Michael Baker
INTERNATIONAL

14725 Alton Parkway
Irvine, CA 92618-2027
o: 949-472-3505
d: 949-855-5754
f: 949-472-8373
www.mbakerintl.com

PARK PLACE EXTENSION IN CITY OF EL SEGUNDO TRAFFIC IMPACT ANALYSIS

City of El Segundo, California

November 29, 2016

Prepared for
City of El Segundo
350 Main Street
El Segundo, CA 90245

Prepared By:
Tom Huang, TE
Aldrin Dorado, EIT

JN: 145070

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Proposed Project 2
1.2 Study Area 2
1.3 Analysis Scenarios 4
1.4 Analysis Time Period 4

2.0 ANALYSIS METHODOLOGY 5
2.1 Intersection Analysis Methodology 5
2.1.1 Intersection Capacity Utilization (ICU) Method for Signalized Intersection 5
2.1.2 Highway Capacity Manual (HCM) Method for Unsignalized Intersection 6
2.2 City of El Segundo Traffic Impact Criteria and Thresholds 6
2.3 City of Manhattan Beach Traffic Impact Criteria and Thresholds 7
2.4 City of Hawthorne Traffic Impact Criteria and Thresholds 7
2.5 Traffic Signal Warrant Analysis Methodology 7

3.0 EXISTING CONDITIONS 9
3.1 Roadway Description 9
3.2 Existing Conditions Traffic Volumes 12
3.3 Existing Conditions Intersection Analysis 12
3.4 Existing Conditions Traffic Signal Warrant Analysis 12

4.0 PROJECT-RELATED TRAFFIC DIVERSION 16
4.1 Current Critical Locations 16
4.2 Potential Traffic Diversion Patterns 16
4.3 Project-Related Diverted Traffic Volumes 23

5.0 FUTURE TRAFFIC FORECAST 26
5.1 Ambient Growth Rate 26
5.2 Cumulative Development Traffic 26
5.3 Existing 2016 Plus Project Traffic 26
5.4 Opening Year 2021 Without Project Traffic 26
5.5 Opening Year 2021 With Project Traffic 36

6.0 FUTURE CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS 39

7.0 FUTURE CONDITIONS INTERSECTION ANALYSIS 40
7.1 Existing 2016 Plus Project Intersection Analysis 40
7.2 Opening Year 2021 Without Project Intersection Analysis 43
7.3 Opening Year 2021 With Project Intersection Analysis 43

8.0 CONCLUSIONS.....47
8.1 Traffic Signal Warrant Analysis Results.....47
8.2 Intersection Analysis Results 48
8.3 Recommended Improvements 49

LIST OF TABLES

Table 1 – Level of Service for Signalized Intersection 5
Table 2 – Level of Service for Un-Signalized Intersections..... 6
Table 3 – Existing 2016 Conditions Intersection Analysis Summary.....15
Table 4 – Cumulative Development Traffic Generation 28
Table 5 – Traffic Signal Warrant Analysis Summary.....39
Table 6 – Existing 2016 Plus Project Conditions Intersection and Impact Analysis Summary, Without and With Traffic Diversion to Park Place Extension 41
Table 7 – Opening Year 2021 With Project Conditions Intersection and Impact Analysis Summary, Without and With Traffic Diversion to Park Place Extension 45

LIST OF EXHIBITS

Exhibit 1 – Regional Study Area 1
Exhibit 2 – Project Study Area 3
Exhibit 3 – Existing Intersection Geometry 10
Exhibit 4 – Existing 2016 Intersection Volumes 13
Exhibit 5 – Existing 2016 Intersection Level of Service 17
Exhibit 6 – Diversion Redistribution Patterns for Southbound Left and Westbound Right at Sepulveda Boulevard and Rosecrans Avenue 18
Exhibit 7 – Diversion Redistribution Patterns for Southbound Right and Eastbound Left at the Access of Plaza El Segundo on Park Place 19
Exhibit 8 – Diversion Redistribution Patterns for Northbound Right and Westbound Left at Sepulveda Boulevard and Hughes Way 20
Exhibit 9 – Diversion Redistribution Patterns for Northbound Right and Westbound Left at Sepulveda Boulevard and El Segundo Boulevard 21
Exhibit 10 – Project-Related Diverted Traffic Volumes 24
Exhibit 11 – Cumulative Development Location Map 27
Exhibit 12 – Cumulative Development Intersection Volumes 30
Exhibit 13 – Existing 2016 Plus Project Intersection Volumes 32
Exhibit 14 – Opening Year 2021 Without Project Intersection Volumes 34
Exhibit 15 – Opening Year 2021 With Project Intersection Volumes 37

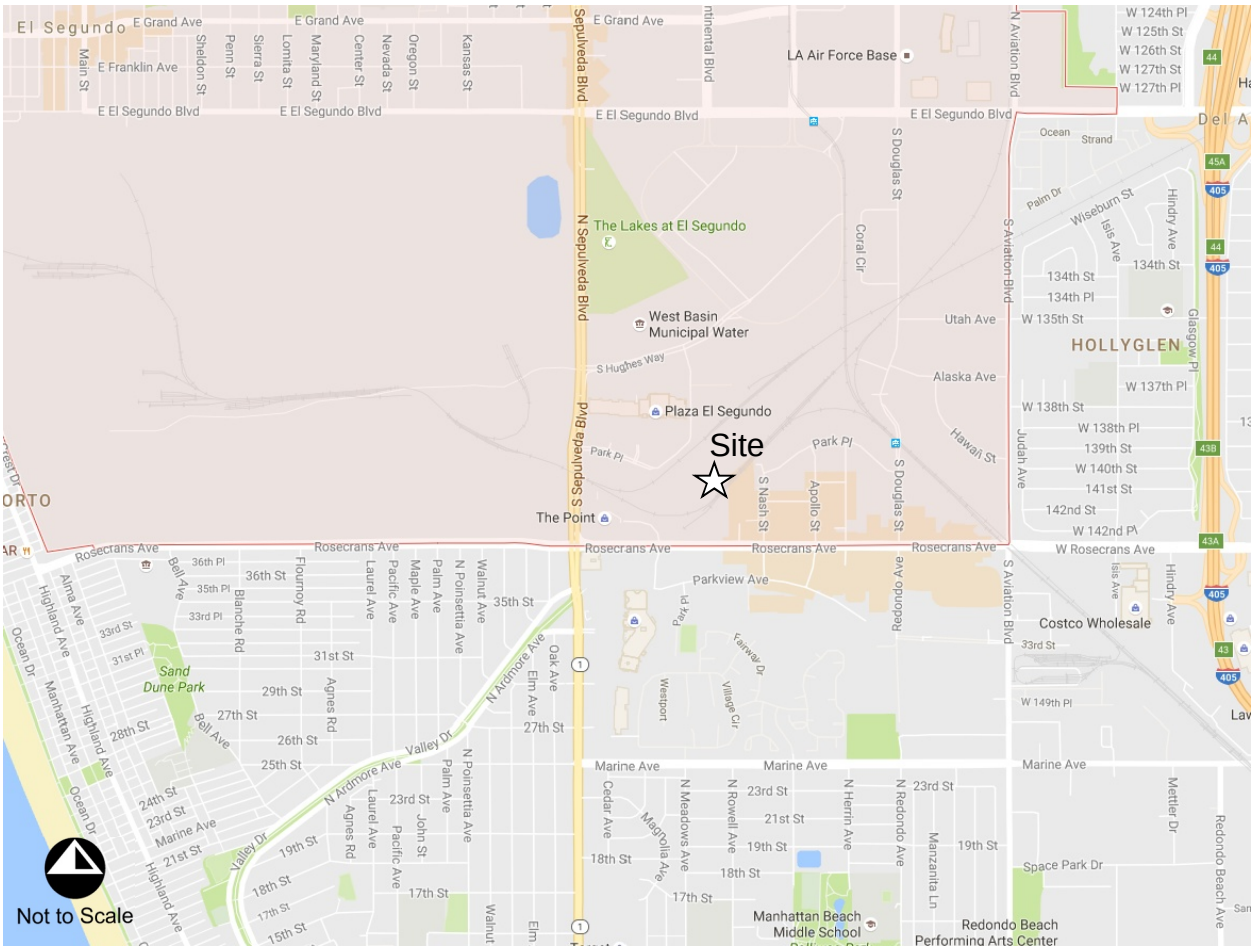
APPENDICES

Appendix A – Project Build Alternative Plans ..... A
Appendix B – Traffic Count Data Sheets ..... B
Appendix C – Existing 2016 Conditions Intersection Analysis Worksheets C
Appendix D – Existing 2016 Conditions Traffic Signal Warrant Analysis Worksheets ..... D
Appendix E – Ambient Growth Rates and Cumulative Development Traffic Generation and Trip Distribution ..... E
Appendix F – Future Conditions Traffic Signal Warrant Analysis Worksheets ..... F
Appendix G – Existing 2016 Plus Project Conditions Intersection Analysis Worksheets ..... G
Appendix H – Opening Year 2021 Without Project Conditions Intersection Analysis Worksheets ..... H
Appendix I – Opening Year 2021 With Project Conditions Intersection Analysis Worksheets I

1.0 INTRODUCTION

This traffic impact analysis report addresses the potential traffic impact and circulation needs associated with the proposed roadway extension of Park Place between Allied Way and Nash Street in the City of El Segundo. The project site is located north of Rosecrans Avenue, south of El Segundo Boulevard, east of Sepulveda Boulevard and west of Aviation Boulevard. Exhibit 1 shows the regional location of the project site.

Exhibit 1 – Regional Study Area



This traffic impact analysis report is prepared based on the traffic study requirements of the City of El Segundo and is consistent with the Congestion Management Program (CMP) for Los Angeles County. This traffic study analyzes weekday AM and PM peak hour conditions for existing 2016 and Opening Year 2021 conditions without and with the proposed project. The Opening Year 2021 conditions is forecasted based on an annual growth rate of 0.26% per the Los Angeles County Congestion Management Program (CMP) as well as added traffic generated by other cumulative developments in the study area.

1.1 Proposed Project

The City of El Segundo (City) proposes to extend Park Place from Allied Way to Nash Street with a railroad grade separation to implement a critical project improving traffic conditions and circulation in the project area. Park Place currently exists in two segments with a roughly quarter mile gap across an undeveloped area which consists of Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe (BNSF) railroad spurs. The project would implement a roadway gap closure to establish Park Place as an alternate east-west route between Sepulveda Boulevard and Douglas Street to relieve congestion along portions of Rosecrans Avenue and Sepulveda Boulevard, as well as to improve local traffic circulation and access to and from the I-105 freeway.

Four build alternatives have been identified as potential options for project implementation. These four alternatives are identified as Alternative 1A, Alternative 1C, Alternative 3A, and Alternative 3B. Alternatives 1A and 1C would involve relocation of the existing BNSF railroad tracks to the north to be adjacent to the existing UPRR tracks. This consolidation of railroad alignments would allow for a single grade separation as part of the project. Alternatives 1A and 1C would include various roadway and underpass configurations for Park Place, which would cross beneath the UPRR and BNSF railroads. The railroad bridge width would accommodate two tracks to provide access for the BNSF and UPRR lead tracks between the Chevron refinery and railroad storage yards. Each alternative would also maintain connectivity to Allied Way.

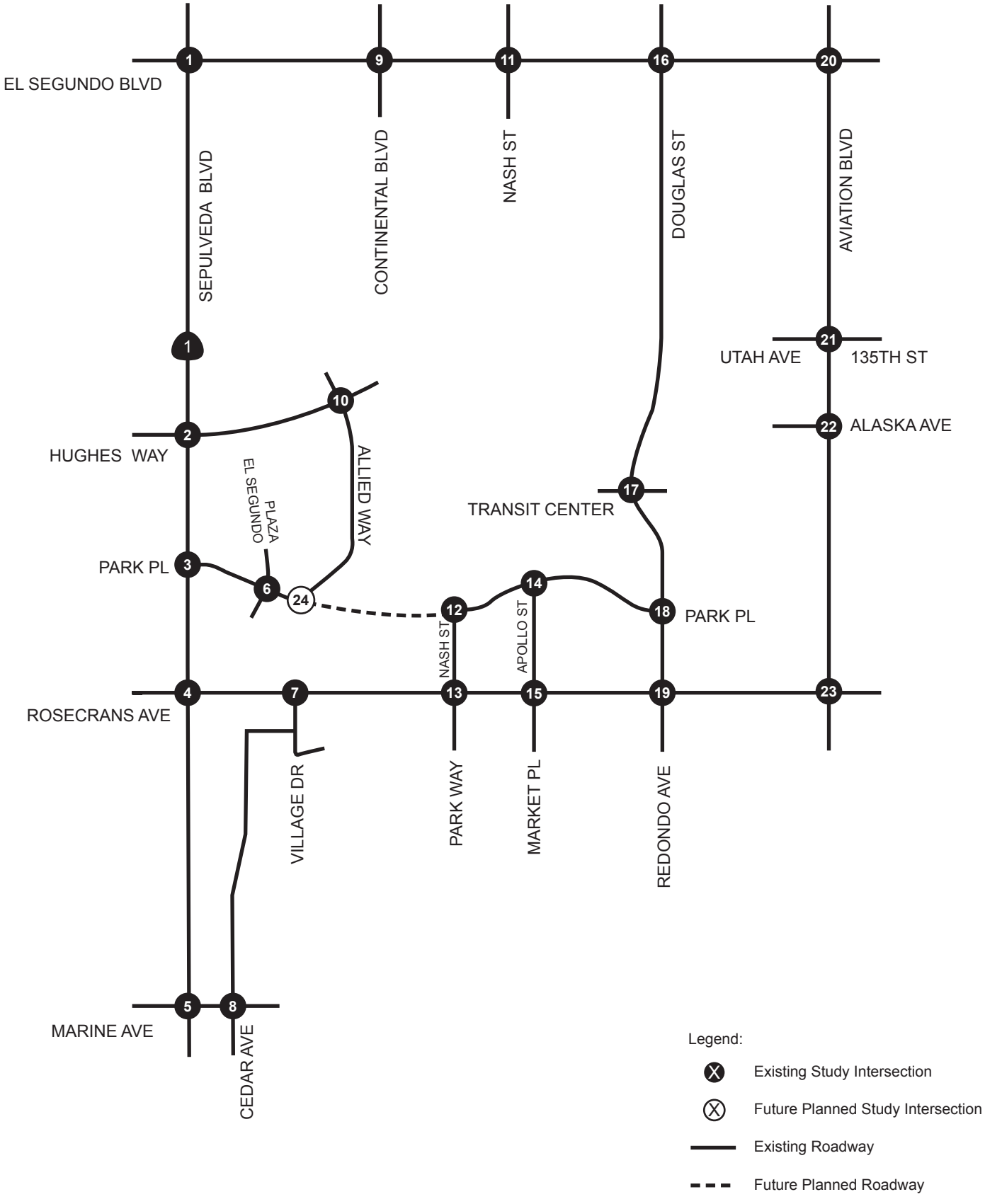
Alternatives 3A and 3B would generally be similar to Alternatives 1A and 1C, but would leave the UPRR and BNSF railroad alignments in their existing locations. Alternative 3A would include two grade separations to allow for the extension of Park Place (one at each railroad alignment). Alternative 3B would include one grade separation at the UPRR railroad, and an at-grade crossing at the BNSF railroad. Build alternative plans are included in Appendix A. The proposed project is anticipated to be completed and operational in year 2021.

From a traffic analysis standpoint, all the different project alternatives for the Park Place Extension project have the same intersection connectivity between the quarter-mile gap as well as the same traffic flow patterns.

1.2 Study Area

Exhibit 2 shows the study area that includes twenty-four (24) intersections located within Cities of El Segundo, Manhattan Beach and Hawthorne. As shown in Exhibit 2, the study area includes the following twenty-four (24) intersections:

1. Sepulveda Boulevard at El Segundo Boulevard (signalized) – El Segundo;
2. Sepulveda Boulevard at Hughes Way (signalized) – El Segundo;
3. Sepulveda Boulevard at Park Place (signalized) – El Segundo;
4. Sepulveda Boulevard at Rosecrans Avenue (signalized) – El Segundo and Manhattan Beach;
5. Sepulveda Boulevard at Marine Avenue (signalized) – Manhattan Beach;
6. Plaza El Segundo Access at Park Place (signalized) – El Segundo;
7. Village Drive at Rosecrans Avenue (signalized) – El Segundo and Manhattan Beach;
8. Cedar Avenue at Marine Avenue (signalized) – Manhattan Beach;
9. Continental Boulevard at Sepulveda Boulevard (signalized) – El Segundo;
10. Allied Way at Hughes Way (signalized) – El Segundo;



Not to Scale

Michael Baker INTERNATIONAL

Exhibit 2
Project Study Area

Park Place Extension Project
Traffic Impact Analysis

11. Nash Street at Sepulveda Boulevard (signalized) – El Segundo;
12. Nash Street at Park Place (un-signalized) – El Segundo;
13. Nash Street/Park Way at Rosecrans Avenue (signalized) – El Segundo and Manhattan Beach;
14. Apollo Street at Park Place (un-signalized) – El Segundo;
15. Apollo Street/Market Place at Rosecrans Avenue (signalized) – El Segundo and Manhattan Beach;
16. Douglas Street at El Segundo Boulevard (signalized) – El Segundo;
17. Douglas Street at Transit Center (signalized) – El Segundo;
18. Douglas Street at Park Place (un-signalized) – El Segundo;
19. Redondo Avenue at Rosecrans Avenue (signalized) – El Segundo and Manhattan Beach;
20. Aviation Boulevard at El Segundo Boulevard (signalized) – El Segundo and Hawthorne;
21. Aviation Boulevard at Utah Avenue/135th Street (signalized) – El Segundo and Hawthorne;
22. Aviation Boulevard at Alaska Avenue (signalized) – El Segundo and Hawthorne;
23. Aviation Boulevard at Rosecrans Avenue (signalized) – El Segundo, Manhattan Beach and Hawthorne; and
24. Allied Way at Park Place (future intersection) – El Segundo.

1.3 Analysis Scenarios

The study intersections are analyzed for the following study scenarios:

- Existing (2016) Conditions;
- Existing (2016) plus Project Conditions;
- Opening Year 2021 without Project Conditions; and
- Opening Year 2021 with Project Conditions.

1.4 Analysis Time Period

The study area intersections are analyzed for the following time periods:

- Weekday AM Peak Hour – Peak hour within 7:00 PM and 9:00 PM
- Weekday PM Peak Hour – Peak hour within 4:00 PM and 6:00 PM

2.0 ANALYSIS METHODOLOGY

This section describes the intersection analysis, performance criteria, thresholds of significance, and traffic volume forecast methodologies utilized in this traffic analysis.

2.1 Intersection Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. The Intersection Capacity Utilization (ICU) analysis methodology is utilized to determine the operating LOS of the signalized intersections. For un-signalized intersections, the Highway Capacity Manual (HCM) analysis methodology is utilized to determine the operating.

2.1.1 Intersection Capacity Utilization (ICU) Method for Signalized Intersection

The signalized intersections are analyzed using the Intersection Capacity Utilization (ICU) method. The ICU technique estimates the volume-to-capacity (V/C) ratio for an intersection based on the individual V/C ratios for the conflicting traffic movements. The ICU value represents the percent signal green time or capacity of the intersection movements. It should be noted that the ICU method assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

The ICU value translates to a LOS estimate, which is a relative measure of the intersection performance. The grade scales of LOS have been defined with the corresponding ICU value range as shown in Table 1. The ICU value is the sum of the critical volume-to-capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements.

Table 1 – Level of Service for Signalized Intersection

Level of Service	Intersection Capacity Utilization (ICU)	
	Volume/Capacity (V/C)	Description
A	≤ 0.600	Excellent
B	> 0.601 ≤ 0.700	Very Good
C	> 0.700 to ≤ 0.800	Good
D	> 0.800 to ≤ 0.900	Fair
E	> 0.900 to ≤ 1.000	Poor
F	> 1.000	Failure

ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through and right-turn lanes, and a dual left-turn capacity of 2,880 vph. A 10% clearance internal is included in the analysis calculations based on City of El Segundo requirements.

2.1.2 Highway Capacity Manual (HCM) Method for Unsignalized Intersection

The 2010 HCM analysis methodology describes the operation of an unsignalized intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding ranges of stopped delay experienced per vehicle for unsignalized intersections shown in Table 2.

Table 2 – Level of Service for Un-Signalized Intersections

Level of Service	Highway Capacity Manual (HCM)	
	Delay (seconds/vehicle)	Description
A	≤ 10.0	Little or no delay
B	> 10.0 to ≤ 15.0	Short traffic delay
C	> 15.0 to ≤ 25.0	Average traffic delay
D	> 25.0 to ≤ 35.0	Long traffic delay
E	> 35.0 to ≤ 50.0	Very long traffic delay
F	> 50.0	Severe congestion

Source: *2010 Highway Capacity Manual (HCM)*

Level of service is based on the average stopped delay per vehicle for all movements of all-way stop-controlled intersections; for one-way or two-way stop-controlled intersections, LOS is based on the worst stop-controlled approach. The HCM analysis is conducted using the Synchro analysis software.

2.2 City of El Segundo Traffic Impact Criteria and Thresholds

As stated in the City of El Segundo General Plan Circulation Element, the City goal for peak hour intersection operation is LOS D or better.

To determine whether the addition of project-generated trips results in a significant impact at a signalized study intersection, and thus requires mitigation, the City of El Segundo has established the following thresholds of significance:

- A significant project impact occurs at a signalized study intersection when the addition of project-generated trips causes the peak hour level of service of the study intersection to change from acceptable operation (LOS A, B, C, or D) to deficient operation (LOS E or F); or

- A significant project impact occurs at a signalized study intersection when the addition of project-generated trips causes an ICU increase of 0.02 or more when the "With Project" intersection LOS is at LOS E or F.

Most jurisdictions, including the City of El Segundo, have not established thresholds of significance for stop-controlled intersections. However, the following threshold of significance, which is in the range of thresholds used by several jurisdictions, is utilized to determine whether the addition of project-generated trips results in a significant impact at an un-signalized study intersection, and thus requires mitigation:

- At stop-controlled intersections, a significant project impact occurs if one of the minor street approaches is forecast to operate at LOS E or F and the addition of project-generated trips causes an increase in delay of four (4) or more seconds. However, this is not a rigid threshold and judgment is required to consider the relevance of turning traffic volume, lane configuration, queuing impacts and other parameters affecting intersection operations.

2.3 City of Manhattan Beach Traffic Impact Criteria and Thresholds

The City of Manhattan Beach goal for peak hour intersection operation is LOS D or better.

To determine whether the addition of project-generated trips results in a significant impact at a study intersection, and thus requires mitigation, the City of Manhattan Beach has established the following thresholds of significance, which is based on the County of Los Angeles Department of Public Works (January 1997):

- A significant project impact occurs at a study intersection when the addition of project-generated trips causes an ICU increase of 0.02 while operating at LOS D; or

- A significant project impact occurs at a study intersection when the addition of project-generated trips causes an ICU increase of 0.01 while operating at LOS E or F.

2.4 City of Hawthorne Traffic Impact Criteria and Thresholds

Since intersection LOS performance criteria is not stated in the traffic study guidelines for the City of Hawthorne, this report assumes a goal for peak hour operation at the study intersections of LOS D or better.

To determine whether the addition of project-generated trips results in a significant impact at a study intersection, and thus requires mitigation, the City of Hawthorne has established the following thresholds of significance based on the Los Angeles County Congestion Management Program (CMP) Manual (2010):

- A significant project impact occurs at a study intersection when the addition of project-generated trips causes an ICU increase of 0.04 while operating at LOS C; or

- A significant project impact occurs at a study intersection when the addition of project-generated trips causes an ICU increase of 0.02 while operating at LOS D; or

- A significant project impact occurs at a study intersection when the addition of project-generated trips causes an ICU increase of 0.01 while operating at LOS E or F.

2.5 Traffic Signal Warrant Analysis Methodology

Traffic signal warrant analysis has been conducted at the un-signalized intersections to ascertain the need for installation of traffic signals. This study uses the signal warrant criteria presented in the 2014 edition of the California Manual on Uniform Traffic Control Devices (MUTCD).

The signal warrant criteria for existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The California MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. Specifically, the study utilized the Peak Hour Warrant (#3) (Figures 4C-3 and 4C-4 of the California MUTCD) as the appropriate and representative traffic signal warrant analyses. Since the warrants provide specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating at or above 40 miles per hour), this factor was considered in preparation of the warrants. For the purposes of this analysis, the posted speed limit is the basis of determining whether “Urban” or “Rural” warrants were used. Since the posted speed limits on Park Place is 25 miles per hour, the “Urban” area warrant was used.

3.0 EXISTING CONDITIONS

This section describes the existing conditions of the study area including the existing roadway description, intersection geometry and traffic volumes.

3.1 Roadway Description

Exhibit 3 illustrates the existing intersection controls and lane geometry for the study area. The characteristics of the roadway system in the vicinity of the project site are described below.

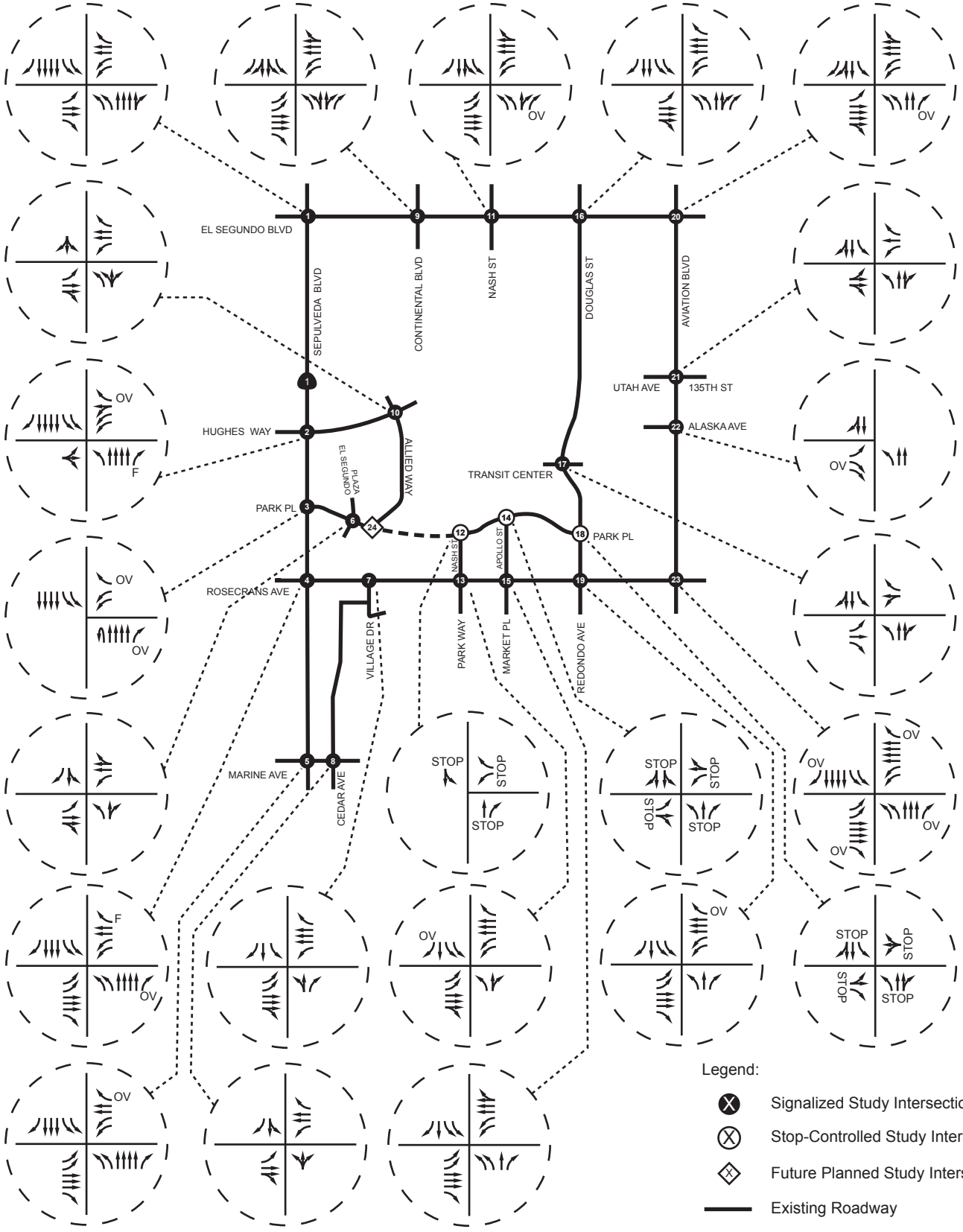
Park Place is a four-lane divided roadway with a raised median trending in an east-west direction between Sepulveda Boulevard (SR-1) and Allied Way. Between Nash Street and Douglas Street, Park Place is a four-lane divided roadway with two-way left turn lanes. Park Place is currently divided into two segments between Allied Way and Nash Street by an undeveloped land adjacent to the railroad spurs. The proposed project will extend Park Place between Allied Way and Nash Street. There is no posted speed limit on Park Place. On-street parking is prohibited on Park Place.

El Segundo Boulevard west of Sepulveda Boulevard is four-lane divided roadway with a painted median trending in an east-west direction. El Segundo Boulevard continues as a six-lane divided roadway with a raised median between Sepulveda Boulevard (SR-1) and Douglas Street. Between Douglas Street and Aviation Boulevard, El Segundo Boulevard is a seven-lane divided roadway (four eastbound lanes and three westbound lanes) with a raised median and it begins to transition into a six-lane divided roadway east of Aviation Boulevard. The posted speed limit on El Segundo Boulevard ranges between 35 and 40 miles per hour. On-street parking is prohibited on El Segundo Boulevard.

Rosecrans Avenue west of Sepulveda Boulevard (SR-1) is a five-lane divided roadway (two eastbound lanes and three westbound lanes) with a raised median trending in an east-west direction. On-street parking is permitted on the eastbound direction, and on-street parking is prohibited on the westbound direction. From Sepulveda Boulevard (SR-1) to Douglas Street, Rosecrans Avenue is a six-lane divided roadway with a raised median with on-street parking prohibited. East of Douglas Street, Rosecrans Avenue continues as an eight-lane divided roadway with a painted median. The posted speed limit on Rosecrans Avenue is 45 miles per hour.

Hughes Way is a four to six-lane divided roadway with a raised median east of Sepulveda Boulevard (SR-1). Approximately 2,000 feet east of Sepulveda Boulevard (SR-1), Hughes Way provides gated access into the Raytheon site and public traffic access is prohibited beyond the gates. The posted speed limit on Hughes Way is 40 miles an hour. On-street parking is prohibited on Hughes Way. West of Sepulveda Boulevard (SR-1), Hughes Way becomes a private gated access to the Chevron site.

Marine Avenue is west of Sepulveda Boulevard (SR-1) is a two-lane undivided roadway trending in the east-west direction with on-street parking prohibited. East of Sepulveda Boulevard (SR-1) Marine Way is a four-lane divided roadway with a raised median and permitted on-street parking. The posted speed limit on Marine Avenue is ranges from 25 to 35 miles per hour.



Not to Scale

Michael Baker INTERNATIONAL

Exhibit 3
Existing Intersection Geometry

Park Place Extension Project
Traffic Impact Analysis

Utah Avenue / 135th Street is a four-lane undivided roadway with a painted double-yellow centerline trending in an east-west direction. Utah Avenue becomes 135th Street east of Aviation Boulevard. The posted speed limit on Utah Avenue and 135th Street is 35 miles per hour. On-street parking is prohibited on Utah Avenue and 135th Street.

Alaska Avenue is a four-lane undivided roadway with a painted double-yellow centerline trending in an east-west direction. The posted speed limit on Alaska Avenue is 35 miles per hour. On-street parking is prohibited on Alaska Avenue.

Sepulveda Boulevard (SR-1) north of Rosecrans Avenue is an eight-lane divided roadway with a raised median trending in a north-south direction. South of Rosecrans Avenue, Sepulveda Boulevard (SR-1) is a six-lane divided roadway with a raised median. The posted speed limit on Sepulveda Boulevard (SR-1) ranges from 35 to 45 miles per hour. On-street parking is prohibited on Sepulveda Boulevard.

Allied Way is a four-lane undivided roadway with a painted double-yellow centerline trending in a north-south direction between El Segundo Boulevard and Park Place. There is no posted speed limit on Allied Way. On-street parking is prohibited on Allied Way.

Continental Boulevard is a six-lane divided roadway with a raised median trending in a north-south direction north of El Segundo Boulevard. Continental Boulevard south of El Segundo Boulevard provides gated access into the Raytheon site and public traffic access is prohibited beyond the gates. The posted speed limit on Continental Boulevard is 30 miles per hour. On-street parking is prohibited on Continental Boulevard.

Nash Street is a four-lane undivided roadway with a painted double-yellow centerline trending in a north-south direction north of El Segundo Boulevard with a posted speed limit of 35 miles per hour. Nash Street south of El Segundo Boulevard provides gated access into the Raytheon site and public traffic access is prohibited beyond the gates. Nash Street is a four-lane divided roadway with two-way left turn lanes trending in a north-south direction between Park Place and Rosecrans Avenue with a posted speed limit of 25 miles per hour. Nash Street becomes Park Way south of Rosecrans Avenue. On-street parking is prohibited on Nash Street and Park Way.

