

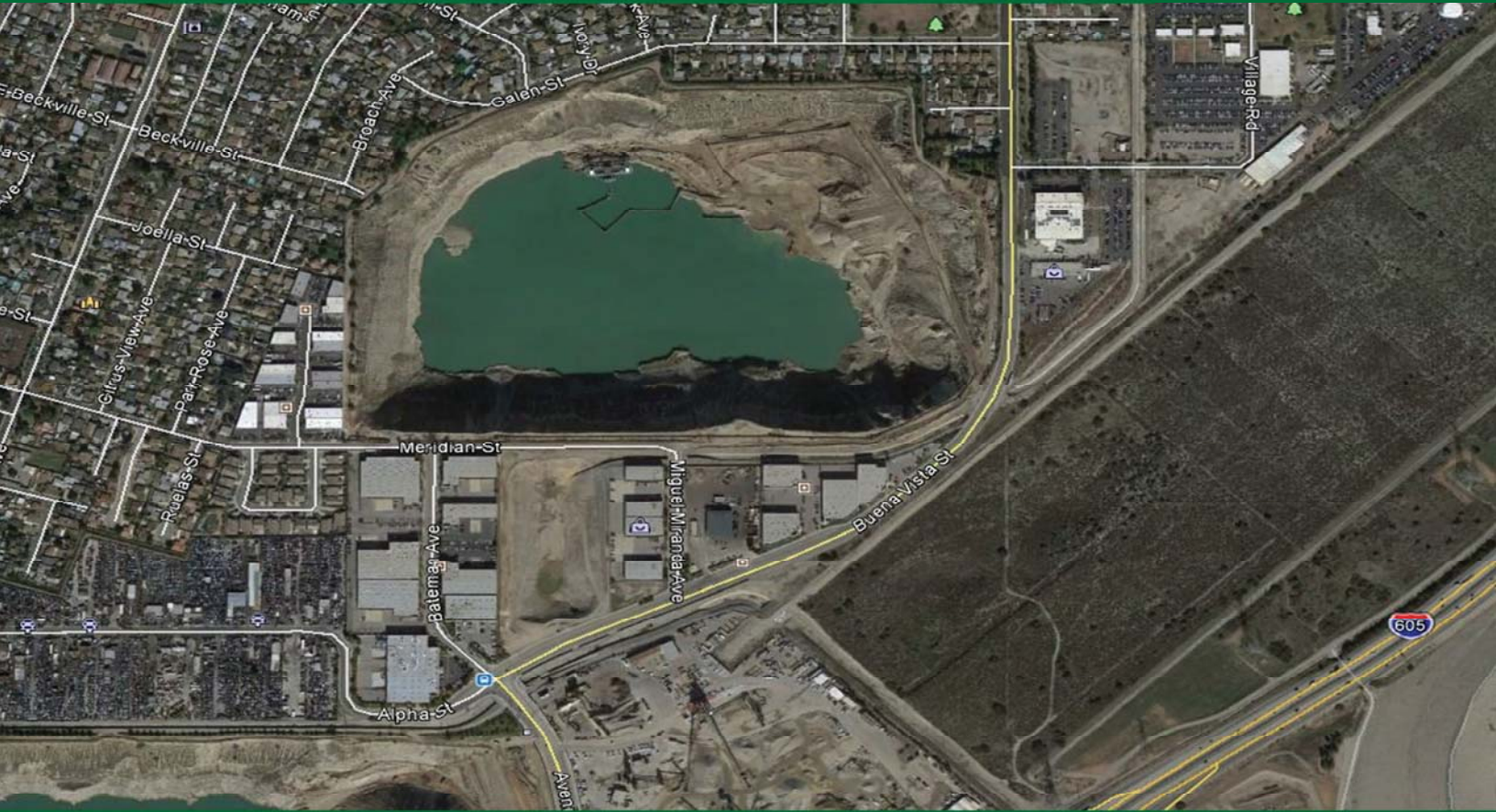
Appendix F

Traffic Appendix



TRAFFIC IMPACT STUDY REPORT

UNITED ROCK QUARRY NO. 3
CITY OF IRWINDALE, CALIFORNIA



LIN Consulting, Inc.

Prepared by:
LIN Consulting, Inc.

For:

Los Angeles County Flood Control District

Environmental Science Associates

September 26th, 2017



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1. EXECUTIVE SUMMARY

The Los Angeles County Flood Control District (District) provides flood risk management, sediment management, and water conservation for much of Los Angeles County (County). The District manages a flood control system of dams, reservoirs, and debris retention basins that are designed to collect the sediment and prevent it from damaging property downstream. The proposed project would allow the District to purchase and use United Rock Products Corporation's (United Rock's) Quarry No. 3 as a sediment placement site (SPS) in order to prolong its sediment management capabilities. Quarry No. 3 is an existing open-pit mine that has been actively mined for decades by United Rock. The Project would have the District use the Quarry No. 3 site as a permanent placement location for sediment removed from facilities maintained by the District.

This Traffic Impact Study Report is prepared in accordance with the Scoping for Traffic Study approved by the Los Angeles County Department of Public Works, Traffic and Lighting Division (TLD); City of Irwindale Policy Guidelines for Traffic Impact Reports; and Caltrans Guide for the Preparation of Traffic impact Studies. This Traffic Impact Study reviews the proposed project and analyzes the impacts of the proposed project traffic on the study area for the following scenarios:

- Existing Traffic Conditions – After Notice of Preparation (NOP) or commencement of environmental study
- Existing + Project Traffic Conditions
- Existing + Project Traffic Conditions + Mitigations (if necessary)
- Existing + Project Traffic + Other Development Traffic Conditions
- Existing + Project Traffic + Other Development Traffic Conditions + Mitigations (if necessary)

Thirteen (13) study area intersections along with the San Gabriel River Freeway (I-605) were analyzed for significant traffic impacts, as defined in **Section 3.3**. The proposed project adds trips to the currently deficient San Gabriel River Freeway (I-605) and has significant traffic impact on the intersections of I-605 Northbound Off-Ramp/Westbound Live Oak Avenue and I-605 Southbound Off-Ramp/Arrow Highway. The project shall contribute its fair share to the I-605 Corridor Feasibility Study initiated by the City of Irwindale and also pay the City of Irwindale its fair share contribution towards the proposed improvements at the intersections of I-605 Northbound Off-Ramp/Westbound Live Oak Avenue and I-605 Southbound Off-Ramp/Arrow Highway. **Section 17** provides information on the per trip cost and the project fair share percentage towards the I-605 Corridor Feasibility Study and proposed improvements at the intersections of I-605 Northbound Off-Ramp/Westbound Live Oak Avenue and I-605 Southbound Off-Ramp/Arrow Highway, respectively. The project fair share costs shall be determined by the District in consultation with City of Irwindale and Caltrans.

2. INTRODUCTION

2.1. PURPOSE

The purpose of this traffic impact study report is to review and identify potential traffic impacts of the proposed conversion of the United Rock Products Corporation's (United Rock's) Quarry No. 3 into a sediment placement site (SPS) by the Los Angeles County Flood Control District (District).

The traffic study shall review the proposed project and analyze the impacts of the proposed project on the study area from a traffic engineering point of view and recommend mitigation measures, as necessary.

This traffic study analyzes the study area for the following scenarios:

- Existing Traffic Conditions – After Notice of Preparation (NOP) or commencement of environmental study
- Existing + Project Traffic Conditions
- Existing + Project Traffic Conditions + Mitigations (if necessary)
- Existing + Project Traffic + Other Development Traffic Conditions
- Existing + Project Traffic + Other Development Traffic Conditions + Mitigations (if necessary)

2.2. PROPOSED PROJECT

Project Description

The proposed Project involves Quarry No. 3, which is an existing open-pit mine that is located in Irwindale California (See **Exhibit A**) and is currently owned and operated by United Rock. Under the Project, the District would purchase Quarry No. 3 from United Rock and use it as a SPS (to be called Buena Vista SPS) in order to maintain the District's sediment management capabilities and be able to sustain its facilities' capacities. The Project would have the District use the Quarry No. 3 site as a permanent placement location for sediment removed from facilities maintained by the District. As of 2016, Quarry No. 3 had a storage capacity of approximately 27 MCY and a depth of approximately 360 feet below the adjacent ground surface at its deepest.

The Project would include a Project construction phase and a Project operations phase, as described below. The maximum truck trips generated by the project during peak hours would be 50 truck trips per hour to and 50 truck trips per hour from the project site. See **Section 7.1** for project trip generation.

Due to the significant need for a placement location for sediment removed from the District's facilities, the District would begin Project construction in 2019 and Project operation in 2020. Placement of sediment at Buena Vista SPS would last approximately 50 years; therefore, the anticipated end date of the Project's operations would be in the year 2070.

The conversion of United Rock Quarry No. 3 to Buena Vista SPS would not generate any new sediment removal operations nor any new additional truck trips beyond those associated with the District's sediment removal operations. The Project would reroute the District's sediment hauling trucks to Buena Vista SPS from other locations where the District could dispose of the sediment.

Project Construction

Construction activities would include necessary improvements to the Quarry No. 3 site, the Buena Vista Spreading Basin site, and the surrounding vicinity to enable trucks to dispose of material in the new Buena Vista SPS (see **Exhibit B**). The Project's construction activities would include the following:

- Replacement of existing access gates with new access gates;
- Improvements to the existing access roads;
- Backfilling of the District's existing Buena Vista Spreading Basin, which would involve approximately 400 truck trips per day for 14 weeks (approximately 27,500 truck trips);
- Construction of a new paved access road through the District's existing Buena Vista Spreading Basin;
- Drainage improvements;
- Construction of a small operation building (approximately 500 square feet);
- Installation of enhanced lighting, a wheel wash station, and possibly measurement scales for truckloads; and
- Restriping of two segments of Buena Vista Street.

The Project's construction activities could also include the closure of Meridian Street between Bateman Avenue and Miguel Miranda Avenue. Traffic travelling east on Meridian Street would be forced to make a right turn onto Bateman Avenue and traffic travelling north on Bateman Avenue would be forced to make a left onto Meridian Street. Miguel Miranda Avenue would become a dead end street.

Construction and hauling would occur during eight-hour days. Peak truck trips generated by the Project construction activities could include 50 truck trips per hour, either in the morning or afternoon hours, for a total of 400 truck trips per day.

Construction is anticipated to be sequenced, with the first phase of the Project consisting of importation of fill material and backfilling of Buena Vista Spreading Basin as well as rough

grading of the Spreading Basin site. Improvements to the access roads and construction of the operations building would likely occur after completion of the first phase. For the purpose of impact analysis in this EIR, it was assumed that all construction activities would occur simultaneously. All staging of equipment would occur on-site at Buena Vista SPS or at Buena Vista Spreading Basin.

Project Operation

Operation of the Project includes the hauling and depositing of sediment collected from the District's facilities throughout the County into the Buena Vista SPS. Project operation would be intermittent, with many periods of low or no use of Buena Vista SPS.

During normal sediment placement operations, peak truck trips to the Project site could include 50 truck trips per hour, either in the morning or afternoon hours, for a total of 800 truck trips per day over an 8-hour period. The trucks used to transport material would be a mix of 20 CY trucks, and 10 CY trucks.

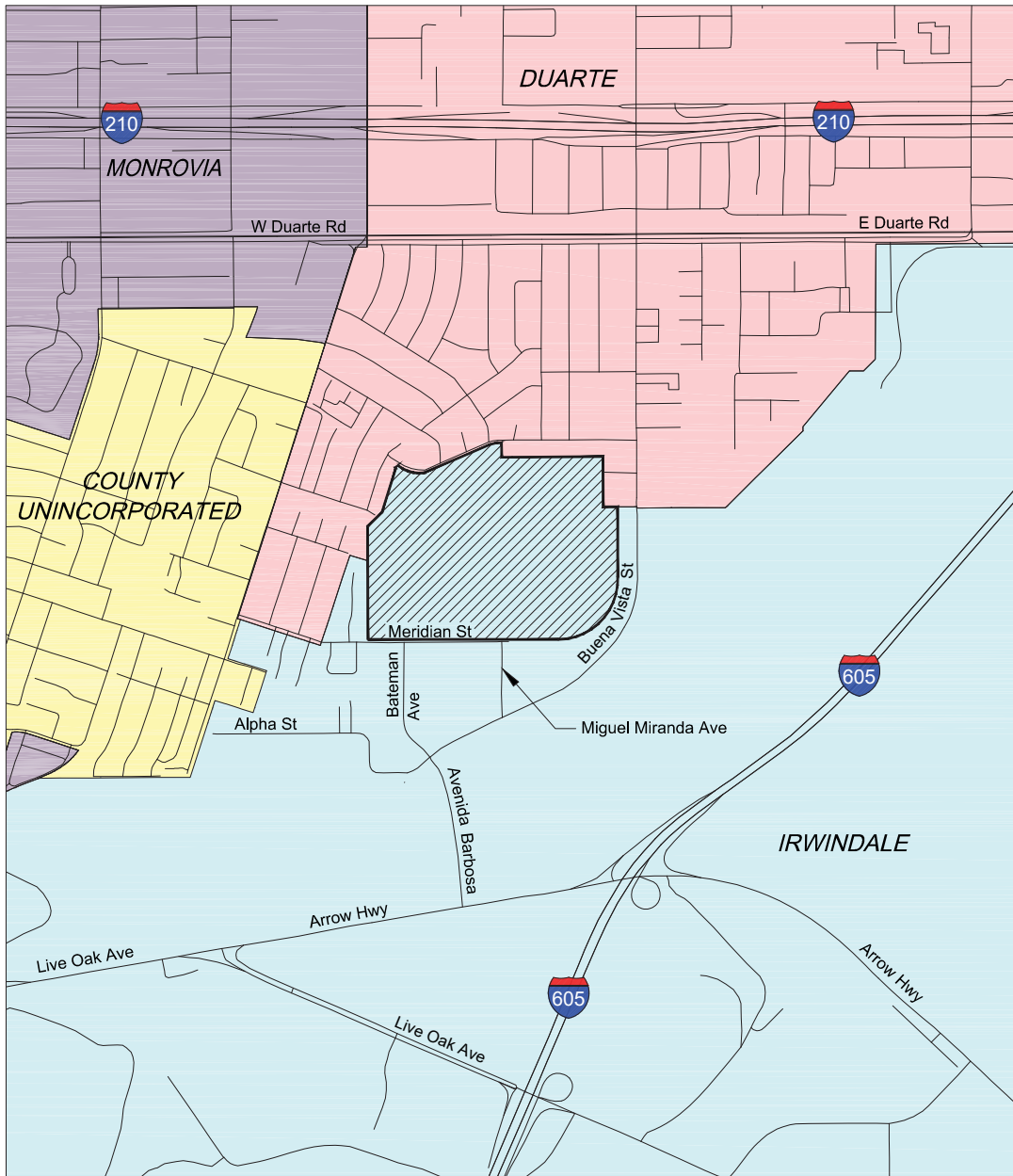
The majority of haul trucks utilizing Buena Vista SPS would access the site via the Arrow Highway exit from the southbound 605 Freeway, with a smaller percentage accessing the site via the Live Oak Avenue exit from the northbound I-605 Freeway. See **Section 7.2** for project trip distribution.

The District proposes to begin operation of the Buena Vista SPS in 2020 and anticipates filling the SPS by 2070. However, since the actual amount of sediment material transported to Buena Vista SPS would vary from year to year, depending on the frequency and severity of annual storm events, capacity might be reached sooner or later than 2070.

During operation activities, a maximum of five employees is anticipated onsite to manage the unloading of sediment.



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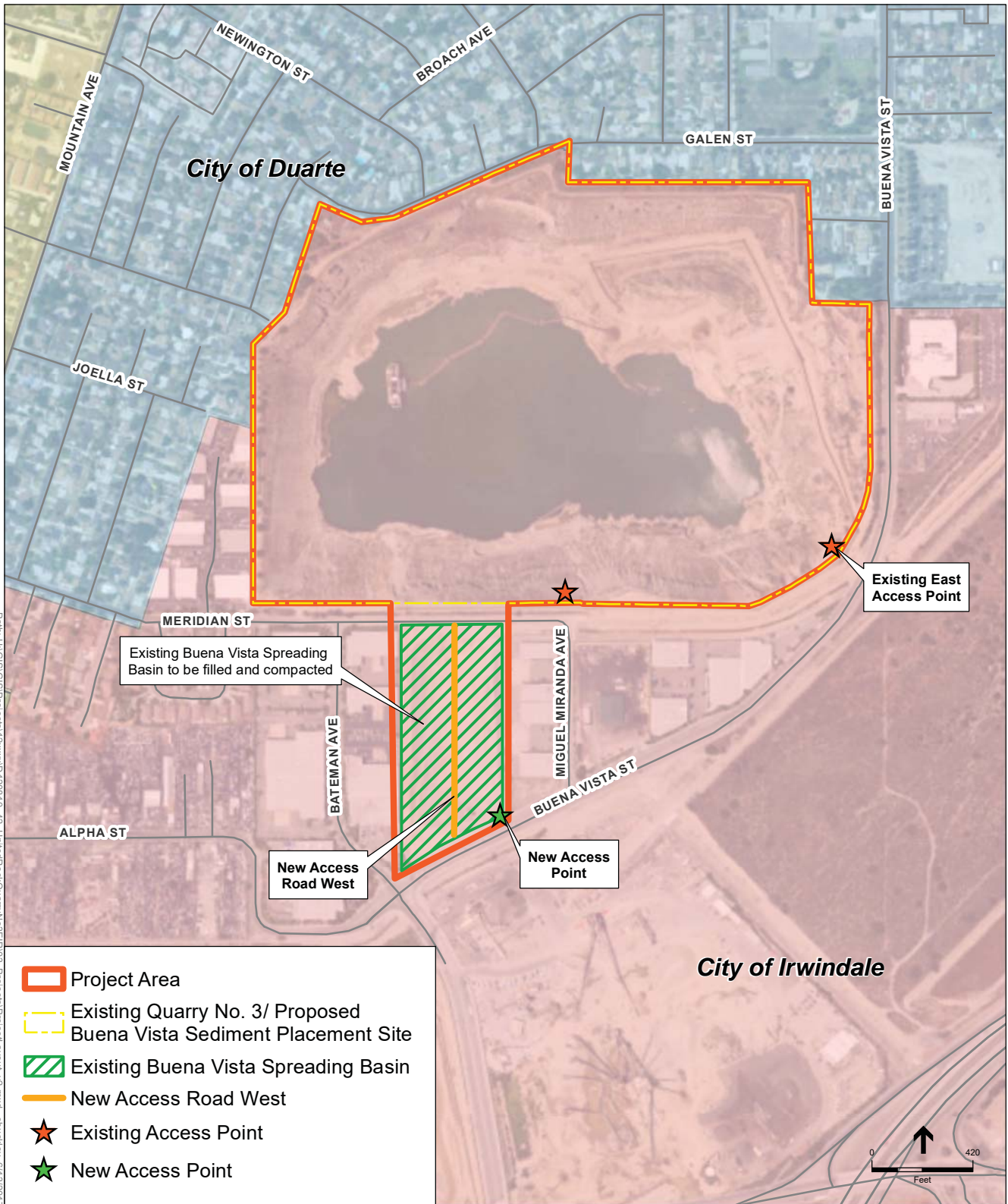
 Project Site

EXHIBIT A

LIN Consulting, Inc.
Traffic, Civil, and Electrical Consulting Engineers

TRAFFIC IMPACT STUDY
 United Rock Quarry No. 3
 Irwindale, CA

PROJECT LOCATION



SOURCE: ESRI

United Rock Quarry. 120810.42
Exhibit B
 Project Site

3. ANALYSIS METHODOLOGY

3.1. INTERSECTION LEVEL OF SERVICE METHODOLOGY

Level of Service (LOS) is a qualitative measure used to describe the operating conditions of a particular type of transportation facility. LOS of a facility is defined using letters “A” through “F”, where LOS “A” represents the best operating conditions and LOS “F” represents worst operating conditions.

In discussions with Caltrans it was agreed that the LOS at the study area intersections shall be conducted per City of Irwindale methodology. Per *City of Irwindale Policy Guidelines for Traffic Impact Reports* “The traffic study shall identify and analyze all the impacts to the operational conditions (Level Of Service, or “LOS”) of the transportation facilities in the project accordance with the Intersection Capacity Utilization (ICU) and Highway Capacity Manual (HCM) methodologies. The ICU methodology shall be used for signalized intersections, and the HCM methodology shall be used for the unsignalized intersections”. The study conducted LOS analysis using Traffix software. **Table 1** lists the relationship between LOS and volume to capacity ratio per ICU methodology and **Table 2** lists the relationship between LOS and average control delay as defined in HCM.

Table 1: ICU Methodology - Level of Service by V/C Ratio

Level of Service (LOS)	Volume to Capacity Ratio (V/C)
A - Excellent Operation - Free Flow	0.00 - 0.60
B - Very Good Operation - Rural Design	0.61 - 0.70
C - Good Operation - Urban Design	0.71 - 0.80
D - Fair Operation - Maximum Urban Design	0.81 - 0.90
E - Poor Operation - Capacity	0.91 - 1.00
F - Jammed Operation - Forced Flow	>1.00

Table 2: HCM Methodology - LOS Criteria for AWSC and TWSC Intersections

LOS	Average Control Delay (sec/veh)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

3.2. FREEWAY MAINLINE SEGMENT ANALYSIS METHODOLOGY

The freeway segment analysis is based on the information obtained from Caltrans Performance Measurement System (PeMS). PeMS provides access to real-time and historical performance data in many useful formats and presentation styles to help understand transportation performance, identify problems, and formulate solutions. With PeMS, users can conduct a uniform and comprehensive assessment of freeway performance. The freeway segment analysis is based on the methodology described in Chapter 11 of the HCM 2010. The performance measure preferred by Caltrans to calculate LOS is density. PeMS estimates the LOS using density only. Density is expressed in terms of passenger cars per mile per lane (pc/mi/ln). **Table 3** illustrates the freeway segment LOS thresholds for each density range utilized for this analysis.

Table 3: Freeway Mainline LOS Thresholds

LOS	Density Range (pc/mi/ln)
A	≤ 11
B	>11 - 18
C	>18 - 26
D	>26 - 35
E	>35 - 45
F	>45 (Demand exceeds capacity)

3.3. SIGNIFICANT IMPACT CRITERIA

Per City of Irwindale *Policy Guidelines for Traffic Impact Reports* an intersection is said to be significantly impacted by the project traffic:

- When a signalized intersection operates at mid-range LOS “D” (as allowed by the General Plan) or better under existing or future conditions and the addition of the project trips degrades the intersection operations to LOS “E” or “F”. The project mitigation should bring the facility to operate at mid-range LOS “D” at minimum.
- When a signalized intersection operates at LOS “E” (as allowed by the General Plan in some locations and for State Highways facilities) or better under existing or future baseline conditions, and the addition of project trips degrades the intersection operations to LOS “F”, or increases the V/C ratio by 0.02 or greater. The project mitigation should bring the facility to operate at LOS “E”, or pre-project conditions at minimum.
- When a signalized intersection operates at LOS “F” (a violation of the General Plan LOS Policy) under existing or future baseline conditions, and the addition of more than 50 peak-hour project trips increases the V/C ratio by 0.02 or greater. The project mitigation should bring the facility to pre-project conditions, which typically are defined as “existing” conditions.

- At an unsignalized intersection, when the minor stop-controlled approach operates at LOS “F” and does not have acceptable operation in terms of total control delay, and the addition of project trips increases the total control delay to more than 4.0 seconds per vehicle for a single lane approach or 5.0 seconds per vehicle for a multilane approach. The project mitigation should bring the facility to operate at LOS “E” at a minimum or to bring the total control delay to less than 4.0 seconds per vehicle for a single lane approach or 5.0 seconds per vehicle for a multilane approach at a minimum.
- At an unsignalized intersection, when the minor stop-controlled approach operates at LOS “F” and does not have an acceptable operation in terms of total control delay, and the addition of more than 50 peak hour project trips contributes to the continuing operational failure at the minor approach. The project mitigation should bring the facility to pre-project or existing conditions.

Caltrans Facilities

As per *Caltrans Guide for Preparation of Traffic Impact Studies*, “Caltrans endeavors to maintain a target LOS at the transition between LOS “C” and LOS “D” on state highway 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 the appropriate target LOS, the existing Measure of Effectiveness (MOE) should be maintained.” The District in discussion with Caltrans staff has agreed to pay the project fair share cost towards the I-605 Corridor Feasibility Study initiated by the City of Irwindale. See **Section 17** for project fair share.

4. TRAFFIC VOLUMES

Turning movement counts at the study intersections during the weekday AM peak period (7:00 AM to 9:00 AM) and PM peak period (4:00 PM to 6:00 PM) and Average Daily Traffic (ADT) counts at the study area roadway segments were conducted on Thursday, March 24th, 2016. Intersection turning movement and ADT count data are provided in **Appendix A**.

5. EXISTING CONDITIONS

5.1. STUDY AREA

The study area was chosen to be wide enough to capture the changes in traffic circulation resulting from the proposed project traffic. The study area intersections were submitted to the Los Angeles County Department of Public Works, Traffic and Lighting Division (TLD) for their concurrence as part of the Traffic Study Memorandum of Understanding (MoU). **Exhibit C** shows the existing and future study intersection controls and intersection lane geometry.



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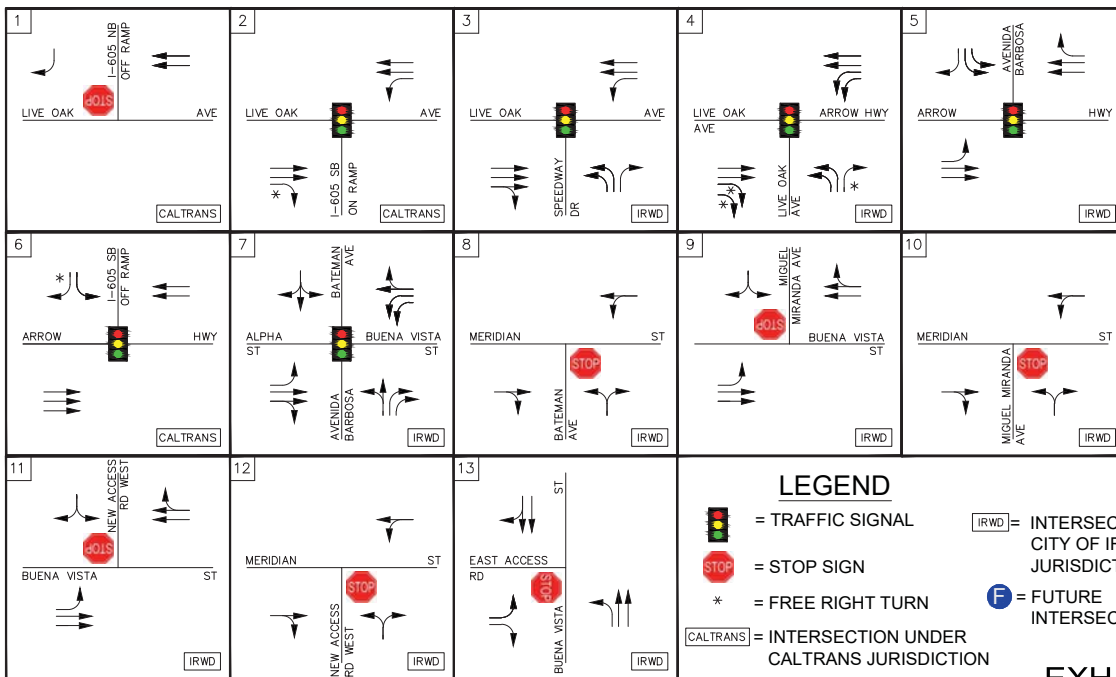
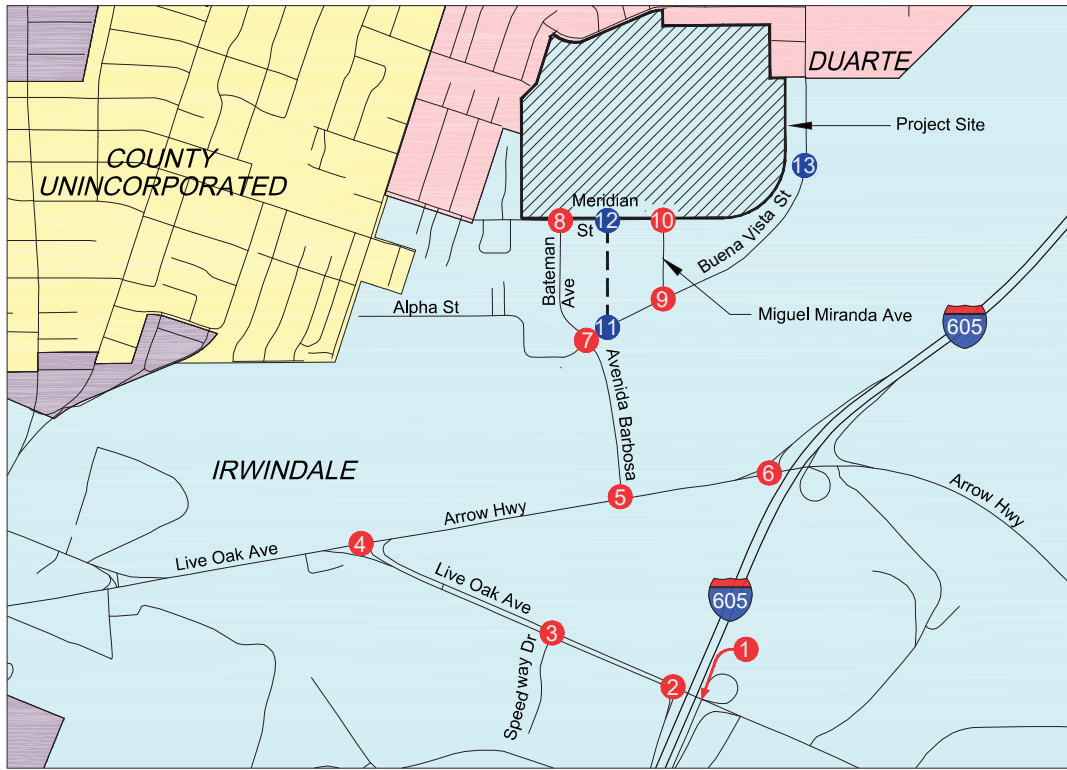


EXHIBIT C

LIN Consulting, Inc.
Traffic, Civil, and Electrical Consulting Engineers

TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

EXISTING (YEAR 2016)
AND FUTURE INTERSECTIONS
LANE GEOMETRY

5.2. STUDY INTERSECTIONS

1. *I-605 Northbound Off-Ramp (NS) and Westbound Live Oak Avenue (EW)*

I-605 northbound off-ramp on to westbound Live Oak Avenue has one approach with stop control. Westbound Live Oak Avenue has two lanes and has no control.

2. *I-605 Southbound On-Ramp (NS) and Live Oak Avenue (EW)*

Eastbound Live Oak Avenue has three lanes that include an exclusive free right turn only lane and two through lanes. Westbound Live Oak Avenue has three lanes that include an exclusive left turn only lane and two through lanes. This is a signalized T-intersection with protected left turn phasing for westbound Live Oak Avenue and the third leg of the intersection is an on-ramp to southbound I-605 freeway with only receiving lanes.

3. *Speedway Drive (NS) and Live Oak Avenue (EW)*

Northbound Speedway Drive has three lanes that include two exclusive left turn only lanes, and an exclusive right turn only lane. Eastbound Live Oak Avenue has three approach lanes. Westbound Live Oak Avenue has three lanes including an exclusive left turn only lane. This is a signalized T-intersection with protected left turn phasing for westbound Live Oak Avenue.

4. *Live Oak Avenue (NS) and Live Oak Avenue/Arrow Highway (EW)*

Northbound Live Oak Avenue has three lanes that include two exclusive left turn only lanes, and an exclusive free right turn only lane. Eastbound Live Oak Avenue has three approach lanes including an exclusive right turn only lane, which becomes a free right turn lane. Westbound Arrow Highway has four lanes that include two exclusive left turn only lanes. This is a signalized T- intersection with protected left turn phasing for westbound Arrow Highway.

5. *Avenida Barbosa (NS) and Arrow Highway (EW)*

Southbound Avenida Barbosa has three lanes that include two exclusive left turn only lanes, and an exclusive right turn only lane. Eastbound Arrow Highway has three approach lanes that include an exclusive left turn only lane. Westbound Arrow Highway has three lanes that include an exclusive right turn only lane. This is a signalized intersection with protected left turn phasing for eastbound Arrow Highway.

6. *I-605 Southbound Off-Ramp (NS) and Arrow Highway (EW)*

Eastbound and westbound Arrow Highway have three and two approach lanes, respectively. Southbound I-605 off-ramp has two lanes that include an exclusive left turn only lane and an exclusive free right turn only lane. This is a signalized T-intersection with protected left turn phasing for southbound I-605 off-ramp.

7. Bateman Avenue/Avenida Barbosa (NS) and Alpha Street/Buena Vista Street (EW)

Northbound Avenida Barbosa has three lanes that include two exclusive right turn only lanes and a through left turn only lane. Southbound Bateman Avenue has one approach lane. Westbound Buena Vista Street has three lanes that include two exclusive left turn only lanes. Eastbound Alpha Street has three lanes that include an exclusive left turn only lane. This is a signalized intersection with split phasing on northbound and southbound Bateman Avenue/Avenida Barbosa and protected left turn phasing on eastbound and westbound Alpha Street/Buena Vista Street.

8. Bateman Avenue (NS) and Meridian Street (EW)

This is a Two-Way-Stop-Control (TWSC) T-intersection with stop control on northbound Bateman Avenue. There is one approach lane on each leg of the intersection.

9. Miguel Miranda Avenue (NS) and Buena Vista Street (EW)

This is a TWSC T-intersection with stop control on southbound Miguel Miranda Avenue. Southbound Miguel Miranda Avenue has one approach lane. Eastbound Buena Vista Street has three lanes that include an exclusive left turn only lane. Westbound Buena Vista Street has two lanes.

10. Miguel Miranda Avenue (NS) and Meridian Street (EW)

This is a TWSC T-intersection with stop control on northbound Miguel Miranda Avenue. There is one approach lane on each leg of the intersection. The east leg of the intersection serves as the entrance to United Rock Products Quarry No. 3 and can be accessed by authorized personnel only.

11. New Access Road West (NS) and Buena Vista Street (EW)

This is a proposed future TWSC T-intersection with stop control on southbound New Access Road West. Southbound New Access Road West has one approach lane. Eastbound Buena Vista Street has three lanes that include an exclusive left turn only lane. Westbound Buena Vista Street has two lanes that includes a through right turn only lane.

12. New Access Road West (NS) and Meridian Street (EW)

This is a proposed future TWSC T-intersection with stop control on northbound New Access Road West. There is one approach lane on each leg of the intersection.

13. Buena Vista Street (NS) and East Access Road (EW)

This is a proposed future TWSC T-intersection with stop control on eastbound East Access Road. Eastbound East Access Road has two lanes that include an exclusive right turn only and an exclusive left turn only lane. Northbound Buena Vista Street has three lanes that

include an exclusive left turn only lane. Southbound Buena Vista Street has two lanes that include a through right turn only lane.

5.3. ROADWAY SEGMENTS

San Gabriel River Freeway (I-605) is a major north–south Interstate Highway located to the east of the project site. There are four lanes in each direction in the vicinity of the project site. I-605 freeway serves as a north-south connection between Interstate 210 and Interstate 405. The year 2014 AADT per Caltrans for I-605 between Arrow Highway and Live Oak Avenue was 134,000.

Buena Vista Street is a north-south arterial on which the project site is located. It has two lanes in each direction in the vicinity of the project site, along with a two-way-left turn-lane. Buena Vista Street provides access to Foothill (I 210) Freeway located to the north of the project site. The posted speed limit on this roadway is 45 mph in the vicinity of the project site.

Bateman Avenue/Avenida Barbosa is a north-south local street connecting Meridian Street to the north and Arrow Highway to the south. Avenida Barbosa has one lane and two lanes in each direction north and south of Buena Vista Street, respectively. Avenida Barbosa north of Alpha Street/Buena Vista Street is called Bateman Avenue.

Arrow Highway is an east-west arterial located to the south of the project site. Arrow Highway has two lanes and three lanes in eastbound and westbound direction, respectively in the vicinity of the project site. Arrow Highway provides project traffic access to the northbound San Gabriel River (I-605) Freeway. The posted speed limit on this roadway is 45 mph in the vicinity of the project site.

Live Oak Avenue is an east-west arterial located to the south of the project site. Live Oak Avenue has two lanes in each direction with a posted speed limit of 45 mph. Live Oak Avenue provides project traffic access to the southbound San Gabriel River (I-605) Freeway.

6. EXISTING TRAFFIC CONDITIONS (YEAR 2016)

6.1. INTERSECTION LEVEL OF SERVICE

Existing traffic conditions at the study area intersections are depicted in **Table 4**. All the study area intersections operate at LOS “D” or better with the exception of I-605 NB Off-Ramp and WB Live Oak Avenue, which operates at LOS “F” during AM and PM Peak Hours. The LOS analysis worksheets from Traffix for existing traffic conditions are included in **Appendix B**. The intersection turning movement volumes for the Existing Traffic Conditions (Year 2016) during weekday AM and PM peak hours are shown in **Exhibit D**.

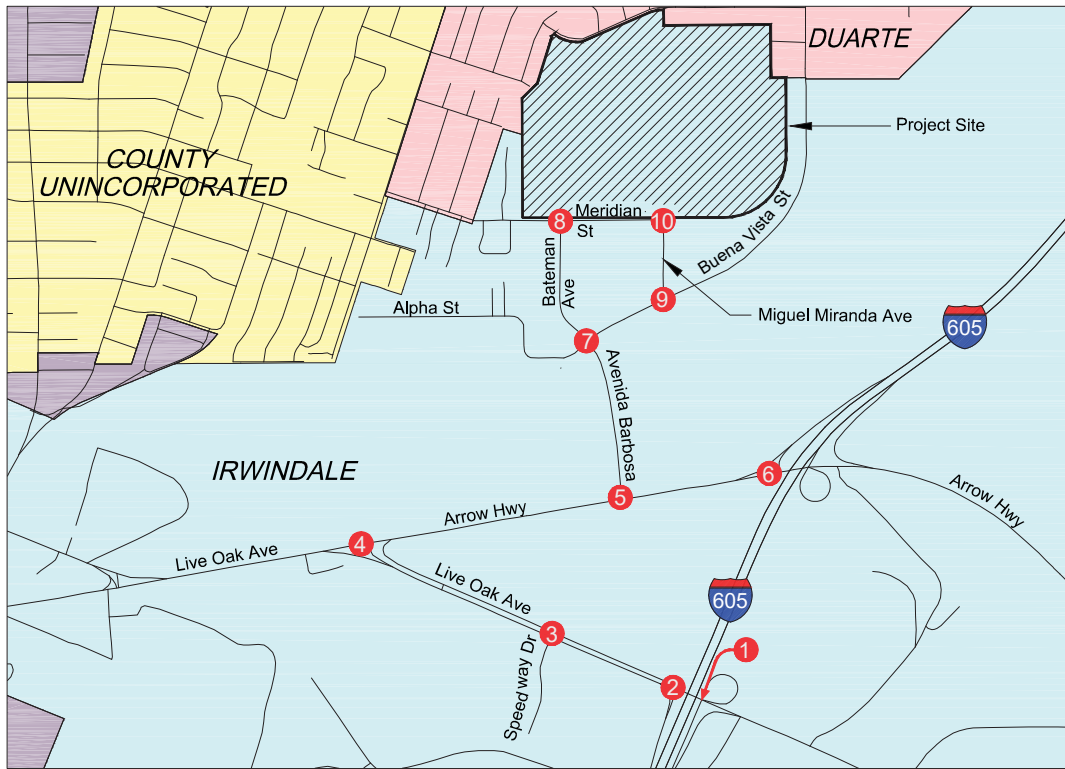
Table 4: Existing (Year 2016) Traffic Conditions

#	Intersection	AM Peak Hour		PM Peak Hour	
		ICU LOS/(V/C)	HCM LOS/(Delay*)	ICU LOS/(V/C)	HCM LOS/(Delay*)
1	I-605 NB Off-Ramp and WB Live Oak Avenue	NA	F/(72.7)	NA	F/(68.8)
2	I-605 SB On-Ramp and Live Oak Avenue	A/(0.514)	NA	D/(0.804)	NA
3	Speedway Drive and Live Oak Avenue	A/(0.468)	NA	B/(0.678)	NA
4	Live Oak Avenue and Live Oak Avenue/Arrow Highway	D/(0.861)	NA	B/(0.672)	NA
5	Avenida Barbosa and Arrow Highway	C/(0.783)	NA	B/(0.663)	NA
6	I-605 SB Off-Ramp and Arrow Highway	D/(0.803)	NA	A/(0.461)	NA
7	Bateman Avenue/Avenida Barbosa and Alpha Street/Buena Vista Street	A/(0.409)	NA	A/(0.582)	NA
8	Bateman Avenue and Meridian Street	NA	B/(10.1)	NA	B/(10.1)
9	Miguel Miranda Avenue and Buena Vista Street	NA	B/(11.4)	NA	B/(13.0)
10	Miguel Miranda Avenue and Meridian Street	NA	A/(8.6)	NA	A/(9.1)

* In Seconds, NA – Not Applicable.



NOT TO SCALE



<p>1</p> <p>LIVE OAK AVE</p> <p>← 533/(609)</p> <p>I-605 NB OFF RAMP ← 1146/(944)</p>	<p>2</p> <p>LIVE OAK AVE</p> <p>← 1209/(1019)</p> <p>← 541/(524)</p> <p>I-605 SB ON RAMP</p> <p>244/(1204) →</p> <p>465/(1143) →</p>	<p>3</p> <p>LIVE OAK AVE</p> <p>← 1177/(913)</p> <p>← 3/(116)</p> <p>754/(2331) →</p> <p>1/(69) →</p> <p>SPEEDWAY DR</p> <p>2/(7)</p> <p>1/(9)</p>	<p>4</p> <p>LIVE OAK AVE</p> <p>← 1467/(735)</p> <p>← 97/(250)</p> <p>389/(804) →</p> <p>578/(2148) →</p> <p>LIVE OAK AVE</p> <p>968/(776)</p> <p>180/(101)</p>	<p>5</p> <p>ARROW HWY</p> <p>← 583/(227)</p> <p>← 1410/(665)</p> <p>148/(331) →</p> <p>151/(490) →</p> <p>239/(237) →</p> <p>308/(674) →</p>
<p>6</p> <p>ARROW HWY</p> <p>← 515/(481)</p> <p>← 381/(166)</p> <p>I-605 SB OFF RAMP ← 1468/(435)</p> <p>456/(1180) →</p>	<p>7</p> <p>ALPHA ST</p> <p>← 5/(5)</p> <p>← 119/(258)</p> <p>← 5/(14)</p> <p>11/(11)</p> <p>8/(10)</p> <p>148/(497)</p> <p>1/(2)</p> <p>4/(12)</p> <p>10/(74)</p> <p>AVENIDA BARBOSA</p> <p>44/(18)</p> <p>232/(126)</p> <p>562/(343)</p>	<p>8</p> <p>MERIDIAN ST</p> <p>← 5/(10)</p> <p>← 1/(1)</p> <p>22/(14)</p> <p>128/(234)</p> <p>BATEMAN AVE</p> <p>198/(152)</p> <p>2/(2)</p>	<p>9</p> <p>BUENA VISTA ST</p> <p>← 8/(11)</p> <p>← 22/(15)</p> <p>← 14/(11)</p> <p>← 172/(501)</p> <p>12/(4)</p> <p>543/(366)</p> <p>MIGUEL MIRANDA AVE</p>	<p>10</p> <p>MERIDIAN ST</p> <p>← 1/(0)</p> <p>← 3/(0)</p> <p>0/(0)</p> <p>21/(11)</p> <p>MIGUEL MIRANDA AVE</p> <p>13/(17)</p> <p>1/(1)</p>

LEGEND

XX/(XX) = AM/(PM) PEAK HOUR VOLUMES

EXHIBIT D

6.2. FREEWAY FACILITIES ANALYSIS

Table 5 summarizes the LOS during AM and PM peak hours for the San Gabriel River Freeway (I-605) between absolute post mile 24.4 and 26.6. The PeMS Time of Day LOS Reports were generated for the week of March 28 through the 31, 2016 (Monday through Thursday) and are included in **Appendix C**.

Table 5: Existing (Year 2016) Freeway Facilities Traffic Conditions – I-605

Direction	AM	PM
Northbound	B	F
Southbound	B	F

Source – Caltrans PeMS

7. PROJECT DEVELOPMENT

7.1. TRIP GENERATION

Per the information provided by the District the proposed project is expected to generate up to fifty (50) trucks per hour to the project site and fifty (50) trucks per hour from the project site at its peak. In addition to the trucks there will be five (5) employees working on the site. **Table 6** lists the number of trips generated by the proposed project.

Table 6: Project Trip Generation

	Average Weekday	Weekday AM Peak Hour		Weekday PM Peak Hour	
		In	Out	In	Out
Trucks*	800	50	50	50	50
Cars	10	5	0	0	5
Total PCE	1,610	105	100	100	110

*PCE - Passenger Car Equivalent., *The truck trips are converted to PCE's at the rate of 2.0 PCE per truck.*

7.2. TRIP DISTRIBUTION

Trip distribution represents the directional orientation of traffic to and from the project site. **Exhibit E** and **Exhibit F** show the project trip distribution for the existing and East Access Road, respectively. District at the time of preparation of this traffic study is still contemplating on the entrance location for the proposed project site. The study analyzes both cases:

1. New Access Road West – The project traffic uses the existing United Rock Quarry entrance located at the intersection of Miguel Miranda Ave and Meridian Street
2. East Access Road – The project traffic uses the existing entrance on Buena Vista Street on the eastern end of the project site.

