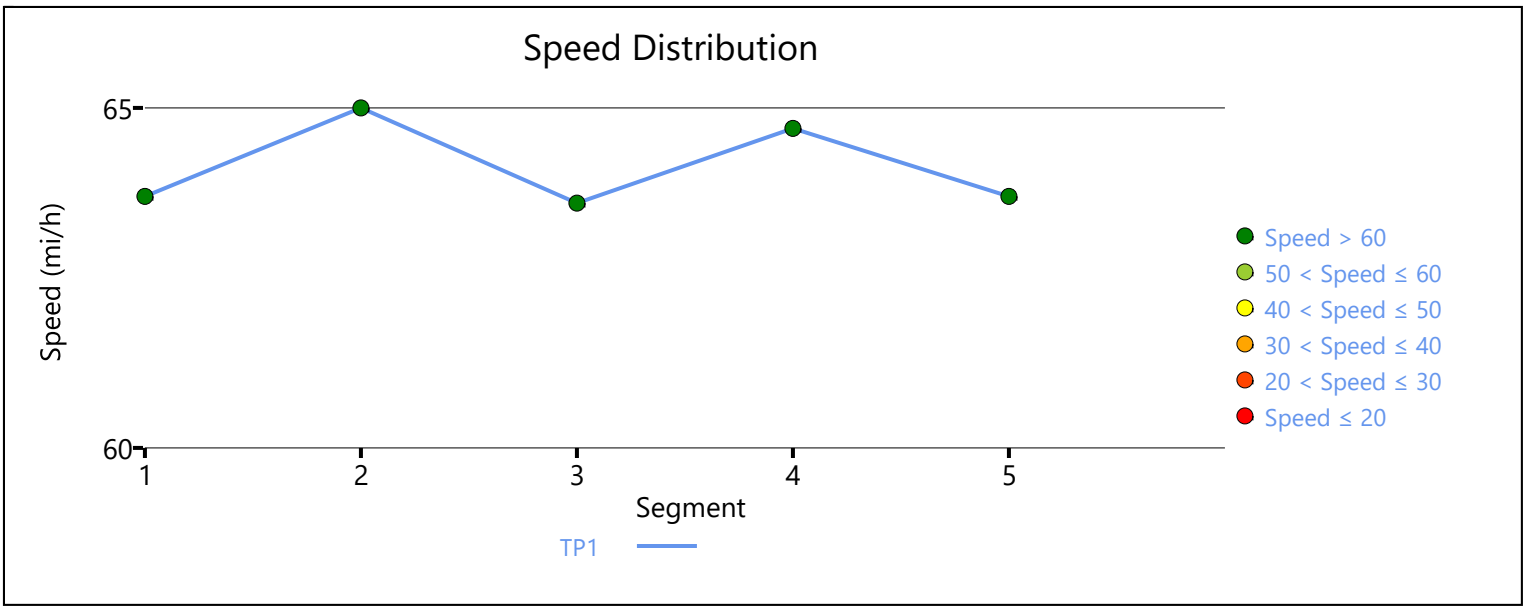
Segment 5: Basic

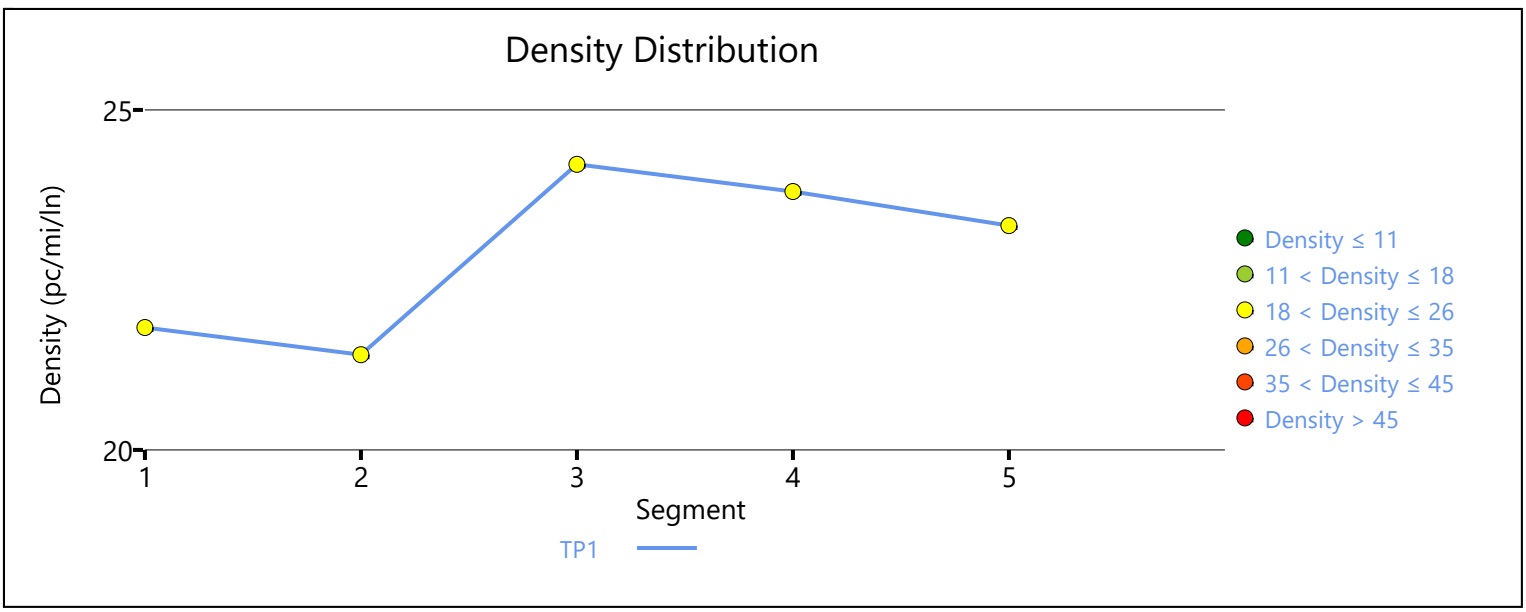
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7434	11685	0.64	63.7	23.3	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	63.9	22.5	22.1	2.7	C

Facility Overall Results			
Space Mean Speed, mi/h	63.9	Density, veh/mi/ln	22.1
Average Travel Time, min	2.7	Density, pc/mi/ln	22.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	GP Lane, ft	ML Type	ML Lanes
1	Basic	Basic	WB E of Citrus	1740	5	Continuous Access	1
2	Diverge	Basic	WB Off-Ramp	1500	5	Continuous Access	1
3	Basic	Basic	Between Off and Loop On Ramp	1215	4	Continuous Access	1
4	Merge	Merge	WB Loop On-Ramp	1500	4	Continuous Access	1
5	Basic	Basic	Between On Ramps	1450	4	Continuous Access	1
6	Merge	Merge	WB On Ramp	1500	4	Continuous Access	1
7	Basic	Basic	WB W of Citrus	6460	4	Continuous Access	1

Facility Segment Data

Segment 1: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	9811	11660	0.84	59.5	33.0	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 2: Diverge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	9050	992	11750	2100	0.83	0.47	29.8	-	60.7	-	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 3: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7947	9328	0.94	31.8	62.4	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 4: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	8329	480	9400	1900	0.99	0.25	34.5	53.1	60.3	34.5	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 5: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8248	9328	0.99	33.6	61.3	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 6: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.971	8686	489	9400	2100	1.04	0.23	39.0	51.7	55.7	36.1	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 7: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8686	9328	1.04	56.6	38.4	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

General Purpose Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.2	49.9	48.8	4.2	F

Managed Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	75.4	0.0	0.0	2.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	41.2	40.3	39.4	4.2	F

General Purpos Lane Overall Results

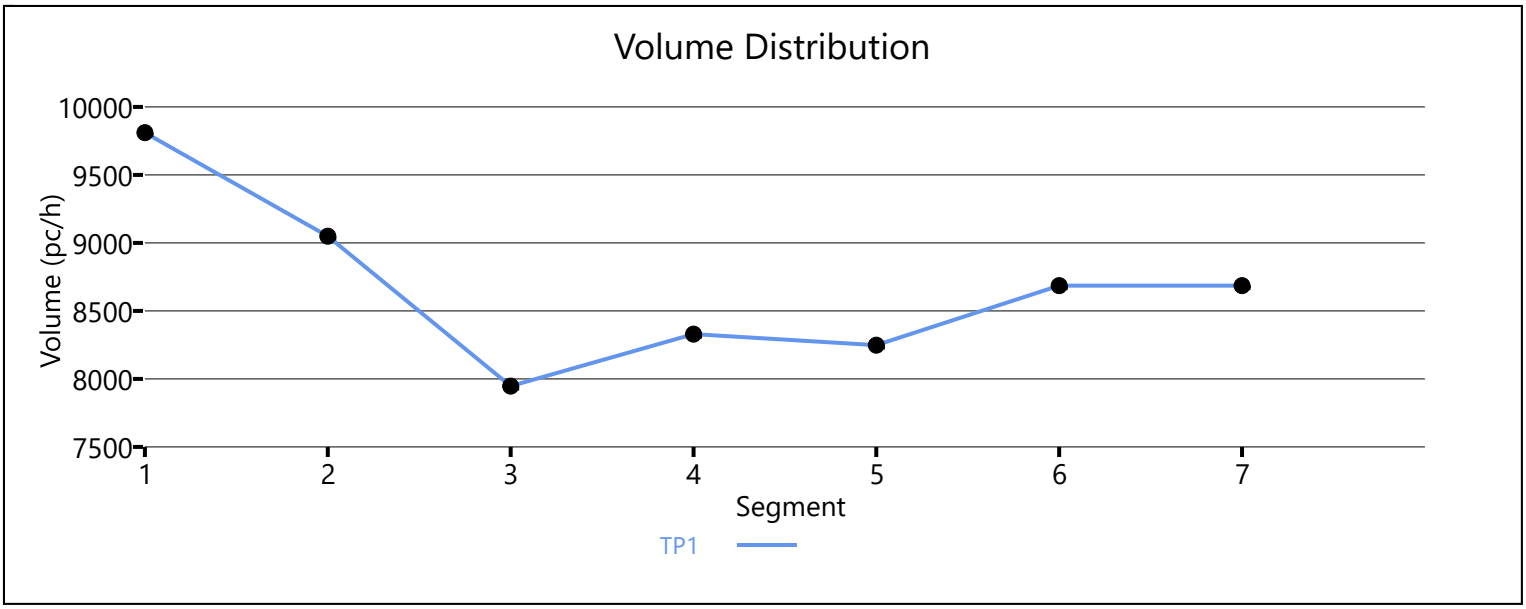
Space Mean Speed, mi/h	41.2	Density, veh/mi/ln	48.8
Average Travel Time, min	4.2	Density, pc/mi/ln	49.9

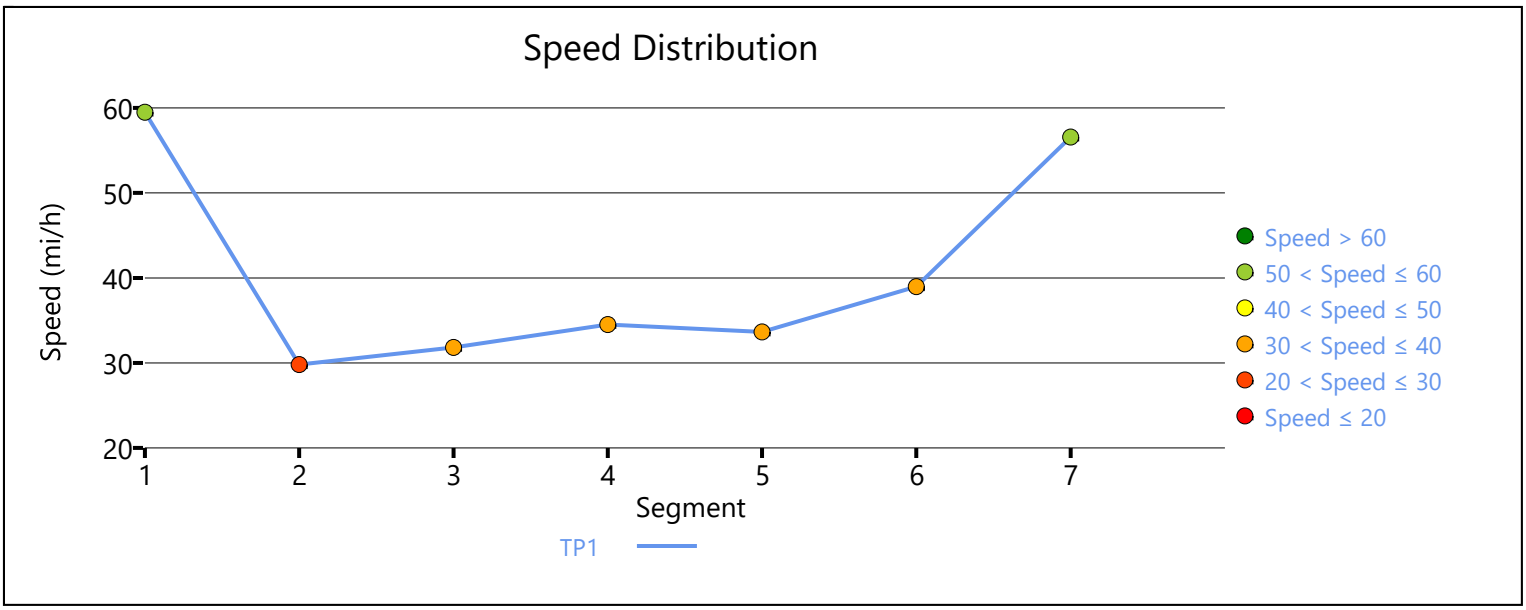
Managed Lane Overall Results

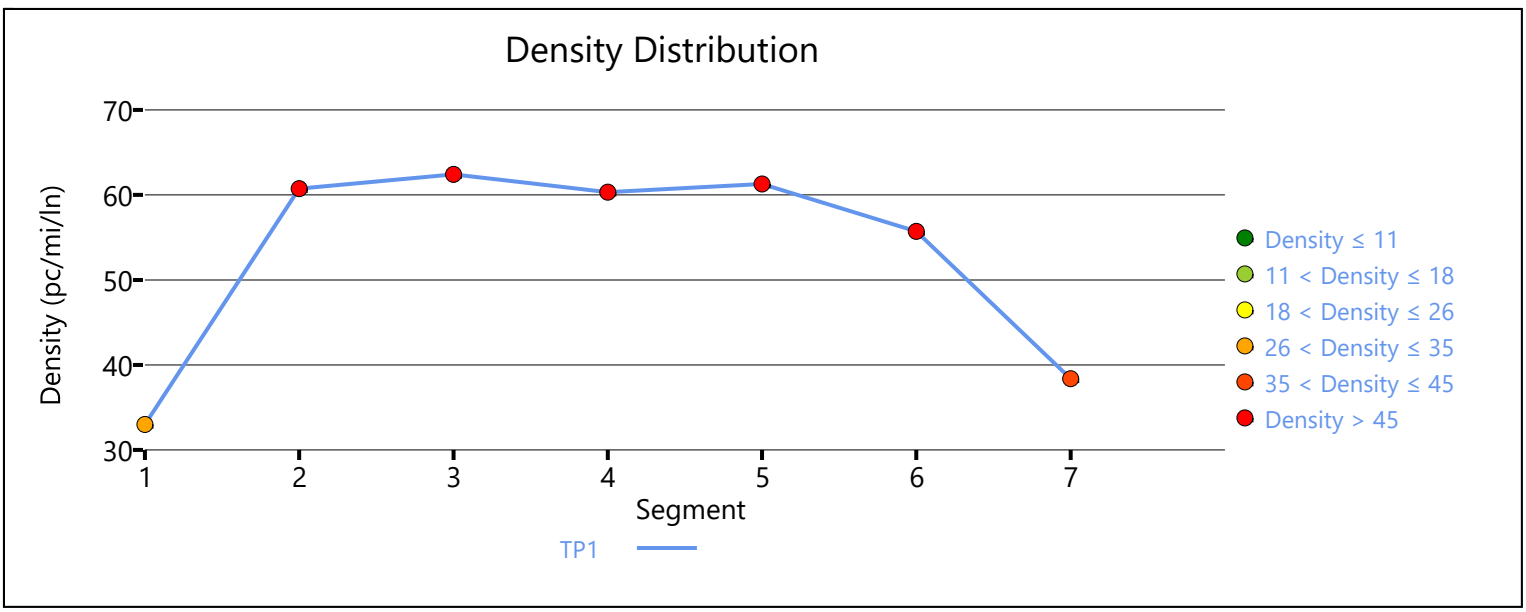
Space Mean Speed, mi/h	75.4	Density, veh/mi/ln	0.0
Average Travel Time, min	2.3	Density, pc/mi/ln	0.0

Facility Overall Results

Space Mean Speed, mi/h	41.2	Density, veh/mi/ln	39.4
Average Travel Time, min	4.2	Density, pc/mi/ln	40.3







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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8420	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	2306
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.96
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	41.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	10651	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	2289
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.95
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	40.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	10167	11185	0.91	52.8	38.5	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.962	8388	878	11250	2100	0.90	0.42	21.7	-	77.5	-	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	7332	8948	1.03	26.2	70.0	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.935	8380	1152	9000	2100	1.02	0.55	48.5	-	43.2	-	F

Segment 5: Basic

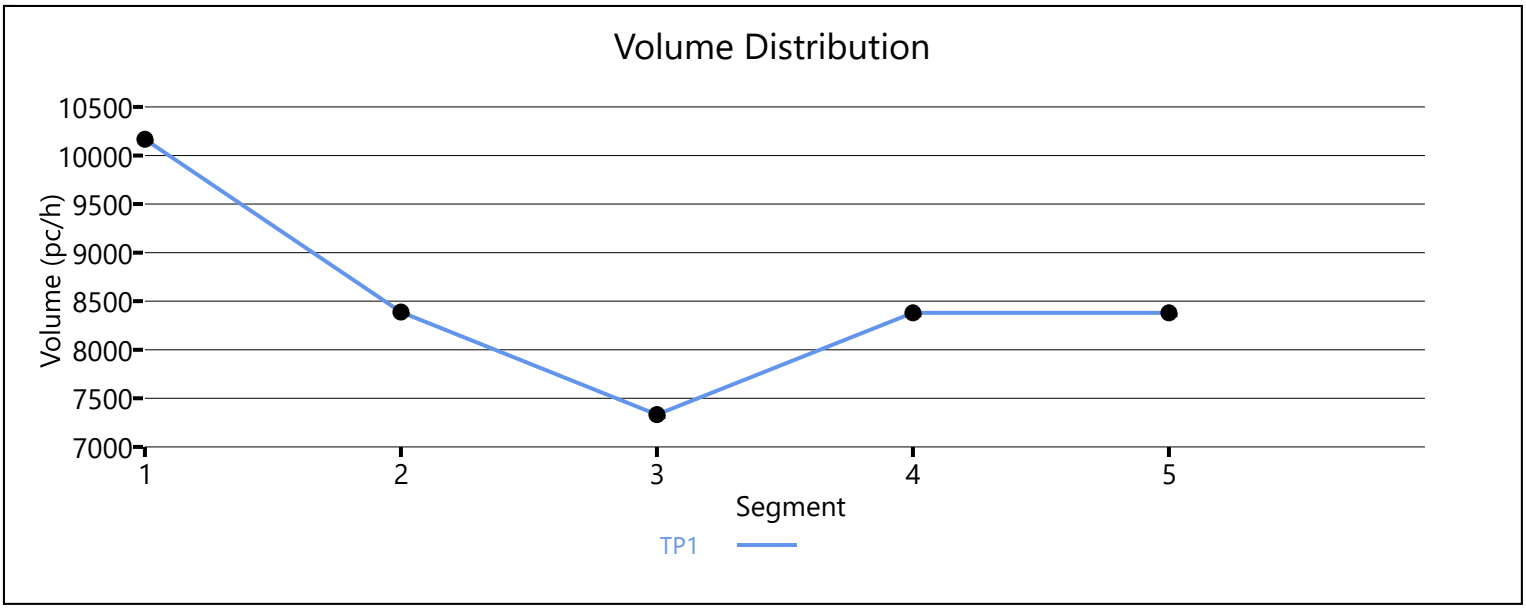
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8380	11185	0.93	53.5	30.5	D