Apollo Street is a four-lane divided roadway with two-way left turn lanes trending in a north-south direction between Park Place and Rosecrans Avenue. There is no posted speed limit on Apollo Street. Apollo Street becomes Market Place south of Rosecrans Avenue. On-street parking is prohibited on Apollo Street and Market Place.

Douglas Street north of El Segundo Boulevard is a six-lane divided roadway with a painted median trending in the north-south direction. Douglas Street between El Segundo Boulevard and the Transit Center (Metro station access located just north of the Green Line overcrossing) is a four-lane divided roadway with a painted median. South of Transit Center, Douglas Street continues as a four-lane divided roadway with a raised median. The posted speed limit on Douglas Street is 40 miles per hour north of Transit Center and 25 miles per hour south of Transit Center. On-street parking is prohibited on Douglas Street. Douglas Street becomes Redondo Avenue south of Rosecrans Avenue.

Aviation Boulevard north of Rosecrans Avenue is a four-lane divided roadway with a painted median trending in a north-south direction. South of Rosecrans Avenue, Aviation Boulevard is a

six-lane divided roadway with a painted median. The posted speed limit on Aviation Boulevard is 40 miles per hour. On-street parking is prohibited on Aviation Boulevard.

Cedar Avenue is a two-lane undivided roadway trending in a north-south direction south of Marine Way. There is no posted speed limit on Cedar Avenue. On-street parking is permitted on the southbound direction of Cedar Avenue.

Village Drive is a two-lane undivided roadway with a painted double-yellow centerline trending in a north-south direction. There is no posted speed limit on Village Drive. On-street parking is permitted on Village Drive south of Rosecrans Avenue, and on-street parking is prohibited on Village Drive north of Rosecrans Avenue.

3.2 Existing Conditions Traffic Volumes

To determine the existing operation of the study intersections, AM and PM peak hour intersection movement counts were collected in May 2015. AM peak period intersection counts were collected from 7:00 AM to 9:00 AM, and PM peak period intersection counts were collected from 4:00 PM to 6:00 PM. The counts used in this analysis were taken from the highest hour within the peak period counted. Exhibit 4 shows the intersection traffic volumes for existing 2016 conditions based on a 0.26% annual growth rate from the 2015 counts. The 0.26% annual growth is based on the general traffic volume growth factor in the 2010 Los Angeles County Congestion Management Program (CMP). Traffic count data sheets are included in Appendix B of this report.

3.3 Existing Conditions Intersection Analysis

Table 6 summarizes the intersection analysis results for existing 2016 AM and PM peak hour conditions. Appendix C includes the existing 2016 conditions intersection analysis worksheets. As shown in Table 6, all study intersections are operating at acceptable LOS D or better for existing 2016 conditions, except for the following five (5) intersections:

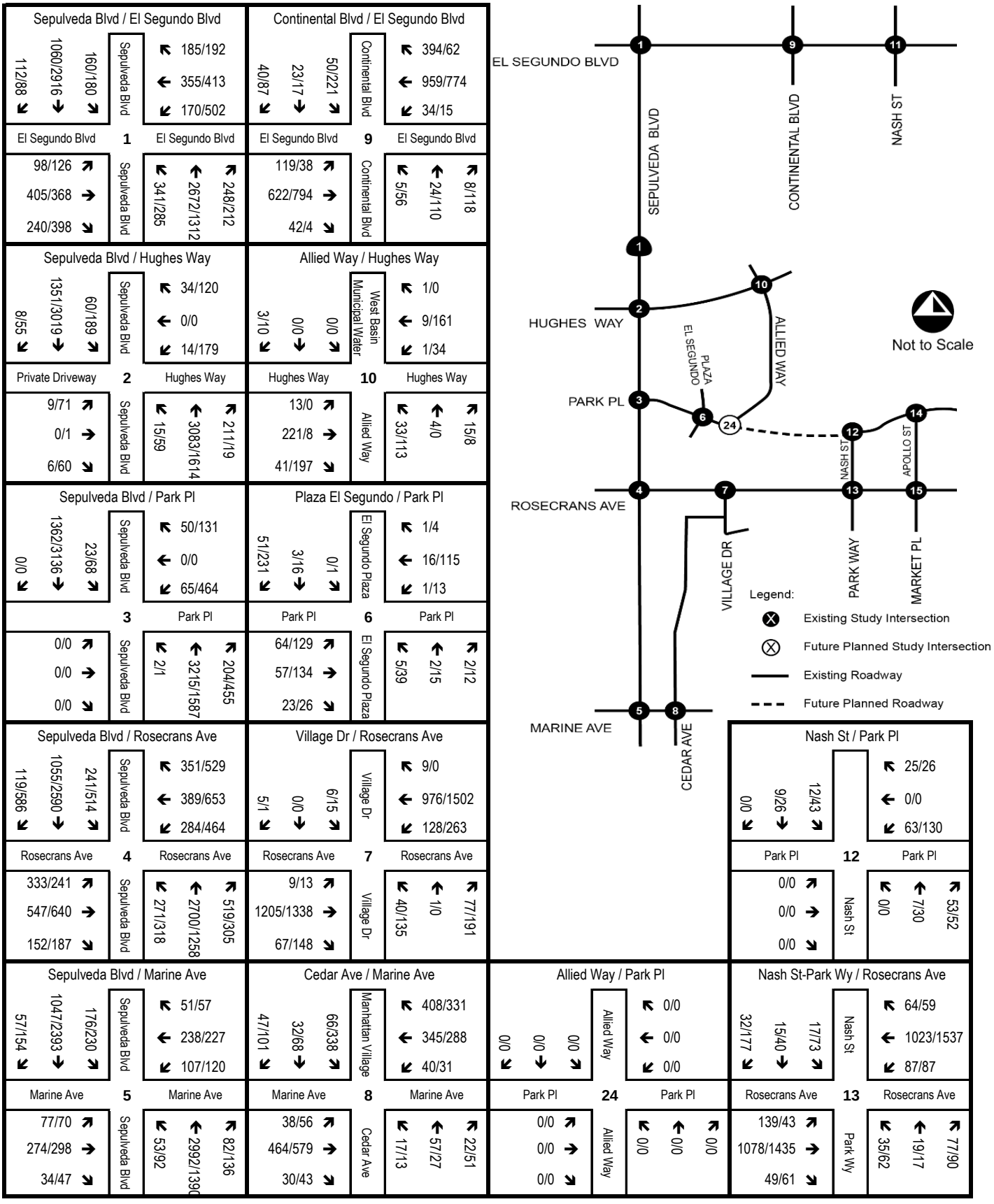
1. Sepulveda Boulevard at El Segundo Boulevard – LOS F (PM)
4. Sepulveda Boulevard at Rosecrans Avenue – LOS E (PM)
18. Douglas Street at Park Place – LOS F (PM)
21. Aviation Boulevard at Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard at Rosecrans Avenue – LOS E (AM)

3.4 Existing Conditions Traffic Signal Warrant Analysis

A traffic signal warrant analysis has been conducted at the following three (3) intersections to ascertain the need for installation of a traffic signal at otherwise an un-signalized intersection:

12. Nash Street at Park Place;
14. Apollo Street at Park Place; and
18. Douglas Street at Park Place.

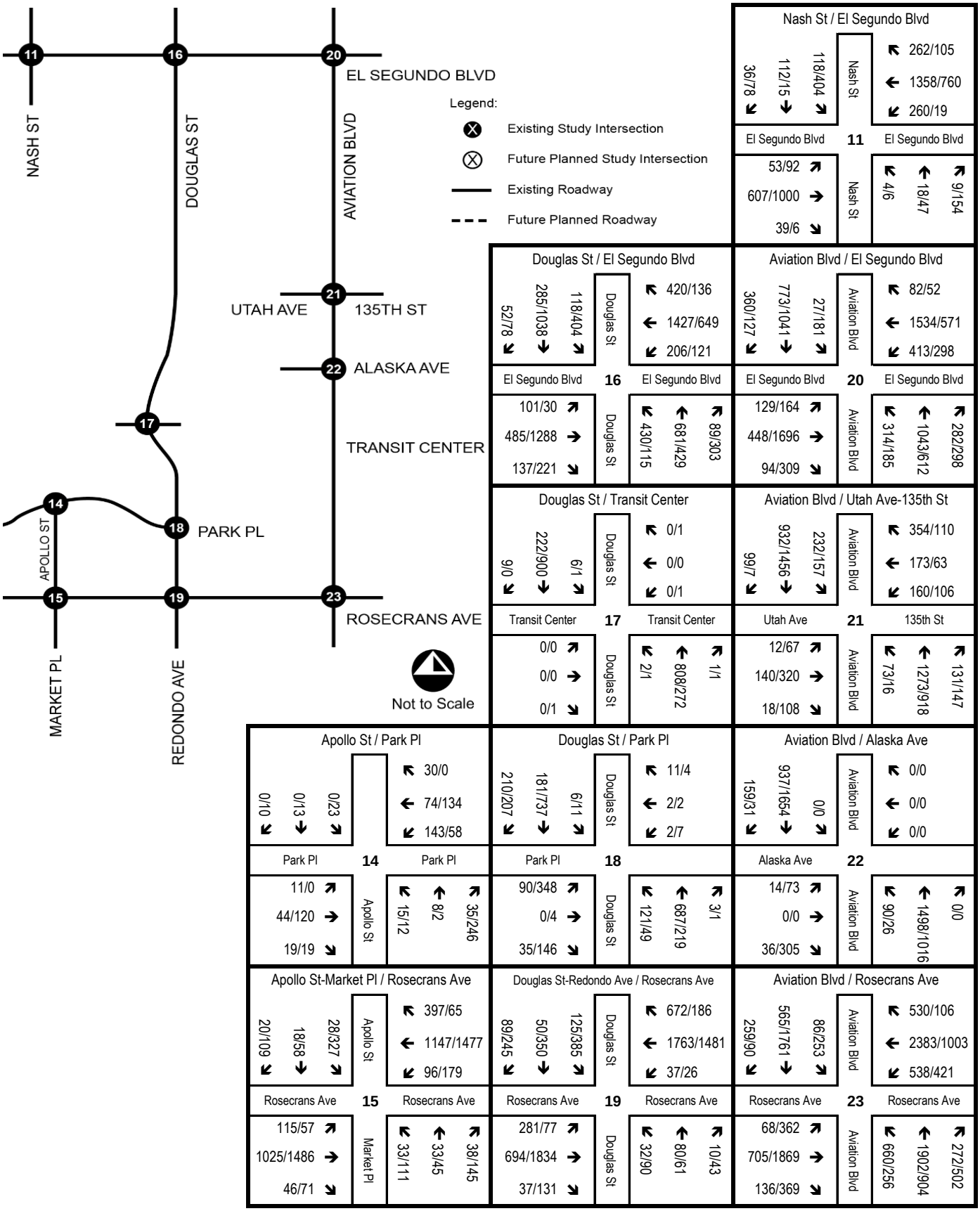
Based on the signal warrant analysis, a traffic signal is currently warranted at the intersection of Douglas Street and Park Place [Intersection #18] based on existing 2016 conditions. For the other locations, no traffic signals are currently warranted based on existing 2016 conditions. Appendix D contains the traffic signal warrant analysis worksheets for existing 2016 conditions.



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 4 (1 of 2)

Existing 2016 Intersection Volumes



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 4 (2 of 2)

Existing 2016 Intersection Volumes

Table 3
Existing 2016 Conditions Intersection Analysis

Intersection			Existing Conditions			
			AM Peak		PM Peak	
No.	Name	Type[1]	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS
1	Sepulveda Blvd / El Segundo Blvd	TS	38.2	D	84.5	F
2	Sepulveda Blvd / Hughes Wy	TS	8.3	A	25.2	C
3	Sepulveda Blvd / Park Pl	TS	6.2	A	10.8	B
4	Sepulveda Blvd / Rosecrans Ave	TS	40.4	D	79.8	E
5	Sepulveda Blvd / Marine Ave	TS	53.5	D	32.9	C
6	Plaza El Segundo Acces / Park Pl	TS	0.181	A	0.387	A
7	Village Dr / Rosecrans Ave	TS	0.497	A	0.703	C
8	Cedar Ave / Marine Ave	TS	0.480	A	0.610	B
9	Continental Blvd / El Segundo Blvd	TS	0.445	A	0.406	A
10	Allied Way / Hughes Wy	TS	0.199	A	0.288	A
11	Nash St / El Segundo Blvd	TS	0.513	A	0.503	A
12	Nash St / Park Pl	AWS	7.7	A	8.6	A
13	Nash St / Rosecrans Ave	TS	0.428	A	0.575	A
14	Apollo St / Park Pl	AWS	8.8	A	10.6	B
15	Apollo St / Rosecrans Ave	TS	0.487	A	0.659	B
16	Douglas St / El Segundo Blvd	TS	0.710	C	0.813	D
17	Douglas St / Transit Center	TS	0.357	A	0.383	A
18	Douglas St / Park Pl	AWS	22.0	C	54.2	F
19	Douglas St / Rosecrans Ave	TS	0.658	B	0.765	C
20	Aviation Blvd / El Segundo Blvd	TS	0.860	D	0.890	D
21	Aviation Blvd / Utah Ave	TS	0.912	E	0.788	C
22	Aviation Blvd / Alaska Ave	TS	0.577	A	0.722	C
23	Aviation Blvd / Rosecrans Ave	TS	0.917	E	0.879	D

Note

[1] Intersection Type: TS = Traffic Signal; AWS = All-Way Stop

[2] Signalized Intersections: Intersection Capacity Utilization (ICU) Analysis Method, Volume/Capacity (V/C) Ratio
State Highway & Unsignalized Intersections: Highway Capacity Manual (HCM) Analysis Method, Average Delay (seconds)

4.0 PROJECT-RELATED TRAFFIC DIVERSION

This section presents the methodology behind the diversion of existing traffic due to the proposed Park Place Extension project. The project proposes to construct a new segment of Park Place from Allied Way to Nash Street including a railroad grade separation to improve traffic conditions and traffic circulation on the surrounding roadway network. Park Place currently exists in two separate segments with an approximate quarter-mile gap within an undeveloped area which consists of Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe (BNSF) railroad spurs. The project would implement a roadway gap closure to establish Park Place as an alternate east-west route between Sepulveda Boulevard and Douglas Street to relieve congestion along portions of Rosecrans Avenue and Sepulveda Boulevard, as well as to improve local traffic circulation.

From a traffic analysis standpoint, all the different project alternatives for the Park Place Extension project have the same intersection connectivity between the quarter-mile gap as well as the same traffic flow patterns.

The potential amount of traffic diversion, due to the construction of the Park Place Extension project, is estimated based on identifying currently congested intersection locations where existing traffic may want to avoid by using the new Park Place Extension as an alternate travel route. For intersection locations where there are available traffic capacities, potential traffic diversion may also occur along these alternate routes in combination with the new Park Place Extension to utilize the excess capacities and avoiding congested intersections and reduce travel time.

4.1 Current Critical Locations

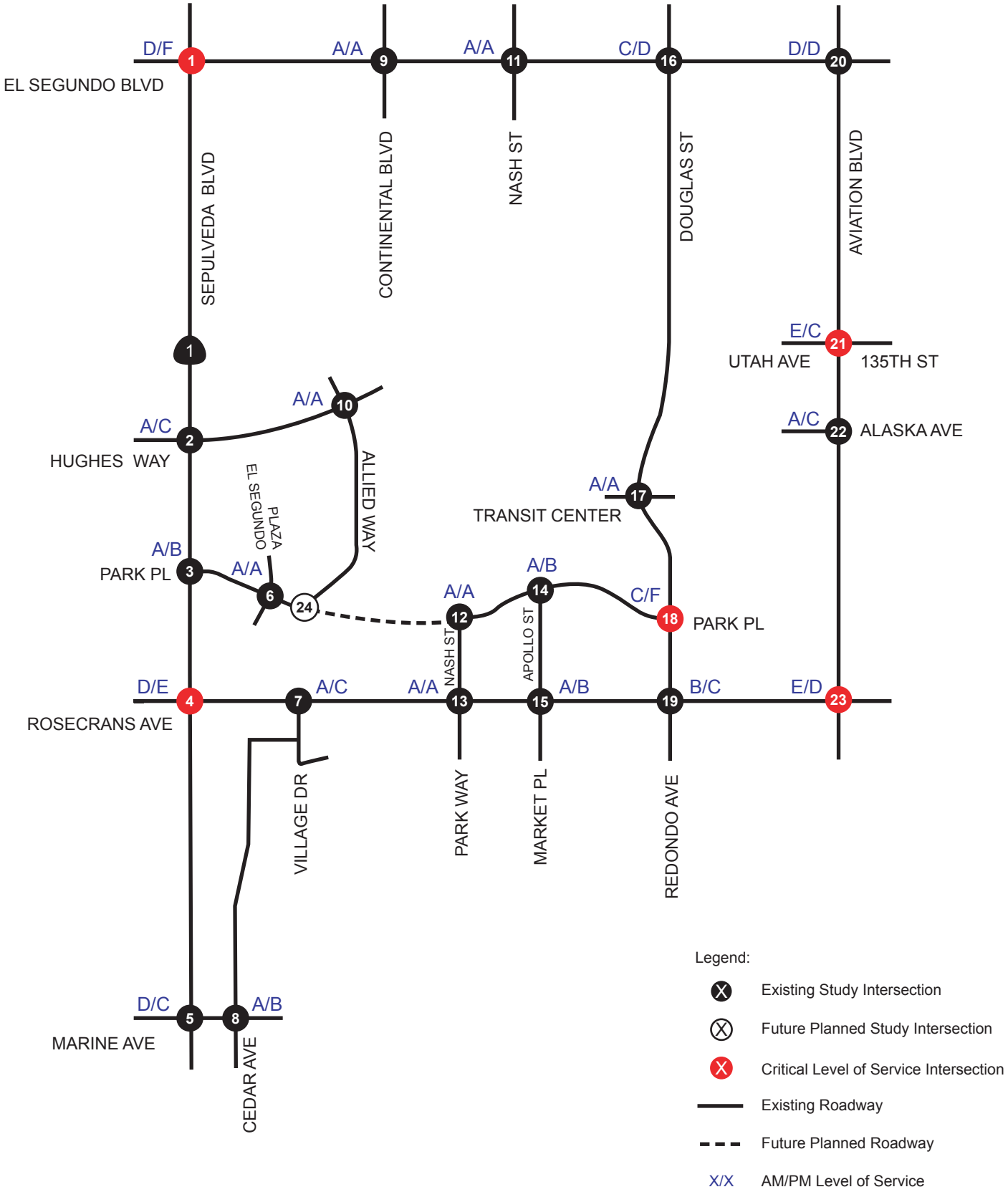
Based on the existing 2016 conditions traffic analysis (in Section 3.3), Exhibit 5 graphically summarize the current intersection level of service (LOS) of the study area intersections, and it highlights the following five (5) critical intersections that are experiencing LOS E or worse:

1. Sepulveda Boulevard and El Segundo Boulevard – LOS F (PM)
4. Sepulveda Boulevard and Rosecrans Avenue – LOS E (PM)
18. Douglas Street and Park Place – LOS F (PM)
21. Aviation Boulevard and Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard and Rosecrans Avenue – LOS E (AM)

Therefore, the existing traffic may potentially want to avoid these critical intersections if the Park Place Extension project is constructed.

4.2 Potential Traffic Diversion Patterns

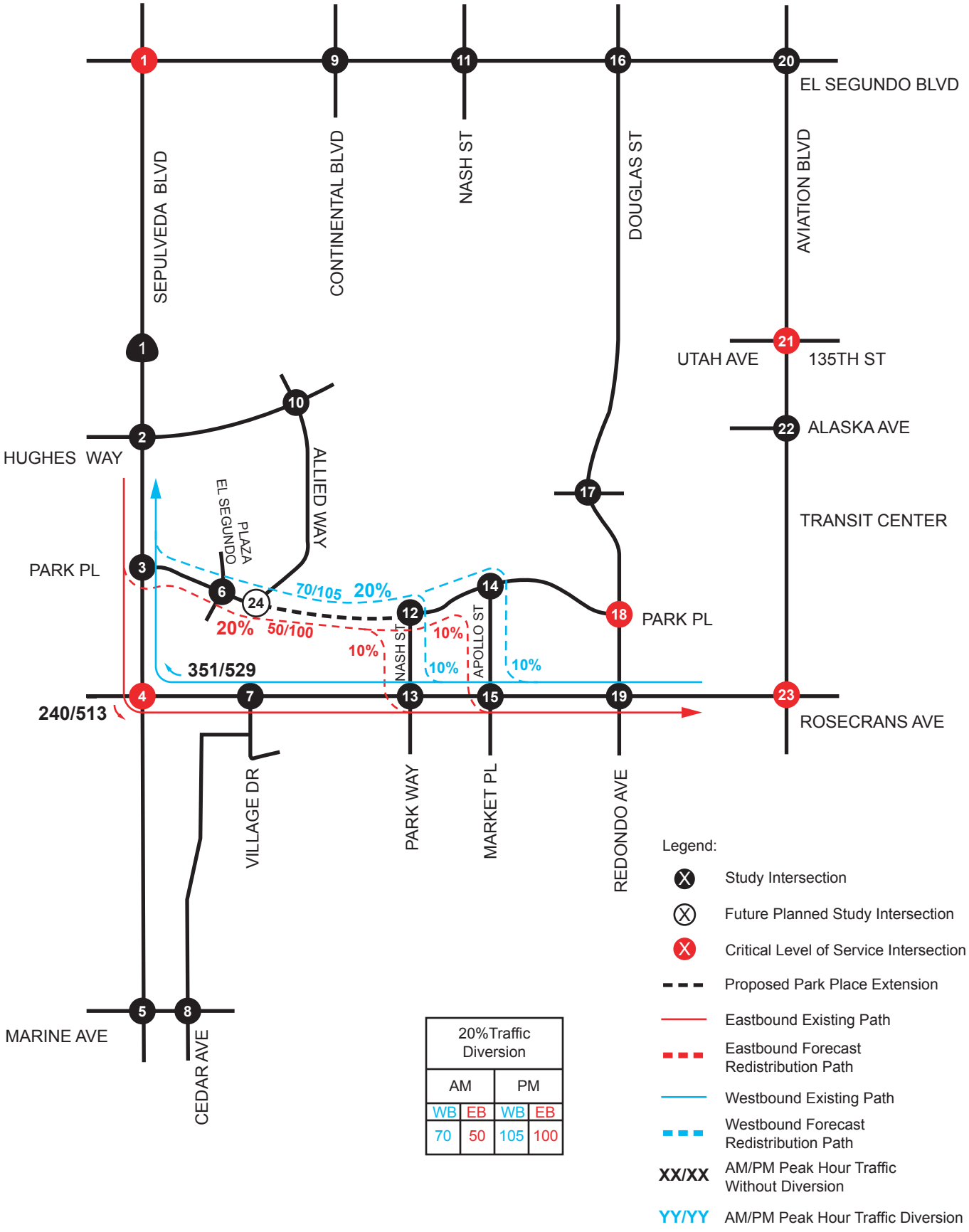
Exhibits 6 through 9 illustrates the potential amount of traffic diversion due to the new Park Place Extension project. By reviewing the analysis results of the existing 2016 conditions analysis in Exhibit 5 and Table 3, the amount of traffic diversion is estimated based on the following considerations:



Not to Scale

Michael Baker INTERNATIONAL

Exhibit 5
Existing 2016 Intersection Level of Service



20% Traffic Diversion			
AM		PM	
WB	EB	WB	EB
70	50	105	100

Not to Scale

Michael Baker INTERNATIONAL

Exhibit 6
Diversion Redistribution Patterns for Southbound Left and Westbound Right at Sepulveda Boulevard and Rosecrans Ave

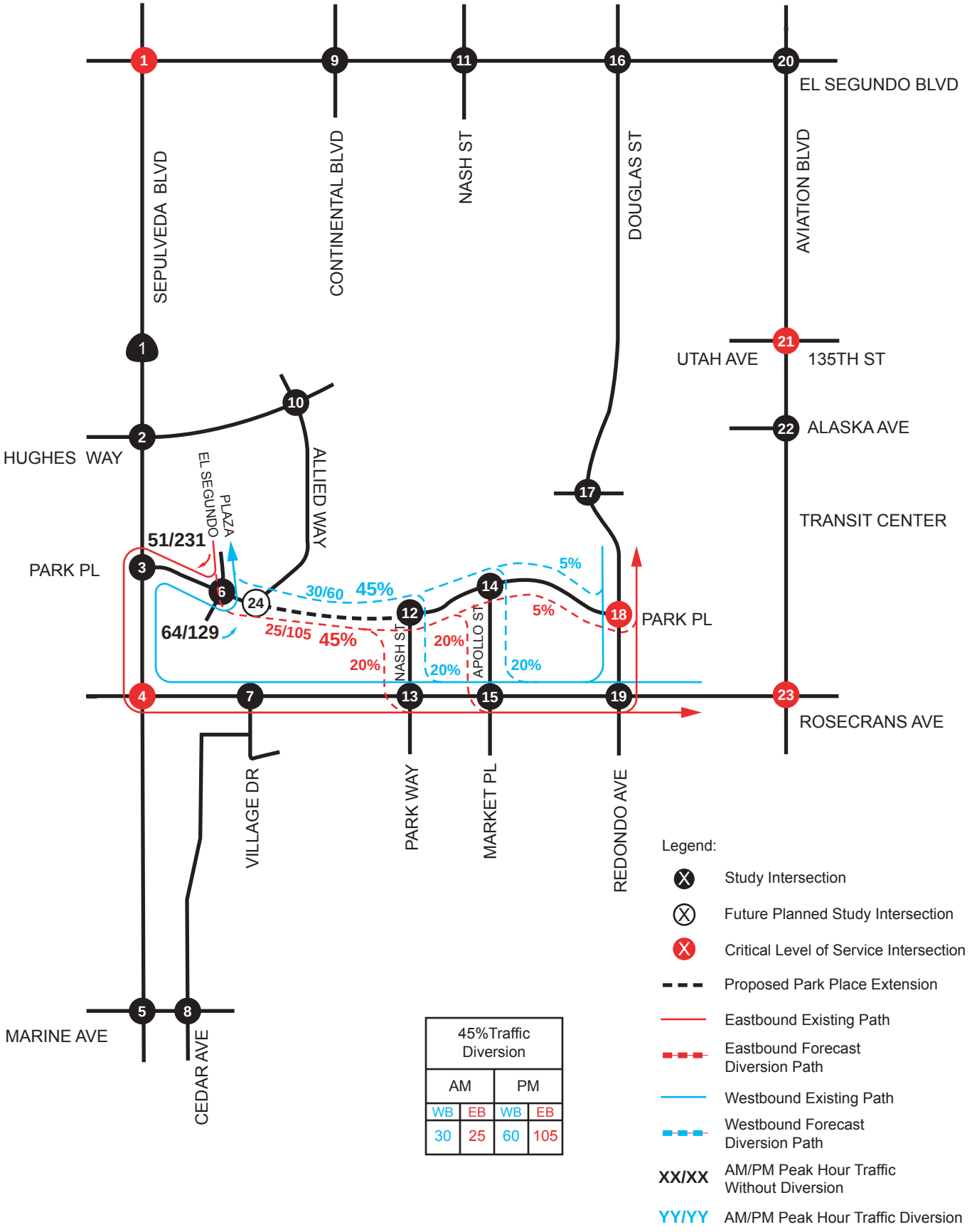
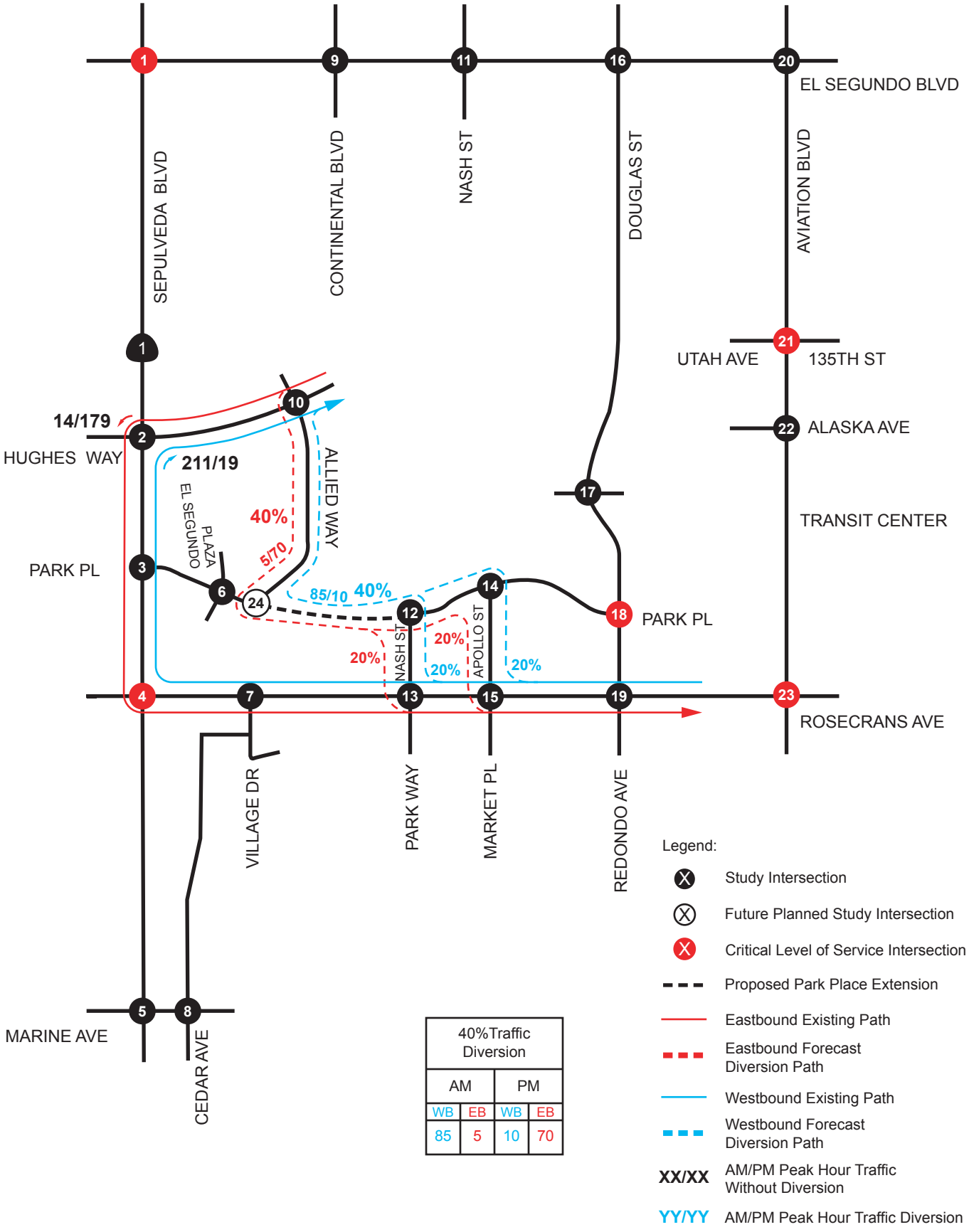


Exhibit 7
Diversion Redistribution Patterns for Southbound Right and Eastbound Left at the Access of Plaza El Segundo on Park Place

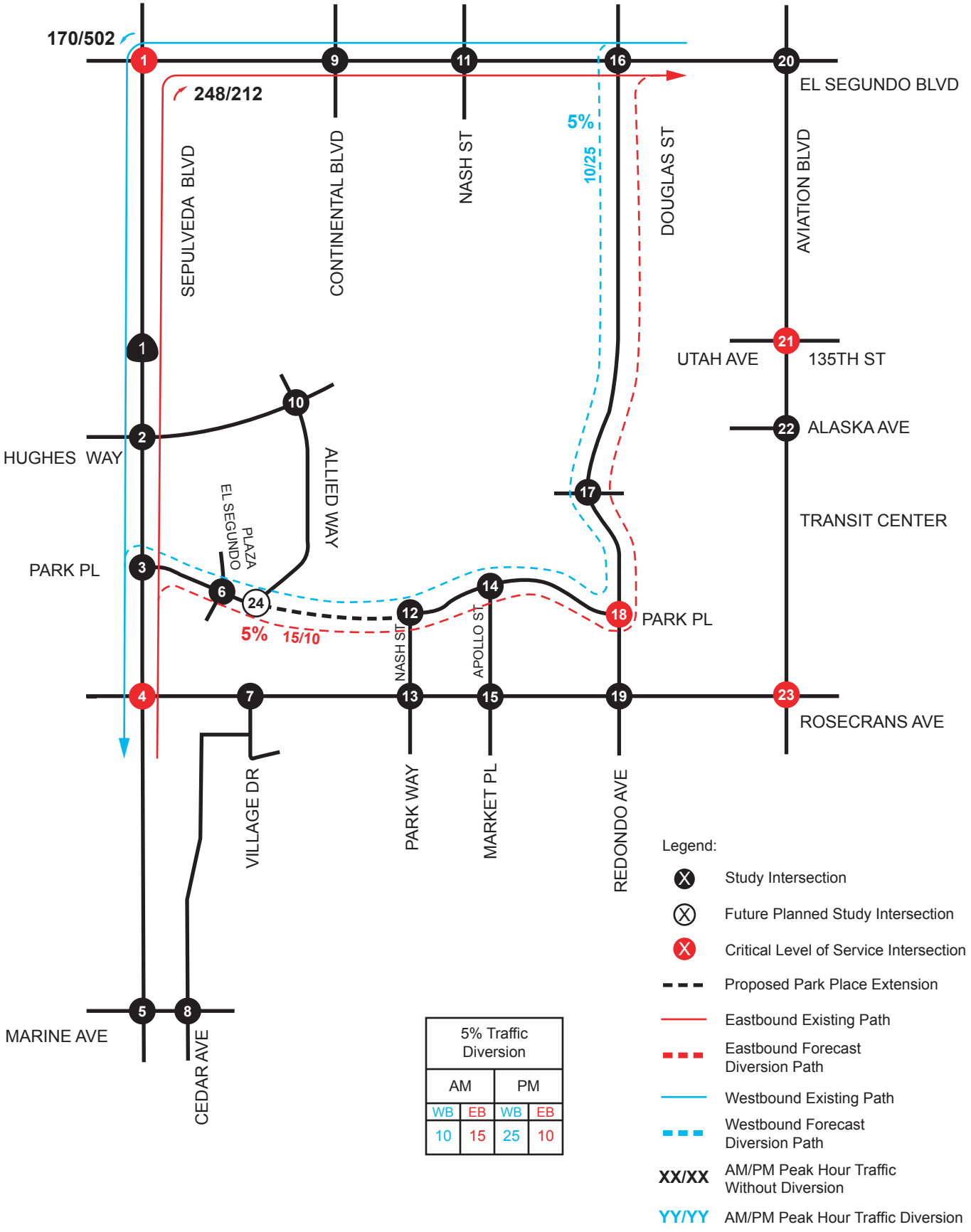
Not to Scale

Michael Baker INTERNATIONAL



Not to Scale

Exhibit 8
Diversion Redistribution Patterns for Northbound Right and Westbound Left at Sepulveda Boulevard and Hughes Way



5% Traffic Diversion			
AM		PM	
WB	EB	WB	EB
10	15	25	10

Not to Scale

Exhibit 9
Diversion Redistribution Patterns for Northbound Right and Westbound Left at Sepulveda Boulevard and El Segundo Boulevard

- For an intersection that experiences deficient operations (LOS E or F), a significant amount of existing traffic movement may be assumed to divert to the new Park Place Extension, if there is an alternate route with excess capacity.