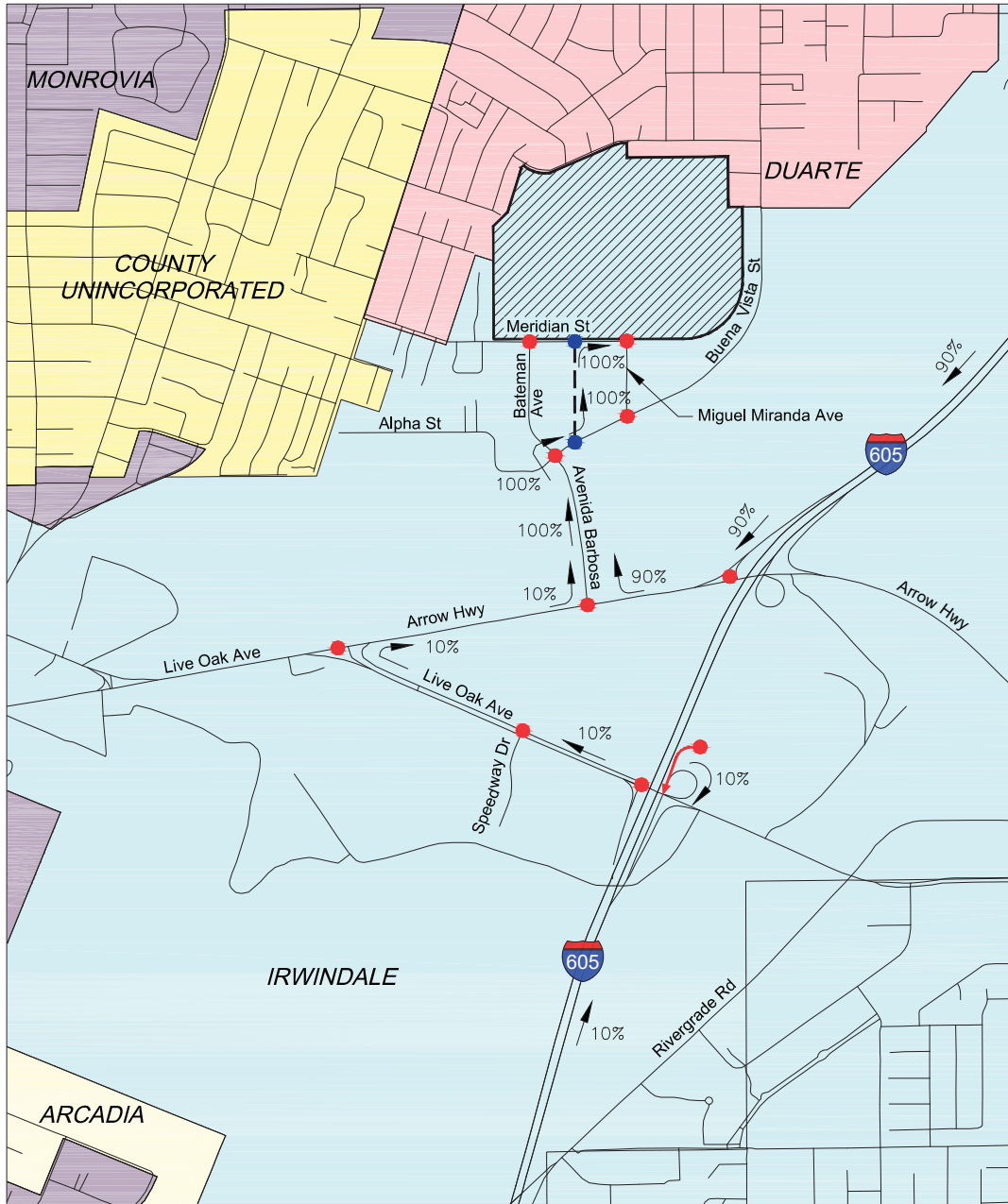
The project trip distribution is based on the information provided by the District.

7.3. TRAFFIC ASSIGNMENT

The assignment of traffic from the site to the adjoining roadway system have been based upon the site's trip generation, trip distribution, existing arterial highway and local street systems. Based on the identified project trip generation and distribution, project related weekday AM and PM peak hour turning movement volumes are shown on **Exhibit G** and **Exhibit H**, for New Access Road West and East Access Road, respectively.



NOT TO SCALE



LEGEND:



Project Site



Existing Study Intersections



Future Study Intersections



Directional Orientation of Traffic and Percentage to/from Project Site



Proposed LACFCD Access Road

EXHIBIT E

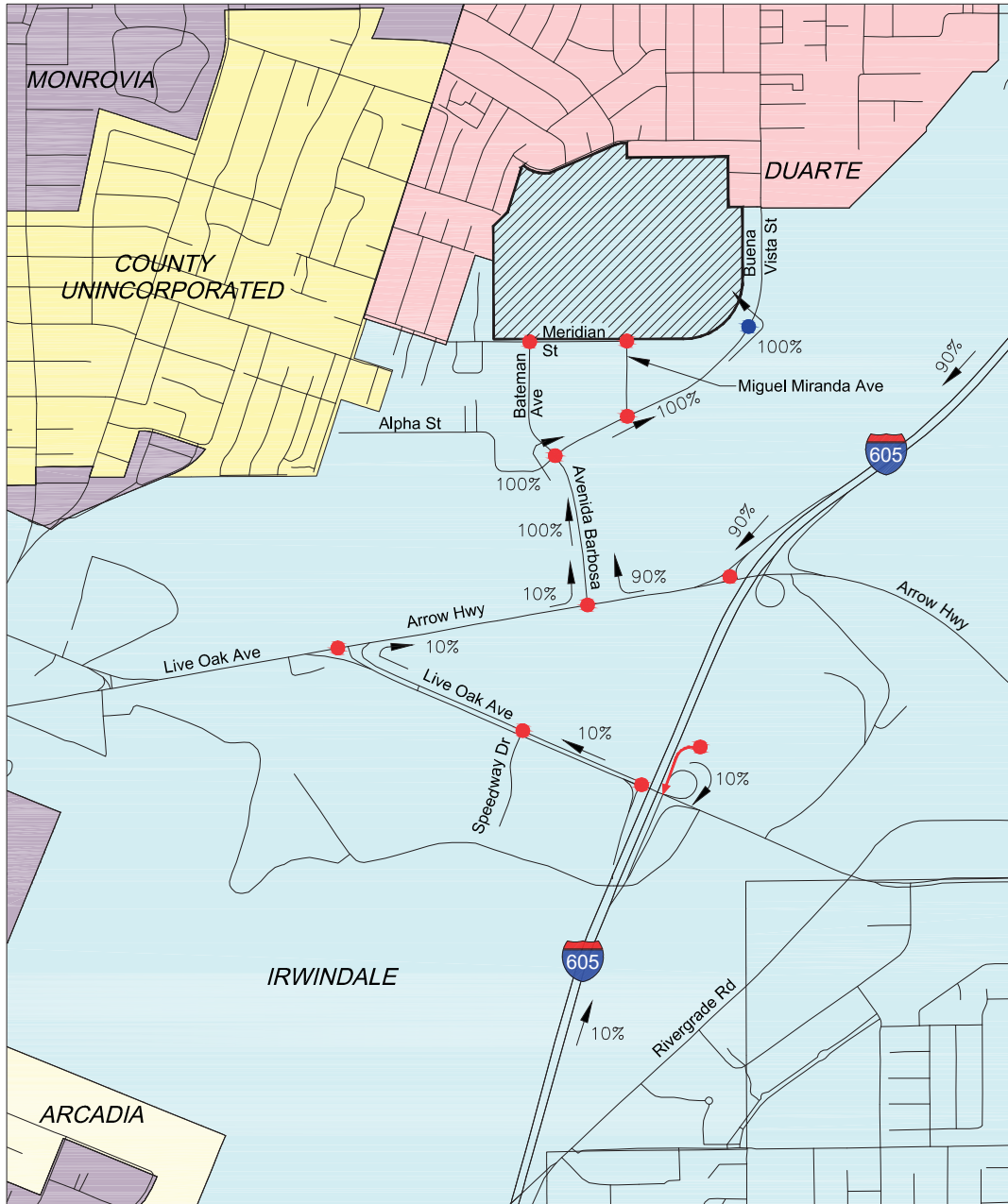
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TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA




PROJECT TRIP DISTRIBUTION
NEW ACCESS ROAD WEST



NOT TO SCALE



LEGEND:

-  Project Site
-  Existing Study Intersections
-  Future Study Intersections


 **XX%** Directional Orientation of Traffic and Percentage to/from Project Site

EXHIBIT F

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TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

PROJECT TRIP DISTRIBUTION
EAST ACCESS ROAD



NOT TO SCALE

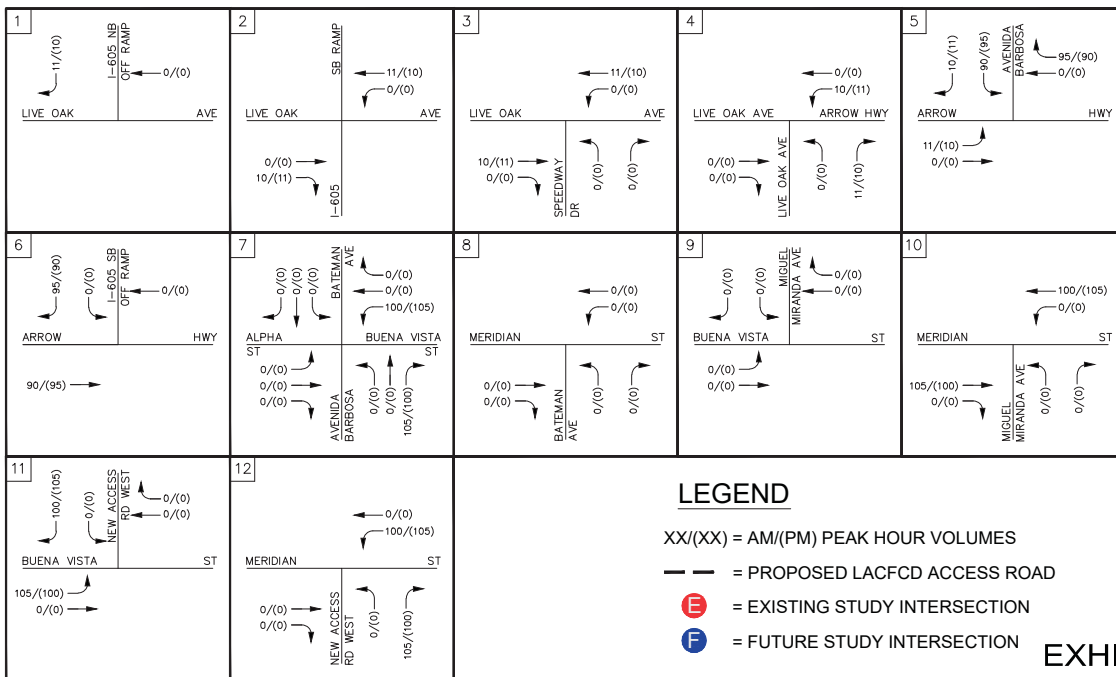
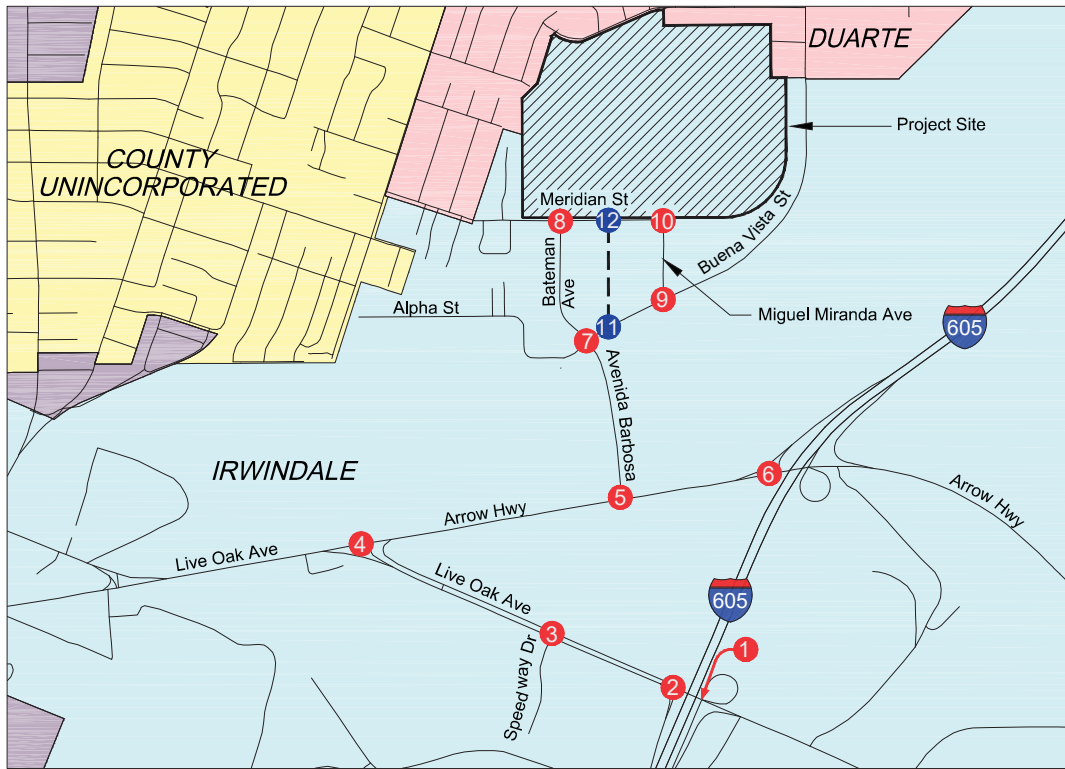


EXHIBIT G

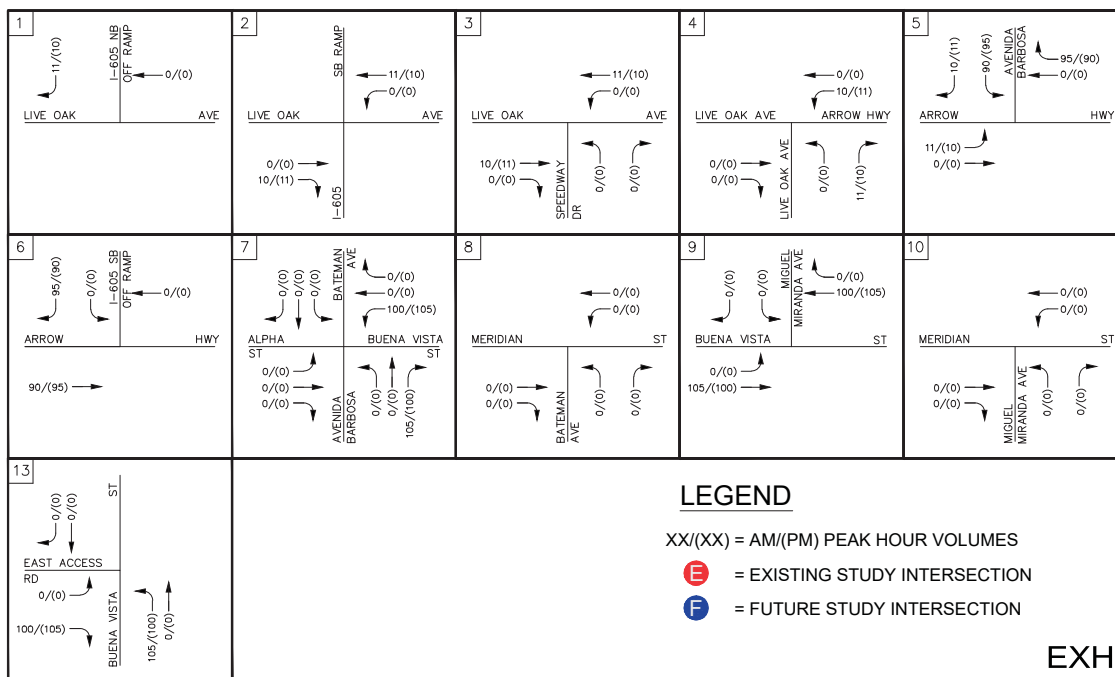
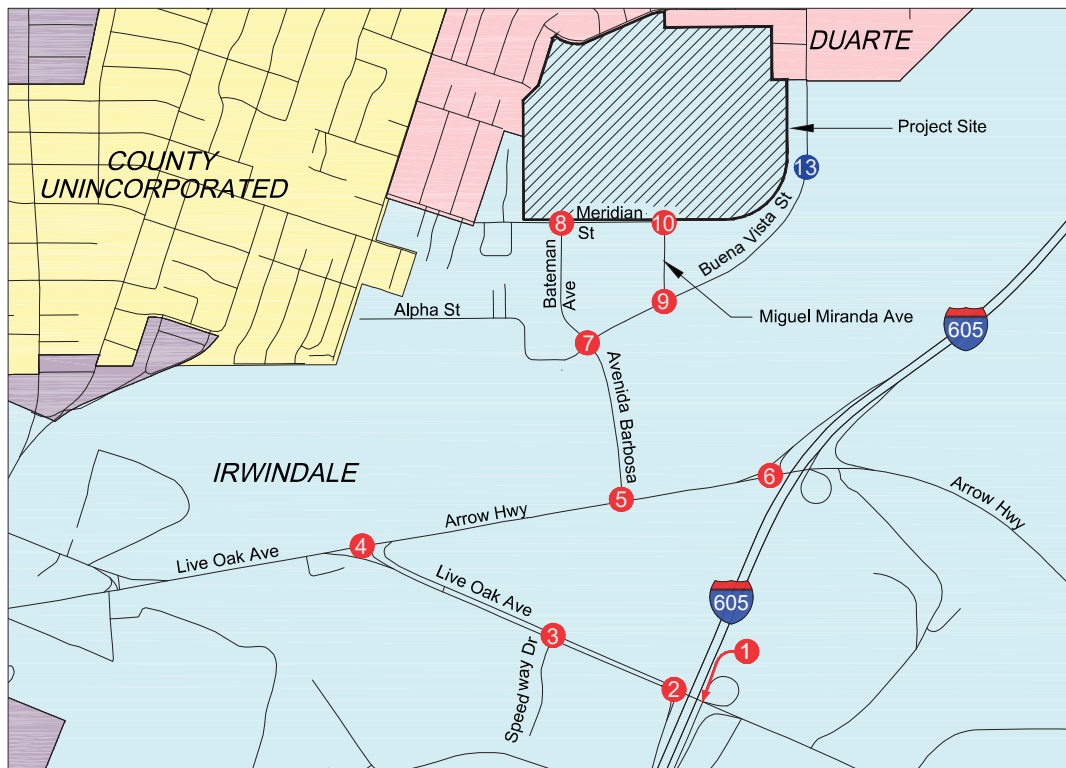
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TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

PROJECT TRAFFIC ASSIGNMENT
NEW ACCESS ROAD WEST



NOT TO SCALE



LEGEND

- XX/(XX) = AM/(PM) PEAK HOUR VOLUMES
- E = EXISTING STUDY INTERSECTION
- F = FUTURE STUDY INTERSECTION

EXHIBIT H

LIN Consulting, Inc.
Traffic, Civil, and Electrical Consulting Engineers

TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

PROJECT TRAFFIC ASSIGNMENT
EAST ACCESS ROAD

8. EXISTING PLUS PROJECT (NEW ACCESS ROAD WEST) TRAFFIC CONDITIONS

Existing Plus Project Traffic Conditions at the study area intersections with project traffic using New Access Road West at the Meridian Street and Miguel Miranda Avenue are depicted in **Table 7**. All the study area intersections operate at LOS “D” or better with the exception of the intersection of I-605 NB Off-Ramp and WB Live Oak Avenue, which operates at LOS “F” during AM and PM Peak Hours. The LOS analysis worksheets from Traffix for Existing Plus Project (New Access Road West) Traffic Conditions are included in **Appendix D**. The intersection turning movement volumes for the Existing Plus Project (New Access Road West) Traffic Conditions during weekday AM and PM peak hours are shown in **Exhibit I**.

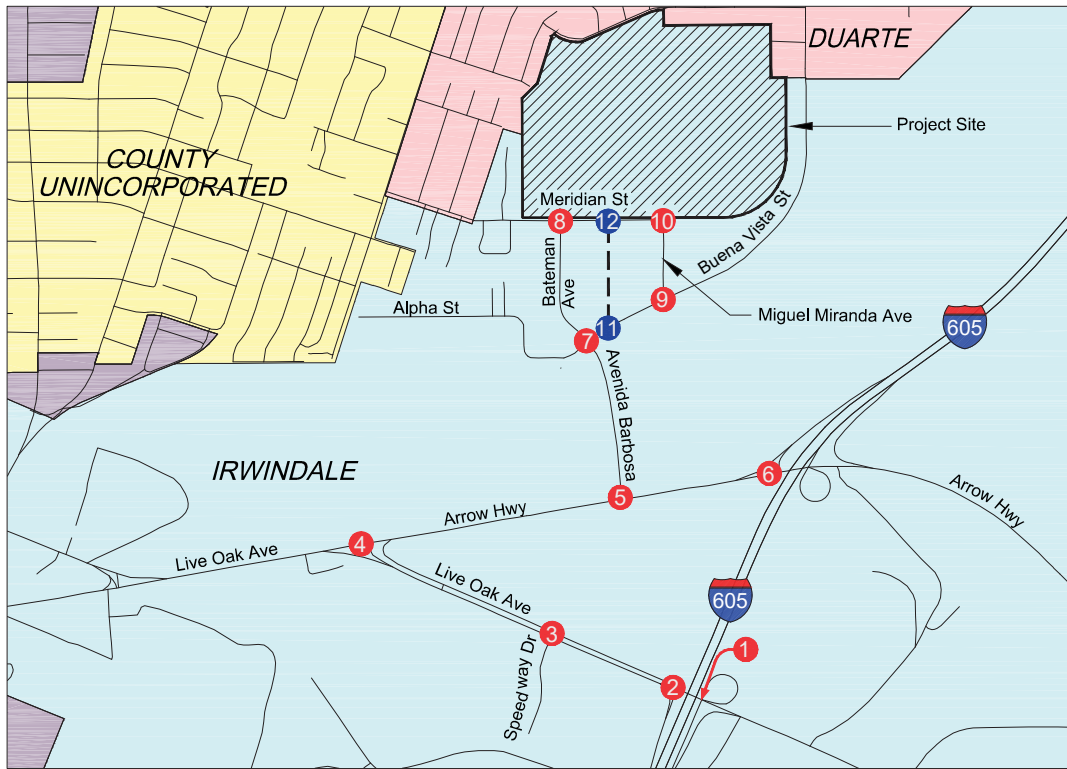
Table 7: Existing Plus Project – New Access Road West

#	Intersection	AM Peak Hour		PM Peak Hour	
		ICU LOS/(V/C)	HCM LOS/(Delay*)	ICU LOS/(V/C)	HCM LOS/(Delay*)
1	I-605 NB Off-Ramp and WB Live Oak Avenue	NA	F/(78.6)	NA	F/(73.5)
2	I-605 SB On-Ramp and Live Oak Avenue	A/(0.514)	NA	D/(0.804)	NA
3	Speedway Drive and Live Oak Avenue	A/(0.472)	NA	B/(0.680)	NA
4	Live Oak Avenue and Live Oak Avenue/Arrow Highway	D/(0.861)	NA	B/(0.675)	NA
5	Avenida Barbosa and Arrow Highway	C/(0.796)	NA	B/(0.676)	NA
6	I-605 SB Off-Ramp and Arrow Highway	D/(0.803)	NA	A/(0.481)	NA
7	Bateman Avenue/Avenida Barbosa and Alpha Street/Buena Vista Street	A/(0.473)	NA	B/(0.646)	NA
8	Bateman Avenue and Meridian Street	NA	B/(10.1)	NA	B/(10.1)
9	Miguel Miranda Avenue and Buena Vista Street	NA	B/(11.4)	NA	B/(13.0)
10	Miguel Miranda Avenue and Meridian Street	NA	A/(9.7)	NA	A/(9.7)
11	New Access Road West and Buena Vista Street	NA	A/(9.0)	NA	A/(9.8)
12	New Access Road West and Meridian Street	NA	A/(8.7)	NA	A/(8.6)

* In Seconds, NA – Not Applicable.



NOT TO SCALE



<p>1</p> <p>LIVE OAK AVE</p> <p>544/(619)</p> <p>I-605 NB OFF RAMP</p> <p>1146/(944)</p>	<p>2</p> <p>LIVE OAK AVE</p> <p>244/(1204)</p> <p>475/(1154)</p> <p>I-605 SB RAMP</p> <p>1220/(1029)</p> <p>541/(524)</p>	<p>3</p> <p>LIVE OAK AVE</p> <p>764/(2342)</p> <p>1/(69)</p> <p>SPEEDWAY DR</p> <p>1188/(923)</p> <p>3/(116)</p> <p>2/(7)</p> <p>1/(9)</p>	<p>4</p> <p>ARROW HWY</p> <p>389/(804)</p> <p>578/(2148)</p> <p>LIVE OAK DR</p> <p>1467/(735)</p> <p>107/(261)</p> <p>988/(776)</p> <p>191/(111)</p>	<p>5</p> <p>ARROW HWY</p> <p>250/(247)</p> <p>308/(674)</p> <p>AVENIDA BARBOSA</p> <p>158/(342)</p> <p>24/(685)</p> <p>678/(317)</p> <p>1410/(665)</p>
<p>6</p> <p>ARROW HWY</p> <p>610/(551)</p> <p>381/(165)</p> <p>I-605 SB OFF RAMP</p> <p>1468/(435)</p> <p>546/(1275)</p>	<p>7</p> <p>ALPHA ST</p> <p>1/(2)</p> <p>4/(12)</p> <p>10/(74)</p> <p>AVENIDA BARBOSA</p> <p>5/(5)</p> <p>119/(258)</p> <p>5/(14)</p> <p>11/(11)</p> <p>8/(10)</p> <p>248/(602)</p> <p>44/(18)</p> <p>232/(126)</p> <p>667/(443)</p> <p>BAATEMAN AVE</p> <p>11/(11)</p> <p>8/(10)</p> <p>248/(602)</p>	<p>8</p> <p>MERIDIAN ST</p> <p>22/(14)</p> <p>128/(234)</p> <p>BAATEMAN AVE</p> <p>5/(10)</p> <p>1/(1)</p> <p>198/(152)</p> <p>2/(2)</p>	<p>9</p> <p>BUENA VISTA ST</p> <p>12/(4)</p> <p>543/(366)</p> <p>MIGUEL MIRANDA AVE</p> <p>8/(11)</p> <p>22/(15)</p> <p>14/(11)</p> <p>172/(501)</p>	<p>10</p> <p>MERIDIAN ST</p> <p>105/(100)</p> <p>21/(11)</p> <p>MIGUEL MIRANDA AVE</p> <p>101/(105)</p> <p>3/(0)</p> <p>13/(17)</p> <p>1/(1)</p>
<p>11</p> <p>BUENA VISTA ST</p> <p>100/(105)</p> <p>0/(0)</p> <p>0/(0)</p> <p>180/(512)</p> <p>NEW ACCESS RD WEST</p> <p>105/(100)</p> <p>571/(369)</p>	<p>12</p> <p>MERIDIAN ST</p> <p>0/(0)</p> <p>0/(0)</p> <p>100/(105)</p> <p>NEW ACCESS RD WEST</p> <p>0/(0)</p> <p>0/(0)</p> <p>105/(100)</p>			

LEGEND

- XX/(XX) = AM/(PM) PEAK HOUR VOLUMES
- = PROPOSED LACFD ACCESS ROAD
- E = EXISTING STUDY INTERSECTION
- F = FUTURE STUDY INTERSECTION

EXHIBIT I

LIN Consulting, Inc.
Traffic, Civil, and Electrical Consulting Engineers

TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

EXISTING + PROJECT TRAFFIC
TURNING MOVEMENT VOLUMES
NEW ACCESS ROAD WEST

9. EXISTING PLUS PROJECT (EAST ACCESS ROAD) TRAFFIC CONDITIONS

Existing Plus Project Traffic conditions at the study area intersections with project traffic using East Access Road are depicted in **Table 8**. All the study area intersections operate at LOS “D” or better with the exception of the intersection of I-605 NB Off-Ramp and WB Live Oak Avenue, which operate at LOS “F” during AM and PM Peak Hours. The LOS analysis worksheets from Traffix for Existing Plus Project Traffic Conditions (East Access Road) are included in **Appendix E**. The intersection turning movement volumes for the Existing Plus Project Traffic Conditions (East Access Road) during weekday AM and PM peak hours are shown in **Exhibit J**.

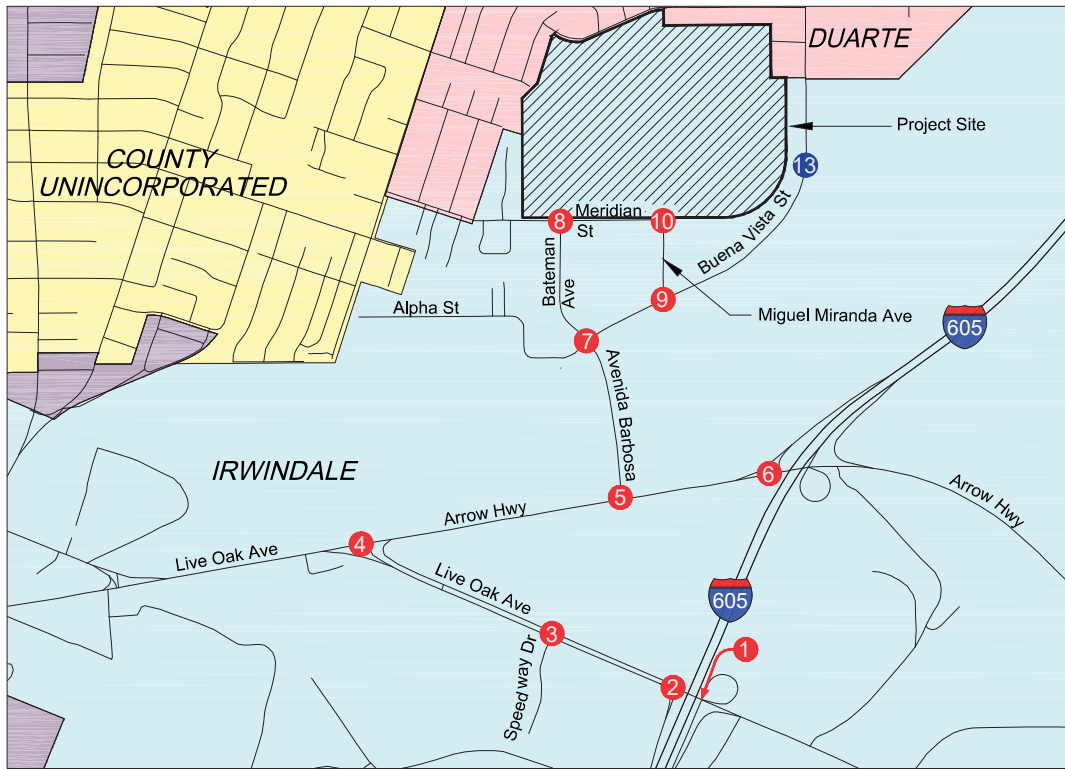
Table 8: Existing Plus Project – East Access Road

#	Intersection	AM Peak Hour		PM Peak Hour	
		ICU LOS/(V/C)	HCM LOS/(Delay*)	ICU LOS/(V/C)	HCM LOS/(Delay*)
1	I-605 NB Off-Ramp and WB Live Oak Avenue	NA	F/(78.6)	NA	F/(73.5)
2	I-605 SB On-Ramp and Live Oak Avenue	A/(0.514)	NA	D/(0.804)	NA
3	Speedway Drive and Live Oak Avenue	A/(0.472)	NA	B/(0.680)	NA
4	Live Oak Avenue and Live Oak Avenue/Arrow Highway	D/(0.861)	NA	B/(0.675)	NA
5	Avenida Barbosa and Arrow Highway	C/(0.796)	NA	B/(0.676)	NA
6	I-605 SB Off-Ramp and Arrow Highway	D/(0.803)	NA	A/(0.481)	NA
7	Bateman Avenue/Avenida Barbosa and Alpha Street/Buena Vista Street	A/(0.473)	NA	B/(0.646)	NA
8	Bateman Avenue and Meridian Street	NA	B/(10.1)	NA	B/(10.1)
9	Miguel Miranda Avenue and Buena Vista Street	NA	B/(12.9)	NA	B/(14.7)
10	Miguel Miranda Avenue and Meridian Street	NA	A/(8.6)	NA	A/(8.6)
13	Buena Vista Street and East Access Road	NA	A/(9.2)	NA	B/(10.6)

* In Seconds, NA – Not Applicable.



NOT TO SCALE



<p>1</p> <p>LIVE OAK AVE</p> <p>544/(619)</p> <p>I-605 NB OFF RAMP</p> <p>1146/(944)</p>	<p>2</p> <p>LIVE OAK AVE</p> <p>244/(1204)</p> <p>475/(1154)</p> <p>I-605 SB RAMP</p> <p>1220/(1029)</p> <p>541/(524)</p>	<p>3</p> <p>LIVE OAK AVE</p> <p>764/(2342)</p> <p>1/(69)</p> <p>SPEEDWAY DR</p> <p>1188/(923)</p> <p>3/(116)</p> <p>2/(7)</p> <p>1/(9)</p>	<p>4</p> <p>ARROW HWY</p> <p>389/(804)</p> <p>578/(2148)</p> <p>LIVE OAK DR</p> <p>1467/(735)</p> <p>107/(261)</p> <p>988/(776)</p> <p>191/(111)</p>	<p>5</p> <p>ARROW HWY</p> <p>250/(247)</p> <p>308/(674)</p> <p>AVENIDA BARBOSA</p> <p>158/(342)</p> <p>24/(685)</p> <p>678/(317)</p> <p>1410/(665)</p>
<p>6</p> <p>ARROW HWY</p> <p>610/(551)</p> <p>381/(165)</p> <p>I-605 SB OFF RAMP</p> <p>1468/(435)</p> <p>546/(1275)</p>	<p>7</p> <p>ALPHA ST</p> <p>1/(2)</p> <p>4/(12)</p> <p>10/(74)</p> <p>AVENIDA BARBOSA</p> <p>5/(5)</p> <p>119/(258)</p> <p>5/(14)</p> <p>44/(18)</p> <p>232/(126)</p> <p>667/(443)</p> <p>BAATEMAN AVE</p> <p>11/(11)</p> <p>8/(10)</p> <p>248/(602)</p>	<p>8</p> <p>MERIDIAN ST</p> <p>22/(14)</p> <p>128/(234)</p> <p>BAATEMAN AVE</p> <p>5/(10)</p> <p>1/(1)</p> <p>198/(152)</p> <p>2/(2)</p>	<p>9</p> <p>BUENA VISTA ST</p> <p>12/(4)</p> <p>648/(466)</p> <p>MIGUEL MIRANDA AVE</p> <p>8/(11)</p> <p>22/(15)</p> <p>14/(11)</p> <p>272/(606)</p>	<p>10</p> <p>MERIDIAN ST</p> <p>0/(0)</p> <p>21/(11)</p> <p>MIGUEL MIRANDA AVE</p> <p>1/(0)</p> <p>3/(0)</p> <p>13/(17)</p> <p>1/(1)</p>
<p>13</p> <p>EAST ACCESS RD</p> <p>0/(0)</p> <p>0/(0)</p> <p>100/(105)</p> <p>BUENA VISTA ST</p> <p>185/(512)</p> <p>125/(100)</p> <p>565/(381)</p>				

LEGEND

XX/(XX) = AM/(PM) PEAK HOUR VOLUMES

- E = EXISTING STUDY INTERSECTION
- F = FUTURE STUDY INTERSECTION

EXHIBIT J

LIN Consulting, Inc.
Traffic, Civil, and Electrical Consulting Engineers

TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

EXISTING + PROJECT TRAFFIC
TURNING MOVEMENT VOLUMES
EAST ACCESS ROAD

10. SIGNIFICANT IMPACTS – EXISTING PLUS PROJECT

Table 9 below shows whether a study area intersection is significantly impacted (as defined in Section 3.3) by the proposed project traffic under Existing Plus Project Traffic Conditions.

Table 9: Intersections Significantly Impacted – Existing Plus Project

#	Intersection	Time Period	Existing Traffic Conditions LOS/(V/C) or Delay	Existing Plus Project Traffic Conditions		Significant Impact Y/N
				New Access Road West LOS/(V/C) or Delay	East Access Road LOS/(V/C) or Delay	
1	I-605 NB Off-Ramp and WB Live Oak Avenue	AM	F/(72.7)	F/(78.6)	F/(78.6)	Y
		PM	F/(68.8)	F/(73.5)	F/(73.5)	Y
2	I-605 SB On-Ramp and Live Oak Avenue	AM	A/(0.514)	A/(0.514)	A/(0.514)	N
		PM	D/(0.804)	D/(0.804)	D/(0.804)	N
3	Speedway Drive and Live Oak Avenue	AM	A/(0.468)	A/(0.472)	A/(0.472)	N
		PM	B/(0.678)	B/(0.680)	B/(0.680)	N
4	Live Oak Avenue and Live Oak Avenue/Arrow Highway	AM	D/(0.861)	D/(0.861)	D/(0.861)	N
		PM	B/(0.672)	B/(0.675)	B/(0.675)	N
5	Avenida Barbosa and Arrow Highway	AM	C/(0.783)	C/(0.796)	C/(0.796)	N
		PM	B/(0.663)	B/(0.676)	B/(0.676)	N
6	I-605 SB Off-Ramp and Arrow Highway	AM	D/(0.803)	D/(0.803)	D/(0.803)	N
		PM	A/(0.461)	A/(0.481)	A/(0.481)	N
7	Bateman Avenue/Avenida Barbosa and Alpha Street/Buena Vista Street	AM	A/(0.409)	A/(0.473)	A/(0.473)	N
		PM	A/(0.582)	B/(0.646)	B/(0.646)	N
8	Bateman Avenue and Meridian Street	AM	B/(10.1)	B/(10.1)	B/(10.1)	N
		PM	B/(10.1)	B/(10.1)	B/(10.1)	N
9	Miguel Miranda Avenue and Buena Vista Street	AM	B/(11.4)	B/(11.4)	B/(12.9)	N
		PM	B/(13.0)	B/(13.0)	B/(14.7)	N
10	Miguel Miranda Avenue and Meridian Street	AM	A/(8.6)	A/(9.7)	A/(8.6)	N
		PM	A/(9.1)	A/(9.7)	A/(8.6)	N
11	New Access Road West and Buena Vista Street	AM	NA	A/(9.0)	N/A	N
		PM	NA	A/(9.8)	N/A	N
12	New Access Road West and Meridian Street	AM	NA	A/(8.7)	N/A	N
		PM	NA	A/(8.6)	N/A	N
13	Buena Vista Street and East Access Road	AM	NA	NA	A/(9.2)	N
		PM	NA	NA	A/(10.6)	N

The study found that the project traffic does not have a significant impact at any of the study area intersections due to proposed project traffic under existing traffic conditions, except for the intersection of I-605 NB Off-Ramp and WB Live Oak Avenue. The project traffic increases the total control delay by more than 4.0 seconds at the intersection of I-605 NB Off-Ramp/WB Live Oak Avenue, causing a significant traffic impact.

11. OTHER DEVELOPMENTS

LIN Consulting, Inc. (LCI) staff coordinated with following agencies to obtain cumulative developments, which have been approved by the agency and are within project vicinity.

1. City of Arcadia
2. City of Baldwin Park
3. City of Duarte
4. City of Irwindale
5. City of Monrovia
6. Los Angeles County Department of Regional Planning

LCI staff reviewed the projects and considered them as cumulative projects for the traffic study, if they met the following criteria:

1. The potential project has to be approved or recommended for approval by the agency.
2. The potential project must generate traffic at the study area intersections.

In addition to the cumulative developments obtained from the above mentioned agencies, the other developments also include the nine (9) cumulative projects identified in the Traffic Impact Analysis Report for the Irwindale Regional Shopping Center. **Table 10** lists the other developments that are in the vicinity of the project site and will generate traffic at the project study area intersections. **Exhibit K** shows the location map of the other developments. **Exhibit L** shows the total cumulative project trips generated by the other developments during weekday AM and PM peak hours at the study area intersections.

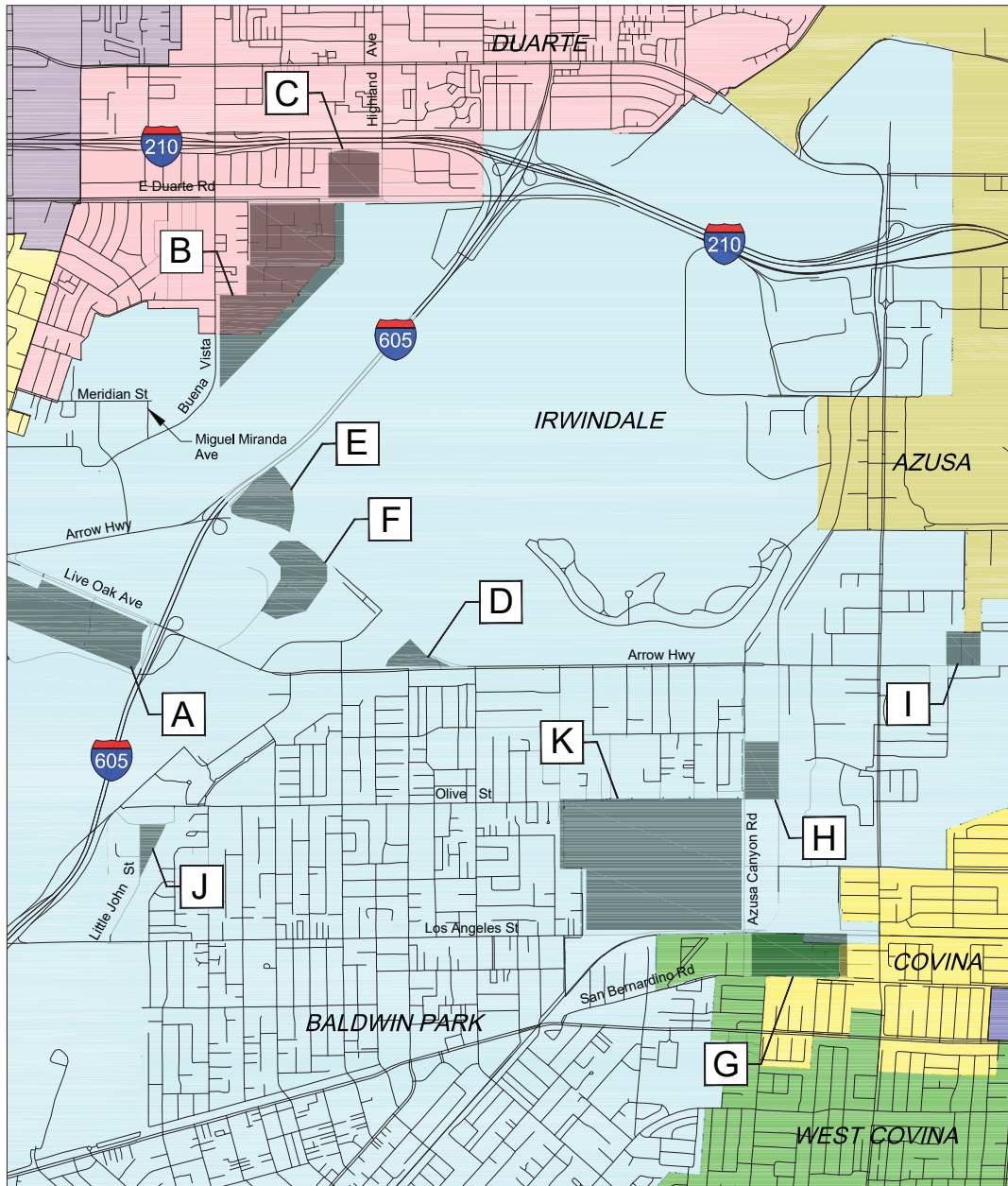
Table 10: Other Developments

	Project	Description
A	Irwindale Regional Shopping Center	Regional shopping center
B	City of Hope Specific Plan	Outpatient, inpatient, research, office, hospitality, assembly, warehouse, industrial and housing land uses
C*	Transit Oriented Development/ Gold Line Light	Residential, hotel, office, retail, transit center
D*	Materials Recovery Facility and Transfer Station	Heavy manufacturing, commercial, industrial, residential, recreational land use
E*	KARE Youth League/Santa Fe Dam Sports Park	Baseball fields, soccer fields, football fields, indoor gymnasium,
F*	Arrow Highway Commercial Building Project	Shopping center
G*	Bella Vista Condominium Project	Residential condominium and townhouse
H*	Azusa Canyon Road Industrial Project	Speculative industrial buildings (office use, manufacturing, warehouse, distribution operations)
I*	Arrow Highway Industrial Project	Speculative industrial buildings (office use, manufacturing, warehouse, distribution operations)
J*	Little John Street Industrial Building Project	General light industrial
K*	Olive Pit Mine and Reclamation Project	Quarry overlay; residential, commercial, industrial

*Source – Traffic Impact Analysis Report, Irwindale Regional Shopping Center, City of Irwindale.