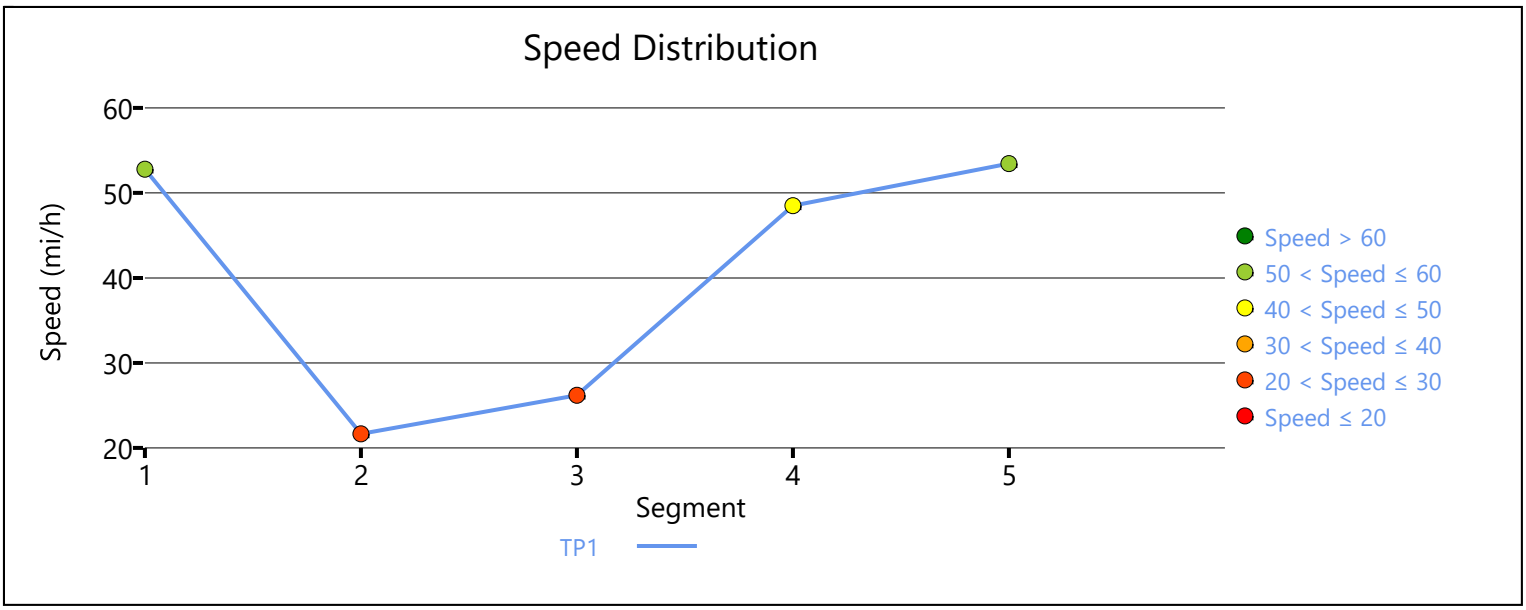
Facility Time Period Results

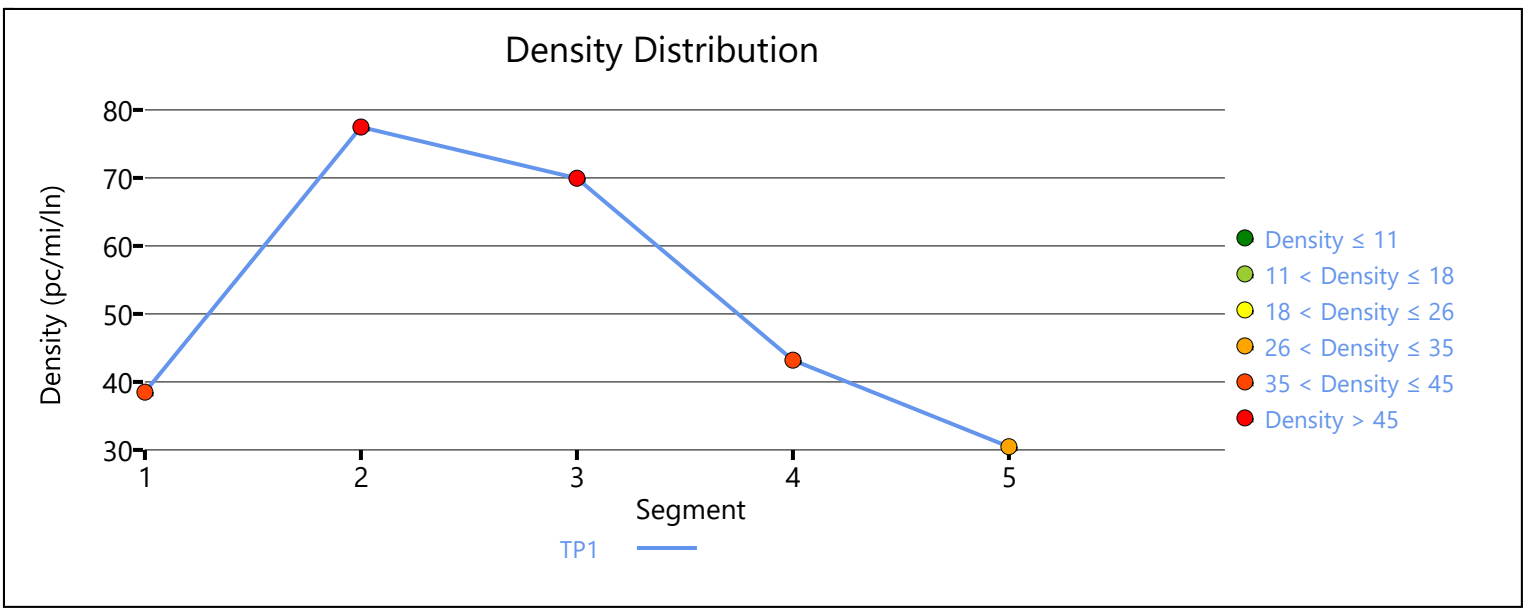
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	31.1	56.5	55.5	5.6	F

Facility Overall Results

Space Mean Speed, mi/h	31.1	Density, veh/mi/ln	55.5
Average Travel Time, min	5.6	Density, pc/mi/ln	56.5







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APPENDIX 7.8:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	WB E of Citrus	1740	5
2	Diverge	Basic	WB Off-Ramp	1500	5
3	Basic	Basic	Between Off and Loop On Ramp	1215	4
4	Merge	Merge	WB Loop On-Ramp	1500	4
5	Basic	Basic	Between On Ramps	1450	4
6	Merge	Merge	WB On Ramp	1500	4
7	Basic	Basic	WB W of Citrus	6460	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	9729	11000	0.88	48.2	40.4	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	8514	1173	11000	2100	0.88	0.56	24.1	-	70.7	-	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7226	8800	0.97	26.5	68.1	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.909	7687	569	9000	1900	1.01	0.30	29.7	45.9	64.8	34.3	F

Segment 5: Basic

Time	PHF	fHV	Flow Rate	Capacity	d/c	Speed	Density	LOS

Period			(pc/h)		(pc/h)		Ratio		(mi/h)		(pc/mi/ln)		
1	0.92	0.980	7595		8800		1.03		29.5		64.3		F

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	8194	659	9000	2100	1.08	0.31	35.6	45.4	57.6	35.9	F

Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8194	8800	1.11	48.2	41.0	F

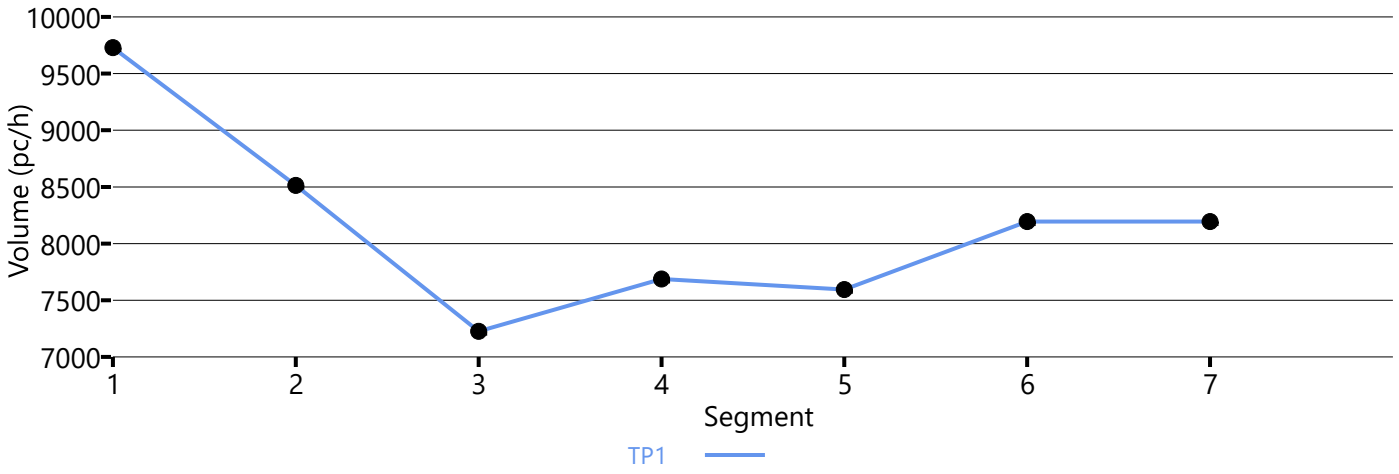
Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	33.6	56.8	55.5	5.2	F

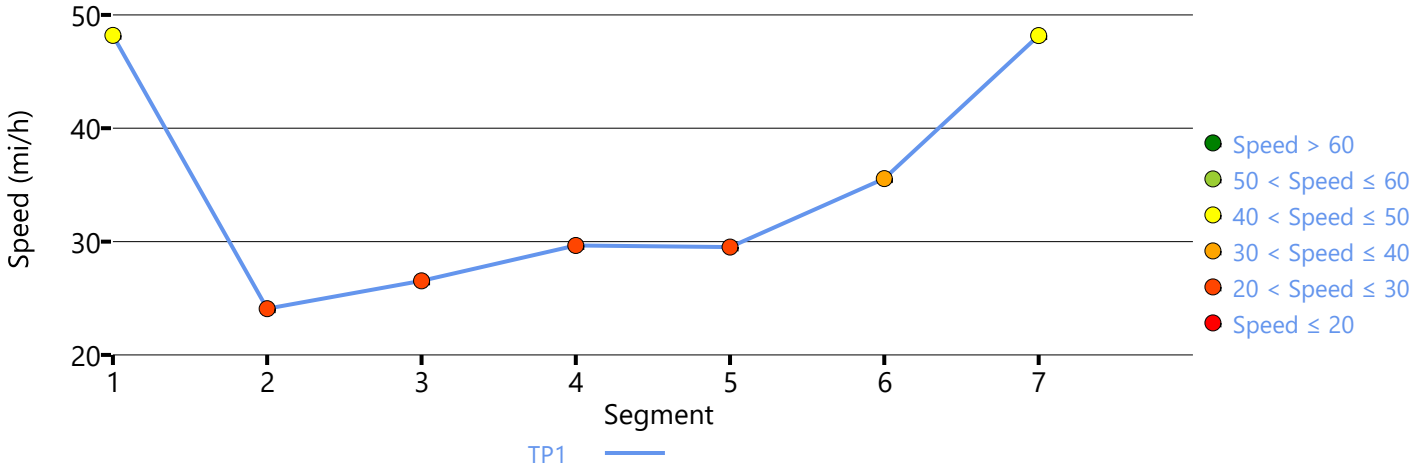
Facility Overall Results

Space Mean Speed, mi/h	33.6	Density, veh/mi/ln	55.5
Average Travel Time, min	5.2	Density, pc/mi/ln	56.8

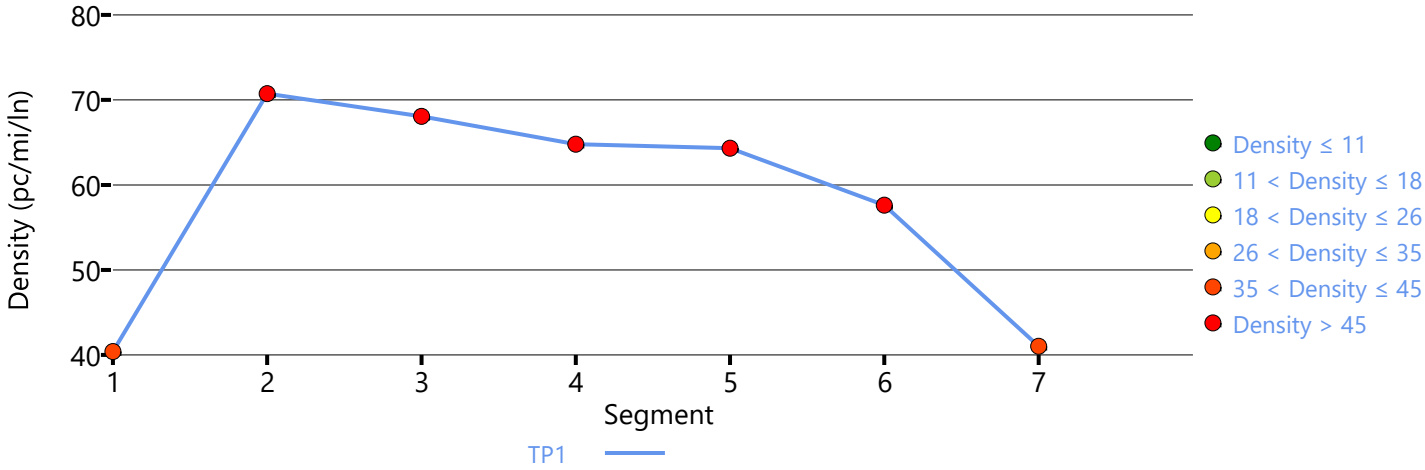
Volume Distribution



Speed Distribution



Density Distribution



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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9064	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	2532
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	1.06
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	-
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	-
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	F
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	6038	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1311
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.55
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	74.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	17.7
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7049	11685	0.60	63.7	22.1	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.893	7049	848	11750	2100	0.60	0.40	65.0	-	21.7	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	6148	9348	0.66	63.6	24.2	C

Segment 4: Merge

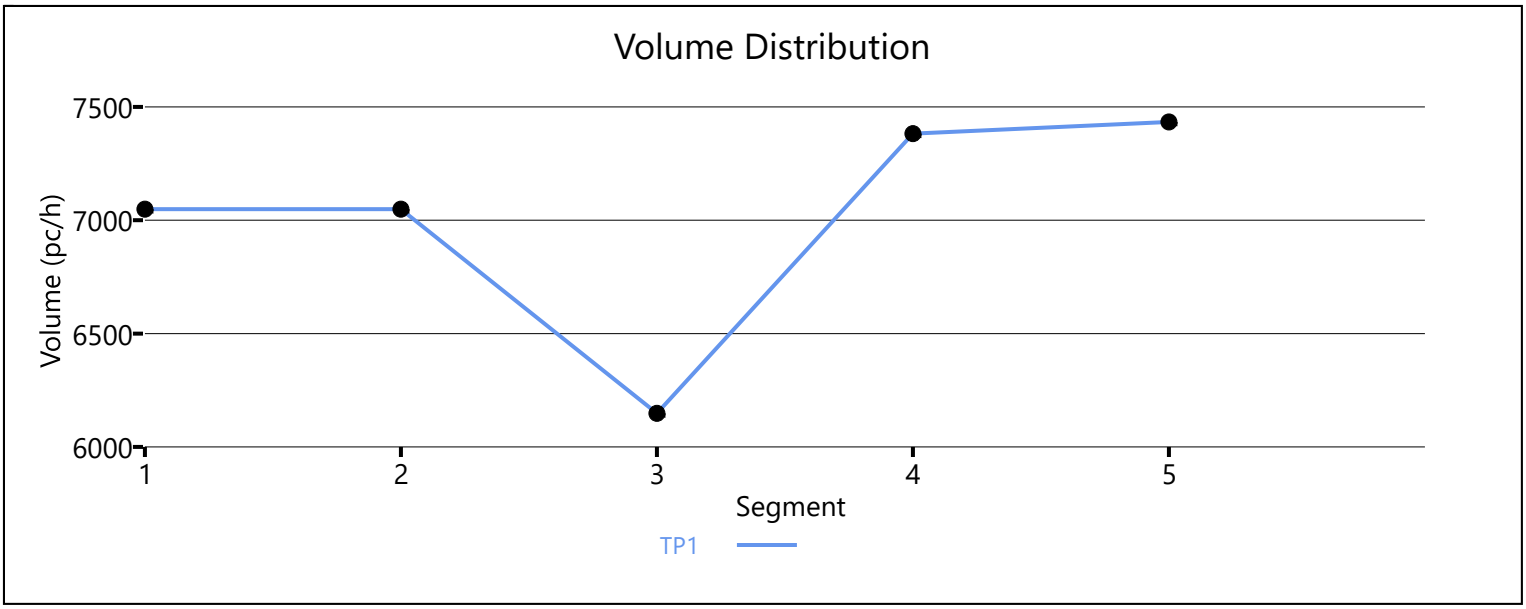
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.917	7382	1234	9400	2100	0.65	0.59	64.7	-	23.8	-	C