- For an intersection that continues to operate at satisfactory operations or below deficient operations (LOS A through D), none or a very limited amount of existing traffic may be assumed to divert to the new Park Place Extension.

Exhibit 6 shows a 20% traffic diversion to Park Place for the southbound left and westbound right at the intersection of Sepulveda Boulevard and Rosecrans Avenue (Intersection #4). Since Intersection #4 is currently operating at LOS D during the AM peak hour and LOS E during the PM peak hour where the delay at the intersection is high, a high amount of diversion traffic is assumed to distribute to Park Place where there will be less delay. Motorists travelling west on Rosecrans Avenue will divert to Apollo Street and Nash Street, then head westbound on Park Place until they reach Sepulveda Boulevard. Motorists travelling south on Sepulveda Boulevard will divert eastbound on Park Place, then head south to Rosecrans Avenue by Nash Street and Apollo Street. No traffic diversion is assumed to Douglas Street and Park Place (Intersection #18) because it is already operating at critical LOS, which is undesirable for motorists to use as an alternate route. Since the intersection of Douglas Street and Park Place (Intersection #18) is currently warranted for a traffic signal based on existing 2016 traffic conditions, a new traffic signal should be considered because the City has been receiving complaints about the traffic operations at this location.

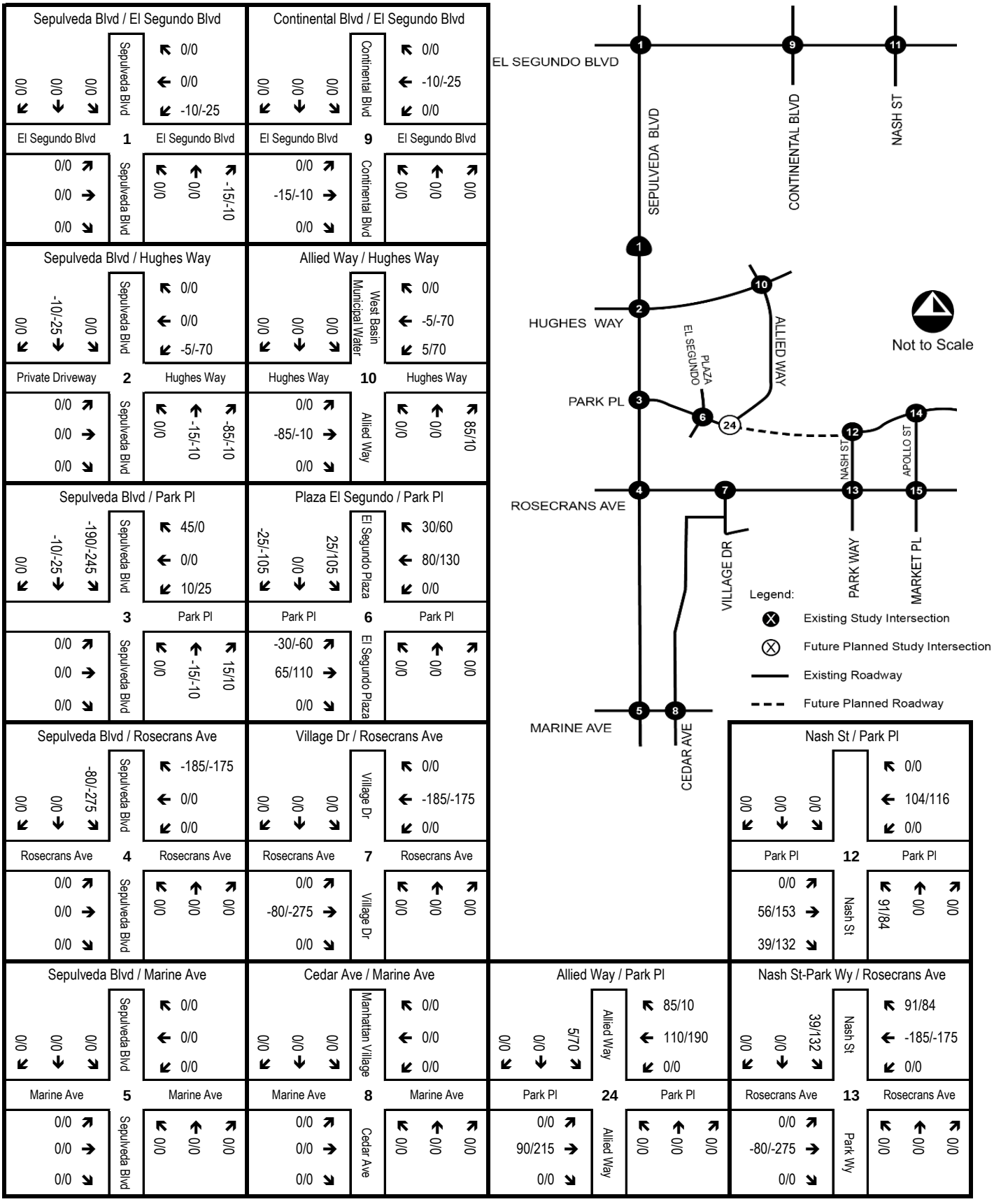
Exhibit 7 shows a 45% traffic diversion to Park Place for the southbound right and eastbound left at the access of Plaza El Segundo on Park Place (Intersection #6). Although Exhibit 5 shows that Intersection #6 is currently operating at LOS A during the AM and PM peak hours, diversion to Park Place is likely because it is a shorter and more convenient alternate route for motorists. Motorists travelling west on Rosecrans Avenue will divert north to Park Place by Apollo Street and Nash Street, then head westbound on Park Place until they reach the access of Plaza El Segundo. Motorists travelling south on Douglas Street to Rosecrans Avenue will divert directly into Park Place on continue on to the access of Plaza El Segundo. Motorists exiting the access of Plaza El Segundo will divert eastbound on Park Place, then head south to Rosecrans Avenue by Nash Street and Apollo Street, or continue on to Douglas Street. Although the intersection of Douglas Street and Park Place (Intersection #18) is currently operating at critical LOS, a small amount of traffic diversion is likely because it is a shorter alternate route.

Exhibit 8 shows a 40% traffic diversion to Park Place for the northbound right and westbound left at the intersection of Sepulveda Boulevard and Hughes Way (Intersection #2). Although Intersection #2 is currently operating at LOS A during the AM peak hour and LOS C during the PM peak hour, a diversion is assumed to Park Place because it is a shorter and more convenient route for motorists. Using Park Place as an alternate route also allows motorists to avoid Intersection #4, which is currently operating at critical LOS. Motorists travelling west on Rosecrans Avenue will divert north to Park Place by Apollo Street and Nash Street, head westbound on Park Place, and head northbound on Allied Way to the destination. Motorists travelling west on Hughes Way will divert south on Allied Way, head eastbound Park Place, then head south to Rosecrans Avenue by Nash Street and Apollo Street. No traffic diversion is assumed to Douglas Street and Park Place (Intersection #18) because it is already operating at critical LOS, which is undesirable for motorists to use as an alternate route.

Exhibit 9 shows a 5% traffic diversion to Park Place for the northbound right and westbound left at the intersection of Sepulveda Boulevard and El Segundo Boulevard (Intersection #1). Since Intersection #1 is currently operating at LOS D during the AM peak hour and LOS F during the PM peak hour where the delay is high, a diversion is assumed to Park Place where there is less delay. Motorists travelling west on El Segundo Boulevard will divert south using Douglas Street, then divert westbound to Park Place until they reach Sepulveda Boulevard. Motorists travelling north on Sepulveda Boulevard will divert eastbound on Park Place, then head north on Douglas Street until El Segundo Boulevard. Although Douglas Street and Park Place (Intersection #18) is currently operating at critical LOS, a small amount of traffic diversion is still assumed because the Intersection #18 has more capacity than Intersection #1.

4.3 Project-Related Diverted Traffic Volumes

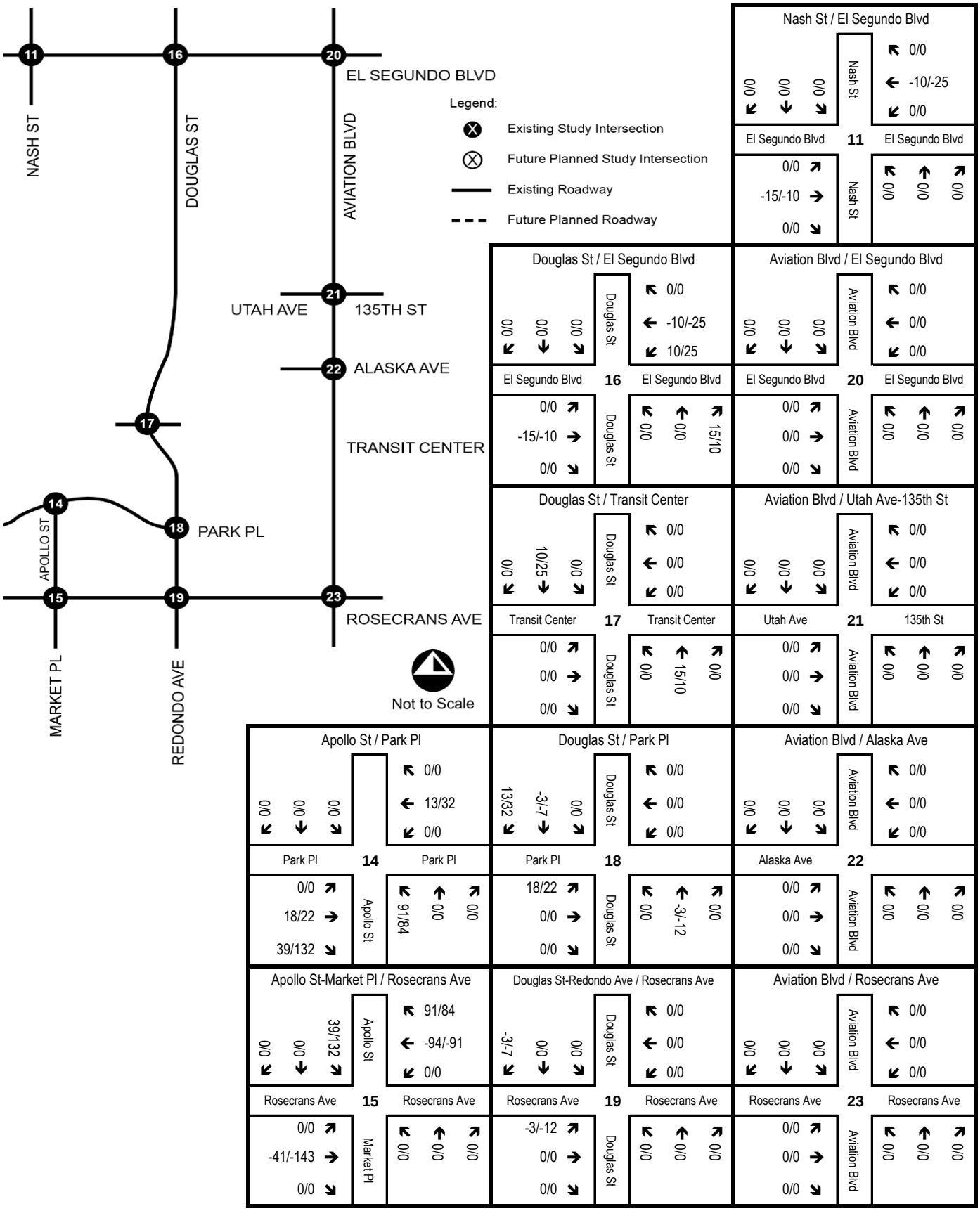
Exhibit 10 shows the project-related diverted traffic volumes based on the potential traffic redistribution patterns shown in Exhibits 6 through 9.



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 10 (1 of 2)

Project-Related Diverted Traffic



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 10 (2 of 2)

Project-Related Diverted Traffic

5.0 FUTURE TRAFFIC FORECAST

This section presents the future traffic forecast with the anticipated diverted traffic due to the proposed Park Place Extension project on the existing conditions including the background ambient growth. Future conditions with other cumulative developments are also considered. The following future conditions are presented:

- Existing 2016 plus Project conditions;
- Opening Year 2021 without Project conditions; and
- Opening Year 2021 with Project conditions.

5.1 Ambient Growth Rate

Based on the 2010 Los Angeles County Congestion Management Program (CMP), the 5-year general traffic volume growth factor for El Segundo (which is located within RSA 18) is 1.013 (1.3%) from 2015 to 2020. The annual (1-year) growth factor is calculated to be 1.0026 (0.26%). An annual ambient growth rate of 0.26% for one year has been applied to the 2015 intersection traffic count to estimate existing 2016 conditions. The project is anticipated to be completed in Year 2021. An annual growth rate of 0.26% for five years from Year 2016 to Year 2021 is a total of 1.31%. The assumption of 0.26% annual growth rate has been reviewed and approved by the City staff during the initial scoping process (see the April 22, 2016 memorandum included in Appendix E).

5.2 Cumulative Development Traffic

Based on the development status information provided by the Cities of El Segundo, Manhattan Beach and Hawthorne, there are 38 cumulative developments in the study area. The general locations for the cumulative developments are shown in Exhibit 11.

Table 4 summarizes the cumulative development trip generation summary. Trip rates published in the *Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition, 2012)* are used to calculate the number of trips that will be generated by the cumulative developments. Appendix E shows the detailed calculations of the cumulative development trips. As summarized in Table 4, the cumulative developments will generate approximately 99,319 daily trips with 8,549 AM peak hour trips and 10,116 PM peak hour trips.

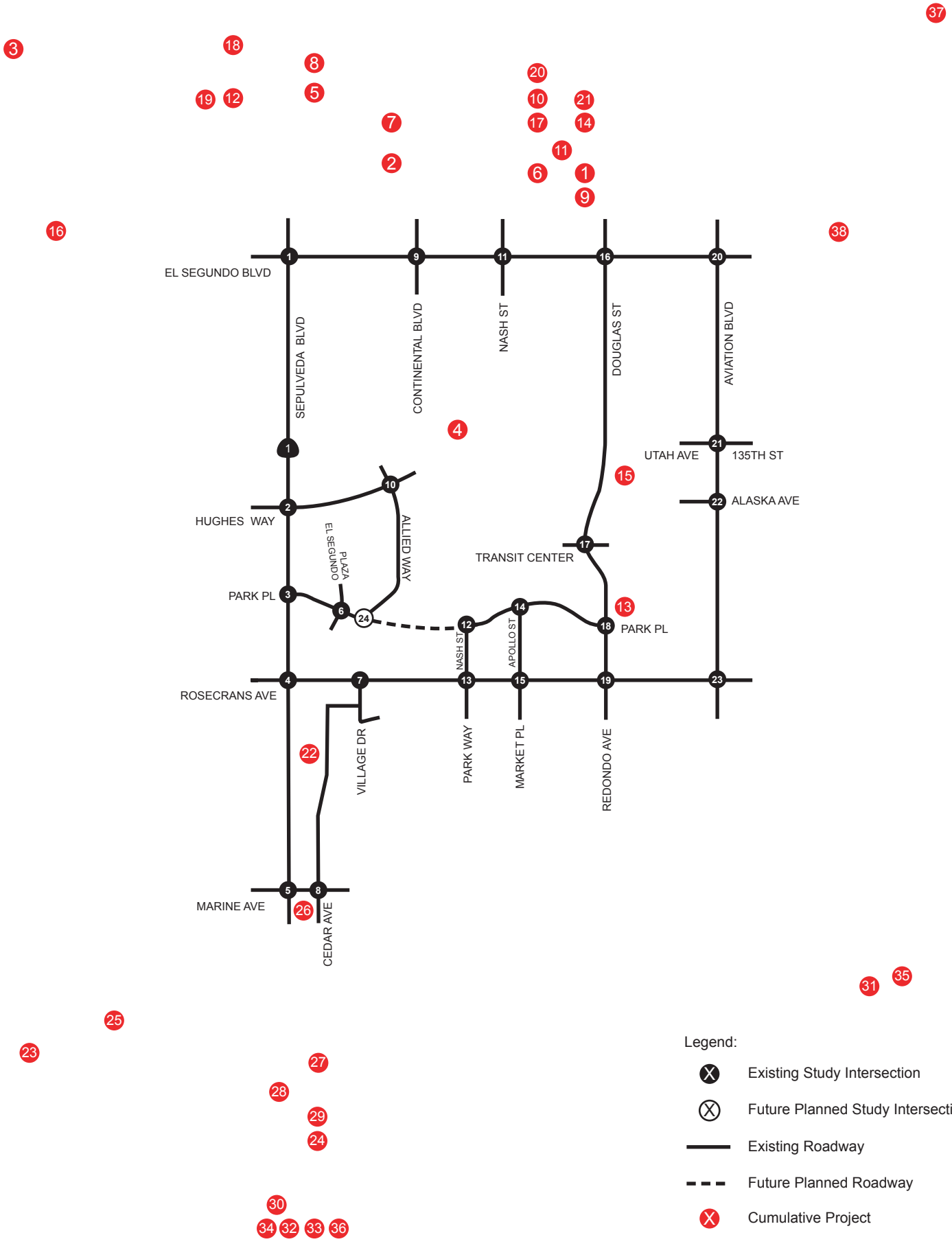
Appendix E shows the trip distribution patterns for the cumulative developments. Exhibit 12 shows the cumulative development AM and PM peak hour intersection traffic volumes.

5.3 Existing 2016 Plus Project Traffic

Exhibit 13 shows Existing 2016 plus Project conditions AM and PM peak hour intersection traffic volumes, with diverted traffic.

5.4 Opening Year 2021 Without Project Traffic

Exhibit 14 shows Opening Year 2021 without Project conditions AM and PM peak hour intersection traffic volumes, without diverted traffic.



Not to Scale

Michael Baker INTERNATIONAL

Exhibit 11
Cumulative Development Location Map

Park Place Extension Project
Traffic Impact Analysis

Table 4 (1 of 2)

Cumulative Development Traffic Generation

Traffic Generation									
Proj No.	Cumulative Project		Daily	AM Peak			PM Peak		
	Land Use	Quantity**		Total	In	Out	Total	In	Out
City of El Segundo									
1	Data Center	332.137 TSF	**329**	**30**	16	14	**30**	6	24
2	Hotel	152.000 ORM	**1356**	**102**	59	43	**107**	52	55
3	Senior Adult Housing - Attached	304.000 DU	**1046**	**61**	21	40	**79**	43	36
4	Retail	148.960 TSF	**6111**	**143**	89	54	**360**	173	187
	Non-Retail	1993.498 TSF	**20474**	**2899**	2545	354	**2760**	458	2302
5	Fast Food w/ Drive-Thru	7.100 TSF	**3522**	**322**	164	158	**232**	121	111
6	Data Center	75.435 TSF	**75**	**7**	4	3	**6**	1	5
	Less Existing Data Center	-11.769 TSF	**-12**	**-2**	-1	-1	**-1**	0	-1
7	Research and Development Center	300.000 TSF	**2433**	**366**	303	63	**321**	48	273
8	Hotel	190.000 ORM	**1695**	**127**	74	53	**133**	65	68
9	High School	240.000 TSF	**3094**	**735**	521	214	**233**	125	108
10	General Office	611.545 TSF	**6745**	**954**	838	116	**911**	153	758
	Shopping Center	13.660 TSF	**583**	**13**	8	5	**50**	24	26
11	General Office	67.000 TSF	**739**	**105**	92	13	**100**	17	83
12	Hotel	10.000 ORM	**89**	**7**	4	3	**7**	3	4
13	General Light Industrial	4.986 TSF	**35**	**5**	4	1	**5**	1	4
14	Corporate Headquarters Building	52.000 TSF	**415**	**79**	73	6	**73**	7	66
	Athletic Club	68.380 TSF	**2940**	**203**	124	79	**408**	253	155
15	General Office	78.000 TSF	**860**	**122**	107	15	**117**	20	97
16	General Office	14.998 TSF	**165**	**24**	21	3	**23**	4	19
17	Hotel	240.000 ORM	**2141**	**161**	94	67	**168**	82	86
	General Office	63.550 TSF	**701**	**99**	87	12	**95**	16	79
18	General Office	86.521 TSF	**954**	**135**	119	16	**129**	22	107
19	Condominium/Townhouse - (Attached)	86.521 DU	**503**	**38**	6	32	**45**	30	15
20	Hotel	178.000 ORM	**1588**	**119**	69	50	**125**	61	64
	General Office	20.955 TSF	**231**	**33**	29	4	**31**	5	26
21	Research and Development Center	7.692 TSF	**62**	**10**	8	2	**8**	1	7
City of Manhattan Beach [2]									
22	Shopping Center	110.000 TSF	**715**	**48**	29	19	**176**	97	79
23	Shopping Center	3.371 TSF	**144**	**3**	2	1	**13**	6	7
	General Office	3.073 TSF	**34**	**5**	4	1	**5**	1	4
24	Supermarket	12.000 TSF	**1227**	**41**	25	16	**114**	58	56
25	General Office	15.000 TSF	**165**	**23**	20	3	**22**	4	18
26	Day Care Center	119.000 STU	**170**	**87**	45	42	**65**	30	35
27	Medical-Dental Office Building	23.050 TSF	**833**	**55**	43	12	**82**	23	59
	Pharmacy/Drugstore without Drive-Through Window	0.665 TSF	**60**	**2**	1	1	**6**	3	3
	Coffee/Donut Shop no Drive-Thru[3]	1.715 TSF	**1860**	**186**	95	91	**70**	35	35
	Less Existing Restaurant		**-687**	**-58**	-32	-26	**-53**	-32	-21
28	Supermarket	27.583 TSF	**1717**	**8**	2	6	**109**	55	54
29	Medical-Dental Office Building	40.000 TSF	**1445**	**96**	76	20	**143**	40	103
	Less General Office	-40.000 TSF	**-441**	**-62**	-55	-7	**-60**	-10	-50

Table 4 (2 of 2)

Cumulative Development Traffic Generation

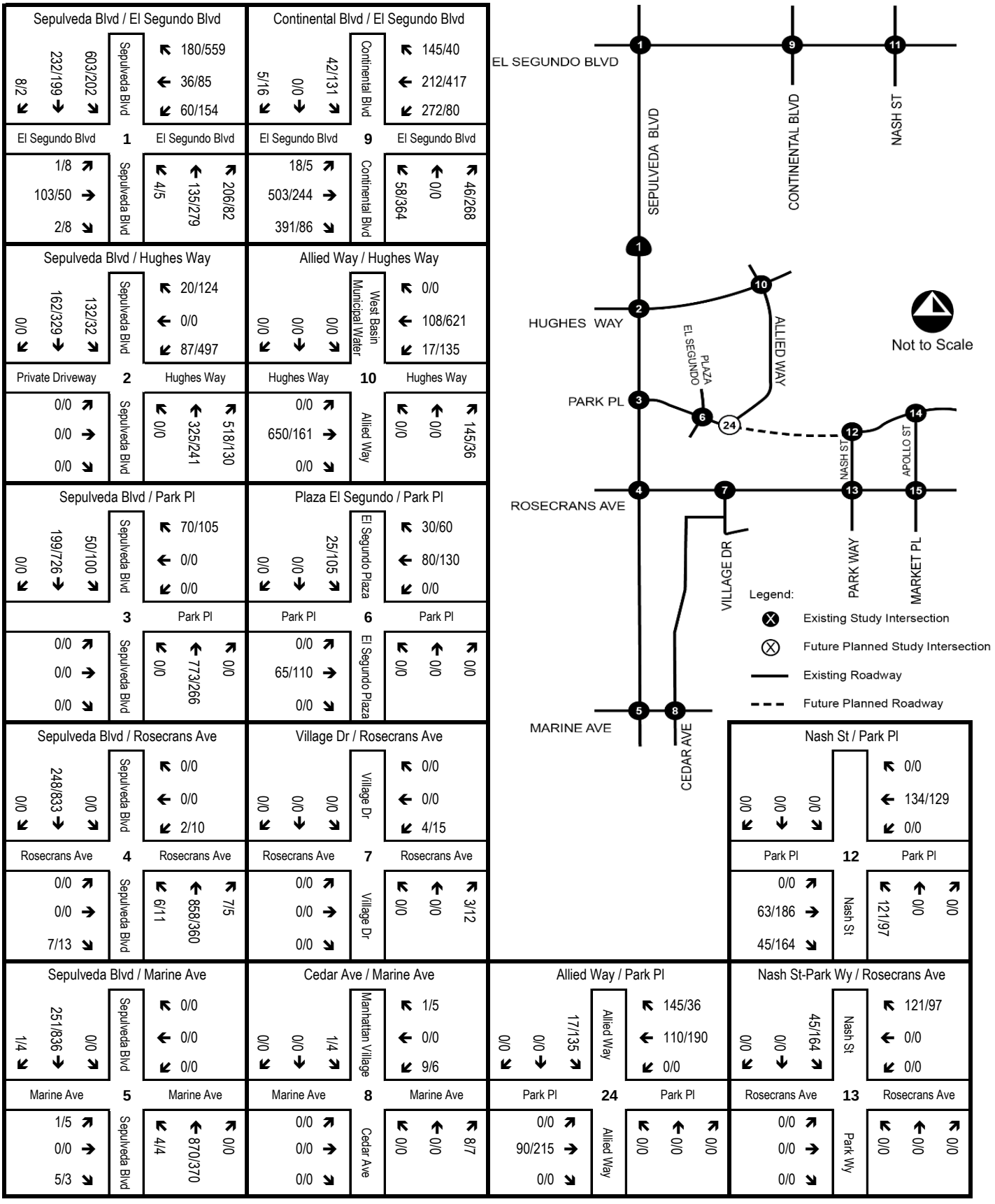
Traffic Generation									
Proj No.	Cumulative Project		Daily	AM Peak			PM Peak		
	Land Use	Quantity**		Total	In	Out	Total	In	Out
City of Redondo Beach									
30	Shopping Center	304.058 TSF	**12983**	**291**	182	109	**1128**	541	587
31	Shopping Center	217.864 TSF	**9303**	**209**	131	78	**808**	388	420
	Hotel	150.000 ORM	**1338**	**101**	59	42	**105**	51	54
	Condominium/Townhouse - (Attached)	650.000 DU	**3777**	**287**	46	241	**339**	228	111
32	Senior Adult Housing - Attached	98.000 DU	**337**	**20**	7	13	**26**	14	12
33	Condominium/Townhouse - (Attached)	149.000 DU	**866**	**65**	10	55	**77**	52	25
	Shopping Center	37.000 TSF	**1580**	**35**	22	13	**137**	66	71
34	General Office	6.451 TSF	**71**	**10**	9	1	**10**	2	8
35	Hotel	121.000 ORM	**1079**	**81**	47	34	**85**	41	44
36	Condominium/Townhouse - (Attached)	52.000 DU	**302**	**23**	4	19	**27**	18	9
	Shopping Center	10.000 TSF	**427**	**10**	6	4	**37**	18	19
City of Hawthorne									
37	Condominium/Townhouse - (Attached)	12.000 DU	**70**	**5**	1	4	**6**	4	2
38	Hotel	120.000 ORM	**1070**	**81**	47	34	**84**	41	43
Total Project Trips			**99,319**	**8,549**	**6,304**	**2,245**	**10,116**	**3,565**	**6,551**

Note

** TSF = Thousand Square Feet; ORM = Occupied Rooms; DU = Dwelling Units

[1] Trip generation rates taken from Approved 2014 Raytheon South Campus TIA by RBF

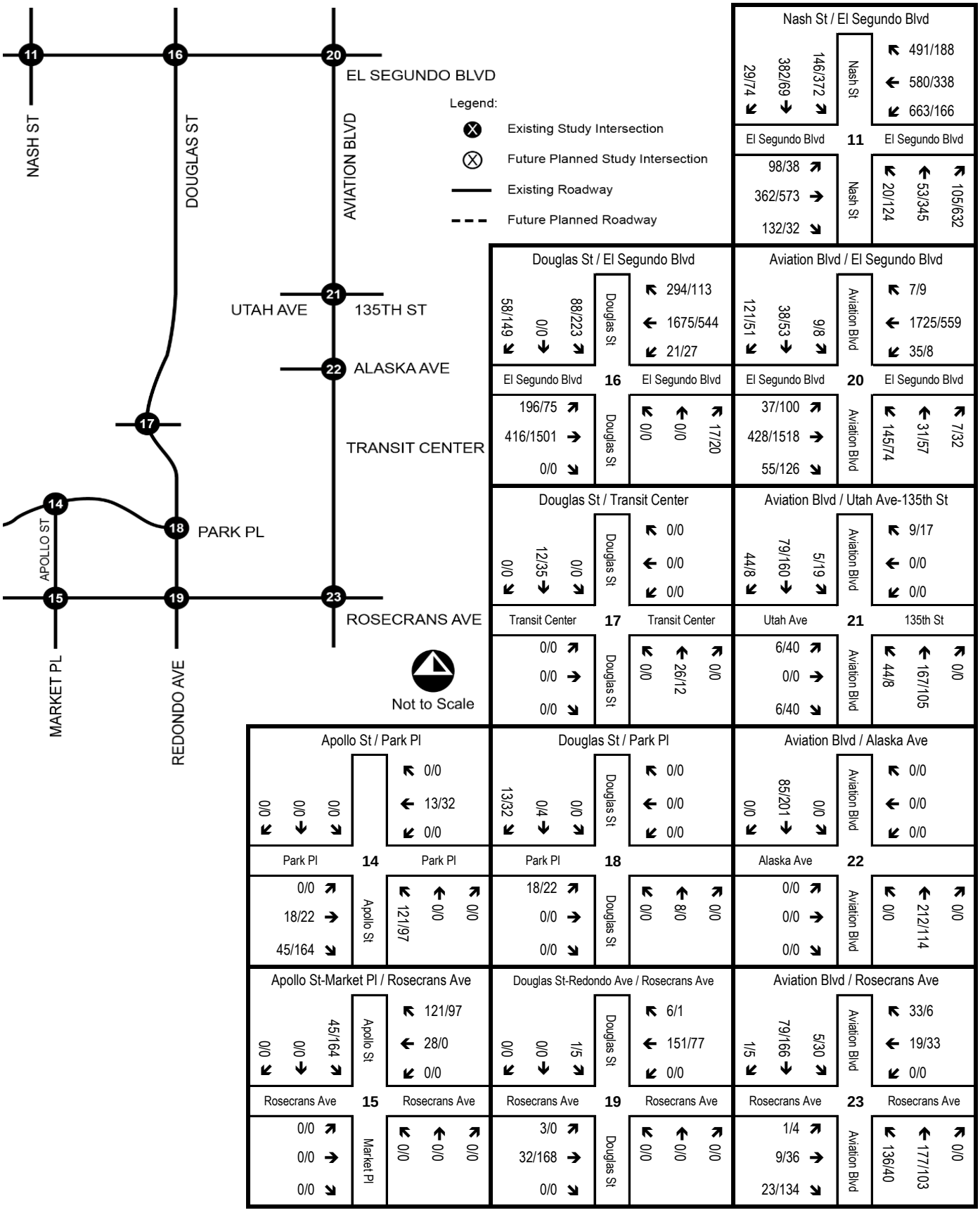
[2] Trip generation rates provided by the City of Manhattan