NOT TO SCALE



LEGEND:

- A** Irwindale Regional Shopping Center
- B** City of Hope Specific Plan
- C** Transit Oriented Development/ Gold Line Light
- D** Materials Recovery Facility & Transfer Station

- E** KARE Youth League/ Santa Fe Dam Sports Park
- F** Arrow Highway Commercial Building Project
- G** Bella Vista Condominium Project
- H** Azusa Canyon Road Industrial Project

- I** Arrow Highway Industrial Project
- J** Little John Street Industrial Building Project
- K** Olive Pit Mine & Reclamation Project

EXHIBIT K

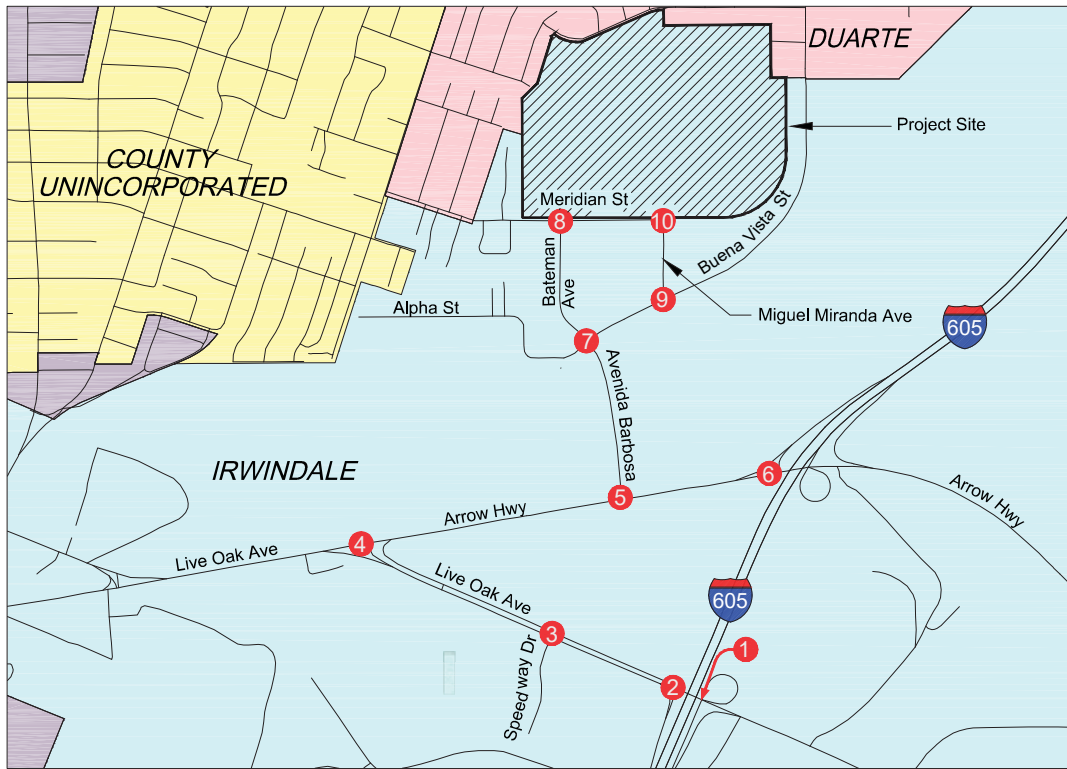
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TRAFFIC IMPACT STUDY
 United Rock Quarry No. 3
 Irwindale, CA

OTHER DEVELOPMENTS
LOCATION MAP



NOT TO SCALE



<p>1</p> <p>LIVE OAK AVE</p> <p>← 202/(231)</p> <p>I-605 NB OFF RAMP ← 167/(207)</p>	<p>2</p> <p>LIVE OAK AVE</p> <p>← 245/(297)</p> <p>← 124/(141)</p> <p>I-605</p> <p>31/(53) →</p> <p>82/(311) →</p>	<p>3</p> <p>LIVE OAK AVE</p> <p>← 130/(131)</p> <p>← 86/(175)</p> <p>105/(102) →</p> <p>86/(222) →</p> <p>SPEEDWAY DR</p> <p>32/(199) →</p> <p>32/(246) →</p>	<p>4</p> <p>LIVE OAK AVE</p> <p>← 28/(44)</p> <p>← 168/(272)</p> <p>41/(40) →</p> <p>47/(40) →</p> <p>LIVE OAK AVE</p> <p>18/(63) →</p> <p>120/(283) →</p>	<p>5</p> <p>ARROW HWY</p> <p>← 54/(94)</p> <p>← 92/(97)</p> <p>← 62/(36)</p> <p>← 197/(261)</p> <p>97/(60) →</p> <p>63/(261) →</p>
<p>6</p> <p>ARROW HWY</p> <p>← 127/(203)</p> <p>← 179/(179)</p> <p>I-605 SB OFF RAMP ← 131/(94)</p> <p>158/(358) →</p>	<p>7</p> <p>ALPHA ST</p> <p>← 0/(0)</p> <p>← 4/(2)</p> <p>← 0/(0)</p> <p>← 1/(2)</p> <p>← 84/(148)</p> <p>0/(0) →</p> <p>2/(1) →</p> <p>0/(0) →</p> <p>0/(0) →</p> <p>1/(0) →</p> <p>158/(91) →</p>	<p>8</p> <p>MERIDIAN ST</p> <p>← 0/(0)</p> <p>← 0/(0)</p> <p>0/(0) →</p> <p>0/(0) →</p> <p>0/(0) →</p> <p>0/(0) →</p>	<p>9</p> <p>MIGUEL MIRANDA ST</p> <p>← 0/(0)</p> <p>← 0/(0)</p> <p>← 74/(139)</p> <p>0/(0) →</p> <p>0/(0) →</p> <p>30/(5) →</p>	<p>10</p> <p>MERIDIAN ST</p> <p>← 0/(0)</p> <p>← 0/(0)</p> <p>0/(0) →</p> <p>0/(0) →</p> <p>0/(0) →</p> <p>0/(0) →</p>

LEGEND

XX/(XX) = AM/(PM) PEAK HOUR VOLUMES

EXHIBIT L

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TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

OTHER DEVELOPMENT
TURNING MOVEMENT VOLUMES

12. EXISTING PLUS OTHER DEVELOPMENT TRAFFIC CONDITIONS (YEAR 2016)

Existing Plus Other Development Traffic Conditions at the study area intersections are depicted in **Table 11**. The LOS analysis worksheets from Traffix for Existing Plus Other Development Traffic Conditions are included in **Appendix F**. The intersection turning movement volumes for the Existing Plus Other Development Traffic Conditions (Year 2016) during weekday AM and PM peak hours are shown in **Exhibit M**.

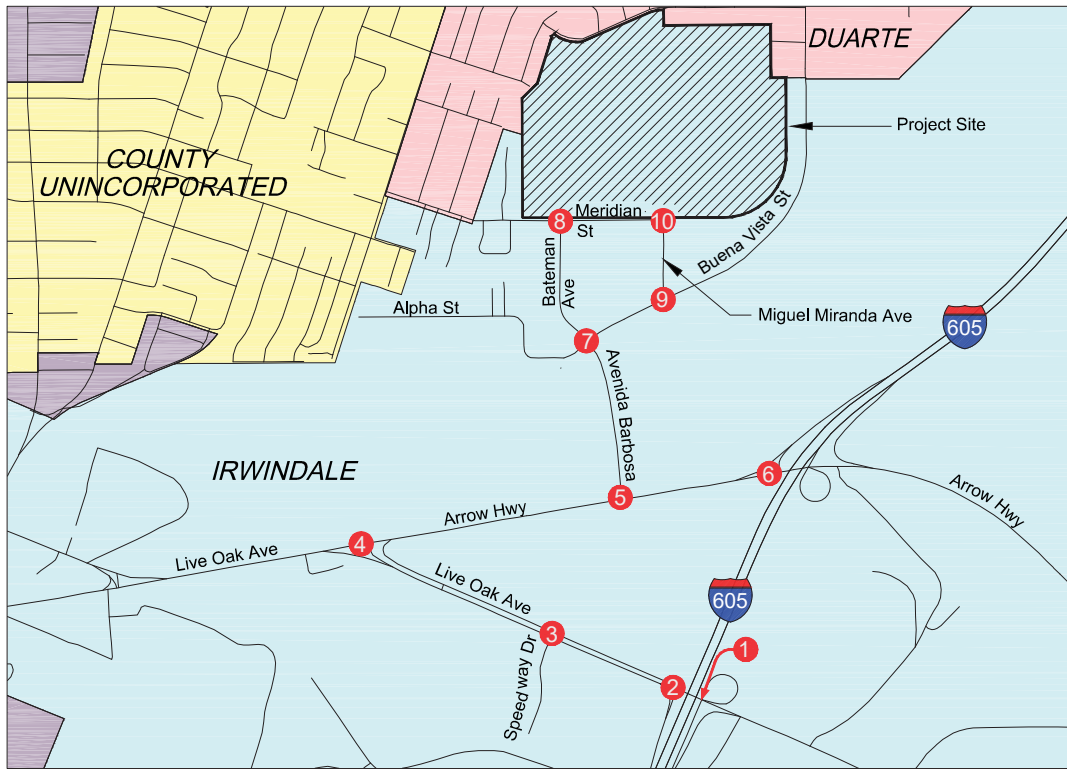
Table 11: Existing (Year 2016) Plus Other Development Traffic Conditions

#	Intersection	AM Peak Hour		PM Peak Hour	
		ICU LOS/(V/C)	HCM LOS/(Delay*)	ICU LOS/(V/C)	HCM LOS/(Delay*)
1	I-605 NB Off-Ramp and WB Live Oak Avenue	NA	F/(288.0)	NA	F/(304.5)
2	I-605 SB On-Ramp and Live Oak Avenue	B/(0.602)	NA	E/(0.908)	NA
3	Speedway Drive and Live Oak Avenue	A/(0.529)	NA	F/(1.009)	NA
4	Live Oak Avenue and Live Oak Avenue/Arrow Highway	D/(0.875)	NA	C/(0.789)	NA
5	Avenida Barbosa and Arrow Highway	E/(0.938)	NA	D/(0.841)	NA
6	I-605 SB Off-Ramp and Arrow Highway	E/(0.956)	NA	B/(0.648)	NA
7	Bateman Avenue/Avenida Barbosa and Alpha Street/Buena Vista Street	A/(0.487)	NA	B/(0.658)	NA
8	Bateman Avenue and Meridian Street	NA	B/(10.1)	NA	B/(10.1)
9	Miguel Miranda Avenue and Buena Vista Street	NA	B/(12.2)	NA	B/(14.6)
10	Miguel Miranda Avenue and Meridian Street	NA	A/(8.6)	NA	A/(9.1)

* In Seconds, NA – Not Applicable.



NOT TO SCALE



<p>1</p> <p>LIVE OAK AVE</p> <p>735/(840)</p> <p>I-605 NB OFF RAMP</p> <p>1313/(1151)</p>	<p>2</p> <p>LIVE OAK AVE</p> <p>SB ON RAMP</p> <p>1454/(1316)</p> <p>665/(665)</p> <p>275/(1257)</p> <p>547/(1454)</p> <p>I-605</p>	<p>3</p> <p>LIVE OAK AVE</p> <p>1307/(1044)</p> <p>89/(291)</p> <p>859/(2433)</p> <p>87/(291)</p> <p>SPEEDWAY DR</p> <p>34/(208)</p> <p>33/(255)</p>	<p>4</p> <p>LIVE OAK AVE</p> <p>ARROW HWY</p> <p>1495/(779)</p> <p>265/(522)</p> <p>430/(844)</p> <p>625/(2188)</p> <p>LIVE OAK AVE</p> <p>986/(839)</p> <p>300/(384)</p>	<p>5</p> <p>ARROW HWY</p> <p>202/(425)</p> <p>246/(587)</p> <p>645/(263)</p> <p>1607/(926)</p> <p>336/(297)</p> <p>371/(935)</p>
<p>6</p> <p>ARROW HWY</p> <p>642/(664)</p> <p>570/(364)</p> <p>I-605 SB OFF RAMP</p> <p>1599/(529)</p> <p>614/(1538)</p>	<p>7</p> <p>ALPHA ST</p> <p>BUENA VISTA ST</p> <p>5/(5)</p> <p>123/(260)</p> <p>5/(14)</p> <p>11/(11)</p> <p>9/(12)</p> <p>232/(645)</p> <p>1/(2)</p> <p>6/(13)</p> <p>10/(74)</p> <p>AVENIDA BARBOSA</p> <p>44/(18)</p> <p>23/(13)</p> <p>720/(434)</p>	<p>8</p> <p>MERIDIAN ST</p> <p>5/(10)</p> <p>1/(1)</p> <p>22/(14)</p> <p>128/(234)</p> <p>BATEMAN AVE</p> <p>198/(152)</p> <p>2/(2)</p>	<p>9</p> <p>BUENA VISTA ST</p> <p>MIGUEL MIRANDA AVE</p> <p>8/(11)</p> <p>22/(15)</p> <p>14/(11)</p> <p>246/(640)</p> <p>12/(4)</p> <p>573/(371)</p>	<p>10</p> <p>MERIDIAN ST</p> <p>1/(0)</p> <p>3/(0)</p> <p>0/(0)</p> <p>21/(11)</p> <p>MIGUEL MIRANDA AVE</p> <p>13/(17)</p> <p>1/(1)</p>

LEGEND

XX/(XX) = AM/(PM) PEAK HOUR VOLUMES

EXHIBIT M

13. EXISTING PLUS OTHER DEVELOPMENT PLUS PROJECT (NEW ACCESS ROAD WEST) TRAFFIC CONDITIONS

Existing Plus Other Development Plus Project Traffic Conditions at the study area intersections with project traffic using New Access Road West are depicted in **Table 12**. The LOS analysis worksheets from Traffix for Existing Plus Other Development Plus Project (New Access Road West) Traffic Conditions are included in **Appendix G**. The intersection turning movement volumes for the Existing Plus Other Development Plus Project (New Access Road West) Traffic Conditions during weekday AM and PM peak hours are shown in **Exhibit N**.

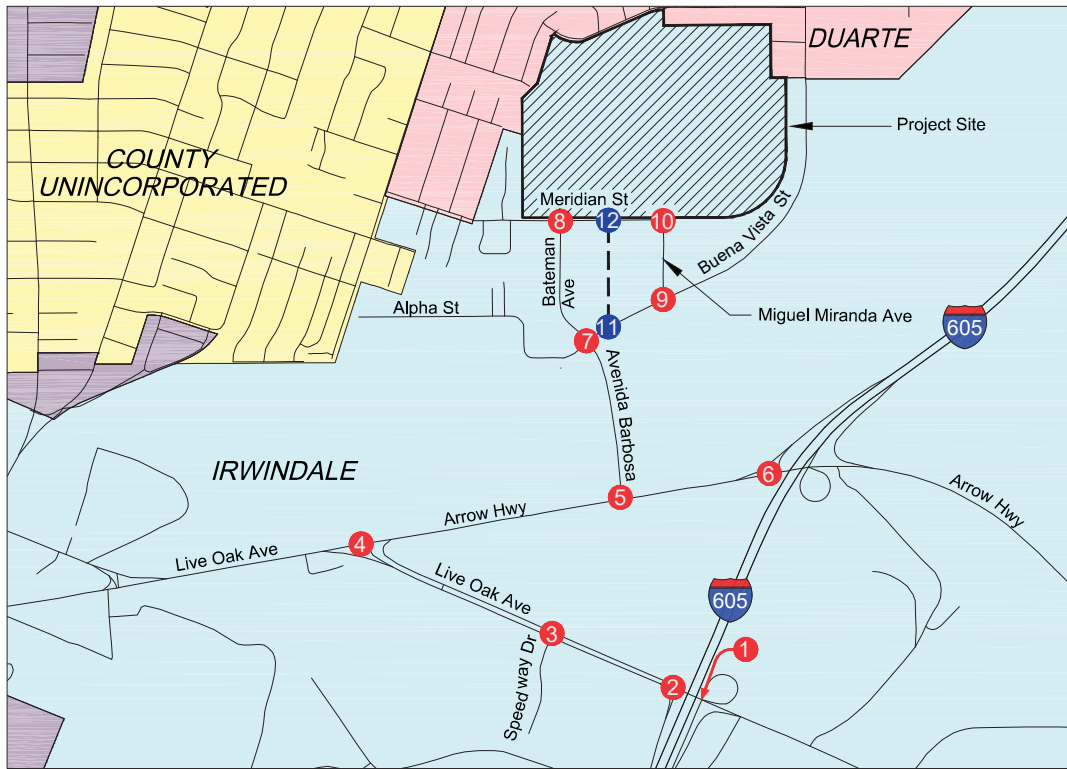
Table 12: Existing Plus Other Development Plus Project – New Access Road West

#	Intersection	AM Peak Hour		PM Peak Hour	
		ICU LOS/(V/C)	HCM LOS/(Delay*)	ICU LOS/(V/C)	HCM LOS/(Delay*)
1	I-605 NB Off-Ramp and WB Live Oak Avenue	NA	F/(298.2)	NA	F/(312.9)
2	I-605 SB On-Ramp and Live Oak Avenue	B/(0.602)	NA	E/(0.908)	NA
3	Speedway Drive and Live Oak Avenue	A/(0.533)	NA	F/(1.011)	NA
4	Live Oak Avenue and Live Oak Avenue/Arrow Highway	D/(0.875)	NA	C/(0.792)	NA
5	Avenida Barbosa and Arrow Highway	E/(0.952)	NA	D/(0.854)	NA
6	I-605 SB Off-Ramp and Arrow Highway	E/(0.956)	NA	B/(0.668)	NA
7	Bateman Avenue/Avenida Barbosa and Alpha Street/Buena Vista Street	A/(0.551)	NA	C/(0.712)	NA
8	Bateman Avenue and Meridian Street	NA	B/(10.1)	NA	B/(10.1)
9	Miguel Miranda Avenue and Buena Vista Street	NA	B/(12.2)	NA	B/(14.6)
10	Miguel Miranda Avenue and Meridian Street	NA	A/(9.7)	NA	A/(9.7)
11	New Access Road West and Buena Vista Street	NA	A/(9.2)	NA	B/(10.2)
12	New Access Road West and Meridian Street	NA	A/(8.7)	NA	A/(8.6)

* In Seconds, NA – Not Applicable.



NOT TO SCALE



<p>1</p> <p>LIVE OAK AVE</p> <p>746/(850)</p> <p>I-605 NB OFF RAMP</p> <p>1313/(1151)</p>	<p>2</p> <p>LIVE OAK AVE</p> <p>275/(1257)</p> <p>557/(1465)</p> <p>I-605 SB RAMP</p> <p>1465/(1326)</p> <p>665/(665)</p>	<p>3</p> <p>LIVE OAK AVE</p> <p>869/(2444)</p> <p>87/(291)</p> <p>SPEEDWAY DR</p> <p>1318/(1054)</p> <p>89/(291)</p> <p>34/(208)</p> <p>33/(255)</p>	<p>4</p> <p>ARROW HWY</p> <p>430/(844)</p> <p>625/(2188)</p> <p>LIVE OAK DR</p> <p>1495/(779)</p> <p>275/(533)</p> <p>986/(839)</p> <p>311/(394)</p>	<p>5</p> <p>ARROW HWY</p> <p>347/(307)</p> <p>371/(935)</p> <p>AVENIDA BARBOSA</p> <p>212/(436)</p> <p>336/(682)</p> <p>740/(353)</p> <p>1607/(926)</p>
<p>6</p> <p>ARROW HWY</p> <p>737/(754)</p> <p>570/(364)</p> <p>I-605 SB OFF RAMP</p> <p>1599/(529)</p> <p>704/(1633)</p>	<p>7</p> <p>ALPHA ST</p> <p>11/(11)</p> <p>9/(12)</p> <p>332/(750)</p> <p>1/(2)</p> <p>6/(13)</p> <p>10/(74)</p> <p>AVENIDA BARBOSA</p> <p>44/(18)</p> <p>23/(131)</p> <p>825/(334)</p>	<p>8</p> <p>MERIDIAN ST</p> <p>22/(14)</p> <p>128/(234)</p> <p>BATEMAN AVE</p> <p>5/(10)</p> <p>1/(1)</p> <p>198/(152)</p> <p>2/(2)</p>	<p>9</p> <p>BUENA VISTA ST</p> <p>12/(4)</p> <p>573/(371)</p> <p>MIGUEL MIRANDA AVE</p> <p>8/(11)</p> <p>22/(15)</p> <p>14/(11)</p> <p>246/(640)</p>	<p>10</p> <p>MERIDIAN ST</p> <p>105/(100)</p> <p>21/(11)</p> <p>MIGUEL MIRANDA AVE</p> <p>101/(105)</p> <p>3/(0)</p> <p>13/(17)</p> <p>1/(1)</p>
<p>11</p> <p>BUENA VISTA ST</p> <p>100/(105)</p> <p>0/(0)</p> <p>0/(0)</p> <p>254/(651)</p> <p>105/(100)</p> <p>601/(374)</p> <p>NEW ACCESS RD WEST</p>	<p>12</p> <p>MERIDIAN ST</p> <p>0/(0)</p> <p>100/(105)</p> <p>0/(0)</p> <p>0/(0)</p> <p>0/(0)</p> <p>105/(100)</p> <p>NEW ACCESS RD WEST</p>			

LEGEND

- XX/(XX) = AM/(PM) PEAK HOUR VOLUMES
- = PROPOSED LACFD ACCESS ROAD
- E = EXISTING STUDY INTERSECTION
- F = FUTURE STUDY INTERSECTION

EXHIBIT N

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TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

EXISTING + OTHER DEVELOPMENT + PROJECT
TURNING MOVEMENT VOLUMES
NEW ACCESS ROAD WEST

14. EXISTING PLUS OTHER DEVELOPMENT PLUS PROJECT (EAST ACCESS ROAD) TRAFFIC CONDITIONS

Existing Plus Other Development Plus Project Traffic conditions at the study area intersections with project traffic using East Access Road are depicted in **Table 13**. The LOS analysis worksheets from Traffix for Existing Plus Other Development Project Traffic Conditions (East Access Road) are included in **Appendix H**. The intersection turning movement volumes for the Existing Plus Other Development Plus Project Traffic Conditions (East Access Road) during weekday AM and PM peak hours are shown in **Exhibit O**.

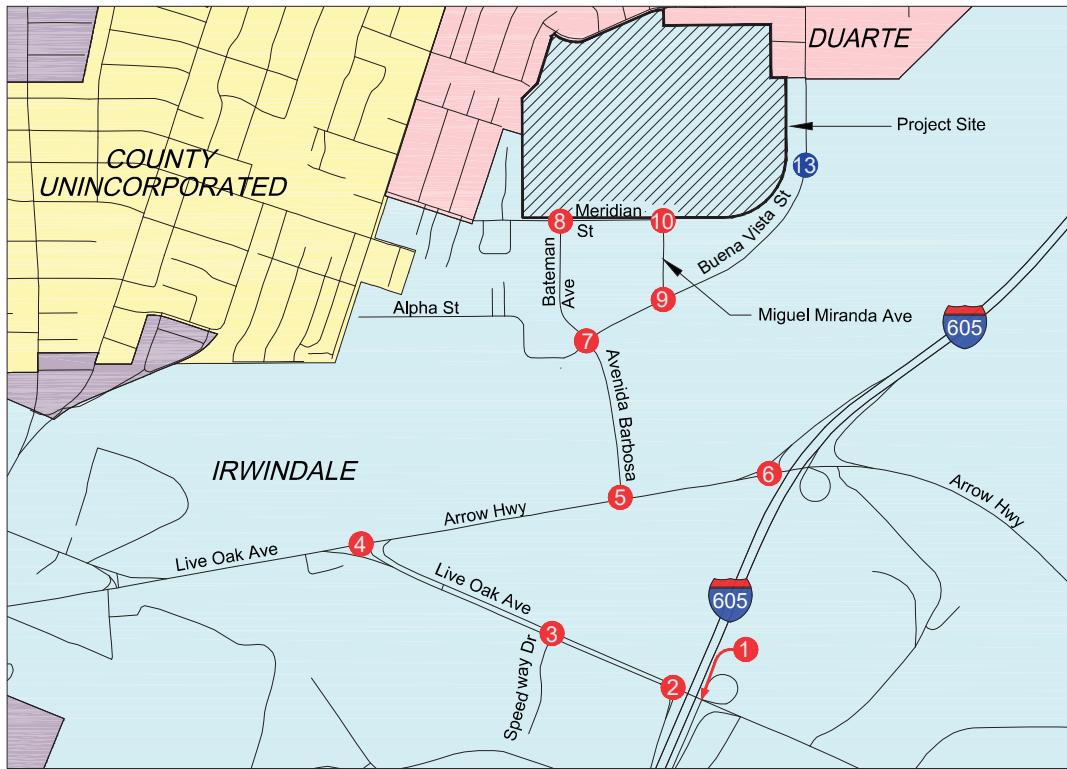
Table 13: Existing Plus Other Development Plus Project – East Access Road

#	Intersection	AM Peak Hour		PM Peak Hour	
		ICU LOS/(V/C)	HCM LOS/(Delay*)	ICU LOS/(V/C)	HCM LOS/(Delay*)
1	I-605 NB Off-Ramp and WB Live Oak Avenue	NA	F/(298.2)	NA	F/(312.9)
2	I-605 SB On-Ramp and Live Oak Avenue	B/(0.602)	NA	E/(0.908)	NA
3	Speedway Drive and Live Oak Avenue	A/(0.533)	NA	F/(1.011)	NA
4	Live Oak Avenue and Live Oak Avenue/Arrow Highway	D/(0.875)	NA	C/(0.792)	NA
5	Avenida Barbosa and Arrow Highway	E/(0.952)	NA	D/(0.854)	NA
6	I-605 SB Off-Ramp and Arrow Highway	E/(0.956)	NA	B/(0.668)	NA
7	Bateman Avenue/Avenida Barbosa and Alpha Street/Buena Vista Street	A/(0.551)	NA	C/(0.712)	NA
8	Bateman Avenue and Meridian Street	NA	B/(10.1)	NA	B/(10.1)
9	Miguel Miranda Avenue and Buena Vista Street	NA	B/(14.0)	NA	C/(16.9)
10	Miguel Miranda Avenue and Meridian Street	NA	A/(8.6)	NA	A/(8.6)
13	Buena Vista Street and East Access Road	NA	A/(9.5)	NA	B/(11.3)

* In Seconds, NA – Not Applicable.



NOT TO SCALE



<p>1</p> <p>LIVE OAK AVE</p> <p>746/(860)</p> <p>I-605 NB OFF RAMP</p> <p>1313/(1151)</p>	<p>2</p> <p>LIVE OAK AVE</p> <p>SB RAMP</p> <p>1465/(1326)</p> <p>665/(665)</p> <p>275/(1257)</p> <p>557/(1465)</p> <p>I-605</p>	<p>3</p> <p>LIVE OAK AVE</p> <p>DR</p> <p>1318/(1054)</p> <p>89/(291)</p> <p>869/(2444)</p> <p>87/(291)</p> <p>SPEEDWAY DR</p> <p>34/(208)</p> <p>33/(285)</p>	<p>4</p> <p>ARROW HWY</p> <p>DR</p> <p>1495/(779)</p> <p>275/(533)</p> <p>430/(844)</p> <p>625/(2188)</p> <p>LIVE OAK</p> <p>986/(839)</p> <p>311/(394)</p>	<p>5</p> <p>ARROW HWY</p> <p>DR</p> <p>212/(436)</p> <p>336/(682)</p> <p>740/(353)</p> <p>1607/(926)</p> <p>347/(307)</p> <p>371/(935)</p>	
<p>6</p> <p>ARROW HWY</p> <p>DR</p> <p>737/(754)</p> <p>570/(364)</p> <p>I-605 SB OFF RAMP</p> <p>1599/(529)</p> <p>704/(1633)</p>	<p>7</p> <p>ALPHA ST</p> <p>BUENA VISTA ST</p> <p>BAATEMAN AVE</p> <p>5/(5)</p> <p>123/(260)</p> <p>5/(14)</p> <p>11/(11)</p> <p>9/(12)</p> <p>332/(720)</p> <p>1/(2)</p> <p>6/(13)</p> <p>10/(74)</p> <p>AVENIDA BARBOSA</p> <p>44/(18)</p> <p>23/(131)</p> <p>825/(334)</p>	<p>8</p> <p>MERIDIAN ST</p> <p>BAATEMAN AVE</p> <p>5/(10)</p> <p>1/(1)</p> <p>22/(14)</p> <p>128/(234)</p> <p>BAATEMAN AVE</p> <p>198/(152)</p> <p>2/(2)</p>	<p>9</p> <p>BUENA VISTA ST</p> <p>MIGUEL MIRANDA AVE</p> <p>8/(11)</p> <p>22/(15)</p> <p>14/(11)</p> <p>346/(745)</p> <p>12/(4)</p> <p>678/(471)</p>	<p>10</p> <p>MERIDIAN ST</p> <p>MIGUEL MIRANDA AVE</p> <p>1/(0)</p> <p>3/(0)</p> <p>0/(0)</p> <p>21/(11)</p> <p>MIGUEL MIRANDA AVE</p> <p>13/(17)</p> <p>1/(1)</p>	
<p>13</p> <p>EAST ACCESS RD</p> <p>BUENA VISTA ST</p> <p>0/(0)</p> <p>260/(651)</p> <p>0/(0)</p> <p>100/(105)</p> <p>125/(100)</p> <p>595/(386)</p>					<p>LEGEND</p> <p>XX/(XX) = AM/(PM) PEAK HOUR VOLUMES</p> <p>— = PROPOSED LACFCD ACCESS ROAD</p> <p>E = EXISTING STUDY INTERSECTION</p> <p>F = FUTURE STUDY INTERSECTION</p>

EXHIBIT O

LIN Consulting, Inc.
Traffic, Civil, and Electrical Consulting Engineers

TRAFFIC IMPACT STUDY
United Rock Quarry No. 3
Irwindale, CA

EXISTING + OTHER DEVELOPMENT + PROJECT
TURNING MOVEMENT VOLUMES
EAST ACCESS ROAD

15. SIGNIFICANT IMPACTS – EXISTING PLUS OTHER DEVELOPMENTS PLUS PROJECT TRAFFIC CONDITIONS

Table 14 below shows whether a study area intersection is significantly impacted (as defined in **Section 3.3**) by the proposed project traffic under Existing Plus Other Development Traffic Conditions.

Table 14: Intersections Significantly Impacted – Existing Plus Other Development Plus Project

#	Intersection	Time Period	Existing Plus Other Development Traffic Conditions LOS/(V/C) or Delay	Existing Plus Other Development Plus Project Traffic Conditions		Significant Impact Y/N
				New Access Road West LOS/(V/C) or Delay	East Access Road LOS/(V/C) or Delay	
				LOS/(V/C) or Delay	LOS/(V/C) or Delay	LOS/(V/C) or Delay
1	I-605 NB Off-Ramp and WB Live Oak Avenue	AM	F/(288.0)	F/(298.2)	F/(298.2)	Y
		PM	F/(304.5)	F/(312.9)	F/(312.9)	Y
2	I-605 SB On-Ramp and Live Oak Avenue	AM	B/(0.602)	B/(0.602)	B/(0.602)	N
		PM	E/(0.908)	E/(0.908)	E/(0.908)	N
3	Speedway Drive and Live Oak Avenue	AM	A/(0.529)	A/(0.533)	A/(0.533)	N
		PM	F/(1.009)	F/(1.011)	F/(1.011)	N
4	Live Oak Avenue and Live Oak Avenue/Arrow Highway	AM	D/(0.875)	D/(0.875)	D/(0.875)	N
		PM	C/(0.789)	C/(0.792)	C/(0.792)	N
5	Avenida Barbosa and Arrow Highway	AM	E/(0.938)	E/(0.952)	E/(0.952)	N
		PM	D/(0.841)	D/(0.854)	D/(0.854)	N
6	I-605 SB Off-Ramp and Arrow Highway	AM	E/(0.956)	E/(0.956)	E/(0.956)	Y*
		PM	B/(0.648)	B/(0.668)	B/(0.668)	N
7	Bateman Avenue/Avenida Barbosa and Alpha Street/Buena Vista Street	AM	A/(0.487)	A/(0.551)	A/(0.551)	N
		PM	B/(0.658)	C/(0.712)	C/(0.712)	N
8	Bateman Avenue and Meridian Street	AM	B/(10.1)	B/(10.1)	B/(10.1)	N
		PM	B/(10.1)	B/(10.1)	B/(10.1)	N
9	Miguel Miranda Avenue and Buena Vista Street	AM	B/(12.2)	B/(12.2)	B/(14.0)	N
		PM	B/(14.6)	B/(14.6)	C/(16.9)	N
10	Miguel Miranda Avenue and Meridian Street	AM	A/(8.6)	A/(9.7)	A/(8.6)	N
		PM	A/(9.1)	A/(9.7)	A/(8.6)	N
11	New Access Road West and Buena Vista Street	AM	NA	A/(9.2)	NA	N
		PM	NA	B/(10.2)	NA	N
12	New Access Road West and Meridian Street	AM	NA	A/(8.7)	NA	N
		PM	NA	A/(8.6)	NA	N
13	Buena Vista Street and East Access Road	AM	NA	NA	A/(9.5)	N
		PM	NA	NA	B/(11.3)	N

* Per Caltrans Guide For The Preparation Of Traffic Impact Studies

The study found that the project traffic does not have a significant impact at any of the study area intersections due to proposed project traffic under Existing Plus Other Development Plus Project Traffic Conditions, except for the intersections of I-605 NB Off-Ramp and WB Live Oak Avenue and I-605 SB Off-Ramp and Arrow Highway.

16. PROPOSED MITIGATION MEASURES

The proposed project traffic significantly impacts the intersections of I-605 NB Off-Ramp and WB Live Oak Avenue and I-605 SB Off-Ramp and Arrow Highway. The District will contribute a fair share towards planned improvements at these intersections to mitigate for the impacts produced by the proposed project. The City of Irwindale in conjunction with Caltrans is working on the following improvements:

I-605 NB Off-Ramp/WB Live Oak Avenue

- Install two new traffic signals per Caltrans standards.
- Construct a 390-foot long second northbound Off-Ramp to eastbound Live Oak Avenue.
- Resurface and restripe intersection and Off-Ramp

I-605 SB Off-Ramp/Arrow Highway

- Add an additional lane for the eastbound Arrow Highway off-ramp.
- Modify the existing traffic signal to allow for the optimization of the traffic signal timing.
- Interconnect existing traffic signals in the area.

Table 15 below shows the LOS at the intersection of I-605 NB Off-Ramp/WB Live Oak Avenue and I-605 SB Off-Ramp/Arrow Highway with the proposed improvements under various scenarios. The LOS analysis worksheets from Traffix are included in **Appendix I**.

Table 15: LOS with Proposed Mitigations

#	Scenario	ICU LOS/(V/C)			
		I-605 NB Off-Ramp/WB Live Oak Avenue		I-605 SB Off-Ramp/Arrow Highway	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
1	Existing	C/(0.791)	C/(0.776)	B/(0.681)	A/(0.404)
2	Existing Plus Project	C/(0.798)	C/(0.782)	B/(0.681)	A/(0.423)
3	Existing Plus Other Development	E/(0.970)	E/(0.985)	C/(0.778)	A/(0.534)
4	Existing Plus Other Development Plus Project	E/(0.977)	E/(0.991)	C/(0.778)	A/(0.554)

17. PROJECT FAIR SHARE

The project adds trips to the currently deficient San Gabriel River Freeway (I-605) and has a significant traffic impact on the intersections of I-605 Northbound Off-Ramp and Westbound Live Oak Avenue and I-605 Southbound Off-Ramp and Arrow Highway. The project shall contribute its fair share to the I-605 Corridor Feasibility Study initiated by Caltrans and also pay its fair share contribution for impacts at the intersections of I-605 Northbound Off-Ramp and Westbound Live Oak Avenue and I-605 Southbound Off-Ramp and Arrow Highway. The project fair share contribution calculations have been determined by the District in consultation with City of Irwindale and Caltrans.

Project Fair Share Contribution to the I-605 Corridor Feasibility Study

As per the information provided by the City of Irwindale, the project shall pay a fair share cost of \$428.02 per project trip generated during the peak hour towards the I-605 Corridor Feasibility Study.

Project Fair Share Contribution to the Significantly Impacted Intersections

The following calculations are based on the Caltrans Guide for the Preparation of Traffic Impact Studies.

$$\text{Project Fair Share Percentage } P = T / (T_B - T_E)$$

T = The vehicle trips generated by the project during the peak hour of adjacent State highway facility in vehicles per hour, vph.

T_B = The forecasted traffic volume on an impacted State highway facility at the time of general plan build-out (e.g., 20 year model or the furthest future model date feasible), vph.

T_E = The traffic volume existing on the impacted State highway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

I-605 NB Off-Ramp/WB Live Oak Avenue

$$T = 11 \text{ vph (AM Peak Hour)}$$

$$T_B = 3,193 \text{ vph}$$

$$T_E = 3,019 \text{ vph}$$

$$\text{Project Fair Share Percentage } P = 11 / (3,193 - 3,019) = 6.32\%$$

I-605 SB Off-Ramp/Arrow Highway

$$T = 185 \text{ vph (AM Peak Hour)}$$

$$T_B = 4,744 \text{ vph}$$

$$T_E = 3,425 \text{ vph}$$

$$\text{Project Fair Share Percentage } P = 185 / (4,744 - 3,425) = 14.02\%$$

18. QUEUING ANALYSIS

An off-ramp queuing analysis was conducted for the northbound I-605 off-ramp at Live Oak Avenue (westbound) and southbound I-605 off-ramp at Arrow Highway in order to assess any potential impacts at these locations as a result of project generated traffic. See **Table 16** for the off-ramp queuing analysis for I-605 NB off ramp on to WB Live Oak Avenue and I-605 SB off-ramp on to Arrow Highway. The 95th percentile queues were extracted from Synchro software (reports located in **Appendix J**).

Table 16: Peak Hour Off-Ramp Intersection 95th Percentile Queues

Ramp	Cross Street	Ramp Length	85% Ramp Length	Ramp Turn Lanes at Intersection			Existing (2016)				Existing + Project (2016)				Existing + Other Developments + Project (2016)				Queue 85% > Storage ?
							AM 95% Queue		PM 95% Queue		AM 95% Queue		PM 95% Queue		AM 95% Queue		PM 95% Queue		Y/N
				Lanes	Move	Length*	Lane	Max	Lane	Max	Lane	Max	Lane	Max	Lane	Max	Lane	Max	
I-605 NB Off-Ramp	Live Oak Ave	1,570	1,335	1	SBR	1570	672	672	706	706	704	704	735	735	1,493	1,493	1,681	1,681	Y
I-605 SB Off-Ramp	Arrow Hwy	1,080	918	2	SBR SBL	590 500	0 463#	463#	0 208#	208#	0 463#	463#	0 208#	208#	0 484#	484#	0 431#	431#	N

* Based on scaled distances from online aerial photographs
 # 95th percentile volume exceeds capacity, queue may be longer.

19. TRAFFIC SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis (Warrant 3 – Peak Hour) was conducted at the intersections of New Access Road West/Buena Vista Street and Buena Vista Street/East Access Road for Existing Plus Project and Existing Plus Other Development Plus Project Traffic Conditions. Neither of the intersections satisfies the Warrant 3 – Peak Hour. See **Appendix K** for the traffic signal warrant analysis work sheets.

APPENDIX

*Traffic Study Report
United Rock Pit No. 3 Project*

LIN Consulting, Inc.

Traffic, Civil, Electrical Consulting Engineers

APPENDIX A

TRAFFIC COUNTS

ITM Peak Hour Summary

Prepared by:

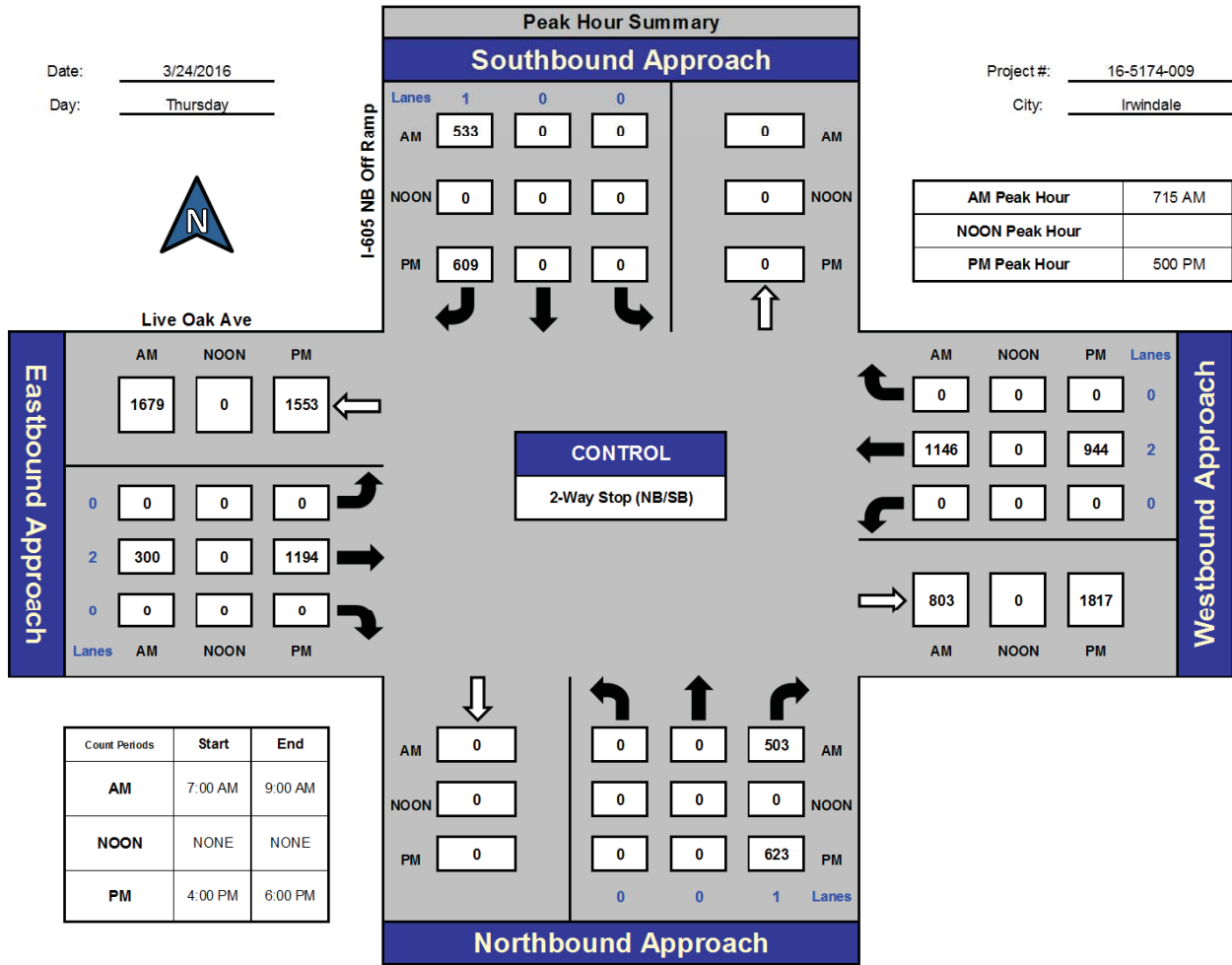


National Data & Surveying Services

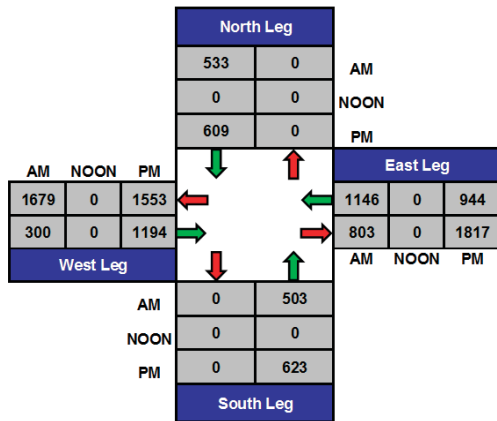
I-605 NB Off Ramp and Live Oak Ave, Irwindale

Date: 3/24/2016
Day: Thursday

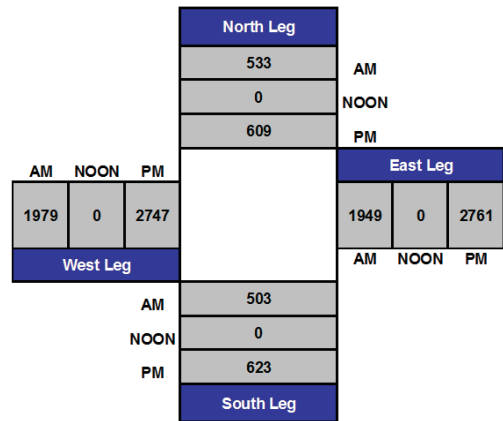
Project #: 16-5174-009
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-009

Day: Thursday

City: Irwindale

Date: 3/24/2016

AM

NS/EW Streets:	I-605 NB Off Ramp			I-605 NB Off Ramp			Live Oak Ave			Live Oak Ave			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	1	0	0	1	0	2	0	0	2	0	
7:00 AM	0	0	91	0	0	129	0	46	0	0	337	0	603
7:15 AM	0	0	113	0	0	129	0	46	0	0	354	0	642
7:30 AM	0	0	125	0	0	130	0	64	0	0	291	0	610
7:45 AM	0	0	143	0	0	141	0	94	0	0	222	0	600
8:00 AM	0	0	122	0	0	133	0	96	0	0	279	0	630
8:15 AM	0	0	137	0	0	129	0	97	0	0	220	0	583
8:30 AM	0	0	119	0	0	124	0	77	0	0	226	0	546
8:45 AM	0	0	103	0	0	134	0	90	0	0	211	0	538
TOTAL VOLUMES :	0	0	953	0	0	1049	0	610	0	0	2140	0	4752
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	7:15 AM												TOTAL
PEAK HR VOL :	0	0	503	0	0	533	0	300	0	0	1146	0	2482
PEAK HR FACTOR :	0.879			0.945			0.781			0.809			0.967

CONTROL : 2-Way Stop (NB/SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-009

Day: Thursday

City: Irwindale

Date: 3/24/2016

PM

NS/EW Streets:	I-605 NB Off Ramp			I-605 NB Off Ramp			Live Oak Ave			Live Oak Ave			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	1	0	0	1	0	2	0	0	2	0	
4:00 PM	0	0	146	0	0	125	0	250	0	0	213	0	734
4:15 PM	0	0	163	0	0	146	0	270	0	0	231	0	810
4:30 PM	0	0	136	0	0	148	0	305	0	0	233	0	822
4:45 PM	0	0	149	0	0	161	0	289	0	0	207	0	806
5:00 PM	0	0	155	0	0	151	0	297	0	0	242	0	845
5:15 PM	0	0	161	0	0	152	0	300	0	0	257	0	870
5:30 PM	0	0	156	0	0	153	0	299	0	0	227	0	835
5:45 PM	0	0	151	0	0	153	0	298	0	0	218	0	820
TOTAL VOLUMES :	0	0	1217	0	0	1189	0	2308	0	0	1828	0	6542
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	0	623	0	0	609	0	1194	0	0	944	0	3370
PEAK HR FACTOR :	0.967		0.995			0.995			0.918			0.968	

CONTROL : 2-Way Stop (NB/SB)

ITM Peak Hour Summary

Prepared by:

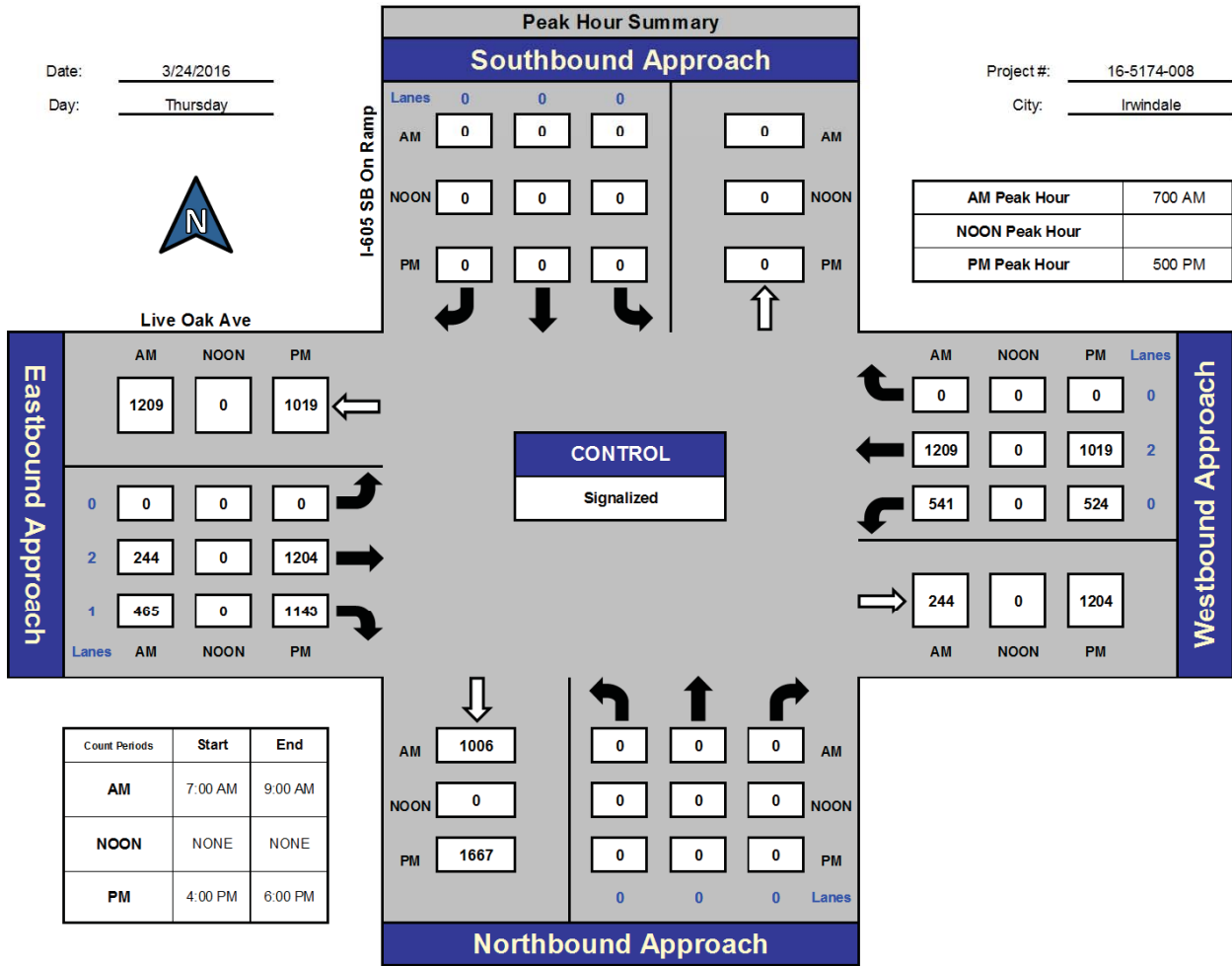


National Data & Surveying Services

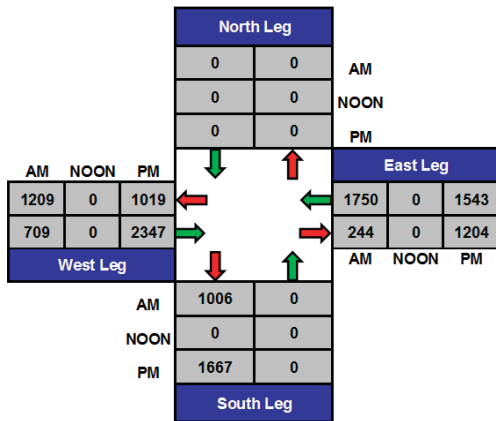
I-605 SB On Ramp and Live Oak Ave, Irwindale

Date: 3/24/2016
Day: Thursday

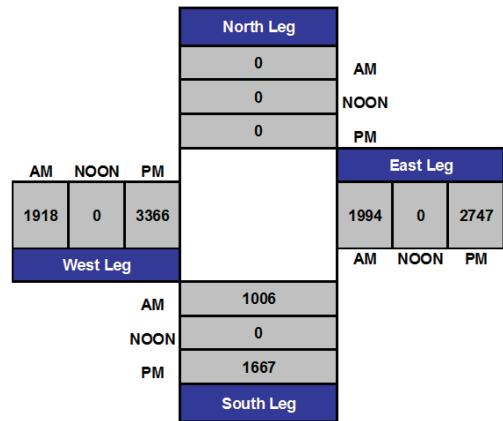
Project #: 16-5174-008
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-008

Day: Thursday

City: Irwindale

Date: 3/24/2016

		AM												
NS/EW Streets:		I-605 SB On Ramp			I-605 SB On Ramp			Live Oak Ave			Live Oak Ave			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		0	0	0	0	0	0	0	2	1	0	2	0	
7:00 AM		0	0	0	0	0	0	0	51	116	171	288	0	626
7:15 AM		0	0	0	0	0	0	0	43	121	157	334	0	655
7:30 AM		0	0	0	0	0	0	0	61	125	122	304	0	612
7:45 AM		0	0	0	0	0	0	0	89	103	91	283	0	566
8:00 AM		0	0	0	0	0	0	0	96	114	136	266	0	612
8:15 AM		0	0	0	0	0	0	0	94	138	102	255	0	589
8:30 AM		0	0	0	0	0	0	0	78	135	102	245	0	560
8:45 AM		0	0	0	0	0	0	0	95	120	112	229	0	556
TOTAL VOLUMES :		0	0	0	0	0	0	0	607	972	993	2204	0	4776
APPROACH %'s :		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	38.44%	61.56%	31.06%	68.94%	0.00%	
PEAK HR START TIME :		700 AM											TOTAL	
PEAK HR VOL :		0	0	0	0	0	0	0	244	465	541	1209	0	2459
PEAK HR FACTOR :		0.000			0.000			0.923			0.891			0.939

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-008

Day: Thursday

City: Irwindale

Date: 3/24/2016

PM

NS/EW Streets:	I-605 SB On Ramp			I-605 SB On Ramp			Live Oak Ave			Live Oak Ave			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0	0	0	0	2	1	0	2	0	
4:00 PM	0	0	0	0	0	0	0	248	211	132	202	0	793
4:15 PM	0	0	0	0	0	0	0	275	197	152	227	0	851
4:30 PM	0	0	0	0	0	0	0	308	239	136	246	0	929
4:45 PM	0	0	0	0	0	0	0	282	253	129	242	0	906
5:00 PM	0	0	0	0	0	0	0	302	322	132	253	0	1009
5:15 PM	0	0	0	0	0	0	0	302	276	160	258	0	996
5:30 PM	0	0	0	0	0	0	0	298	285	117	260	0	960
5:45 PM	0	0	0	0	0	0	0	302	260	115	248	0	925
TOTAL VOLUMES :	0	0	0	0	0	0	0	2317	2043	1073	1936	0	7369
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	53.14%	46.86%	35.66%	64.34%	0.00%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	1204	1143	524	1019	0	3890
PEAK HR FACTOR :	0.000			0.000			0.940			0.923			0.964

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

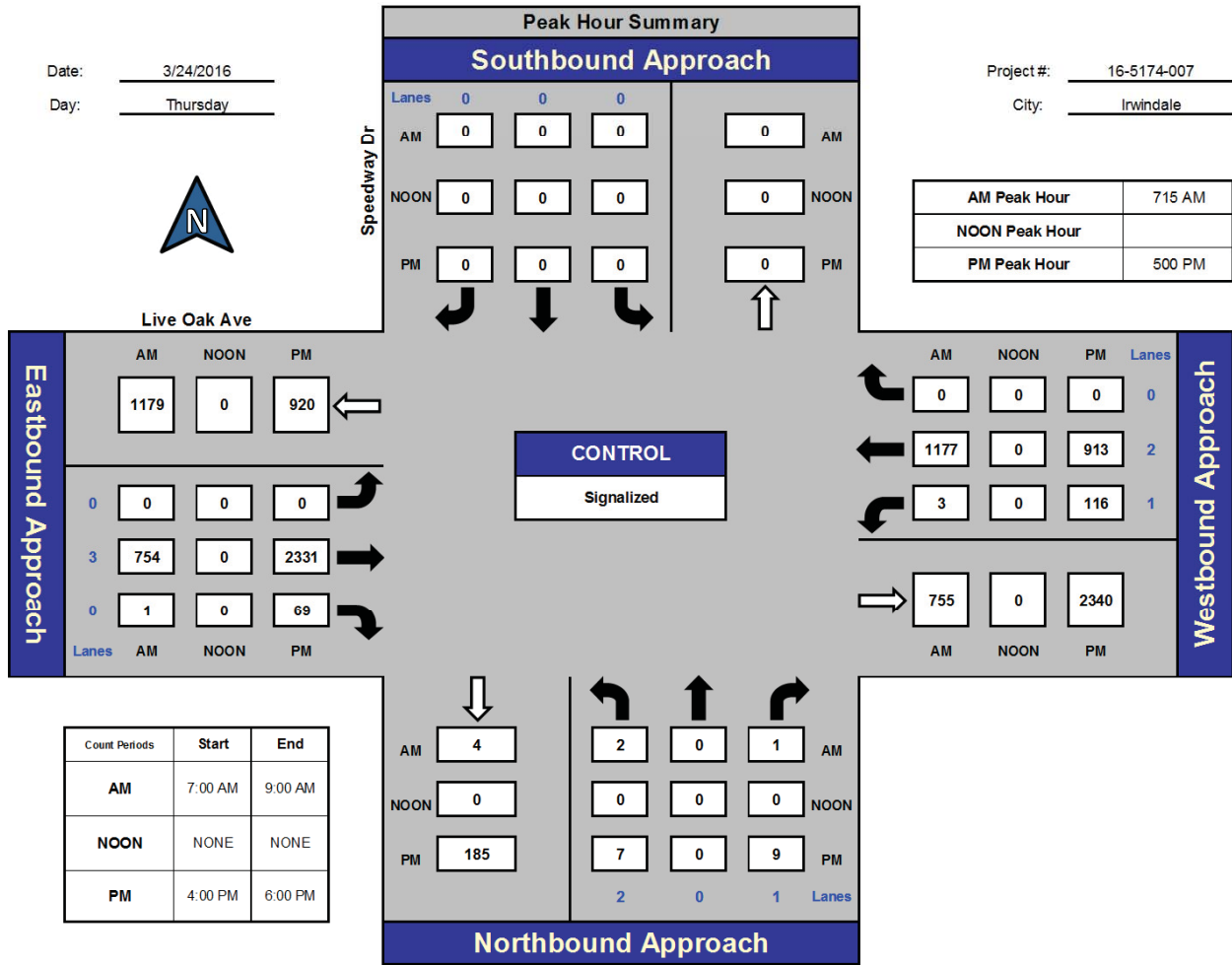


National Data & Surveying Services

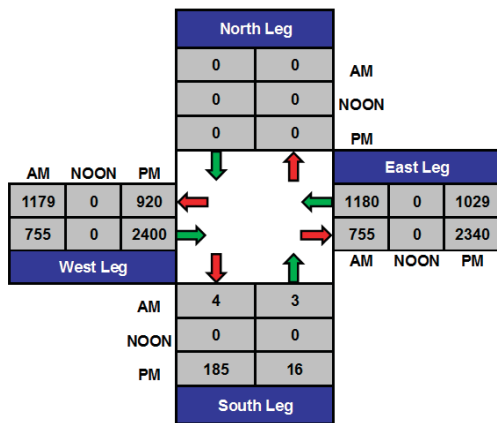
Speedway Dr and Live Oak Ave, Irwindale

Date: 3/24/2016
Day: Thursday

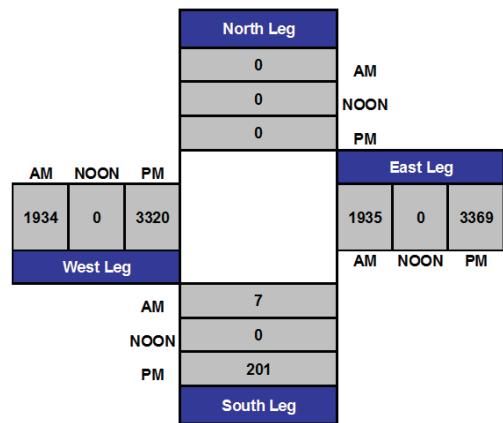
Project #: 16-5174-007
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-007

Day: Thursday

City: Irwindale

Date: 3/24/2016

		AM												
NS/EW Streets:		Speedway Dr			Speedway Dr			Live Oak Ave			Live Oak Ave			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		2	0	1	0	0	0	0	3	0	1	2	0	
7:00 AM		0	0	0	0	0	0	0	160	0	1	279	0	440
7:15 AM		1	0	0	0	0	0	0	166	1	0	338	0	506
7:30 AM		0	0	0	0	0	0	0	192	0	0	295	0	487
7:45 AM		0	0	0	0	0	0	0	196	0	0	275	0	471
8:00 AM		1	0	1	0	0	0	0	200	0	3	269	0	474
8:15 AM		1	0	0	0	0	0	0	223	0	1	259	0	484
8:30 AM		0	0	0	0	0	0	0	217	4	2	240	0	463
8:45 AM		0	0	0	0	0	0	0	210	1	0	229	0	440
TOTAL VOLUMES :		3	0	1	0	0	0	0	1564	6	7	2184	0	3765
APPROACH %'s :		75.00%	0.00%	25.00%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	99.62%	0.38%	0.32%	99.68%	0.00%	
PEAK HR START TIME :		715 AM											TOTAL	
PEAK HR VOL :		2	0	1	0	0	0	0	754	1	3	1177	0	1938
PEAK HR FACTOR :		0.375			0.000			0.944			0.873			0.958

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-007

Day: Thursday

City: Irwindale

Date: 3/24/2016

		PM												
NS/EW Streets:		Speedway Dr			Speedway Dr			Live Oak Ave			Live Oak Ave			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		2	0	1	0	0	0	0	3	0	1	2	0	
4:00 PM		3	0	0	0	0	0	0	452	16	18	179	0	668
4:15 PM		1	0	1	0	0	0	0	478	14	12	214	0	720
4:30 PM		1	0	0	0	0	0	0	548	16	17	223	0	805
4:45 PM		1	0	3	0	0	0	0	516	15	27	211	0	773
5:00 PM		4	0	5	0	0	0	0	613	19	26	226	0	893
5:15 PM		1	0	3	0	0	0	0	558	15	36	229	0	842
5:30 PM		1	0	0	0	0	0	0	577	11	21	238	0	848
5:45 PM		1	0	1	0	0	0	0	583	24	33	220	0	862
TOTAL VOLUMES :		13	0	13	0	0	0	0	4325	130	190	1740	0	6411
APPROACH %'s :		50.00%	0.00%	50.00%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	97.08%	2.92%	9.84%	90.16%	0.00%	
PEAK HR START TIME :		500 PM											TOTAL	
PEAK HR VOL :		7	0	9	0	0	0	0	2331	69	116	913	0	3445
PEAK HR FACTOR :		0.444			0.000			0.949			0.971			0.964

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

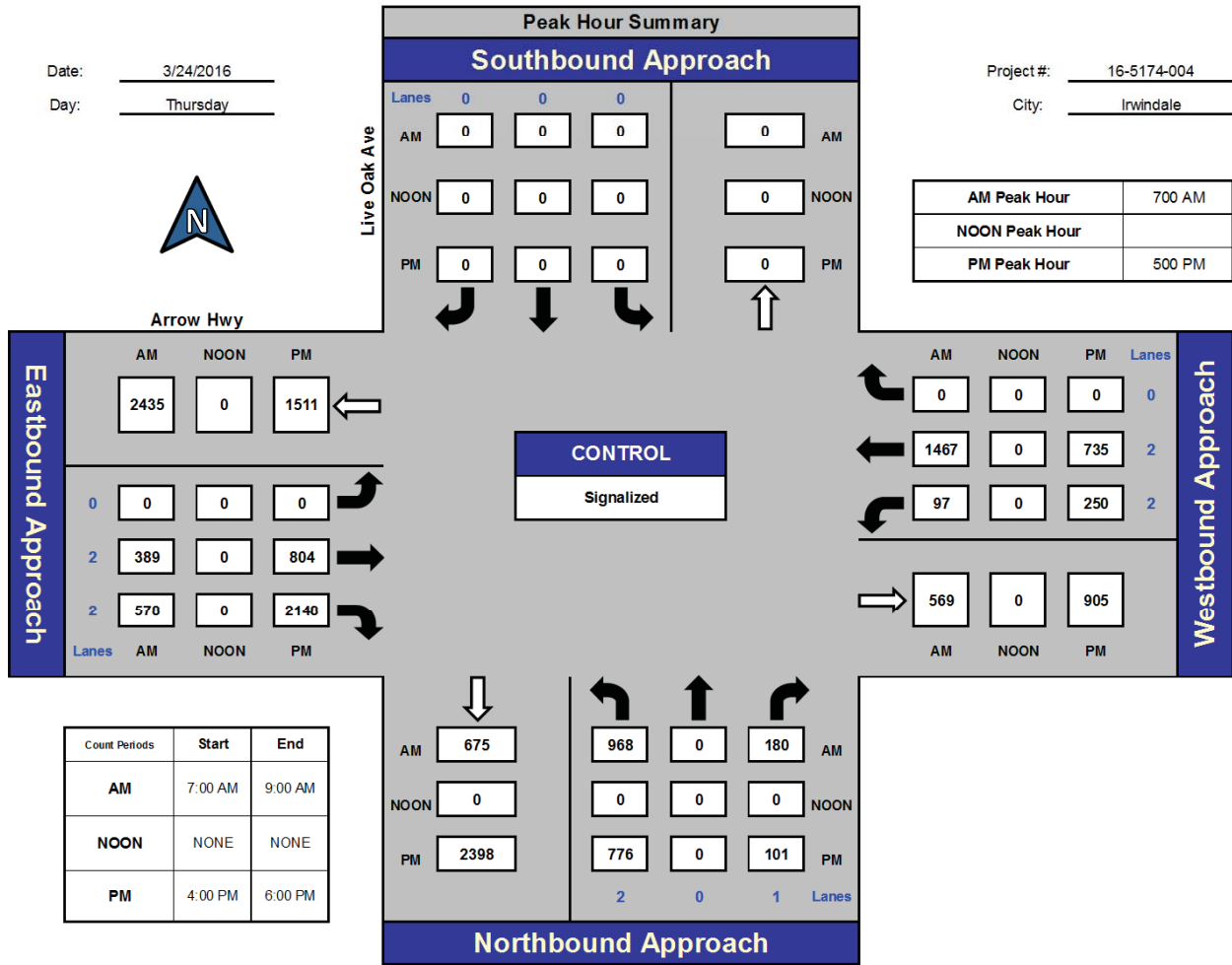


National Data & Surveying Services

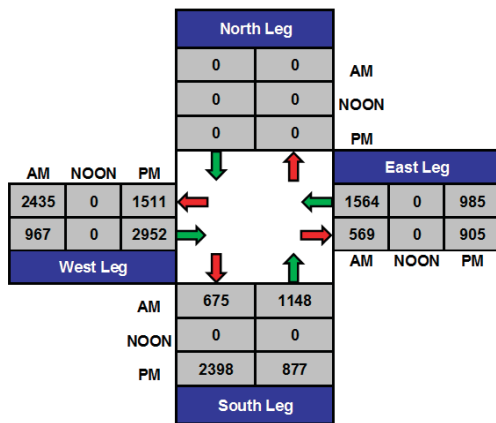
Live Oak Ave and Arrow Hwy, Irwindale

Date: 3/24/2016
Day: Thursday

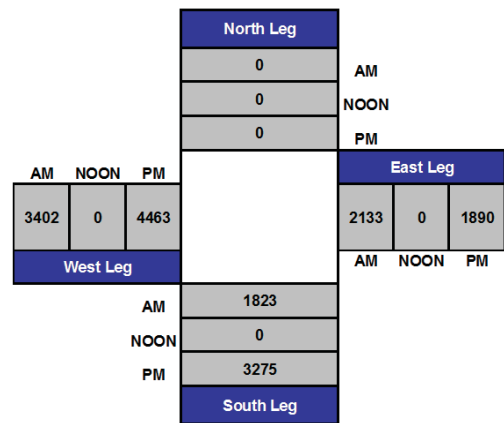
Project #: 16-5174-004
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-004

Day: Thursday

City: Irwindale

Date: 3/24/2016

		AM												
NS/EW Streets:		Live Oak Ave			Live Oak Ave			Arrow Hwy			Arrow Hwy			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		2	0	1	0	0	0	0	2	2	2	2	0	
7:00 AM		220	0	31	0	0	0	0	70	127	25	397	0	870
7:15 AM		281	0	43	0	0	0	0	94	135	28	418	0	999
7:30 AM		262	0	49	0	0	0	0	99	151	29	362	0	952
7:45 AM		205	0	57	0	0	0	0	126	165	15	290	0	858
8:00 AM		221	0	49	0	0	0	0	92	171	23	257	0	813
8:15 AM		228	0	42	0	0	0	0	96	175	28	241	0	810
8:30 AM		195	0	40	0	0	0	0	110	181	28	200	0	754
8:45 AM		198	0	41	0	0	0	0	111	157	33	204	0	744
TOTAL VOLUMES :		1810	0	352	0	0	0	0	798	1262	209	2369	0	6800
APPROACH %'s :		83.72%	0.00%	16.28%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	38.74%	61.26%	8.11%	91.89%	0.00%	
PEAK HR START TIME :		700 AM												TOTAL
PEAK HR VOL :		968	0	180	0	0	0	0	389	578	97	1467	0	3679
PEAK HR FACTOR :		0.886			0.000			0.831			0.877			0.921

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-004

Day: Thursday

City: Irwindale

Date: 3/24/2016

		PM												
NS/EW Streets:		Live Oak Ave			Live Oak Ave			Arrow Hwy			Arrow Hwy			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		2	0	1	0	0	0	0	2	2	2	2	0	
4:00 PM		126	0	42	0	0	0	0	222	429	48	94	0	961
4:15 PM		174	0	32	0	0	0	0	162	463	44	106	0	981
4:30 PM		168	0	46	0	0	0	0	182	510	43	132	0	1081
4:45 PM		186	0	33	0	0	0	0	163	495	47	116	0	1040
5:00 PM		176	0	30	0	0	0	0	191	535	83	131	0	1146
5:15 PM		215	0	19	0	0	0	0	203	537	55	179	0	1208
5:30 PM		208	0	23	0	0	0	0	197	541	48	207	0	1224
5:45 PM		177	0	29	0	0	0	0	213	535	64	218	0	1236
TOTAL VOLUMES :		1430	0	254	0	0	0	0	1533	4045	432	1183	0	8877
APPROACH %'s :		84.92%	0.00%	15.08%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	27.48%	72.52%	26.75%	73.25%	0.00%	
PEAK HR START TIME :		500 PM												TOTAL
PEAK HR VOL :		776	0	101	0	0	0	0	804	2148	250	735	0	4814
PEAK HR FACTOR :		0.937			0.000			0.987			0.873			0.974

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

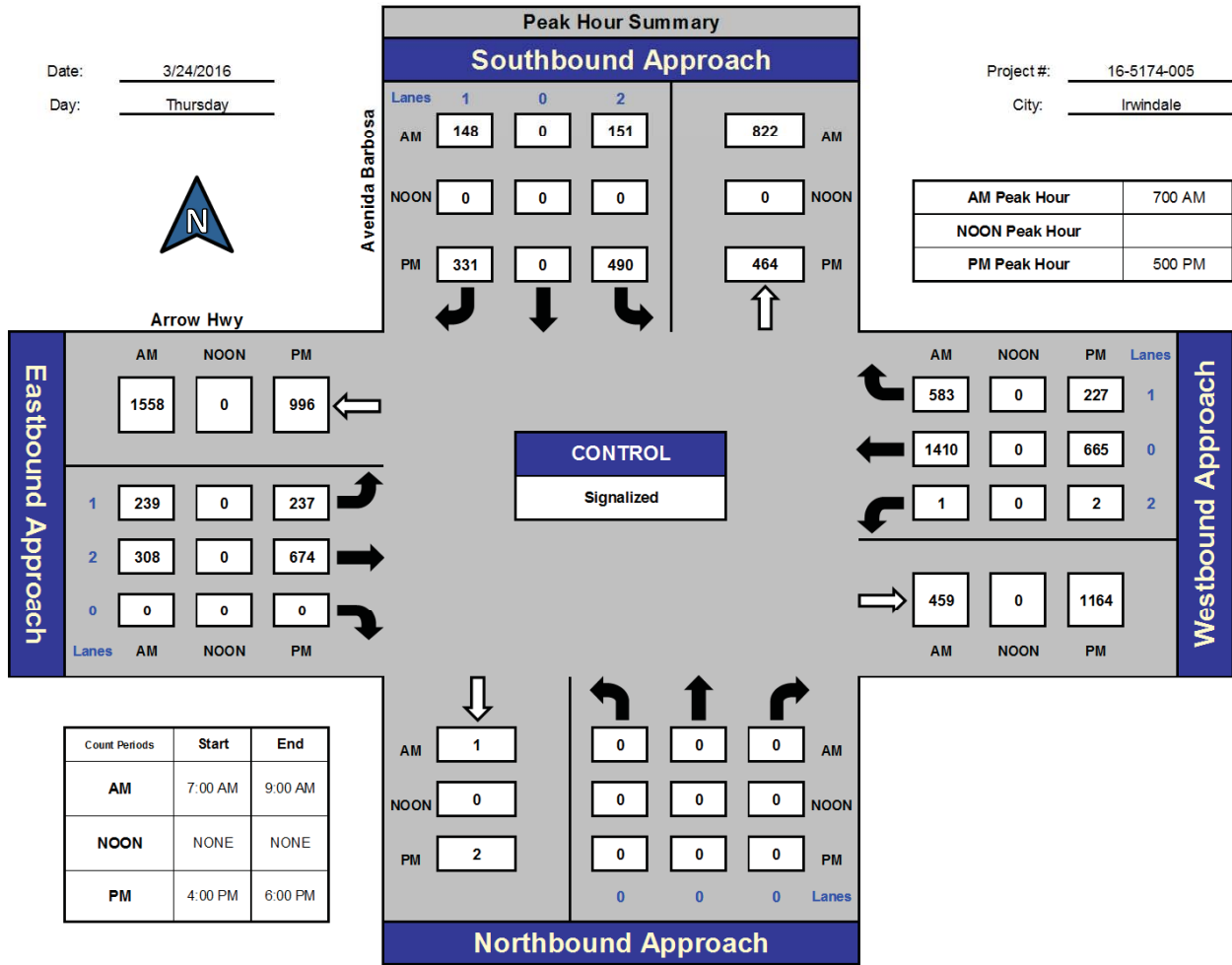


National Data & Surveying Services

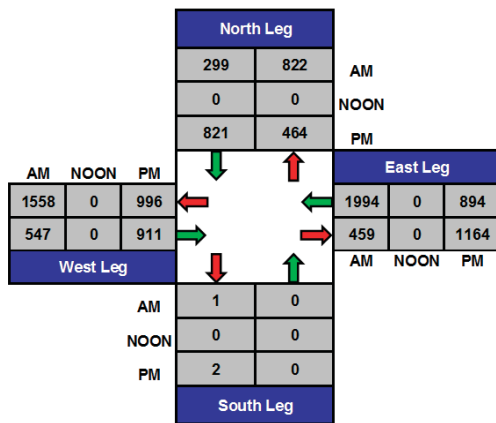
Avenida Barbosa and Arrow Hwy, Irwindale

Date: 3/24/2016
Day: Thursday

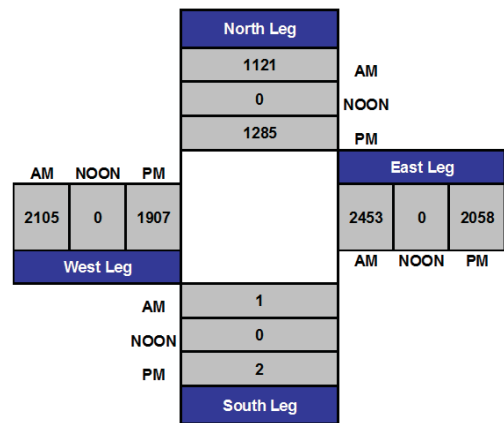
Project #: 16-5174-005
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-005

Day: Thursday

City: Irwindale

Date: 3/24/2016

		AM											
NS/EW Streets:	Avenida Barbosa			Avenida Barbosa			Arrow Hwy			Arrow Hwy			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	2	0	1	1	2	0	2	0	1	
7:00 AM	0	0	0	33	0	41	39	58	0	0	352	111	634
7:15 AM	0	0	0	31	0	36	57	71	0	0	441	135	771
7:30 AM	0	0	0	43	0	35	58	85	0	1	342	159	723
7:45 AM	0	0	0	44	0	36	85	94	0	0	275	178	712
8:00 AM	0	0	0	39	0	34	80	76	0	1	242	129	601
8:15 AM	0	0	0	41	0	37	54	77	0	0	240	111	560
8:30 AM	0	0	0	43	0	30	61	85	0	0	196	89	504
8:45 AM	0	0	0	35	0	26	71	83	0	0	216	81	512
TOTAL VOLUMES :	NL 0	NT 0	NR 0	SL 309	ST 0	SR 275	EL 505	ET 629	ER 0	WL 2	WT 2304	WR 993	TOTAL 5017
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	52.91%	0.00%	47.09%	44.53%	55.47%	0.00%	0.06%	69.84%	30.10%	
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	0	0	0	151	0	148	239	308	0	1	1410	583	2840
PEAK HR FACTOR :	0.000			0.934			0.764			0.865			0.921

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-005

Day: Thursday

City: Irwindale

Date: 3/24/2016

		PM												
NS/EW Streets:		Avenida Barbosa			Avenida Barbosa			Arrow Hwy			Arrow Hwy			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		0	0	0	2	0	1	1	2	0	2	0	1	
4:00 PM		0	0	0	82	0	47	82	197	0	0	86	55	549
4:15 PM		0	0	0	101	0	60	70	124	0	1	101	53	510
4:30 PM		0	0	0	84	0	59	71	136	0	0	105	61	516
4:45 PM		0	0	0	108	0	77	70	135	0	0	100	74	564
5:00 PM		0	0	0	151	0	108	63	167	0	1	112	54	656
5:15 PM		0	0	0	123	0	74	54	170	0	0	152	67	640
5:30 PM		0	0	0	123	0	85	54	170	0	1	181	50	664
5:45 PM		0	0	0	93	0	64	66	167	0	0	220	56	666
TOTAL VOLUMES :		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		0	0	0	865	0	574	530	1266	0	3	1057	470	4765
APPROACH %'s :		#DIV/0!	#DIV/0!	#DIV/0!	60.11%	0.00%	39.89%	29.51%	70.49%	0.00%	0.20%	69.08%	30.72%	
PEAK HR START TIME :		500 PM												TOTAL
PEAK HR VOL :		0	0	0	490	0	331	237	674	0	2	665	227	2626
PEAK HR FACTOR :		0.000			0.792			0.977			0.810			0.986

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

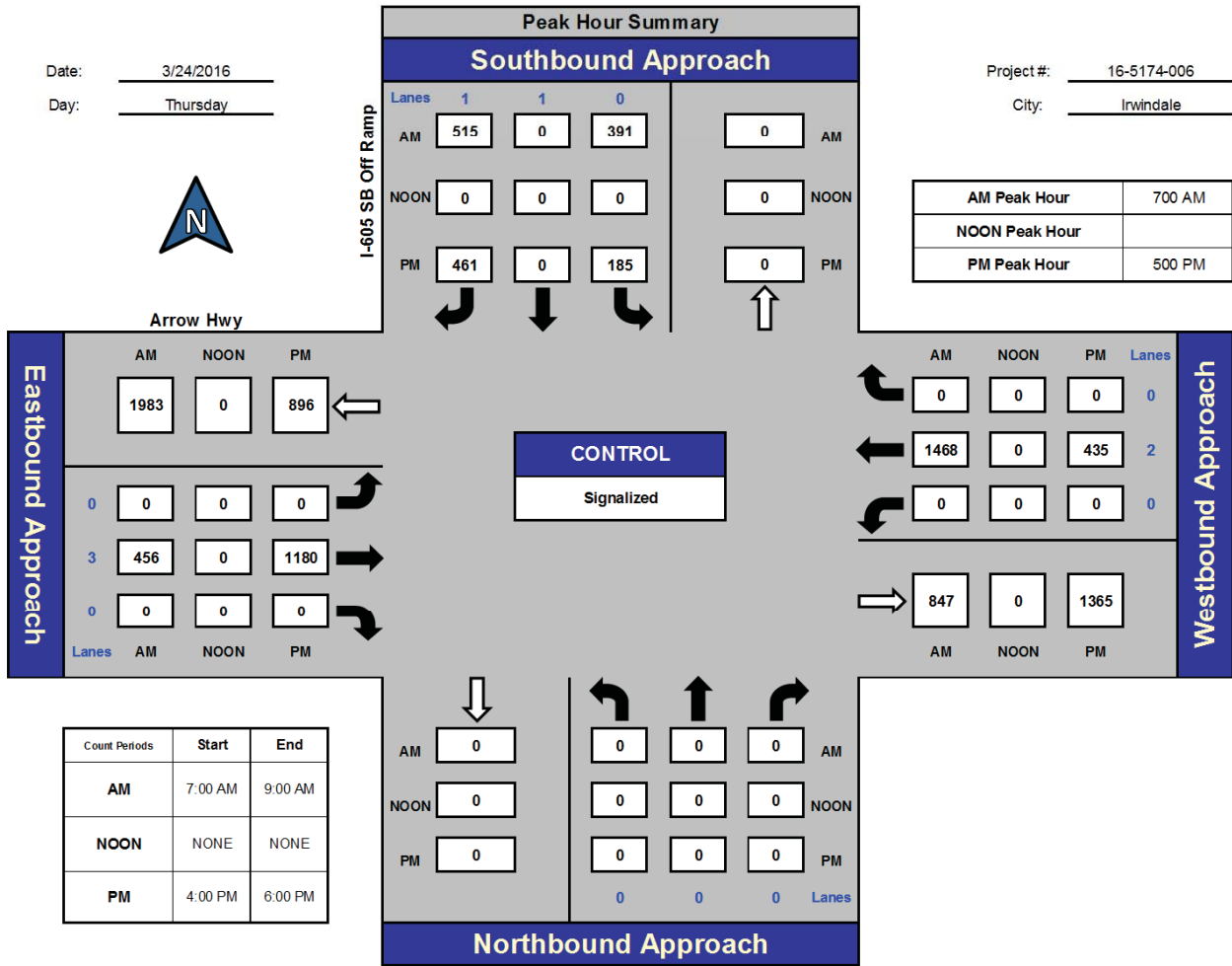


National Data & Surveying Services

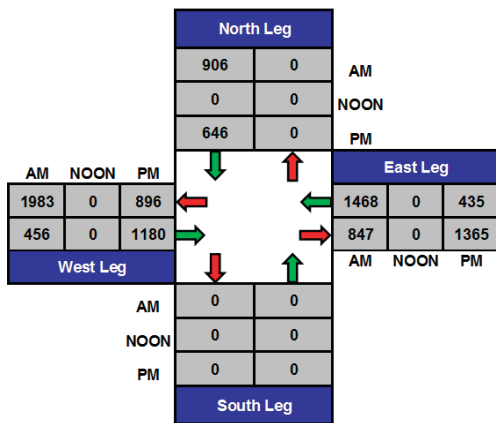
I-605 SB Off Ramp and Arrow Hwy, Irwindale

Date: 3/24/2016
Day: Thursday

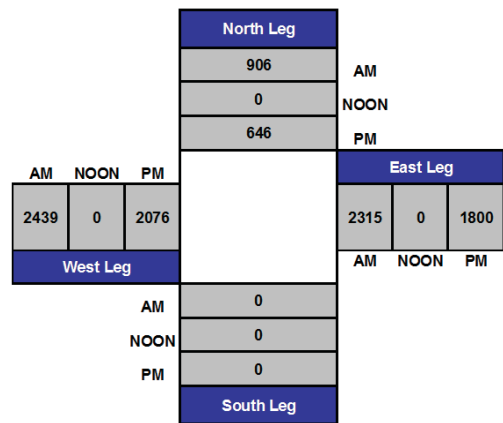
Project #: 16-5174-006
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-006

Day: Thursday

City: Irwindale

Date: 3/24/2016

		AM												
NS/EW Streets:	I-605 SB Off Ramp	I-605 SB Off Ramp			Arrow Hwy			Arrow Hwy						
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
	0	0	0	0	1	1	0	3	0	0	2	0		
7:00 AM	0	0	0	77	0	99	0	90	0	0	373	0	639	
7:15 AM	0	0	0	92	0	143	0	103	0	0	424	0	762	
7:30 AM	0	0	0	98	0	135	0	127	0	0	352	0	712	
7:45 AM	0	0	0	124	0	138	0	136	0	0	319	0	717	
8:00 AM	0	0	0	120	0	100	0	116	0	0	260	0	596	
8:15 AM	0	0	0	94	0	99	0	121	0	0	260	0	574	
8:30 AM	0	0	0	97	0	90	0	127	0	0	203	0	517	
8:45 AM	0	0	0	99	0	110	0	118	0	0	197	0	524	
TOTAL VOLUMES :	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
	0	0	0	801	0	914	0	938	0	0	2388	0	5041	
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	46.71%	0.00%	53.29%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%		
PEAK HR START TIME :	700 AM												TOTAL	
PEAK HR VOL :	0	0	0	391	0	515	0	456	0	0	1468	0	2830	
PEAK HR FACTOR :	0.000			0.865			0.838			0.866			0.928	

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-006

Day: Thursday

City: Irwindale

Date: 3/24/2016

PM

NS/EW Streets:	I-605 SB Off Ramp			I-605 SB Off Ramp			Arrow Hwy			Arrow Hwy			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	0	0	0	1	1	0	3	0	0	2	0	
4:00 PM	0	0	0	69	0	59	0	258	0	0	85	0	471
4:15 PM	0	0	0	69	0	54	0	236	0	0	98	0	457
4:30 PM	0	0	0	44	0	61	0	229	0	0	107	0	441
4:45 PM	0	0	0	48	0	52	0	237	0	0	124	0	461
5:00 PM	0	0	0	36	0	59	0	322	0	0	109	0	526
5:15 PM	0	0	0	38	0	102	0	300	0	0	116	0	556
5:30 PM	0	0	0	57	0	134	0	284	0	0	110	0	585
5:45 PM	0	0	0	54	0	166	0	274	0	0	100	0	594
TOTAL VOLUMES :	0	0	0	415	0	687	0	2140	0	0	849	0	4091
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	37.66%	0.00%	62.34%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	0	0	185	0	461	0	1180	0	0	435	0	2261
PEAK HR FACTOR :	0.000			0.734			0.916			0.938			0.952

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

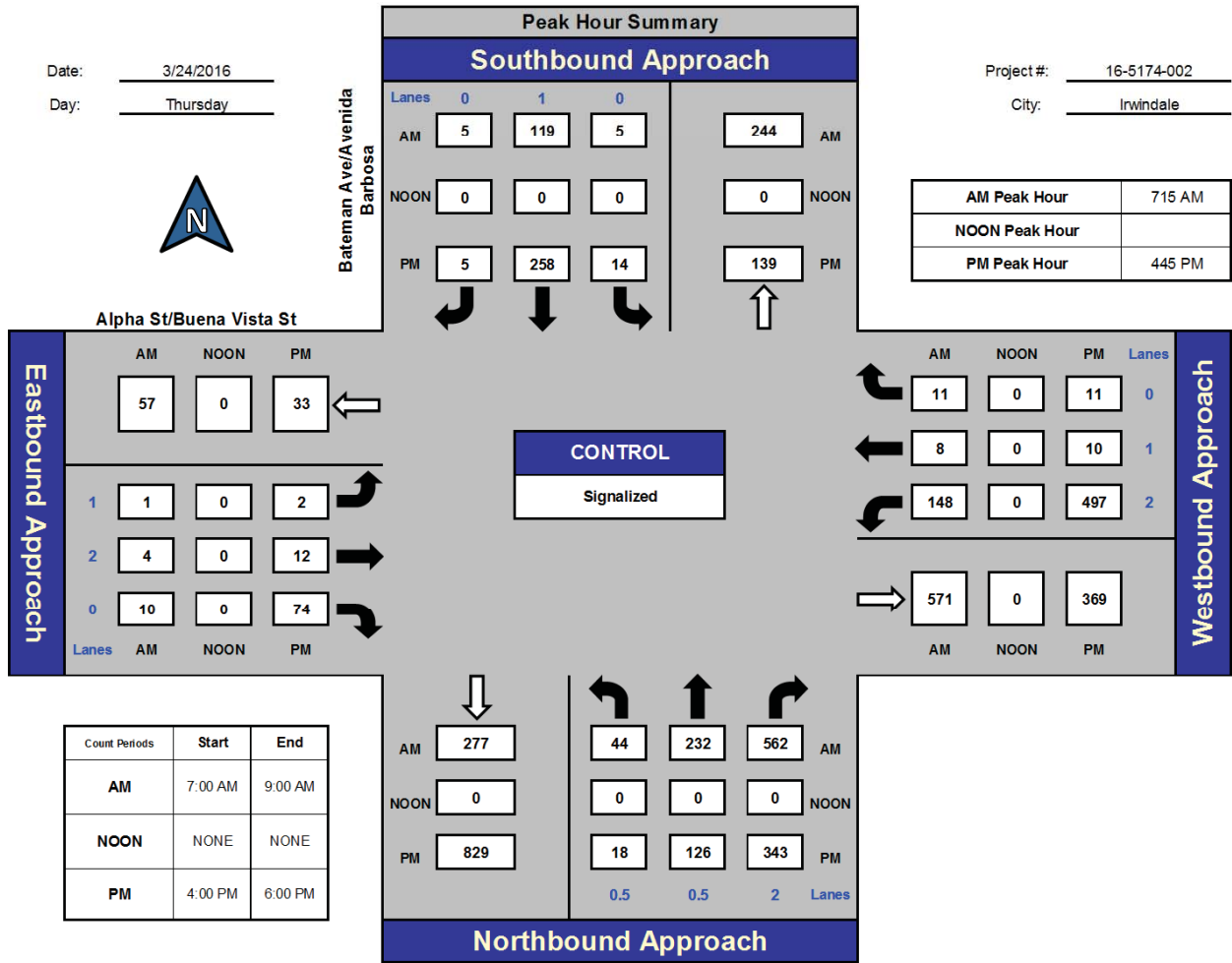


National Data & Surveying Services

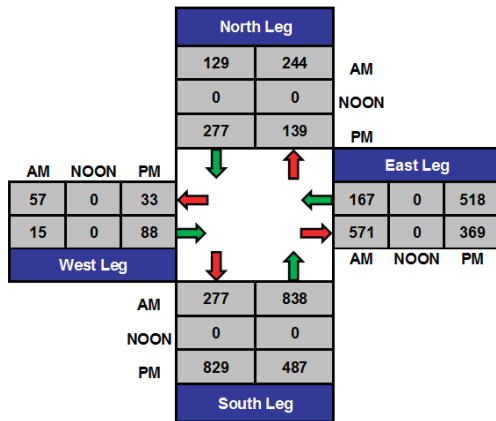
Bateman Ave/Avenida Barbosa and Alpha St/Buena Vista St, Irwindale

Date: 3/24/2016
Day: Thursday

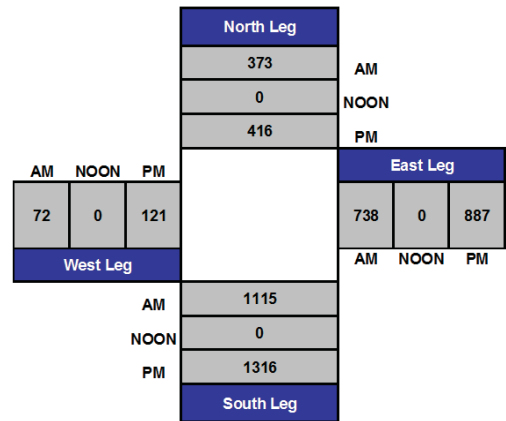
Project #: 16-5174-002
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-002

Day: Thursday

City: Irwindale

Date: 3/24/2016

AM

NS/EW Streets:	Bateman Ave/Avenida Barbosa			Bateman Ave/Avenida Barbosa			Alpha St/Buena Vista St			Alpha St/Buena Vista St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0.5	0.5	2	0	1	0	1	2	0	2	1	0	
7:00 AM	1	48	91	1	31	0	0	0	4	31	1	1	209
7:15 AM	6	45	127	0	26	0	0	1	2	35	3	2	247
7:30 AM	8	66	133	0	33	3	0	1	3	32	0	3	282
7:45 AM	13	77	166	1	33	1	0	2	4	41	2	1	341
8:00 AM	17	44	136	4	27	1	1	0	1	40	3	5	279
8:15 AM	6	37	110	0	19	1	2	0	7	43	3	5	233
8:30 AM	14	33	99	1	18	2	1	3	4	41	2	2	220
8:45 AM	14	38	96	2	21	1	0	2	6	35	3	3	221
TOTAL VOLUMES :	79	388	958	9	208	9	4	9	31	298	17	22	2032
APPROACH %'s :	5.54%	27.23%	67.23%	3.98%	92.04%	3.98%	9.09%	20.45%	70.45%	88.43%	5.04%	6.53%	
PEAK HR START TIME :	7:15 AM												TOTAL
PEAK HR VOL :	44	232	562	5	119	5	1	4	10	148	8	11	1149
PEAK HR FACTOR :	0.818			0.896			0.625			0.870			0.842