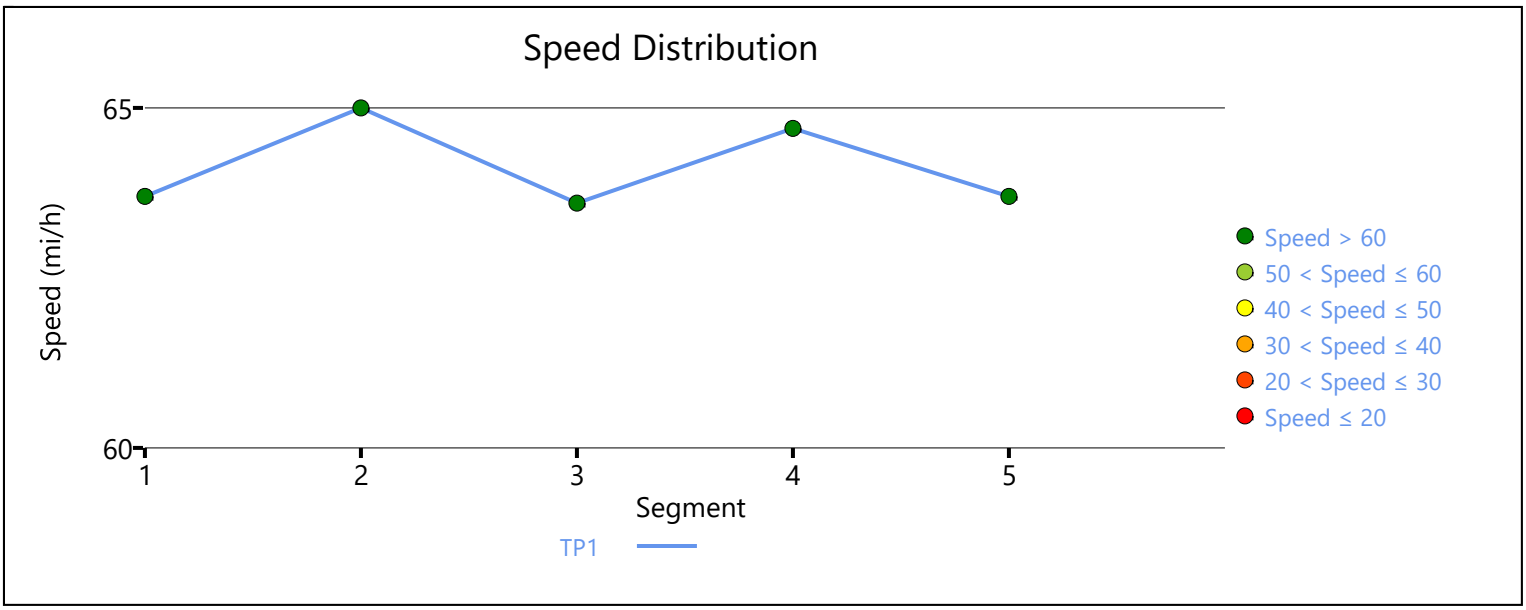
Segment 5: Basic

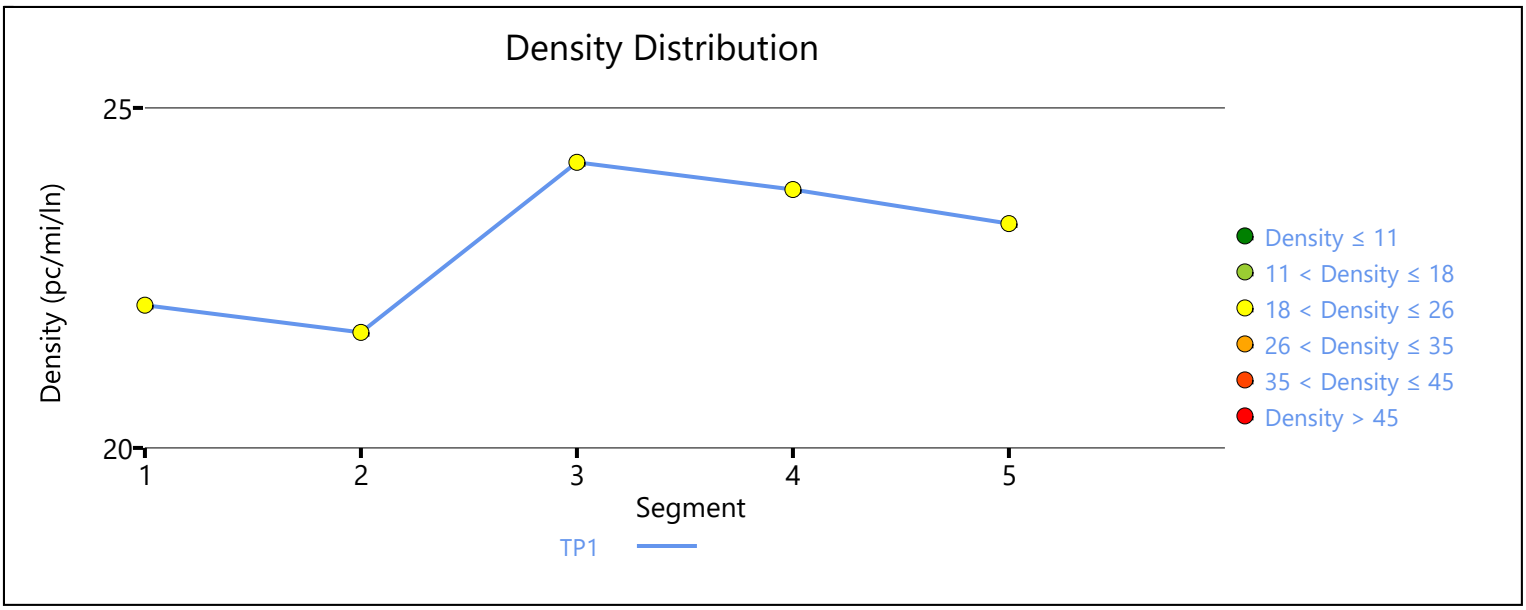
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7434	11685	0.64	63.7	23.3	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	63.9	22.7	22.1	2.7	C

Facility Overall Results			
Space Mean Speed, mi/h	63.9	Density, veh/mi/ln	22.1
Average Travel Time, min	2.7	Density, pc/mi/ln	22.7







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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	GP Lane, ft	ML Type	ML Lanes
1	Basic	Basic	WB E of Citrus	1740	5	Continuous Access	1
2	Diverge	Basic	WB Off-Ramp	1500	5	Continuous Access	1
3	Basic	Basic	Between Off and Loop On Ramp	1215	4	Continuous Access	1
4	Merge	Merge	WB Loop On-Ramp	1500	4	Continuous Access	1
5	Basic	Basic	Between On Ramps	1450	4	Continuous Access	1
6	Merge	Merge	WB On Ramp	1500	4	Continuous Access	1
7	Basic	Basic	WB W of Citrus	6460	4	Continuous Access	1

Facility Segment Data

Segment 1: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	9811	11660	0.84	59.5	33.0	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 2: Diverge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	9010	992	11750	2100	0.83	0.47	29.2	-	61.7	-	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 3: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7905	9328	0.94	31.2	63.3	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 4: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	8328	519	9400	1900	0.99	0.27	34.4	52.9	60.5	34.8	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 5: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8248	9328	1.00	33.6	61.3	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 6: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.971	8686	489	9400	2100	1.04	0.23	39.0	51.5	55.7	36.3	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 7: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8686	9328	1.05	56.6	38.4	F

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

General Purpose Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	40.8	50.4	49.2	4.3	F

Managed Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	75.4	0.0	0.0	2.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	40.8	40.7	39.8	4.3	F

General Purpos Lane Overall Results

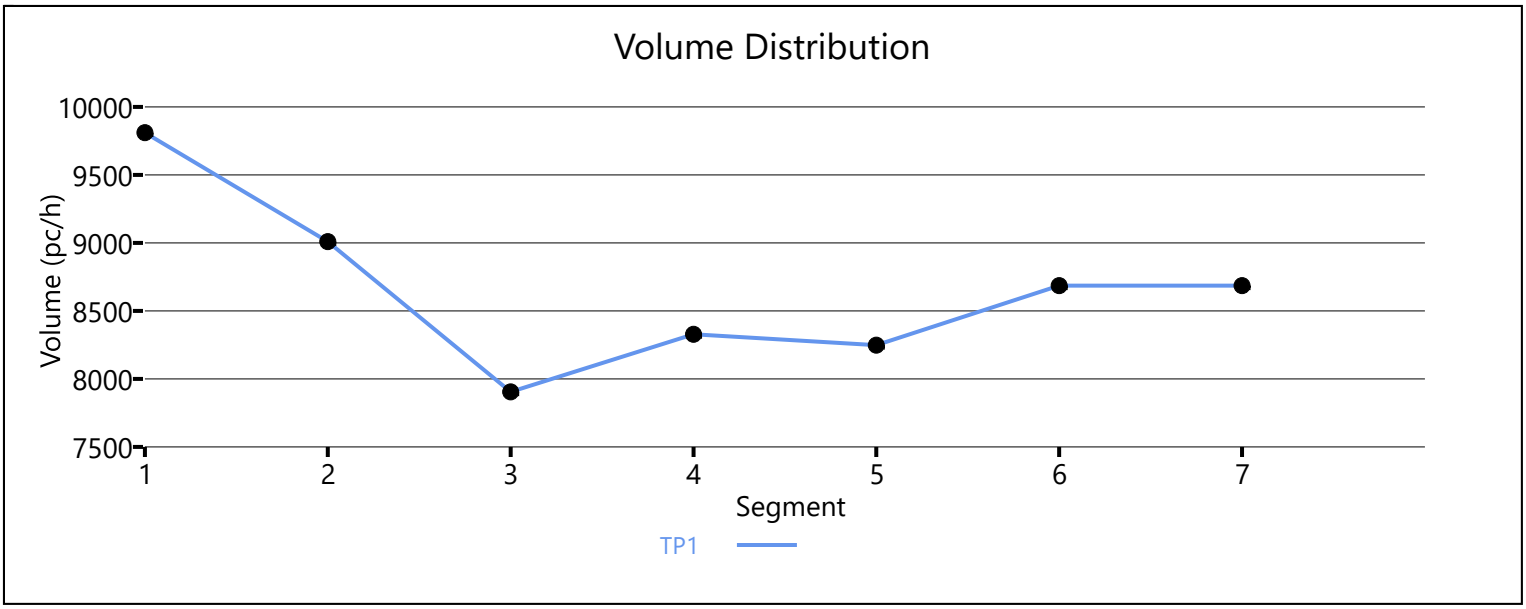
Space Mean Speed, mi/h	40.8	Density, veh/mi/ln	49.2
Average Travel Time, min	4.3	Density, pc/mi/ln	50.4

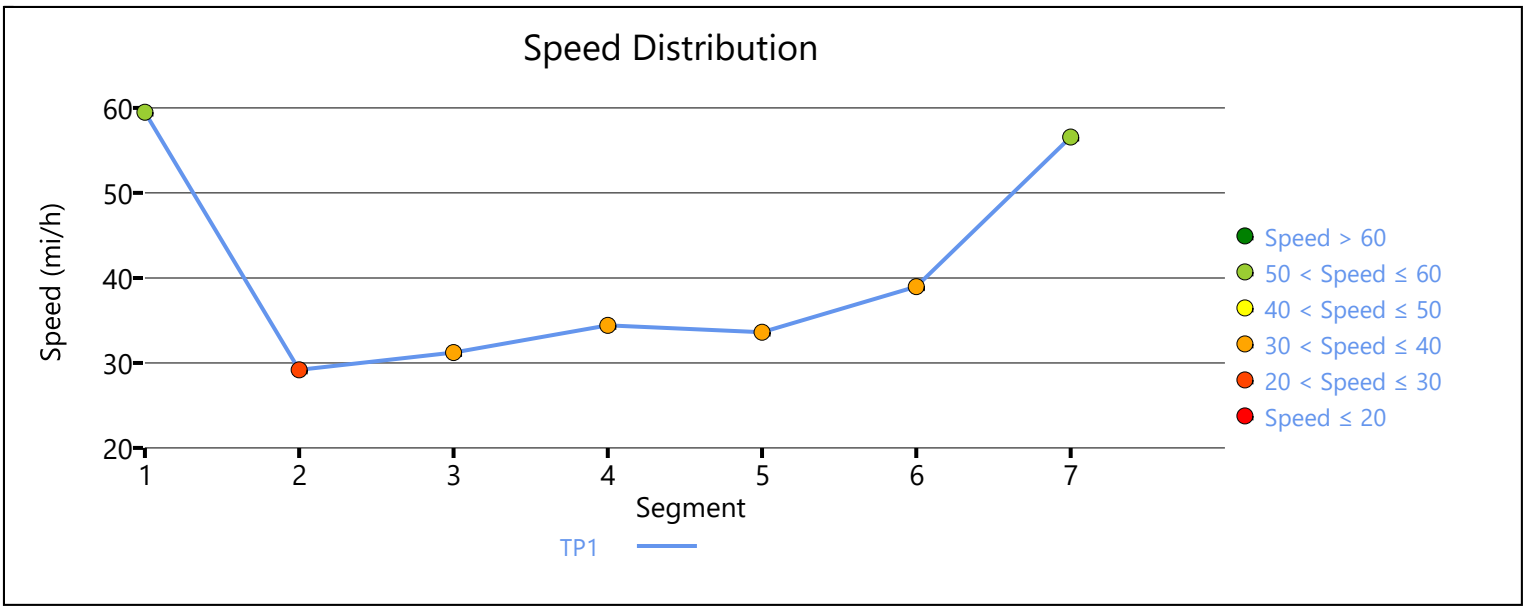
Managed Lane Overall Results

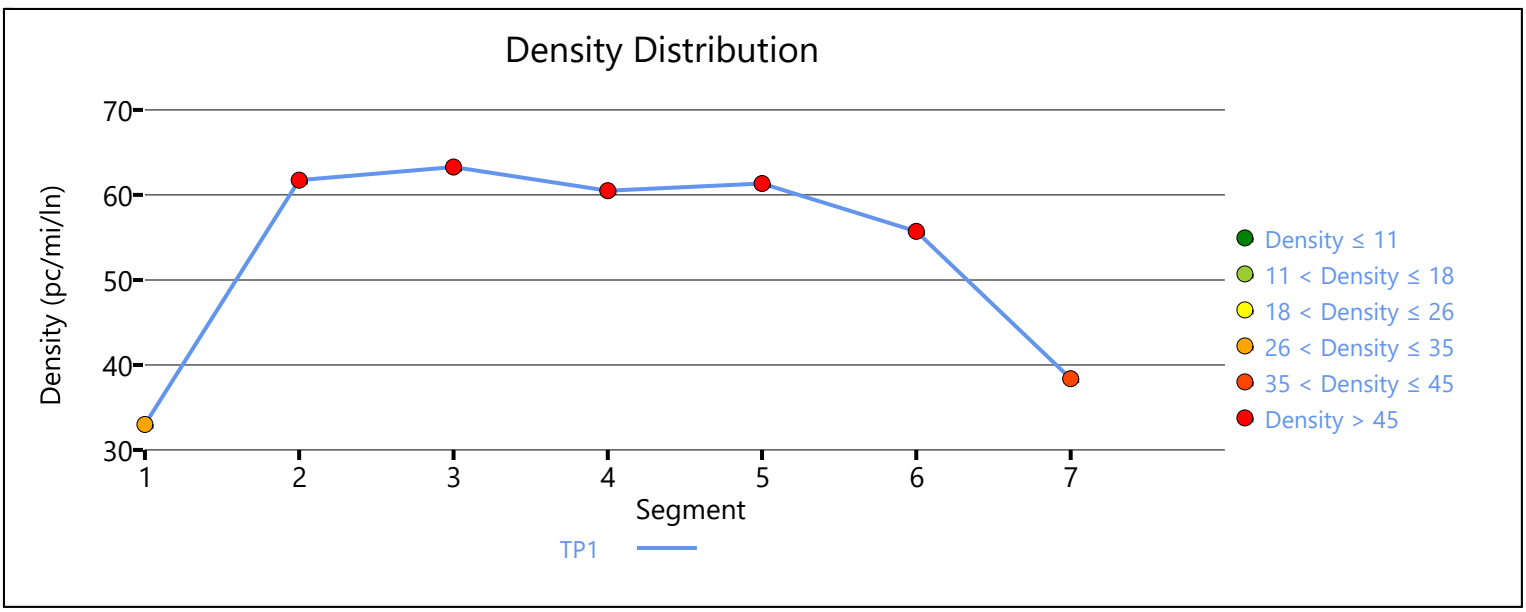
Space Mean Speed, mi/h	75.4	Density, veh/mi/ln	0.0
Average Travel Time, min	2.3	Density, pc/mi/ln	0.0

Facility Overall Results

Space Mean Speed, mi/h	40.8	Density, veh/mi/ln	39.8
Average Travel Time, min	4.3	Density, pc/mi/ln	40.7







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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	8447	Heavy Vehicle Adjustment Factor (f_{HV})	0.971
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	2314
Total Trucks, %	3.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.96
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	55.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	41.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	10662	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	2291
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.95
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	56.6
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	40.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	10180	11185	0.91	52.8	38.6	E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.962	8400	890	11250	2100	0.90	0.42	21.7	-	77.4	-	F

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	7332	8948	1.03	26.2	70.0	F

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.935	8380	1152	9000	2100	1.02	0.55	48.5	-	43.2	-	F

Segment 5: Basic

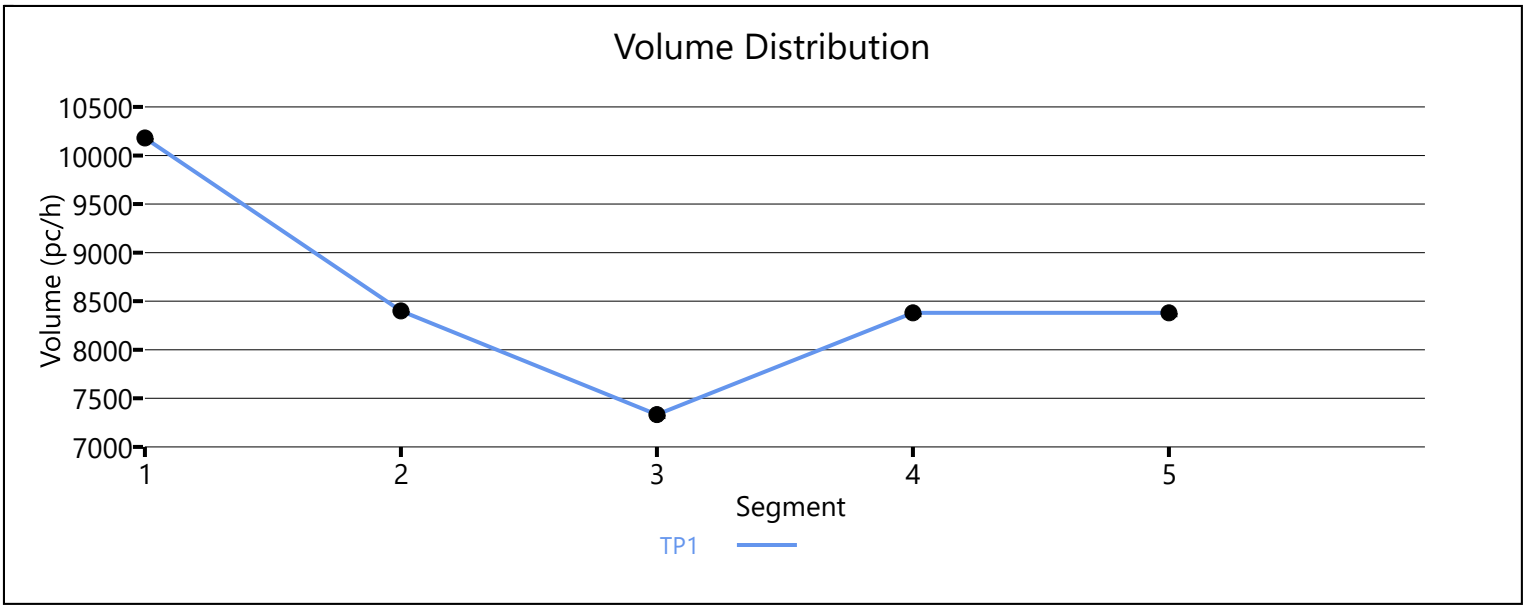
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8380	11185	0.93	53.5	30.5	D