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 12 (1 of 2)

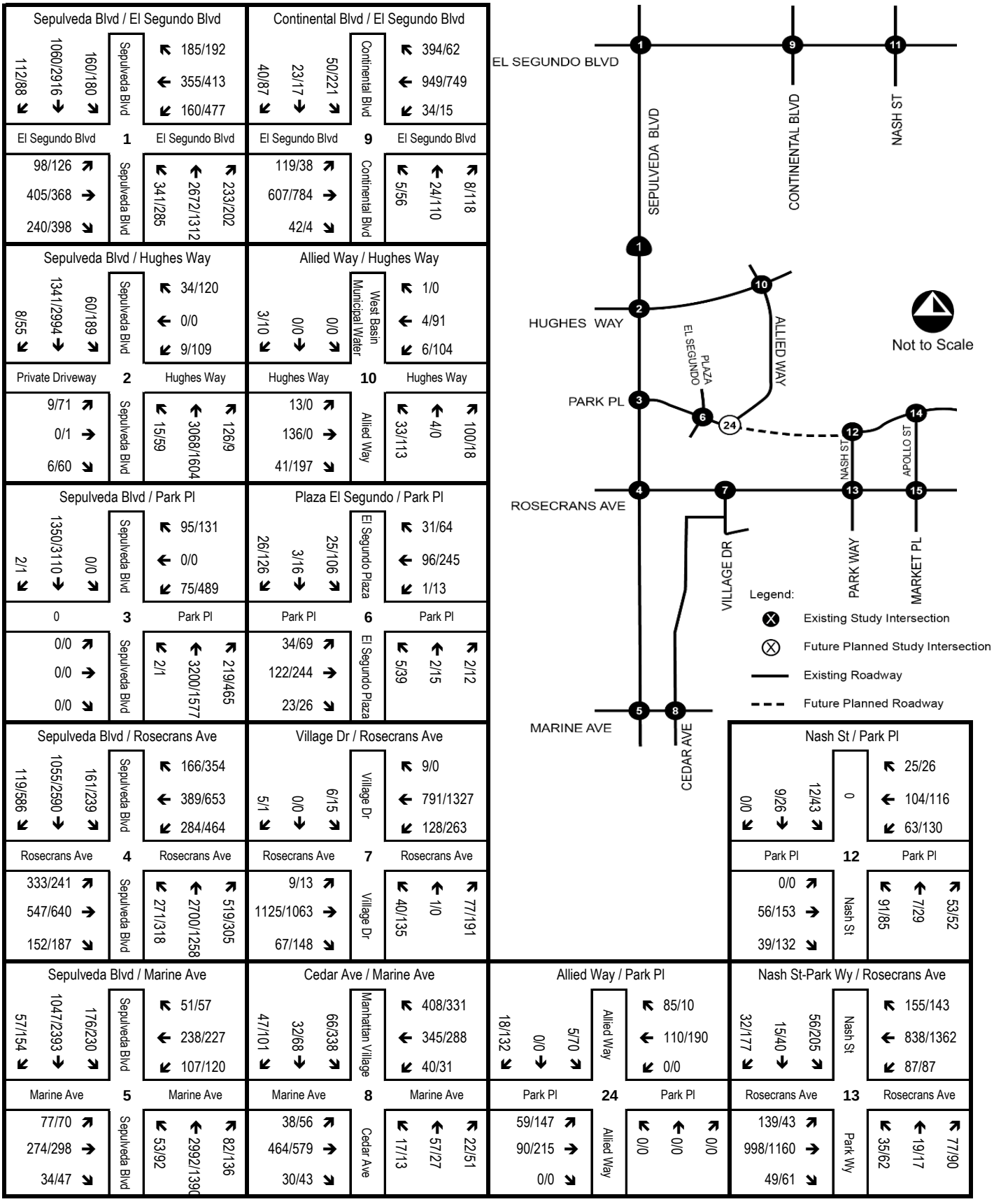
Cumulative Development Intersection Volumes



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 12 (2 of 2)

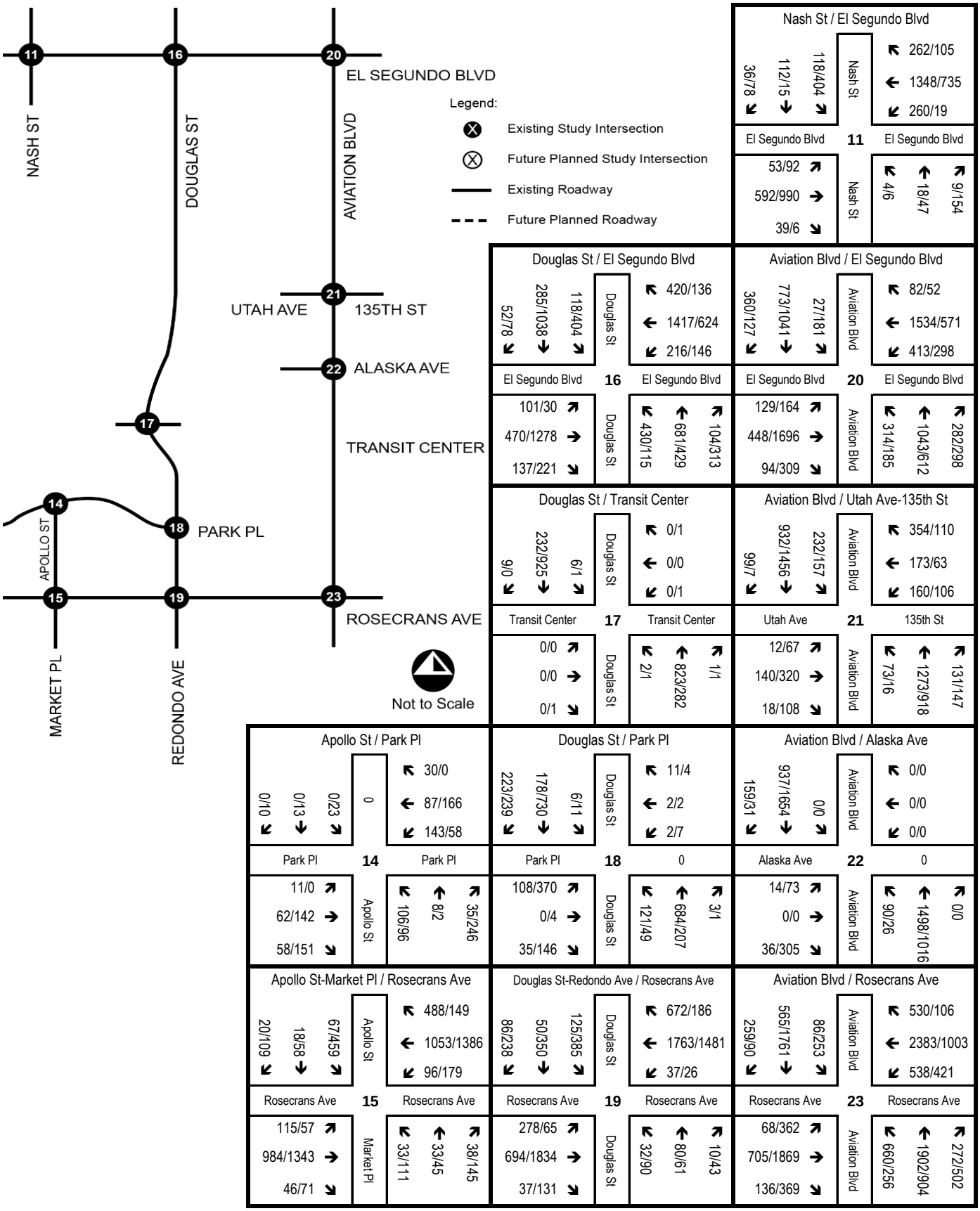
Cumulative Development Intersection Volumes



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 13 (1 of 2)

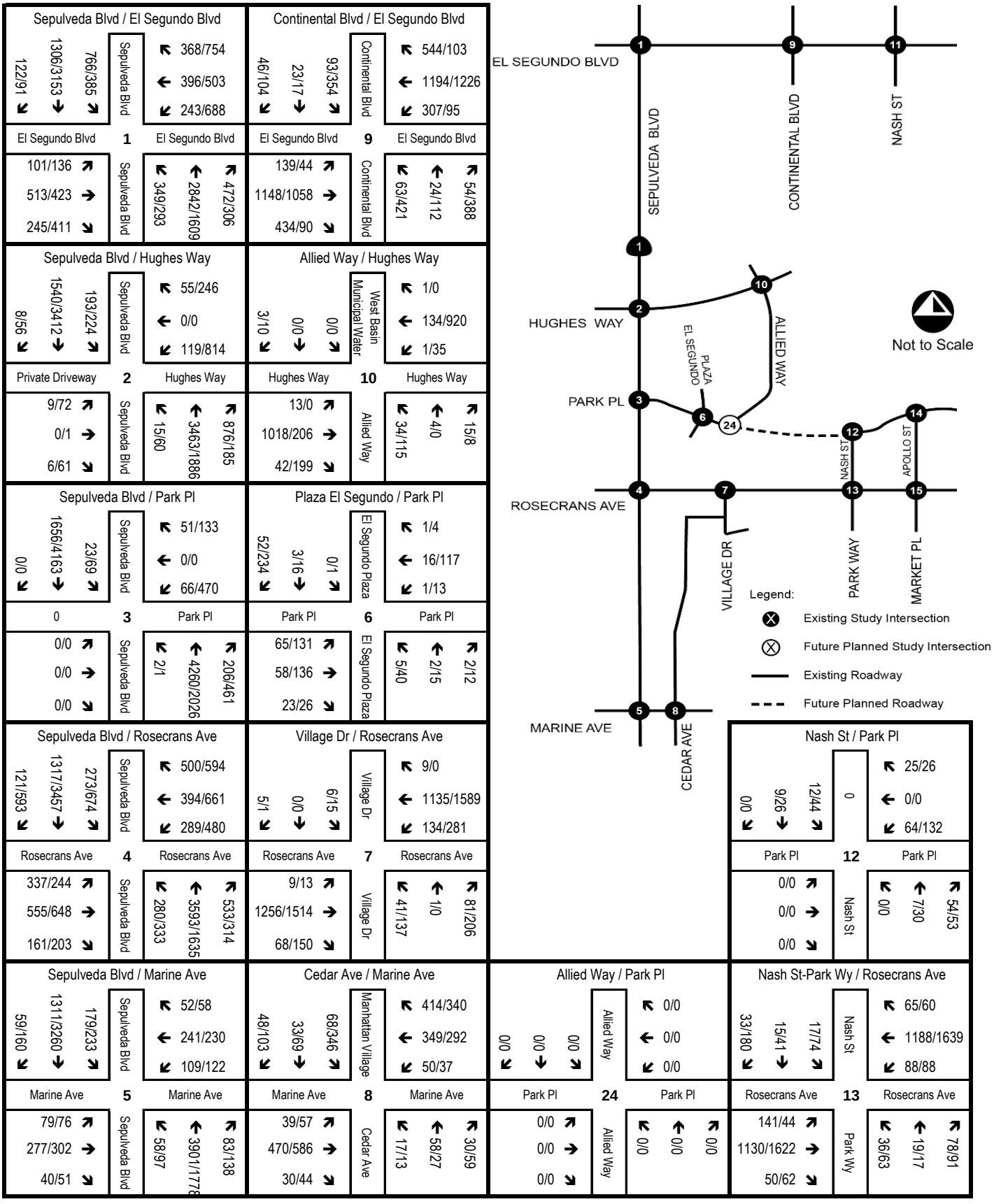
Existing 2016 Plus Project Intersection Volumes



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 13 (2 of 2)

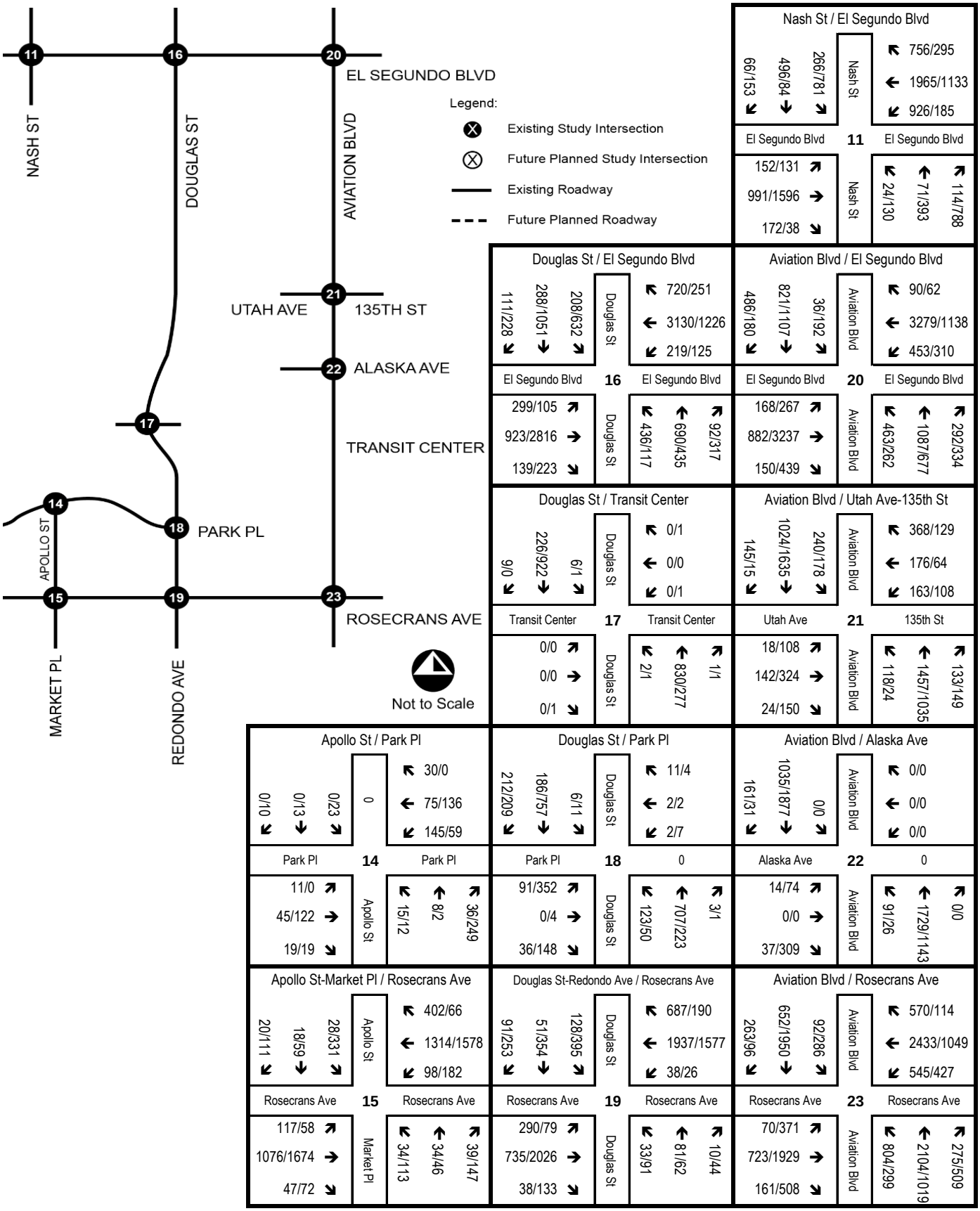
Existing 2016 Plus Project Intersection Volumes



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 14 (1 of 2)

Opening Year 2021 Without Project Intersection Volumes



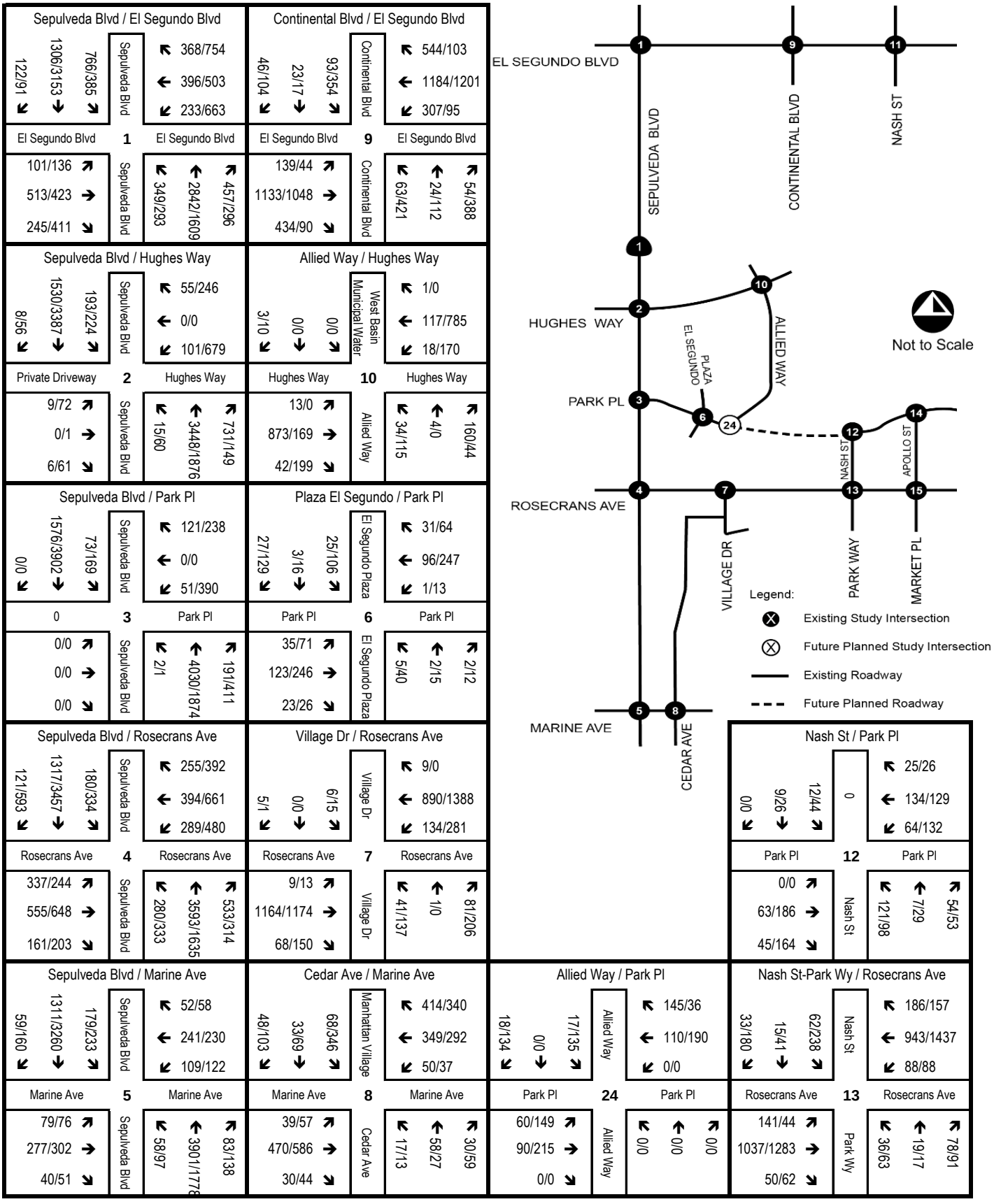
XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 14 (2 of 2)

Opening Year 2021 Without Project Intersection Volumes

5.5 Opening Year 2021 With Project Traffic

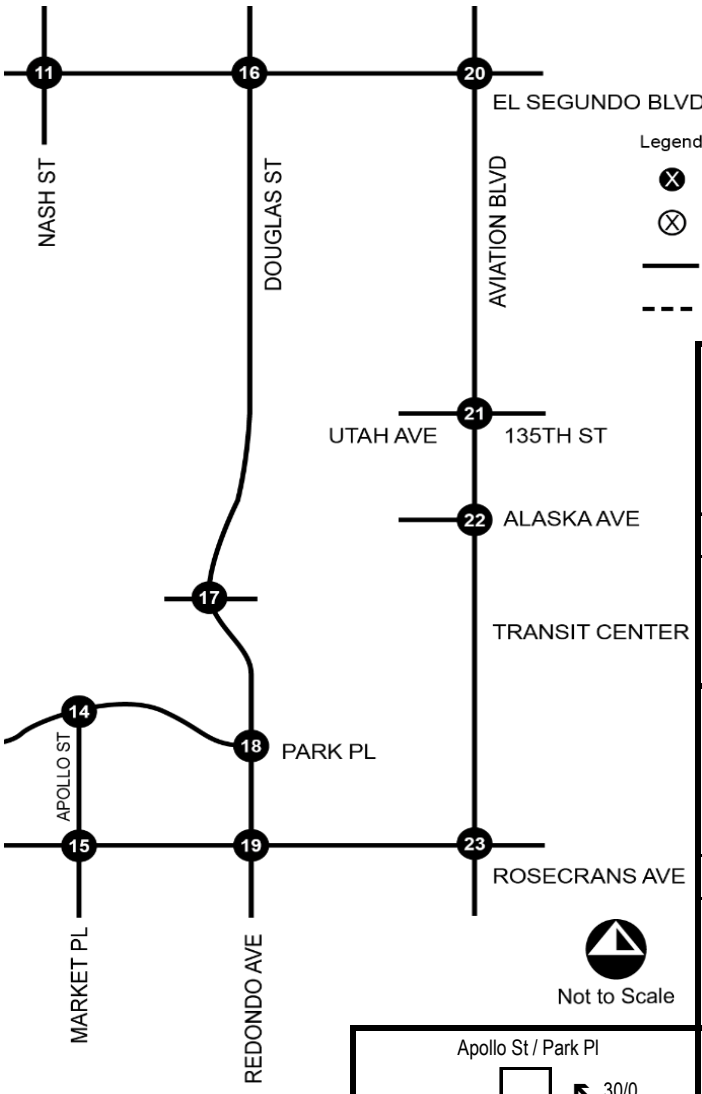
Exhibit 15 shows Opening Year 2021 with Project conditions AM and PM peak hour intersection traffic volumes, with diverted traffic.



XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 15 (1 of 2)

Opening Year 2021 With Project Intersection Volumes



Nash St / El Segundo Blvd — 11

66/153 ↙	496/84 ↓	266/781 ↘
Nash St		Nash St
↖ 756/295	← 1955/1108	↙ 926/185

152/131 ↗	976/1586 →	172/38 ↘
El Segundo Blvd		El Segundo Blvd
↖ 24/130	↑ 71/393	↗ 114/788

Douglas St / El Segundo Blvd — 16

111/228 ↙	288/1051 ↓	208/632 ↘
Douglas St		Douglas St
↖ 720/251	← 3120/1201	↙ 229/150

299/105 ↗	908/2806 →	139/223 ↘
El Segundo Blvd		El Segundo Blvd
↖ 436/117	↑ 690/435	↗ 107/327

Aviation Blvd / El Segundo Blvd — 20

486/180 ↙	821/1107 ↓	36/192 ↘
Aviation Blvd		Aviation Blvd
↖ 90/62	← 3279/1138	↙ 453/310

168/267 ↗	882/3237 →	150/439 ↘
El Segundo Blvd		El Segundo Blvd
↖ 463/262	↑ 1087/677	↗ 292/334

Douglas St / Transit Center — 17

9/0 ↙	236/947 ↓	6/1 ↘
Douglas St		Douglas St
↖ 0/1	← 0/0	↙ 0/1

0/0 ↗	0/0 →	0/1 ↘
Transit Center		Transit Center
↖ 2/1	↑ 845/287	↗ 1/1

Aviation Blvd / Utah Ave-135th St — 21

145/15 ↙	1024/1635 ↓	240/178 ↘
Aviation Blvd		Aviation Blvd
↖ 368/129	← 176/64	↙ 163/108

18/108 ↗	142/324 →	24/150 ↘
Utah Ave		135th St
↖ 118/24	↑ 1457/1035	↗ 133/149

Apollo St / Park Pl — 14

0/10 ↙	0/13 ↓	0/23 ↘
0		Apollo St
↖ 30/0	← 88/168	↙ 145/59

11/0 ↗	63/144 →	64/183 ↘
Park Pl		Park Pl
↖ 136/109	↑ 8/2	↗ 36/249

Douglas St / Park Pl — 18

225/241 ↙	182/751 ↓	6/11 ↘
Douglas St		Douglas St
↖ 11/4	← 2/2	↙ 2/7

109/374 ↗	0/4 →	36/148 ↘
Park Pl		0
↖ 123/50	↑ 704/212	↗ 3/1

Aviation Blvd / Alaska Ave — 22

161/31 ↙	1035/1877 ↓	0/0 ↘
Aviation Blvd		Aviation Blvd
↖ 0/0	← 0/0	↙ 0/0

14/74 ↗	0/0 →	37/309 ↘
Alaska Ave		0
↖ 91/26	↑ 1729/1143	↗ 0/0

Apollo St-Market Pl / Rosecrans Ave — 15

20/111 ↙	18/59 ↓	73/495 ↘
Apollo St		Apollo St
↖ 523/163	← 1190/1474	↙ 98/182

117/58 ↗	1028/1499 →	47/72 ↘
Rosecrans Ave		Rosecrans Ave
↖ 34/113	↑ 34/46	↗ 39/147
Market Pl		

Douglas St-Redondo Ave / Rosecrans Ave — 19

87/246 ↙	51/354 ↓	128/395 ↘
Douglas St		Douglas St
↖ 687/190	← 1937/1577	↙ 38/26

287/67 ↗	735/2026 →	38/133 ↘
Rosecrans Ave		Rosecrans Ave
↖ 33/91	↑ 81/62	↗ 10/44
Douglas St		

Aviation Blvd / Rosecrans Ave — 23

263/96 ↙	652/1950 ↓	92/286 ↘
Aviation Blvd		Aviation Blvd
↖ 570/114	← 2433/1049	↙ 545/427

70/371 ↗	723/1929 →	161/508 ↘
Rosecrans Ave		Rosecrans Ave
↖ 804/299	↑ 2104/1019	↗ 275/509
Aviation Blvd		

XX/XX = AM / PM Peak Hour Intersection Volumes

Exhibit 15 (2 of 2)

Opening Year 2021 With Project Intersection Volumes

6.0 FUTURE CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS

This section presents the traffic signal warrant analysis for the future traffic scenarios at the four (4) un-signalized and future intersection locations. Appendix F contains the traffic signal warrant analysis worksheets for future conditions. Table 5 summarizes the results of the traffic signal warrant analysis. As shown in Table 5, a traffic signal is currently warranted at the intersection of Douglas Street and Park Place [#6] based on existing 2016 conditions. For all other locations, no traffic signals are warranted.

Table 5 – Traffic Signal Warrant Analysis Summary

Intersection		Existing 2016 Conditions		Existing 2016 With Project Conditions		Opening Year 2021 Without Project Conditions		Opening Year 2021 With Project Conditions	
No.	Name	AM	PM	AM	PM	AM	PM	AM	PM
12	Nash Street / Park Place	X	X	X	X	X	X	X	X
14	Apollo Street / Park Place	X	X	X	X	X	X	X	X
18	Douglas Street / Park Place	O	O	O	O	O	O	O	O
24	Allied Way / Park Place (Future)	N/A	N/A	X	X	N/A	N/A	X	X

Note

X = Not Warranted; O = Warranted for a traffic signal

Since the two intersections (#12 and #24) located at both ends of the proposed Park Place Extension project are forecasted NOT to be warranted for a traffic signal based on future traffic conditions, these two intersections should initially be stop-controlled and monitored to determine if the actual traffic count satisfies the signal warrants:

12. Nash Street at Park Place; and
24. Allied Way at Park Place.

7.0 FUTURE CONDITIONS INTERSECTION ANALYSIS

This section presents the intersection operations analysis for the following future traffic scenarios, based on existing and proposed geometry:

- Existing 2016 plus Project conditions;
- Opening Year 2021 without Project conditions; and
- Opening Year 2021 with Project conditions.

7.1 Existing 2016 Plus Project Intersection Analysis

Table 6 summarizes the AM and PM peak hour intersection operations analysis results for Existing 2016 plus Project conditions, based on existing and future geometry. Appendix G includes the Existing 2016 plus Project conditions intersection operations analysis worksheets, with existing and future geometry.

As shown in Table 6, all study intersections are projected to operate at LOS D or better, except for the following five (5) critical intersections that continue to experience deficient LOS with the diverted traffic conditions:

1. Sepulveda Boulevard and El Segundo Boulevard – LOS E (PM)
4. Sepulveda Boulevard and Rosecrans Avenue – LOS E (PM)
18. Douglas Street and Park Place – LOS F (PM)
21. Aviation Boulevard and Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard and Rosecrans Avenue – LOS E (AM)

As shown on Table 6, all of the five critical intersections will experience improved LOS except for the un-signalized intersection of Douglas Street at Park Place (Intersection #18). There will be no significant project impact at all the study area intersections even though the un-signalized intersection of Douglas Street at Park Place (Intersection #18) is projected to operate at LOS F. Although the City of El Segundo has not established thresholds of significance for stop-controlled intersections, it is recommended that this traffic study utilize the following impact threshold which is used by several jurisdictions to determine significant project impact at an un-signalized study intersection: if one of the minor street approaches is forecast to operate at LOS E or F and the addition of project-generated trips causes an increase in delay of four (4) or more seconds. Even though there is no project traffic impact or cumulative traffic impact, a new traffic signal is recommended at the intersection of Douglas Street at Park Place (Intersection #18) to address the deficient LOS because the City has been receiving complaints about the traffic operations at this location.

Since the two intersections (#12 and #24) located at both ends of the proposed Park Place Extension project are forecasted NOT to be warranted for a traffic signal based on future traffic conditions, these two intersections should initially be stop-controlled and monitored to determine if the actual traffic count satisfies the signal warrants:

12. Nash Street at Park Place; and
24. Allied Way at Park Place.

Table 6 (1 of 2)

Existing 2016 Plus Project Conditions Intersection and Impact Analysis Summary, Without and With Traffic Diversion to Park Place Extension

Intersection			Existing Conditions				Existing 2016 Plus Project Conditions				Project Change		Project Impact
			AM Peak		PM Peak		AM Peak		PM Peak				
No.	Name	Type[1]	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	AM Peak	PM Peak	
1	Sepulveda Blvd / El Segundo Blvd	TS	38.2	D	84.5	F	37.4	D	83.8	F	-0.8	-0.7	No
2	Sepulveda Blvd / Hughes Wy	TS	8.3	A	25.2	C	7.8	A	22.0	C	-0.5	-3.2	No
3	Sepulveda Blvd / Park Pl	TS	6.2	A	10.8	B	8.3	A	11.7	B	2.1	0.9	No
4	Sepulveda Blvd / Rosecrans Ave	TS	40.4	D	79.8	E	35.8	D	78.5	E	-4.6	-1.3	No
5	Sepulveda Blvd / Marine Ave	TS	53.5	D	32.9	C	53.5	D	32.9	C	0.0	0.0	No
6	Plaza El Segundo Acces / Park Pl	TS	0.181	A	0.387	A	0.179	A	0.341	A	-0.002	-0.046	No
7	Village Dr / Rosecrans Ave	TS	0.497	A	0.703	C	0.481	A	0.646	B	-0.016	-0.057	No
8	Cedar Ave / Marine Ave	TS	0.480	A	0.610	B	0.480	A	0.610	B	0.000	0.000	No
9	Continental Blvd / El Segundo Blvd	TS	0.445	A	0.406	A	0.442	A	0.401	A	-0.003	-0.005	No
10	Allied Way / Hughes Wy	TS	0.199	A	0.288	A	0.410	A	0.335	A	0.211	0.047	No
11	Nash St / El Segundo Blvd	TS	0.513	A	0.503	A	0.511	A	0.501	A	-0.002	-0.002	No
12	Nash St / Park Pl	AWS	7.7	A	8.6	A	8.8	A	10.5	B	1.1	1.9	No
	•With Traffic Signal	TS					0.139	A	0.257	A	N/A	N/A	No
13	Nash St / Rosecrans Ave	TS	0.428	A	0.575	A	0.423	A	0.534	A	-0.005	-0.041	No
14	Apollo St / Park Pl	AWS	8.8	A	10.6	B	9.7	A	13.8	B	0.9	3.2	No
15	Apollo St / Rosecrans Ave	TS	0.487	A	0.659	B	0.499	A	0.670	B	0.012	0.011	No
16	Douglas St / El Segundo Blvd	TS	0.710	C	0.813	D	0.708	C	0.818	D	-0.002	0.005	No
17	Douglas St / Transit Center	TS	0.357	A	0.383	A	0.361	A	0.391	A	0.004	0.008	No
18	Douglas St / Park Pl	AWS	22.0	C	54.2	F	23.3	C	57.2	F	1.3	3.0	No
	•With Traffic Signal	TS					0.292	A	0.575	A	N/A	N/A	No
19	Douglas St / Rosecrans Ave	TS	0.658	B	0.765	C	0.657	B	0.765	C	-0.001	0.000	No
20	Aviation Blvd / El Segundo Blvd	TS	0.860	D	0.890	D	0.860	D	0.890	D	0.000	0.000	No
21	Aviation Blvd / Utah Ave	TS	0.912	E	0.788	C	0.912	E	0.788	C	0.000	0.000	No
22	Aviation Blvd / Alaska Ave	TS	0.577	A	0.722	C	0.577	A	0.722	C	0.000	0.000	No
23	Aviation Blvd / Rosecrans Ave	TS	0.917	E	0.879	D	0.917	E	0.879	D	0.000	0.000	No

Table 6 (2 of 2)

Existing 2016 Plus Project Conditions Intersection and Impact Analysis Summary, Without and With Traffic Diversion to Park Place Extension

Intersection			Existing Conditions				Existing 2016 Plus Project Conditions				Project Change		Project Impact
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak	
No.	Name	Type[1]	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS			
24	Allied Way / Park Pl	TS					0.099	A	0.201	A	0.099	0.201	No
	•With Roundabout	RBT					4.1	A	5.3	A	4.100	5.300	No
	•With SB Stop	TWS					9.5	A	12.5	B	9.500	12.500	No

Note

[1] Intersection Type: TS = Traffic Signal; AWS = All-Way Stop; TWS = Two-Way Stop; RBT = Roundabout

[2] Signalized Intersections: Intersection Capacity Utilization (ICU) Analysis Method, Volume/Capacity (V/C) Ratio
State Highway & Unsignalized Intersections: Highway Capacity Manual (HCM) Analysis Method, Average Delay (seconds)

7.2 Opening Year 2021 Without Project Intersection Analysis

Table 7 summarizes the AM and PM peak hour intersection operations analysis results for Opening Year 2021 without Project conditions, based on existing geometry. Appendix H includes the Opening Year 2021 without Project conditions intersection operations analysis worksheets, with existing geometry.