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-002

Day: Thursday

City: Irwindale

Date: 3/24/2016

PM

NS/EW Streets:	Bateman Ave/Avenida Barbosa			Bateman Ave/Avenida Barbosa			Alpha St/Buena Vista St			Alpha St/Buena Vista St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0.5	0.5	2	0	1	0	1	2	0	2	1	0	
4:00 PM	16	31	91	7	42	3	2	5	7	78	3	5	290
4:15 PM	11	31	86	3	49	2	1	2	13	92	5	0	295
4:30 PM	5	25	102	2	41	1	0	6	18	83	4	2	289
4:45 PM	8	42	96	1	50	3	1	5	13	106	2	0	327
5:00 PM	5	33	80	4	83	1	1	4	30	142	4	5	392
5:15 PM	4	31	85	5	57	0	0	3	14	120	1	4	324
5:30 PM	1	20	82	4	68	1	0	0	17	129	3	2	327
5:45 PM	3	36	83	2	57	0	2	2	7	101	1	3	297
TOTAL VOLUMES :	53	249	705	28	447	11	7	27	119	851	23	21	2541
APPROACH %'s :	5.26%	24.73%	70.01%	5.76%	91.98%	2.26%	4.58%	17.65%	77.78%	95.08%	2.57%	2.35%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	18	126	343	14	258	5	2	12	74	497	10	11	1370
PEAK HR FACTOR :	0.834			0.787			0.629			0.858			0.874

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

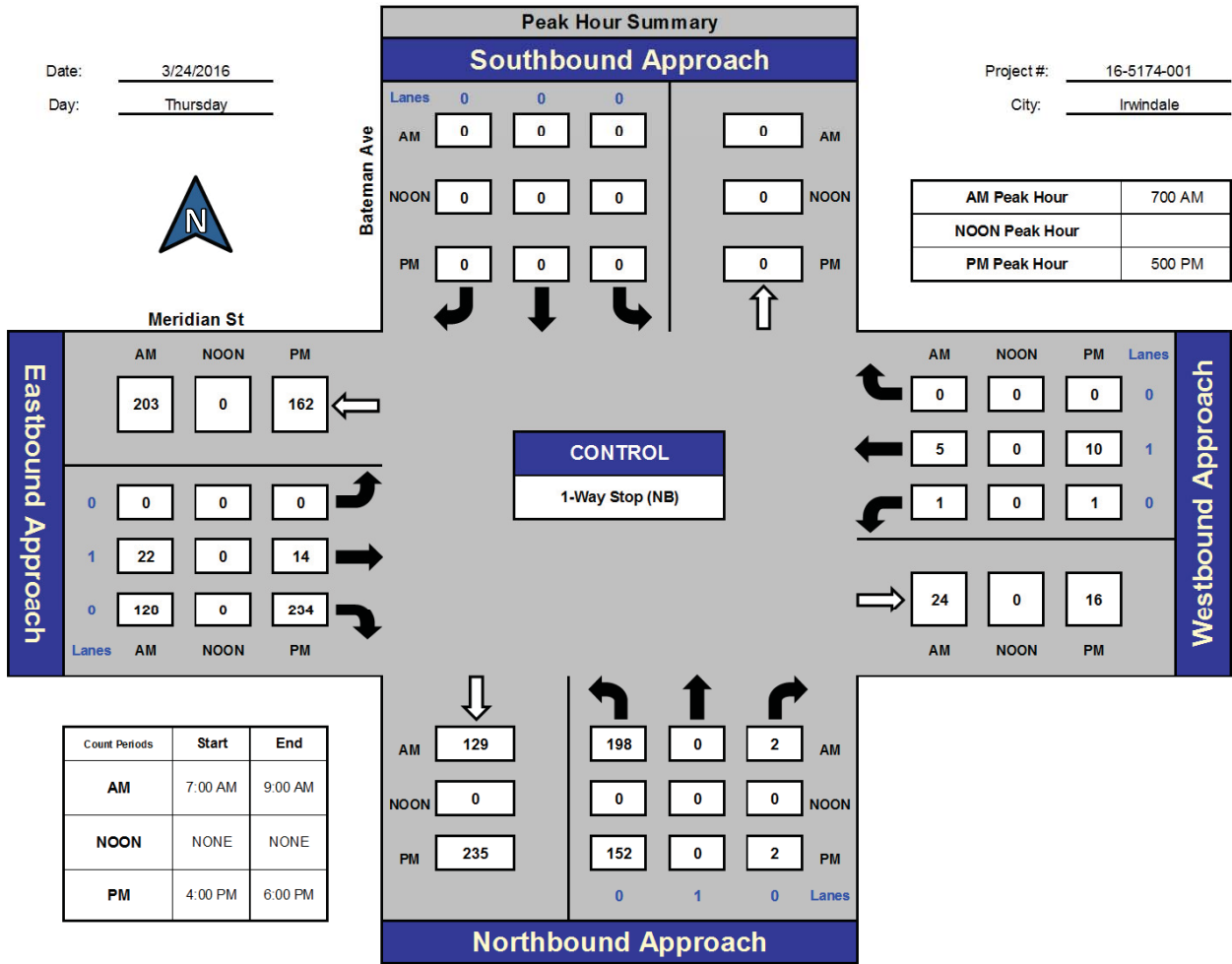


National Data & Surveying Services

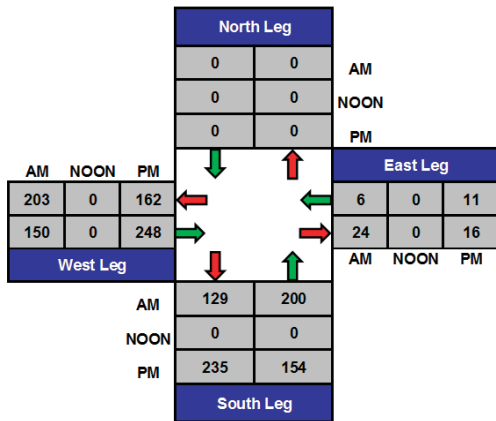
Bateman Ave and Meridian St., Irwindale

Date: 3/24/2016
Day: Thursday

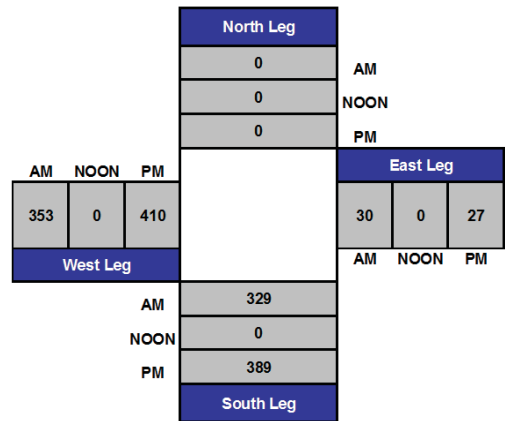
Project #: 16-5174-001
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-001

Day: Thursday

City: Irwindale

Date: 3/24/2016

		AM												
NS/EW Streets:		Bateman Ave			Bateman Ave			Meridian St			Meridian St			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		0	1	0	0	0	0	0	1	0	0	1	0	
7:00 AM		45	0	0	0	0	0	0	4	28	0	1	0	78
7:15 AM		41	0	0	0	0	0	0	4	28	0	1	0	74
7:30 AM		58	0	1	0	0	0	0	7	33	0	2	0	101
7:45 AM		54	0	1	0	0	0	0	7	39	1	1	0	103
8:00 AM		33	0	1	0	0	0	0	4	28	0	2	0	68
8:15 AM		34	0	0	0	0	0	0	2	20	0	7	0	63
8:30 AM		26	0	0	0	0	0	0	2	20	0	2	0	50
8:45 AM		28	0	0	0	0	0	0	1	27	0	4	0	60
TOTAL VOLUMES :		319	0	3	0	0	0	0	31	223	1	20	0	597
APPROACH %'s :		99.07%	0.00%	0.93%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	12.20%	87.80%	4.76%	95.24%	0.00%	
PEAK HR START TIME :		700 AM												TOTAL
PEAK HR VOL :		198	0	2	0	0	0	0	22	128	1	5	0	356
PEAK HR FACTOR :		0.847			0.000			0.815			0.750			0.864

CONTROL : 1-Way Stop (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-001

Day: Thursday

City: Irwindale

Date: 3/24/2016

		PM												
NS/EW Streets:	Bateman Ave			Bateman Ave			Meridian St			Meridian St				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
	0	1	0	0	0	0	0	1	0	0	1	0		
4:00 PM	38	0	2	0	0	0	0	2	46	0	4	0	92	
4:15 PM	29	0	0	0	0	0	0	3	41	0	1	0	74	
4:30 PM	30	0	0	0	0	0	0	1	38	1	5	0	75	
4:45 PM	35	0	0	0	0	0	0	3	39	0	4	0	81	
5:00 PM	50	0	0	0	0	0	0	4	76	0	1	0	131	
5:15 PM	37	0	1	0	0	0	0	3	49	1	1	0	92	
5:30 PM	24	0	1	0	0	0	0	2	58	0	7	0	92	
5:45 PM	41	0	0	0	0	0	0	5	51	0	1	0	98	
TOTAL VOLUMES :	284	0	4	0	0	0	0	23	398	2	24	0	735	
APPROACH %'s :	98.61%	0.00%	1.39%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	5.46%	94.54%	7.69%	92.31%	0.00%		
PEAK HR START TIME :	500 PM												TOTAL	
PEAK HR VOL :	152	0	2	0	0	0	0	14	234	1	10	0	413	
PEAK HR FACTOR :	0.770			0.000			0.775			0.393			0.788	

CONTROL : 1-Way Stop (NB)

ITM Peak Hour Summary

Prepared by:

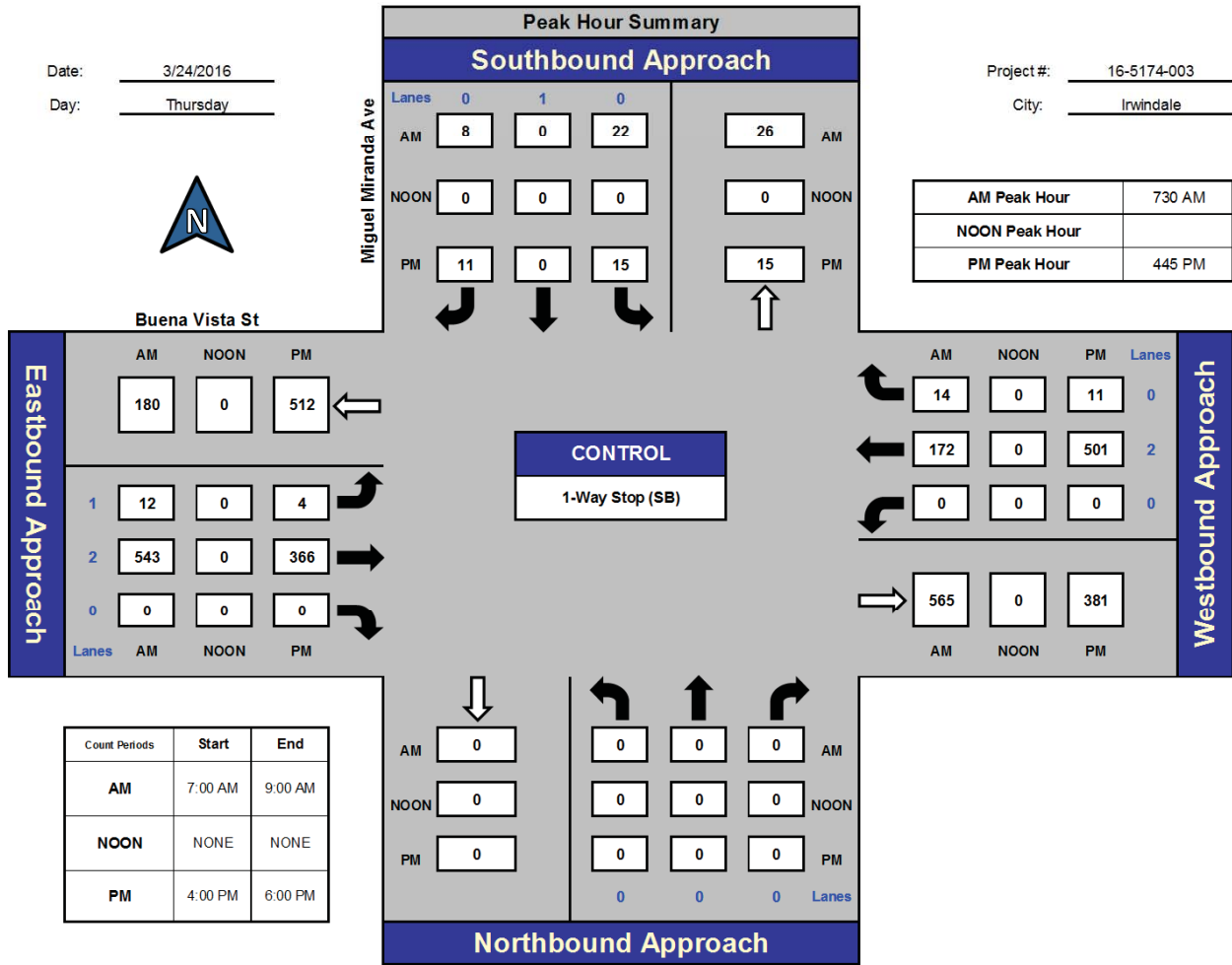


National Data & Surveying Services

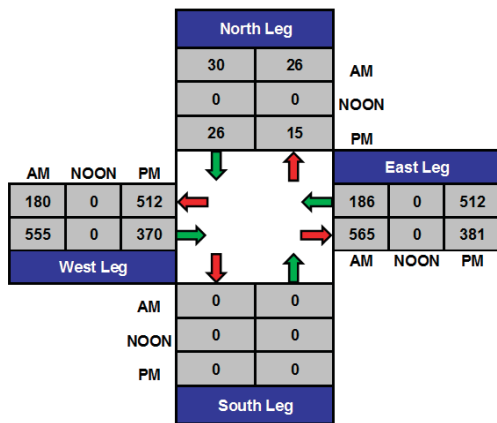
Miguel Miranda Ave and Buena Vista St, Irwindale

Date: 3/24/2016
Day: Thursday

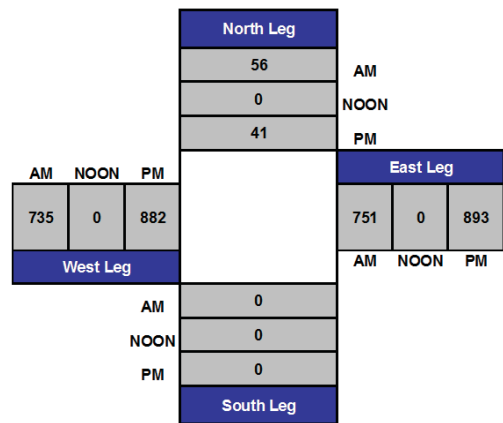
Project #: 16-5174-003
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-003

Day: Thursday

City: Irwindale

Date: 3/24/2016

		AM												
NS/EW Streets:	Miguel Miranda Ave			Miguel Miranda Ave			Buena Vista St			Buena Vista St				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
7:00 AM	0	0	0	3	0	1	4	93	0	0	31	2	134	
7:15 AM	0	0	0	5	0	2	3	122	0	0	38	1	171	
7:30 AM	0	0	0	8	0	0	3	133	0	0	36	2	182	
7:45 AM	0	0	0	9	0	3	3	164	0	0	42	1	222	
8:00 AM	0	0	0	4	0	3	2	135	0	0	45	2	191	
8:15 AM	0	0	0	1	0	2	4	111	0	0	49	9	176	
8:30 AM	0	0	0	2	0	1	4	96	0	0	44	2	149	
8:45 AM	0	0	0	2	0	0	3	92	0	0	40	2	139	
TOTAL VOLUMES :	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
	0	0	0	34	0	12	26	946	0	0	325	21	1364	
APPROACH %'s :	#DIV/0!	#DIV/0!	#DIV/0!	73.91%	0.00%	26.09%	2.67%	97.33%	0.00%	0.00%	93.93%	6.07%		
PEAK HR START TIME :	730 AM												TOTAL	
PEAK HR VOL :	0	0	0	22	0	8	12	543	0	0	172	14	771	
PEAK HR FACTOR :	0.000			0.625			0.831			0.802			0.868	

CONTROL : 1-Way Stop (SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-003

Day: Thursday

City: Irwindale

Date: 3/24/2016

		PM												
NS/EW Streets:		Miguel Miranda Ave			Miguel Miranda Ave			Buena Vista St			Buena Vista St			
		NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
		0	0	0	0	1	0	1	2	0	0	2	0	
4:00 PM		0	0	0	3	0	4	1	101	0	0	87	5	201
4:15 PM		0	0	0	3	0	1	0	90	0	0	100	4	198
4:30 PM		0	0	0	2	0	1	3	108	0	0	90	4	208
4:45 PM		0	0	0	2	0	3	1	101	0	0	102	5	214
5:00 PM		0	0	0	7	0	5	2	85	0	0	142	1	242
5:15 PM		0	0	0	5	0	1	1	93	0	0	129	0	229
5:30 PM		0	0	0	1	0	2	0	87	0	0	128	5	223
5:45 PM		0	0	0	4	0	1	0	84	0	0	105	1	195
TOTAL VOLUMES :		0	0	0	27	0	18	8	749	0	0	883	25	1710
APPROACH %'s :		#DIV/0!	#DIV/0!	#DIV/0!	60.00%	0.00%	40.00%	1.06%	98.94%	0.00%	0.00%	97.25%	2.75%	
PEAK HR START TIME :		445 PM												TOTAL
PEAK HR VOL :		0	0	0	15	0	11	4	366	0	0	501	11	908
PEAK HR FACTOR :		0.000			0.542			0.907			0.895			0.938

CONTROL : 1-Way Stop (SB)

ITM Peak Hour Summary

Prepared by:

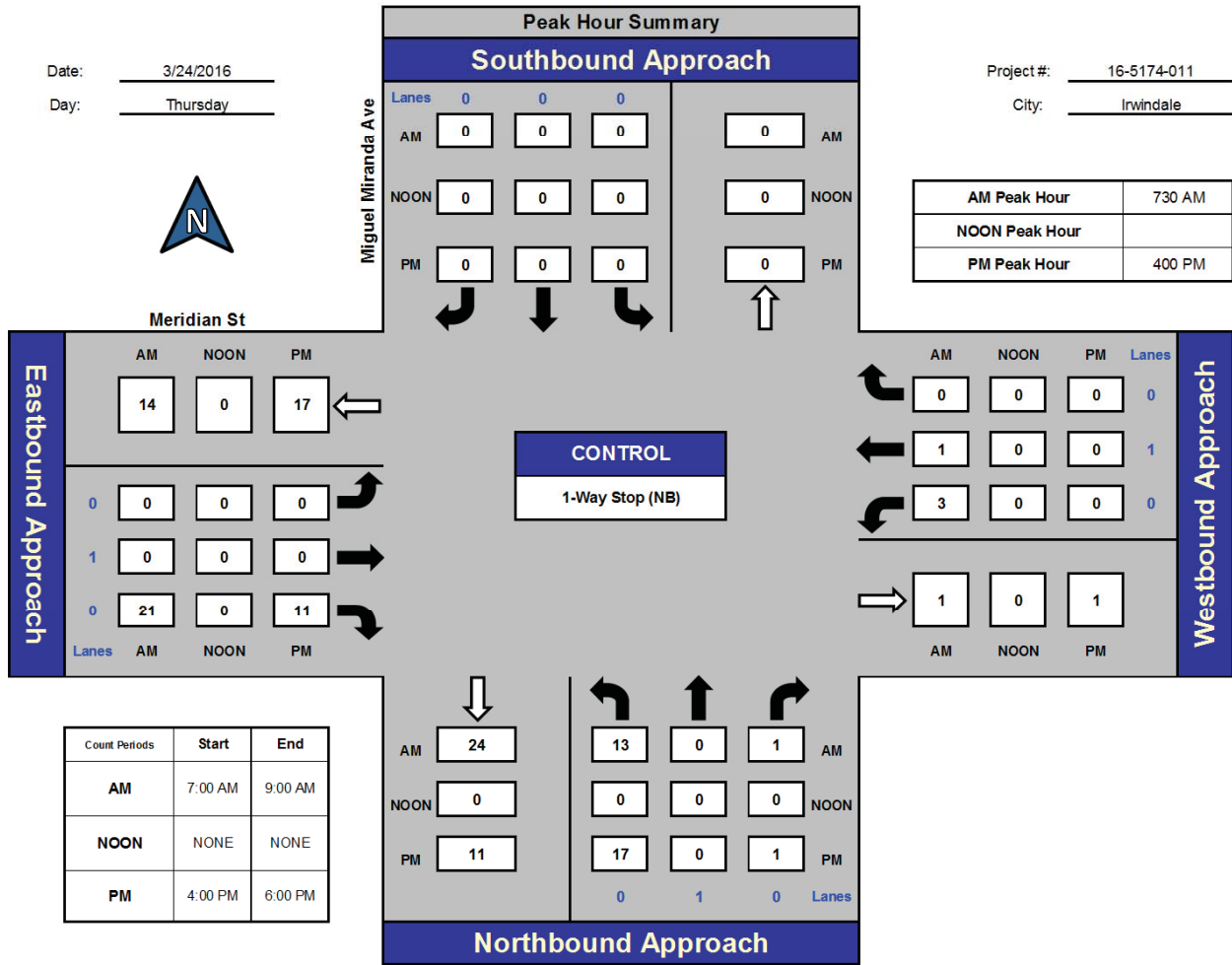


National Data & Surveying Services

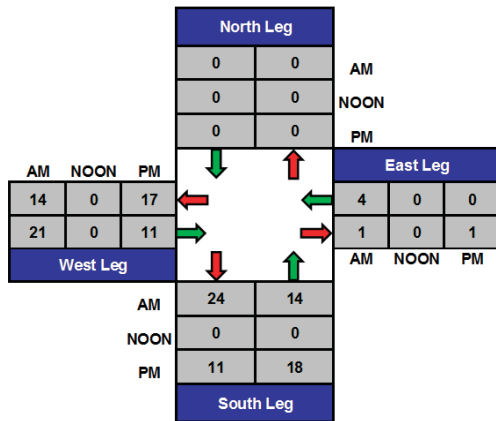
Miguel Miranda Ave and Meridian St, Irwindale

Date: 3/24/2016
Day: Thursday

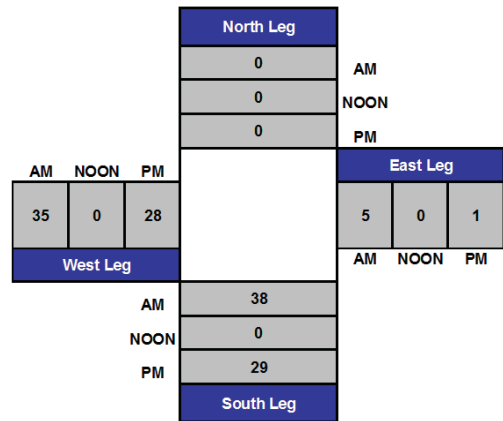
Project #: 16-5174-011
City: Irwindale



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-011

Day: Thursday

City: Irwindale

TOTALS

Date: 3/24/2016

AM

NS/EW Streets:	Miguel Miranda Ave			Miguel Miranda Ave			Meridian St			Meridian St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	0	0	0	1	0	0	1	0	
7:00 AM	1	0	0	0	0	0	0	0	3	0	1	0	5
7:15 AM	1	0	0	0	0	0	0	0	4	0	0	0	5
7:30 AM	2	0	0	0	0	0	0	0	8	0	0	0	10
7:45 AM	1	0	1	0	0	0	0	0	7	1	0	0	10
8:00 AM	2	0	0	0	0	0	0	0	4	2	0	0	8
8:15 AM	8	0	0	0	0	0	0	0	2	0	1	0	11
8:30 AM	2	0	0	0	0	0	0	1	2	0	0	0	5
8:45 AM	2	0	0	0	0	0	0	0	2	0	1	0	5
TOTAL VOLUMES :	19	0	1	0	0	0	0	1	32	3	3	0	59
APPROACH %'s :	95.00%	0.00%	5.00%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	3.03%	96.97%	50.00%	50.00%	0.00%	
PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	13	0	1	0	0	0	0	0	21	3	1	0	39
PEAK HR FACTOR :	0.438			0.000			0.656			0.500			0.886

CONTROL : 1-Way Stop (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5174-011

Day: Thursday

City: Irwindale

TOTALS

Date: 3/24/2016

PM

NS/EW Streets:	Miguel Miranda Ave			Miguel Miranda Ave			Meridian St			Meridian St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	0	0	0	1	0	0	1	0	
4:00 PM	5	0	0	0	0	0	0	0	4	0	0	0	9
4:15 PM	1	0	0	0	0	0	0	0	3	0	0	0	4
4:30 PM	7	0	0	0	0	0	0	0	1	0	0	0	8
4:45 PM	4	0	1	0	0	0	0	0	3	0	0	0	8
5:00 PM	1	0	0	0	0	0	0	0	4	0	0	0	5
5:15 PM	1	0	0	0	0	0	0	0	3	0	0	0	4
5:30 PM	7	0	0	0	0	0	0	0	3	0	0	0	10
5:45 PM	1	0	0	0	0	0	0	0	5	0	0	0	6
TOTAL VOLUMES :	27	0	1	0	0	0	0	0	26	0	0	0	54
APPROACH %'s :	96.43%	0.00%	3.57%	#DIV/0!	#DIV/0!	#DIV/0!	0.00%	0.00%	100.00%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	400 PM												TOTAL
PEAK HR VOL :	17	0	1	0	0	0	0	0	11	0	0	0	29
PEAK HR FACTOR :	0.643			0.000			0.688			0.000			0.806

CONTROL : 1-Way Stop (NB)

VOLUME

Arrow Hwy Bet. Live Oak Ave & Avenida Barbosa

Day: Thursday
Date: 3/24/2016City: Irwindale
Project #: CA16_5175_003

DAILY TOTALS					NB	SB						Total			
					0	0						22,824			
							10,041			12,783					
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL			
00:00			31	21	52		12:00			141	133	274			
00:15			13	16	29		12:15			106	139	245			
00:30			20	27	47		12:30			120	163	283			
00:45			10	74	22	86	12:45			159	526	140	575	299	1101
01:00			28	21	49		13:00			121	153	274			
01:15			14	11	25		13:15			116	153	269			
01:30			2	11	13		13:30			154	153	307			
01:45			17	61	19	62	13:45			147	538	155	614	302	1152
02:00			15	27	42		14:00			156	175	331			
02:15			11	28	39		14:15			147	167	314			
02:30			4	11	15		14:30			166	196	362			
02:45			10	40	11	77	14:45			143	612	168	706	311	1318
03:00			14	16	30		15:00			195	162	357			
03:15			15	19	34		15:15			168	138	306			
03:30			17	33	50		15:30			205	161	366			
03:45			18	64	27	95	15:45			217	785	148	609	365	1394
04:00			16	29	45		16:00			267	140	407			
04:15			30	41	71		16:15			190	155	345			
04:30			29	48	77		16:30			225	172	397			
04:45			43	118	69	187	16:45			200	882	167	634	367	1516
05:00			51	66	117		17:00			216	212	428			
05:15			55	86	141		17:15			223	236	459			
05:30			66	125	191		17:30			219	266	485			
05:45			63	235	190	467	17:45			237	895	271	985	508	1880
06:00			65	195	260		18:00			244	300	544			
06:15			85	225	310		18:15			216	258	474			
06:30			90	311	401		18:30			199	213	412			
06:45			111	351	346	1077	18:45			153	812	168	939	321	1751
07:00			105	414	519		19:00			165	151	316			
07:15			135	453	588		19:15			137	124	261			
07:30			151	385	536		19:30			95	92	187			
07:45			180	571	316	1568	19:45			110	507	83	450	193	957
08:00			149	270	419		20:00			85	81	166			
08:15			133	285	418		20:15			85	54	139			
08:30			157	228	385		20:30			71	56	127			
08:45			153	592	241	1024	20:45			74	315	75	266	149	581
09:00			133	210	343		21:00			70	59	129			
09:15			142	175	317		21:15			82	67	149			
09:30			131	175	306		21:30			65	58	123			
09:45			110	516	159	719	21:45			56	273	56	240	112	513
10:00			106	147	253		22:00			78	54	132			
10:15			104	152	256		22:15			51	35	86			
10:30			128	117	245		22:30			69	40	109			
10:45			96	434	134	550	22:45			49	247	28	157	77	404
11:00			113	165	278		23:00			34	34	68			
11:15			111	141	252		23:15			36	28	64			
11:30			135	136	271		23:30			20	35	55			
11:45			124	483	135	577	23:45			20	110	22	119	42	229
TOTALS			3539	6489	10028		TOTALS			6502	6294	12796			
SPLIT %			35.3%	64.7%	43.9%		SPLIT %			50.8%	49.2%	56.1%			

DAILY TOTALS					NB	SB						Total
					0	0						22,824
							10,041			12,783		

AM Peak Hour			07:45	06:45	07:00	PM Peak Hour			17:15	17:30	17:30
AM Pk Volume			619	1598	2139	PM Pk Volume			923	1095	2011
Pk Hr Factor			0.860	0.882	0.909	Pk Hr Factor			0.946	0.913	0.924
7 - 9 Volume	0	0	1163	2592	3755	4 - 6 Volume	0	0	1777	1619	3396
7 - 9 Peak Hour			07:45	07:00	07:00	4 - 6 Peak Hour			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	619	1568	2139	4 - 6 Pk Volume	0	0	895	985	1880
Pk Hr Factor	0.000	0.000	0.860	0.865	0.909	Pk Hr Factor	0.000	0.000	0.944	0.909	0.925

VOLUME

Arrow Hwy Bet. Avenida Barbosa & I-605

Day: Thursday
Date: 3/24/2016City: Irwindale
Project #: CA16_5175_004

DAILY TOTALS					NB	SB					Total	
					0	0					23,823	
							10,144		13,679			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
00:00			22	15	37	12:00			129	150	279	
00:15			16	28	44	12:15			103	179	282	
00:30			21	12	33	12:30			121	179	300	
00:45			7	66	12	67	12:45		127	480	181	689
01:00			22	11	33	13:00			104	187	291	
01:15			14	15	29	13:15			127	210	337	
01:30			6	15	21	13:30			146	177	323	
01:45			19	61	8	49	13:45		143	520	190	764
02:00			15	9	24	14:00			186	166	352	
02:15			12	7	19	14:15			137	146	283	
02:30			8	11	19	14:30			183	201	384	
02:45			10	45	12	39	14:45		179	685	149	662
03:00			11	14	25	15:00			199	185	384	
03:15			15	12	27	15:15			202	209	411	
03:30			26	22	48	15:30			216	168	384	
03:45			13	65	30	78	15:45		233	850	183	745
04:00			26	26	52	16:00			261	150	411	
04:15			38	21	59	16:15			235	157	392	
04:30			33	55	88	16:30			233	161	394	
04:45			49	146	69	171	16:45		230	959	182	650
05:00			53	49	102	17:00			325	165	490	
05:15			44	94	138	17:15			297	218	515	
05:30			60	136	196	17:30			290	236	526	
05:45			66	223	185	464	17:45		269	1181	271	890
06:00			59	204	263	18:00			300	204	504	
06:15			57	281	338	18:15			249	162	411	
06:30			81	358	439	18:30			221	142	363	
06:45			114	311	439	1282	18:45		184	954	133	641
07:00			89	461	550	19:00			152	113	265	
07:15			107	577	684	19:15			143	91	234	
07:30			123	497	620	19:30			115	80	195	
07:45			139	458	454	1989	19:45		101	511	110	394
08:00			116	368	484	20:00			103	72	175	
08:15			119	357	476	20:15			86	71	157	
08:30			127	288	415	20:30			68	72	140	
08:45			118	480	289	1302	20:45		67	324	65	280
09:00			99	234	333	21:00			78	54	132	
09:15			107	214	321	21:15			78	68	146	
09:30			99	181	280	21:30			54	58	112	
09:45			88	393	166	795	21:45		54	264	56	236
10:00			86	153	239	22:00			69	46	115	
10:15			99	154	253	22:15			50	35	85	
10:30			125	152	277	22:30			65	34	99	
10:45			104	414	158	617	22:45		37	221	23	138
11:00			113	162	275	23:00			29	31	60	
11:15			100	133	233	23:15			38	22	60	
11:30			114	168	282	23:30			20	24	44	
11:45			100	427	182	645	23:45		19	106	15	92
TOTALS			3089	7498	10587	TOTALS			7055	6181	13236	
SPLIT %			29.2%	70.8%	44.4%	SPLIT %			53.3%	46.7%	55.6%	

DAILY TOTALS					NB	SB					Total
					0	0					23,823
							10,144		13,679		

AM Peak Hour			07:45	07:00	07:00	PM Peak Hour			17:00	17:15	17:15
AM Pk Volume			501	1989	2447	PM Pk Volume			1181	929	2085
Pk Hr Factor			0.901	0.862	0.894	Pk Hr Factor			0.908	0.857	0.965
7 - 9 Volume	0	0	938	3291	4229	4 - 6 Volume	0	0	2140	1540	3680
7 - 9 Peak Hour			07:45	07:00	07:00	4 - 6 Peak Hour			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	501	1989	2447	4 - 6 Pk Volume	0	0	1181	890	2071
Pk Hr Factor	0.000	0.000	0.901	0.862	0.894	Pk Hr Factor	0.000	0.000	0.908	0.821	0.959

VOLUME

Avenida Barbosa Bet. Alpha St/Buena Vista St & Arrow Hwy

Day: Thursday
Date: 3/24/2016City: Irwindale
Project #: CA16_5175_001

DAILY TOTALS		NB	SB	EB	WB	Total
		8,445	7,690	0	0	16,135

AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL		
00:00	11	14			25	12:00	133	107			240		
00:15	20	13			33	12:15	150	104			254		
00:30	11	19			30	12:30	126	114			240		
00:45	13	55	17	63	30	118	12:45	161	570	83	408	244	978
01:00	4	19			23		13:00	137	93			230	
01:15	20	12			32		13:15	146	96			242	
01:30	5	12			17		13:30	130	107			237	
01:45	7	36	15	58	22	94	13:45	146	559	108	404	254	963
02:00	2	21			23		14:00	110	147			257	
02:15	3	24			27		14:15	116	111			227	
02:30	2	5			7		14:30	137	170			307	
02:45	6	13	9	59	15	72	14:45	130	493	180	608	310	1101
03:00	9	8			17		15:00	146	114			260	
03:15	8	14			22		15:15	127	107			234	
03:30	11	27			38		15:30	156	152			308	
03:45	28	56	26	75	54	131	15:45	156	585	149	522	305	1107
04:00	10	23			33		16:00	143	128			271	
04:15	10	32			42		16:15	125	167			292	
04:30	30	33			63		16:30	141	142			283	
04:45	35	85	41	129	76	214	16:45	143	552	190	627	333	1179
05:00	32	32			64		17:00	118	256			374	
05:15	35	37			72		17:15	121	198			319	
05:30	68	51			119		17:30	99	210			309	
05:45	73	208	67	187	140	395	17:45	127	465	158	822	285	1287
06:00	65	56			121		18:00	117	263			380	
06:15	122	40			162		18:15	104	237			341	
06:30	163	101			264		18:30	103	191			294	
06:45	216	566	132	329	348	895	18:45	100	424	171	862	271	1286
07:00	149	67			216		19:00	86	108			194	
07:15	195	68			263		19:15	75	118			193	
07:30	209	71			280		19:30	86	86			172	
07:45	269	822	78	284	347	1106	19:45	56	303	59	371	115	674
08:00	196	74			270		20:00	48	62			110	
08:15	168	75			243		20:15	46	47			93	
08:30	153	82			235		20:30	48	29			77	
08:45	147	664	56	287	203	951	20:45	30	172	31	169	61	341
09:00	144	84			228		21:00	37	54			91	
09:15	160	91			251		21:15	49	41			90	
09:30	126	77			203		21:30	41	33			74	
09:45	94	524	74	326	168	850	21:45	30	157	30	158	60	315
10:00	91	58			149		22:00	47	41			88	
10:15	89	88			177		22:15	19	23			42	
10:30	121	79			200		22:30	33	31			64	
10:45	103	404	93	318	196	722	22:45	33	132	30	125	63	257
11:00	106	111			217		23:00	31	15			46	
11:15	78	73			151		23:15	25	49			74	
11:30	135	90			225		23:30	15	10			25	
11:45	197	516	125	399	322	915	23:45	13	84	26	100	39	184
TOTALS	3949	2514			6463		TOTALS	4496	5176			9672	
SPLIT %	61.1%	38.9%			40.1%		SPLIT %	46.5%	53.5%			59.9%	

DAILY TOTALS		NB	SB	EB	WB	Total
		8,445	7,690	0	0	16,135

AM Peak Hour	07:15	11:45			07:15	PM Peak Hour	15:00	17:30			16:45
AM Pk Volume	869	450			1160	PM Pk Volume	585	868			1335
Pk Hr Factor	0.808	0.900			0.836	Pk Hr Factor	0.938	0.825			0.892
7 - 9 Volume	1486	571	0	0	2057	4 - 6 Volume	1017	1449	0	0	2466
7 - 9 Peak Hour	07:15	07:45			07:15	4 - 6 Peak Hour	16:00	16:45			16:45
7 - 9 Pk Volume	869	309	0	0	1160	4 - 6 Pk Volume	552	854	0	0	1335
Pk Hr Factor	0.808	0.942	0.000	0.000	0.836	Pk Hr Factor	0.965	0.834	0.000	0.000	0.892

VOLUME

Buena Vista St Bet. Bateman Ave/Avenida Barbosa & Miguel Miranda Ave

Day: Thursday
Date: 3/24/2016City: Irwindale
Project #: CA16_5175_002

DAILY TOTALS					NB	SB					Total			
					0	0					8,613			
							5,067		3,546					
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00			6	6	12	12:00			59	59	118			
00:15			2	6	8	12:15			63	44	107			
00:30			9	7	16	12:30			59	39	98			
00:45			3	20	3	22	12:45		93	274	40	182	133	456
01:00			0	3	3	13:00			64	36	100			
01:15			2	2	4	13:15			65	51	116			
01:30			2	3	5	13:30			84	49	133			
01:45			0	4	5	13	13:45		58	271	63	199	121	470
02:00			0	4	4	14:00			75	64	139			
02:15			2	6	8	14:15			75	63	138			
02:30			1	1	2	14:30			126	63	189			
02:45			3	6	1	12	14:45		105	381	66	256	171	637
03:00			0	3	3	15:00			112	64	176			
03:15			0	0	0	15:15			83	60	143			
03:30			3	3	6	15:30			108	72	180			
03:45			5	8	1	7	15:45		134	437	83	279	217	716
04:00			3	8	11	16:00			103	91	194			
04:15			2	5	7	16:15			89	95	184			
04:30			3	10	13	16:30			111	95	206			
04:45			9	17	7	30	16:45		102	405	101	382	203	787
05:00			13	12	25	17:00			88	151	239			
05:15			14	13	27	17:15			93	127	220			
05:30			23	11	34	17:30			87	133	220			
05:45			37	87	16	52	17:45		86	354	106	517	192	871
06:00			38	12	50	18:00			90	106	196			
06:15			88	15	103	18:15			76	99	175			
06:30			98	23	121	18:30			79	76	155			
06:45			134	358	27	77	18:45		79	324	70	351	149	675
07:00			94	33	127	19:00			68	61	129			
07:15			128	40	168	19:15			60	48	108			
07:30			134	35	169	19:30			32	48	80			
07:45			168	524	44	152	19:45		39	199	35	192	74	391
08:00			141	49	190	20:00			39	27	66			
08:15			110	50	160	20:15			23	26	49			
08:30			103	46	149	20:30			25	19	44			
08:45			94	448	40	185	20:45		13	100	15	87	28	187
09:00			91	36	127	21:00			16	18	34			
09:15			80	40	120	21:15			20	15	35			
09:30			69	19	88	21:30			29	21	50			
09:45			43	283	33	128	21:45		14	79	14	68	28	147
10:00			48	22	70	22:00			30	13	43			
10:15			36	36	72	22:15			17	11	28			
10:30			52	31	83	22:30			16	13	29			
10:45			35	171	43	132	22:45		12	75	10	47	22	122
11:00			51	44	95	23:00			12	7	19			
11:15			53	32	85	23:15			10	5	15			
11:30			46	38	84	23:30			7	5	12			
11:45			54	204	41	155	23:45		9	38	4	21	13	59
TOTALS				2130	965	3095	TOTALS			2937	2581	5518		
SPLIT %				68.8%	31.2%	35.9%	SPLIT %			53.2%	46.8%	64.1%		

DAILY TOTALS					NB	SB					Total
					0	0					8,613
							5,067		3,546		

AM Peak Hour			07:15	07:45	07:15	PM Peak Hour			15:00	17:00	16:45
AM Pk Volume			571	189	739	PM Pk Volume			437	517	882
Pk Hr Factor			0.850	0.945	0.871	Pk Hr Factor			0.815	0.856	0.923
7 - 9 Volume	0	0	972	337	1309	4 - 6 Volume	0	0	759	899	1658
7 - 9 Peak Hour			07:15	07:45	07:15	4 - 6 Peak Hour			16:00	17:00	16:45
7 - 9 Pk Volume	0	0	571	189	739	4 - 6 Pk Volume	0	0	405	517	882
Pk Hr Factor	0.000	0.000	0.850	0.945	0.871	Pk Hr Factor	0.000	0.000	0.912	0.856	0.923

VOLUME

Live Oak Ave Bet. Arrow Hwy & Speedway Dr

Day: Thursday
Date: 3/24/2016City: Irwindale
Project #: CA16_5175_005

DAILY TOTALS					NB	SB					Total			
					0	0	17,144		14,058		31,202			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL			
00:00			30	39	69	12:00			173	208	381			
00:15			29	28	57	12:15			199	226	425			
00:30			33	28	61	12:30			181	204	385			
00:45			35	127	19	114	12:45		205	758	222	860	427	1618
01:00			28	24	52	13:00			164	156	320			
01:15			20	15	35	13:15			183	201	384			
01:30			20	22	42	13:30			212	224	436			
01:45			30	98	28	89	13:45		164	723	266	847	430	1570
02:00			30	19	49	14:00			230	250	480			
02:15			36	14	50	14:15			252	217	469			
02:30			18	12	30	14:30			290	191	481			
02:45			28	112	19	64	14:45		268	1040	204	862	472	1902
03:00			23	32	55	15:00			273	193	466			
03:15			27	21	48	15:15			282	174	456			
03:30			37	21	58	15:30			330	177	507			
03:45			41	128	23	97	15:45		329	1214	213	757	542	1971
04:00			48	15	63	16:00			462	185	647			
04:15			51	31	82	16:15			497	208	705			
04:30			75	41	116	16:30			558	223	781			
04:45			84	258	74	161	16:45		543	2060	218	834	761	2894
05:00			93	76	169	17:00			625	222	847			
05:15			108	70	178	17:15			579	237	816			
05:30			143	81	224	17:30			581	227	808			
05:45			162	506	164	391	17:45		614	2399	229	915	843	3314
06:00			134	142	276	18:00			440	231	671			
06:15			130	209	339	18:15			427	202	629			
06:30			151	231	382	18:30			373	214	587			
06:45			144	559	243	825	18:45		287	1527	190	837	477	2364
07:00			156	288	444	19:00			223	180	403			
07:15			172	335	507	19:15			252	170	422			
07:30			185	295	480	19:30			204	106	310			
07:45			207	720	267	1185	19:45		189	868	123	579	312	1447
08:00			187	275	462	20:00			153	102	255			
08:15			229	261	490	20:15			140	95	235			
08:30			213	230	443	20:30			119	117	236			
08:45			219	848	239	1005	20:45		94	506	121	435	215	941
09:00			164	201	365	21:00			71	131	202			
09:15			157	196	353	21:15			94	134	228			
09:30			174	230	404	21:30			100	125	225			
09:45			164	659	161	788	21:45		70	335	118	508	188	843
10:00			162	161	323	22:00			84	120	204			
10:15			176	143	319	22:15			55	93	148			
10:30			150	159	309	22:30			58	98	156			
10:45			147	635	127	590	22:45		63	260	71	382	134	642
11:00			175	160	335	23:00			57	54	111			
11:15			143	161	304	23:15			36	56	92			
11:30			169	199	368	23:30			31	42	73			
11:45			158	645	220	740	23:45		35	159	41	193	76	352
TOTALS			5295	6049	11344	TOTALS			11849	8009	19858			
SPLIT %			46.7%	53.3%	36.4%	SPLIT %			59.7%	40.3%	63.6%			

DAILY TOTALS					NB	SB					Total
					0	0	17,144		14,058		31,202

AM Peak Hour			08:00	07:00	07:15	PM Peak Hour			17:00	13:30	17:00
AM Pk Volume			848	1185	1923	PM Pk Volume			2399	957	3314
Pk Hr Factor			0.926	0.884	0.948	Pk Hr Factor			0.960	0.899	0.978
7 - 9 Volume	0	0	1568	2190	3758	4 - 6 Volume	0	0	4459	1749	6208
7 - 9 Peak Hour			08:00	07:00	07:15	4 - 6 Peak Hour			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	848	1185	1923	4 - 6 Pk Volume	0	0	2399	915	3314
Pk Hr Factor	0.000	0.000	0.926	0.884	0.948	Pk Hr Factor	0.000	0.000	0.960	0.965	0.978

APPENDIX B

EXISTING TRAFFIC CONDITIONS (YEAR 2016) LOS ANALYSIS WORKSHEETS

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 [AM Peak]

Average Delay (sec/veh): 23.1 Worst Case Level Of Service: F[72.7]

Street Name: I-605 NB Off Ramp Live Oak Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0

Volume Module:AM Peak

Base Vol: 0 0 0 0 0 533 0 0 0 0 1146 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 533 0 0 0 0 1146 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 533 0 0 0 0 1146 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 0 0 0 0 533 0 0 0 0 1146 0

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:

Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 573 xxxx xxxx xxxxx xxxx xxxx xxxxx

Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 523 xxxx xxxx xxxxx xxxx xxxx xxxxx

Move Cap.: xxxx xxxx xxxxx xxxx xxxx 523 xxxx xxxx xxxxx xxxx xxxx xxxxx

Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.02 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 14.8 xxxx xxxx xxxxx xxxx xxxx xxxxx

Control Del:xxxxx xxxx xxxxx xxxxx xxxx 72.7 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: * * * * * F * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxxx

SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx

Shared LOS: * * * * * * * * * * *

ApproachDel: xxxxxx 72.7 xxxxxx xxxxxx

ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Existing Traffic Condition [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.514
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 34 Level Of Service: A

Street Name: I-605 SB On Ramp				Live Oak Ave			
Approach: North Bound		South Bound		East Bound		West Bound	
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted	Protected		
Rights:	Include	Include	Ignore	Include			
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	0.0 0.0 0.0	0.0 0.0 0.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 2 0 1	1 0 2 0 0			

Volume Module:AM Peak

Base Vol:	0 0 0	0 0 0	0 244 465	541 1209	0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 244 465	541 1209	0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	0 0 0	0 0 0	0 244 0	541 1209 0	0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	0 0 0	0 244 0	541 1209 0	0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	0 0 0	0 0 0	0 244 0	541 1209 0	0

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	0.00 0.00 0.00	0.00 0.00 0.00	0.00 2.00 1.00	1.00 2.00 0.00	
Final Sat.:	0 0 0	0 0 0	0 3200 1600	1600 3200 0	

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.08 0.00	0.34 0.38 0.00	
Crit Moves:			****	****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Existing Traffic Condition [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.468
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: A

Table with columns for Street Name (Speedway Dr, Live Oak Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:AM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module:
Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.861

Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 170 Level Of Service: D

Street Name: Live Oak Ave Arrow Hwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Protected

Rights: Include Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 2 0 0

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Volume Module:AM Peak

Base Vol: 968 0 180 0 0 0 0 389 578 97 1467 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 968 0 180 0 0 0 0 389 578 97 1467 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Volume: 968 0 180 0 0 0 0 389 0 97 1467 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 968 0 180 0 0 0 0 389 0 97 1467 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

FinalVolume: 968 0 180 0 0 0 0 389 0 97 1467 0

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 3200 3200 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.30 0.00 0.11 0.00 0.00 0.00 0.00 0.12 0.00 0.03 0.46 0.00

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Existing Traffic Condition [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.783
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 63 Level Of Service: C

Street Name:		Avenida Barbosa																			
Approach:		North Bound				South Bound				East Bound				West Bound							
Movement:		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R					
Control:		Protected				Permitted				Protected				Permitted							
Rights:		Include				Include				Include				Include							
Min. Green:		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	0	0	2	0	1

Volume Module:AM Peak

Base Vol:	0	0	0	151	0	148	239	308	0	0	1410	583
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	151	0	148	239	308	0	0	1410	583
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	151	0	148	239	308	0	0	1410	583
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	151	0	148	239	308	0	0	1410	583
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	151	0	148	239	308	0	0	1410	583

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.09	0.15	0.10	0.00	0.00	0.44	0.36
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Existing Traffic Condition [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.803
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 67 Level Of Service: D

Street Name: I-605 SB Off Ramp												Arrow Hwy																			
Approach: North Bound												South Bound				East Bound				West Bound											
Movement: L - T - R												L - T - R				L - T - R				L - T - R											
Control:												Permitted				Protected				Permitted				Permitted							
Rights:												Include				Ignore				Include				Include							
Min. Green:												0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:												0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:												0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	0	0	2	0	0

Volume Module:AM Peak

Base Vol:	0	0	0	391	0	515	0	456	0	0	1468	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	391	0	515	0	456	0	0	1468	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	391	0	0	0	456	0	0	1468	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	391	0	0	0	456	0	0	1468	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	391	0	0	0	456	0	0	1468	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.10	0.00	0.00	0.46	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.409
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 29 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Bateman Ave/Avenida Barbosa and Alpha St/Buena Vista Ave with various movement and control details.