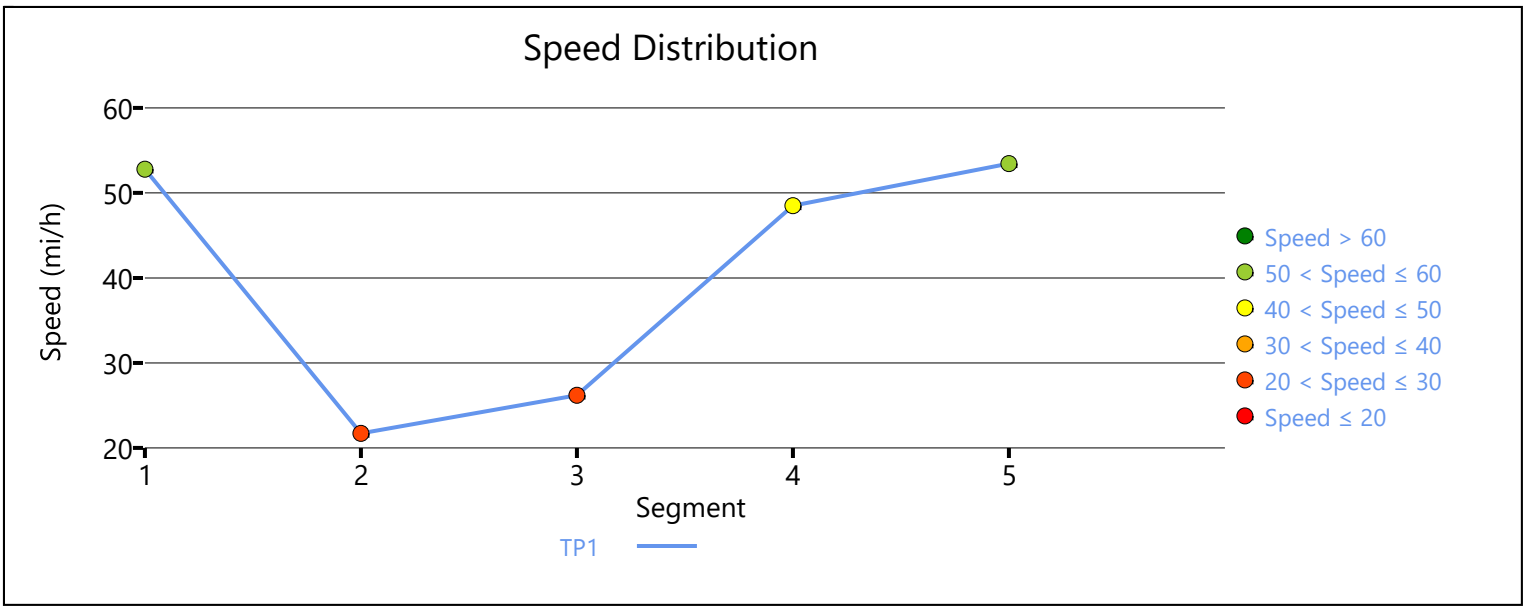
Facility Time Period Results

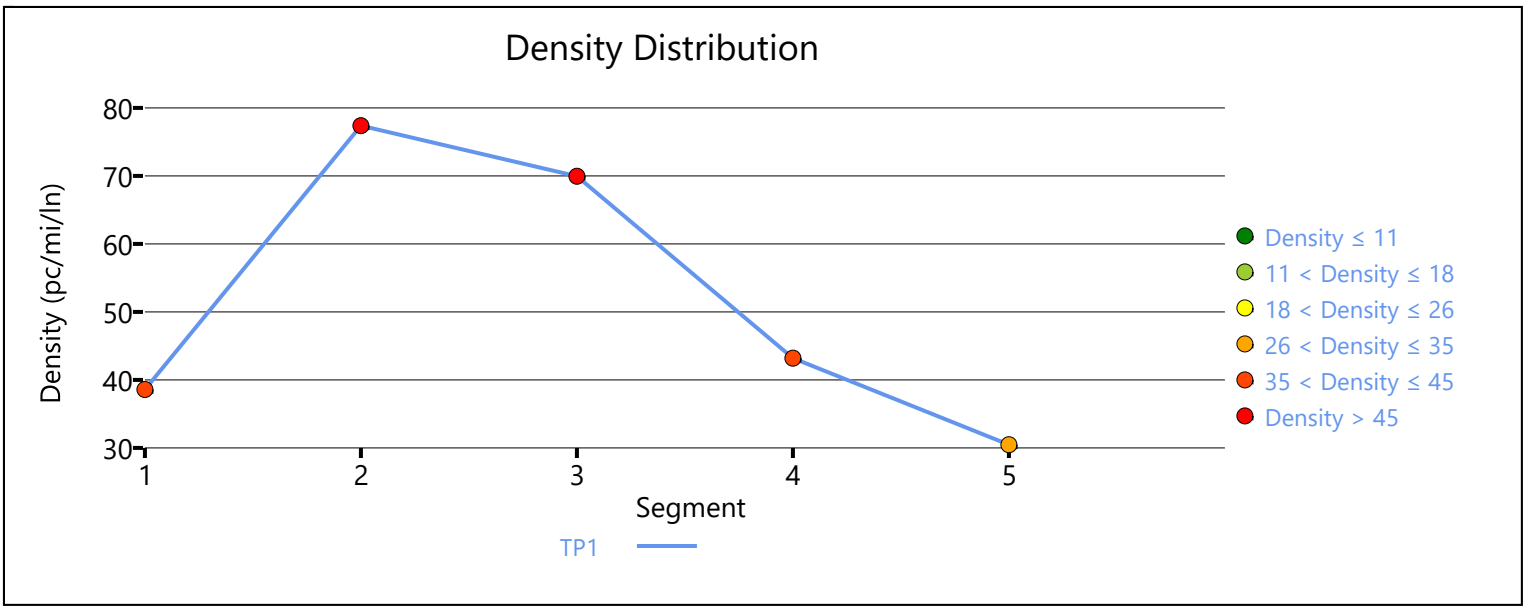
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	31.1	56.6	55.5	5.6	F

Facility Overall Results

Space Mean Speed, mi/h	31.1	Density, veh/mi/ln	55.5
Average Travel Time, min	5.6	Density, pc/mi/ln	56.6







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APPENDIX 7.9:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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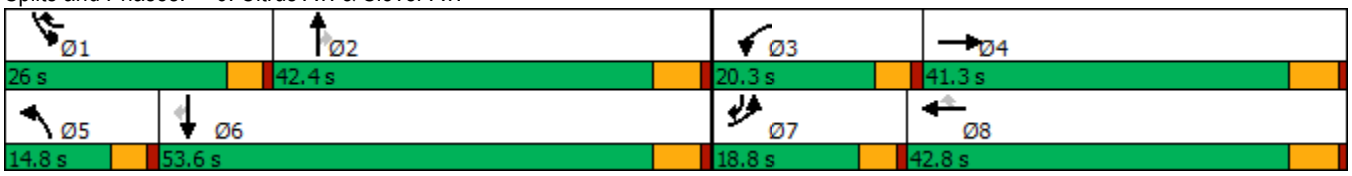
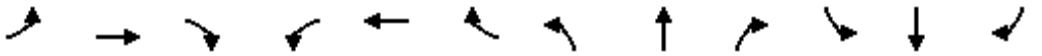
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	222	231	136	548	337	59	917	83	262	840	619
Future Volume (vph)	222	231	136	548	337	59	917	83	262	840	619
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	1	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	37.8	9.6	42.8	9.6	9.6	41.8	41.8	9.6	35.8	9.6
Total Split (s)	18.8	41.3	20.3	42.8	26.0	14.8	42.4	42.4	26.0	53.6	18.8
Total Split (%)	14.5%	31.8%	15.6%	32.9%	20.0%	11.4%	32.6%	32.6%	20.0%	41.2%	14.5%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 110.6
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	222	231	68	136	548	337	59	917	83	262	840	619
Future Volume (veh/h)	222	231	68	136	548	337	59	917	83	262	840	619
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		0.99	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1976	1900	1976	1900	1900	1976	1900	1900	1976	1976	1900	1976
Adj Flow Rate, veh/h	255	266	72	156	630	333	68	1054	64	301	966	578
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	330	654	174	188	887	707	88	1441	455	335	1470	825
Arrive On Green	0.09	0.23	0.23	0.10	0.25	0.25	0.05	0.28	0.28	0.18	0.41	0.41
Sat Flow, veh/h	3651	2819	748	1810	3610	1662	1810	5187	1639	1882	3610	1654
Grp Volume(v), veh/h	255	168	170	156	630	333	68	1054	64	301	966	578
Grp Sat Flow(s),veh/h/ln	1825	1805	1762	1810	1805	1662	1810	1729	1639	1882	1805	1654
Q Serve(g_s), s	6.8	7.9	8.2	8.5	15.9	14.4	3.7	18.4	2.9	15.6	21.7	27.0
Cycle Q Clear(g_c), s	6.8	7.9	8.2	8.5	15.9	14.4	3.7	18.4	2.9	15.6	21.7	27.0
Prop In Lane	1.00		0.42	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	330	419	409	188	887	707	88	1441	455	335	1470	825
V/C Ratio(X)	0.77	0.40	0.41	0.83	0.71	0.47	0.77	0.73	0.14	0.90	0.66	0.70
Avail Cap(c_a), veh/h	518	641	626	284	1336	913	185	1899	600	403	1726	942
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.5	32.5	32.6	43.9	34.5	20.8	47.0	32.7	27.1	40.2	24.0	19.4
Incr Delay (d2), s/veh	1.5	0.6	0.7	7.2	1.1	0.5	5.3	1.0	0.1	18.1	0.7	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	3.4	3.4	4.0	6.8	5.3	1.7	7.4	1.1	8.6	8.7	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	33.1	33.3	51.2	35.5	21.3	52.3	33.7	27.3	58.3	24.7	21.4
LnGrp LOS	D	C	C	D	D	C	D	C	C	E	C	C
Approach Vol, veh/h		593			1119			1186			1845	
Approach Delay, s/veh		38.7			33.5			34.5			29.1	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.4	33.6	15.0	29.0	9.5	46.5	13.6	30.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	21.4	36.6	15.7	35.5	10.2	47.8	14.2	37.0
Max Q Clear Time (g_c+I1), s	17.6	20.4	10.5	10.2	5.7	29.0	8.8	17.9
Green Ext Time (p_c), s	0.2	6.4	0.1	1.8	0.0	8.5	0.2	4.9

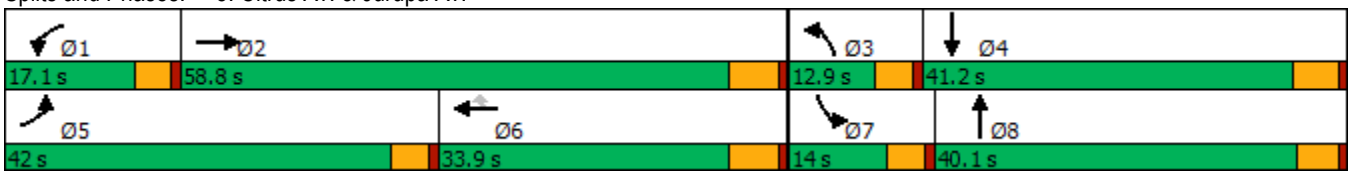
Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

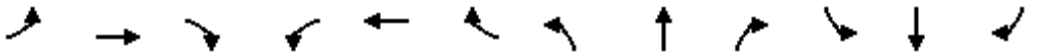
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	554	519	77	696	160	68	334	121	130
Future Volume (vph)	554	519	77	696	160	68	334	121	130
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	42.0	58.8	17.1	33.9	33.9	12.9	40.1	14.0	41.2
Total Split (%)	32.3%	45.2%	13.2%	26.1%	26.1%	9.9%	30.8%	10.8%	31.7%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 112.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	554	519	15	77	696	160	68	334	128	121	130	210
Future Volume (veh/h)	554	519	15	77	696	160	68	334	128	121	130	210
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1976	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	602	564	14	84	757	135	74	363	114	132	141	168
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	632	2477	61	108	1036	321	95	480	149	161	385	344
Arrive On Green	0.34	0.48	0.48	0.06	0.20	0.20	0.05	0.18	0.18	0.09	0.21	0.21
Sat Flow, veh/h	1882	5204	129	1810	5187	1605	1810	2712	840	1810	1805	1610
Grp Volume(v), veh/h	602	374	204	84	757	135	74	240	237	132	141	168
Grp Sat Flow(s),veh/h/ln	1882	1729	1875	1810	1729	1605	1810	1805	1747	1810	1805	1610
Q Serve(g_s), s	32.1	6.5	6.6	4.7	14.1	7.6	4.2	13.0	13.3	7.4	6.9	9.4
Cycle Q Clear(g_c), s	32.1	6.5	6.6	4.7	14.1	7.6	4.2	13.0	13.3	7.4	6.9	9.4
Prop In Lane	1.00		0.07	1.00		1.00	1.00		0.48	1.00		1.00
Lane Grp Cap(c), veh/h	632	1646	892	108	1036	321	95	320	309	161	385	344
V/C Ratio(X)	0.95	0.23	0.23	0.78	0.73	0.42	0.78	0.75	0.77	0.82	0.37	0.49
Avail Cap(c_a), veh/h	684	1781	966	220	1417	438	146	614	594	165	628	560
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.4	15.8	15.8	47.7	38.6	36.0	48.1	40.2	40.3	46.0	34.5	35.5
Incr Delay (d2), s/veh	22.0	0.1	0.1	4.5	1.3	0.9	5.7	3.5	4.0	24.5	0.6	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.5	2.4	2.6	2.2	5.8	3.0	2.0	6.0	5.9	4.3	3.0	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.3	15.9	16.0	52.2	39.8	36.8	53.9	43.7	44.3	70.5	35.1	36.6
LnGrp LOS	E	B	B	D	D	D	D	D	D	E	D	D
Approach Vol, veh/h		1180			976			551			441	
Approach Delay, s/veh		36.0			40.5			45.3			46.3	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	54.8	10.0	27.4	39.1	26.4	13.8	23.6
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	12.5	53.0	8.3	35.8	37.4	28.1	9.4	* 35
Max Q Clear Time (g_c+I1), s	6.7	8.6	6.2	11.4	34.1	16.1	9.4	15.3
Green Ext Time (p_c), s	0.0	3.6	0.0	1.7	0.4	4.1	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	40.5
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	22.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	258	31	90	525	16	26	33	42	42	52	17
Future Vol, veh/h	7	258	31	90	525	16	26	33	42	42	52	17
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	353	42	123	719	22	36	45	58	58	71	23
Number of Lanes	0	2	0	0	2	0	0	1	1	0	1	1

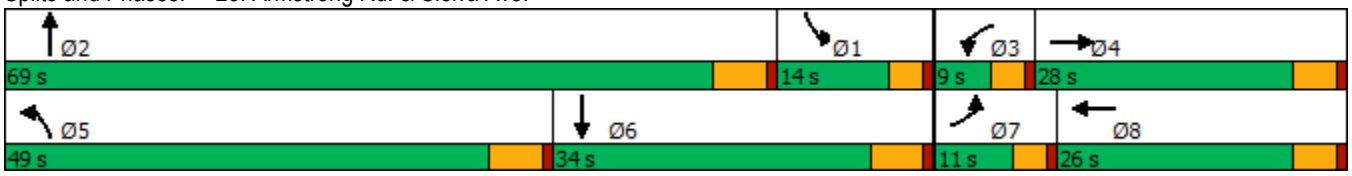
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	14	30.4	12.1	13.7
HCM LOS	B	D	B	B

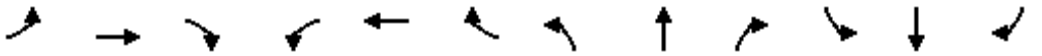
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	44%	0%	5%	0%	26%	0%	45%	0%
Vol Thru, %	56%	0%	95%	81%	74%	94%	55%	0%
Vol Right, %	0%	100%	0%	19%	0%	6%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	42	136	160	353	279	94	17
LT Vol	26	0	7	0	90	0	42	0
Through Vol	33	0	129	129	263	263	52	0
RT Vol	0	42	0	31	0	16	0	17
Lane Flow Rate	81	58	186	219	483	382	129	23
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.185	0.116	0.361	0.414	0.869	0.669	0.292	0.047
Departure Headway (Hd)	8.237	7.288	6.97	6.805	6.481	6.311	8.173	7.223
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	436	492	516	530	565	576	440	496
Service Time	5.975	5.026	4.705	4.54	4.181	4.011	5.912	4.961
HCM Lane V/C Ratio	0.186	0.118	0.36	0.413	0.855	0.663	0.293	0.046
HCM Control Delay	12.8	11	13.6	14.3	38	20.8	14.3	10.3
HCM Lane LOS	B	B	B	B	E	C	B	B
HCM 95th-tile Q	0.7	0.4	1.6	2	9.7	5	1.2	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	73	29	759	44	60	1165	489	42	318
Future Volume (vph)	73	29	759	44	60	1165	489	42	318
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0		9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	11.0	28.0		9.0	26.0	49.0	69.0	14.0	34.0
Total Split (%)	9.2%	23.3%		7.5%	21.7%	40.8%	57.5%	11.7%	28.3%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	Max	None	Max
Act Effct Green (s)	6.8	10.7	106.4	7.7	7.5	43.3	66.2	10.0	28.3
Actuated g/C Ratio	0.06	0.10	1.00	0.07	0.07	0.41	0.62	0.09	0.27
v/c Ratio	0.68	0.09	0.51	0.36	0.38	0.88	0.27	0.27	0.82
Control Delay	77.7	45.0	1.1	57.5	34.0	37.9	10.0	49.8	51.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.7	45.0	1.1	57.5	34.0	37.9	10.0	49.8	51.6
LOS	E	D	A	E	C	D	B	D	D
Approach Delay		9.1			41.3		28.9		51.4
Approach LOS		A			D		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.4	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 78.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	29	759	44	60	37	1165	489	70	42	318	63
Future Volume (veh/h)	73	29	759	44	60	37	1165	489	70	42	318	63
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		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	31	0	47	65	27	1253	526	75	45	342	45
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	100	249		65	125	49	1391	1978	281	128	490	64
Arrive On Green	0.06	0.07	0.00	0.04	0.05	0.05	0.40	0.62	0.62	0.07	0.30	0.30
Sat Flow, veh/h	1810	3610	1610	1810	2524	985	3510	3173	451	1810	1644	216
Grp Volume(v), veh/h	78	31	0	47	45	47	1253	298	303	45	0	387
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1703	1755	1805	1819	1810	0	1861
Q Serve(g_s), s	4.3	0.8	0.0	2.6	2.5	2.7	34.0	7.6	7.6	2.4	0.0	18.7
Cycle Q Clear(g_c), s	4.3	0.8	0.0	2.6	2.5	2.7	34.0	7.6	7.6	2.4	0.0	18.7
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.25	1.00		0.12
Lane Grp Cap(c), veh/h	100	249		65	90	85	1391	1125	1134	128	0	554
V/C Ratio(X)	0.78	0.12		0.72	0.51	0.55	0.90	0.27	0.27	0.35	0.00	0.70
Avail Cap(c_a), veh/h	125	818		89	373	352	1497	1125	1134	178	0	554
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.4	44.4	0.0	48.4	47.0	47.2	28.8	8.6	8.6	45.0	0.0	31.6
Incr Delay (d2), s/veh	16.8	0.2	0.0	8.6	4.3	5.5	7.7	0.6	0.6	0.6	0.0	7.1
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	0.4	0.0	1.3	1.2	1.3	14.6	2.7	2.7	1.1	0.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	44.6	0.0	57.0	51.4	52.7	36.5	9.2	9.2	45.6	0.0	38.8
LnGrp LOS	E	D		E	D	D	D	A	A	D	A	D
Approach Vol, veh/h		109	A		139			1854			432	
Approach Delay, s/veh		58.6			53.7			27.7			39.5	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	69.0	7.7	12.0	45.9	35.9	9.6	10.0
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 63	5.0	23.0	43.3	28.3	7.0	21.0
Max Q Clear Time (g_c+I1), s	4.4	9.6	4.6	2.8	36.0	20.7	6.3	4.7
Green Ext Time (p_c), s	0.0	5.6	0.0	0.1	4.2	1.7	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

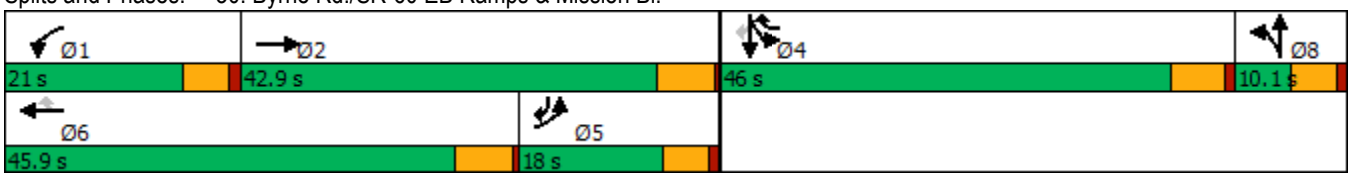
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