As shown in Table 7, all study intersections are projected to operate at LOS D or better, except for the following ten (10) intersections:

1. Sepulveda Boulevard and El Segundo Boulevard – LOS F (AM, PM)
2. Sepulveda Boulevard at Hughes Way – LOS E (PM)
4. Sepulveda Boulevard and Rosecrans Avenue – LOS E (AM), LOS F (PM)
5. Sepulveda Boulevard at Marine Avenue – LOS F (AM), LOS E (PM)
11. Nash Street at Sepulveda Boulevard – LOS E (AM), LOS F (PM)
16. Douglas Street at El Segundo Boulevard – LOS F (AM, PM)
18. Douglas Street and Park Place – LOS F (PM)
20. Aviation Boulevard at El Segundo Boulevard – LOS F (AM, PM)
21. Aviation Boulevard and Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard and Rosecrans Avenue – LOS E (AM, PM)

7.3 Opening Year 2021 With Project Intersection Analysis

Table 7 summarizes the AM and PM peak hour intersection operations analysis results for Opening Year 2021 with Project conditions, based on existing and future intersection geometry. Appendix I includes the Opening Year 2021 with Project conditions intersection operations analysis worksheets, with existing and future geometry.

As shown in Table 7, all study intersections are projected to operate at LOS D or better, except for the following nine (9) critical intersections that continue to experience deficient LOS with the diverted traffic conditions:

1. Sepulveda Boulevard and El Segundo Boulevard – LOS F (AM, PM)
4. Sepulveda Boulevard and Rosecrans Avenue – LOS E (AM), LOS F (PM)
5. Sepulveda Boulevard at Marine Avenue – LOS F (AM), LOS E (PM)
11. Nash Street at Sepulveda Boulevard – LOS E (AM), LOS F (PM)
16. Douglas Street at El Segundo Boulevard – LOS F (AM, PM)
18. Douglas Street and Park Place – LOS F (PM)
20. Aviation Boulevard at El Segundo Boulevard – LOS F (AM, PM)
21. Aviation Boulevard and Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard and Rosecrans Avenue – LOS E (AM, PM)

As shown on Table 7, all of the critical intersections will experience improved LOS except for the un-signalized intersection of Douglas Street at Park Place (Intersection #18). There will be no significant project impact at all the study area intersections even though the un-signalized intersection of Douglas Street at Park Place (Intersection #18) is projected to operate at LOS F. Although the City of El Segundo has not established thresholds of significance for stop-controlled intersections, it is recommended that this traffic study utilize the following impact threshold which is used by several jurisdictions to determine significant project impact at an un-signalized study intersection: if one of the minor street approaches is forecast to operate at LOS E or F and the addition of project-generated trips causes an increase in delay of four (4) or more seconds. Even

though there is no project traffic impact or cumulative traffic impact, a new traffic signal is recommended at the intersection of Douglas Street at Park Place (Intersection #18) to address the deficient LOS because the City has been receiving complaints about the traffic operations at this location.

Since the two intersections (#12 and #24) located at both ends of the proposed Park Place Extension project are forecasted NOT to be warranted for a traffic signal based on future traffic conditions, these two intersections should initially be stop-controlled and monitored to determine if the actual traffic count satisfies the signal warrants:

12. Nash Street at Park Place; and
24. Allied Way at Park Place.

Table 7 (1 of 2)

Opening Year 2021 With Project Conditions Intersection and Impact Analysis Summary, Without and With Traffic Diversion to Park Place Extension

Intersection			OY2021 Plus Cumulative Conditions				OY2021 Plus Cumulative and Project Conditions				Project Change		Project Impact
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak	
No.	Name	Type[1]	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS			
1	Sepulveda Blvd / El Segundo Blvd	TS	129.5	F	149.0	F	127.9	F	146.8	F	-1.6	-2.2	No
2	Sepulveda Blvd / Hughes Wy	TS	15.4	B	57.1	E	14.3	B	47.4	D	-1.1	-9.7	No
3	Sepulveda Blvd / Park Pl	TS	8.9	A	17.4	B	15.5	B	16.0	B	6.6	-1.4	No
4	Sepulveda Blvd / Rosecrans Ave	TS	67.8	E	136.7	F	58.6	E	135.2	F	-9.2	-1.5	No
5	Sepulveda Blvd / Marine Ave	TS	112.3	F	62.4	E	112.3	F	62.4	E	0.0	0.0	No
6	Plaza El Segundo Acces / Park Pl	TS	0.182	A	0.390	A	0.180	A	0.343	A	-0.002	-0.047	No
7	Village Dr / Rosecrans Ave	TS	0.514	A	0.761	C	0.495	A	0.690	B	-0.019	-0.071	No
8	Cedar Ave / Marine Ave	TS	0.492	A	0.627	B	0.492	A	0.627	B	0.000	0.000	No
9	Continental Blvd / El Segundo Blvd	TS	0.557	A	0.646	B	0.555	A	0.640	B	-0.002	-0.006	No
10	Allied Way / Hughes Wy	TS	0.448	A	0.432	A	0.651	B	0.401	A	0.203	-0.031	No
11	Nash St / El Segundo Blvd	TS	0.931	E	1.104	F	0.929	E	1.102	F	-0.002	-0.002	No
12	Nash St / Park Pl	AWS	7.8	A	8.7	A	9.2	A	11.3	B	1.4	2.6	No
	•With Traffic Signal	TS					0.163	A	0.287	A	N/A	N/A	No
13	Nash St / Rosecrans Ave	TS	0.458	A	0.617	B	0.434	A	0.550	A	-0.024	-0.067	No
14	Apollo St / Park Pl	AWS	8.8	A	10.7	B	10.2	B	15.0	B	1.4	4.3	No
15	Apollo St / Rosecrans Ave	TS	0.524	A	0.701	C	0.537	A	0.716	C	0.013	0.015	No
16	Douglas St / El Segundo Blvd	TS	1.219	F	1.137	F	1.217	F	1.143	F	-0.002	0.006	No
17	Douglas St / Transit Center	TS	0.363	A	0.390	A	0.368	A	0.398	A	0.005	0.008	No
18	Douglas St / Park Pl	AWS	23.9	C	55.0	F	25.4	D	57.3	F	1.5	2.3	No
	•With Traffic Signal	TS					0.296	A	0.586	A	N/A	N/A	No
19	Douglas St / Rosecrans Ave	TS	0.685	B	0.809	D	0.684	B	0.809	D	-0.001	0.000	No
20	Aviation Blvd / El Segundo Blvd	TS	1.324	F	1.199	F	1.324	F	1.199	F	0.000	0.000	No
21	Aviation Blvd / Utah Ave	TS	0.988	E	0.880	D	0.988	E	0.880	D	0.000	0.000	No
22	Aviation Blvd / Alaska Ave	TS	0.649	B	0.793	C	0.649	B	0.793	C	0.000	0.000	No
23	Aviation Blvd / Rosecrans Ave	TS	0.969	E	0.933	E	0.969	E	0.933	E	0.000	0.000	No

Table 7 (2 of 2)

Opening Year 2021 With Project Conditions Intersection and Impact Analysis Summary, Without and With Traffic Diversion to Park Place Extension

Intersection			OY2021 Plus Cumulative Conditions				OY2021 Plus Cumulative and Project Conditions				Project Change		Project Impact
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak	PM Peak	
No.	Name	Type[1]	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS	V/C / Delay[2]	LOS			
24	Allied Way / Park Pl (Alt 1A)	TS					0.133	A	0.231	A	0.133	0.231	No
	•With Roundabout	RBT					4.3	A	5.5	A	4.300	5.500	No
	•With SB Stop	TWS					10.4	B	16.4	C	10.400	16.400	No

Note

[1] Intersection Type: TS = Traffic Signal; AWS = All-Way Stop; RBT = Roundabout

[2] Signalized Intersections: Intersection Capacity Utilization (ICU) Analysis Method, Volume/Capacity (V/C) Ratio
State Highway & Unsignalized Intersections: Highway Capacity Manual (HCM) Analysis Method, Average Delay (seconds)

8.0 CONCLUSIONS

The City of El Segundo (City) proposes to extend Park Place from Allied Way to Nash Street with a railroad grade separation to implement a critical project improving traffic and circulation in the project area. Park Place currently exists in two segments with a roughly quarter mile gap across an undeveloped area which consists of Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe (BNSF) railroad spurs. The project would implement a gap closure to develop Park Place as an alternate east-west route between Sepulveda Boulevard and Douglas Street to relieve congestion along portions of Rosecrans Avenue and Sepulveda Boulevard, as well as to improve local traffic circulation and access to and from the I-105 freeway. The proposed project is anticipated to be completed and operational in year 2021.

The potential amount of traffic diversion, due to the construction of the Park Place Extension project, is estimated based on identifying currently congested intersection locations where existing traffic may want to avoid by using the new Park Place Extension as an alternate travel route. For intersection locations where there are available traffic capacities, potential traffic diversion may also occur along these alternate routes in combination with the new Park Place Extension to utilize the excess capacities and avoiding congested intersections.

Based on the existing 2016 conditions traffic analysis, it highlights the following five (5) critical intersections that are experiencing LOS E or worse:

1. Sepulveda Boulevard and El Segundo Boulevard – LOS F (PM)
4. Sepulveda Boulevard and Rosecrans Avenue – LOS E (PM)
18. Douglas Street and Park Place – LOS F (PM)
21. Aviation Boulevard and Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard and Rosecrans Avenue – LOS E (AM)

Therefore, the existing traffic may potentially want to avoid these critical intersections if the Park Place Extension project is constructed. The amount of traffic diversion is estimated based on the following considerations:

- For an intersection that experiences deficient operations (LOS E or F), a significant amount of existing traffic movement may be assumed to divert to the new Park Place Extension, if there is an alternate route with excess capacity.

- For an intersection that continues to operate at satisfactory operations or below deficient operations (LOS A through D), none or a very low amount of existing traffic may be assumed to divert to the new Park Place Extension.

8.1 Traffic Signal Warrant Analysis Results

A traffic signal is currently warranted at the intersection of Douglas Street and Park Place [#6] based on existing 2016 conditions. Since the intersection of Douglas Street and Park Place (Intersection #18) is currently warranted for a traffic signal based on existing 2016 traffic conditions, a new traffic signal should be considered because the City has been receiving complaints about the traffic operations at this location. For all other locations, no traffic signals are warranted for existing and future traffic conditions.

Since the two intersections (#12 and #24) located at both ends of the proposed Park Place Extension project are forecasted NOT to be warranted for a traffic signal based on future traffic conditions, these two intersections should initially be stop-controlled and monitored to determine if the actual traffic count satisfies the signal warrants:

12. Nash Street at Park Place; and
24. Allied Way at Park Place.

8.2 Intersection Analysis Results

For existing 2016 traffic conditions, all study intersections are operating at acceptable LOS D or better for existing 2016 conditions, except for the following five (5) intersections:

1. Sepulveda Boulevard at El Segundo Boulevard – LOS F (PM)
4. Sepulveda Boulevard at Rosecrans Avenue – LOS E (PM)
18. Douglas Street at Park Place – LOS F (PM)
21. Aviation Boulevard at Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard at Rosecrans Avenue – LOS E (AM)

For Existing 2016 plus Project conditions, all study intersections are projected to operate at LOS D or better, except for the following five (5) critical intersections that continue to experience deficient LOS with the diverted traffic conditions:

1. Sepulveda Boulevard and El Segundo Boulevard – LOS E (PM)
4. Sepulveda Boulevard and Rosecrans Avenue – LOS E (PM)
18. Douglas Street and Park Place – LOS F (PM)
21. Aviation Boulevard and Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard and Rosecrans Avenue – LOS E (AM)

All of the five critical intersections will experience improved LOS except for the un-signalized intersection of Douglas Street at Park Place (Intersection #18). There will be no significant project impact at all the study area intersections even though the un-signalized intersection of Douglas Street at Park Place (Intersection #18) is projected to operate at LOS F. The City has been receiving complaints about the traffic operations at this location. Although the City of El Segundo has not established thresholds of significance for stop-controlled intersections, it is recommended that this traffic study utilize the following impact threshold which is used by several jurisdictions to determine significant project impact at an un-signalized study intersection: if one of the minor street approaches is forecast to operate at LOS E or F and the addition of project-generated trips causes an increase in delay of four (4) or more seconds. Even though there is no project traffic impact or cumulative traffic impact, a new traffic signal is recommended at the intersection of Douglas Street at Park Place (Intersection #18) to address the deficient LOS because the City has been receiving complaints about the traffic operations at this location.

Since the two intersections (#12 and #24) located at both ends of the proposed Park Place Extension project are forecasted NOT to be warranted for a traffic signal based on future traffic conditions, these two intersections should initially be stop-controlled and monitored to determine if the actual traffic count satisfies the signal warrants:

12. Nash Street at Park Place; and
24. Allied Way at Park Place.

For Opening Year 2021 without Project conditions, all study intersections are projected to operate at LOS D or better, except for the following ten (10) intersections:

1. Sepulveda Boulevard and El Segundo Boulevard – LOS F (AM, PM)
2. Sepulveda Boulevard at Hughes Way – LOS E (PM)
4. Sepulveda Boulevard and Rosecrans Avenue – LOS E (AM), LOS F (PM)
5. Sepulveda Boulevard at Marine Avenue – LOS F (AM), LOS E (PM)
11. Nash Street at Sepulveda Boulevard – LOS E (AM), LOS F (PM)
16. Douglas Street at El Segundo Boulevard – LOS F (AM, PM)
18. Douglas Street and Park Place – LOS F (PM)
20. Aviation Boulevard at El Segundo Boulevard – LOS F (AM, PM)
21. Aviation Boulevard and Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard and Rosecrans Avenue – LOS E (AM, PM)

For Opening Year 2021 with Project conditions, all study intersections are projected to operate at LOS D or better, except for the following nine (9) critical intersections that continue to experience deficient LOS with the diverted traffic conditions:

1. Sepulveda Boulevard and El Segundo Boulevard – LOS F (AM, PM)
4. Sepulveda Boulevard and Rosecrans Avenue – LOS E (AM), LOS F (PM)
5. Sepulveda Boulevard at Marine Avenue – LOS F (AM), LOS E (PM)
11. Nash Street at Sepulveda Boulevard – LOS E (AM), LOS F (PM)
16. Douglas Street at El Segundo Boulevard – LOS F (AM, PM)
18. Douglas Street and Park Place – LOS F (PM)
20. Aviation Boulevard at El Segundo Boulevard – LOS F (AM, PM)
21. Aviation Boulevard and Utah Avenue/135th Street – LOS E (AM)
23. Aviation Boulevard and Rosecrans Avenue – LOS E (AM, PM)

All of the critical intersections will experience improved LOS except for the un-signalized intersection of Douglas Street at Park Place (Intersection #18). There will be no significant project impact at all the study area intersections even though the un-signalized intersection of Douglas Street at Park Place (Intersection #18) is projected to operate at LOS F. Even though there is no project traffic impact or cumulative traffic impact, a new traffic signal is recommended at the intersection of Douglas Street at Park Place (Intersection #18) to address the deficient LOS because the City has been receiving complaints about the traffic operations at this location.

Since the two intersections (#12 and #24) located at both ends of the proposed Park Place Extension project are forecasted NOT to be warranted for a traffic signal based on future traffic conditions, these two intersections should initially be stop-controlled and monitored to determine if the actual traffic count satisfies the signal warrants:

12. Nash Street at Park Place; and
24. Allied Way at Park Place.

8.3 Recommended Improvements

Even though there is no project traffic impact or cumulative traffic impact, a new traffic signal is recommended at the intersection of Douglas Street at Park Place (Intersection #18) to address the deficient LOS because the City has been receiving complaints about the traffic operations at

this location. A traffic signal is currently warranted at the intersection of Douglas Street at Park Place (Intersection #18) based on existing 2016 traffic conditions.

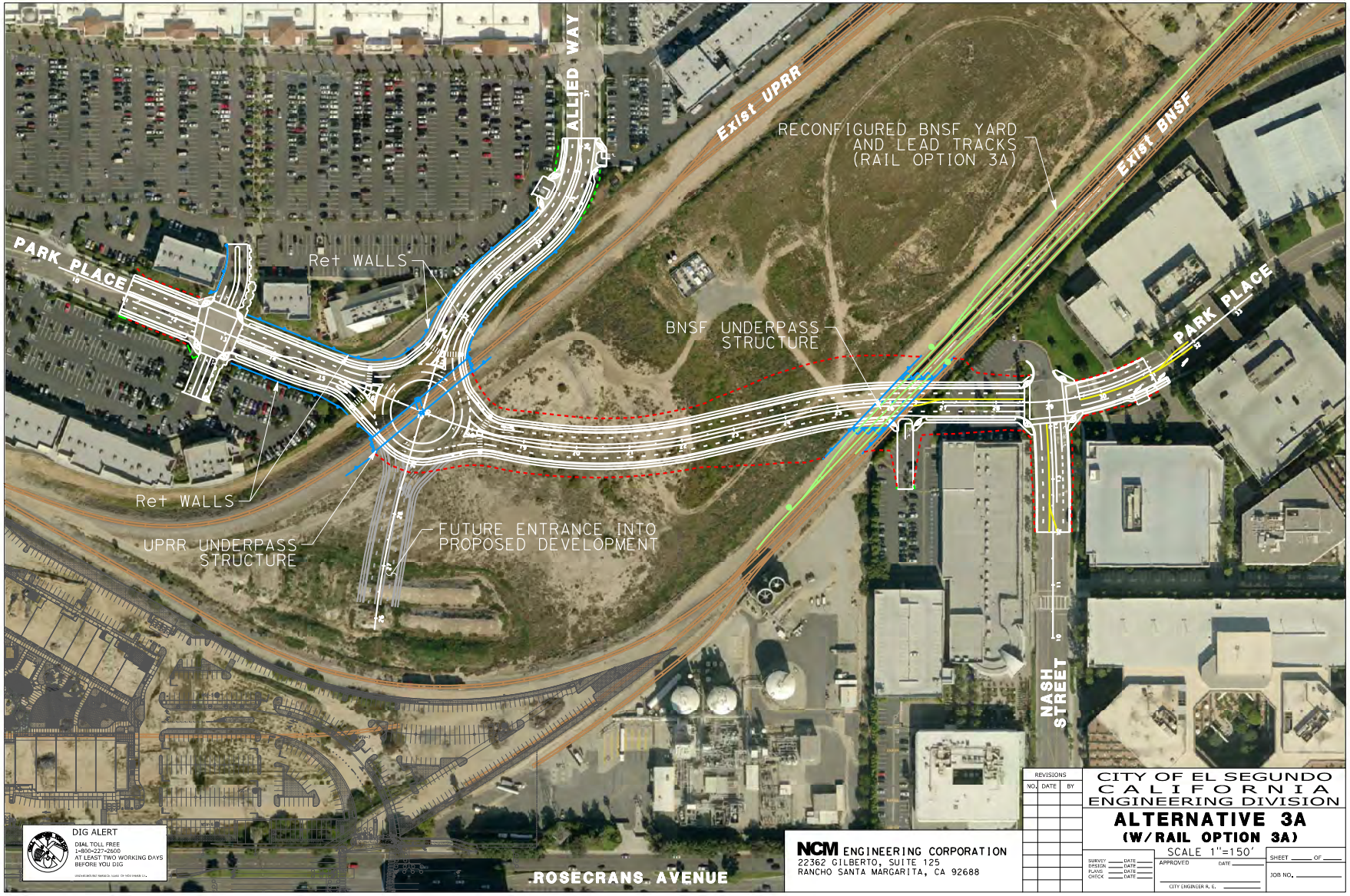
Since the two intersections (#12 and #24) located at both ends of the proposed Park Place Extension project are forecasted NOT to be warranted for a traffic signal based on future traffic conditions, these two intersections should initially be stop-controlled and monitored to determine if the actual traffic count satisfies the signal warrants:

12. Nash Street at Park Place; and
24. Allied Way at Park Place.

Appendix A – Project Build Alternative Plans


Exist UPRR
BNSF
ALLIED WAY
RELOCATED BNSF YARD
(RAIL OPTION 1)
Exist BNSF (TO BE REMOVED)
PARK PLACE
Ret WALLS
PARK PLACE
Ret WALLS
UNDERPASS
STRUCTURE
NASH STREET
ROSECRANS AVENUE
ALTERNATIVE 1A
(W/RAIL OPTION 1)
SCALE 1"=150'


ALLIED WAY
Exist UPRR
BNSF
RELOCATED BNSF YARD
(RAIL OPTION 1)
Exist BNSF (TO BE REMOVED)
PARK PLACE
PARK PLACE
Ret WALL
Ret WALL
UNDERPASS
STRUCTURE
NASH STREET
ROSECRANS AVENUE
ALTERNATIVE 1C
(W/ RAIL OPTION 1)
SCALE 1"=150'


ALLIED WAY
Exist UPRR
RECONFIGURED BNSF YARD
AND LEAD TRACKS
(RAIL OPTION 3A)
Exist BNSF
PARK PLACE
Ret WALLS
BNSF UNDERPASS
STRUCTURE
PARK PLACE
Ret WALLS
UPRR UNDERPASS
STRUCTURE
FUTURE ENTRANCE INTO
PROPOSED DEVELOPMENT
NASH
STREET
ROSECRANS AVENUE
DIG ALERT
DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO WORKING DAYS
BEFORE YOU DIG
NCM ENGINEERING CORPORATION
22362 GILBERTO, SUITE 125
RANCHO SANTA MARGARITA, CA 92688
REVISIONS
NO. DATE BY
CITY OF EL SEGUNDO
CALIFORNIA
ENGINEERING DIVISION
ALTERNATIVE 3A
(W/RAIL OPTION 3A)
SCALE 1"=150'
APPROVED
DATE
CITY ENGINEER R. E.
SHEET OF
JOB NO.


ALLIED WAY
DRIVEWAY 2
DRIVEWAY 1
Exist UPRR
Ret WALLS
RECONFIGURED BNSF YARD AND LEAD TRACKS (RAIL OPTION 3B)
Exist BNSF
BNSF AT GRADE CROSSING
Ret WALLS
DRIVEWAY 3
PARK PLACE
PARK PLACE
FUTURE ENTRANCE INTO PROPOSED DEVELOPMENT
UPRR UNDERPASS STRUCTURE
Ret WALLS
DRIVEWAY 4
Ret WALLS
NASH STREET
DIG ALERT
DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO WORKING DAYS
BEFORE YOU DIG
NCM ENGINEERING CORPORATION
22362 GILBERTO, SUITE 125
RANCHO SANTA MARGARITA, CA 92688
REVISIONS
NO. DATE BY
CITY OF EL SEGUNDO
CALIFORNIA
ENGINEERING DIVISION
ALT 3B OPTION 1
(W/RAIL OPTION 3B)
SCALE 1"=150'
APPROVED
DATE
CITY ENGINEER R. E.
SHEET OF
JOB NO.

Appendix B – Traffic Count Data Sheets

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Wed, May 6, 15	LOCATION:	El Segundo	PROJECT #:	SC0603	
	NORTH & SOUTH:	Sepulveda	LOCATION #:	1	
	EAST & WEST:	El Segundo	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND El Segundo			WESTBOUND El Segundo			
	LANES:	NL 1	NT 4	NR 1	SL 2	ST 4	SR 1	EL 0	ET 1	ER 0	WL 2.5	WT 0.5	WR 1	TOTAL
AM	7:00 AM	76	584	58	32	153	14	15	67	34	20	76	31	1,160
	7:15 AM	66	674	55	29	186	21	25	85	31	30	94	39	1,335
	7:30 AM	74	540	73	32	216	22	34	85	53	35	107	48	1,319
	7:45 AM	86	636	57	29	248	31	25	125	71	42	131	53	1,534
	8:00 AM	90	615	62	43	250	18	20	102	65	44	82	49	1,440
	8:15 AM	71	742	65	53	300	28	22	89	52	41	68	41	1,572
	8:30 AM	93	672	63	35	259	35	31	88	51	43	73	42	1,485
	8:45 AM	76	587	62	29	261	26	29	91	70	53	105	56	1,445
	VOLUMES	632	5,050	495	282	1,873	195	201	732	427	308	736	359	11,290
	APPROACH %	10%	82%	8%	12%	80%	8%	15%	54%	31%	22%	52%	26%	
	APP/DEPART	6,177	/	5,718	2,350	/	2,663	1,360	/	1,401	1,403	/	1,508	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	340	2,665	247	160	1,057	112	98	404	239	170	354	185	6,031
	APPROACH %	10%	82%	8%	12%	80%	8%	13%	55%	32%	24%	50%	26%	
	PEAK HR FACTOR		0.928			0.875			0.838			0.784		0.947
	APP/DEPART	3,252	/	3,001	1,329	/	1,494	741	/	758	709	/	778	0
PM	4:00 PM	48	321	51	43	516	16	22	87	88	131	96	55	1,474
	4:15 PM	49	320	37	47	645	17	29	81	87	106	66	51	1,535
	4:30 PM	59	317	64	57	634	25	31	96	93	114	94	45	1,629
	4:45 PM	72	346	35	51	724	20	34	102	118	103	88	44	1,737
	5:00 PM	69	323	72	48	662	21	42	101	100	137	98	43	1,716
	5:15 PM	76	320	45	49	756	22	35	98	113	138	105	40	1,797
	5:30 PM	67	329	49	38	727	27	28	86	86	109	115	56	1,717
	5:45 PM	72	337	45	45	763	18	21	82	98	117	94	53	1,745
	VOLUMES	512	2,613	398	378	5,427	166	242	733	783	955	756	387	13,350
	APPROACH %	15%	74%	11%	6%	91%	3%	14%	42%	45%	46%	36%	18%	
	APP/DEPART	3,523	/	3,255	5,971	/	7,218	1,758	/	1,496	2,098	/	1,381	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	284	1,309	211	180	2,908	88	126	367	397	501	412	192	6,975
	APPROACH %	16%	73%	12%	6%	92%	3%	14%	41%	45%	45%	37%	17%	
	PEAK HR FACTOR		0.972			0.960			0.904			0.976		0.968
	APP/DEPART	1,804	/	1,631	3,176	/	3,825	890	/	754	1,105	/	765	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 5, 15

LOCATION: El Segundo
NORTH & SOUTH: Sepulveda
EAST & WEST: Hughes

PROJECT #: SC0603
LOCATION #: 2
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND Hughes			WESTBOUND Hughes			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	4	1	2	4	1	0	1	0	2.5	0.5	1	
AM	7:00 AM	3	700	61	7	206	6	6	0	4	5	0	9	1,007
	7:15 AM	3	721	52	3	255	4	1	0	0	2	0	10	1,051
	7:30 AM	4	759	65	15	299	3	0	0	2	2	1	9	1,159
	7:45 AM	2	776	57	9	311	1	2	0	2	2	0	12	1,174
	8:00 AM	5	788	52	12	332	2	4	0	3	4	0	11	1,213
	8:15 AM	2	743	56	16	329	2	2	0	1	4	0	4	1,159
	8:30 AM	6	768	45	23	375	3	1	0	0	4	0	7	1,232
	8:45 AM	0	709	28	14	304	1	1	0	2	2	0	8	1,069
	VOLUMES	25	5,964	416	99	2,411	22	17	0	14	25	1	70	9,064
	APPROACH %	0%	93%	6%	4%	95%	1%	55%	0%	45%	26%	1%	73%	
	APP/DEPART	6,405	/	6,051	2,532	/	2,452	31	/	515	96	/	46	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	15	3,075	210	60	1,347	8	9	0	6	14	0	34	4,778
	APPROACH %	0%	93%	6%	4%	95%	1%	60%	0%	40%	29%	0%	71%	
	PEAK HR FACTOR		0.977			0.882			0.536			0.800		0.968
	APP/DEPART	3,300	/	3,118	1,415	/	1,369	15	/	270	48	/	21	0
PM	4:00 PM	5	410	4	37	632	2	5	0	5	35	0	26	1,161
	4:15 PM	3	375	5	31	692	5	8	0	10	20	0	25	1,174
	4:30 PM	8	417	3	41	769	15	18	0	19	39	0	23	1,352
	4:45 PM	7	403	3	27	750	20	12	0	14	38	0	20	1,294
	5:00 PM	16	404	4	28	661	9	39	1	29	59	0	36	1,286
	5:15 PM	15	415	5	69	792	14	13	0	12	42	0	34	1,411
	5:30 PM	21	388	7	65	808	12	7	0	5	40	0	30	1,383
	5:45 PM	10	406	0	35	720	25	6	0	8	29	0	26	1,265
	VOLUMES	85	3,218	31	333	5,824	102	108	1	102	302	0	220	10,326
	APPROACH %	3%	97%	1%	5%	93%	2%	51%	0%	48%	58%	0%	42%	
	APP/DEPART	3,334	/	3,547	6,259	/	6,233	211	/	364	522	/	182	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	59	1,610	19	189	3,011	55	71	1	60	179	0	120	5,374
	APPROACH %	3%	95%	1%	6%	93%	2%	54%	1%	45%	60%	0%	40%	
	PEAK HR FACTOR		0.971			0.920			0.478			0.787		0.952
	APP/DEPART	1,688	/	1,802	3,255	/	3,252	132	/	208	299	/	112	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	El Segundo	PROJECT #:	SC0603
Tue, May 5, 15	NORTH & SOUTH:	Sepulveda	LOCATION #:	3
	EAST & WEST:	Park	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND Park			WESTBOUND Park			
	LANES:	NL X	NT 4	NR 1	SL 2	ST 4	SR X	EL X	ET X	ER X	WL 2	WT X	WR 1	TOTAL
AM	7:00 AM	1	744	23	2	221	0	0	0	0	6	0	6	1,003
	7:15 AM	1	733	24	2	193	0	0	0	0	5	0	5	963
	7:30 AM	1	823	34	3	246	0	0	0	0	16	0	3	1,126
	7:45 AM	1	807	33	5	259	0	0	0	0	16	0	16	1,137
	8:00 AM	0	751	50	3	387	0	0	0	0	12	0	4	1,207
	8:15 AM	0	832	62	6	373	1	0	0	0	14	0	9	1,297
	8:30 AM	1	817	58	9	337	1	0	0	0	23	0	21	1,267
	8:45 AM	2	640	52	5	286	0	0	0	0	11	0	9	1,005
	VOLUMES	7	6,147	336	35	2,302	2	0	0	0	103	0	73	9,005
	APPROACH %	0%	95%	5%	1%	98%	0%	0%	0%	0%	59%	0%	41%	
	APP/DEPART	6,490	/	6,220	2,339	/	2,412	0	/	371	176	/	2	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	2	3,207	203	23	1,356	2	0	0	0	65	0	50	4,908
	APPROACH %	0%	94%	6%	2%	98%	0%	0%	0%	0%	57%	0%	43%	
	PEAK HR FACTOR		0.955			0.885			0.000			0.653		0.946
	APP/DEPART	3,412	/	3,257	1,381	/	1,423	0	/	226	115	/	2	0
PM	4:00 PM	0	379	97	9	668	0	0	0	0	99	0	28	1,280
	4:15 PM	1	350	108	22	702	0	0	0	0	114	1	21	1,319
	4:30 PM	0	374	88	27	746	0	0	0	0	92	0	35	1,362
	4:45 PM	2	395	94	26	668	0	0	0	0	109	0	20	1,314
	5:00 PM	1	405	109	26	801	1	0	0	0	99	0	31	1,473
	5:15 PM	0	406	121	8	772	0	0	0	0	131	0	26	1,464
	5:30 PM	0	409	114	15	798	0	0	0	0	105	0	30	1,471
	5:45 PM	0	363	110	19	756	0	0	0	0	128	0	44	1,420
	VOLUMES	4	3,081	841	152	5,911	1	0	0	0	877	1	235	11,103
	APPROACH %	0%	78%	21%	3%	97%	0%	0%	0%	0%	79%	0%	21%	
	APP/DEPART	3,926	/	3,316	6,064	/	6,792	0	/	993	1,113	/	2	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	1,583	454	68	3,127	1	0	0	0	463	0	131	5,828
	APPROACH %	0%	78%	22%	2%	98%	0%	0%	0%	0%	78%	0%	22%	
	PEAK HR FACTOR		0.967			0.965			0.000			0.863		0.988
	APP/DEPART	2,038	/	1,714	3,196	/	3,591	0	/	522	594	/	1	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, May 5, 15	LOCATION:	El Segundo	PROJECT #:	SC0603	
	NORTH & SOUTH:	Sepulveda	LOCATION #:	4	
	EAST & WEST:	Rosecrans	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND Rosecrans			WESTBOUND Rosecrans			
	LANES:	NL 2	NT 4	NR 1	SL 2	ST 3	SR 1	EL 2	ET 3	ER 1	WL 2	WT 2	WR 1	TOTAL
AM	7:00 AM	51	653	47	24	141	15	62	80	13	55	67	76	1,284
	7:15 AM	77	635	80	34	192	21	40	90	33	69	103	91	1,465
	7:30 AM	57	687	54	34	227	19	70	98	53	77	94	74	1,544
	7:45 AM	72	664	108	44	244	34	67	139	64	71	120	93	1,720
	8:00 AM	73	721	104	43	258	35	95	125	37	78	89	76	1,734
	8:15 AM	50	690	143	80	258	26	82	148	37	69	110	70	1,763
	8:30 AM	57	713	142	44	253	23	81	105	33	76	87	94	1,708
	8:45 AM	90	569	129	73	283	35	74	168	45	60	102	110	1,738
	VOLUMES	527	5,332	807	376	1,856	208	571	953	315	555	772	684	12,956
	APPROACH %	8%	80%	12%	15%	76%	9%	31%	52%	17%	28%	38%	34%	
	APP/DEPART	6,666	/	6,587	2,440	/	2,751	1,839	/	2,136	2,011	/	1,482	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	270	2,693	518	240	1,052	119	332	546	152	283	388	350	6,943
	APPROACH %	8%	77%	15%	17%	75%	8%	32%	53%	15%	28%	38%	34%	
	PEAK HR FACTOR		0.956			0.902			0.897			0.938		0.982
	APP/DEPART	3,481	/	3,375	1,411	/	1,500	1,030	/	1,304	1,021	/	764	0
PM	4:00 PM	53	291	73	94	519	52	64	149	69	130	112	109	1,715
	4:15 PM	67	321	90	111	609	89	47	122	59	99	94	138	1,846
	4:30 PM	69	286	103	102	567	92	84	167	51	141	159	104	1,925
	4:45 PM	57	342	91	150	647	94	61	145	50	107	111	142	1,997
	5:00 PM	72	308	74	119	590	108	63	217	62	133	179	112	2,037
	5:15 PM	89	340	81	149	706	151	63	146	44	102	147	151	2,169
	5:30 PM	64	295	69	113	619	143	59	152	54	121	191	136	2,016
	5:45 PM	92	312	80	132	668	182	55	123	27	107	134	129	2,041
	VOLUMES	563	2,495	661	970	4,925	911	496	1,221	416	940	1,127	1,021	15,746
	APPROACH %	15%	67%	18%	14%	72%	13%	23%	57%	20%	30%	36%	33%	
	APP/DEPART	3,719	/	4,011	6,806	/	6,363	2,133	/	2,852	3,088	/	2,520	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	317	1,255	304	513	2,583	584	240	638	187	463	651	528	8,263
	APPROACH %	17%	67%	16%	14%	70%	16%	23%	60%	18%	28%	40%	32%	
	PEAK HR FACTOR		0.914			0.915			0.777			0.916		0.946
	APP/DEPART	1,876	/	2,022	3,680	/	3,276	1,065	/	1,456	1,642	/	1,509	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 5, 15