-----|-----|-----|-----|-----|-----|

Volume Module:AM

Table showing traffic volume data for various movements and adjustments, including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

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Saturation Flow Module:

Table showing saturation flow data for lanes, including Sat/Lane, Adjustment, Lanes, and Final Sat.

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Capacity Analysis Module:

Table showing capacity analysis data, including Vol/Sat and Crit Moves.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Existing Traffic Condition [AM Peak]

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B[10.1]

Table with columns for Street Name (Bateman Ave, Meridian St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module: AM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across four approaches.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim across four approaches.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across four approaches.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across four approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 [AM Peak]

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[11.4]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include Miguel Miranda Ave and Buena Vista Ave with various traffic configurations.

Volume Module:AM
Table showing traffic volume data including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume for various movements.

Critical Gap Module:
Table showing critical gap and follow-up time data for different movements.

Capacity Module:
Table showing capacity-related data such as Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module:
Table showing level of service data including 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #10 [AM Peak]

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: A[8.6]

Street Name:	Miguel Miranda Ave						Meridian St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	0	1	0

Volume Module:AM Peak

Base Vol:	13	0	1	0	0	0	0	0	21	3	1	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	1	0	0	0	0	0	21	3	1	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	0	1	0	0	0	0	0	21	3	1	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	0	1	0	0	0	0	0	21	3	1	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	7	7	0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	21	xxxx	xxxxx
Potent Cap.:	1019	892	900	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1608	xxxx	xxxxx
Move Cap.:	1018	890	900	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1608	xxxx	xxxxx
Volume/Cap:	0.01	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	1008	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Existing Traffic Condition [PM Peak]

Average Delay (sec/veh): 27.0 Worst Case Level Of Service: F[68.8]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:PM Peak
Base Vol: 0 0 0 0 0 0 609 0 0 0 0 0 944 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 609 0 0 0 0 0 944 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 609 0 0 0 0 0 944 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 0 609 0 0 0 0 0 944 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 472 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 596 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 596 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.02 xxxx xxxx xxxx xxxx xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 15.9 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 68.8 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 68.8 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Existing Traffic Condition [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.804
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: D

Street Name: I-605 SB On Ramp Live Oak Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|

Control: Permitted Permitted Permitted Protected

Rights: Include Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 0.0 0.0 0.0 0.0 0.0 0.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

-----|-----|-----|-----|-----|

Volume Module:PM Peak

Base Vol: 0 0 0 0 0 0 0 1204 1143 524 1019 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 0 0 1204 1143 524 1019 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 1204 0 524 1019 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 1204 0 524 1019 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 1204 0 524 1019 0

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 3200 1600 1600 3200 0

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.38 0.00 0.33 0.32 0.00

Crit Moves: **** *

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #3 Existing Traffic Condition [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.678
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

Street Name:	Speedway Dr						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	0	0	0	0	0	2	1	0	2

Volume Module:PM Peak

Base Vol:	7	0	9	0	0	0	0	2331	69	116	913	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	0	9	0	0	0	0	2331	69	116	913	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	0	9	0	0	0	0	2331	69	116	913	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	9	0	0	0	0	2331	69	116	913	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	0	9	0	0	0	0	2331	69	116	913	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.91	0.09	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4662	138	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.50	0.50	0.07	0.29	0.00
Crit Moves:	****						****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Existing Traffic Condition [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.672
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 47 Level Of Service: B

Street Name: Live Oak Ave Arrow Hwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Protected
Rights: Ignore Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 2 0 0

Volume Module:PM
Base Vol: 776 0 101 0 0 0 0 804 2148 250 735 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 776 0 101 0 0 0 0 804 2148 250 735 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 776 0 0 0 0 0 0 804 0 250 735 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 776 0 0 0 0 0 0 804 0 250 735 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
FinalVolume: 776 0 0 0 0 0 0 804 0 250 735 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 3200 3200 0

Capacity Analysis Module:
Vol/Sat: 0.24 0.00 0.00 0.00 0.00 0.00 0.00 0.25 0.00 0.08 0.23 0.00
Crit Moves: **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Existing Traffic Condition [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.663
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: B

Street Name:		Avenida Barbosa								Arrow Hwy												
Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	T	R	L	T	R	L	T	R	L	T	R										
Control:	Protected			Permitted			Protected			Permitted												
Rights:	Include			Include			Include			Include												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0										
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0										
Lanes:	0	0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	0	0	0	2	0	1

Volume Module:PM Peak

Base Vol:	0	0	0	490	0	331	237	674	0	0	665	227
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	490	0	331	237	674	0	0	665	227
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	490	0	331	237	674	0	0	665	227
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	490	0	331	237	674	0	0	665	227
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	490	0	331	237	674	0	0	665	227

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.21	0.15	0.21	0.00	0.00	0.21	0.14
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Existing Traffic Condition [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.461
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 31 Level Of Service: A

Street Name: I-605 SB Off Ramp												Arrow Hwy									
Approach: North Bound				South Bound				East Bound				West Bound									
Movement: L - T - R												L - T - R				L - T - R					
Control: Protected				Protected				Permitted				Permitted									
Rights: Include				Ignore				Include				Include									
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0						
Lanes:	0	0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	0	0	2	0	0

Volume Module:PM Peak

Base Vol:	0	0	0	185	0	461	0	1180	0	0	435	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	185	0	461	0	1180	0	0	435	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	185	0	0	0	1180	0	0	435	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	185	0	0	0	1180	0	0	435	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	185	0	0	0	1180	0	0	435	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.25	0.00	0.00	0.14	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Existing Traffic Condition [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.582
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 39 Level Of Service: A

Street Name:	Bateman Ave/Avenida Barbosa						Alpha St/Buena Vista Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:PM

Base Vol:	18	126	343	14	258	5	2	12	74	497	10	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	126	343	14	258	5	2	12	74	497	10	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	126	343	14	258	5	2	12	74	497	10	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	126	343	14	258	5	2	12	74	497	10	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	126	343	14	258	5	2	12	74	497	10	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.12	0.88	2.00	0.05	0.93	0.02	1.00	1.00	1.00	2.00	0.48	0.52
Final Sat.:	200	1400	3200	81	1490	29	1600	1600	1600	3200	762	838

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.11	0.17	0.17	0.17	0.00	0.01	0.05	0.16	0.01	0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Existing Traffic Condition [PM Peak]

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[10.1]

Table with columns for Street Name (Bateman Ave, Meridian St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module: PM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across four approaches.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim across four approaches.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across four approaches.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across four approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #9 Existing Traffic Condition [PM Peak]

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B [13.0]

Street Name:	Miguel Miranda Ave						Buena Vista Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	1	0	2	0	0	1

Volume Module:PM

Base Vol:	0	0	0	15	0	11	4	366	0	0	501	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	15	0	11	4	366	0	0	501	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	15	0	11	4	366	0	0	501	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	15	0	11	4	366	0	0	501	11

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	698	881	256	512	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	379	288	749	1064	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	378	287	749	1064	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.04	0.00	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	478	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxxx			13.0			xxxxxxx			xxxxxxx		
ApproachLOS:	*			B			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Existing Traffic Condition [PM Peak]

Average Delay (sec/veh): 5.6 Worst Case Level Of Service: A[9.1]

Street Name: Meridian Ave Miguel Miranda Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 1 0 0 0

Volume Module: PM Peak
Base Vol: 17 0 1 0 0 0 0 0 0 11 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 17 0 1 0 0 0 0 0 0 11 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 17 0 1 0 0 0 0 0 0 11 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Final Volume: 17 0 1 0 0 0 0 0 0 11 0 0 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: 0 0 0 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: 900 900 900 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx
Move Cap.: 900 900 900 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: 0.02 0.00 0.00 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx 900 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
SharedQueue: xxxxx 0.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx
Shrd ConDel: xxxxx 9.1 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.0 xxxxx xxxxx
Shared LOS: * A * * * * * * * * * A * *
ApproachDel: 9.1 xxxxxxx xxxxxxx xxxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

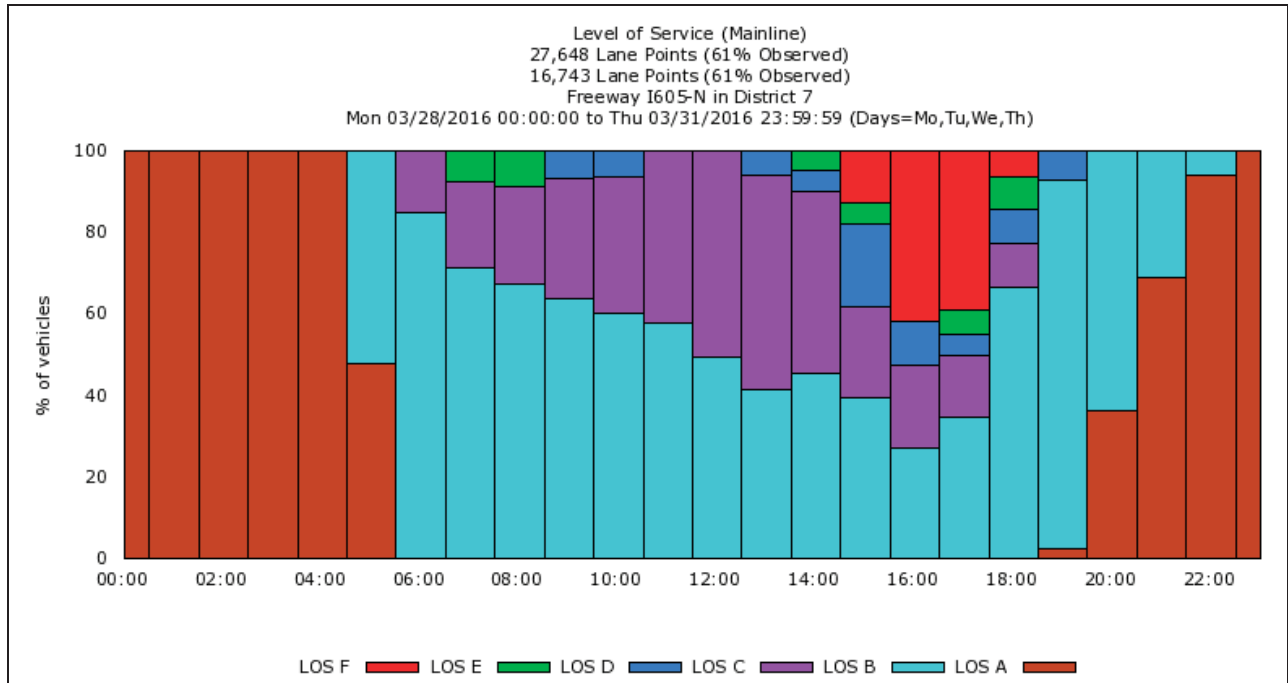
APPENDIX C

CALTRANS PEMS REPORTS

*Traffic Study Report
United Rock Pit No. 3 Project*

LIN Consulting, Inc.

Traffic, Civil, Electrical Consulting Engineers





Time	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	# Lane Points Observed	% Observed
00:00	100.00	0.00	0.00	0	0.0	0.0	1,152	61.5
01:00	100.00	0.00	0.00	0	0.0	0.0	1,152	61.5
02:00	100.00	0.00	0.00	0	0.0	0.0	1,152	61.5
03:00	100.00	0.00	0.00	0	0.0	0.0	1,152	61.5
04:00	100.00	0.00	0.00	0	0.0	0.0	1,152	61.4
05:00	47.80	52.20	0.00	0	0.0	0.0	1,152	61.5
06:00	0.00	84.68	15.33	0	0.0	0.0	1,152	61.5
07:00	0.00	71.43	21.08	0	7.5	0.0	1,152	61.5
08:00	0.00	67.35	24.08	0	8.6	0.0	1,152	61.5
09:00	0.00	63.93	29.23	7	0.0	0.0	1,152	61.5
10:00	0.00	60.15	33.60	6	0.0	0.0	1,152	61.5
11:00	0.00	57.93	42.08	0	0.0	0.0	1,152	61.5
12:00	0.00	49.53	50.48	0	0.0	0.0	1,152	56.6
13:00	0.00	41.58	52.50	6	0.0	0.0	1,152	61.5
14:00	0.00	45.30	44.60	5	4.7	0.0	1,152	61.5
15:00	0.00	39.38	22.53	20	5.2	12.9	1,152	61.5
16:00	0.00	27.03	20.45	11	0.0	42.0	1,152	61.5
17:00	0.00	34.53	15.13	5	6.1	39.1	1,152	60.9
18:00	0.00	66.65	10.75	8	8.0	6.3	1,152	61.0
19:00	2.43	90.35	0.00	7	0.0	0.0	1,152	61.5
20:00	36.15	63.85	0.00	0	0.0	0.0	1,152	61.5
21:00	68.95	31.05	0.00	0	0.0	0.0	1,152	61.5
22:00	94.03	5.98	0.00	0	0.0	0.0	1,152	61.5
23:00	100.00	0.00	0.00	0	0.0	0.0	1,152	45.8

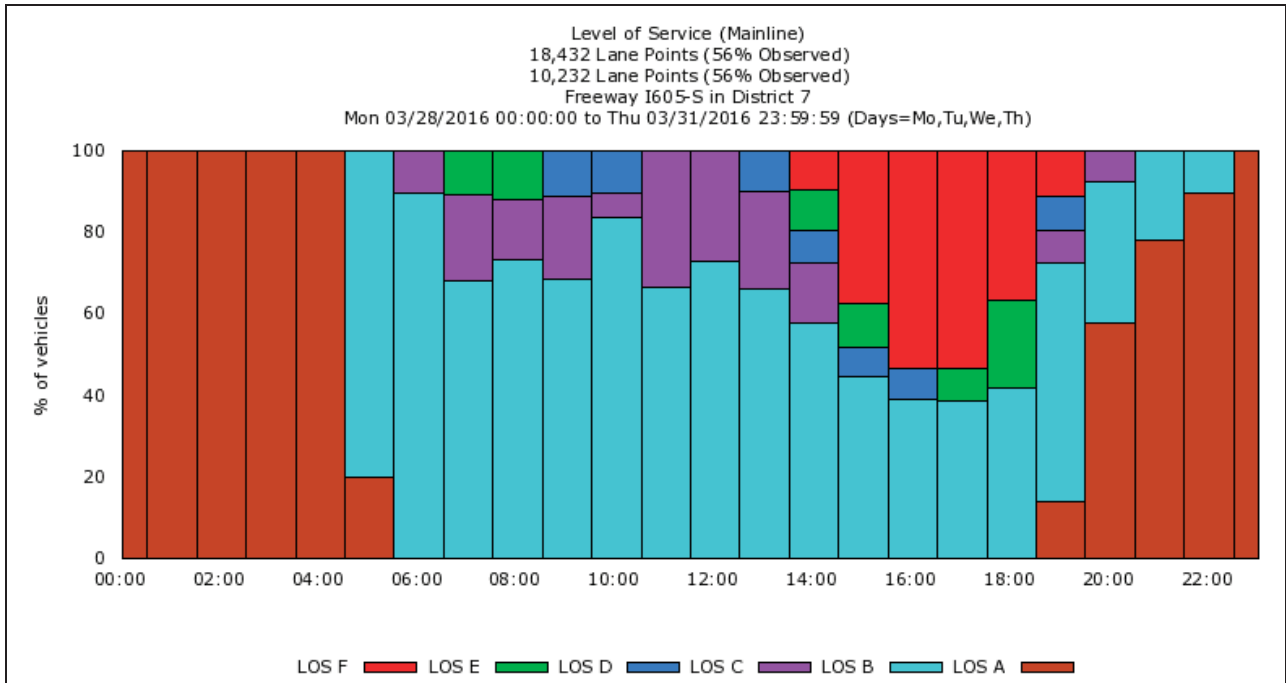


PeMS Report Description

Report	Level of Service>Time of Day
Report link	http://pems.dot.ca.gov/?report_form=1&dnode=Freeway&content=los&tab=los_tod&fwy=605&dir=N&district_id=7&s_time_id=1459123200&s_time_id_f=03%2F28%2F2016&e_time_id=1459468740&e_time_id_f=03%2F31%2F2016&dow_1=on&dow_2=on&dow_3=on&dow_4=on&los_f=&los_l=A&station_type=ML&start_pm=24.4&end_pm=26.6
Report generated	01/27/2017 16:44
PeMS version	caltrans_pems-15.1.0

Report Parameters

Parameter	Value
Data	27,648 Lane Points
Data Quality	60.6% Observed
Segment Type	Freeway
Segment Name	I605-N
Absolute PM Start	24.4
Absolute PM End	26.6
start date	03/28/2016 00:00:00
end date	03/31/2016 23:59:59





Time	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	# Lane Points Observed	%
00:00	100.00	0.00	0.00	0	0.0	0.0	768	56.3
01:00	100.00	0.00	0.00	0	0.0	0.0	768	56.3
02:00	100.00	0.00	0.00	0	0.0	0.0	768	56.3
03:00	100.00	0.00	0.00	0	0.0	0.0	768	56.3
04:00	100.00	0.00	0.00	0	0.0	0.0	768	56.3
05:00	20.05	79.95	0.00	0	0.0	0.0	768	56.3
06:00	0.00	89.80	10.20	0	0.0	0.0	768	56.3
07:00	0.00	68.23	21.03	0	10.7	0.0	768	56.3
08:00	0.00	73.30	14.70	0	12.0	0.0	768	56.3
09:00	0.00	68.65	20.35	11	0.0	0.0	768	56.3
10:00	0.00	83.50	6.13	10	0.0	0.0	768	56.3
11:00	0.00	66.60	33.40	0	0.0	0.0	768	56.3
12:00	0.00	72.80	27.20	0	0.0	0.0	768	52.6
13:00	0.00	66.28	23.70	10	0.0	0.0	768	56.3
14:00	0.00	57.93	14.58	8	9.8	9.7	768	56.3
15:00	0.00	44.68	0.00	7	10.6	37.5	768	56.3
16:00	0.00	38.95	0.00	8	0.0	53.4	768	56.3
17:00	0.00	38.63	0.00	0	8.0	53.4	768	56.3
18:00	0.00	42.03	0.00	0	21.2	36.8	768	56.3
19:00	13.75	58.95	7.95	8	0.0	11.0	768	56.3
20:00	57.85	34.65	7.50	0	0.0	0.0	768	56.3
21:00	78.00	22.00	0.00	0	0.0	0.0	768	56.3
22:00	89.68	10.33	0.00	0	0.0	0.0	768	56.3
23:00	100.00	0.00	0.00	0	0.0	0.0	768	42.2



PeMS Report Description

Report	Level of Service>Time of Day
Report link	http://pems.dot.ca.gov/?report_form=1&dnode=Freeway&content=los&tab=los_tod&fwy=605&dir=S&district_id=7&s_time_id=1459123200&s_time_id_f=03%2F28%2F2016&e_time_id=1459468740&e_time_id_f=03%2F31%2F2016&dow_1=on&dow_2=on&dow_3=on&dow_4=on&los_f=&los_l=A&station_type=ML&start_pm=24.4&end_pm=26.6
Report generated	01/27/2017 14:36
PeMS version	caltrans_pems-15.1.0

Report Parameters

Parameter	Value
Data	18,432 Lane Points
Data Quality	55.5% Observed
Segment Type	Freeway
Segment Name	I605-S
Absolute PM Start	24.4
Absolute PM End	26.6
start date	03/28/2016 00:00:00
end date	03/31/2016 23:59:59

APPENDIX D

EXISTING PLUS PROJECT (NEW ACCESS ROAD WEST) TRAFFIC CONDITIONS (YEAR 2016) LOS ANALYSIS WORKSHEETS

*Traffic Study Report
United Rock Pit No. 3 Project*

LIN Consulting, Inc.

Traffic, Civil, Electrical Consulting Engineers

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Existing Traffic Condition + Project_West [AM Peak]

Average Delay (sec/veh): 25.3 Worst Case Level Of Service: F[78.6]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:AM Peak
Base Vol: 0 0 0 0 0 544 0 0 0 0 1146 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 544 0 0 0 0 1146 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 544 0 0 0 0 1146 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 544 0 0 0 0 1146 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 573 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 523 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 523 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.04 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 15.7 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 78.6 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 78.6 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Existing Traffic Condition + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.514
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 34 Level Of Service: A

Street Name:	I-605 SB On Ramp						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	2	0	1	0

Volume Module:AM Peak												
Base Vol:	0	0	0	0	0	0	0	244	475	541	1220	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	244	475	541	1220	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	244	0	541	1220	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	244	0	541	1220	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	244	0	541	1220	0

Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	1600	3200	0

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.34	0.38	0.00
Crit Moves:								****			****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Existing Traffic Condition + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.472
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 43 Level Of Service: A

Street Name:	Speedway Dr						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	0	0	0	0	0	2	1	0	2

Volume Module:AM Peak

Base Vol:	2	0	1	0	0	0	0	764	1	3	1188	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	1	0	0	0	0	764	1	3	1188	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	0	1	0	0	0	0	764	1	3	1188	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	0	1	0	0	0	0	764	1	3	1188	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	0	1	0	0	0	0	764	1	3	1188	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.99	0.01	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4794	6	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.37	0.00
Crit Moves:	****											

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Existing Traffic Condition + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.861
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 170 Level Of Service: D

Street Name: Live Oak Ave Arrow Hwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Permitted Protected
 Rights: Ignore Include Ignore Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0
 -----|-----|-----|-----|

Volume Module:AM Peak
 Base Vol: 968 0 191 0 0 0 0 389 578 107 1467 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 968 0 191 0 0 0 0 389 578 107 1467 0
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 PHF Volume: 968 0 0 0 0 0 0 389 0 107 1467 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 968 0 0 0 0 0 0 389 0 107 1467 0
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 FinalVolume: 968 0 0 0 0 0 0 389 0 107 1467 0
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
 Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 3200 3200 0
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.30 0.00 0.00 0.00 0.00 0.00 0.00 0.12 0.00 0.03 0.46 0.00
 Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Existing Traffic Condition + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.796
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 66 Level Of Service: C

Street Name: Avenida Barbosa												Arrow Hwy									
Approach: North Bound				South Bound				East Bound				West Bound									
Movement: L - T - R				L - T - R				L - T - R				L - T - R									
Control: Protected				Permitted				Protected				Permitted									
Rights: Include				Include				Include				Include									
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0						
Lanes:	0	0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	0	0	2	0	1

Volume Module:AM Peak

Base Vol:	0	0	0	241	0	158	250	308	0	0	1410	678
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	241	0	158	250	308	0	0	1410	678
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	241	0	158	250	308	0	0	1410	678
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	241	0	158	250	308	0	0	1410	678
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	241	0	158	250	308	0	0	1410	678

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.10	0.16	0.10	0.00	0.00	0.44	0.42
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Existing Traffic Condition + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.803
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 67 Level Of Service: D

Street Name: I-605 SB Off Ramp Arrow Hwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	0	0	0	3	0	0	2

Volume Module:AM Peak

Base Vol:	0	0	0	391	0	610	0	546	0	0	1468	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	391	0	610	0	546	0	0	1468	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	391	0	0	0	546	0	0	1468	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	391	0	0	0	546	0	0	1468	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	391	0	0	0	546	0	0	1468	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.11	0.00	0.00	0.46	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Existing Traffic Condition + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.473
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 32 Level Of Service: A

Street Name:	Bateman Ave/Avenida Barbosa						Alpha St/Buena Vista Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:AM

Base Vol:	44	232	667	5	119	5	1	4	10	248	8	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	232	667	5	119	5	1	4	10	248	8	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	232	667	5	119	5	1	4	10	248	8	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	232	667	5	119	5	1	4	10	248	8	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	232	667	5	119	5	1	4	10	248	8	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.84	2.00	0.04	0.92	0.04	1.00	1.00	1.00	2.00	0.42	0.58
Final Sat.:	255	1345	3200	62	1476	62	1600	1600	1600	3200	674	926

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.21	0.08	0.08	0.08	0.00	0.00	0.01	0.08	0.01	0.01
Crit Moves:			****	****					****	****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Existing Traffic Condition + Project_West [AM Peak]

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B[10.1]

Table with columns for Street Name (Bateman Ave, Meridian St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module: AM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across four approaches.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim across four approaches.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across four approaches.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across four approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Existing Traffic Condition + Project_West [AM Peak]

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[11.4]

Table with columns for Street Name (Miguel Miranda Ave, Buena Vista Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 2).

Volume Module:AM
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movement categories.

Critical Gap Module:
Table with columns for Critical Gp, FollowUpTim, and various movement categories.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. across movement categories.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Existing Traffic Condition + Project_West [AM Peak]

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: A[9.7]

Street Name: Miguel Miranda Ave Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0

Volume Module:AM Peak
Base Vol: 13 0 1 0 0 0 0 0 105 21 3 101 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 13 0 1 0 0 0 0 0 105 21 3 101 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 13 0 1 0 0 0 0 0 105 21 3 101 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 13 0 1 0 0 0 0 0 105 21 3 101 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 223 223 116 xxxx xxxx xxxxx xxxx xxxx xxxxx 126 xxxx xxxxx
Potent Cap.: 770 680 942 xxxx xxxx xxxxx xxxx xxxx xxxxx 1473 xxxx xxxxx
Move Cap.: 769 678 942 xxxx xxxx xxxxx xxxx xxxx xxxxx 1473 xxxx xxxxx
Volume/Cap: 0.02 0.00 0.00 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.00 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.4 xxxx xxxxx
LOS by Move: * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 779 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
Shrd ConDel:xxxxx 9.7 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.4 xxxx xxxxx
Shared LOS: * A * * * * * * * * * A * *
ApproachDel: 9.7 xxxxxx xxxxxx xxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Existing Traffic Condition + Project_West [AM Peak]

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: A[9.0]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include New Access Road West and Buena Vista Ave with various movement and control details.

Volume Module:AM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume. Rows include various volume and adjustment factors.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim. Rows include gap and follow-up time values.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. Rows include capacity and volume-related metrics.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS. Rows include level of service and delay metrics.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Existing Traffic Condition + Project_West [AM Peak]

Average Delay (sec/veh): 8.0 Worst Case Level Of Service: A[8.7]

Street Name: New Access Road West Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0

Volume Module:AM Peak
Base Vol: 0 0 105 0 0 0 0 0 0 100 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 105 0 0 0 0 0 0 100 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 105 0 0 0 0 0 0 100 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 105 0 0 0 0 0 0 100 0 0

Critical Gap Module:
Critical Gp:xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx 0 xxxx xxxx xxxxx xxxx xxxx xxxxx 0 xxxx xxxxx
Potent Cap.: xxxx xxxx 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1636 xxxx xxxxx
Move Cap.: xxxx xxxx 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1636 xxxx xxxxx
Volume/Cap: xxxx xxxx 0.10 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.06 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx 0.3 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.2 xxxx xxxxx
Control Del:xxxxx xxxx 8.7 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.3 xxxx xxxxx
LOS by Move: * * A * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * *
ApproachDel: 8.7 xxxxxx xxxxxx xxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Existing Traffic Condition + Project_West [PM Peak]

Average Delay (sec/veh): 29.1 Worst Case Level Of Service: F[73.5]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:PM Peak
Base Vol: 0 0 0 0 0 0 619 0 0 0 0 0 944 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 619 0 0 0 0 0 944 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 619 0 0 0 0 0 944 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 0 619 0 0 0 0 0 944 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 472 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 596 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 596 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.04 xxxx xxxx xxxx xxxx xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 16.7 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 73.5 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 73.5 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Existing Traffic Condition + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.804
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: D

Street Name:	I-605 SB On Ramp						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	2	0	1	0

Volume Module:PM Peak

Base Vol:	0	0	0	0	0	0	0	1204	1154	524	1029	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	1204	1154	524	1029	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	1204	0	524	1029	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	1204	0	524	1029	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	1204	0	524	1029	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.33	0.32	0.00
Crit Moves:								****			****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Existing Traffic Condition + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.680
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

Street Name:	Speedway Dr						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	0	0	0	0	0	2	1	0	2

Volume Module:AM Peak

Base Vol:	7	0	9	0	0	0	0	2342	69	116	923	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	0	9	0	0	0	0	2342	69	116	923	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	0	9	0	0	0	0	2342	69	116	923	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	9	0	0	0	0	2342	69	116	923	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	0	9	0	0	0	0	2342	69	116	923	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.91	0.09	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4663	137	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.50	0.50	0.07	0.29	0.00
Crit Moves:	****						****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Existing Traffic Condition + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.675
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

Street Name: Live Oak Ave Arrow Hwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Protected Protected Permitted Protected
 Rights: Ignore Include Ignore Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 1 2 0 2 0 0
 -----|-----|-----|-----|

Volume Module:AM Peak
 Base Vol: 776 0 111 0 0 0 0 804 2148 261 735 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 776 0 111 0 0 0 0 804 2148 261 735 0
 User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 PHF Volume: 776 0 0 0 0 0 0 804 0 261 735 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 776 0 0 0 0 0 0 804 0 261 735 0
 PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 FinalVolume: 776 0 0 0 0 0 0 804 0 261 735 0
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
 Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 3200 3200 0
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.24 0.00 0.00 0.00 0.00 0.00 0.00 0.25 0.00 0.08 0.23 0.00
 Crit Moves: **** * 0.08 0.23 0.00

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Existing Traffic Condition + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.676
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

Street Name:		Avenida Barbosa															
Approach:		North Bound				South Bound				East Bound				West Bound			
Movement:		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	
Control:		Protected				Permitted				Protected				Permitted			
Rights:		Include				Include				Include				Include			
Min. Green:		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	
		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	

Volume Module:AM Peak

Base Vol:	0	0	0	585	0	342	247	674	0	0	665	317
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	585	0	342	247	674	0	0	665	317
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	585	0	342	247	674	0	0	665	317
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	585	0	342	247	674	0	0	665	317
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	585	0	342	247	674	0	0	665	317

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.21	0.15	0.21	0.00	0.00	0.21	0.20
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing Traffic Condition + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.481
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 32 Level Of Service: A

Street Name: I-605 SB Off Ramp												Arrow Hwy									
Approach: North Bound				South Bound				East Bound				West Bound									
Movement: L - T - R				L - T - R				L - T - R				L - T - R									
Control: Protected				Protected				Permitted				Permitted									
Rights: Include				Ignore				Include				Include									
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0						
Lanes:	0	0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	0	0	2	0	0

Volume Module:PM Peak

Base Vol:	0	0	0	185	0	551	0	1275	0	0	435	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	185	0	551	0	1275	0	0	435	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	185	0	0	0	1275	0	0	435	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	185	0	0	0	1275	0	0	435	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	185	0	0	0	1275	0	0	435	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.27	0.00	0.00	0.14	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Existing Traffic Condition + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.646
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Street Name: Bateman Ave/Avenida Barbosa Alpha St/Buena Vista Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 1 0 0 2 0 0 1! 0 0 1 0 1 1 0 2 0 0 1 0

Volume Module:AM
Base Vol: 18 126 443 14 258 5 2 12 74 602 10 11
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 18 126 443 14 258 5 2 12 74 602 10 11
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 18 126 443 14 258 5 2 12 74 602 10 11
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 18 126 443 14 258 5 2 12 74 602 10 11
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 18 126 443 14 258 5 2 12 74 602 10 11

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.12 0.88 2.00 0.05 0.93 0.02 1.00 1.00 1.00 2.00 0.48 0.52
Final Sat.: 200 1400 3200 81 1490 29 1600 1600 1600 3200 762 838

Capacity Analysis Module:
Vol/Sat: 0.09 0.09 0.14 0.17 0.17 0.17 0.00 0.01 0.05 0.19 0.01 0.01
Crit Moves: **** * 0.05 0.19 0.01 0.01

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Existing Traffic Condition + Project_West [PM Peak]

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[10.1]

Table with columns for Street Name (Bateman Ave, Meridian St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module: AM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across four approaches.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim across four approaches.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across four approaches.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across four approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Existing Traffic Condition + Project_West [PM Peak]

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[13.0]

Street Name:	Miguel Miranda Ave						Buena Vista Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1! 0	1	0	2	0	0	1

Volume Module:AM

Base Vol:	0	0	0	15	0	11	4	366	0	0	501	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	15	0	11	4	366	0	0	501	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	15	0	11	4	366	0	0	501	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	15	0	11	4	366	0	0	501	11

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	698	881	256	512	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	379	288	749	1064	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	378	287	749	1064	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.04	0.00	0.01	0.00	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	478	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			13.0			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Existing Traffic Condition + Project_West [PM Peak]

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[9.7]

Street Name: Miguel Miranda Ave Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 0 0 0 1 0 0 0 0 0

Volume Module:AM Peak
Base Vol: 17 0 1 0 0 0 0 0 100 11 0 105 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 17 0 1 0 0 0 0 0 100 11 0 105 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 17 0 1 0 0 0 0 0 100 11 0 105 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 17 0 1 0 0 0 0 0 100 11 0 105 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: 211 211 106 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: 782 690 954 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: 782 690 954 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: 0.02 0.00 0.00 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 790 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx 9.7 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * A * * * * * * * * * * * * * * * *
ApproachDel: 9.7 xxxxxx xxxxxx xxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Existing Traffic Condition + Project_West [PM Peak]

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: A[9.8]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include New Access Road West and Buena Vista Ave with various traffic configurations.

Volume Module: AM Peak. Table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across different approaches.

Critical Gap Module. Table showing Critical Gp and FollowUpTim values for different approaches.

Capacity Module. Table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for different approaches.

Level Of Service Module. Table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Existing Traffic Condition + Project_West [PM Peak]

Average Delay (sec/veh): 8.0 Worst Case Level Of Service: A[8.6]

Street Name: New Access Road West Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0

Volume Module:AM Peak
Base Vol: 0 0 100 0 0 0 0 0 0 105 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 100 0 0 0 0 0 0 105 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 100 0 0 0 0 0 0 105 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 100 0 0 0 0 0 0 105 0 0

Critical Gap Module:
Critical Gp:xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx 0 xxxx xxxx xxxxx xxxx xxxx xxxxx 0 xxxx xxxxx
Potent Cap.: xxxx xxxx 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1636 xxxx xxxxx
Move Cap.: xxxx xxxx 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1636 xxxx xxxxx
Volume/Cap: xxxx xxxx 0.09 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.06 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx 0.3 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.2 xxxx xxxxx
Control Del:xxxxx xxxx 8.6 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.4 xxxx xxxxx
LOS by Move: * * A * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * *
ApproachDel: 8.6 xxxxxx xxxxxx xxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

APPENDIX E

EXISTING PLUS PROJECT (EAST ACCESS ROAD) TRAFFIC CONDITIONS (YEAR 2016) LOS ANALYSIS WORKSHEETS

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Existing Traffic Condition + Project_East [AM Peak]

Average Delay (sec/veh): 25.3 Worst Case Level Of Service: F[78.6]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:AM Peak
Base Vol: 0 0 0 0 0 544 0 0 0 0 1146 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 544 0 0 0 0 1146 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 544 0 0 0 0 1146 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 544 0 0 0 0 1146 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 573 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 523 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 523 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.04 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 15.7 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 78.6 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 78.6 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Existing Traffic Condition + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.514
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 34 Level Of Service: A

Street Name:	I-605 SB On Ramp						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	2	0	1	1

Volume Module:AM Peak

Base Vol:	0	0	0	0	0	0	0	244	475	541	1220	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	244	475	541	1220	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	244	0	541	1220	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	244	0	541	1220	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	244	0	541	1220	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.34	0.38	0.00
Crit Moves:								****			****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Existing Traffic Condition + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.472
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 43 Level Of Service: A

Street Name:	Speedway Dr						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	0	0	0	0	0	2	1	0	2

Volume Module:AM Peak

Base Vol:	2	0	1	0	0	0	0	764	1	3	1188	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	0	1	0	0	0	0	764	1	3	1188	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	0	1	0	0	0	0	764	1	3	1188	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	0	1	0	0	0	0	764	1	3	1188	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	0	1	0	0	0	0	764	1	3	1188	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.99	0.01	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4794	6	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.00	0.37	0.00
Crit Moves:	****											

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Existing Traffic Condition + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.861
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 170 Level Of Service: D

Street Name:		Live Oak Ave						Arrow Hwy					
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Permitted			Protected			
Rights:	Ignore			Include			Ignore			Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	2	0	0	0	0	0	0	0	2	0	2	0	

Volume Module:AM Peak

Base Vol:	968	0	191	0	0	0	0	389	578	107	1467	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	968	0	191	0	0	0	0	389	578	107	1467	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	968	0	0	0	0	0	0	389	0	107	1467	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	968	0	0	0	0	0	0	389	0	107	1467	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	968	0	0	0	0	0	0	389	0	107	1467	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	3200	3200	0

Capacity Analysis Module:

Vol/Sat:	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.03	0.46	0.00
Crit Moves:	****											

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Existing Traffic Condition + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.796
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 66 Level Of Service: C

Street Name:		Avenida Barbosa															
Approach:		North Bound				South Bound				East Bound				West Bound			
Movement:		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	
Control:		Protected				Permitted				Protected				Permitted			
Rights:		Include				Include				Include				Include			
Min. Green:		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	
		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	

Volume Module:AM Peak

Base Vol:	0	0	0	241	0	158	250	308	0	0	1410	678
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	241	0	158	250	308	0	0	1410	678
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	241	0	158	250	308	0	0	1410	678
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	241	0	158	250	308	0	0	1410	678
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	241	0	158	250	308	0	0	1410	678

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.10	0.16	0.10	0.00	0.00	0.44	0.42
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing Traffic Condition + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.803
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 67 Level Of Service: D

Street Name: I-605 SB Off Ramp												Arrow Hwy									
Approach: North Bound				South Bound				East Bound				West Bound									
Movement: L - T - R				L - T - R				L - T - R				L - T - R									
Control: Permitted				Protected				Permitted				Permitted									
Rights: Include				Ignore				Include				Include									
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Y+R:	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0						
Lanes:	0	0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	0	0	2	0	0

Volume Module:AM Peak

Base Vol:	0	0	0	391	0	610	0	546	0	0	1468	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	391	0	610	0	546	0	0	1468	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	391	0	0	0	546	0	0	1468	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	391	0	0	0	546	0	0	1468	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	391	0	0	0	546	0	0	1468	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.11	0.00	0.00	0.46	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Existing Traffic Condition + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.473
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 32 Level Of Service: A

Street Name:	Bateman Ave/Avenida Barbosa						Alpha St/Buena Vista Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:AM

Base Vol:	44	232	667	5	119	5	1	4	10	248	8	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	232	667	5	119	5	1	4	10	248	8	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	232	667	5	119	5	1	4	10	248	8	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	232	667	5	119	5	1	4	10	248	8	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	232	667	5	119	5	1	4	10	248	8	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.84	2.00	0.04	0.92	0.04	1.00	1.00	1.00	2.00	0.42	0.58
Final Sat.:	255	1345	3200	62	1476	62	1600	1600	1600	3200	674	926

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.21	0.08	0.08	0.08	0.00	0.00	0.01	0.08	0.01	0.01
Crit Moves:			****	****					****	****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Existing Traffic Condition + Project_East [AM Peak]

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B[10.1]

Street Name: Bateman Ave Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 0 0 0 1 0 0 1 0 0 0 0

Volume Module:AM Peak
Base Vol: 198 0 2 0 0 0 0 0 22 128 1 5 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 198 0 2 0 0 0 0 0 22 128 1 5 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 198 0 2 0 0 0 0 0 22 128 1 5 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 198 0 2 0 0 0 0 0 22 128 1 5 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 93 93 86 xxxx xxxx xxxxx xxxx xxxx xxxxx 150 xxxx xxxxx
Potent Cap.: 912 801 978 xxxx xxxx xxxxx xxxx xxxx xxxxx 1444 xxxx xxxxx
Move Cap.: 911 800 978 xxxx xxxx xxxxx xxxx xxxx xxxxx 1444 xxxx xxxxx
Volume/Cap: 0.22 0.00 0.00 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.00 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.5 xxxx xxxxx
LOS by Move: * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 912 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.8 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
Shrd ConDel:xxxxx 10.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.5 xxxx xxxxx
Shared LOS: * B * * * * * * * * * A * *
ApproachDel: 10.1 xxxxxx xxxxxx xxxxxx
ApproachLOS: B * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Existing Traffic Condition + Project_East [AM Peak]

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[12.9]

Street Name: Miguel Miranda Ave Buena Vista Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 1! 0 0 1 0 2 0 0 0 0 1 1 0

Volume Module:AM
Base Vol: 0 0 0 22 0 8 12 648 0 0 272 14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 22 0 8 12 648 0 0 272 14
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 22 0 8 12 648 0 0 272 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 22 0 8 12 648 0 0 272 14

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.8 6.5 6.9 4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 2.2 xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 627 951 143 286 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 420 262 885 1288 xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 417 259 885 1288 xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.05 0.00 0.01 0.01 xxxx xxxx xxxx xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 486 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx 12.9 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * B * * * * *
ApproachDel: xxxxxx 12.9 xxxxxx xxxxxx
ApproachLOS: * B * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Existing Traffic Condition + Project_East [AM Peak]

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: A[8.6]

Street Name: Miguel Miranda Ave Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 0 0 0 1 0 1 0 0 0

Volume Module:AM Peak
Base Vol: 13 0 1 0 0 0 0 0 0 21 3 1 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 13 0 1 0 0 0 0 0 0 21 3 1 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 13 0 1 0 0 0 0 0 0 21 3 1 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 13 0 1 0 0 0 0 0 0 21 3 1 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 7 7 0 xxxx xxxx xxxxx xxxx xxxx xxxxx 21 xxxx xxxxx
Potent Cap.: 1019 892 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1608 xxxx xxxxx
Move Cap.: 1018 890 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1608 xxxx xxxxx
Volume/Cap: 0.01 0.00 0.00 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.00 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.2 xxxx xxxxx
LOS by Move: * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 1023 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.0 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
Shrd ConDel:xxxxx 8.6 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.2 xxxx xxxxx
Shared LOS: * A * * * * * * * * * A * *
ApproachDel: 8.6 xxxxxx xxxxxx xxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 Existing Traffic Condition + Project_East [AM Peak]

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: A[9.2]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows include Buena Vista Ave and East Access Road with various traffic configurations.

Volume Module:AM
Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, FinalVolume. Rows show traffic volume and adjustment factors.

Critical Gap Module:
Table with columns: Critical Gp, FollowUpTim. Rows show critical gap values and follow-up times.

Capacity Module:
Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows show capacity-related metrics.