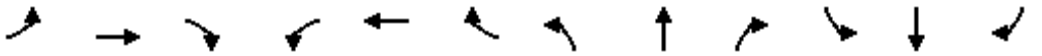
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	314	560	4	398	388	0	1407	2	164
Future Volume (vph)	314	560	4	398	388	0	1407	2	164
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA	pm+ov
Protected Phases	5	2	1	6	4	8	4	4	5
Permitted Phases					6				4
Detector Phase	5	2	1	6	4	8	4	4	5
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8	10.1
Total Split (s)	18.0	42.9	21.0	45.9	46.0	10.1	46.0	46.0	18.0
Total Split (%)	15.0%	35.8%	17.5%	38.3%	38.3%	8.4%	38.3%	38.3%	15.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8	4.1
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8	5.1
Lead/Lag	Lag	Lag	Lead	Lead					Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	None	None	Max	None	Max	Max	None
Act Effct Green (s)	18.7	37.5	5.8	15.7	56.1	5.0	40.5	40.5	65.0
Actuated g/C Ratio	0.20	0.39	0.06	0.16	0.59	0.05	0.42	0.42	0.68
v/c Ratio	0.97	0.43	0.04	0.73	0.39	0.06	1.05	1.05	0.15
Control Delay	81.3	23.5	47.2	45.8	2.6	0.4	75.8	76.6	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.3	23.5	47.2	45.8	2.6	0.4	75.8	76.6	2.4
LOS	F	C	D	D	A	A	E	E	A
Approach Delay		44.2		24.6		0.4		68.5	
Approach LOS		D		C		A		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 95.3	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 51.0	Intersection LOS: D
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	560	4	4	398	388	5	0	9	1407	2	164
Future Volume (veh/h)	314	560	4	4	398	388	5	0	9	1407	2	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	341	609	3	4	433	211	5	0	6	1530	0	149
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	345	1357	7	10	639	922	10	0	12	1441	0	948
Arrive On Green	0.19	0.37	0.37	0.01	0.18	0.18	0.01	0.00	0.01	0.40	0.00	0.40
Sat Flow, veh/h	1810	3683	18	1810	3610	1586	770	0	925	3619	0	1610
Grp Volume(v), veh/h	341	298	314	4	433	211	11	0	0	1530	0	149
Grp Sat Flow(s),veh/h/ln	1810	1805	1896	1810	1805	1586	1695	0	0	1810	0	1610
Q Serve(g_s), s	19.0	12.6	12.6	0.2	11.3	6.6	0.7	0.0	0.0	40.2	0.0	0.0
Cycle Q Clear(g_c), s	19.0	12.6	12.6	0.2	11.3	6.6	0.7	0.0	0.0	40.2	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.45		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	345	665	699	10	639	922	22	0	0	1441	0	948
V/C Ratio(X)	0.99	0.45	0.45	0.42	0.68	0.23	0.49	0.00	0.00	1.06	0.00	0.16
Avail Cap(c_a), veh/h	345	665	699	285	1437	1273	84	0	0	1441	0	948
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.7	24.1	24.1	50.1	38.8	10.5	49.5	0.0	0.0	30.4	0.0	9.4
Incr Delay (d2), s/veh	45.1	2.2	2.1	26.9	0.5	0.0	6.2	0.0	0.0	42.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	5.5	5.7	0.2	4.8	4.8	0.3	0.0	0.0	24.3	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.8	26.3	26.2	77.0	39.3	10.6	55.6	0.0	0.0	72.4	0.0	9.8
LnGrp LOS	F	C	C	E	D	B	E	A	A	F	A	A
Approach Vol, veh/h		953			648			11			1679	
Approach Delay, s/veh		47.6			30.2			55.6			66.8	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	42.9		46.0	25.0	23.6		6.4				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	15.9	37.2		40.2	12.9	* 40		5.0				
Max Q Clear Time (g_c+I1), s	2.2	14.6		42.2	21.0	13.3		2.7				
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	2.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		54.0	
HCM 6th LOS		D	

Notes

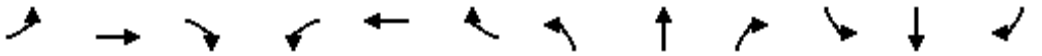
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	184	101	988	54	68	1245	757	43	597
Future Volume (vph)	184	101	988	54	68	1245	757	43	597
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	26.0		9.0	26.0	10.7	26.7	9.0	10.7
Total Split (s)	13.0	27.0		12.0	26.0	43.0	71.0	10.0	38.0
Total Split (%)	10.8%	22.5%		10.0%	21.7%	35.8%	59.2%	8.3%	31.7%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	Max	Max	None	None
Act Effct Green (s)	9.0	11.4	106.5	6.9	7.5	37.3	67.4	5.8	32.3
Actuated g/C Ratio	0.08	0.11	1.00	0.06	0.07	0.35	0.63	0.05	0.30
v/c Ratio	1.19	0.26	0.54	0.46	0.39	0.96	0.35	0.43	1.19
Control Delay	173.2	47.0	1.1	60.0	30.9	52.3	10.1	62.1	137.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	173.2	47.0	1.1	60.0	30.9	52.3	10.1	62.1	137.7
LOS	F	D	A	E	C	D	B	E	F
Approach Delay		29.6			39.9		35.7		133.2
Approach LOS		C			D		D		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.5	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 50.5	Intersection LOS: D
Intersection Capacity Utilization 102.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	101	988	54	68	53	1245	757	51	43	597	74
Future Volume (veh/h)	184	101	988	54	68	53	1245	757	51	43	597	74
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	104	0	56	70	29	1284	780	27	44	615	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	368		72	131	51	1295	2286	79	75	553	30
Arrive On Green	0.13	0.15	0.00	0.06	0.08	0.08	0.54	0.94	0.94	0.06	0.46	0.46
Sat Flow, veh/h	1810	3800	1610	1810	2601	1016	3619	3651	126	1810	1785	96
Grp Volume(v), veh/h	190	104	0	56	50	49	1284	406	401	44	0	648
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1717	1810	1900	1877	1810	0	1881
Q Serve(g_s), s	9.0	2.5	0.0	3.2	2.6	2.9	36.6	2.0	2.0	2.5	0.0	32.3
Cycle Q Clear(g_c), s	9.0	2.5	0.0	3.2	2.6	2.9	36.6	2.0	2.0	2.5	0.0	32.3
Prop In Lane	1.00		1.00	1.00		0.59	1.00		0.07	1.00		0.05
Lane Grp Cap(c), veh/h	156	368		72	96	87	1295	1190	1176	75	0	583
V/C Ratio(X)	1.22	0.28		0.77	0.52	0.56	0.99	0.34	0.34	0.59	0.00	1.11
Avail Cap(c_a), veh/h	156	802		139	383	346	1295	1190	1176	104	0	583
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.4	41.3	0.0	48.5	47.0	47.1	24.0	1.2	1.2	48.0	0.0	27.9
Incr Delay (d2), s/veh	141.9	0.4	0.0	6.4	4.3	5.7	23.1	0.8	0.8	2.7	0.0	71.9
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	9.8	1.1	0.0	1.6	1.4	1.4	15.3	0.8	0.7	1.1	0.0	22.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	187.3	41.7	0.0	55.0	51.3	52.7	47.1	2.0	2.0	50.8	0.0	99.8
LnGrp LOS	F	D		D	D	D	D	A	A	D	A	F
Approach Vol, veh/h		294	A		155			2091			692	
Approach Delay, s/veh		135.8			53.1			29.7			96.7	
Approach LOS		F			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	71.0	8.2	15.1	43.0	38.0	13.0	10.3
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	6.0	* 65	8.0	22.0	37.3	32.3	9.0	21.0
Max Q Clear Time (g_c+I1), s	4.5	4.0	5.2	4.5	38.6	34.3	11.0	4.9
Green Ext Time (p_c), s	0.0	8.2	0.0	0.4	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	54.8
HCM 6th LOS	D

Notes

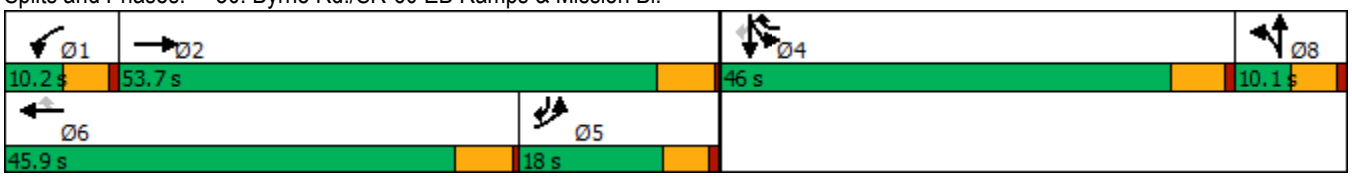
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

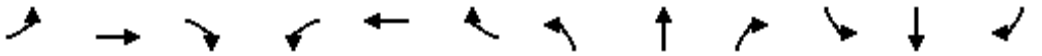
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	175	1036	14	369	188	4	1063	38	481
Future Volume (vph)	175	1036	14	369	188	4	1063	38	481
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA	pm+ov
Protected Phases	5	2	1	6	4	8	4	4	5
Permitted Phases					6				4
Detector Phase	5	2	1	6	4	8	4	4	5
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8	10.1
Total Split (s)	18.0	53.7	10.2	45.9	46.0	10.1	46.0	46.0	18.0
Total Split (%)	15.0%	44.8%	8.5%	38.3%	38.3%	8.4%	38.3%	38.3%	15.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8	4.1
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8	5.1
Lead/Lag	Lag	Lag	Lead	Lead					Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	None	None	Max	None	Max	Max	None
Act Effct Green (s)	30.4	48.2	5.1	16.6	58.2	5.0	40.4	40.4	76.6
Actuated g/C Ratio	0.27	0.43	0.05	0.15	0.52	0.04	0.36	0.36	0.68
v/c Ratio	0.38	0.71	0.18	0.73	0.21	0.55	0.94	0.93	0.42
Control Delay	37.3	30.4	59.7	54.2	1.8	42.6	60.8	58.3	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	30.4	59.7	54.2	1.8	42.6	60.8	58.3	4.7
LOS	D	C	E	D	A	D	E	E	A
Approach Delay		31.3		37.1		42.6		42.9	
Approach LOS		C		D		D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 111.9	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 37.8	Intersection LOS: D
Intersection Capacity Utilization 84.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	1036	13	14	369	188	16	4	41	1063	38	481
Future Volume (veh/h)	175	1036	13	14	369	188	16	4	41	1063	38	481
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	1091	13	15	388	99	17	4	43	1148	0	322
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	520	1501	18	30	487	771	19	4	48	1245	0	1017
Arrive On Green	0.29	0.41	0.41	0.02	0.13	0.13	0.04	0.04	0.04	0.34	0.00	0.34
Sat Flow, veh/h	1810	3653	44	1810	3610	1610	445	105	1125	3619	0	1610
Grp Volume(v), veh/h	184	539	565	15	388	99	64	0	0	1148	0	322
Grp Sat Flow(s),veh/h/ln	1810	1805	1891	1810	1805	1610	1675	0	0	1810	0	1610
Q Serve(g_s), s	9.4	29.3	29.3	1.0	12.2	4.0	4.4	0.0	0.0	35.6	0.0	0.0
Cycle Q Clear(g_c), s	9.4	29.3	29.3	1.0	12.2	4.0	4.4	0.0	0.0	35.6	0.0	0.0
Prop In Lane	1.00		0.02	1.00		1.00	0.27		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	520	742	777	30	487	771	72	0	0	1245	0	1017
V/C Ratio(X)	0.35	0.73	0.73	0.50	0.80	0.13	0.89	0.00	0.00	0.92	0.00	0.32
Avail Cap(c_a), veh/h	520	742	777	79	1242	1108	72	0	0	1245	0	1017
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.0	28.9	28.9	57.0	49.0	16.9	55.6	0.0	0.0	36.8	0.0	9.9
Incr Delay (d2), s/veh	0.4	6.2	5.9	12.5	1.1	0.0	69.0	0.0	0.0	12.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	13.2	13.8	0.5	5.4	2.6	3.3	0.0	0.0	17.1	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	35.1	34.8	69.4	50.1	16.9	124.7	0.0	0.0	49.4	0.0	10.7
LnGrp LOS	C	D	C	E	D	B	F	A	A	D	A	B
Approach Vol, veh/h		1288			502			64			1470	
Approach Delay, s/veh		34.7			44.1			124.7			40.9	
Approach LOS		C			D			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	53.7		46.0	39.3	21.5		10.1				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.1	48.0		40.2	12.9	* 40		5.0				
Max Q Clear Time (g_c+I1), s	3.0	31.3		37.6	11.4	14.2		6.4				
Green Ext Time (p_c), s	0.0	3.9		1.6	0.1	1.6		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		40.6
HCM 6th LOS		D

Notes

User approved volume balancing among the lanes for turning movement.

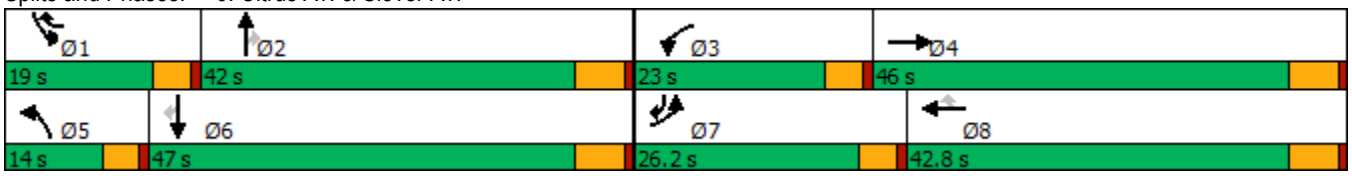
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

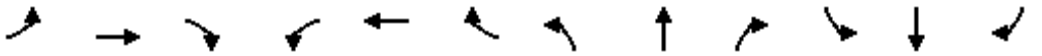
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	634	989	117	327	298	78	956	157	324	515	287
Future Volume (vph)	634	989	117	327	298	78	956	157	324	515	287
Turn Type	Prot	NA	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov
Protected Phases	7	4	3	8	1	5	2		1	6	7
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	1	5	2	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	37.8	9.6	42.8	9.6	9.6	41.8	41.8	9.6	35.8	9.6
Total Split (s)	26.2	46.0	23.0	42.8	19.0	14.0	42.0	42.0	19.0	47.0	26.2
Total Split (%)	20.2%	35.4%	17.7%	32.9%	14.6%	10.8%	32.3%	32.3%	14.6%	36.2%	20.2%
Yellow Time (s)	3.6	4.8	3.6	4.8	3.6	3.6	4.8	4.8	3.6	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	4.6	4.6	5.8	5.8	4.6	5.8	4.6
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	None

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 117.3
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Citrus Av. & Slover Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	634	989	46	117	327	298	78	956	157	324	515	287
Future Volume (veh/h)	634	989	46	117	327	298	78	956	157	324	515	287
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1976	1900	1976	1900	1900	1976	1900	1900	1976	1976	1900	1976
Adj Flow Rate, veh/h	660	1030	48	122	341	266	81	996	100	338	536	208
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	719	1168	54	151	792	591	104	1331	427	252	1203	887
Arrive On Green	0.20	0.33	0.33	0.08	0.22	0.22	0.06	0.26	0.26	0.13	0.33	0.33
Sat Flow, veh/h	3651	3509	164	1810	3610	1672	1810	5187	1665	1882	3610	1675
Grp Volume(v), veh/h	660	530	548	122	341	266	81	996	100	338	536	208
Grp Sat Flow(s),veh/h/ln	1825	1805	1868	1810	1805	1672	1810	1729	1665	1882	1805	1675
Q Serve(g_s), s	19.1	29.8	29.8	7.1	8.8	13.2	4.8	19.0	5.1	14.4	12.5	7.2
Cycle Q Clear(g_c), s	19.1	29.8	29.8	7.1	8.8	13.2	4.8	19.0	5.1	14.4	12.5	7.2
Prop In Lane	1.00		0.09	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	719	601	622	151	792	591	104	1331	427	252	1203	887
V/C Ratio(X)	0.92	0.88	0.88	0.81	0.43	0.45	0.78	0.75	0.23	1.34	0.45	0.23
Avail Cap(c_a), veh/h	733	674	698	309	1242	799	158	1745	560	252	1382	971
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	33.9	33.9	48.5	36.2	26.8	50.0	36.8	31.6	46.6	28.1	13.6
Incr Delay (d2), s/veh	16.0	12.1	11.8	3.9	0.4	0.5	6.0	1.3	0.3	178.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	14.3	14.7	3.3	3.8	5.1	2.3	7.8	2.0	19.0	5.2	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.4	46.0	45.7	52.3	36.6	27.3	56.0	38.1	31.9	224.7	28.4	13.7
LnGrp LOS	E	D	D	D	D	C	E	D	C	F	C	B
Approach Vol, veh/h		1738			729			1177			1082	
Approach Delay, s/veh		50.6			35.8			38.8			86.9	
Approach LOS		D			D			D			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.0	33.4	13.6	41.6	10.8	41.6	25.8	29.4
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8
Max Green Setting (Gmax), s	14.4	36.2	18.4	40.2	9.4	41.2	21.6	37.0
Max Q Clear Time (g_c+I1), s	16.4	21.0	9.1	31.8	6.8	14.5	21.1	15.2
Green Ext Time (p_c), s	0.0	5.9	0.1	4.0	0.0	4.1	0.1	2.8

Intersection Summary	
HCM 6th Ctrl Delay	53.7
HCM 6th LOS	D

Notes

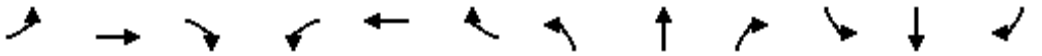
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	492	1010	158	727	188	21	168	137	237
Future Volume (vph)	492	1010	158	727	188	21	168	137	237
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2	1	6		3	8	7	4
Permitted Phases					6				
Detector Phase	5	2	1	6	6	3	8	7	4
Switch Phase									
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	29.8	9.6	32.8	32.8	9.6	40.1	9.6	38.4
Total Split (s)	41.0	48.5	25.6	33.1	33.1	10.4	40.1	15.8	45.5
Total Split (%)	31.5%	37.3%	19.7%	25.5%	25.5%	8.0%	30.8%	12.2%	35.0%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.1	3.6	4.4
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.1	4.6	5.4
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 106.4
Natural Cycle: 115
Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Citrus Av. & Jurupa Av.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	492	1010	58	158	727	188	21	168	106	137	237	179
Future Volume (veh/h)	492	1010	58	158	727	188	21	168	106	137	237	179
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1976	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	535	1098	48	172	790	130	23	183	92	149	258	165
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	578	2104	92	211	1152	358	45	292	141	184	430	266
Arrive On Green	0.31	0.41	0.41	0.12	0.22	0.22	0.02	0.12	0.12	0.10	0.20	0.20
Sat Flow, veh/h	1882	5095	223	1810	5187	1610	1810	2361	1136	1810	2143	1324
Grp Volume(v), veh/h	535	745	401	172	790	130	23	138	137	149	216	207
Grp Sat Flow(s),veh/h/ln	1882	1729	1859	1810	1729	1610	1810	1805	1692	1810	1805	1662
Q Serve(g_s), s	22.9	13.4	13.4	7.7	11.6	5.7	1.0	6.0	6.4	6.7	9.0	9.5
Cycle Q Clear(g_c), s	22.9	13.4	13.4	7.7	11.6	5.7	1.0	6.0	6.4	6.7	9.0	9.5
Prop In Lane	1.00		0.12	1.00		1.00	1.00		0.67	1.00		0.80
Lane Grp Cap(c), veh/h	578	1428	768	211	1152	358	45	223	209	184	362	334
V/C Ratio(X)	0.93	0.52	0.52	0.82	0.69	0.36	0.51	0.62	0.65	0.81	0.60	0.62
Avail Cap(c_a), veh/h	823	1774	954	457	1702	528	126	759	712	244	870	801
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	18.3	18.3	35.9	29.7	27.4	40.1	34.6	34.8	36.6	30.2	30.4
Incr Delay (d2), s/veh	10.5	0.3	0.6	2.9	0.7	0.6	3.3	2.8	3.4	10.5	1.6	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	4.8	5.2	3.4	4.6	2.2	0.5	2.7	2.8	3.4	3.9	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.4	18.6	18.8	38.8	30.4	28.0	43.4	37.4	38.2	47.1	31.8	32.3
LnGrp LOS	D	B	B	D	C	C	D	D	D	D	C	C
Approach Vol, veh/h		1681			1092			298			572	
Approach Delay, s/veh		24.9			31.5			38.2			35.9	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	40.2	6.7	22.1	30.2	24.3	13.1	15.7
Change Period (Y+Rc), s	4.6	5.8	4.6	5.4	4.6	5.8	4.6	* 5.4
Max Green Setting (Gmax), s	21.0	42.7	5.8	40.1	36.4	27.3	11.2	* 35
Max Q Clear Time (g_c+I1), s	9.7	15.4	3.0	11.5	24.9	13.6	8.7	8.4
Green Ext Time (p_c), s	0.2	7.8	0.0	2.5	0.7	4.5	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	29.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	19
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	484	39	87	383	60	49	76	112	71	61	7
Future Vol, veh/h	10	484	39	87	383	60	49	76	112	71	61	7
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	544	44	98	430	67	55	85	126	80	69	8
Number of Lanes	0	2	0	0	2	0	0	1	1	0	1	1