LOCATION: El Segundo
NORTH & SOUTH: Sepulveda
EAST & WEST: Marine

PROJECT #: SC0603
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

		NORTHBOUND Sepulveda			SOUTHBOUND Sepulveda			EASTBOUND Marine			WESTBOUND Marine			
	LANES:	NL 1	NT 3	NR 0	SL 2	ST 3	SR 1	EL 1	ET 2	ER 0	WL 1	WT 1	WR 1	TOTAL
AM	7:00 AM	1	628	9	27	135	10	11	50	5	13	45	22	956
	7:15 AM	4	755	12	21	181	13	18	33	4	13	23	20	1,097
	7:30 AM	7	671	20	31	220	13	13	42	4	33	54	18	1,126
	7:45 AM	11	812	23	71	275	12	13	83	9	25	58	10	1,402
	8:00 AM	15	687	18	45	265	12	24	70	9	30	74	7	1,256
	8:15 AM	19	755	19	31	242	17	18	60	5	26	49	15	1,256
	8:30 AM	8	730	22	29	262	16	22	60	11	26	56	19	1,261
	8:45 AM	22	705	27	39	260	17	30	51	9	23	51	9	1,243
	VOLUMES	87	5,743	150	294	1,840	110	149	449	56	189	410	120	9,597
	APPROACH %	1%	96%	3%	13%	82%	5%	23%	69%	9%	26%	57%	17%	
	APP/DEPART	5,980	/	6,012	2,244	/	2,085	654	/	893	719	/	607	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	53	2,984	82	176	1,044	57	77	273	34	107	237	51	5,175
	APPROACH %	2%	96%	3%	14%	82%	4%	20%	71%	9%	27%	60%	13%	
	PEAK HR FACTOR		0.922			0.892			0.914			0.890		0.923
	APP/DEPART	3,119	/	3,112	1,277	/	1,185	384	/	531	395	/	347	0
PM	4:00 PM	12	304	27	54	496	33	19	87	8	26	68	12	1,146
	4:15 PM	26	360	29	53	636	45	17	65	13	24	49	16	1,333
	4:30 PM	18	333	30	57	588	30	24	74	17	35	68	18	1,292
	4:45 PM	26	344	31	59	618	29	13	58	13	26	50	14	1,281
	5:00 PM	24	311	29	64	551	41	19	91	9	34	52	14	1,239
	5:15 PM	24	398	46	49	630	54	14	74	8	25	56	11	1,389
	5:30 PM	33	331	26	57	512	38	19	68	9	29	74	13	1,209
	5:45 PM	22	353	39	47	642	49	16	57	16	28	54	7	1,330
	VOLUMES	185	2,734	257	440	4,673	319	141	574	93	227	471	105	10,219
	APPROACH %	6%	86%	8%	8%	86%	6%	17%	71%	12%	28%	59%	13%	
	APP/DEPART	3,176	/	2,981	5,432	/	4,993	808	/	1,270	803	/	975	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	92	1,386	136	229	2,387	154	70	297	47	120	226	57	5,201
	APPROACH %	6%	86%	8%	8%	86%	6%	17%	72%	11%	30%	56%	14%	
	PEAK HR FACTOR		0.862			0.945			0.870			0.833		0.936
	APP/DEPART	1,614	/	1,513	2,770	/	2,554	414	/	662	403	/	472	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, May 5, 15	LOCATION:	El Segundo	PROJECT #:	SC0603	
	NORTH & SOUTH:	El Segundo	LOCATION #:	6	
	EAST & WEST:	Park	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND El Segundo			SOUTHBOUND El Segundo			EASTBOUND Park			WESTBOUND Park			
	LANES:	NL 1	NT 0.5	NR 0.5	SL 0.5	ST 0.5	SR 1	EL 1	ET 1.5	ER 0.5	WL 1	WT 1.5	WR 0.5	TOTAL
AM	7:00 AM	0	0	0	1	0	0	8	7	1	0	5	0	22
	7:15 AM	0	0	0	1	0	4	8	3	0	0	6	0	22
	7:30 AM	0	0	0	0	0	7	11	7	3	0	11	0	39
	7:45 AM	0	1	0	0	0	8	14	9	0	0	4	0	36
	8:00 AM	0	0	0	0	1	10	21	15	6	0	5	1	59
	8:15 AM	2	1	0	0	0	12	10	16	5	0	3	0	49
	8:30 AM	1	0	1	0	0	13	15	14	7	0	3	0	54
	8:45 AM	2	1	1	0	2	16	18	12	5	1	5	0	63
	VOLUMES	5	3	2	2	3	70	105	83	27	1	42	1	344
	APPROACH %	50%	30%	20%	3%	4%	93%	49%	39%	13%	2%	95%	2%	
	APP/DEPART	10	/	108	75	/	31	215	/	87	44	/	118	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	5	2	2	0	3	51	64	57	23	1	16	1	225
	APPROACH %	56%	22%	22%	0%	6%	94%	44%	40%	16%	6%	89%	6%	
	PEAK HR FACTOR		0.563			0.750			0.843			0.750		0.893
	APP/DEPART	9	/	66	54	/	27	144	/	60	18	/	72	0
PM	4:00 PM	5	2	1	0	1	48	26	14	3	2	29	0	131
	4:15 PM	10	9	3	1	4	50	33	33	2	1	27	1	174
	4:30 PM	5	5	0	0	4	65	24	27	3	4	27	1	165
	4:45 PM	13	10	1	0	3	41	39	19	3	4	27	2	162
	5:00 PM	10	3	3	1	3	70	43	20	5	2	17	0	177
	5:15 PM	12	6	2	0	5	44	28	36	10	2	27	2	174
	5:30 PM	7	3	4	0	2	51	23	41	6	1	39	0	177
	5:45 PM	10	3	3	0	6	65	35	37	5	8	32	2	206
	VOLUMES	72	41	17	2	28	434	251	227	37	24	225	8	1,366
	APPROACH %	55%	32%	13%	0%	6%	94%	49%	44%	7%	9%	88%	3%	
	APP/DEPART	130	/	299	464	/	89	515	/	246	257	/	732	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	39	15	12	1	16	230	129	134	26	13	115	4	734
	APPROACH %	59%	23%	18%	0%	6%	93%	45%	46%	9%	10%	87%	3%	
	PEAK HR FACTOR		0.825			0.834			0.929			0.786		0.886
	APP/DEPART	66	/	147	247	/	55	289	/	148	132	/	384	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 5, 15

LOCATION: El Segundo
NORTH & SOUTH: Village
EAST & WEST: Rosecrans

PROJECT #: SC0603
LOCATION #: 7
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

		NORTHBOUND Village			SOUTHBOUND Village			EASTBOUND Rosecrans			WESTBOUND Rosecrans			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	X	1	0	X	0	0	3	0	1	3	0	
AM	7:00 AM	7	0	12	0	0	0	4	141	10	13	180	12	379
	7:15 AM	7	0	7	2	0	3	1	171	12	14	243	8	468
	7:30 AM	4	1	14	6	0	1	2	168	10	11	246	3	466
	7:45 AM	12	0	15	3	0	2	2	253	16	21	287	4	615
	8:00 AM	11	0	23	1	0	1	2	275	17	26	226	0	582
	8:15 AM	13	0	21	2	0	1	4	314	11	32	244	5	647
	8:30 AM	7	1	13	3	0	2	3	279	12	26	227	2	575
	8:45 AM	9	0	20	0	0	1	0	334	27	44	276	2	713
	VOLUMES	70	2	125	17	0	11	18	1,935	115	187	1,929	36	4,445
	APPROACH %	36%	1%	63%	61%	0%	39%	1%	94%	6%	9%	90%	2%	
	APP/DEPART	197	/	51	28	/	274	2,068	/	2,105	2,152	/	2,015	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	40	1	77	6	0	5	9	1,202	67	128	973	9	2,517
	APPROACH %	34%	1%	65%	55%	0%	45%	1%	94%	5%	12%	88%	1%	
	PEAK HR FACTOR		0.868			0.550			0.887			0.863		0.878
	APP/DEPART	118	/	16	11	/	179	1,278	/	1,288	1,110	/	1,034	0
PM	4:00 PM	27	0	48	2	0	1	3	302	22	55	293	0	753
	4:15 PM	14	0	58	0	1	4	7	328	19	57	313	0	801
	4:30 PM	34	0	51	6	0	6	2	335	31	47	330	0	842
	4:45 PM	28	0	47	6	0	1	3	313	38	76	322	0	834
	5:00 PM	38	0	48	5	0	0	3	346	39	55	397	0	931
	5:15 PM	31	0	52	1	0	0	2	355	45	68	399	0	953
	5:30 PM	38	0	44	3	0	0	5	321	26	63	380	0	880
	5:45 PM	27	0	67	1	0	0	0	246	37	62	335	0	775
	VOLUMES	237	0	415	24	1	12	25	2,546	257	483	2,769	0	6,769
	APPROACH %	36%	0%	64%	65%	3%	32%	1%	90%	9%	15%	85%	0%	
	APP/DEPART	652	/	3	37	/	717	2,828	/	3,009	3,252	/	3,040	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	135	0	191	15	0	1	13	1,335	148	262	1,498	0	3,598
	APPROACH %	41%	0%	59%	94%	0%	6%	1%	89%	10%	15%	85%	0%	
	PEAK HR FACTOR		0.948			0.571			0.934			0.943		0.938
	APP/DEPART	326	/	0	16	/	394	1,496	/	1,554	1,760	/	1,650	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, May 5, 15	LOCATION:	El Segundo	PROJECT #:	SC0603	
	NORTH & SOUTH:	Cedar	LOCATION #:	8	
	EAST & WEST:	Marine	CONTROL:	SIGNAL	

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Cedar			SOUTHBOUND Cedar			EASTBOUND Marine			WESTBOUND Marine			
	LANES:	NL 0	NT 1	NR 0	SL 0.5	ST 0.5	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	3	3	4	9	2	8	7	64	2	5	59	41	207
	7:15 AM	1	8	4	8	6	7	3	54	4	5	66	42	208
	7:30 AM	5	5	7	15	6	15	11	110	3	10	88	63	338
	7:45 AM	3	16	6	28	12	11	6	176	6	8	90	103	465
	8:00 AM	7	21	6	9	6	11	7	90	7	8	85	143	400
	8:15 AM	2	15	3	14	8	10	14	87	14	14	81	98	360
	8:30 AM	3	15	3	13	6	6	9	86	5	11	71	88	316
	8:45 AM	4	11	3	21	8	18	15	78	11	7	83	110	369
	VOLUMES	28	94	36	117	54	86	72	745	52	68	623	688	2,663
	APPROACH %	18%	59%	23%	46%	21%	33%	8%	86%	6%	5%	45%	50%	
	APP/DEPART	158	/	849	257	/	174	869	/	898	1,379	/	742	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	17	57	22	66	32	47	38	463	30	40	344	407	1,563
	APPROACH %	18%	59%	23%	46%	22%	32%	7%	87%	6%	5%	43%	51%	
	PEAK HR FACTOR		0.706			0.711			0.707			0.838		0.840
	APP/DEPART	96	/	501	145	/	102	531	/	552	791	/	408	0
PM	4:00 PM	2	8	16	57	15	30	21	143	14	8	77	78	469
	4:15 PM	1	3	9	81	19	26	17	109	12	7	63	80	427
	4:30 PM	6	14	9	55	14	27	11	135	12	8	79	64	434
	4:45 PM	5	7	9	87	7	27	14	136	9	10	60	76	447
	5:00 PM	3	8	21	76	23	23	15	157	13	7	71	85	502
	5:15 PM	3	3	12	82	15	21	17	161	6	5	70	96	491
	5:30 PM	2	9	9	92	23	30	10	123	15	9	86	73	481
	5:45 PM	2	8	9	74	25	30	15	116	13	16	56	79	443
	VOLUMES	24	60	94	604	141	214	120	1,080	94	70	562	631	3,694
	APPROACH %	13%	34%	53%	63%	15%	22%	9%	83%	7%	6%	44%	50%	
	APP/DEPART	178	/	802	959	/	303	1,294	/	1,780	1,263	/	809	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	13	27	51	337	68	101	56	577	43	31	287	330	1,921
	APPROACH %	14%	30%	56%	67%	13%	20%	8%	85%	6%	5%	44%	51%	
	PEAK HR FACTOR		0.711			0.872			0.917			0.949		0.955
	APP/DEPART	91	/	407	506	/	141	676	/	971	648	/	402	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, May 5, 15	LOCATION:	El Segundo	PROJECT #:	SC0603
	NORTH & SOUTH:	Continental	LOCATION #:	9
	EAST & WEST:	El Segundo	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Continental			SOUTHBOUND Continental			EASTBOUND El Segundo			WESTBOUND El Segundo			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1.5	1	1.5	1.5	1	1.5	2	3	1	2	3	0	
AM	7:00 AM	1	3	1	9	5	5	21	119	10	14	190	52	430
	7:15 AM	3	2	0	10	4	5	25	127	9	18	204	49	456
	7:30 AM	0	7	0	9	3	8	25	156	4	9	245	75	541
	7:45 AM	2	6	2	11	7	7	37	149	10	9	235	95	570
	8:00 AM	0	6	0	12	7	12	38	173	13	10	217	106	594
	8:15 AM	0	3	2	13	7	12	27	146	7	9	243	114	583
	8:30 AM	3	9	4	14	2	9	17	152	12	6	262	78	568
	8:45 AM	0	8	2	15	10	10	2	116	12	7	228	95	505
	VOLUMES	9	44	11	93	45	68	192	1,138	77	82	1,824	664	4,247
	APPROACH %	14%	69%	17%	45%	22%	33%	14%	81%	5%	3%	71%	26%	
	APP/DEPART	64	/	824	206	/	190	1,407	/	1,257	2,570	/	1,976	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	5	24	8	50	23	40	119	620	42	34	957	393	2,315
	APPROACH %	14%	65%	22%	44%	20%	35%	15%	79%	5%	2%	69%	28%	
	PEAK HR FACTOR		0.594			0.883			0.868			0.941		0.950
	APP/DEPART	37	/	491	113	/	91	781	/	723	1,384	/	1,010	0
PM	4:00 PM	10	23	29	69	4	23	7	147	2	2	174	13	503
	4:15 PM	8	24	28	54	9	11	6	171	1	6	175	16	509
	4:30 PM	8	24	31	60	2	15	8	217	3	3	185	14	570
	4:45 PM	10	28	23	64	2	21	7	163	1	4	167	16	506
	5:00 PM	14	37	25	54	7	26	9	254	0	4	219	20	669
	5:15 PM	24	21	39	42	6	25	14	158	0	4	201	12	546
	5:30 PM	14	21	36	70	8	17	15	168	2	3	201	13	568
	5:45 PM	15	22	27	57	2	15	7	124	1	4	178	12	464
	VOLUMES	103	200	238	470	40	153	73	1,402	10	30	1,500	116	4,335
	APPROACH %	19%	37%	44%	71%	6%	23%	5%	94%	1%	2%	91%	7%	
	APP/DEPART	541	/	384	663	/	63	1,485	/	2,124	1,646	/	1,764	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	56	110	118	220	17	87	38	792	4	15	772	62	2,291
	APPROACH %	20%	39%	42%	68%	5%	27%	5%	95%	0%	2%	91%	7%	
	PEAK HR FACTOR		0.845			0.926			0.795			0.871		0.850
	APP/DEPART	284	/	207	324	/	28	834	/	1,133	849	/	923	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	El Segundo	PROJECT #:	SC0603
Tue, May 5, 15	NORTH & SOUTH:	Allied	LOCATION #:	10
	EAST & WEST:	Hughes	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND (Allied)			SOUTHBOUND (Allied)			EASTBOUND (Hughes)			WESTBOUND (Hughes)			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1.3	0.3	0.3	0	1	0	1	3	0	1	3	0	
AM	7:00 AM	6	2	6	0	0	0	2	47	8	1	7	0	79
	7:15 AM	3	0	3	0	0	1	1	56	3	0	4	0	71
	7:30 AM	8	1	4	0	0	1	3	61	10	1	2	0	91
	7:45 AM	7	0	5	0	0	2	6	50	9	0	5	0	84
	8:00 AM	7	1	4	0	0	0	1	50	6	0	2	1	72
	8:15 AM	11	2	2	0	0	0	3	59	16	0	0	0	93
	8:30 AM	4	0	3	0	0	0	2	40	13	0	3	0	65
	8:45 AM	5	0	2	0	0	0	2	39	19	1	6	0	74
	VOLUMES	51	6	29	0	0	4	20	402	84	3	29	1	629
	APPROACH %	59%	7%	34%	0%	0%	100%	4%	79%	17%	9%	88%	3%	
	APP/DEPART	86	/	27	4	/	86	506	/	432	33	/	84	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	33	4	15	0	0	3	13	220	41	1	9	1	340
	APPROACH %	63%	8%	29%	0%	0%	100%	5%	80%	15%	9%	82%	9%	
	PEAK HR FACTOR		0.867			0.375			0.878			0.550		0.914
	APP/DEPART	52	/	18	3	/	42	274	/	235	11	/	45	0
PM	4:00 PM	30	0	1	0	1	1	1	0	37	3	22	0	96
	4:15 PM	19	0	0	0	0	2	1	4	22	8	15	0	71
	4:30 PM	24	0	3	0	1	3	0	0	42	10	36	0	119
	4:45 PM	22	0	2	0	0	0	0	1	35	10	36	0	106
	5:00 PM	33	0	3	0	0	1	0	3	24	8	55	0	127
	5:15 PM	27	0	1	0	0	6	0	1	52	6	43	0	136
	5:30 PM	31	0	4	0	0	1	0	2	69	10	32	0	149
	5:45 PM	22	0	0	0	0	2	0	2	51	10	31	0	118
	VOLUMES	208	0	14	0	2	16	2	13	332	65	270	0	922
	APPROACH %	94%	0%	6%	0%	11%	89%	1%	4%	96%	19%	81%	0%	
	APP/DEPART	222	/	2	18	/	399	347	/	27	335	/	494	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	113	0	8	0	0	10	0	8	196	34	161	0	530
	APPROACH %	93%	0%	7%	0%	0%	100%	0%	4%	96%	17%	83%	0%	
	PEAK HR FACTOR		0.840			0.417			0.718			0.774		0.889
	APP/DEPART	121	/	0	10	/	230	204	/	16	195	/	284	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	El Segundo	PROJECT #:	SC0603
Tue, May 5, 15	NORTH & SOUTH:	Nash	LOCATION #:	11
	EAST & WEST:	El Segundo	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Nash			SOUTHBOUND Nash			EASTBOUND El Segundo			WESTBOUND El Segundo			
	LANES:	NL 2	NT 0.5	NR 1.5	SL 1.5	ST 1.5	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
AM	7:00 AM	1	4	2	24	20	10	3	120	9	65	244	38	540
	7:15 AM	0	5	2	26	22	7	8	113	13	68	271	46	581
	7:30 AM	0	7	3	21	30	17	6	136	12	49	316	51	648
	7:45 AM	2	7	2	30	23	6	8	152	13	83	351	68	745
	8:00 AM	0	5	4	32	38	9	5	163	11	59	322	68	716
	8:15 AM	2	2	0	31	31	14	15	157	9	63	354	65	743
	8:30 AM	0	4	3	25	20	7	25	133	6	54	327	60	664
	8:45 AM	0	3	4	24	23	5	29	110	7	55	326	78	664
	VOLUMES	5	37	20	213	207	75	99	1,084	80	496	2,511	474	5,301
	APPROACH %	8%	60%	32%	43%	42%	15%	8%	86%	6%	14%	72%	14%	
	APP/DEPART	62	/	572	495	/	766	1,263	/	1,334	3,481	/	2,629	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	4	18	9	118	112	36	53	605	39	259	1,354	261	2,868
	APPROACH %	13%	58%	29%	44%	42%	14%	8%	87%	6%	14%	72%	14%	
	PEAK HR FACTOR		0.705			0.842			0.969			0.935		0.955
	APP/DEPART	31	/	312	266	/	399	697	/	752	1,874	/	1,405	0
PM	4:00 PM	1	8	31	95	5	12	12	238	5	4	165	21	597
	4:15 PM	1	12	31	62	5	9	11	238	0	9	197	31	606
	4:30 PM	1	18	28	92	3	16	15	237	1	5	182	23	621
	4:45 PM	2	5	33	88	1	8	25	275	1	2	186	37	663
	5:00 PM	2	18	52	102	5	25	16	243	1	7	186	26	683
	5:15 PM	1	6	41	121	6	29	36	242	3	5	204	19	713
	5:30 PM	2	8	30	108	1	16	20	220	5	2	154	18	584
	5:45 PM	0	4	36	106	5	16	28	233	4	4	184	28	648
	VOLUMES	10	79	282	774	31	131	163	1,926	20	38	1,458	203	5,115
	APPROACH %	3%	21%	76%	83%	3%	14%	8%	91%	1%	2%	86%	12%	
	APP/DEPART	371	/	421	936	/	71	2,109	/	3,001	1,699	/	1,622	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	6	47	154	403	15	78	92	997	6	19	758	105	2,680
	APPROACH %	3%	23%	74%	81%	3%	16%	8%	91%	1%	2%	86%	12%	
	PEAK HR FACTOR		0.722			0.795			0.905			0.971		0.931
	APP/DEPART	207	/	231	496	/	30	1,095	/	1,567	882	/	852	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 5, 15

LOCATION: El Segundo
NORTH & SOUTH: Nash
EAST & WEST: Park

PROJECT #: SC0603
LOCATION #: 12
CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Nash			SOUTHBOUND Nash			EASTBOUND Park			WESTBOUND Park			
	LANES:	NL X	NT 1	NR 1	SL 0	ST 1	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL
AM	7:00 AM	0	2	4	6	4	0	0	0	0	6	0	3	25
	7:15 AM	1	2	6	2	0	0	0	0	0	5	0	3	19
	7:30 AM	0	0	8	3	3	0	0	0	0	10	0	4	28
	7:45 AM	0	2	7	2	4	0	0	0	0	7	0	3	25
	8:00 AM	0	2	11	4	0	0	0	0	0	15	0	1	33
	8:15 AM	0	0	9	2	0	0	0	0	0	13	0	10	34
	8:30 AM	0	2	15	5	1	0	0	0	0	14	0	10	47
	8:45 AM	0	3	18	1	8	0	0	0	0	21	0	4	55
	VOLUMES	1	13	78	25	20	0	0	0	0	91	0	38	266
	APPROACH %	1%	14%	85%	56%	44%	0%	0%	0%	0%	71%	0%	29%	
	APP/DEPART	92	/	51	45	/	108	0	/	107	129	/	0	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	7	53	12	9	0	0	0	0	63	0	25	169
	APPROACH %	0%	12%	88%	57%	43%	0%	0%	0%	0%	72%	0%	28%	
	PEAK HR FACTOR		0.714			0.583			0.000			0.875		0.768
	APP/DEPART	60	/	32	21	/	69	0	/	65	88	/	3	0
PM	4:00 PM	0	6	13	5	11	0	0	0	0	13	0	3	51
	4:15 PM	0	4	12	9	5	0	0	0	0	18	0	3	51
	4:30 PM	0	5	9	6	9	0	0	0	0	19	0	5	53
	4:45 PM	0	2	10	7	9	0	0	0	0	26	0	10	64
	5:00 PM	0	8	13	7	4	0	0	0	0	33	0	9	74
	5:15 PM	1	4	15	10	5	0	0	0	0	31	0	4	70
	5:30 PM	0	10	11	12	10	0	0	0	0	34	0	10	87
	5:45 PM	0	7	13	14	7	0	0	0	0	32	0	3	76
	VOLUMES	1	46	96	70	60	0	0	0	0	206	0	47	526
	APPROACH %	1%	32%	67%	54%	46%	0%	0%	0%	0%	81%	0%	19%	
	APP/DEPART	143	/	93	130	/	265	0	/	168	253	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	29	52	43	26	0	0	0	0	130	0	26	307
	APPROACH %	1%	35%	63%	62%	38%	0%	0%	0%	0%	83%	0%	17%	
	PEAK HR FACTOR		0.988			0.784			0.000			0.886		0.882
	APP/DEPART	82	/	55	69	/	157	0	/	95	156	/	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	El Segundo	PROJECT #:	SC0603
Tue, May 5, 15	NORTH & SOUTH:	Nash	LOCATION #:	13
	EAST & WEST:	Rosecrans	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Nash			SOUTHBOUND Nash			EASTBOUND Rosecrans			WESTBOUND Rosecrans			
	LANES:	NL 1	NT 1	NR 0	SL 2	ST 1	SR 1	EL 2	ET 3	ER 0	WL 2	WT 3	WR 1	TOTAL
AM	7:00 AM	16	4	13	4	0	6	4	147	6	12	195	8	415
	7:15 AM	11	1	10	1	1	3	12	157	4	12	248	13	473
	7:30 AM	5	1	14	1	2	6	9	201	9	12	258	17	535
	7:45 AM	9	2	14	6	2	4	12	210	11	19	280	28	597
	8:00 AM	10	6	19	2	2	6	31	256	11	15	246	15	619
	8:15 AM	4	4	21	2	3	10	34	286	10	22	259	13	668
	8:30 AM	14	6	18	7	1	7	34	264	21	19	218	16	625
	8:45 AM	7	3	19	6	9	9	40	269	7	31	297	20	717
	VOLUMES	76	27	128	29	20	51	176	1,790	79	142	2,001	130	4,649
	APPROACH %	33%	12%	55%	29%	20%	51%	9%	88%	4%	6%	88%	6%	
	APP/DEPART	231	/	334	100	/	241	2,045	/	1,946	2,273	/	2,128	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	35	19	77	17	15	32	139	1,075	49	87	1,020	64	2,629
	APPROACH %	27%	15%	59%	27%	23%	50%	11%	85%	4%	7%	87%	5%	
	PEAK HR FACTOR		0.862			0.667			0.957			0.841		0.917
	APP/DEPART	131	/	222	64	/	151	1,263	/	1,169	1,171	/	1,087	0
PM	4:00 PM	12	5	32	16	2	24	11	308	14	11	302	8	745
	4:15 PM	12	5	25	13	7	21	6	333	12	12	347	13	806
	4:30 PM	11	3	24	14	6	28	10	350	15	19	317	12	809
	4:45 PM	11	3	18	14	8	38	11	361	11	18	356	10	859
	5:00 PM	22	5	20	25	14	40	10	376	16	11	376	12	927
	5:15 PM	13	4	28	7	8	51	11	367	13	27	387	20	936
	5:30 PM	16	5	24	27	10	48	11	327	21	31	414	17	951
	5:45 PM	14	6	33	16	6	36	10	342	14	17	344	14	852
	VOLUMES	111	36	204	132	61	286	80	2,764	116	146	2,843	106	6,885
	APPROACH %	32%	10%	58%	28%	13%	60%	3%	93%	4%	5%	92%	3%	
	APP/DEPART	351	/	221	479	/	314	2,960	/	3,109	3,095	/	3,241	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	62	17	90	73	40	177	43	1,431	61	87	1,533	59	3,673
	APPROACH %	37%	10%	53%	25%	14%	61%	3%	93%	4%	5%	91%	4%	
	PEAK HR FACTOR		0.899			0.853			0.955			0.904		0.961
	APP/DEPART	169	/	118	290	/	179	1,535	/	1,595	1,679	/	1,781	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Wed, May 6, 15	LOCATION:	El Segundo	PROJECT #:	SC0603
	NORTH & SOUTH:	Park	LOCATION #:	14
	EAST & WEST:	Apollo	CONTROL:	4 way stop