Level Of Service Module:
Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows show detailed level of service and delay data.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Existing Traffic Condition + Project_East [PM Peak]

Average Delay (sec/veh): 29.1 Worst Case Level Of Service: F[73.5]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:PM Peak
Base Vol: 0 0 0 0 0 0 619 0 0 0 0 0 944 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 619 0 0 0 0 0 944 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 619 0 0 0 0 0 944 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 0 619 0 0 0 0 0 944 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 472 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 596 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 596 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.04 xxxx xxxx xxxx xxxx xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 16.7 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 73.5 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 73.5 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Existing Traffic Condition + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.804
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 68 Level Of Service: D

Street Name:	I-605 SB On Ramp						Live Oak Ave															
Approach:	North Bound			South Bound			East Bound			West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Permitted			Permitted			Permitted			Protected												
Rights:	Include			Include			Ignore			Include												
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	0	2	0	0

Volume Module:PM Peak

Base Vol:	0	0	0	0	0	0	0	1204	1154	524	1029	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	1204	1154	524	1029	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	1204	0	524	1029	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	1204	0	524	1029	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	1204	0	524	1029	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.33	0.32	0.00
Crit Moves:								****		****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #3 Existing Traffic Condition + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.680
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

Street Name:	Speedway Dr						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	0	0	0	0	0	2	1	0	2

Volume Module:AM Peak

Base Vol:	7	0	9	0	0	0	0	2342	69	116	923	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	0	9	0	0	0	0	2342	69	116	923	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	7	0	9	0	0	0	0	2342	69	116	923	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	7	0	9	0	0	0	0	2342	69	116	923	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	7	0	9	0	0	0	0	2342	69	116	923	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.91	0.09	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4663	137	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.50	0.50	0.07	0.29	0.00
Crit Moves:	****						****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Existing Traffic Condition + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.675
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 47 Level Of Service: B

Street Name: Live Oak Ave												Arrow Hwy											
Approach: North Bound												South Bound				East Bound				West Bound			
Movement: L - T - R												L - T - R				L - T - R				L - T - R			
Control: Protected												Protected				Permitted				Protected			
Rights: Ignore												Include				Ignore				Include			
Min. Green: 0 0 0												0 0 0				0 0 0				0 0 0			
Y+R: 4.0 4.0 4.0												4.0 4.0 4.0				4.0 4.0 4.0				4.0 4.0 4.0			
Lanes: 2 0 0 0 1												0 0 0 0 0				0 0 2 0 1				2 0 2 0 0			

Volume Module:AM Peak

Base Vol:	776	0	111	0	0	0	0	804	2148	261	735	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	776	0	111	0	0	0	0	804	2148	261	735	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	776	0	0	0	0	0	0	804	0	261	735	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	776	0	0	0	0	0	0	804	0	261	735	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	776	0	0	0	0	0	0	804	0	261	735	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	3200	3200	0

Capacity Analysis Module:

Vol/Sat:	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.08	0.23	0.00
Crit Moves:	****							****		****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Existing Traffic Condition + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.676

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 47 Level Of Service: B

Street Name: Avenida Barbosa Arrow Hwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Permitted Protected Permitted

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 2 0 0 0 1 1 0 2 0 0 0 0 0 2 0 1

Volume Module:AM Peak

Base Vol: 0 0 0 585 0 342 247 674 0 0 665 317

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 585 0 342 247 674 0 0 665 317

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 585 0 342 247 674 0 0 665 317

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 585 0 342 247 674 0 0 665 317

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 585 0 342 247 674 0 0 665 317

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 1.00 2.00 0.00 0.00 2.00 1.00

Final Sat.: 0 0 0 3200 0 1600 1600 3200 0 0 3200 1600

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.21 0.15 0.21 0.00 0.00 0.21 0.20

Crit Moves: **** *

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Existing Traffic Condition + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.481
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 32 Level Of Service: A

Street Name: I-605 SB Off Ramp Arrow Hwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Permitted Permitted

Rights: Include Ignore Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 1 0 0 0 1 0 0 3 0 0 0 0 2 0 0

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Volume Module:PM Peak

Base Vol: 0 0 0 185 0 551 0 1275 0 0 435 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 185 0 551 0 1275 0 0 435 0

User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 185 0 0 0 1275 0 0 435 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 185 0 0 0 1275 0 0 435 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 185 0 0 0 1275 0 0 435 0

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 3.00 0.00 0.00 2.00 0.00

Final Sat.: 0 0 0 1600 0 1600 0 4800 0 0 3200 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.12 0.00 0.00 0.00 0.27 0.00 0.00 0.14 0.00

Crit Moves: **** **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Existing Traffic Condition + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.646
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 44 Level Of Service: B

Street Name: Bateman Ave/Avenida Barbosa Alpha St/Buena Vista Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:AM

Base Vol:	18	126	443	14	258	5	2	12	74	602	10	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	126	443	14	258	5	2	12	74	602	10	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	126	443	14	258	5	2	12	74	602	10	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	126	443	14	258	5	2	12	74	602	10	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	126	443	14	258	5	2	12	74	602	10	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.12	0.88	2.00	0.05	0.93	0.02	1.00	1.00	1.00	2.00	0.48	0.52
Final Sat.:	200	1400	3200	81	1490	29	1600	1600	1600	3200	762	838

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.14	0.17	0.17	0.17	0.00	0.01	0.05	0.19	0.01	0.01
Crit Moves:			****	****					****	****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Existing Traffic Condition + Project_East [PM Peak]

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[10.1]

Table with columns for Street Name (Bateman Ave, Meridian St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module: AM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across four approaches.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim across four approaches.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across four approaches.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across four approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Existing Traffic Condition + Project_East [PM Peak]

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[14.7]

Table with columns for Street Name (Miguel Miranda Ave, Buena Vista Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 2).

Volume Module:AM
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various movement categories.

Critical Gap Module:
Table with columns for Critical Gp, FollowUpTim, and various movement categories.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. across movement categories.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Existing Traffic Condition + Project_East [PM Peak]

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: A[8.6]

Street Name:	Miguel Miranda Ave						Meridian St										
Approach:	North Bound			South Bound			East Bound			West Bound							
Movement:	L	T	R	L	T	R	L	T	R	L	T	R					
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled							
Rights:	Include			Include			Include			Include							
Lanes:	0	0	1!0	0	0	0	0	0	0	0	1	0	0	1	0	0	0

Volume Module:AM Peak

Base Vol:	17	0	1	0	0	0	0	0	11	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	0	1	0	0	0	0	0	11	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	0	1	0	0	0	0	0	11	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	17	0	1	0	0	0	0	0	11	0	0	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	0	0	0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	1029	900	1091	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	1029	900	1091	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.02	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	1032	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #13 Existing Traffic Condition + Project_East [PM Peak]

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: B[10.6]

Street Name:	Buena Vista Ave						Eastside Access Road					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	2	0	0	1	1	0	0	0	0	0

Volume Module:AM

Base Vol:	100	381	0	0	512	0	0	0	105	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	100	381	0	0	512	0	0	0	105	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	100	381	0	0	512	0	0	0	105	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	100	381	0	0	512	0	0	0	105	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	512	xxxx	xxxxx	xxxx	xxxx	xxxxx	903	xxxx	256	xxxx	xxxx	xxxxx
Potent Cap.:	1064	xxxx	xxxxx	xxxx	xxxx	xxxxx	281	xxxx	749	xxxx	xxxx	xxxxx
Move Cap.:	1064	xxxx	xxxxx	xxxx	xxxx	xxxxx	261	xxxx	749	xxxx	xxxx	xxxxx
Volume/Cap:	0.09	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	0.14	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.5	xxxx	xxxx	xxxxx
Control Del:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	10.6	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	B	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			10.6		xxxxxx			
ApproachLOS:	*			*			B		*			

 Note: Queue reported is the number of cars per lane.

APPENDIX F

EXISTING PLUS OTHER DEVELOPMENT TRAFFIC CONDITIONS (YEAR 2016) LOS ANALYSIS WORKSHEETS

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Existing Traffic Condition + Other Development [AM Peak]

Average Delay (sec/veh): 103.4 Worst Case Level Of Service: F[288.0]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:AM Peak
Base Vol: 0 0 0 0 0 0 735 0 0 0 0 1313 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 735 0 0 0 0 1313 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 735 0 0 0 0 1313 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 0 735 0 0 0 0 1313 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 657 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 469 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 469 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.57 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 40.2 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 288.0 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 288.0 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Existing Traffic Condition + Other Development [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.602
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 40 Level Of Service: B

Street Name:	I-605 SB On Ramp						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	0	0	0	0	0	2	1	1	0

Volume Module:AM Peak

Base Vol:	0	0	0	0	0	0	0	275	547	665	1454	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	275	547	665	1454	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	275	0	665	1454	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	275	0	665	1454	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	275	0	665	1454	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.42	0.45	0.00
Crit Moves:							****			****		

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #3 Existing Traffic Condition + Other Development [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.529
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 53 Level Of Service: A

Street Name:	Speedway Dr						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	0	0	0	0	0	0	2	1	0	2

Volume Module:AM Peak

Base Vol:	34	0	33	0	0	0	0	859	87	89	1307	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	0	33	0	0	0	0	859	87	89	1307	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	0	33	0	0	0	0	859	87	89	1307	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	0	33	0	0	0	0	859	87	89	1307	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	0	33	0	0	0	0	859	87	89	1307	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.72	0.28	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4359	441	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.20	0.20	0.06	0.41	0.00
Crit Moves:	****									****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Existing Traffic Condition + Other Development [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.875
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: D

Street Name: Live Oak Ave Arrow Hwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Protected
Rights: Ignore Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 2 0 0

Volume Module:AM Peak
Base Vol: 986 0 300 0 0 0 0 430 625 265 1495 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 986 0 300 0 0 0 0 430 625 265 1495 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 986 0 0 0 0 0 0 430 0 265 1495 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 986 0 0 0 0 0 0 430 0 265 1495 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
FinalVolume: 986 0 0 0 0 0 0 430 0 265 1495 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 3200 3200 0

Capacity Analysis Module:
Vol/Sat: 0.31 0.00 0.00 0.00 0.00 0.00 0.00 0.13 0.00 0.08 0.47 0.00
Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Existing Traffic Condition + Other Development [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.938
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 124 Level Of Service: E

Table with columns: Street Name (Avenida Barbosa), Arrow Hwy, Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Lanes.

Volume Module:AM Peak
Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module:
Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:
Table with columns: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Existing Traffic Condition + Other Development [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.956
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 139 Level Of Service: E

Table with columns: Street Name (I-605 SB Off Ramp), Arrow Hwy, Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Ignore), Min. Green, Lanes.

Volume Module:AM Peak
Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module:
Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:
Table with columns: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Existing Traffic Condition + Other Development [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.487
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 Level Of Service: A

Street Name:	Bateman Ave/Avenida Barbosa						Alpha St/Buena Vista Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:AM

Base Vol:	44	233	720	5	123	5	1	6	10	232	9	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	233	720	5	123	5	1	6	10	232	9	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	233	720	5	123	5	1	6	10	232	9	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	233	720	5	123	5	1	6	10	232	9	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	233	720	5	123	5	1	6	10	232	9	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.84	2.00	0.04	0.92	0.04	1.00	1.00	1.00	2.00	0.45	0.55
Final Sat.:	254	1346	3200	60	1480	60	1600	1600	1600	3200	720	880

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.23	0.08	0.08	0.08	0.00	0.00	0.01	0.07	0.01	0.01
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #8 Existing Traffic Condition + Other Development [AM Peak]

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B [10.1]

Street Name:	Bateman Ave						Meridian St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	1	0	0

Volume Module:AM Peak

Base Vol:	198	0	2	0	0	0	0	22	128	1	5	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	198	0	2	0	0	0	0	22	128	1	5	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	198	0	2	0	0	0	0	22	128	1	5	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	198	0	2	0	0	0	0	22	128	1	5	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	93	93	86	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	150	xxxx	xxxxx
Potent Cap.:	912	801	978	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1444	xxxx	xxxxx
Move Cap.:	911	800	978	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1444	xxxx	xxxxx
Volume/Cap:	0.22	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	912	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.1			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Existing Traffic Condition + Other Development [AM Peak]

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[12.2]

Street Name: Miguel Miranda Ave Buena Vista Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 1! 0 0 1 0 2 0 0 0 0 1 1 0

Volume Module:AM
Base Vol: 0 0 0 22 0 8 12 573 0 0 246 14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 22 0 8 12 573 0 0 246 14
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 22 0 8 12 573 0 0 246 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 22 0 8 12 573 0 0 246 14

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.8 6.5 6.9 4.1 xxxx xxxxx xxxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 2.2 xxxx xxxxx xxxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 564 850 130 260 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 461 300 902 1316 xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 458 297 902 1316 xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.05 0.00 0.01 0.01 xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.8 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 527 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx 12.2 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * B * * * * *
ApproachDel: xxxxxx 12.2 xxxxxx xxxxxx
ApproachLOS: * B * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #10 Existing Traffic Condition + Other Development [AM Peak]

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: A[8.6]

Street Name:	Miguel Miranda Ave						Meridian St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	0	1	0

Volume Module:AM Peak

Base Vol:	13	0	1	0	0	0	0	0	21	3	1	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	1	0	0	0	0	0	21	3	1	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	0	1	0	0	0	0	0	21	3	1	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	0	1	0	0	0	0	0	21	3	1	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	7	7	0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	21	xxxx	xxxxx
Potent Cap.:	1019	892	900	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1608	xxxx	xxxxx
Move Cap.:	1018	890	900	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1608	xxxx	xxxxx
Volume/Cap:	0.01	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	1008	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Existing Traffic Condition + Other Development [PM Peak]

Average Delay (sec/veh): 128.5 Worst Case Level Of Service: F[304.5]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:PM Peak
Base Vol: 0 0 0 0 0 840 0 0 0 0 1151 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 840 0 0 0 0 1151 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 840 0 0 0 0 1151 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 840 0 0 0 0 1151 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 576 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 521 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 521 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.61 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 46.6 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 304.5 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 304.5 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Existing Traffic Condition + Other Development [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.908
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 104 Level Of Service: E

Street Name: I-605 SB On Ramp				Live Oak Ave			
Approach: North Bound		South Bound		East Bound		West Bound	
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted	Protected	Protected	Protected
Rights:	Include	Include	Ignore	Ignore	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 0 0 0 0	0 0 0 0 0	0 0 2 0 1	1 0 2 0 0			

Volume Module:PM Peak

Base Vol:	0 0 0	0 0 0	0 1257 1454	665 1316 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	0 0 0	0 0 0	0 1257 1454	665 1316 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00
PHF Volume:	0 0 0	0 0 0	0 1257 0	665 1316 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	0 0 0	0 1257 0	665 1316 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 1.00
FinalVolume:	0 0 0	0 0 0	0 1257 0	665 1316 0

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	0.00 0.00 0.00	0.00 0.00 0.00	0.00 2.00 1.00	1.00 2.00 0.00
Final Sat.:	0 0 0	0 0 0	0 3200 1600	1600 3200 0

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.39 0.00	0.42 0.41 0.00
Crit Moves:			****	****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Existing Traffic Condition + Other Development [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 1.009
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Speedway Dr, Live Oak Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Volume Module: PM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module:
Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:
Table with columns for Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Existing Traffic Condition + Other Development [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.789
Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 64 Level Of Service: C

Street Name: Live Oak Ave Arrow Hwy
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Protected
Rights: Ignore Include Ignore Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 2 0 0

Volume Module:PM
Base Vol: 839 0 384 0 0 0 0 844 2188 522 779 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 839 0 384 0 0 0 0 844 2188 522 779 0
User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
PHF Volume: 839 0 0 0 0 0 0 844 0 522 779 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 839 0 0 0 0 0 0 844 0 522 779 0
PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
FinalVolume: 839 0 0 0 0 0 0 844 0 522 779 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00
Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 3200 3200 0

Capacity Analysis Module:
Vol/Sat: 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.26 0.00 0.16 0.24 0.00
Crit Moves: **** ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Existing Traffic Condition + Other Development [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.841
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 77 Level Of Service: D

Street Name:		Avenida Barbosa								Arrow Hwy			
Approach:	North Bound				South Bound				East Bound		West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected				Permitted				Protected		Permitted		
Rights:	Include				Include				Include		Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	
Lanes:	0	0	0	0	0	0	1	1	0	2	0	0	

Volume Module:PM Peak

Base Vol:	0	0	0	587	0	425	297	935	0	0	926	263
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	587	0	425	297	935	0	0	926	263
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	587	0	425	297	935	0	0	926	263
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	587	0	425	297	935	0	0	926	263
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	587	0	425	297	935	0	0	926	263

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.27	0.19	0.29	0.00	0.00	0.29	0.16
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing Traffic Condition + Other Development [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.648
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 44 Level Of Service: B

Street Name: I-605 SB Off Ramp												Arrow Hwy											
Approach: North Bound												South Bound				East Bound				West Bound			
Movement: L - T - R												L - T - R				L - T - R				L - T - R			
Control: Protected												Protected				Permitted				Permitted			
Rights: Include												Ignore				Include				Include			
Min. Green: 0 0 0												0 0 0				0 0 0				0 0 0			
Lanes: 0 0 0 0 0												1 0 0 0 1				0 0 3 0 0				0 0 2 0 0			

Volume Module:PM Peak

Base Vol:	0	0	0	364	0	664	0	1538	0	0	529	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	364	0	664	0	1538	0	0	529	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	364	0	0	0	1538	0	0	529	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	364	0	0	0	1538	0	0	529	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	364	0	0	0	1538	0	0	529	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.32	0.00	0.00	0.17	0.00
Crit Moves:				****				****			****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Existing Traffic Condition + Other Development [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.658
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 45 Level Of Service: B

Street Name:	Bateman Ave/Avenida Barbosa						Alpha St/Buena Vista Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:PM

Base Vol:	18	131	434	14	260	5	2	13	74	645	12	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	131	434	14	260	5	2	13	74	645	12	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	131	434	14	260	5	2	13	74	645	12	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	131	434	14	260	5	2	13	74	645	12	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	131	434	14	260	5	2	13	74	645	12	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.12	0.88	2.00	0.05	0.93	0.02	1.00	1.00	1.00	2.00	0.52	0.48
Final Sat.:	193	1407	3200	80	1491	29	1600	1600	1600	3200	835	765

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.14	0.17	0.17	0.17	0.00	0.01	0.05	0.20	0.01	0.01
Crit Moves:			****		****				****	****		

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Existing Traffic Condition + Other Development [PM Peak]

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[10.1]

Street Name: Bateman Ave Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0

Volume Module:PM Peak
Base Vol: 152 0 2 0 0 0 0 0 14 234 1 10 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 152 0 2 0 0 0 0 0 14 234 1 10 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 152 0 2 0 0 0 0 0 14 234 1 10 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 152 0 2 0 0 0 0 0 14 234 1 10 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: 143 143 131 xxxx xxxx xxxxx xxxx xxxx xxxxx 248 xxxx xxxxx
Potent Cap.: 854 752 924 xxxx xxxx xxxxx xxxx xxxx xxxxx 1330 xxxx xxxxx
Move Cap.: 854 751 924 xxxx xxxx xxxxx xxxx xxxx xxxxx 1330 xxxx xxxxx
Volume/Cap: 0.18 0.00 0.00 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.00 xxxx xxxxx

Level of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.7 xxxx xxxxx
LOS by Move: * * * * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 855 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.7 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.0 xxxx xxxxx
Shrd ConDel:xxxxx 10.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.7 xxxx xxxxx
Shared LOS: * B * * * * * * * * * A * *
ApproachDel: 10.1 xxxxxx xxxxxx xxxxxx
ApproachLOS: B * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Existing Traffic Condition + Other Development [PM Peak]

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[14.6]

Table with columns for Street Name (Miguel Miranda Ave, Buena Vista Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 2).

Volume Module:PM

Table showing traffic volume data including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume for various movements.

Critical Gap Module:

Table showing Critical Gap and FollowUpTim values for different movements.

Capacity Module:

Table showing Capacity data including Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap for various movements.

Level Of Service Module:

Table showing Level Of Service data including 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #10 Existing Traffic Condition + Other Development [PM Peak]

Average Delay (sec/veh): 5.6 Worst Case Level Of Service: A[9.1]

Street Name:	Meridian Ave						Miguel Miranda Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	0	0	1	0

Volume Module: PM Peak

Base Vol:	17	0	1	0	0	0	0	0	11	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	0	1	0	0	0	0	0	11	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	0	1	0	0	0	0	0	11	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	17	0	1	0	0	0	0	0	11	0	0	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	0	0	0	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	900	900	900	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	900	900	900	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Volume/Cap:	0.02	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	900	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Shared Queue:	xxxxxx	0.1	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	9.1	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	9.0	xxxx	xxxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
Approach Del:	9.1			xxxxxx			xxxxxx			xxxxxx		
Approach LOS:	A			*			*			*		

 Note: Queue reported is the number of cars per lane.

APPENDIX G

EXISTING PLUS OTHER DEVELOPMENT PLUS PROJECT (NEW ACCESS ROAD WEST) TRAFFIC CONDITIONS (YEAR 2016) LOS ANALYSIS WORKSHEETS

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Average Delay (sec/veh): 108.0 Worst Case Level Of Service: F[298.2]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:AM Peak
Base Vol: 0 0 0 0 0 0 746 0 0 0 0 1313 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 746 0 0 0 0 1313 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 746 0 0 0 0 1313 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 0 746 0 0 0 0 1313 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 657 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 469 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 469 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.59 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 41.4 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 298.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 298.2 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.602
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 40 Level Of Service: B

Street Name: I-605 SB On Ramp Live Oak Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Permitted Permitted Permitted Protected

Rights: Include Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 0.0 0.0 0.0 0.0 0.0 0.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

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Volume Module:AM Peak

Base Vol: 0 0 0 0 0 0 0 0 275 557 665 1465 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 0 0 0 275 557 665 1465 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 0 275 0 665 1465 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 0 275 0 665 1465 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 0 275 0 665 1465 0

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 1600 3200 0

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Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.09 0.00 0.42 0.46 0.00

Crit Moves: **** *

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #3 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.533
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 54 Level Of Service: A

Street Name:	Speedway Dr				Live Oak Ave															
Approach:	North Bound		South Bound		East Bound		West Bound													
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Protected		Protected		Permitted		Protected													
Rights:	Include		Include		Include		Include													
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	2	0	0	0	1	0	0	0	0	0	0	0	2	1	0	1	0	2	0	0

Volume Module:AM Peak

Base Vol:	34	0	33	0	0	0	0	869	87	89	1318	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	0	33	0	0	0	0	869	87	89	1318	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	0	33	0	0	0	0	869	87	89	1318	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	0	33	0	0	0	0	869	87	89	1318	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	0	33	0	0	0	0	869	87	89	1318	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.73	0.27	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4363	437	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.20	0.20	0.06	0.41	0.00
Crit Moves:	****									****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.875
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: D

Street Name: Live Oak Ave Arrow Hwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Permitted Protected

Rights: Ignore Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 2 0 0

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Volume Module:AM Peak

Base Vol: 986 0 311 0 0 0 0 430 625 275 1495 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 986 0 311 0 0 0 0 430 625 275 1495 0

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Volume: 986 0 0 0 0 0 0 430 0 275 1495 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 986 0 0 0 0 0 0 430 0 275 1495 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

FinalVolume: 986 0 0 0 0 0 0 430 0 275 1495 0

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Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 3200 3200 0

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Capacity Analysis Module:

Vol/Sat: 0.31 0.00 0.00 0.00 0.00 0.00 0.00 0.13 0.00 0.09 0.47 0.00

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.952
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 135 Level Of Service: E

Street Name:		Avenida Barbosa															
Approach:		North Bound				South Bound				East Bound				West Bound			
Movement:		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	
Control:		Protected				Permitted				Protected				Permitted			
Rights:		Include				Include				Include				Include			
Min. Green:		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	
		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	

Volume Module:AM Peak

Base Vol:	0	0	0	336	0	212	347	371	0	0	1607	740
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	336	0	212	347	371	0	0	1607	740
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	336	0	212	347	371	0	0	1607	740
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	336	0	212	347	371	0	0	1607	740
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	336	0	212	347	371	0	0	1607	740

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.13	0.22	0.12	0.00	0.00	0.50	0.46
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.956
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 139 Level Of Service: E

Street Name: I-605 SB Off Ramp Arrow Hwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	0	0	0	3	0	0	2

Volume Module:AM Peak

Base Vol:	0	0	0	570	0	737	0	704	0	0	1599	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	570	0	737	0	704	0	0	1599	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	570	0	0	0	704	0	0	1599	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	570	0	0	0	704	0	0	1599	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	570	0	0	0	704	0	0	1599	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.15	0.00	0.00	0.50	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.551
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 36 Level Of Service: A

Street Name: Bateman Ave/Avenida Barbosa Alpha St/Buena Vista Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:AM

Base Vol:	44	233	825	5	123	5	1	6	10	332	9	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	233	825	5	123	5	1	6	10	332	9	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	233	825	5	123	5	1	6	10	332	9	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	233	825	5	123	5	1	6	10	332	9	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	233	825	5	123	5	1	6	10	332	9	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.84	2.00	0.04	0.92	0.04	1.00	1.00	1.00	2.00	0.45	0.55
Final Sat.:	254	1346	3200	60	1480	60	1600	1600	1600	3200	720	880

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.26	0.08	0.08	0.08	0.00	0.00	0.01	0.10	0.01	0.01
Crit Moves:			****	****			****	****				

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B[10.1]

Table with columns for Street Name (Bateman Ave, Meridian St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module: AM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across four approaches.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim across four approaches.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across four approaches.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS across four approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[12.2]

Table with columns for Street Name (Miguel Miranda Ave, Buena Vista Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 2).

Volume Module:AM
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across various traffic movements.

Critical Gap Module:
Table with columns for Critical Gp, FollowUpTim, and various traffic movement indicators.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap across different traffic movements.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #10 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: A[9.7]

Street Name:	Miguel Miranda Ave						Meridian St													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign						Stop Sign						Uncontrolled			Uncontrolled				
Rights:	Include						Include						Include			Include				
Lanes:	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0

Volume Module:AM Peak

Base Vol:	13	0	1	0	0	0	0	105	21	3	101	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	1	0	0	0	0	105	21	3	101	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	0	1	0	0	0	0	105	21	3	101	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	0	1	0	0	0	0	105	21	3	101	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	223	223	116	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	126	xxxx	xxxxx
Potent Cap.:	770	680	942	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1473	xxxx	xxxxx
Move Cap.:	769	678	942	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1473	xxxx	xxxxx
Volume/Cap:	0.02	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	779	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	9.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*			
ApproachDel:	9.7			xxxxxx			xxxxxx			xxxxxx					
ApproachLOS:	A			*			*			*					

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #11 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: A[9.2]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include New Access Road West and Buena Vista Ave with various traffic configurations.

Volume Module: AM Peak. Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume across different approaches.

Critical Gap Module. Table with columns for Critical Gp and FollowUpTim, showing values like 6.9, 4.1, 3.3, 2.2.

Capacity Module. Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap, showing values like 85, 254, 964, 1323, 0.10, 0.08.

Level Of Service Module. Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Ex Traffic Condition + Other Dev + Project_West [AM Peak]

Average Delay (sec/veh): 8.0 Worst Case Level Of Service: A[8.7]

Street Name: New Access Road West Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0

Volume Module:AM Peak
Base Vol: 0 0 105 0 0 0 0 0 0 100 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 105 0 0 0 0 0 0 100 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 105 0 0 0 0 0 0 100 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 105 0 0 0 0 0 0 100 0 0

Critical Gap Module:
Critical Gp:xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx 0 xxxx xxxx xxxxx xxxx xxxx xxxxx 0 xxxx xxxxx
Potent Cap.: xxxx xxxx 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1636 xxxx xxxxx
Move Cap.: xxxx xxxx 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1636 xxxx xxxxx
Volume/Cap: xxxx xxxx 0.10 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.06 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx 0.3 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.2 xxxx xxxxx
Control Del:xxxxx xxxx 8.7 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.3 xxxx xxxxx
LOS by Move: * * A * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * *
ApproachDel: 8.7 xxxxxx xxxxxx xxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Average Delay (sec/veh): 132.9 Worst Case Level Of Service: F[312.9]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:PM Peak
Base Vol: 0 0 0 0 0 0 850 0 0 0 0 1151 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 850 0 0 0 0 1151 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 850 0 0 0 0 1151 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 0 850 0 0 0 0 1151 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 576 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 521 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 521 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.63 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 47.8 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 312.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 312.9 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.908

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 104 Level Of Service: E

Street Name: I-605 SB On Ramp Live Oak Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Protected

Rights: Include Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 0.0 0.0 0.0 0.0 0.0 0.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0

Volume Module:PM Peak

Base Vol: 0 0 0 0 0 0 0 1257 1465 665 1326 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 0 0 1257 1465 665 1326 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 0 1257 0 665 1326 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 0 1257 0 665 1326 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 0 1257 0 665 1326 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00

Final Sat.: 0 0 0 0 0 0 0 3200 1600 1600 3200 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.39 0.00 0.42 0.41 0.00

Crit Moves: **** *

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 1.011
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: F

Street Name:	Speedway Dr						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	0	0	0	0	0	2	1	0	2

Volume Module:PM Peak

Base Vol:	206	0	255	0	0	0	0	2444	291	291	1054	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	206	0	255	0	0	0	0	2444	291	291	1054	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	206	0	255	0	0	0	0	2444	291	291	1054	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	206	0	255	0	0	0	0	2444	291	291	1054	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	206	0	255	0	0	0	0	2444	291	291	1054	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.68	0.32	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4289	511	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.06	0.00	0.16	0.00	0.00	0.00	0.00	0.57	0.57	0.18	0.33	0.00
Crit Moves:	****						****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.792

Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx

Optimal Cycle: 65 Level Of Service: C

Street Name: Live Oak Ave Arrow Hwy

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Permitted Protected

Rights: Ignore Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 2 0 0 0 1 0 0 0 0 0 0 0 2 0 2 0 0

Volume Module:PM

Base Vol: 839 0 394 0 0 0 0 844 2188 533 779 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 839 0 394 0 0 0 0 844 2188 533 779 0

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

PHF Volume: 839 0 0 0 0 0 0 844 0 533 779 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 839 0 0 0 0 0 0 844 0 533 779 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

FinalVolume: 839 0 0 0 0 0 0 844 0 533 779 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 2.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 2.00 2.00 0.00

Final Sat.: 3200 0 1600 0 0 0 0 3200 1600 3200 3200 0

Capacity Analysis Module:

Vol/Sat: 0.26 0.00 0.00 0.00 0.00 0.00 0.00 0.26 0.00 0.17 0.24 0.00

Crit Moves: **** * 0.17 0.24 0.00 ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.854
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 81 Level Of Service: D

Street Name: Avenida Barbosa												Arrow Hwy			
Approach: North Bound				South Bound				East Bound				West Bound			
Movement: L - T - R				L - T - R				L - T - R				L - T - R			
Control: Protected				Permitted				Protected				Permitted			
Rights: Include				Include				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0	0	0	2

Volume Module:PM Peak

Base Vol:	0	0	0	682	0	436	307	935	0	0	926	353
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	682	0	436	307	935	0	0	926	353
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	682	0	436	307	935	0	0	926	353
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	682	0	436	307	935	0	0	926	353
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	682	0	436	307	935	0	0	926	353

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.27	0.19	0.29	0.00	0.00	0.29	0.22
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.668
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: B

Street Name: I-605 SB Off Ramp												Arrow Hwy											
Approach: North Bound												South Bound				East Bound				West Bound			
Movement: L - T - R												L - T - R				L - T - R				L - T - R			
Control: Protected												Protected				Permitted				Permitted			
Rights: Include												Ignore				Include				Include			
Min. Green: 0 0 0												0 0 0				0 0 0				0 0 0			
Y+R: 4.0 4.0 4.0												4.0 4.0 4.0				4.0 4.0 4.0				4.0 4.0 4.0			
Lanes: 0 0 0 0 0												1 0 0 0 1				0 0 3 0 0				0 0 2 0 0			

Volume Module:PM Peak

Base Vol:	0	0	0	364	0	754	0	1633	0	0	529	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	364	0	754	0	1633	0	0	529	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	364	0	0	0	1633	0	0	529	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	364	0	0	0	1633	0	0	529	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	364	0	0	0	1633	0	0	529	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.34	0.00	0.00	0.17	0.00
Crit Moves:				****				****		****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.712
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: C

Street Name: Bateman Ave/Avenida Barbosa Alpha St/Buena Vista Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:AM

Base Vol:	18	131	534	14	260	5	2	13	74	720	12	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	131	534	14	260	5	2	13	74	720	12	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	131	534	14	260	5	2	13	74	720	12	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	131	534	14	260	5	2	13	74	720	12	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	131	534	14	260	5	2	13	74	720	12	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.12	0.88	2.00	0.05	0.93	0.02	1.00	1.00	1.00	2.00	0.52	0.48
Final Sat.:	193	1407	3200	80	1491	29	1600	1600	1600	3200	835	765

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.17	0.17	0.17	0.17	0.00	0.01	0.05	0.23	0.01	0.01
Crit Moves:			****	****					****	****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[10.1]

Table with columns for Street Name (Bateman Ave, Meridian St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Stop Sign, Uncontrolled), Rights (Include), and Lanes (0, 1, 0, 0).

Volume Module: PM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume for various movements.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim for various movements.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap for various movements.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for various movements.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: B[14.6]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include Miguel Miranda Ave and Buena Vista Ave with various traffic configurations.

Volume Module:PM
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume. Rows include traffic volume data for different approaches.

Critical Gap Module:
Table with columns for Critical Gp and FollowUpTim. Rows include gap and follow-up time data for different approaches.

Capacity Module:
Table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. Rows include capacity and volume data for different approaches.

Level Of Service Module:
Table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS. Rows include level of service and delay data for different approaches.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #10 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: A[9.7]

Street Name: Meridian Ave Miguel Miranda Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 0 0 0 1 0 0 0 0 1 0 0

Volume Module:PM Peak
Base Vol: 17 0 1 0 0 0 0 0 100 11 0 105 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 17 0 1 0 0 0 0 0 100 11 0 105 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 17 0 1 0 0 0 0 0 100 11 0 105 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 17 0 1 0 0 0 0 0 100 11 0 105 0

Critical Gap Module:
Critical Gp: 6.4 6.5 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: 211 211 106 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: 782 690 954 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: 782 690 954 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: 0.02 0.00 0.00 xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 790 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx 0.1 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx 9.7 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * A * * * * * * * * * * * * * * * *
ApproachDel: 9.7 xxxxxx xxxxxx xxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #11 Ex Traffic Condition + Other Dev + Project_West [PM Peak]

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[10.2]

Street Name: New Access Road West Buena Vista Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 0 0 0 0 0 0 1 1 0 2 0 0 0 0 2 1 0

-----|-----|-----|-----|-----|

Volume Module:AM Peak

Base Vol: 0 0 0 0 0 105 100 374 0 0 651 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 105 100 374 0 0 651 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 105 100 374 0 0 651 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 0 0 0 0 0 105 100 374 0 0 651 0

-----|-----|-----|-----|-----|

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.9 4.1 xxxx xxxxx xxxxx xxxx xxxxx

FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 2.2 xxxx xxxxx xxxxx xxxx xxxxx

-----|-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 217 651 xxxx xxxxx xxxx xxxx xxxxx

Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 794 945 xxxx xxxxx xxxx xxxx xxxxx

Move Cap.: xxxx xxxx xxxxx xxxx xxxx 794 945 xxxx xxxxx xxxx xxxx xxxxx

Volume/Cap: xxxx xxxx xxxx xxxx xxxx 0.13 0.11 xxxx xxxx xxxx xxxx xxxx

-----|-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 0.5 0.4 xxxx xxxxx xxxx xxxx xxxxx

Control Del:xxxxx xxxx xxxxx xxxxx xxxx 10.2 9.3 xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: * * * * * B A * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxxx xxxx xxxx xxxxx

SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Shared LOS: * * * * * * * * * * * * * * *

ApproachDel: xxxxxx 10.2 xxxxxx xxxxxx

ApproachLOS: * B * *

-----|-----|-----|-----|-----|

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #12 Ex Traffic Condition + Other Dev + Project_Westside [PM Peak]

Average Delay (sec/veh): 8.0 Worst Case Level Of Service: A[8.6]

Street Name: New Access Road West Meridian St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Ignore Include Include
Lanes: 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0 0 0 0

Volume Module:AM Peak
Base Vol: 0 0 100 0 0 0 0 0 0 105 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 100 0 0 0 0 0 0 105 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 100 0 0 0 0 0 0 105 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 100 0 0 0 0 0 0 105 0 0

Critical Gap Module:
Critical Gp:xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 2.2 xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx 0 xxxx xxxx xxxxx xxxx xxxx xxxxx 0 xxxx xxxxx
Potent Cap.: xxxx xxxx 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1636 xxxx xxxxx
Move Cap.: xxxx xxxx 1091 xxxx xxxx xxxxx xxxx xxxx xxxxx 1636 xxxx xxxxx
Volume/Cap: xxxx xxxx 0.09 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.06 xxxx xxxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx 0.3 xxxx xxxx xxxxx xxxx xxxx xxxxx 0.2 xxxx xxxxx
Control Del:xxxxx xxxx 8.6 xxxxx xxxx xxxxx xxxxx xxxx xxxxx 7.4 xxxx xxxxx
LOS by Move: * * A * * * * * * * A * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * *
ApproachDel: 8.6 xxxxxx xxxxxx xxxxxx
ApproachLOS: A * * *

Note: Queue reported is the number of cars per lane.

APPENDIX H

EXISTING PLUS OTHER DEVELOPMENT PLUS PROJECT (EAST ACCESS ROAD) TRAFFIC CONDITIONS (YEAR 2016) LOS ANALYSIS WORKSHEETS

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Average Delay (sec/veh): 108.0 Worst Case Level Of Service: F[298.2]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:AM Peak
Base Vol: 0 0 0 0 0 0 746 0 0 0 0 1313 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 746 0 0 0 0 1313 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 746 0 0 0 0 1313 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 0 746 0 0 0 0 1313 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 657 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 469 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 469 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.59 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 41.4 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 298.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 298.2 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.602
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 40 Level Of Service: B

Street Name:	I-605 SB On Ramp						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Protected		
Rights:	Include			Include			Ignore			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	2	0	1	1

Volume Module:AM Peak

Base Vol:	0	0	0	0	0	0	0	275	557	665	1465	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	275	557	665	1465	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	275	0	665	1465	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	0	0	275	0	665	1465	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	0	0	275	0	665	1465	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	0	0	0	0	3200	1600	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.42	0.46	0.00
Crit Moves:								****			****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #3 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.533
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 54 Level Of Service: A

Street Name:	Speedway Dr						Live Oak Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0	0	0	0	0	0	2	1	0	2

Volume Module:AM Peak

Base Vol:	34	0	33	0	0	0	0	869	87	89	1318	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	34	0	33	0	0	0	0	869	87	89	1318	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	34	0	33	0	0	0	0	869	87	89	1318	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	0	33	0	0	0	0	869	87	89	1318	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	34	0	33	0	0	0	0	869	87	89	1318	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.73	0.27	1.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	4363	437	1600	3200	0

Capacity Analysis Module:

Vol/Sat:	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.20	0.20	0.06	0.41	0.00
Crit Moves:	****									****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.875
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: D

Street Name: Live Oak Ave												Arrow Hwy											
Approach: North Bound												South Bound				East Bound				West Bound			
Movement: L - T - R												L - T - R				L - T - R				L - T - R			
Control: Protected												Protected				Permitted				Protected			
Rights: Ignore												Include				Ignore				Include			
Min. Green: 0 0 0												0 0 0				0 0 0				0 0 0			
Y+R: 4.0 4.0 4.0												4.0 4.0 4.0				4.0 4.0 4.0				4.0 4.0 4.0			
Lanes: 2 0 0 0 1												0 0 0 0 0				0 0 2 0 1				2 0 2 0 0			

Volume Module:AM Peak

Base Vol:	986	0	311	0	0	0	0	430	625	275	1495	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	986	0	311	0	0	0	0	430	625	275	1495	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	986	0	0	0	0	0	0	430	0	275	1495	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	986	0	0	0	0	0	0	430	0	275	1495	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	986	0	0	0	0	0	0	430	0	275	1495	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	3200	3200	0

Capacity Analysis Module:

Vol/Sat:	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.09	0.47	0.00
Crit Moves:	****											

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.952
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 135 Level Of Service: E

Street Name:		Avenida Barbosa																			
Approach:		North Bound				South Bound				East Bound				West Bound							
Movement:		L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:		Protected				Permitted				Protected				Permitted							
Rights:		Include				Include				Include				Include							
Min. Green:		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	0	0	2	0	1

Volume Module:AM Peak

Base Vol:	0	0	0	336	0	212	347	371	0	0	1607	740
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	336	0	212	347	371	0	0	1607	740
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	336	0	212	347	371	0	0	1607	740
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	336	0	212	347	371	0	0	1607	740
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	336	0	212	347	371	0	0	1607	740

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.13	0.22	0.12	0.00	0.00	0.50	0.46
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.956
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 139 Level Of Service: E

Street Name: I-605 SB Off Ramp Arrow Hwy
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	1	0	0	0	0	3	0	0	2

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Volume Module:AM Peak

Base Vol:	0	0	0	570	0	737	0	704	0	0	1599	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	570	0	737	0	704	0	0	1599	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	570	0	0	0	704	0	0	1599	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	570	0	0	0	704	0	0	1599	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	570	0	0	0	704	0	0	1599	0

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

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Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.36	0.00	0.00	0.00	0.15	0.00	0.00	0.50	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.551
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 36 Level Of Service: A

Street Name:	Bateman Ave/Avenida Barbosa						Alpha St/Buena Vista Ave													
Approach:	North Bound			South Bound			East Bound			West Bound										
Movement:	L	T	R	L	T	R	L	T	R	L	T	R								
Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

Volume Module:AM

Base Vol:	44	233	825	5	123	5	1	6	10	332	9	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	44	233	825	5	123	5	1	6	10	332	9	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	44	233	825	5	123	5	1	6	10	332	9	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	44	233	825	5	123	5	1	6	10	332	9	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	44	233	825	5	123	5	1	6	10	332	9	11

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.16	0.84	2.00	0.04	0.92	0.04	1.00	1.00	1.00	2.00	0.45	0.55
Final Sat.:	254	1346	3200	60	1480	60	1600	1600	1600	3200	720	880

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.26	0.08	0.08	0.08	0.00	0.00	0.01	0.10	0.01	0.01
Crit Moves:			****	****			****	****				

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #8 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Average Delay (sec/veh): 5.7 Worst Case Level Of Service: B[10.1]

Street Name:	Bateman Ave						Meridian St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0

Volume Module:AM Peak

Base Vol:	198	0	2	0	0	0	0	22	128	1	5	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	198	0	2	0	0	0	0	22	128	1	5	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	198	0	2	0	0	0	0	22	128	1	5	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	198	0	2	0	0	0	0	22	128	1	5	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	93	93	86	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	150	xxxx	xxxxxx
Potent Cap.:	912	801	978	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1444	xxxx	xxxxxx
Move Cap.:	911	800	978	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1444	xxxx	xxxxxx
Volume/Cap:	0.22	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	912	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.8	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	10.1	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.5	xxxx	xxxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.1			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	B			*			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[14.0]

Street Name: Miguel Miranda Ave Buena Vista Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 1! 0 0 1 0 2 0 0 0 0 1 1 0

Volume Module:AM
Base Vol: 0 0 0 22 0 8 12 678 0 0 346 14
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 22 0 8 12 678 0 0 346 14
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 22 0 8 12 678 0 0 346 14
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 22 0 8 12 678 0 0 346 14

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx 6.8 6.5 6.9 4.1 xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx 3.5 4.0 3.3 2.2 xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx 716 1055 180 360 xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx 369 227 838 1210 xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx 366 225 838 1210 xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx 0.06 0.00 0.01 0.01 xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 8.0 xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * A * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx 431 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx 0.2 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx 14.0 xxxxx xxxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * B * * * * *
ApproachDel: xxxxxx 14.0 xxxxxx xxxxxx
ApproachLOS: * B * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #10 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: A[8.6]

Street Name:	Miguel Miranda Ave				Meridian St													
Approach:	North Bound		South Bound		East Bound		West Bound											
Movement:	L	T	R	L	T	R	L	T	R	L	T	R						
Control:	Stop Sign		Stop Sign		Uncontrolled		Uncontrolled											
Rights:	Include		Include		Include		Include											
Lanes:	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0

Volume Module:AM Peak

Base Vol:	13	0	1	0	0	0	0	0	21	3	1	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	0	1	0	0	0	0	0	21	3	1	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	13	0	1	0	0	0	0	0	21	3	1	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	13	0	1	0	0	0	0	0	21	3	1	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	7	7	0	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	21	xxxx	xxxxxx
Potent Cap.:	1019	892	1091	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1608	xxxx	xxxxxx
Move Cap.:	1018	890	1091	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1608	xxxx	xxxxxx
Volume/Cap:	0.01	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.2	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	1023	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.0	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	8.6	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.2	xxxx	xxxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #13 Ex Traffic Condition + Other Development + Project_East [AM Peak]

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: A[9.5]

Street Name:	Buena Vista Ave				Eastside Access Road													
Approach:	North Bound		South Bound		East Bound		West Bound											
Movement:	L	T	R	L	T	R	L	T	R	L	T	R						
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign											
Rights:	Include		Include		Include		Include											
Lanes:	1	0	2	0	0	0	1	1	0	1	0	0	0	1	0	0	0	0

Volume Module:AM

Base Vol:	105	595	0	0	260	0	0	0	100	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	105	595	0	0	260	0	0	0	100	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	105	595	0	0	260	0	0	0	100	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	105	595	0	0	260	0	0	0	100	0	0	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	xxxx	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	260	xxxx	xxxxx	xxxx	xxxx	xxxxx	768	xxxx	130	xxxx	xxxx	xxxxx
Potent Cap.:	1316	xxxx	xxxxx	xxxx	xxxx	xxxxx	342	xxxx	902	xxxx	xxxx	xxxxx
Move Cap.:	1316	xxxx	xxxxx	xxxx	xxxx	xxxxx	322	xxxx	902	xxxx	xxxx	xxxxx
Volume/Cap:	0.08	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	0.11	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.4	xxxx	xxxx	xxxxx
Control Del:	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	9.5	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	A	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			9.5			xxxxxx		
ApproachLOS:	*			*			A			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Average Delay (sec/veh): 132.9 Worst Case Level Of Service: F[312.9]

Street Name: I-605 NB Off Ramp Live Oak Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 2 0 0

Volume Module:PM Peak
Base Vol: 0 0 0 0 0 0 850 0 0 0 0 1151 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 850 0 0 0 0 1151 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 850 0 0 0 0 1151 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 0 0 0 0 0 0 850 0 0 0 0 1151 0

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: xxxx xxxx xxxxx xxxx xxxx 576 xxxx xxxx xxxxx xxxx xxxx xxxxx
Potent Cap.: xxxx xxxx xxxxx xxxx xxxx 521 xxxx xxxx xxxxx xxxx xxxx xxxxx
Move Cap.: xxxx xxxx xxxxx xxxx xxxx 521 xxxx xxxx xxxxx xxxx xxxx xxxxx
Volume/Cap: xxxx xxxx xxxx xxxx xxxx 1.63 xxxx xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:
2Way95thQ: xxxx xxxx xxxxx xxxx xxxx 47.8 xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del:xxxxx xxxx xxxxx xxxxx xxxx 312.9 xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: * * * * * F * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * *
ApproachDel: xxxxxx 312.9 xxxxxx xxxxxx
ApproachLOS: * F * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #2 Ex Traffic Condition + Other Development + Project_East[PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.908
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 104 Level Of Service: E

Street Name: I-605 SB On Ramp Live Oak Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Permitted Permitted Permitted Protected
 Rights: Include Include Ignore Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 0.0 0.0 0.0 0.0 0.0 0.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 0 0 0 2 0 1 1 0 2 0 0
 -----|-----|-----|-----|

Volume Module:PM Peak
 Base Vol: 0 0 0 0 0 0 0 0 1257 1465 665 1326 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 0 0 0 0 0 0 0 1257 1465 665 1326 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 PHF Volume: 0 0 0 0 0 0 0 0 1257 0 665 1326 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 0 0 0 0 0 1257 0 665 1326 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 0 0 0 0 0 1257 0 665 1326 0
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 2.00 0.00
 Final Sat.: 0 0 0 0 0 0 0 0 3200 1600 1600 3200 0
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.39 0.00 0.42 0.41 0.00
 Crit Moves: *****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 1.011
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Speedway Dr, Live Oak Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Volume Module:AM Peak
Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module:
Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table with columns for Vol/Sat and Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #4 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.792
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 65 Level Of Service: C

Street Name: Live Oak Ave												Arrow Hwy								
Approach: North Bound				South Bound				East Bound				West Bound								
Movement: L - T - R												L - T - R				L - T - R				
Control: Protected				Protected				Permitted				Protected								
Rights: Ignore				Include				Ignore				Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	2	0	0	0	1	0	0	0	0	0	0	0	2	0	1	2	0	2	0	0

Volume Module:AM Peak

Base Vol:	839	0	394	0	0	0	0	844	2188	533	779	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	839	0	394	0	0	0	0	844	2188	533	779	0
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	839	0	0	0	0	0	0	844	0	533	779	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	839	0	0	0	0	0	0	844	0	533	779	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	839	0	0	0	0	0	0	844	0	533	779	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	2.00	2.00	0.00
Final Sat.:	3200	0	1600	0	0	0	0	3200	1600	3200	3200	0

Capacity Analysis Module:

Vol/Sat:	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.17	0.24	0.00
Crit Moves:	****							****		****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #5 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.854
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 81 Level Of Service: D

Street Name:		Avenida Barbosa															
Approach:		North Bound				South Bound				East Bound				West Bound			
Movement:		L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	
Control:		Protected				Permitted				Protected				Permitted			
Rights:		Include				Include				Include				Include			
Min. Green:		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	
		0	0	0	0	0	2	0	0	0	1	1	0	2	0	0	

Volume Module:AM Peak

Base Vol:	0	0	0	682	0	436	307	935	0	0	926	353
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	682	0	436	307	935	0	0	926	353
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	682	0	436	307	935	0	0	926	353
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	682	0	436	307	935	0	0	926	353
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	682	0	436	307	935	0	0	926	353

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	3200	0	1600	1600	3200	0	0	3200	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.27	0.19	0.29	0.00	0.00	0.29	0.22
Crit Moves:						****	****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.668
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 46 Level Of Service: B

Street Name: I-605 SB Off Ramp																				
Approach: North Bound				South Bound				East Bound				West Bound								
Movement: L - T - R			L - T - R			L - T - R			L - T - R			L - T - R								
Control:			Protected			Protected			Permitted			Permitted								
Rights:			Include			Ignore			Include			Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0					
Lanes:	0	0	0	0	0	1	0	0	0	1	0	0	3	0	0	0	0	2	0	0

Volume Module:PM Peak

Base Vol:	0	0	0	364	0	754	0	1633	0	0	529	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	364	0	754	0	1633	0	0	529	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	364	0	0	0	1633	0	0	529	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	364	0	0	0	1633	0	0	529	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	364	0	0	0	1633	0	0	529	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	1600	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.34	0.00	0.00	0.17	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #7 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.712
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 Level Of Service: C

Street Name: Bateman Ave/Avenida Barbosa Alpha St/Buena Vista Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Split Phase			Split Phase			Protected			Protected										
Rights:	Include			Include			Include			Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Lanes:	0	1	0	0	2	0	0	1	0	0	1	0	1	1	0	2	0	0	1	0

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Volume Module:AM

Base Vol:	18	131	534	14	260	5	2	13	74	720	12	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	131	534	14	260	5	2	13	74	720	12	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	18	131	534	14	260	5	2	13	74	720	12	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	18	131	534	14	260	5	2	13	74	720	12	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	18	131	534	14	260	5	2	13	74	720	12	11

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Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.12	0.88	2.00	0.05	0.93	0.02	1.00	1.00	1.00	2.00	0.52	0.48
Final Sat.:	193	1407	3200	80	1491	29	1600	1600	1600	3200	835	765

-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.09	0.09	0.17	0.17	0.17	0.17	0.00	0.01	0.05	0.23	0.01	0.01
Crit Moves:			****	****					****	****		

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #8 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Average Delay (sec/veh): 3.8 Worst Case Level Of Service: B[10.1]

Street Name:	Bateman Ave						Meridian St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	0 0 0	0	0	0 1 0	0	1	0 0 0

Volume Module:AM Peak

Base Vol:	152	0	2	0	0	0	0	14	234	1	10	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	152	0	2	0	0	0	0	14	234	1	10	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	152	0	2	0	0	0	0	14	234	1	10	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	152	0	2	0	0	0	0	14	234	1	10	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	143	143	131	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	248	xxxx	xxxxxx
Potent Cap.:	854	752	924	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1330	xxxx	xxxxxx
Move Cap.:	854	751	924	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	1330	xxxx	xxxxxx
Volume/Cap:	0.18	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Control Del:	xxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.7	xxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	855	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	0.7	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.0	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	10.1	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.7	xxxx	xxxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.1	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
ApproachLOS:	B	*	*	*	*	*	*	*	*	*	*	

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #9 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C [16.9]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include Miguel Miranda Ave and Buena Vista Ave with various traffic configurations.