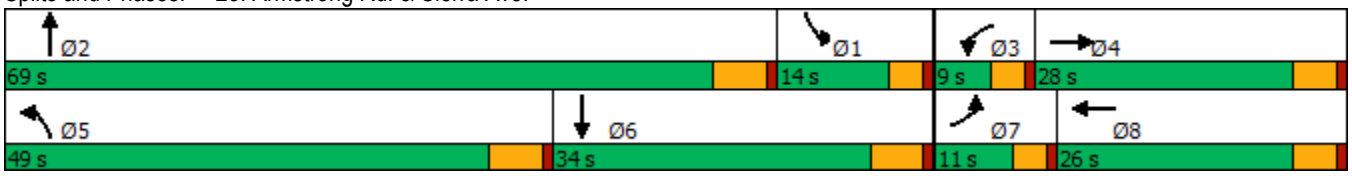
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	20.4	20.7	14.1	16
HCM LOS	C	C	B	C

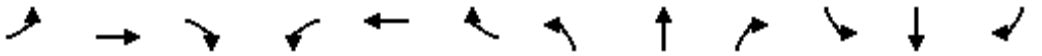
Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	39%	0%	4%	0%	31%	0%	54%	0%
Vol Thru, %	61%	0%	96%	86%	69%	76%	46%	0%
Vol Right, %	0%	100%	0%	14%	0%	24%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	112	252	281	279	252	132	7
LT Vol	49	0	10	0	87	0	71	0
Through Vol	76	0	242	242	192	192	61	0
RT Vol	0	112	0	39	0	60	0	7
Lane Flow Rate	140	126	283	316	313	283	148	8
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.327	0.261	0.572	0.627	0.644	0.556	0.359	0.017
Departure Headway (Hd)	8.394	7.468	7.273	7.153	7.412	7.08	8.724	7.72
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	481	496	505	488	509	412	463
Service Time	6.152	5.226	5.029	4.909	5.167	4.836	6.487	5.482
HCM Lane V/C Ratio	0.327	0.262	0.571	0.626	0.641	0.556	0.359	0.017
HCM Control Delay	15.2	12.9	19.4	21.3	22.7	18.4	16.3	10.6
HCM Lane LOS	C	B	C	C	C	C	C	B
HCM 95th-tile Q	1.4	1	3.5	4.3	4.5	3.4	1.6	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	73	29	759	44	60	1165	489	42	318
Future Volume (vph)	73	29	759	44	60	1165	489	42	318
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	15.0	15.0	10.0	10.0
Minimum Split (s)	9.0	26.0		9.0	26.0	20.7	26.7	14.0	15.7
Total Split (s)	11.0	28.0		9.0	26.0	49.0	69.0	14.0	34.0
Total Split (%)	9.2%	23.3%		7.5%	21.7%	40.8%	57.5%	11.7%	28.3%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	None	Max	None	Max
Act Effct Green (s)	6.8	10.7	106.4	7.7	7.5	43.3	66.2	10.0	28.3
Actuated g/C Ratio	0.06	0.10	1.00	0.07	0.07	0.41	0.62	0.09	0.27
v/c Ratio	0.68	0.09	0.51	0.36	0.38	0.88	0.27	0.27	0.82
Control Delay	77.7	45.0	1.1	57.5	34.0	37.9	10.0	49.8	51.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	77.7	45.0	1.1	57.5	34.0	37.9	10.0	49.8	51.6
LOS	E	D	A	E	C	D	B	D	D
Approach Delay		9.1			41.3		28.9		51.4
Approach LOS		A			D		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.4	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 78.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	29	759	44	60	37	1165	489	70	42	318	63
Future Volume (veh/h)	73	29	759	44	60	37	1165	489	70	42	318	63
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		0.98	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	78	31	0	47	65	27	1253	526	75	45	342	45
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	100	249		65	125	49	1391	1978	281	128	490	64
Arrive On Green	0.06	0.07	0.00	0.04	0.05	0.05	0.40	0.62	0.62	0.07	0.30	0.30
Sat Flow, veh/h	1810	3610	1610	1810	2524	985	3510	3173	451	1810	1644	216
Grp Volume(v), veh/h	78	31	0	47	45	47	1253	298	303	45	0	387
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1805	1703	1755	1805	1819	1810	0	1861
Q Serve(g_s), s	4.3	0.8	0.0	2.6	2.5	2.7	34.0	7.6	7.6	2.4	0.0	18.7
Cycle Q Clear(g_c), s	4.3	0.8	0.0	2.6	2.5	2.7	34.0	7.6	7.6	2.4	0.0	18.7
Prop In Lane	1.00		1.00	1.00		0.58	1.00		0.25	1.00		0.12
Lane Grp Cap(c), veh/h	100	249		65	90	85	1391	1125	1134	128	0	554
V/C Ratio(X)	0.78	0.12		0.72	0.51	0.55	0.90	0.27	0.27	0.35	0.00	0.70
Avail Cap(c_a), veh/h	125	818		89	373	352	1497	1125	1134	178	0	554
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.4	44.4	0.0	48.4	47.0	47.2	28.8	8.6	8.6	45.0	0.0	31.6
Incr Delay (d2), s/veh	16.8	0.2	0.0	8.6	4.3	5.5	7.7	0.6	0.6	0.6	0.0	7.1
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	0.4	0.0	1.3	1.2	1.3	14.6	2.7	2.7	1.1	0.0	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	64.1	44.6	0.0	57.0	51.4	52.7	36.5	9.2	9.2	45.6	0.0	38.8
LnGrp LOS	E	D		E	D	D	D	A	A	D	A	D
Approach Vol, veh/h		109	A		139			1854			432	
Approach Delay, s/veh		58.6			53.7			27.7			39.5	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.9	69.0	7.7	12.0	45.9	35.9	9.6	10.0
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	10.0	* 63	5.0	23.0	43.3	28.3	7.0	21.0
Max Q Clear Time (g_c+I1), s	4.4	9.6	4.6	2.8	36.0	20.7	6.3	4.7
Green Ext Time (p_c), s	0.0	5.6	0.0	0.1	4.2	1.7	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	32.4
HCM 6th LOS	C

Notes

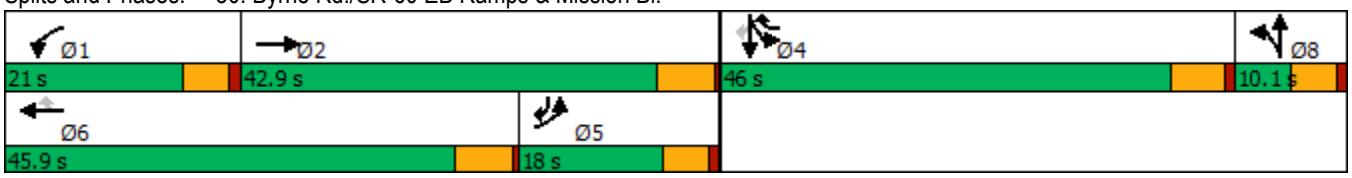
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

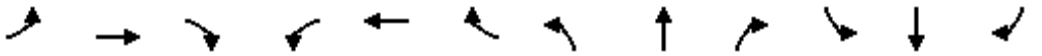
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	314	560	4	398	388	0	1407	2	164
Future Volume (vph)	314	560	4	398	388	0	1407	2	164
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA	pm+ov
Protected Phases	5	2	1	6	4	8	4	4	5
Permitted Phases					6				4
Detector Phase	5	2	1	6	4	8	4	4	5
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8	10.1
Total Split (s)	18.0	42.9	21.0	45.9	46.0	10.1	46.0	46.0	18.0
Total Split (%)	15.0%	35.8%	17.5%	38.3%	38.3%	8.4%	38.3%	38.3%	15.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8	4.1
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8	5.1
Lead/Lag	Lag	Lag	Lead	Lead					Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	None	None	Max	None	Max	Max	None
Act Effct Green (s)	18.7	37.5	5.8	15.7	56.1	5.0	40.5	40.5	65.0
Actuated g/C Ratio	0.20	0.39	0.06	0.16	0.59	0.05	0.42	0.42	0.68
v/c Ratio	0.97	0.43	0.04	0.73	0.39	0.06	1.05	1.05	0.15
Control Delay	81.3	23.5	47.2	45.8	2.6	0.4	75.8	76.6	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.3	23.5	47.2	45.8	2.6	0.4	75.8	76.6	2.4
LOS	F	C	D	D	A	A	E	E	A
Approach Delay		44.2		24.6		0.4		68.5	
Approach LOS		D		C		A		E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 95.3	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 51.0	Intersection LOS: D
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	560	4	4	398	388	5	0	9	1407	2	164
Future Volume (veh/h)	314	560	4	4	398	388	5	0	9	1407	2	164
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	341	609	3	4	433	211	5	0	6	1530	0	149
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	345	1357	7	10	639	922	10	0	12	1441	0	948
Arrive On Green	0.19	0.37	0.37	0.01	0.18	0.18	0.01	0.00	0.01	0.40	0.00	0.40
Sat Flow, veh/h	1810	3683	18	1810	3610	1586	770	0	925	3619	0	1610
Grp Volume(v), veh/h	341	298	314	4	433	211	11	0	0	1530	0	149
Grp Sat Flow(s),veh/h/ln	1810	1805	1896	1810	1805	1586	1695	0	0	1810	0	1610
Q Serve(g_s), s	19.0	12.6	12.6	0.2	11.3	6.6	0.7	0.0	0.0	40.2	0.0	0.0
Cycle Q Clear(g_c), s	19.0	12.6	12.6	0.2	11.3	6.6	0.7	0.0	0.0	40.2	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.45		0.55	1.00		1.00
Lane Grp Cap(c), veh/h	345	665	699	10	639	922	22	0	0	1441	0	948
V/C Ratio(X)	0.99	0.45	0.45	0.42	0.68	0.23	0.49	0.00	0.00	1.06	0.00	0.16
Avail Cap(c_a), veh/h	345	665	699	285	1437	1273	84	0	0	1441	0	948
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.7	24.1	24.1	50.1	38.8	10.5	49.5	0.0	0.0	30.4	0.0	9.4
Incr Delay (d2), s/veh	45.1	2.2	2.1	26.9	0.5	0.0	6.2	0.0	0.0	42.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	5.5	5.7	0.2	4.8	4.8	0.3	0.0	0.0	24.3	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	85.8	26.3	26.2	77.0	39.3	10.6	55.6	0.0	0.0	72.4	0.0	9.8
LnGrp LOS	F	C	C	E	D	B	E	A	A	F	A	A
Approach Vol, veh/h		953			648			11			1679	
Approach Delay, s/veh		47.6			30.2			55.6			66.8	
Approach LOS		D			C			E			E	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	42.9		46.0	25.0	23.6		6.4				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	15.9	37.2		40.2	12.9	* 40		5.0				
Max Q Clear Time (g_c+I1), s	2.2	14.6		42.2	21.0	13.3		2.7				
Green Ext Time (p_c), s	0.0	2.0		0.0	0.0	2.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		54.0	
HCM 6th LOS		D	

Notes

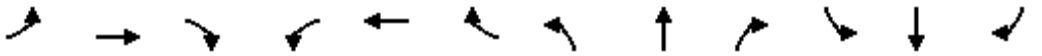
User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	184	101	988	54	68	1245	757	43	597
Future Volume (vph)	184	101	988	54	68	1245	757	43	597
Turn Type	Prot	NA	Free	Prot	NA	Prot	NA	Prot	NA
Protected Phases	7	4		3	8	5	2	1	6
Permitted Phases			Free						
Detector Phase	7	4		3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.0	26.0		9.0	26.0	10.7	26.7	9.0	10.7
Total Split (s)	13.0	27.0		12.0	26.0	43.0	71.0	10.0	38.0
Total Split (%)	10.8%	22.5%		10.0%	21.7%	35.8%	59.2%	8.3%	31.7%
Yellow Time (s)	3.0	4.0		3.0	4.0	4.7	4.7	3.0	4.7
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0		4.0	5.0	5.7	5.7	4.0	5.7
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None	Max	Max	None	None
Act Effct Green (s)	9.0	11.4	106.5	6.9	7.5	37.3	67.4	5.8	32.3
Actuated g/C Ratio	0.08	0.11	1.00	0.06	0.07	0.35	0.63	0.05	0.30
v/c Ratio	1.19	0.26	0.54	0.46	0.39	0.96	0.35	0.43	1.19
Control Delay	173.2	47.0	1.1	60.0	30.9	52.3	10.1	62.1	137.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	173.2	47.0	1.1	60.0	30.9	52.3	10.1	62.1	137.7
LOS	F	D	A	E	C	D	B	E	F
Approach Delay		29.6			39.9		35.7		133.2
Approach LOS		C			D		D		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 106.5	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 50.5	Intersection LOS: D
Intersection Capacity Utilization 102.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 25: Armstrong Rd. & Sierra Ave.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	101	988	54	68	53	1245	757	51	43	597	74
Future Volume (veh/h)	184	101	988	54	68	53	1245	757	51	43	597	74
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		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	190	104	0	56	70	29	1284	780	27	44	615	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	368		72	131	51	1295	2286	79	75	553	30
Arrive On Green	0.13	0.15	0.00	0.06	0.08	0.08	0.54	0.94	0.94	0.06	0.46	0.46
Sat Flow, veh/h	1810	3800	1610	1810	2601	1016	3619	3651	126	1810	1785	96
Grp Volume(v), veh/h	190	104	0	56	50	49	1284	406	401	44	0	648
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1717	1810	1900	1877	1810	0	1881
Q Serve(g_s), s	9.0	2.5	0.0	3.2	2.6	2.9	36.6	2.0	2.0	2.5	0.0	32.3
Cycle Q Clear(g_c), s	9.0	2.5	0.0	3.2	2.6	2.9	36.6	2.0	2.0	2.5	0.0	32.3
Prop In Lane	1.00		1.00	1.00		0.59	1.00		0.07	1.00		0.05
Lane Grp Cap(c), veh/h	156	368		72	96	87	1295	1190	1176	75	0	583
V/C Ratio(X)	1.22	0.28		0.77	0.52	0.56	0.99	0.34	0.34	0.59	0.00	1.11
Avail Cap(c_a), veh/h	156	802		139	383	346	1295	1190	1176	104	0	583
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.4	41.3	0.0	48.5	47.0	47.1	24.0	1.2	1.2	48.0	0.0	27.9
Incr Delay (d2), s/veh	141.9	0.4	0.0	6.4	4.3	5.7	23.1	0.8	0.8	2.7	0.0	71.9
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	9.8	1.1	0.0	1.6	1.4	1.4	15.3	0.8	0.7	1.1	0.0	22.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	187.3	41.7	0.0	55.0	51.3	52.7	47.1	2.0	2.0	50.8	0.0	99.8
LnGrp LOS	F	D		D	D	D	D	A	A	D	A	F
Approach Vol, veh/h		294	A		155			2091			692	
Approach Delay, s/veh		135.8			53.1			29.7			96.7	
Approach LOS		F			D			C			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	71.0	8.2	15.1	43.0	38.0	13.0	10.3
Change Period (Y+Rc), s	5.7	* 5.7	4.0	5.0	5.7	5.7	4.0	5.0
Max Green Setting (Gmax), s	6.0	* 65	8.0	22.0	37.3	32.3	9.0	21.0
Max Q Clear Time (g_c+I1), s	4.5	4.0	5.2	4.5	38.6	34.3	11.0	4.9
Green Ext Time (p_c), s	0.0	8.2	0.0	0.4	0.0	0.0	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	54.8
HCM 6th LOS	D

Notes

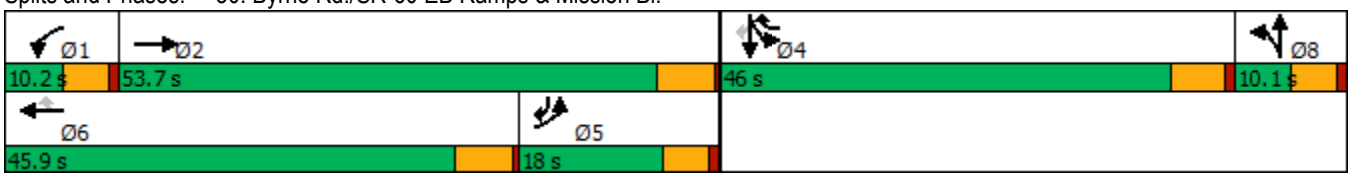
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

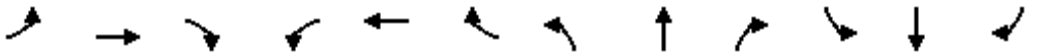
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	175	1036	14	369	188	4	1063	38	481
Future Volume (vph)	175	1036	14	369	188	4	1063	38	481
Turn Type	Prot	NA	Prot	NA	pm+ov	NA	Split	NA	pm+ov
Protected Phases	5	2	1	6	4	8	4	4	5
Permitted Phases					6				4
Detector Phase	5	2	1	6	4	8	4	4	5
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.1	29.7	10.1	44.7	37.8	10.1	37.8	37.8	10.1
Total Split (s)	18.0	53.7	10.2	45.9	46.0	10.1	46.0	46.0	18.0
Total Split (%)	15.0%	44.8%	8.5%	38.3%	38.3%	8.4%	38.3%	38.3%	15.0%
Yellow Time (s)	4.1	5.2	4.1	5.2	4.8	4.1	4.8	4.8	4.1
All-Red Time (s)	1.0	0.5	1.0	0.5	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.1	5.7	5.1	5.7	5.8	5.1	5.8	5.8	5.1
Lead/Lag	Lag	Lag	Lead	Lead					Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					Yes
Recall Mode	None	Max	None	None	Max	None	Max	Max	None
Act Effct Green (s)	30.4	48.2	5.1	16.6	58.2	5.0	40.4	40.4	76.6
Actuated g/C Ratio	0.27	0.43	0.05	0.15	0.52	0.04	0.36	0.36	0.68
v/c Ratio	0.38	0.71	0.18	0.73	0.21	0.55	0.94	0.93	0.42
Control Delay	37.3	30.4	59.7	54.2	1.8	42.6	60.8	58.3	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.3	30.4	59.7	54.2	1.8	42.6	60.8	58.3	4.7
LOS	D	C	E	D	A	D	E	E	A
Approach Delay		31.3		37.1		42.6		42.9	
Approach LOS		C		D		D		D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 111.9	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 37.8	Intersection LOS: D
Intersection Capacity Utilization 84.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 30: Byrne Rd./SR-60 EB Ramps & Mission Bl.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	1036	13	14	369	188	16	4	41	1063	38	481
Future Volume (veh/h)	175	1036	13	14	369	188	16	4	41	1063	38	481
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	1091	13	15	388	99	17	4	43	1148	0	322
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	520	1501	18	30	487	771	19	4	48	1245	0	1017
Arrive On Green	0.29	0.41	0.41	0.02	0.13	0.13	0.04	0.04	0.04	0.34	0.00	0.34
Sat Flow, veh/h	1810	3653	44	1810	3610	1610	445	105	1125	3619	0	1610
Grp Volume(v), veh/h	184	539	565	15	388	99	64	0	0	1148	0	322
Grp Sat Flow(s),veh/h/ln	1810	1805	1891	1810	1805	1610	1675	0	0	1810	0	1610
Q Serve(g_s), s	9.4	29.3	29.3	1.0	12.2	4.0	4.4	0.0	0.0	35.6	0.0	0.0
Cycle Q Clear(g_c), s	9.4	29.3	29.3	1.0	12.2	4.0	4.4	0.0	0.0	35.6	0.0	0.0
Prop In Lane	1.00		0.02	1.00		1.00	0.27		0.67	1.00		1.00
Lane Grp Cap(c), veh/h	520	742	777	30	487	771	72	0	0	1245	0	1017
V/C Ratio(X)	0.35	0.73	0.73	0.50	0.80	0.13	0.89	0.00	0.00	0.92	0.00	0.32
Avail Cap(c_a), veh/h	520	742	777	79	1242	1108	72	0	0	1245	0	1017
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	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.0	28.9	28.9	57.0	49.0	16.9	55.6	0.0	0.0	36.8	0.0	9.9
Incr Delay (d2), s/veh	0.4	6.2	5.9	12.5	1.1	0.0	69.0	0.0	0.0	12.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	13.2	13.8	0.5	5.4	2.6	3.3	0.0	0.0	17.1	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.4	35.1	34.8	69.4	50.1	16.9	124.7	0.0	0.0	49.4	0.0	10.7
LnGrp LOS	C	D	C	E	D	B	F	A	A	D	A	B
Approach Vol, veh/h		1288			502			64			1470	
Approach Delay, s/veh		34.7			44.1			124.7			40.9	
Approach LOS		C			D			F			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	53.7		46.0	39.3	21.5		10.1				
Change Period (Y+Rc), s	5.1	5.7		5.8	5.7	* 5.7		5.1				
Max Green Setting (Gmax), s	5.1	48.0		40.2	12.9	* 40		5.0				
Max Q Clear Time (g_c+I1), s	3.0	31.3		37.6	11.4	14.2		6.4				
Green Ext Time (p_c), s	0.0	3.9		1.6	0.1	1.6		0.0				