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Park			SOUTHBOUND Park			EASTBOUND Apollo			WESTBOUND Apollo			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	1	1	0	0	0	1	1	0	1	1	0	
AM	7:00 AM	0	4	4	0	0	0	0	6	1	8	9	3	35
	7:15 AM	7	3	10	1	0	0	0	13	3	26	22	10	95
	7:30 AM	3	2	3	3	1	0	0	6	1	21	13	6	59
	7:45 AM	2	3	9	0	0	0	1	6	6	32	13	7	79
	8:00 AM	4	3	8	0	0	0	1	11	3	33	15	3	81
	8:15 AM	4	1	5	0	0	0	1	6	5	33	19	3	77
	8:30 AM	3	3	10	0	0	0	5	15	5	34	21	12	108
	8:45 AM	4	1	12	0	0	0	4	12	6	43	19	12	113
	VOLUMES	27	20	61	4	1	0	12	75	30	230	131	56	647
	APPROACH %	25%	19%	56%	80%	20%	0%	10%	64%	26%	55%	31%	13%	
	APP/DEPART	108	/	88	5	/	261	117	/	140	417	/	158	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	15	8	35	0	0	0	11	44	19	143	74	30	379
	APPROACH %	26%	14%	60%	0%	0%	0%	15%	59%	26%	58%	30%	12%	
	PEAK HR FACTOR		0.853			0.000			0.740			0.834		0.838
	APP/DEPART	58	/	49	0	/	162	74	/	79	247	/	89	0
PM	4:00 PM	2	0	27	2	2	1	0	27	12	10	20	0	103
	4:15 PM	2	0	28	5	1	0	0	21	4	13	17	0	91
	4:30 PM	1	0	31	9	2	2	0	18	7	15	25	1	111
	4:45 PM	2	0	41	9	5	6	0	20	8	17	26	0	134
	5:00 PM	2	2	83	8	2	2	0	38	5	10	36	0	188
	5:15 PM	3	0	57	2	4	1	0	33	2	15	37	0	154
	5:30 PM	5	0	64	4	2	1	0	29	4	16	35	0	160
	5:45 PM	5	0	39	3	1	0	0	31	6	14	32	0	131
	VOLUMES	22	2	370	42	19	13	0	217	48	110	228	1	1,072
	APPROACH %	6%	1%	94%	57%	26%	18%	0%	82%	18%	32%	67%	0%	
	APP/DEPART	394	/	3	74	/	177	265	/	629	339	/	263	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	12	2	245	23	13	10	0	120	19	58	134	0	636
	APPROACH %	5%	1%	95%	50%	28%	22%	0%	86%	14%	30%	70%	0%	
	PEAK HR FACTOR		0.744			0.575			0.808			0.923		0.846
	APP/DEPART	259	/	2	46	/	90	139	/	388	192	/	156	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	El Segundo	PROJECT #:	SC0603
Tue, May 5, 15	NORTH & SOUTH:	Apollo	LOCATION #:	15
	EAST & WEST:	Rosecrans	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Apollo			SOUTHBOUND Apollo			EASTBOUND Rosecrans			WESTBOUND Rosecrans			
	LANES:	NL 2	NT 1	NR 1	SL 2	ST 1	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 0	TOTAL
AM	7:00 AM	1	2	10	2	2	2	7	154	6	13	215	57	471
	7:15 AM	6	6	12	5	2	3	8	148	6	17	249	46	508
	7:30 AM	11	7	10	3	2	4	15	163	7	13	265	62	562
	7:45 AM	2	6	14	9	2	1	21	191	2	32	334	135	749
	8:00 AM	8	5	10	11	4	1	25	257	4	13	276	101	715
	8:15 AM	11	12	7	6	7	2	26	274	14	26	283	94	762
	8:30 AM	6	8	9	5	3	6	31	242	13	29	235	75	662
	8:45 AM	8	8	12	6	4	11	33	249	15	28	350	126	850
	VOLUMES	53	54	84	47	26	30	166	1,678	67	171	2,207	696	5,279
	APPROACH %	28%	28%	44%	46%	25%	29%	9%	88%	4%	6%	72%	23%	
	APP/DEPART	191	/	916	103	/	260	1,911	/	1,813	3,074	/	2,290	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	33	33	38	28	18	20	115	1,022	46	96	1,144	396	2,989
	APPROACH %	32%	32%	37%	42%	27%	30%	10%	86%	4%	6%	70%	24%	
	PEAK HR FACTOR		0.867			0.786			0.942			0.813		0.879
	APP/DEPART	104	/	544	66	/	157	1,183	/	1,088	1,636	/	1,200	0
PM	4:00 PM	16	8	22	46	7	21	5	263	8	18	220	13	647
	4:15 PM	16	3	32	57	12	18	16	345	20	25	294	15	853
	4:30 PM	29	11	46	58	9	16	7	375	12	34	342	17	956
	4:45 PM	18	11	34	72	14	24	20	382	13	26	341	15	970
	5:00 PM	29	7	44	107	13	31	10	362	13	42	345	6	1,009
	5:15 PM	31	18	43	72	20	28	15	405	17	46	393	21	1,109
	5:30 PM	33	10	27	67	14	22	15	356	25	42	400	15	1,026
	5:45 PM	18	10	31	80	11	28	17	359	16	49	335	23	977
	VOLUMES	190	78	279	559	100	188	105	2,847	124	282	2,670	125	7,547
	APPROACH %	35%	14%	51%	66%	12%	22%	3%	93%	4%	9%	87%	4%	
	APP/DEPART	547	/	308	847	/	506	3,076	/	3,685	3,077	/	3,048	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	111	45	145	326	58	109	57	1,482	71	179	1,473	65	4,121
	APPROACH %	37%	15%	48%	66%	12%	22%	4%	92%	4%	10%	86%	4%	
	PEAK HR FACTOR		0.818			0.816			0.921			0.933		0.929
	APP/DEPART	301	/	167	493	/	308	1,610	/	1,953	1,717	/	1,693	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	El Segundo	PROJECT #:	SC0603
Tue, May 5, 15	NORTH & SOUTH:	Douglas	LOCATION #:	16
	EAST & WEST:	El Segundo	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Douglas			SOUTHBOUND Douglas			EASTBOUND El Segundo			WESTBOUND El Segundo			
	LANES:	NL 2	NT 1.5	NR 1.5	SL 2	ST 2	SR 1	EL 1	ET 3	ER 0	WL 2	WT 3	WR 1	TOTAL
AM	7:00 AM	53	90	15	24	32	6	20	93	26	35	243	85	722
	7:15 AM	67	94	13	18	25	4	33	98	29	30	323	100	834
	7:30 AM	90	121	13	27	56	12	42	119	20	35	337	92	964
	7:45 AM	110	178	18	27	63	10	18	120	32	51	396	78	1,101
	8:00 AM	104	175	19	37	80	18	28	124	40	51	324	128	1,128
	8:15 AM	102	165	28	25	83	11	31	129	38	54	362	124	1,152
	8:30 AM	113	161	24	29	58	13	24	111	27	49	341	89	1,039
	8:45 AM	87	113	21	19	62	6	21	105	26	74	376	113	1,023
	VOLUMES	726	1,097	151	206	459	80	217	899	238	379	2,702	809	7,963
	APPROACH %	37%	56%	8%	28%	62%	11%	16%	66%	18%	10%	69%	21%	
	APP/DEPART	1,974	/	2,091	745	/	1,074	1,354	/	1,259	3,890	/	3,539	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	429	679	89	118	284	52	101	484	137	205	1,423	419	4,420
	APPROACH %	36%	57%	7%	26%	63%	11%	14%	67%	19%	10%	70%	20%	
	PEAK HR FACTOR		0.978			0.841			0.922			0.949		0.957
	APP/DEPART	1,197	/	1,180	454	/	624	722	/	710	2,047	/	1,906	0
PM	4:00 PM	36	81	73	100	132	14	6	281	49	18	150	37	977
	4:15 PM	27	87	43	86	115	23	10	312	47	27	183	56	1,016
	4:30 PM	36	110	63	111	193	18	7	277	45	23	157	30	1,070
	4:45 PM	24	84	59	81	180	17	13	338	63	37	175	48	1,119
	5:00 PM	35	123	90	100	281	27	5	322	44	21	162	32	1,242
	5:15 PM	34	99	63	110	291	15	5	346	57	30	157	30	1,237
	5:30 PM	22	122	90	112	283	19	7	279	56	33	153	26	1,202
	5:45 PM	27	81	65	88	227	16	4	316	63	31	158	36	1,112
	VOLUMES	241	787	546	788	1,702	149	57	2,471	424	220	1,295	295	8,975
	APPROACH %	15%	50%	35%	30%	64%	6%	2%	84%	14%	12%	72%	16%	
	APP/DEPART	1,574	/	1,127	2,639	/	2,332	2,952	/	3,819	1,810	/	1,697	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	115	428	302	403	1,035	78	30	1,285	220	121	647	136	4,800
	APPROACH %	14%	51%	36%	27%	68%	5%	2%	84%	14%	13%	72%	15%	
	PEAK HR FACTOR		0.852			0.911			0.925			0.871		0.965
	APP/DEPART	845	/	586	1,516	/	1,374	1,535	/	1,998	904	/	842	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 5, 15

LOCATION: El Segundo
NORTH & SOUTH: Douglas Street
EAST & WEST: Transit Center

PROJECT #: SC0603
LOCATION #: 17
CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

		NORTHBOUND Douglas Street			SOUTHBOUND Douglas Street			EASTBOUND Transit Center			WESTBOUND Transit Center			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0	ER 1	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	1	105	3	0	30	4	0	0	1	5	0	0	149
	7:15 AM	1	140	2	1	22	0	0	0	0	0	0	2	168
	7:30 AM	4	167	2	0	37	5	0	0	0	0	0	0	215
	7:45 AM	2	244	0	2	47	7	0	0	0	0	0	0	302
	8:00 AM	0	179	1	1	66	2	0	0	0	0	0	0	249
	8:15 AM	0	193	0	2	55	0	0	0	0	0	0	0	250
	8:30 AM	0	190	0	1	53	0	0	0	0	0	0	0	244
	8:45 AM	0	152	1	0	82	0	1	0	0	0	0	1	237
	VOLUMES	8	1,370	9	7	392	18	1	0	1	5	0	3	1,814
	APPROACH %	1%	99%	1%	2%	94%	4%	50%	0%	50%	63%	0%	38%	
	APP/DEPART	1,387	/	1,374	417	/	398	2	/	16	8	/	26	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	2	806	1	6	221	9	0	0	0	0	0	0	1,045
	APPROACH %	0%	100%	0%	3%	94%	4%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.822			0.855			0.000			0.000		0.865
	APP/DEPART	809	/	806	236	/	221	0	/	7	0	/	11	0
PM	4:00 PM	0	33	1	0	115	0	0	0	0	0	0	3	152
	4:15 PM	0	68	2	1	117	0	0	0	0	1	0	2	191
	4:30 PM	0	59	0	2	153	0	13	0	10	1	0	2	240
	4:45 PM	0	59	0	1	185	0	0	0	1	1	0	0	247
	5:00 PM	0	67	1	0	210	0	0	0	1	0	0	1	280
	5:15 PM	0	69	0	1	233	0	0	0	0	1	0	0	304
	5:30 PM	0	77	0	0	233	0	0	0	0	0	0	0	310
	5:45 PM	1	58	0	0	222	0	0	0	0	0	0	0	281
	VOLUMES	1	490	4	5	1,468	0	13	0	12	4	0	8	2,005
	APPROACH %	0%	99%	1%	0%	100%	0%	52%	0%	48%	33%	0%	67%	
	APP/DEPART	495	/	511	1,473	/	1,484	25	/	9	12	/	1	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	271	1	1	898	0	0	0	1	1	0	1	1,175
	APPROACH %	0%	99%	0%	0%	100%	0%	0%	0%	100%	50%	0%	50%	
	PEAK HR FACTOR		0.886			0.960			0.250			0.500		0.948
	APP/DEPART	273	/	272	899	/	900	1	/	2	2	/	1	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:					
Tue, May 5, 15	LOCATION:	El Segundo	PROJECT #:	SC0603
	NORTH & SOUTH:	Douglas	LOCATION #:	18
	EAST & WEST:	Park	CONTROL:	STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Douglas			SOUTHBOUND Douglas			EASTBOUND Park			WESTBOUND Park			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	0	1	2	0	1	0	1	0	1	0	
AM	7:00 AM	12	89	2	3	18	14	18	1	11	1	0	1	170
	7:15 AM	9	130	0	2	16	21	18	0	7	0	2	3	208
	7:30 AM	13	153	1	1	29	33	14	0	11	0	0	0	255
	7:45 AM	31	212	1	1	36	34	12	0	14	0	0	7	348
	8:00 AM	18	161	1	1	54	55	30	0	8	2	2	2	334
	8:15 AM	22	173	1	1	48	63	26	0	6	0	0	0	340
	8:30 AM	50	139	0	3	43	57	22	0	7	0	0	2	323
	8:45 AM	35	121	1	2	67	80	21	0	15	1	1	2	346
	VOLUMES	190	1,178	7	14	311	357	161	1	79	4	5	17	2,324
	APPROACH %	14%	86%	1%	2%	46%	52%	67%	0%	33%	15%	19%	65%	
	APP/DEPART	1,375	/	1,356	682	/	394	241	/	22	26	/	552	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	121	685	3	6	181	209	90	0	35	2	2	11	1,345
	APPROACH %	15%	85%	0%	2%	46%	53%	72%	0%	28%	13%	13%	73%	
	PEAK HR FACTOR		0.829			0.884			0.822			0.536		0.966
	APP/DEPART	809	/	786	396	/	218	125	/	9	15	/	332	0
PM	4:00 PM	4	34	0	0	87	32	48	1	29	3	0	2	240
	4:15 PM	11	61	0	1	98	35	38	1	18	1	1	0	265
	4:30 PM	10	64	1	0	125	42	42	2	26	2	1	3	318
	4:45 PM	15	45	1	0	148	47	51	0	31	3	0	4	345
	5:00 PM	11	56	0	3	160	42	98	0	42	2	1	1	416
	5:15 PM	8	61	0	5	194	58	87	1	35	1	0	3	453
	5:30 PM	15	59	1	2	199	51	88	3	36	1	1	0	456
	5:45 PM	15	42	0	1	182	55	74	0	33	3	0	0	405
	VOLUMES	89	422	3	12	1,193	362	526	8	250	16	4	13	2,898
	APPROACH %	17%	82%	1%	1%	76%	23%	67%	1%	32%	48%	12%	39%	
	APP/DEPART	514	/	961	1,567	/	1,459	784	/	23	33	/	455	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	49	218	1	11	735	206	347	4	146	7	2	4	1,730
	APPROACH %	18%	81%	0%	1%	77%	22%	70%	1%	29%	54%	15%	31%	
	PEAK HR FACTOR		0.893			0.926			0.888			0.813		0.948
	APP/DEPART	268	/	569	952	/	888	497	/	16	13	/	257	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 5, 15

LOCATION: El Segundo
NORTH & SOUTH: Douglas
EAST & WEST: Rosecrans

PROJECT #: SC0603
LOCATION #: 19
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
OTHER

▲ N
◄ W E ►
S ▼

		NORTHBOUND Douglas			SOUTHBOUND Douglas			EASTBOUND Rosecrans			WESTBOUND Rosecrans			
	LANES:	NL 1	NT 1	NR 1	SL 2	ST 1	SR 1	EL 2	ET 3	ER 1	WL 2	WT 3	WR 1	TOTAL
AM	7:00 AM	5	9	2	23	11	12	21	113	6	2	333	103	640
	7:15 AM	2	10	1	21	7	10	35	119	6	0	305	122	638
	7:30 AM	9	9	2	32	10	17	30	120	10	5	421	143	808
	7:45 AM	6	20	2	37	10	15	82	163	9	11	516	200	1,071
	8:00 AM	6	20	1	36	14	36	72	150	9	10	409	140	903
	8:15 AM	10	22	2	25	12	20	65	202	11	4	424	161	958
	8:30 AM	10	18	5	27	14	18	61	177	8	12	409	169	928
	8:45 AM	9	21	1	26	13	24	57	197	17	13	517	141	1,036
	VOLUMES	57	129	16	227	91	152	423	1,241	76	57	3,334	1,179	6,982
	APPROACH %	28%	64%	8%	48%	19%	32%	24%	71%	4%	1%	73%	26%	
	APP/DEPART	202	/	1,731	470	/	224	1,740	/	1,484	4,570	/	3,543	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	32	80	10	125	50	89	280	692	37	37	1,758	670	3,860
	APPROACH %	26%	66%	8%	47%	19%	34%	28%	69%	4%	2%	71%	27%	
	PEAK HR FACTOR		0.897			0.767			0.907			0.848		0.901
	APP/DEPART	122	/	1,030	264	/	124	1,009	/	827	2,465	/	1,879	0
PM	4:00 PM	14	9	14	55	43	31	12	432	25	3	321	30	989
	4:15 PM	16	15	8	72	35	50	26	377	16	1	372	51	1,039
	4:30 PM	7	6	12	90	38	45	33	456	24	3	372	51	1,137
	4:45 PM	22	13	10	96	61	63	21	416	29	9	343	51	1,134
	5:00 PM	20	17	7	82	81	52	22	488	35	3	366	50	1,223
	5:15 PM	26	23	14	105	117	56	15	444	34	7	353	44	1,238
	5:30 PM	22	8	12	101	90	73	19	481	33	7	415	41	1,302
	5:45 PM	15	12	12	100	91	66	21	375	28	8	324	41	1,093
	VOLUMES	142	103	89	701	556	436	169	3,469	224	41	2,866	359	9,155
	APPROACH %	43%	31%	27%	41%	33%	26%	4%	90%	6%	1%	88%	11%	
	APP/DEPART	334	/	631	1,693	/	824	3,862	/	4,259	3,266	/	3,441	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	90	61	43	384	349	244	77	1,829	131	26	1,477	186	4,897
	APPROACH %	46%	31%	22%	39%	36%	25%	4%	90%	6%	2%	87%	11%	
	PEAK HR FACTOR		0.774			0.879			0.934			0.912		0.940
	APP/DEPART	194	/	324	977	/	507	2,037	/	2,256	1,689	/	1,810	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 5, 15

LOCATION: El Segundo
NORTH & SOUTH: Aviation
EAST & WEST: El Segundo

PROJECT #: SC0603
LOCATION #: 20
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

		NORTHBOUND Aviation			SOUTHBOUND Aviation			EASTBOUND El Segundo			WESTBOUND El Segundo			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	2	2	1	1	1.5	1.5	1	3	1	2	3	0	
AM	7:00 AM	63	237	47	6	82	43	32	68	23	41	298	59	999
	7:15 AM	93	294	58	9	94	49	23	74	23	41	392	51	1,201
	7:30 AM	79	251	57	9	141	87	26	90	18	62	336	35	1,191
	7:45 AM	67	232	65	7	193	110	24	115	30	105	414	28	1,390
	8:00 AM	78	317	68	5	253	95	40	112	24	118	355	15	1,480
	8:15 AM	87	250	87	5	177	71	36	116	21	88	392	20	1,350
	8:30 AM	81	241	61	10	148	83	29	104	19	101	369	19	1,265
	8:45 AM	83	228	69	5	126	85	21	79	25	140	410	20	1,291
	VOLUMES	631	2,050	512	56	1,214	623	231	758	183	696	2,966	247	10,167
	APPROACH %	20%	64%	16%	3%	64%	33%	20%	65%	16%	18%	76%	6%	
	APP/DEPART	3,193	/	2,522	1,893	/	2,093	1,172	/	1,326	3,909	/	4,226	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	313	1,040	281	27	771	359	129	447	94	412	1,530	82	5,485
	APPROACH %	19%	64%	17%	2%	67%	31%	19%	67%	14%	20%	76%	4%	
	PEAK HR FACTOR		0.882			0.819			0.948			0.924		0.925
	APP/DEPART	1,634	/	1,246	1,157	/	1,276	670	/	760	2,024	/	2,203	0
PM	4:00 PM	47	168	85	46	198	26	50	388	62	103	156	13	1,342
	4:15 PM	47	147	76	57	218	33	39	331	74	92	163	16	1,293
	4:30 PM	41	130	64	43	247	37	39	420	85	90	161	19	1,376
	4:45 PM	57	154	66	50	232	38	53	385	78	57	127	6	1,303
	5:00 PM	36	167	89	43	269	30	40	447	78	82	146	12	1,439
	5:15 PM	51	159	78	45	290	22	32	440	67	68	136	15	1,403
	5:30 PM	30	154	61	17	199	36	29	404	82	68	171	8	1,259
	5:45 PM	40	136	67	32	240	24	34	391	74	87	144	8	1,277
	VOLUMES	349	1,215	586	333	1,893	246	316	3,206	600	647	1,204	97	10,692
	APPROACH %	16%	57%	27%	13%	77%	10%	8%	78%	15%	33%	62%	5%	
	APP/DEPART	2,150	/	1,622	2,472	/	3,140	4,122	/	4,125	1,948	/	1,805	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	185	610	297	181	1,038	127	164	1,692	308	297	570	52	5,521
	APPROACH %	17%	56%	27%	13%	77%	9%	8%	78%	14%	32%	62%	6%	
	PEAK HR FACTOR		0.935			0.943			0.959			0.851		0.959
	APP/DEPART	1,092	/	822	1,346	/	1,643	2,164	/	2,174	919	/	882	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	El Segundo	PROJECT #:	SC0603
Tue, May 5, 15	NORTH & SOUTH:	Aviation	LOCATION #:	21
	EAST & WEST:	Utah	CONTROL:	SIGNAL

NOTES:

AM PM MD OTHER OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Aviation			SOUTHBOUND Aviation			EASTBOUND Utah			WESTBOUND Utah			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	0	1	2	0	0	2	0	1	1	1	
AM	7:00 AM	10	317	8	11	116	2	2	4	2	14	33	38	557
	7:15 AM	12	376	17	13	144	6	0	3	1	28	28	41	669
	7:30 AM	12	358	16	19	174	6	3	5	5	54	54	33	739
	7:45 AM	20	288	30	68	196	9	2	17	1	51	53	95	830
	8:00 AM	14	308	39	90	232	40	4	60	6	24	43	115	975
	8:15 AM	18	294	55	76	231	40	2	64	5	50	57	129	1,021
	8:30 AM	17	334	18	30	198	9	3	9	3	46	39	52	758
	8:45 AM	24	334	19	35	269	10	3	7	4	40	34	57	836
	VOLUMES	127	2,609	202	342	1,560	122	19	169	27	307	341	560	6,385
	APPROACH %	4%	89%	7%	17%	77%	6%	9%	79%	13%	25%	28%	46%	
	APP/DEPART	2,938	/	3,188	2,024	/	1,901	215	/	713	1,208	/	583	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	73	1,270	131	231	930	99	12	140	18	160	173	353	3,590
	APPROACH %	5%	86%	9%	18%	74%	8%	7%	82%	11%	23%	25%	51%	
	PEAK HR FACTOR		0.974			0.870			0.599			0.727		0.878
	APP/DEPART	1,474	/	1,635	1,260	/	1,114	170	/	502	686	/	339	0
PM	4:00 PM	3	238	37	54	325	3	10	39	17	28	10	53	817
	4:15 PM	3	226	39	42	349	2	3	46	16	20	9	30	785
	4:30 PM	5	210	43	44	354	2	13	68	23	22	11	30	825
	4:45 PM	3	230	32	32	348	1	12	60	29	30	13	24	814
	5:00 PM	7	238	35	35	352	2	28	93	27	21	17	26	881
	5:15 PM	1	238	37	46	398	2	14	98	29	33	22	30	948
	5:30 PM	3	216	37	27	332	4	17	98	30	18	7	20	809
	5:45 PM	2	240	47	28	332	2	12	79	35	15	10	12	814
	VOLUMES	27	1,836	307	308	2,790	18	109	581	206	187	99	225	6,693
	APPROACH %	1%	85%	14%	10%	90%	1%	12%	65%	23%	37%	19%	44%	
	APP/DEPART	2,170	/	2,171	3,116	/	3,193	896	/	1,195	511	/	134	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	16	916	147	157	1,452	7	67	319	108	106	63	110	3,468
	APPROACH %	1%	85%	14%	10%	90%	0%	14%	65%	22%	38%	23%	39%	
	PEAK HR FACTOR		0.960			0.906			0.834			0.821		0.915
	APP/DEPART	1,079	/	1,093	1,616	/	1,674	494	/	623	279	/	78	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Tue, May 5, 15

LOCATION: El Segundo
NORTH & SOUTH: Aviation
EAST & WEST: Alaska

PROJECT #: SC0603
LOCATION #: 22
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Aviation			SOUTHBOUND Aviation			EASTBOUND Alaska			WESTBOUND Alaska			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	X	X	2	0	1	X	2	X	X	X	
AM	7:00 AM	8	335	0	0	130	8	4	0	7	0	0	0	492
	7:15 AM	7	396	0	0	135	17	5	0	1	0	0	0	561
	7:30 AM	21	386	0	0	208	31	0	0	7	0	0	0	653
	7:45 AM	20	377	0	0	247	27	0	0	10	0	0	0	681
	8:00 AM	20	371	0	0	214	37	1	0	8	0	0	0	651
	8:15 AM	37	366	0	0	259	39	3	0	11	0	0	0	715
	8:30 AM	18	383	0	0	200	30	3	0	8	0	0	0	642
	8:45 AM	15	374	0	0	262	53	7	0	9	0	0	0	720
	VOLUMES	146	2,988	0	0	1,655	242	23	0	61	0	0	0	5,115
	APPROACH %	5%	95%	0%	0%	87%	13%	27%	0%	73%	0%	0%	0%	
	APP/DEPART	3,134	/	3,011	1,897	/	1,716	84	/	0	0	/	388	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	90	1,494	0	0	935	159	14	0	36	0	0	0	2,728
	APPROACH %	6%	94%	0%	0%	85%	15%	28%	0%	72%	0%	0%	0%	
	PEAK HR FACTOR		0.983			0.868			0.781			0.000		0.947
	APP/DEPART	1,584	/	1,508	1,094	/	971	50	/	0	0	/	249	0
PM	4:00 PM	6	223	0	0	335	11	22	0	61	0	0	0	658
	4:15 PM	2	270	0	0	383	7	13	0	51	0	0	0	726
	4:30 PM	4	223	0	0	388	7	21	0	59	0	0	0	702
	4:45 PM	5	256	0	0	398	9	17	0	64	0	0	0	749
	5:00 PM	9	266	0	0	397	8	19	0	80	0	0	0	779
	5:15 PM	5	260	0	0	444	9	17	0	81	0	0	0	816
	5:30 PM	7	231	0	0	411	5	20	0	79	0	0	0	753
	5:45 PM	2	273	0	0	372	6	18	0	76	0	0	0	747
	VOLUMES	40	2,002	0	0	3,128	62	147	0	551	0	0	0	5,930
	APPROACH %	2%	98%	0%	0%	98%	2%	21%	0%	79%	0%	0%	0%	
	APP/DEPART	2,042	/	2,149	3,190	/	3,679	698	/	0	0	/	102	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	26	1,013	0	0	1,650	31	73	0	304	0	0	0	3,097
	APPROACH %	3%	97%	0%	0%	98%	2%	19%	0%	81%	0%	0%	0%	
	PEAK HR FACTOR		0.945			0.928			0.952			0.000		0.949
	APP/DEPART	1,039	/	1,086	1,681	/	1,954	377	/	0	0	/	57	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE: Wed, May 6, 15

LOCATION: El Segundo
NORTH & SOUTH: Aviation
EAST & WEST: Rosencrans

PROJECT #: SC0603
LOCATION #: 23
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N
◄ W E ►
S ▼

		NORTHBOUND Aviation			SOUTHBOUND Aviation			EASTBOUND Rosencrans			WESTBOUND Rosencrans			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 1	ET X	ER 2	WL X	WT X	WR X	TOTAL
AM	7:00 AM	122	407	117	2	71	14	3	84	15	95	328	73	1,331
	7:15 AM	100	402	65	18	116	14	13	122	10	98	413	83	1,454
	7:30 AM	130	473	96	6	122	43	13	118	23	154	545	104	1,827
	7:45 AM	154	449	76	25	191	39	14	161	25	133	571	151	1,989
	8:00 AM	140	401	70	20	108	47	14	156	27	150	521	168	1,822
	8:15 AM	166	505	61	32	164	67	32	161	33	118	626	160	2,125
	8:30 AM	183	516	81	7	134	62	4	169	40	147	605	89	2,037
	8:45 AM	169	475	59	27	158	82	18	217	36	122	625	112	2,100
	VOLUMES	1,164	3,628	625	137	1,064	368	111	1,188	209	1,017	4,234	940	14,685
	APPROACH %	21%	67%	12%	9%	68%	23%	7%	79%	14%	16%	68%	15%	
	APP/DEPART	5,417	/	4,679	1,569	/	2,290	1,508	/	1,950	6,191	/	5,766	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	658	1,897	271	86	564	258	68	703	136	537	2,377	529	8,084
	APPROACH %	23%	67%	10%	9%	62%	28%	7%	78%	15%	16%	69%	15%	
	PEAK HR FACTOR		0.906			0.850			0.837			0.952		0.951
	APP/DEPART	2,826	/	2,494	908	/	1,237	907	/	1,060	3,443	/	3,293	0
PM	4:00 PM	63	200	126	78	348	47	51	404	74	86	240	48	1,765
	4:15 PM	39	197	116	55	456	36	71	427	83	104	284	36	1,904
	4:30 PM	55	211	108	65	461	31	95	498	83	101	289	27	2,024
	4:45 PM	66	228	136	67	432	18	72	403	91	109	252	18	1,892
	5:00 PM	73	249	113	66	457	19	93	427	96	104	212	24	1,933
	5:15 PM	61	214	144	54	406	22	101	536	98	106	247	37	2,026
	5:30 PM	79	192	128	71	438	23	97	504	123	81	233	33	2,002
	5:45 PM	72	166	102	69	369	31	70	451	99	107	299	28	1,863
	VOLUMES	508	1,657	973	525	3,367	227	650	3,650	747	798	2,056	251	15,409
	APPROACH %	16%	53%	31%	13%	82%	6%	13%	72%	15%	26%	66%	8%	
	APP/DEPART	3,138	/	2,558	4,119	/	4,912	5,047	/	5,148	3,105	/	2,791	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	255	902	501	252	1,756	90	361	1,864	368	420	1,000	106	7,875
	APPROACH %	15%	54%	30%	12%	84%	4%	14%	72%	14%	28%	66%	7%	
	PEAK HR FACTOR		0.953			0.942			0.882			0.915		0.972
	APP/DEPART	1,658	/	1,369	2,098	/	2,544	2,593	/	2,617	1,526	/	1,345	0