Volume Module:AM

Table showing traffic volume data including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume for various approaches.

Critical Gap Module:

Table showing critical gap and follow-up time data for different traffic movements.

Capacity Module:

Table showing capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap for various approaches.

Level Of Service Module:

Table showing level of service data including 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #10 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Average Delay (sec/veh): 5.3 Worst Case Level Of Service: A[8.6]

Street Name:	Miguel Miranda Ave						Meridian St										
Approach:	North Bound			South Bound			East Bound			West Bound							
Movement:	L	T	R	L	T	R	L	T	R	L	T	R					
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled							
Rights:	Include			Include			Include			Include							
Lanes:	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0

Volume Module:AM Peak

Base Vol:	17	0	1	0	0	0	0	0	11	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	0	1	0	0	0	0	0	11	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	0	1	0	0	0	0	0	11	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	17	0	1	0	0	0	0	0	11	0	0	0

Critical Gap Module:

Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	0	0	0	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	1029	900	1091	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	1029	900	1091	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	0.02	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	1032	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.2	xxxx	xxxxx
Shared LOS:	*	A	*	*	*	*	*	*	*	A	*	*
ApproachDel:	8.6			xxxxxx			xxxxxx			xxxxxx		
ApproachLOS:	A			*			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #13 Ex Traffic Condition + Other Development + Project_East [PM Peak]

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[11.3]

Table with columns: Street Name, Approach, Movement, Control, Rights, Lanes. Rows include Buena Vista Ave and Eastside Access Road with various traffic configurations.

Volume Module: PM
Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume. Rows show traffic volume data for different approaches.

Critical Gap Module:
Table with columns: Critical Gp, FollowUpTim. Rows show critical gap and follow-up time values.

Capacity Module:
Table with columns: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap. Rows show capacity-related metrics.

Level Of Service Module:
Table with columns: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS. Rows show level of service and delay data.

Note: Queue reported is the number of cars per lane.

APPENDIX I

LOS ANALYSIS WORK SHEETS WITH PROPOSED MITIGATIONS

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Existing Traffic Conditions with Mitigation [AM Peak Hour]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.791
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 65 Level Of Service: C

Street Name: I-605 NB Off Ramp Live Oak Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0

Lanes: 0 0 0 0 0 0 0 0 0 0 0 0 2 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 0 0 0 0 0 533 0 0 0 0 1146 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 533 0 0 0 0 1146 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 533 0 0 0 0 1146 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 533 0 0 0 0 1146 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 533 0 0 0 0 1146 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 0.00

Final Sat.: 0 0 0 0 0 1600 0 0 0 0 3200 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.33 0.00 0.00 0.00 0.00 0.36 0.00

Crit Moves: ****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 Existing Traffic Conditions with Mitigation [PM Peak Hour]

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

Street Name:	I-605 NB Off Ramp						Live Oak Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	0	0	0	0	2	0

Volume Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak Avenue East			Live Oak Avenue West		
Base Vol:	0	0	0	0	0	609	0	0	0	0	944	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	609	0	0	0	0	944	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	609	0	0	0	0	944	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	609	0	0	0	0	944	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	609	0	0	0	0	944	0

Saturation Flow Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak Avenue East			Live Oak Avenue West		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	0	0	1600	0	0	0	0	3200	0

Capacity Analysis Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak Avenue East			Live Oak Avenue West		
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00	0.00	0.00	0.30	0.00
Crit Moves:						****					****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 Existing + Project Traffic Conditions with Mitigation [AM Peak H

Cycle (sec): 100 Critical Vol./Cap.(X): 0.798
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 66 Level Of Service: C

Street Name:	I-605 NB Off Ramp						Live Oak Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	0	0	0	2	0

Volume Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak East			Live Oak West		
Base Vol:	0	0	0	0	0	544	0	0	0	0	1146	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	544	0	0	0	0	1146	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	544	0	0	0	0	1146	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	544	0	0	0	0	1146	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	544	0	0	0	0	1146	0

Saturation Flow Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak East			Live Oak West		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	0	0	1600	0	0	0	0	3200	0

Capacity Analysis Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak East			Live Oak West		
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.36	0.00
Crit Moves:						****					****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 Existing + Project Traffic Conditions with Mitigation [PM Peak H

Cycle (sec): 100 Critical Vol./Cap.(X): 0.782
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 63 Level Of Service: C

Street Name:	I-605 NB Off Ramp						Live Oak Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	0	0	0	2	0

Volume Module:

Base Vol:	0	0	0	0	0	619	0	0	0	0	944	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	619	0	0	0	0	944	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	619	0	0	0	0	944	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	619	0	0	0	0	944	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	619	0	0	0	0	944	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	0	0	1600	0	0	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.30	0.00
Crit Moves:						****					****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 Existing + Other Development Traffic Conditions with Mitigation

Cycle (sec): 100 Critical Vol./Cap.(X): 0.970
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 153 Level Of Service: E

Street Name: I-605 NB Off Ramp Live Oak Avenue

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 0 0 0 0 0 0 0 0 0 2 0 0

Volume Module:

Base Vol: 0 0 0 0 0 0 735 0 0 0 0 1313 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 0 735 0 0 0 0 1313 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 0 0 0 0 0 0 735 0 0 0 0 1313 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 0 0 0 735 0 0 0 0 1313 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 0 0 0 0 0 735 0 0 0 0 1313 0

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.00 0.00 0.00 0.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 0.00 0.00

Final Sat.: 0 0 0 0 0 1600 0 0 0 0 3200 0

Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.46 0.00 0.00 0.00 0.00 0.41 0.00

Crit Moves: **** *

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 Existing + Other Development Traffic Conditions with Mitigation

Cycle (sec): 100 Critical Vol./Cap.(X): 0.985
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 173 Level Of Service: E

Street Name:	I-605 NB Off Ramp						Live Oak Avenue					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	0	0	1	0	0	0	0	2	0

Volume Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak Avenue East			Live Oak Avenue West		
Base Vol:	0	0	0	0	0	840	0	0	0	0	1151	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	840	0	0	0	0	1151	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	840	0	0	0	0	1151	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	840	0	0	0	0	1151	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	840	0	0	0	0	1151	0

Saturation Flow Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak Avenue East			Live Oak Avenue West		
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	0	0	1600	0	0	0	0	3200	0

Capacity Analysis Module:	I-605 NB Off Ramp			I-605 SB Off Ramp			Live Oak Avenue East			Live Oak Avenue West		
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.00	0.00	0.36	0.00
Crit Moves:						****					****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 Existing + Other + Project Traffic Conditions with Mitigation [A

Cycle (sec): 100 Critical Vol./Cap.(X): 0.977
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 162 Level Of Service: E

Street Name: I-605 NB Off Ramp					Live Oak Avenue				
Approach: North Bound		South Bound			East Bound			West Bound	
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R		
Control:	Protected	Protected	Protected	Protected	Protected	Protected	Protected		
Rights:	Include	Include	Include	Include	Include	Include	Include		
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0		
Lanes:	0 0 0 0 0	0 0 0 0 1	0 0 0 0 0	0 0 0 0 0	0 0 2 0 0	0 0 0 0 0	0 0 0 0 0		

Volume Module:

Base Vol:	0	0	0	0	0	746	0	0	0	0	1313	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	746	0	0	0	0	1313	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	746	0	0	0	0	1313	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	746	0	0	0	0	1313	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	746	0	0	0	0	1313	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	0	0	1600	0	0	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.00	0.41	0.00
Crit Moves:						****					****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #1 Existing + Other + Project Traffic Conditions with Mitigation [P

Cycle (sec): 100 Critical Vol./Cap.(X): 0.991
 Loss Time (sec): 10 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

Street Name:	I-605 NB Off Ramp					Live Oak Avenue						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	0	0	1	0	0	0	0	2	0

Volume Module:	I-605 NB Off Ramp			Live Oak Avenue		
Base Vol:	0	0	0	0	0	850
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	850
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	850
Reduct Vol:	0	0	0	0	0	0
Reduced Vol:	0	0	0	0	0	850
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	0	0	850

Saturation Flow Module:	I-605 NB Off Ramp			Live Oak Avenue		
Sat/Lane:	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	0.00	0.00	1.00
Final Sat.:	0	0	0	0	0	1600

Capacity Analysis Module:	I-605 NB Off Ramp			Live Oak Avenue		
Vol/Sat:	0.00	0.00	0.00	0.00	0.00	0.53
Crit Moves:						****

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Existing Traffic Conditions with Mitigation [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Table with columns for Street Name (I-605 SB Off Ramp), Arrow Hwy, and four Approach types (North Bound, South Bound, East Bound, West Bound). Rows include Movement (L, T, R), Control (Permitted, Protected), Rights (Include, Ignore), and traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module:AM Peak
Table showing various adjustment factors and resulting volumes for different traffic conditions. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module:
Table showing saturation flow rates and adjustments. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:
Table showing volume to saturation ratios and critical moves. Rows include Vol/Sat and Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing Traffic Conditions with Mitigation [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.404
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 29 Level Of Service: A

Street Name: I-605 SB Off Ramp												Arrow Hwy									
Approach: North Bound				South Bound				East Bound				West Bound									
Movement: L - T - R				L - T - R				L - T - R				L - T - R									
Control: Protected				Protected				Permitted				Permitted									
Rights: Include				Ignore				Include				Include									
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0						
Lanes:	0	0	0	0	0	0	2	0	0	0	1	0	0	3	0	0	0	0	2	0	0

Volume Module:PM Peak

Base Vol:	0	0	0	185	0	461	0	1180	0	0	435	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	185	0	461	0	1180	0	0	435	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	185	0	0	0	1180	0	0	435	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	185	0	0	0	1180	0	0	435	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	185	0	0	0	1180	0	0	435	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.25	0.00	0.00	0.14	0.00
Crit Moves:				****				****		****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing + Project Traffic Conditions with Mitigation [AM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 48 Level Of Service: B

Street Name: I-605 SB Off Ramp												Arrow Hwy										
Approach: North Bound				South Bound				East Bound				West Bound										
Movement: L - T - R				L - T - R				L - T - R				L - T - R										
Control: Permitted				Protected				Permitted				Permitted										
Rights: Include				Ignore				Include				Include										
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Y+R:	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lanes:	0	0	0	0	0	0	2	0	0	0	1	0	0	3	0	0	0	0	0	2	0	0

Volume Module:AM Peak

Base Vol:	0	0	0	391	0	610	0	546	0	0	1468	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	391	0	610	0	546	0	0	1468	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	391	0	0	0	546	0	0	1468	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	391	0	0	0	546	0	0	1468	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	391	0	0	0	546	0	0	1468	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.11	0.00	0.00	0.46	0.00
Crit Moves:				****			****				****	

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing + Project Traffic Conditions with Mitigation [PM Peak]

Cycle (sec): 100 Critical Vol./Cap.(X): 0.423
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 30 Level Of Service: A

Street Name: I-605 SB Off Ramp												Arrow Hwy									
Approach: North Bound				South Bound				East Bound				West Bound									
Movement: L - T - R												L - T - R				L - T - R					
Control: Protected				Protected				Permitted				Permitted									
Rights: Include				Ignore				Include				Include									
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0						
Lanes:	0	0	0	0	0	0	2	0	0	0	1	0	0	3	0	0	0	0	2	0	0

Volume Module:PM Peak

Base Vol:	0	0	0	185	0	551	0	1275	0	0	435	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	185	0	551	0	1275	0	0	435	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	185	0	0	0	1275	0	0	435	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	185	0	0	0	1275	0	0	435	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	185	0	0	0	1275	0	0	435	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.27	0.00	0.00	0.14	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing + Other Dev Traffic Conditions with Mitigation [AM Peak

Cycle (sec): 100 Critical Vol./Cap.(X): 0.778
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 62 Level Of Service: C

Street Name: I-605 SB Off Ramp												Arrow Hwy			
Approach: North Bound				South Bound				East Bound				West Bound			
Movement: L - T - R				L - T - R				L - T - R				L - T - R			
Control: Permitted				Protected				Permitted				Permitted			
Rights: Include				Ignore				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	0	0	0	3	0	0	0

Volume Module:AM Peak

Base Vol:	0	0	0	570	0	642	0	614	0	0	1599	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	570	0	642	0	614	0	0	1599	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	570	0	0	0	614	0	0	1599	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	570	0	0	0	614	0	0	1599	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	570	0	0	0	614	0	0	1599	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.13	0.00	0.00	0.50	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Existing + Other Dev Traffic Conditions with Mitigation [PM Peak

Cycle (sec): 100 Critical Vol./Cap.(X): 0.534
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 35 Level Of Service: A

Table with columns: Street Name (I-605 SB Off Ramp), Arrow Hwy, Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, Lanes.

Volume Module: PM Peak
Table with columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module:
Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:
Table with columns: Vol/Sat, Crit Moves.

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing + Other + Project Traffic Conditions with Mitigation [A

Cycle (sec): 100 Critical Vol./Cap.(X): 0.778
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 62 Level Of Service: C

Street Name: I-605 SB Off Ramp												Arrow Hwy			
Approach: North Bound				South Bound				East Bound				West Bound			
Movement: L - T - R				L - T - R				L - T - R				L - T - R			
Control: Permitted				Protected				Permitted				Permitted			
Rights: Include				Ignore				Include				Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	0.0	0.0	0.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	1	0	0	0	0	3	0	0	0

Volume Module:AM Peak

Base Vol:	0	0	0	570	0	737	0	704	0	0	1599	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	570	0	737	0	704	0	0	1599	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	570	0	0	0	704	0	0	1599	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	570	0	0	0	704	0	0	1599	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	570	0	0	0	704	0	0	1599	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.00	0.00	0.15	0.00	0.00	0.50	0.00
Crit Moves:				****			****			****		

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

 Intersection #6 Existing + Other + Project Traffic Conditions with Mitigation [P

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

Street Name: I-605 SB Off Ramp												Arrow Hwy											
Approach: North Bound												South Bound				East Bound				West Bound			
Movement: L - T - R												L - T - R				L - T - R				L - T - R			
Control: Protected												Protected				Permitted				Permitted			
Rights: Include												Ignore				Include				Include			
Min. Green: 0 0 0												0 0 0				0 0 0				0 0 0			
Y+R: 4.0 4.0 4.0												4.0 4.0 4.0				4.0 4.0 4.0				4.0 4.0 4.0			
Lanes: 0 0 0 0 0												2 0 0 0 1				0 0 3 0 0				0 0 2 0 0			

Volume Module:PM Peak

Base Vol:	0	0	0	364	0	754	0	1633	0	0	529	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	364	0	754	0	1633	0	0	529	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	364	0	0	0	1633	0	0	529	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	364	0	0	0	1633	0	0	529	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	364	0	0	0	1633	0	0	529	0

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	3.00	0.00	0.00	2.00	0.00
Final Sat.:	0	0	0	3200	0	1600	0	4800	0	0	3200	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.34	0.00	0.00	0.17	0.00
Crit Moves:				****			****			****		

APPENDIX J

OFF-RAMP QUEUING ANALYSIS

1: Live Oak Avenue & I-605 NB Off-ramp



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	1146	0	0	533
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	1246	0	0	579
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		422				
pX, platoon unblocked						
vC, conflicting volume	1246				1246	623
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1246				1246	623
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	555				166	429
Direction, Lane #	WB 1	WB 2	SW 1			
Volume Total	623	623	579			
Volume Left	0	0	0			
Volume Right	0	0	579			
cSH	1700	1700	429			
Volume to Capacity	0.37	0.37	1.35			
Queue Length 95th (ft)	0	0	672			
Control Delay (s)	0.0	0.0	198.6			
Lane LOS			F			
Approach Delay (s)	0.0		198.6			
Approach LOS			F			
Intersection Summary						
Average Delay			63.0			
Intersection Capacity Utilization			71.3%	ICU Level of Service		C
Analysis Period (min)			15			

6: Arrow Highway & I-605 SB Off-ramp



Lane Group	EBT	WBT	SWL	SWR
Lane Group Flow (vph)	496	1596	425	560
v/c Ratio	0.47	1.02	1.93	0.35
Control Delay	26.9	49.7	459.1	0.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.9	49.7	459.1	0.6
Queue Length 50th (ft)	71	~377	~299	0
Queue Length 95th (ft)	102	#535	#463	0
Internal Link Dist (ft)	2969	722	570	
Turn Bay Length (ft)			505	
Base Capacity (vph)	1054	1566	220	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.47	1.02	1.93	0.35

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

1: Live Oak Avenue & I-605 NB Off-ramp



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	944	0	0	609
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	1026	0	0	662
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		422				
pX, platoon unblocked						
vC, conflicting volume	1026				1026	513
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1026				1026	513
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	672				231	506
Direction, Lane #	WB 1	WB 2	SW 1			
Volume Total	513	513	662			
Volume Left	0	0	0			
Volume Right	0	0	662			
cSH	1700	1700	506			
Volume to Capacity	0.30	0.30	1.31			
Queue Length 95th (ft)	0	0	706			
Control Delay (s)	0.0	0.0	176.1			
Lane LOS			F			
Approach Delay (s)	0.0		176.1			
Approach LOS			F			
Intersection Summary						
Average Delay			69.1			
Intersection Capacity Utilization			70.5%	ICU Level of Service		C
Analysis Period (min)			15			

6: Arrow Highway & I-605 SB Off-ramp



Lane Group	EBT	WBT	SWL	SWR
Lane Group Flow (vph)	1283	473	201	501
v/c Ratio	1.22	0.30	0.91	0.32
Control Delay	135.0	13.6	76.9	0.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	135.0	13.6	76.9	0.5
Queue Length 50th (ft)	~262	68	90	0
Queue Length 95th (ft)	#348	100	#208	0
Internal Link Dist (ft)	2969	722	570	
Turn Bay Length (ft)			500	
Base Capacity (vph)	1054	1566	220	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.22	0.30	0.91	0.32

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.

1: Live Oak Avenue & I-605 NB Off-ramp



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	1146	0	0	544
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	1246	0	0	591
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		422				
pX, platoon unblocked						
vC, conflicting volume	1246				1246	623
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1246				1246	623
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	555				166	429
Direction, Lane #	WB 1	WB 2	SW 1			
Volume Total	623	623	591			
Volume Left	0	0	0			
Volume Right	0	0	591			
cSH	1700	1700	429			
Volume to Capacity	0.37	0.37	1.38			
Queue Length 95th (ft)	0	0	704			
Control Delay (s)	0.0	0.0	210.1			
Lane LOS			F			
Approach Delay (s)	0.0		210.1			
Approach LOS			F			
Intersection Summary						
Average Delay			67.6			
Intersection Capacity Utilization			72.0%	ICU Level of Service		C
Analysis Period (min)			15			

6: Arrow Highway & I-605 SB Off-ramp



Lane Group	EBT	WBT	SWL	SWR
Lane Group Flow (vph)	593	1596	425	663
v/c Ratio	0.56	1.02	1.93	0.42
Control Delay	28.1	49.7	459.1	0.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	28.1	49.7	459.1	0.8
Queue Length 50th (ft)	87	~377	~299	0
Queue Length 95th (ft)	121	#535	#463	0
Internal Link Dist (ft)	2969	722	570	
Turn Bay Length (ft)			500	
Base Capacity (vph)	1054	1566	220	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.56	1.02	1.93	0.42

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.

1: Live Oak Avenue & I-605 NB Off-ramp



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	944	0	0	619
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	1026	0	0	673
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		422				
pX, platoon unblocked						
vC, conflicting volume	1026				1026	513
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1026				1026	513
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	672				231	506
Direction, Lane #	WB 1	WB 2	SW 1			
Volume Total	513	513	673			
Volume Left	0	0	0			
Volume Right	0	0	673			
cSH	1700	1700	506			
Volume to Capacity	0.30	0.30	1.33			
Queue Length 95th (ft)	0	0	735			
Control Delay (s)	0.0	0.0	184.9			
Lane LOS			F			
Approach Delay (s)	0.0		184.9			
Approach LOS			F			
Intersection Summary						
Average Delay			73.2			
Intersection Capacity Utilization			71.1%	ICU Level of Service		C
Analysis Period (min)			15			

6: Arrow Highway & I-605 SB Off-ramp



Lane Group	EBT	WBT	SWL	SWR
Lane Group Flow (vph)	1386	473	201	599
v/c Ratio	1.31	0.30	0.91	0.38
Control Delay	176.0	13.6	76.9	0.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	176.0	13.6	76.9	0.7
Queue Length 50th (ft)	~298	68	90	0
Queue Length 95th (ft)	#385	100	#208	0
Internal Link Dist (ft)	2969	722	570	
Turn Bay Length (ft)			500	
Base Capacity (vph)	1054	1566	220	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.31	0.30	0.91	0.38

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.



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	1313	0	0	746
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	1427	0	0	811
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		422				
pX, platoon unblocked						
vC, conflicting volume	1427				1427	714
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1427				1427	714
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	472				126	374
Direction, Lane #	WB 1	WB 2	SW 1			
Volume Total	714	714	811			
Volume Left	0	0	0			
Volume Right	0	0	811			
cSH	1700	1700	374			
Volume to Capacity	0.42	0.42	2.17			
Queue Length 95th (ft)	0	0	1493			
Control Delay (s)	0.0	0.0	557.7			
Lane LOS			F			
Approach Delay (s)	0.0		557.7			
Approach LOS			F			
Intersection Summary						
Average Delay			202.1			
Intersection Capacity Utilization			89.2%	ICU Level of Service		E
Analysis Period (min)			15			

6: Arrow Highway & I-605 SB Off-ramp

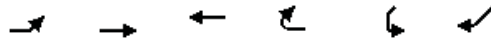
AM PEAK



Lane Group	EBT	WBT	SWL	SWR
Lane Group Flow (vph)	765	1738	620	801
v/c Ratio	0.73	1.11	2.82	0.51
Control Delay	31.3	81.4	848.4	1.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	31.3	81.4	848.4	1.2
Queue Length 50th (ft)	117	~476	~484	0
Queue Length 95th (ft)	157	#607	#672	0
Internal Link Dist (ft)	2969	722	570	
Turn Bay Length (ft)			500	
Base Capacity (vph)	1054	1566	220	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.73	1.11	2.82	0.51

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.



Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations			↑↑			↗
Volume (veh/h)	0	0	1151	0	0	850
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	1251	0	0	924
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		422				
pX, platoon unblocked						
vC, conflicting volume	1251				1251	626
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1251				1251	626
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	0
cM capacity (veh/h)	552				165	427
Direction, Lane #	WB 1	WB 2	SW 1			
Volume Total	626	626	924			
Volume Left	0	0	0			
Volume Right	0	0	924			
cSH	1700	1700	427			
Volume to Capacity	0.37	0.37	2.16			
Queue Length 95th (ft)	0	0	1681			
Control Delay (s)	0.0	0.0	551.7			
Lane LOS			F			
Approach Delay (s)	0.0		551.7			
Approach LOS			F			
Intersection Summary						
Average Delay			234.4			
Intersection Capacity Utilization			91.1%	ICU Level of Service		F
Analysis Period (min)			15			

6: Arrow Highway & I-605 SB Off-ramp

PM PEAK



Lane Group	EBT	WBT	SWL	SWR
Lane Group Flow (vph)	1775	575	396	820
v/c Ratio	1.68	0.37	1.80	0.52
Control Delay	336.5	14.3	402.1	1.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	336.5	14.3	402.1	1.2
Queue Length 50th (ft)	~433	86	~271	0
Queue Length 95th (ft)	#525	123	#431	0
Internal Link Dist (ft)	2969	722	570	
Turn Bay Length (ft)			500	
Base Capacity (vph)	1054	1566	220	1583
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.68	0.37	1.80	0.52

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX K

TRAFFIC SIGNAL WARRANT ANALYSIS

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)
Intersection - New Access Road West and Buena Vista Street
Scenario - Existing + Project

WARRANT 2 - Four Hour Vehicular Volume SATISFIED* YES NO

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One		2 or More		Hour
	1	2	3	4	
Both Approaches - Major Street					
Higher Approach - Minor Street					

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

WARRANT 3 - Peak Hour SATISFIED YES NO
 (Part A or Part B must be satisfied)

PART A SATISFIED YES NO

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

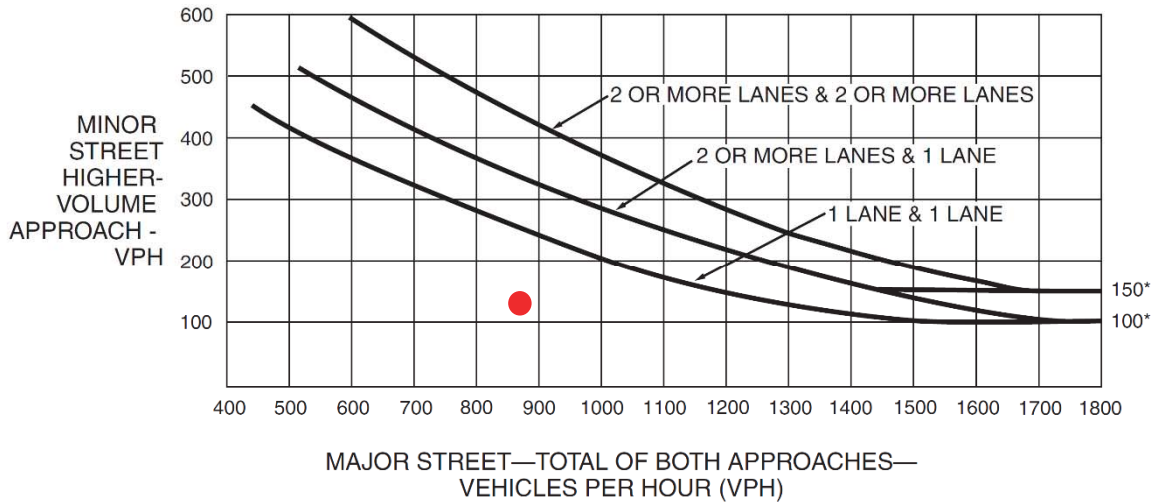
PART B SATISFIED YES NO

APPROACH LANES	One		2 or More		Hour (PM Peak Hour)
	1	2	3	4	
Both Approaches - Major Street			<input checked="" type="checkbox"/>		981
Higher Approach - Minor Street	<input checked="" type="checkbox"/>				105

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

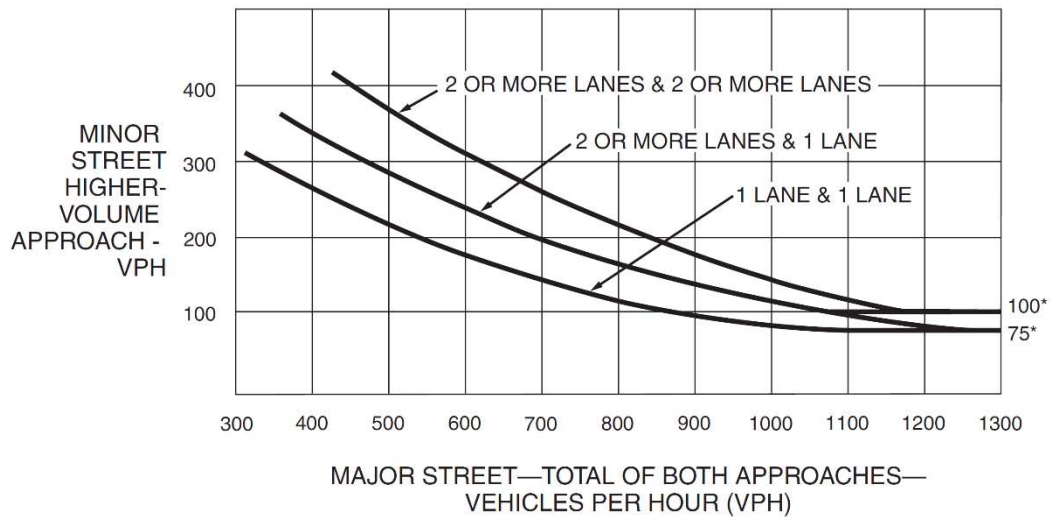
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)
Intersection - New Access Road West and Buena Vista Street
Scenario - Existing + Other Development + Project

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED*** YES NO

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One		2 or More		Hour
	1	2	3	4	
Both Approaches - Major Street					
Higher Approach - Minor Street					

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

WARRANT 3 - Peak Hour **SATISFIED** YES NO
 (Part A or Part B must be satisfied)

PART A **SATISFIED** YES NO

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

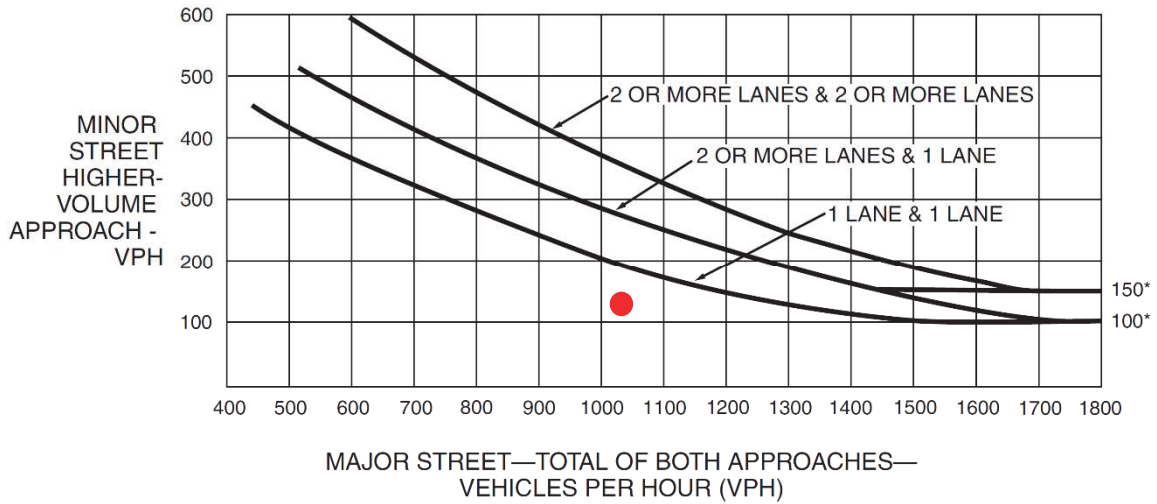
PART B **SATISFIED** YES NO

APPROACH LANES	One		2 or More		Hour (PM Peak Hour)
	1	2	3	4	
Both Approaches - Major Street			✓	1,125	
Higher Approach - Minor Street	✓			105	

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

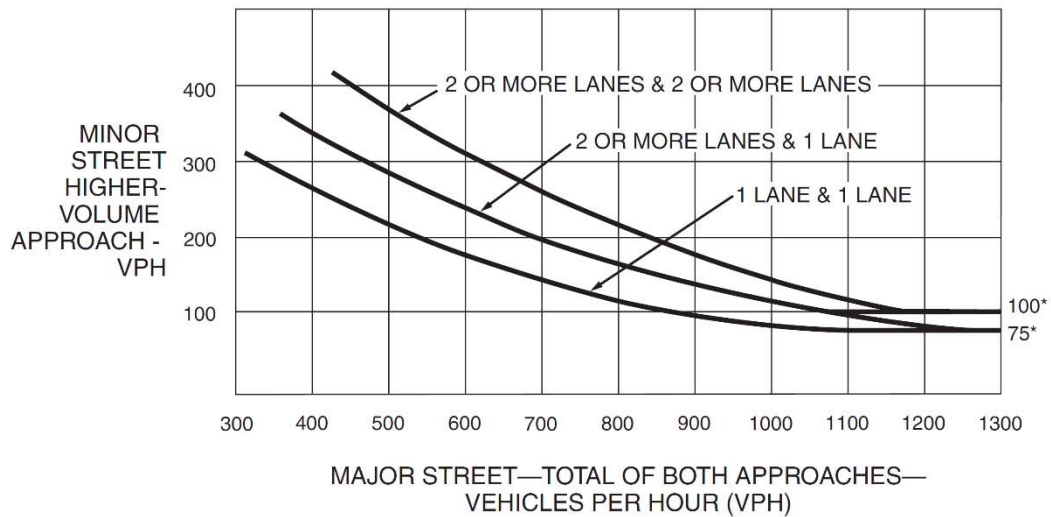
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)
Intersection - Buena Vista Street and East Access Road
Scenario - Existing + Project

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED*** YES NO

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One		2 or More		Hour
	1	2	3	4	
Both Approaches - Major Street					
Higher Approach - Minor Street					

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

WARRANT 3 - Peak Hour **SATISFIED** YES NO
 (Part A or Part B must be satisfied)

PART A **SATISFIED** YES NO

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

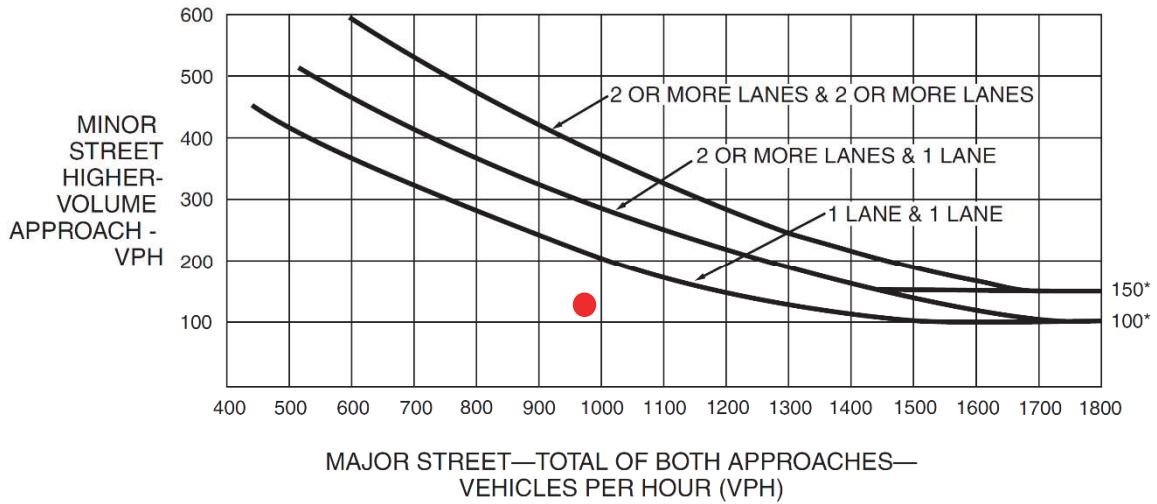
PART B **SATISFIED** YES NO

APPROACH LANES	One		2 or More		Hour (PM Peak Hour)
	1	2	3	4	
Both Approaches - Major Street			✓		993
Higher Approach - Minor Street			✓		105

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

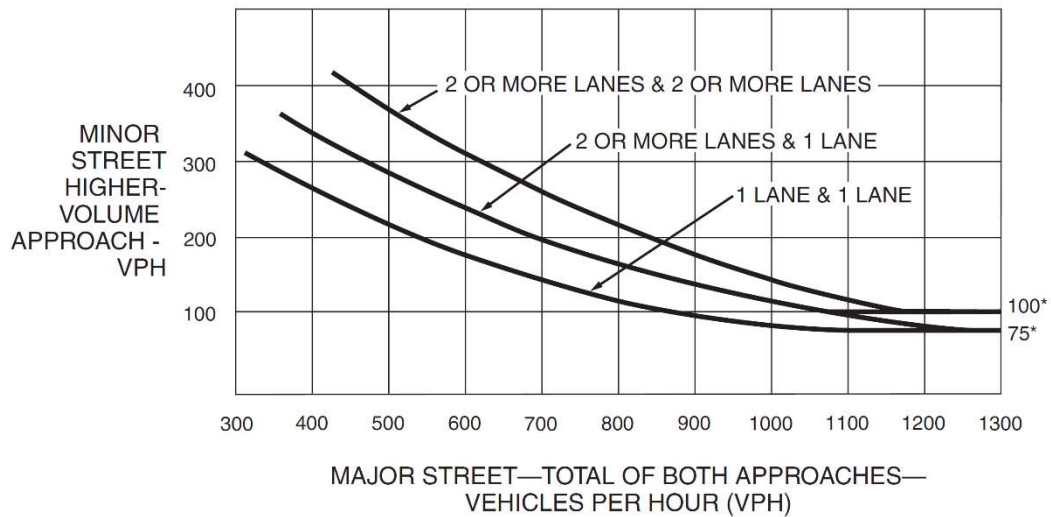
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)
Intersection - Buena Vista Street and East Access Road
Scenario - Existing + Other Development + Project

WARRANT 2 - Four Hour Vehicular Volume **SATISFIED*** YES NO

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One		2 or More		Hour
	1	2	3	4	
Both Approaches - Major Street					
Higher Approach - Minor Street					

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

WARRANT 3 - Peak Hour **SATISFIED** YES NO
 (Part A or Part B must be satisfied)

PART A **SATISFIED** YES NO

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

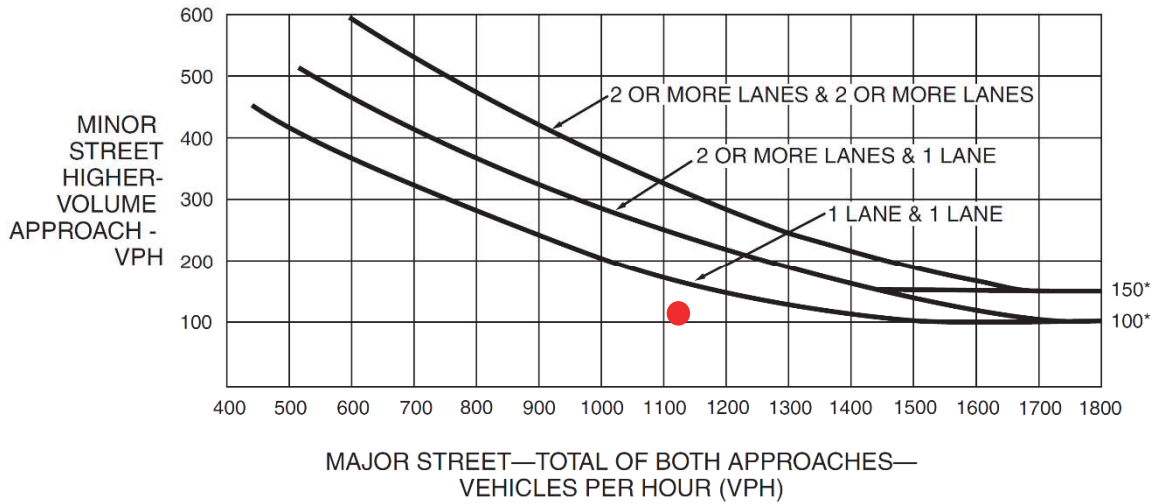
PART B **SATISFIED** YES NO

APPROACH LANES	One		2 or More		Hour (PM Peak Hour)
	1	2	3	4	
Both Approaches - Major Street			✓		1,137
Higher Approach - Minor Street			✓		105

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>

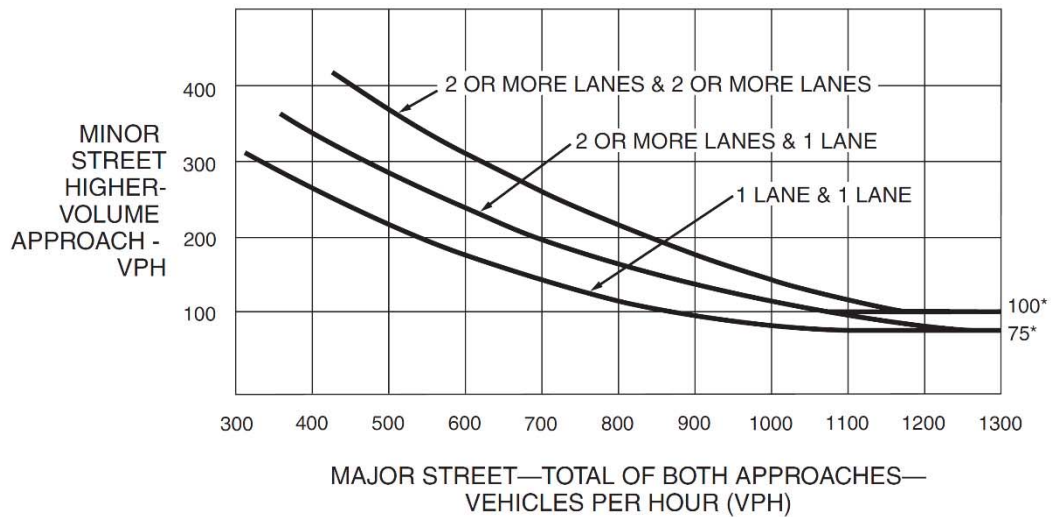
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.