Intersection Summary		
HCM 6th Ctrl Delay	40.6	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.10:

HORIZON YEAR (2040) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project + IMPROVEMENTS
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	WB E of Citrus	1740	5
2	Diverge	Basic	WB Off-Ramp	1500	5
3	Basic	Basic	Between Off and Loop On Ramp	1215	4
4	Merge	Merge	WB Loop On-Ramp	1500	4
5	Basic	Basic	Between On Ramps	1450	4
6	Merge	Merge	WB On Ramp	1500	4
7	Basic	Basic	WB W of Citrus	6460	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8354	11000	0.76	48.2	34.7	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	8354	1173	11000	2100	0.76	0.56	50.0	-	33.4	-	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7179	8800	0.82	48.2	37.2	E

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.909	7748	569	9000	1900	0.86	0.30	45.1	46.6	42.9	30.1	D

Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7779	8800	0.88	48.2	40.4	E

Segment 6: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	8438	659	9000	2100	0.94	0.31	44.6	46.4	47.3	31.5	D

Segment 7: Basic

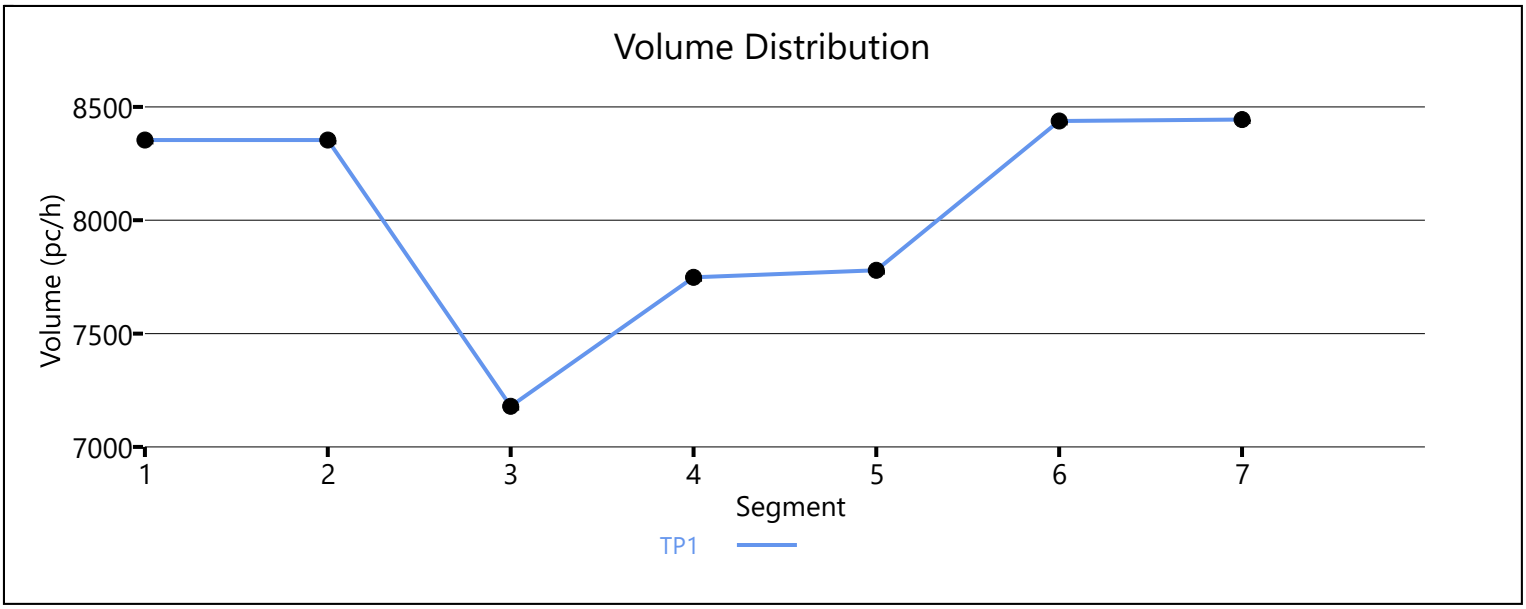
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8444	8800	0.96	48.2	43.8	E

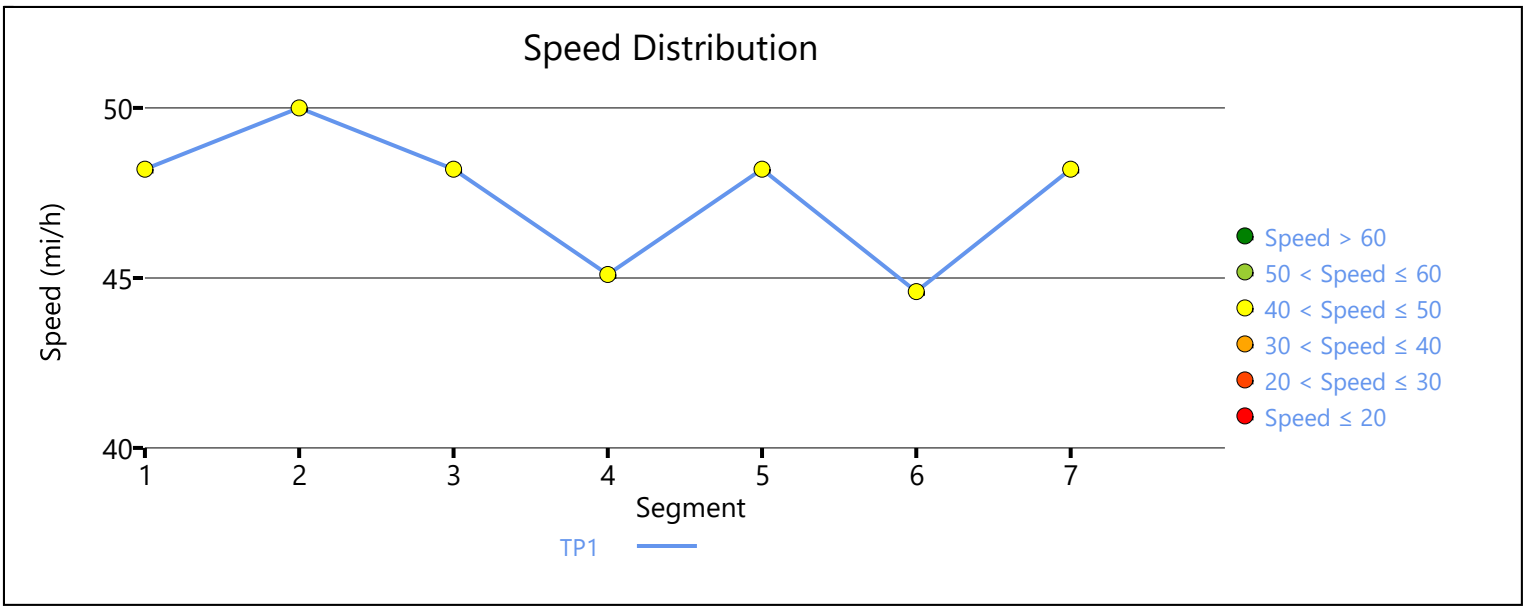
Facility Time Period Results

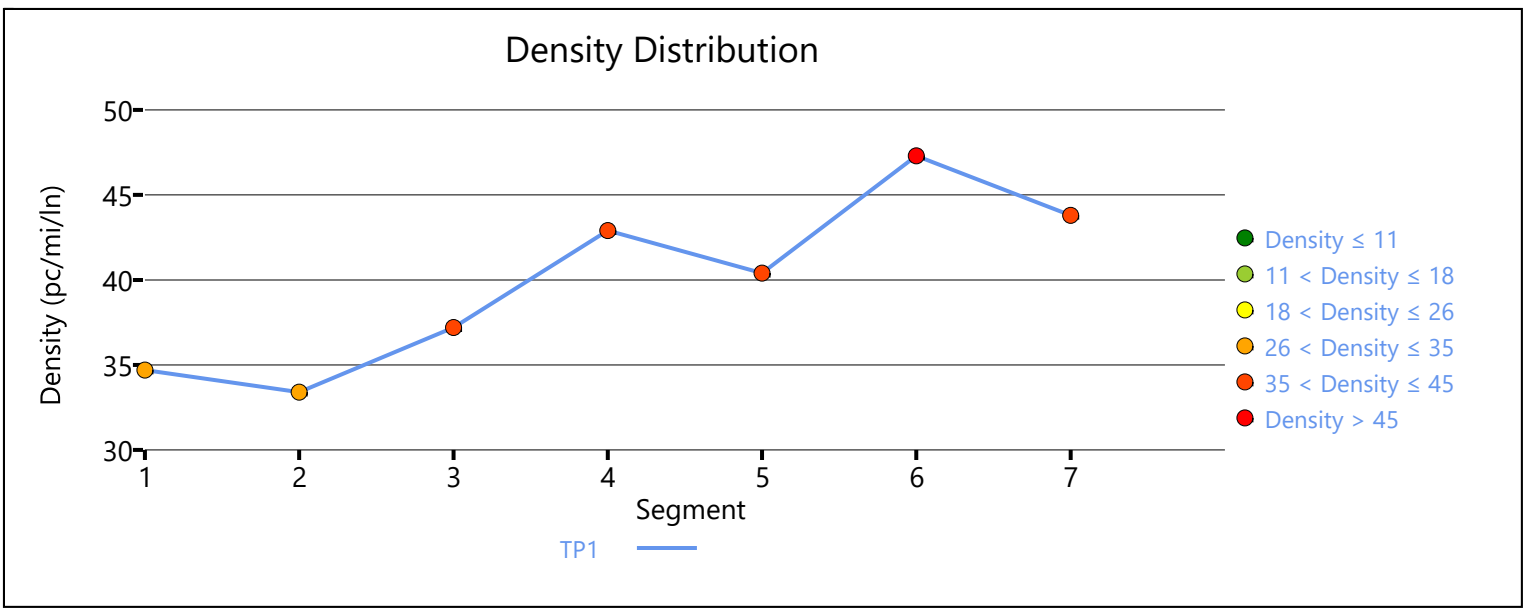
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	47.7	40.8	39.7	3.7	E

Facility Overall Results

Space Mean Speed, mi/h	47.7	Density, veh/mi/ln	39.7
Average Travel Time, min	3.7	Density, pc/mi/ln	40.8







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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project + IMPROVEMENTS
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7795	Heavy Vehicle Adjustment Factor (f_{HV})	0.952
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	2178
Total Trucks, %	5.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.91
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	59.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	36.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	E
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Basic Freeway Report

Project Information

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Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	5193	Heavy Vehicle Adjustment Factor (f_{HV})	0.980
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1127
Total Trucks, %	2.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	75.2
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.0
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project + IMPROVEMENTS
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6063	11685	0.52	63.7	19.0	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.893	6063	848	11750	2100	0.52	0.40	65.0	-	18.7	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	5234	9348	0.56	63.7	20.5	C

Segment 4: Merge

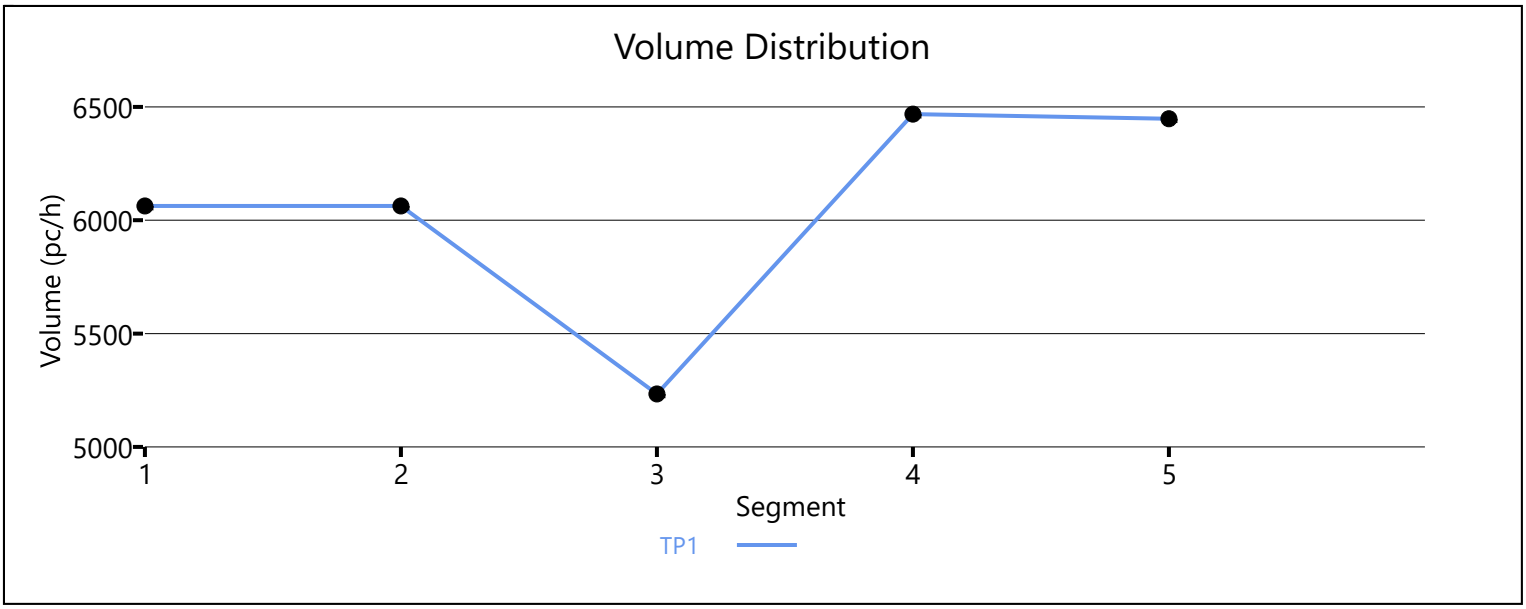
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.917	6468	1234	9400	2100	0.56	0.59	65.0	-	20.1	-	C

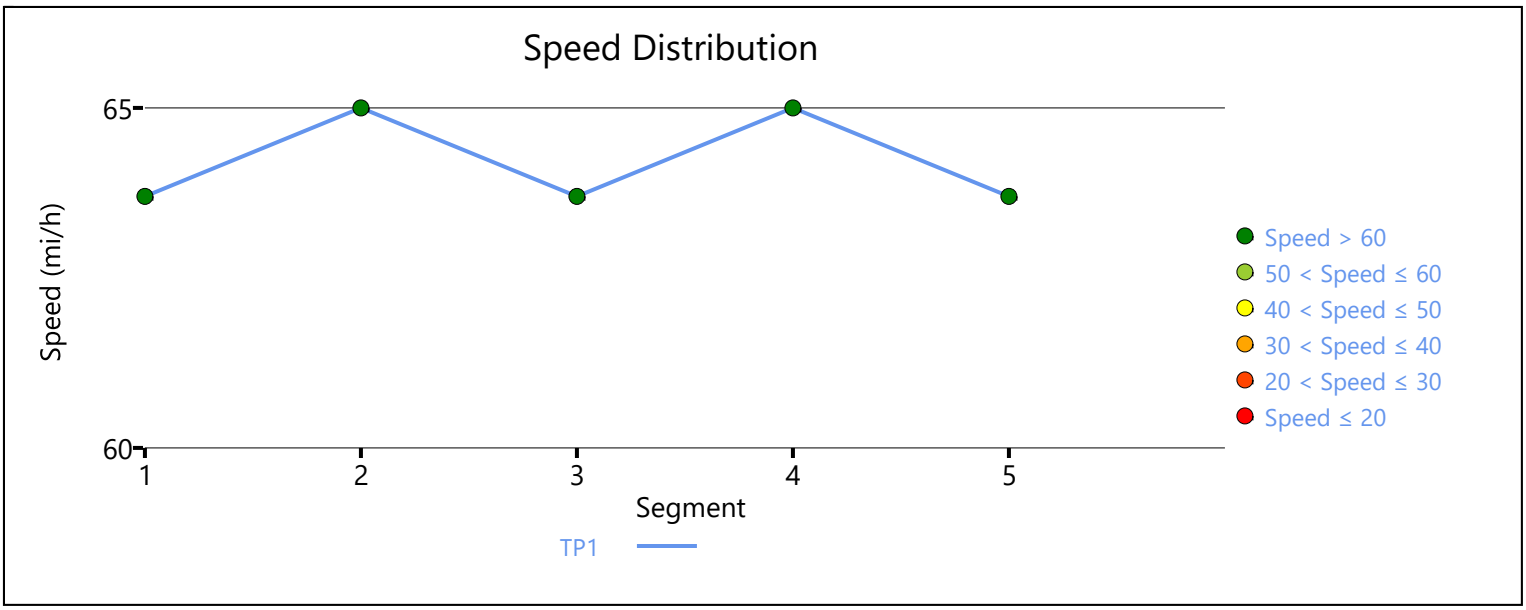
Segment 5: Basic

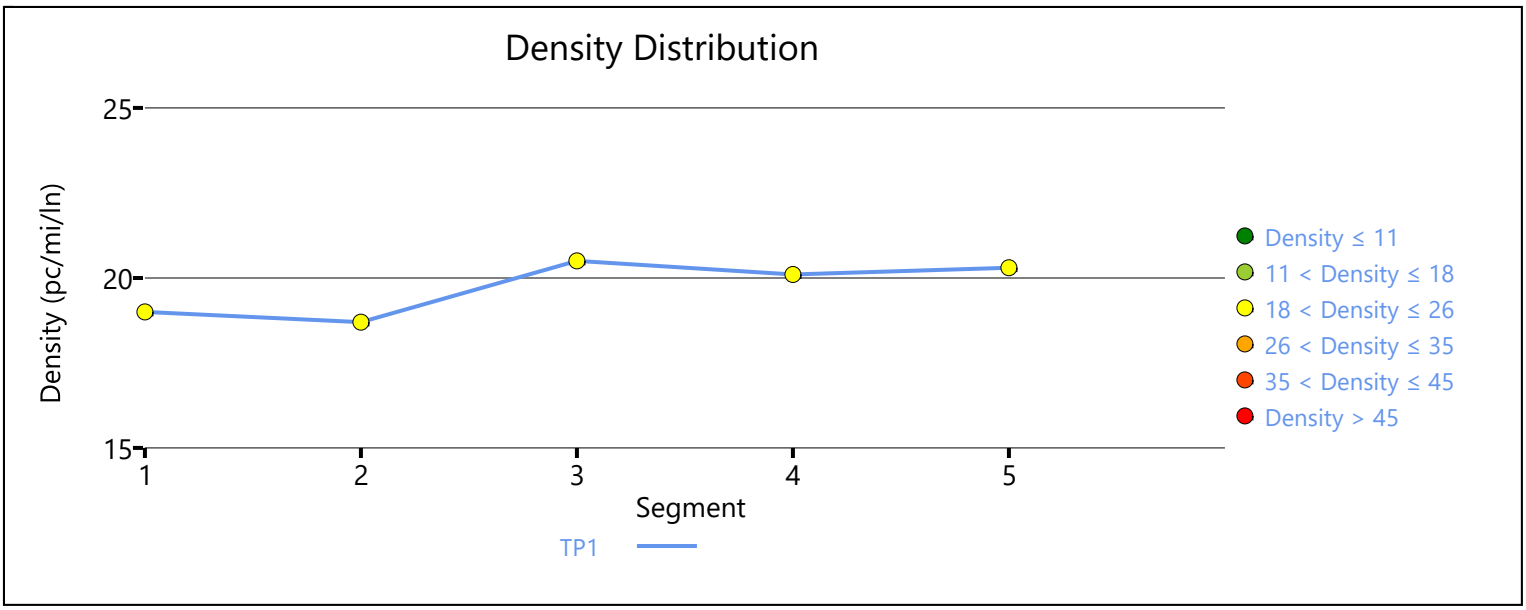
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	6448	11685	0.55	63.7	20.3	C

Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	64.0	19.5	18.9	2.7	C

Facility Overall Results			
Space Mean Speed, mi/h	64.0	Density, veh/mi/ln	18.9
Average Travel Time, min	2.7	Density, pc/mi/ln	19.5







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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project + IMPROVEMENTS
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	GP Lane, ft	ML Type	ML Lanes
1	Basic	Basic	WB E of Citrus	1740	5	Continuous Access	1
2	Diverge	Basic	WB Off-Ramp	1500	5	Continuous Access	1
3	Basic	Basic	Between Off and Loop On Ramp	1215	4	Continuous Access	1
4	Merge	Merge	WB Loop On-Ramp	1500	4	Continuous Access	1
5	Basic	Basic	Between On Ramps	1450	4	Continuous Access	1
6	Merge	Merge	WB On Ramp	1500	4	Continuous Access	1
7	Basic	Basic	WB W of Citrus	6460	4	Continuous Access	1

Facility Segment Data

Segment 1: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8429	11660	0.72	62.5	27.0	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 2: Diverge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	8429	992	11750	2100	0.72	0.47	63.8	-	26.4	-	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 3: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7431	9328	0.80	60.9	30.5	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 4: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	7950	519	9400	1900	0.85	0.27	57.1	55.0	34.8	30.5	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 5: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	7995	9328	0.86	58.9	33.9	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 6: Merge

General Purpose Lane

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.971	8484	489	9400	2100	0.90	0.23	56.6	55.1	37.5	30.9	D

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

Segment 7: Basic

General Purpose Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	8484	9328	0.91	56.7	37.4	E

Managed Lane

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.94	1.000	0	1804	0.00	75.4	0.0	A

General Purpose Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	58.5	33.7	32.7	3.0	D

Managed Lane Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	75.4	0.0	0.0	2.3	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	58.5	27.2	26.4	3.0	D

General Purpos Lane Overall Results

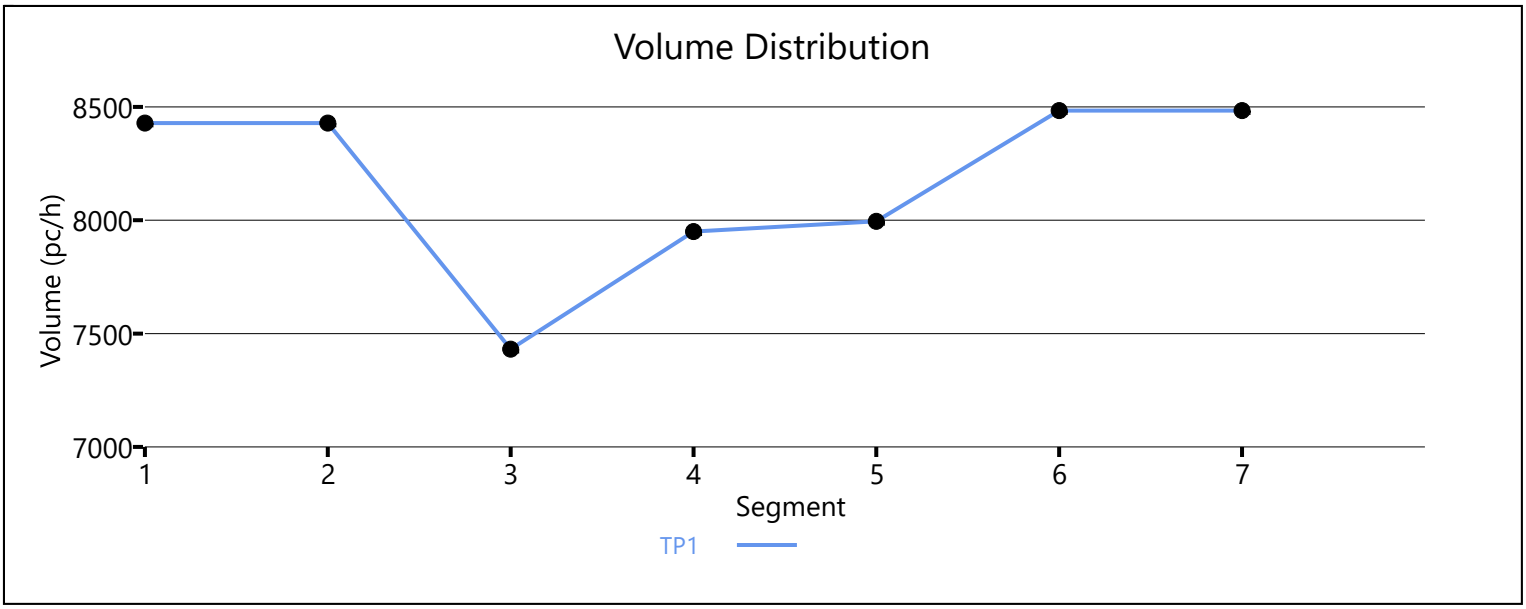
Space Mean Speed, mi/h	58.5	Density, veh/mi/ln	32.7
Average Travel Time, min	3.0	Density, pc/mi/ln	33.7

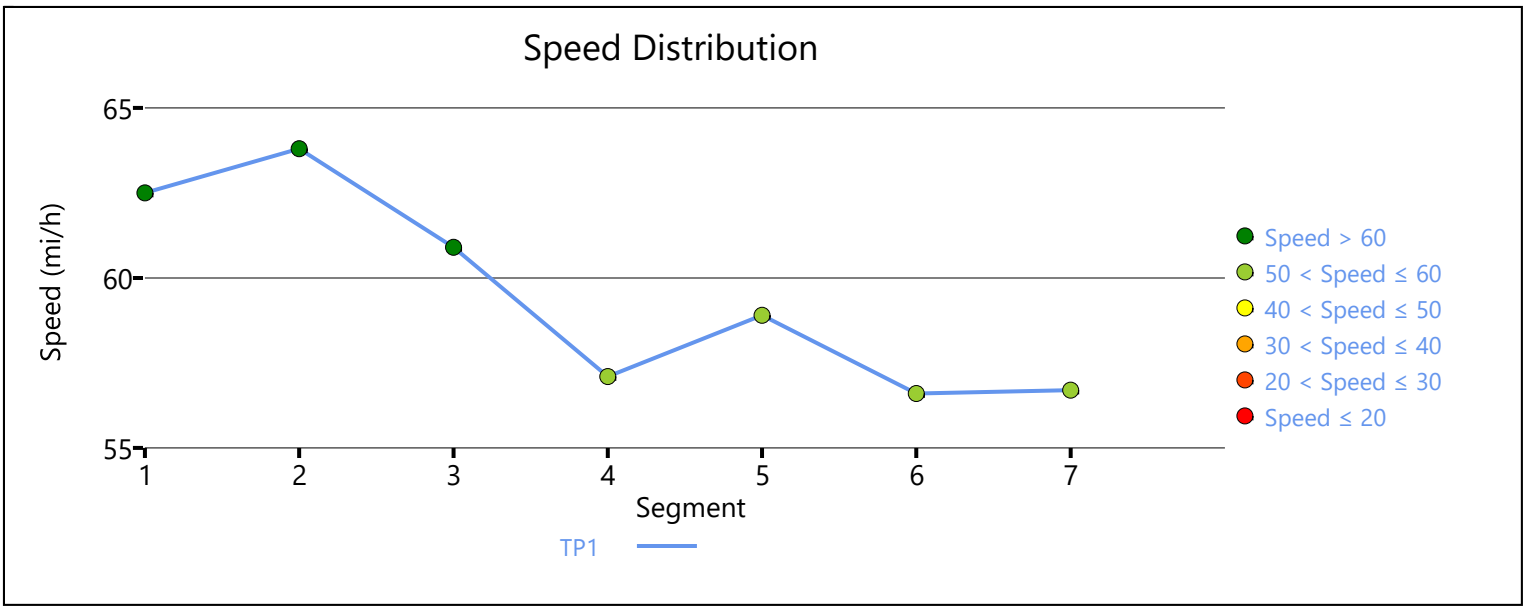
Managed Lane Overall Results

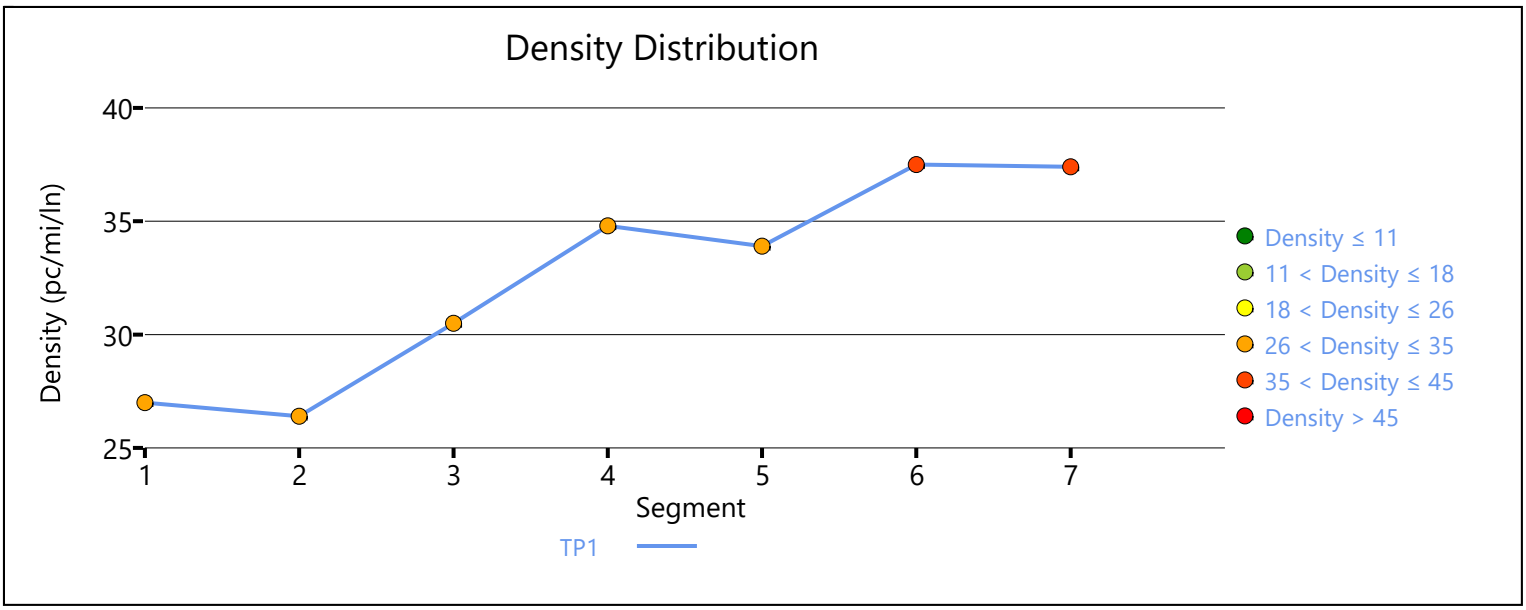
Space Mean Speed, mi/h	75.4	Density, veh/mi/ln	0.0
Average Travel Time, min	2.3	Density, pc/mi/ln	0.0

Facility Overall Results

Space Mean Speed, mi/h	58.5	Density, veh/mi/ln	26.4
Average Travel Time, min	3.0	Density, pc/mi/ln	27.2







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HCS7 Basic Freeway Report

Project Information

Analyst	LC	Date	4/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project + IMPROVEMENTS
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	4	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	7265	Heavy Vehicle Adjustment Factor (f_{HV})	0.962
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	2008
Total Trucks, %	4.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.84
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	63.9
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	31.4
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Geometric Data

Number of Lanes, ln	5	Terrain Type	Level
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.00
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	75.4
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	9169	Heavy Vehicle Adjustment Factor (f_{HV})	0.990
Peak Hour Factor	0.94	Flow Rate (V_p), pc/h/ln	1971
Total Trucks, %	1.00	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2400
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.82
Passenger Car Equivalent (E_T)	2.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	64.7
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	30.5
Total Ramp Density Adjustment	0.0	Level of Service (LOS)	D
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	75.4		

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HCS7 Freeway Facilities Report

Project Information

Analyst	LC	Date	04/09/2019
Agency	Urban Crossroads, Inc.	Analysis Year	HY (2040) With Project + IMPROVEMENTS
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Goodman Industrial Park Fontana III (JN 12382)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	EB W of Citrus	7700	5
2	Diverge	Basic	EB Off-Ramp at Citrus	1500	5
3	Basic	Basic	Between Ramps	2230	4
4	Merge	Basic	EB On-Ramp at Citrus	1500	4
5	Basic	Basic	EB E of Citrus	2260	5

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8754	11185	0.78	53.7	32.6	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.962	8754	890	11250	2100	0.78	0.42	55.0	-	31.8	-	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	7880	8948	0.88	53.3	37.0	E

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	9032	1152	9000	2100	0.88	0.55	54.3	-	36.3	-	E

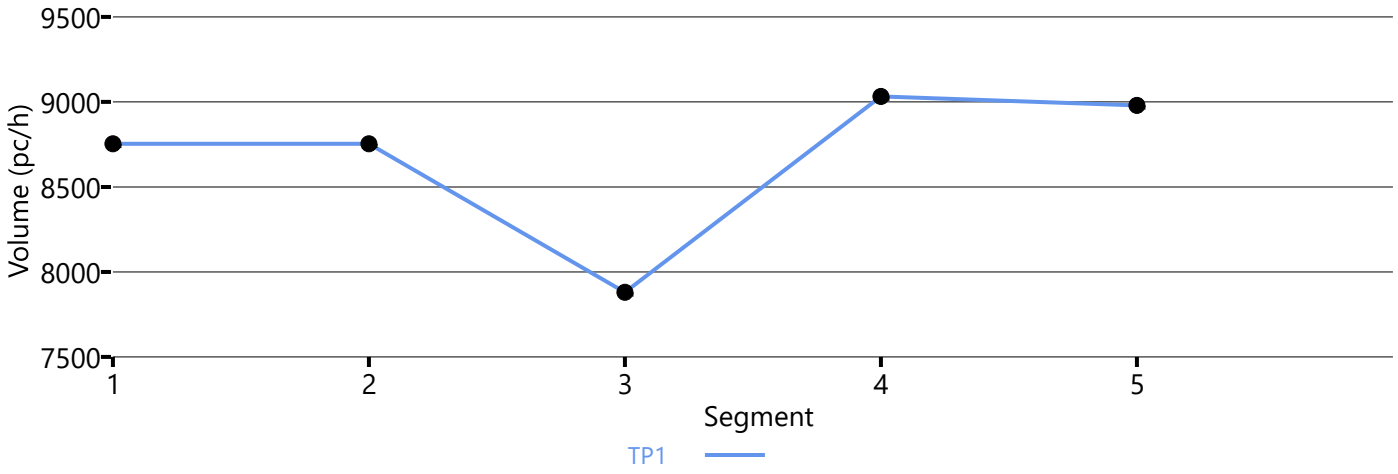
Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	8980	11185	0.80	53.7	33.4	D

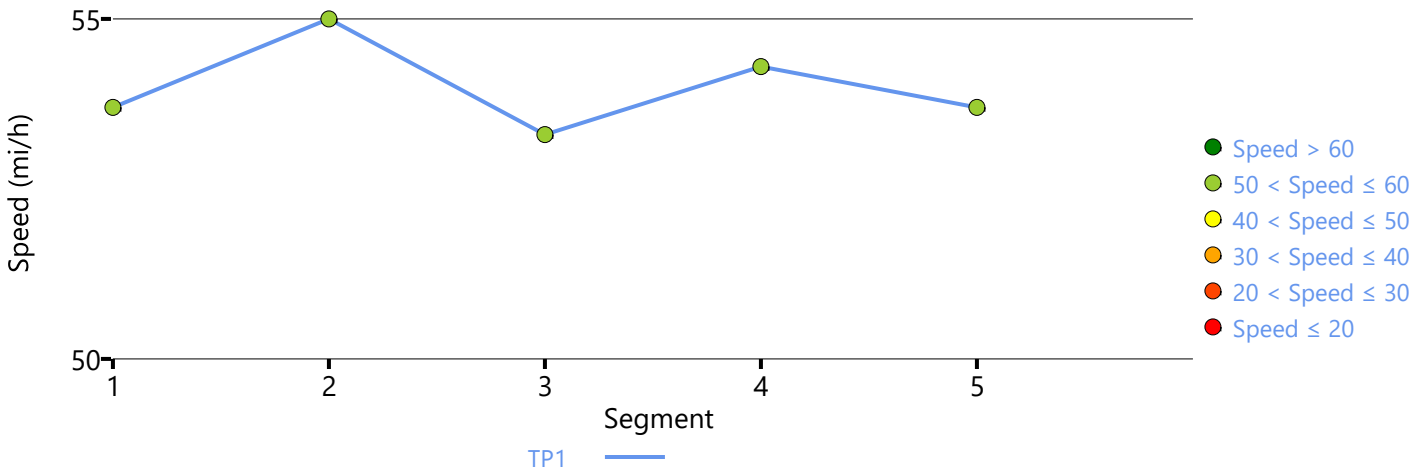
Facility Time Period Results					
T	**Speed, mi/h**	**Density, pc/mi/ln**	**Density, veh/mi/ln**	**Travel Time, min**	**LOS**
1	53.8	33.5	32.8	3.2	D

Facility Overall Results			
Space Mean Speed, mi/h	53.8	Density, veh/mi/ln	32.8
Average Travel Time, min	3.2	Density, pc/mi/ln	33.5

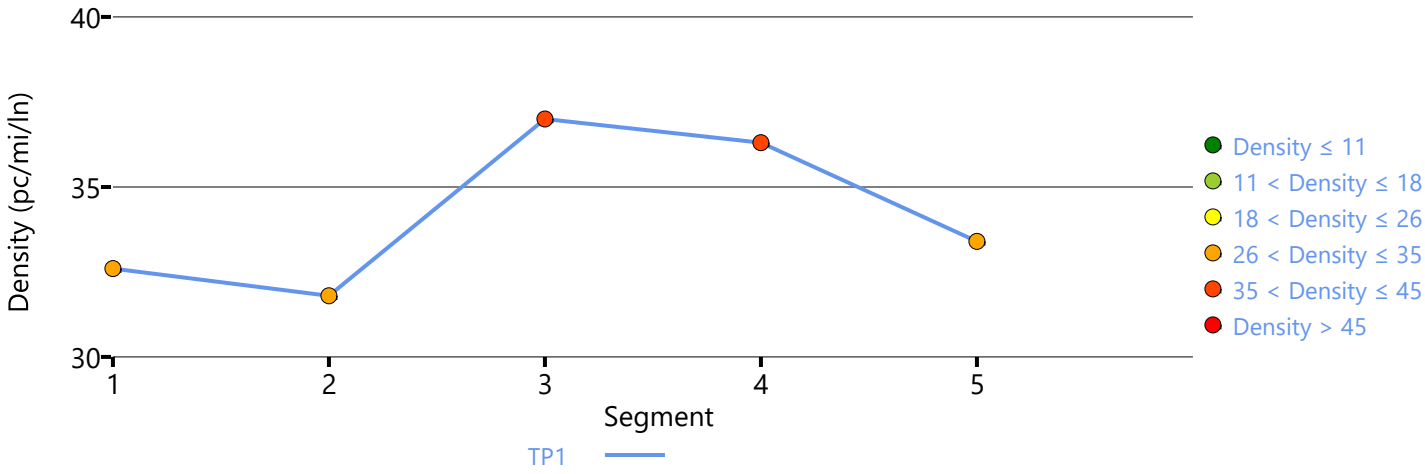
Volume Distribution



Speed Distribution



Density Distribution



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