Appendix C – Existing 2016 Conditions Intersection Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	98	405	240	170	355	185	341	2672	248	160	1060	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	107	440	261	185	386	201	371	2904	270	174	1152	122
Adj No. of Lanes	1	2	1	2	2	1	2	4	0	2	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	586	262	247	574	257	451	3101	284	191	2816	696
Arrive On Green	0.08	0.17	0.17	0.07	0.16	0.16	0.13	0.52	0.52	0.06	0.44	0.44
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	3442	6021	551	3442	6408	1583
Grp Volume(v), veh/h	107	440	261	185	386	201	371	2308	866	174	1152	122
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1721	1602	1766	1721	1602	1583
Q Serve(g_s), s	5.9	11.7	16.3	5.2	10.2	12.1	10.4	44.4	46.2	5.0	12.2	4.6
Cycle Q Clear(g_c), s	5.9	11.7	16.3	5.2	10.2	12.1	10.4	44.4	46.2	5.0	12.2	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.31	1.00		1.00
Lane Grp Cap(c), veh/h	134	586	262	247	574	257	451	2475	909	191	2816	696
V/C Ratio(X)	0.80	0.75	0.99	0.75	0.67	0.78	0.82	0.93	0.95	0.91	0.41	0.18
Avail Cap(c_a), veh/h	134	586	262	247	574	257	602	2525	928	191	2816	696
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	39.3	41.2	45.1	39.0	39.8	41.9	22.4	22.8	46.5	19.0	16.8
Incr Delay (d2), s/veh	28.0	5.4	54.1	12.0	3.1	14.6	6.8	7.0	18.8	40.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	6.2	11.1	2.9	5.2	6.3	5.4	21.1	27.1	3.4	5.4	2.0
LnGrp Delay(d),s/veh	73.0	44.7	95.3	57.0	42.1	54.4	48.7	29.4	41.7	87.2	19.1	17.0
LnGrp LOS	E	D	F	E	D	D	D	C	D	F	B	B
Approach Vol, veh/h		808			772			3545			1448	
Approach Delay, s/veh		64.8			48.9			34.4			27.1	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	56.0	11.6	21.4	17.5	48.5	12.0	21.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	5.5	52.0	7.1	16.4	17.3	40.2	7.5	16.0
Max Q Clear Time (g_c+I1), s	7.0	48.2	7.2	18.3	12.4	14.2	7.9	14.1
Green Ext Time (p_c), s	0.0	2.8	0.0	0.0	0.6	25.4	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.2
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	0	6	14	0	34	15	3083	211	60	1351	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	4.5	4.5	5.0	4.0	4.5	5.0	5.0
Lane Util. Factor		1.00		0.91	0.91	1.00	1.00	0.86	1.00	0.97	0.86	1.00
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1709		3221	1610	1583	1770	6408	1583	3433	6408	1583
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1709		3221	1610	1583	1770	6408	1583	3433	6408	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	0	7	15	0	37	16	3351	229	65	1468	9
RTOR Reduction (vph)	0	17	0	0	0	35	0	0	0	0	0	2
Lane Group Flow (vph)	0	0	0	10	5	2	16	3351	229	65	1468	7
Turn Type	Split	NA		Split	NA	pm+ov	Prot	NA	Free	Prot	NA	Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8			Free			6
Actuated Green, G (s)		1.9		2.2	2.2	5.7	1.8	67.4	94.5	3.5	69.1	69.1
Effective Green, g (s)		1.9		2.2	2.2	5.7	1.8	67.4	94.5	3.5	69.1	69.1
Actuated g/C Ratio		0.02		0.02	0.02	0.06	0.02	0.71	1.00	0.04	0.73	0.73
Clearance Time (s)		5.0		5.0	5.0	4.5	4.5	5.0		4.5	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		34		74	37	95	33	4570	1583	127	4685	1157
v/s Ratio Prot		0.00		0.00	0.00	0.00	0.01	c0.52		c0.02	0.23	
v/s Ratio Perm						0.00			c0.14			0.00
v/c Ratio		0.01		0.14	0.14	0.02	0.48	0.73	0.14	0.51	0.31	0.01
Uniform Delay, d1		45.4		45.2	45.2	41.8	45.9	8.1	0.0	44.7	4.4	3.4
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1		0.8	1.7	0.1	10.8	0.6	0.2	3.5	0.0	0.0
Delay (s)		45.5		46.1	46.9	41.9	56.7	8.8	0.2	48.1	4.5	3.4
Level of Service		D		D	D	D	E	A	A	D	A	A
Approach Delay (s)		45.5			43.2			8.4			6.3	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	94.5	Sum of lost time (s)	19.5
Intersection Capacity Utilization	63.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	65	0	50	2	3215	204	23	1362	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				71	0	54	2	3495	222	25	1480	0
Adj No. of Lanes				2	0	1	1	4	1	2	4	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				206	0	130	360	4512	1210	77	5095	0
Arrive On Green				0.06	0.00	0.06	0.70	0.70	0.70	0.02	0.80	0.00
Sat Flow, veh/h				3442	0	1583	355	6408	1583	3442	6669	0
Grp Volume(v), veh/h				71	0	54	2	3495	222	25	1480	0
Grp Sat Flow(s),veh/h/ln				1721	0	1583	355	1602	1583	1721	1602	0
Q Serve(g_s), s				1.3	0.0	2.1	0.1	23.3	2.5	0.5	4.0	0.0
Cycle Q Clear(g_c), s				1.3	0.0	2.1	0.1	23.3	2.5	0.5	4.0	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				206	0	130	360	4512	1210	77	5095	0
V/C Ratio(X)				0.34	0.00	0.41	0.01	0.77	0.18	0.33	0.29	0.00
Avail Cap(c_a), veh/h				840	0	422	360	4512	1210	236	5329	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				29.6	0.0	28.6	2.9	6.3	2.1	31.6	1.8	0.0
Incr Delay (d2), s/veh				1.0	0.0	2.1	0.0	0.9	0.1	2.4	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	1.0	0.0	10.2	1.4	0.2	1.8	0.0
LnGrp Delay(d),s/veh				30.6	0.0	30.7	2.9	7.2	2.2	34.0	1.8	0.0
LnGrp LOS				C		C	A	A	A	C	A	
Approach Vol, veh/h					125			3719			1505	
Approach Delay, s/veh					30.6			6.9			2.4	
Approach LOS					C			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.0	51.1				57.1		8.4
Change Period (Y+Rc), s	4.5	5.0				5.0		4.5
Max Green Setting (Gmax), s	4.5	45.5				54.5		16.0
Max Q Clear Time (g_c+I1), s	2.5	25.3				6.0		4.1
Green Ext Time (p_c), s	0.0	20.2				46.1		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	6.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	333	547	152	284	389	351	271	2700	519	241	1055	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	362	595	165	309	423	0	295	2935	564	262	1147	129
Adj No. of Lanes	2	3	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	803	250	365	537	240	371	2950	897	288	2220	691
Arrive On Green	0.11	0.16	0.16	0.11	0.15	0.00	0.11	0.46	0.46	0.08	0.44	0.44
Sat Flow, veh/h	3442	5085	1583	3442	3539	1583	3442	6408	1583	3442	5085	1583
Grp Volume(v), veh/h	362	595	165	309	423	0	295	2935	564	262	1147	129
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1602	1583	1721	1695	1583
Q Serve(g_s), s	10.3	11.1	9.7	8.7	11.4	0.0	8.3	45.2	23.8	7.5	16.3	4.9
Cycle Q Clear(g_c), s	10.3	11.1	9.7	8.7	11.4	0.0	8.3	45.2	23.8	7.5	16.3	4.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	386	803	250	365	537	240	371	2950	897	288	2220	691
V/C Ratio(X)	0.94	0.74	0.66	0.85	0.79	0.00	0.80	0.99	0.63	0.91	0.52	0.19
Avail Cap(c_a), veh/h	386	852	265	365	572	256	497	2950	897	288	2220	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	39.8	39.2	43.5	40.5	0.0	43.1	26.6	14.5	45.0	20.3	17.1
Incr Delay (d2), s/veh	30.6	3.3	5.5	16.7	6.9	0.0	6.4	15.3	1.4	30.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	5.4	4.6	5.0	6.1	0.0	4.3	22.9	10.7	4.8	7.6	2.2
LnGrp Delay(d),s/veh	74.2	43.1	44.7	60.2	47.3	0.0	49.5	41.9	15.9	75.4	20.5	17.2
LnGrp LOS	E	D	D	E	D		D	D	B	E	C	B
Approach Vol, veh/h		1122			732			3794			1538	
Approach Delay, s/veh		53.3			52.7			38.6			29.6	
Approach LOS		D			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	50.6	15.0	20.6	15.2	48.2	15.6	20.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	8.3	45.6	10.5	16.6	14.3	39.6	11.1	16.0
Max Q Clear Time (g_c+I1), s	9.5	47.2	10.7	13.1	10.3	18.3	12.3	13.4
Green Ext Time (p_c), s	0.0	0.0	0.0	2.1	0.4	21.1	0.0	1.6

Intersection Summary	
HCM 2010 Ctrl Delay	40.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	77	274	34	107	238	51	53	2992	82	176	1047	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	84	298	37	116	259	55	58	3252	89	191	1138	62
Adj No. of Lanes	1	2	0	2	1	1	1	3	0	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	428	53	162	239	288	74	3200	87	184	3256	1014
Arrive On Green	0.05	0.14	0.14	0.05	0.13	0.13	0.04	0.63	0.63	0.05	0.64	0.64
Sat Flow, veh/h	1774	3173	390	3442	1863	1583	1774	5090	138	3442	5085	1583
Grp Volume(v), veh/h	84	165	170	116	259	55	58	2156	1185	191	1138	62
Grp Sat Flow(s),veh/h/ln	1774	1770	1794	1721	1863	1583	1774	1695	1838	1721	1695	1583
Q Serve(g_s), s	6.6	12.5	12.7	4.7	18.0	4.1	4.5	88.0	88.0	7.5	14.5	2.1
Cycle Q Clear(g_c), s	6.6	12.5	12.7	4.7	18.0	4.1	4.5	88.0	88.0	7.5	14.5	2.1
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	95	239	242	162	239	288	74	2131	1156	184	3256	1014
V/C Ratio(X)	0.88	0.69	0.70	0.72	1.08	0.19	0.78	1.01	1.03	1.04	0.35	0.06
Avail Cap(c_a), veh/h	95	239	242	179	239	288	131	2131	1156	184	3256	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.8	57.8	57.9	65.8	61.0	48.5	66.4	26.0	26.0	66.3	11.7	9.4
Incr Delay (d2), s/veh	56.6	8.2	8.7	11.4	81.5	0.3	15.9	22.5	33.1	76.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	6.6	6.9	2.5	14.7	1.8	2.6	47.5	54.9	5.5	6.8	0.9
LnGrp Delay(d),s/veh	122.4	65.9	66.6	77.2	142.5	48.8	82.3	48.5	59.1	142.4	11.7	9.5
LnGrp LOS	F	E	E	E	F	D	F	F	F	F	B	A
Approach Vol, veh/h		419			430			3399			1391	
Approach Delay, s/veh		77.5			112.9			52.7			29.6	
Approach LOS		E			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	93.0	11.1	23.9	10.4	94.6	12.0	23.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	7.5	88.0	7.3	18.2	10.3	85.2	7.5	18.0
Max Q Clear Time (g_c+I1), s	9.5	90.0	6.7	14.7	6.5	16.5	8.6	20.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	66.7	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		53.5
HCM 2010 LOS		D


```
AM (E)                    Thu Oct 20, 2016 11:00:34                 Page 8-1
------------------------------------------------------------------------------
                          Park Place Extension
                  Existing AM Peak Hour Conditions
                        With Existing Geometry
------------------------------------------------------------------------------
                     Level Of Service Computation Report
           ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
*******************************************************************************
Intersection #6 Plaza El Segundo / Park Pl
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.181
Loss Time (sec):       10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        100              Level Of Service:                   A
*******************************************************************************
Street Name:          Plaza El Segundo                  Park Pl
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------|---------------|---------------|---------------|
Control:          Permitted        Permitted        Permitted        Permitted
Rights:             Include          Include          Include          Include
Min. Green:     0    0    0      0    0    0      0    0    0      0    0    0
Y+R:          4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:        1  0  0  1  0    0  1  0  0  1    1  0  1  1  0    1  0  1  1  0
------------|---------------|---------------|---------------|---------------|
Volume Module:
Base Vol:       5    2    2      0    3   51     64   57   23      1   16    1
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:    5    2    2      0    3   51     64   57   23      1   16    1
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     5    2    2      0    3   51     64   57   23      1   16    1
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:    5    2    2      0    3   51     64   57   23      1   16    1
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:    5    2    2      0    3   51     64   57   23      1   16    1
------------|---------------|---------------|---------------|---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600   1600 1600 1600   1600 1600 1600   1600 1600 1600
Adjustment:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:       1.00 0.50 0.50   0.00 1.00 1.00   1.00 1.43 0.57   1.00 1.88 0.12
Final Sat.:  1600  800  800      0 1600 1600   1600 2280  920   1600 3012  188
------------|---------------|---------------|---------------|---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00   0.00 0.00 0.03   0.04 0.03 0.03   0.00 0.01 0.01
Crit Moves:  ****                 ****  ****                     ****
*******************************************************************************
```

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #7 Village Dr / Rosecrans Ave

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

Street Name:	Village Dr						Rosecrans 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			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	1	0	0 1	1	0	2 1	0	3	0 1
Volume Module:												
Base Vol:	40	1	77	6	0	5	9	1202	67	128	973	9
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:	40	1	77	6	0	5	9	1205	67	128	976	9
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	40	1	77	6	0	5	9	1205	67	128	976	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	1	77	6	0	5	9	1205	67	128	976	9
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:	40	1	77	6	0	5	9	1205	67	128	976	9
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.98	0.02	1.00	1.00	0.00	2.00	2.00	2.84	0.16	1.00	3.00	1.00
Final Sat.:	1561	39	1600	1600	0	3200	3200	4547	253	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.03	0.03	0.05	0.00	0.00	0.00	0.00	0.27	0.27	0.08	0.20	0.01
Crit Moves:			****	****				****		****		

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #8 Cedar Ave / Marine Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.480
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Cedar Ave						Marine 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			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	1! 0	0	0	0 1	0	1	0 1	1	0	1 0
Volume Module:												
Base Vol:	17	57	22	66	32	47	38	463	30	40	344	407
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	57	22	66	32	47	38	464	30	40	345	408
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	57	22	66	32	47	38	464	30	40	345	408
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	57	22	66	32	47	38	464	30	40	345	408
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	57	22	66	32	47	38	464	30	40	345	408
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:	0.18	0.59	0.23	0.67	0.33	1.00	1.00	1.88	0.12	1.00	2.00	1.00
Final Sat.:	283	950	367	1078	522	1600	1600	3005	195	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.06	0.06	0.04	0.06	0.03	0.02	0.15	0.15	0.03	0.11	0.26
Crit Moves:		****			****			****				****

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #9 Continental Blvd / El Segundo Blvd

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

Street Name:	Continental Blvd						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1 0	1 1	1	1 0	1 1	2	0 3	0 1	2	0 2	1 0
Volume Module:												
Base Vol:	5	24	8	50	23	40	119	620	42	34	957	393
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:	5	24	8	50	23	40	119	622	42	34	959	394
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	24	8	50	23	40	119	622	42	34	959	394
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	24	8	50	23	40	119	622	42	34	959	394
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:	5	24	8	50	23	40	119	622	42	34	959	394
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.78	0.81	1.41	2.00	3.00	1.00	2.00	2.13	0.87
Final Sat.:	1600	3200	1600	2835	1302	2263	3200	4800	1600	3200	3403	1397
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.02	0.02	0.02	0.04	0.13	0.03	0.01	0.28	0.28
Crit Moves:		****				****	****				****	

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #10 Allied Wy / Hughes Wy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.199
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Allied Wy						Hughes Wy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1!	0 0	0	0 0	0 1	1	0 1	1 0	1	0 2	0 1
Volume Module:												
Base Vol:	33	4	15	0	0	3	13	220	41	1	9	1
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:	33	4	15	0	0	3	13	221	41	1	9	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	4	15	0	0	3	13	221	41	1	9	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	4	15	0	0	3	13	221	41	1	9	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	4	15	0	0	3	13	221	41	1	9	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.27	0.15	0.58	0.00	0.00	1.00	1.00	1.69	0.31	1.00	2.00	1.00
Final Sat.:	2031	246	923	0	0	1600	1600	2697	503	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.00	0.00	0.00	0.01	0.08	0.08	0.00	0.00	0.00
Crit Moves:	****				****			****			****	

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #11 Ash St / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.513
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Ash St						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0 1	1	1	0 1	2	0	3 0 1	2	0	2 1 0
Volume Module:												
Base Vol:	4	18	9	118	112	36	53	605	39	259	1354	261
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	18	9	118	112	36	53	607	39	260	1358	262
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	18	9	118	112	36	53	607	39	260	1358	262
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	18	9	118	112	36	53	607	39	260	1358	262
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:	4	18	9	118	112	36	53	607	39	260	1358	262
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	1.00	1.54	1.46	1.00	2.00	3.00	1.00	2.00	2.52	0.48
Final Sat.:	3200	1600	1600	2463	2337	1600	3200	4800	1600	3200	4024	776
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.05	0.05	0.02	0.02	0.13	0.02	0.08	0.34	0.34
OvlAdjV/S:			0.00									
Crit Moves:	****			****			****				****	

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	63	25	0	7	53	0	12	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	68	27	0	8	58	0	13	10
Number of Lanes	0	1	1	0	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8	7.2	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	0%	57%
Vol Thru, %	100%	0%	0%	0%	43%
Vol Right, %	0%	100%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	53	63	25	21
LT Vol	0	0	63	0	12
Through Vol	7	0	0	0	9
RT Vol	0	53	0	25	0
Lane Flow Rate	8	58	68	27	23
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.01	0.064	0.099	0.03	0.03
Departure Headway (Hd)	4.71	4.009	5.184	3.983	4.663
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	750	879	689	893	756
Service Time	2.502	1.8	2.934	1.732	2.761
HCM Lane V/C Ratio	0.011	0.066	0.099	0.03	0.03
HCM Control Delay	7.6	7.1	8.5	6.9	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.2	0.3	0.1	0.1

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	44	19	0	143	74	30	0	15	8	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	48	21	0	155	80	33	0	16	9	38
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	2
HCM Control Delay	8.3	9.1	8.2
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	70%	0%	71%	100%	100%
Vol Right, %	0%	0%	100%	0%	30%	0%	29%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	8	35	11	63	143	104	0	0
LT Vol	15	0	0	11	0	143	0	0	0
Through Vol	0	8	0	0	44	0	74	0	0
RT Vol	0	0	35	0	19	0	30	0	0
Lane Flow Rate	16	9	38	12	68	155	113	0	0
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.027	0.013	0.05	0.019	0.096	0.232	0.147	0	0
Departure Headway (Hd)	5.978	5.476	4.773	5.753	5.04	5.377	4.674	5.627	3.879
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	600	654	751	623	712	670	769	0	0
Service Time	3.705	3.203	2.501	3.476	2.763	3.096	2.393	3.363	1.614
HCM Lane V/C Ratio	0.027	0.014	0.051	0.019	0.096	0.231	0.147	0	0
HCM Control Delay	8.9	8.3	7.8	8.6	8.3	9.7	8.2	8.4	6.6
HCM Lane LOS	A	A	A	A	A	A	A	N	N
HCM 95th-tile Q	0.1	0	0.2	0.1	0.3	0.9	0.5	0	0

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #13 Nash St-Park Wy / Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.428
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Nash St-Park Wy								Rosecrans 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				Protected				Protected			
Rights:	Include				Ovl				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	0	1 0	2	0	1	0 1	2	0	2	1 0	2	0	3	0 1
Volume Module:																
Base Vol:	35	19		77	17	15		32	139	1075		49	87	1020		64
Growth Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	35	19		77	17	15		32	139	1078		49	87	1023		64
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	35	19		77	17	15		32	139	1078		49	87	1023		64
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	35	19		77	17	15		32	139	1078		49	87	1023		64
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:	35	19		77	17	15		32	139	1078		49	87	1023		64
OvlAdjVol:								0								
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	1.00	0.20		0.80	2.00	1.00		1.00	2.00	2.87		0.13	2.00	3.00		1.00
Final Sat.:	1600	317		1283	3200	1600		1600	3200	4591		209	3200	4800		1600
Capacity Analysis Module:																
Vol/Sat:	0.02	0.06		0.06	0.01	0.01		0.02	0.04	0.23		0.23	0.03	0.21		0.04
OvlAdjV/S:								0.00								
Crit Moves:	****				****					****			****			

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	0
HCM LOS	-

Lane


```
AM (E)                    Thu Oct 20, 2016 11:00:34              Page 17-1
------------------------------------------------------------------------------
                          Park Place Extension
                   Existing AM Peak Hour Conditions
                        With Existing Geometry
------------------------------------------------------------------------------
                     Level Of Service Computation Report
           ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #15 Apollo St-Market Pl / Rosecrans Ave
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.487
Loss Time (sec):       10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        100              Level Of Service:                   A
********************************************************************************
Street Name:        Apollo St-Market Pl              Rosecrans 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        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:        2  0  1  0  1    2  0  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       33   33   38    28   18   20   115 1022   46    96 1144  396
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:    33   33   38    28   18   20   115 1025   46    96 1147  397
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     33   33   38    28   18   20   115 1025   46    96 1147  397
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    33   33   38    28   18   20   115 1025   46    96 1147  397
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    33   33   38    28   18   20   115 1025   46    96 1147  397
------------|---------------||---------------||---------------||---------------|
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 1.00 1.00  2.00 1.00 1.00  2.00 3.00 1.00  2.00 2.23 0.77
Final Sat.:   3200 1600 1600  3200 1600 1600  3200 4800 1600  3200 3566 1234
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.01 0.02 0.02  0.01 0.01 0.01  0.04 0.21 0.03  0.03 0.32 0.32
Crit Moves:        ****            ****            ****            ****
********************************************************************************
```

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #16 Douglas St / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.710
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Douglas St						El Segundo Blvd					
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:	2	0 1	1	2	0 2	0 1	1	0 2	1 0	2	0 3	0 1
Volume Module:												
Base Vol:	429	679	89	118	284	52	101	484	137	205	1423	419
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:	430	681	89	118	285	52	101	485	137	206	1427	420
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	430	681	89	118	285	52	101	485	137	206	1427	420
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	430	681	89	118	285	52	101	485	137	206	1427	420
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:	430	681	89	118	285	52	101	485	137	206	1427	420
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	2.00	1.00	2.00	2.00	1.00	1.00	2.34	0.66	2.00	3.00	1.00
Final Sat.:	3200	3200	1600	3200	3200	1600	1600	3741	1059	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.21	0.06	0.04	0.09	0.03	0.06	0.13	0.13	0.06	0.30	0.26
Crit Moves:		****			****			****			****	

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #17 Douglas St / Transit Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.357
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Douglas St						Transit Center					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1	0	1 0	1 1	0	1 0	1 0	1	0 1	0 0
Volume Module:												
Base Vol:	2	806	1	6	221	9	0	0	0	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:	2	808	1	6	222	9	0	0	0	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:	2	808	1	6	222	9	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	808	1	6	222	9	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	808	1	6	222	9	0	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.92	0.08	1.00	1.00	1.00	0.00	1.00	1.00
Final Sat.:	1600	3196	4	1600	3075	125	1600	1600	1600	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.00	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****			****							

Intersection	
Intersection Delay, s/veh	22
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	90	0	35	0	2	2	11	0	121	687	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	98	0	38	0	2	2	12	0	132	747	3
Number of Lanes	0	0	1	1	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	13	11.1	26.9
HCM LOS	B	B	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	13%	100%	0%	0%
Vol Thru, %	0%	100%	99%	0%	0%	13%	0%	100%	22%
Vol Right, %	0%	0%	1%	0%	100%	73%	0%	0%	78%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	458	232	90	35	15	6	121	270
LT Vol	121	0	0	90	0	2	6	0	0
Through Vol	0	458	229	0	0	2	0	121	60
RT Vol	0	0	3	0	35	11	0	0	210
Lane Flow Rate	132	498	252	98	38	16	7	131	294
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.248	0.869	0.44	0.233	0.078	0.037	0.014	0.257	0.531
Departure Headway (Hd)	6.791	6.286	6.277	8.59	7.38	8.088	7.56	7.054	6.503
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	526	573	570	421	488	445	470	505	549
Service Time	4.573	4.068	4.059	6.293	5.082	5.795	5.357	4.851	4.3
HCM Lane V/C Ratio	0.251	0.869	0.442	0.233	0.078	0.036	0.015	0.259	0.536
HCM Control Delay	11.8	37.5	14	13.9	10.7	11.1	10.5	12.3	16.5
HCM Lane LOS	B	E	B	B	B	B	B	B	C
HCM 95th-tile Q	1	9.7	2.2	0.9	0.3	0.1	0	1	3.1

Existing Conditions AM Peak
18: Douglas St & Park Pl/Private Dwy

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	6	181	210
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	197	228
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	15.1
HCM LOS	C

Lane

Michael Baker International
H:\pdata\145070\Technical Studies\Traffic\Synchro\Park_Place_E_AM.syn
Park Place Extension Project
HCM 2010 AWSC

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #19 Douglas St-Redondo Ave / Rosecrans Ave

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

Street Name:	Douglas St-Redondo Ave						Rosecrans 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			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	2	0 1	0 1	2	0 3	0 1	2	0 3	0 1
Volume Module:												
Base Vol:	32	80	10	125	50	89	280	692	37	37	1758	670
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	80	10	125	50	89	281	694	37	37	1763	672
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	80	10	125	50	89	281	694	37	37	1763	672
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	80	10	125	50	89	281	694	37	37	1763	672
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	80	10	125	50	89	281	694	37	37	1763	672
OvlAdjVol:												609
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4800	1600	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.01	0.04	0.03	0.06	0.09	0.14	0.02	0.01	0.37	0.42
OvlAdjV/S:												0.38
Crit Moves:	****			****			****					****

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #20 Aviation Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.860
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Aviation Blvd						El Segundo Blvd					
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:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 1	1	0 1	1 1	1	0 3	1 0	2	0 2	1 0
Volume Module:												
Base Vol:	313	1040	281	27	771	359	129	447	94	412	1530	82
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	314	1043	282	27	773	360	129	448	94	413	1534	82
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	314	1043	282	27	773	360	129	448	94	413	1534	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	314	1043	282	27	773	360	129	448	94	413	1534	82
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	314	1043	282	27	773	360	129	448	94	413	1534	82
OvlAdjVol:			75									
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	2.00	1.00	1.00	2.00	1.00	1.00	3.30	0.70	2.00	2.85	0.15
Final Sat.:	3200	3200	1600	1600	3200	1600	1600	5288	1112	3200	4556	244
Capacity Analysis Module:												
Vol/Sat:	0.10	0.33	0.18	0.02	0.24	0.22	0.08	0.08	0.08	0.13	0.34	0.34
OvlAdjV/S:			0.05									
Crit Moves:	****			****			****				****	

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #21 Aviation Blvd / Utah Ave-135th St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.912
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	107	Level Of Service:	E

Street Name:	Aviation Blvd						Utah Ave-135th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	0	1 0	1 0	1	0 1	0 1
Volume Module:												
Base Vol:	73	1270	131	231	930	99	12	140	18	160	173	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:	73	1273	131	232	932	99	12	140	18	160	173	354
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	73	1273	131	232	932	99	12	140	18	160	173	354
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	1273	131	232	932	99	12	140	18	160	173	354
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:	73	1273	131	232	932	99	12	140	18	160	173	354
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	1.81	0.19	0.14	1.65	0.21	1.00	1.00	1.00
Final Sat.:	1600	2901	299	1600	2892	308	226	2635	339	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.44	0.44	0.14	0.32	0.32	0.01	0.05	0.05	0.10	0.11	0.22
Crit Moves:		****			****			****				****

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #22 Aviation Blvd / Alaska Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.577
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Aviation Blvd						Alaska 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			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 0	0	0 1	1 0	1	0 0	0 2	0	0 0	0 0
Volume Module:												
Base Vol:	90	1494	0	0	935	159	14	0	36	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:	90	1498	0	0	937	159	14	0	36	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:	90	1498	0	0	937	159	14	0	36	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	1498	0	0	937	159	14	0	36	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	1498	0	0	937	159	14	0	36	0	0	0
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.71	0.29	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	2735	465	1600	0	3200	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.47	0.00	0.00	0.34	0.34	0.01	0.00	0.01	0.00	0.00	0.00
OvlAdjV/S:									0.00			
Crit Moves:		****			****			****				

Park Place Extension
Existing AM Peak Hour Conditions
With Existing Geometry

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

Intersection #23 Aviation Blvd / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.917
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	109	Level Of Service:	E

Street Name:	Aviation Blvd						Rosecrans 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			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 3	0 1	2	0 4	0 1	2	0 4	0 1	2	0 4	0 1
Volume Module:												
Base Vol:	658	1897	271	86	564	258	68	703	136	537	2377	529
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:	660	1902	272	86	565	259	68	705	136	538	2383	530
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	660	1902	272	86	565	259	68	705	136	538	2383	530
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	660	1902	272	86	565	259	68	705	136	538	2383	530
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:	660	1902	272	86	565	259	68	705	136	538	2383	530
OvlAdjVol:			3			225			0			487
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	3.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3200	4800	1600	3200	6400	1600	3200	6400	1600	3200	6400	1600
Capacity Analysis Module:												
Vol/Sat:	0.21	0.40	0.17	0.03	0.09	0.16	0.02	0.11	0.09	0.17	0.37	0.33
OvlAdjV/S:			0.00			0.14			0.00			0.30
Crit Moves:	****			****			****				****	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	126	368	398	502	413	192	285	1312	212	180	2916	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	137	400	433	546	449	209	310	1426	230	196	3170	96
Adj No. of Lanes	1	2	1	2	2	1	2	4	0	2	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	531	237	502	721	323	301	2646	426	254	2937	726
Arrive On Green	0.09	0.15	0.15	0.15	0.20	0.20	0.09	0.47	0.47	0.07	0.46	0.46
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	3442	5607	903	3442	6408	1583
Grp Volume(v), veh/h	137	400	433	546	449	209	310	1222	434	196	3170	96
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1721	1602	1703	1721	1602	1583
Q Serve(g_s), s	9.1	13.0	18.0	17.5	13.9	14.5	10.5	21.6	21.7	6.7	55.0	4.2
Cycle Q Clear(g_c), s	9.1	13.0	18.0	17.5	13.9	14.5	10.5	21.6	21.7	6.7	55.0	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	163	531	237	502	721	323	301	2268	804	254	2937	726
V/C Ratio(X)	0.84	0.75	1.82	1.09	0.62	0.65	1.03	0.54	0.54	0.77	1.08	0.13
Avail Cap(c_a), veh/h	192	531	237	502	721	323	301	2268	804	330	2937	726
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	48.9	51.0	51.3	43.6	43.8	54.8	22.4	22.4	54.6	32.5	18.7
Incr Delay (d2), s/veh	23.7	6.0	386.5	66.1	1.7	4.5	59.7	0.3	0.7	8.1	42.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	6.8	33.3	12.9	7.0	6.8	7.5	9.6	10.3	3.5	33.0	1.9
LnGrp Delay(d),s/veh	77.2	54.9	437.5	117.3	45.2	48.3	114.4	22.7	23.2	62.7	75.2	18.8
LnGrp LOS	E	D	F	F	D	D	F	C	C	E	F	B
Approach Vol, veh/h		970			1204			1966			3462	
Approach Delay, s/veh		228.8			78.5			37.3			72.9	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	61.6	22.0	23.0	15.0	60.0	15.6	29.4
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	11.5	54.0	17.5	18.0	10.5	55.0	13.0	22.5
Max Q Clear Time (g_c+I1), s	8.7	23.7	19.5	20.0	12.5	57.0	11.1	16.5
Green Ext Time (p_c), s	0.2	30.0	0.0	0.0	0.0	0.0	0.1	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	84.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	1	60	179	0	120	59	1614	19	189	3019	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	4.5	4.5	5.0	4.0	4.5	5.0	5.0
Lane Util. Factor		1.00		0.91	0.91	1.00	1.00	0.86	1.00	0.97	0.86	1.00
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1703		3221	1610	1583	1770	6408	1583	3433	6408	1583
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1703		3221	1610	1583	1770	6408	1583	3433	6408	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	1	65	195	0	130	64	1754	21	205	3282	60
RTOR Reduction (vph)	0	26	0	0	0	97	0	0	0	0	0	26
Lane Group Flow (vph)	0	117	0	131	64	33	64	1754	21	205	3282	34
Turn Type	Split	NA		Split	NA	pm+ov	Prot	NA	Free	Prot	NA	Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8			Free			6
Actuated Green, G (s)		12.2		10.1	10.1	21.2	5.5	57.6	110.5	11.1	63.2	63.2
Effective Green, g (s)		12.2		10.1	10.1	21.2	5.5	57.6	110.5	11.1	63.2	63.2
Actuated g/C Ratio		0.11		0.09	0.09	0.19	0.05	0.52	1.00	0.10	0.57	0.57
Clearance Time (s)		5.0		5.0	5.0	4.5	4.5	5.0		4.5	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		188		294	147	303	88	3340	1583	344	3665	905
v/s Ratio Prot		c0.07		c0.04	0.04	0.01	0.04	0.27		c0.06	c0.51	
v/s Ratio Perm						0.01			0.01			0.02
v/c Ratio		0.62		0.45	0.44	0.11	0.73	0.53	0.01	0.60	0.90	0.04
Uniform Delay, d1		47.0		47.5	47.5	36.9	51.8	17.4	0.0	47.6	20.8	10.3
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		6.3		1.1	2.1	0.2	25.6	0.2	0.0	2.8	3.2	0.0
Delay (s)		53.3		48.6	49.6	37.0	77.4	17.6	0.0	50.3	24.0	10.4
Level of Service		D		D	D	D	E	B	A	D	C	B
Approach Delay (s)		53.3			44.2			19.5			25.3	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	25.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	110.5	Sum of lost time (s)	19.5
Intersection Capacity Utilization	73.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	464	0	131	1	1587	455	68	3136	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				504	0	142	1	1725	495	74	3409	0
Adj No. of Lanes				2	0	1	1	4	1	2	4	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				690	0	396	143	3151	1096	171	4001	0
Arrive On Green				0.20	0.00	0.20	0.49	0.49	0.49	0.05	0.62	0.00
Sat Flow, veh/h				3442	0	1583	52	6408	1583	3442	6669	0
Grp Volume(v), veh/h				504	0	142	1	1725	495	74	3409	0
Grp Sat Flow(s),veh/h/ln				1721	0	1583	52	1602	1583	1721	1602	0
Q Serve(g_s), s				7.4	0.0	4.0	0.9	10.2	7.6	1.1	23.2	0.0
Cycle Q Clear(g_c), s				7.4	0.0	4.0	16.8	10.2	7.6	1.1	23.2	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				690	0	396	143	3151	1096	171	4001	0
V/C Ratio(X)				0.73	0.00	0.36	0.01	0.55	0.45	0.43	0.85	0.00
Avail Cap(c_a), veh/h				1016	0	546	143	3151	1096	286	4077	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				20.3	0.0	16.8	17.8	9.6	3.7	25.0	8.2	0.0
Incr Delay (d2), s/veh				1.5	0.0	0.5	0.0	0.2	0.3	1.7	1.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	1.8	0.0	4.5	5.5	0.6	10.5	0.0
LnGrp Delay(d),s/veh				21.8	0.0	17.3	17.8	9.8	4.0	26.8	10.0	0.0
LnGrp LOS				C		B	B	A	A	C	B	
Approach Vol, veh/h					646			2221			3483	
Approach Delay, s/veh					20.8			8.5			10.4	
Approach LOS					C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.2	31.7				38.9		15.4
Change Period (Y+Rc), s	4.5	5.0				5.0		4.5
Max Green Setting (Gmax), s	4.5	25.5				34.5		16.0
Max Q Clear Time (g_c+I1), s	3.1	18.8				25.2		9.4
Green Ext Time (p_c), s	0.0	6.7				8.7		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	241	640	187	464	653	529	318	1258	305	514	2590	586
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	262	696	203	504	710	0	346	1367	332	559	2815	637
Adj No. of Lanes	2	3	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	644	201	470	665	298	335	2750	896	623	2607	812
Arrive On Green	0.08	0.13	0.13	0.14	0.19	0.00	0.10	0.43	0.43	0.18	0.51	0.51
Sat Flow, veh/h	3442	5085	1583	3442	3539	1583	3442	6408	1583	3442	5085	1583
Grp Volume(v), veh/h	262	696	203	504	710	0	346	1367	332	559	2815	637
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1602	1583	1721	1695	1583
Q Serve(g_s), s	11.3	19.0	19.0	20.5	28.2	0.0	14.6	23.2	17.3	23.8	76.9	49.2
Cycle Q Clear(g_c), s	11.3	19.0	19.0	20.5	28.2	0.0	14.6	23.2	17.3	23.8	76.9	49.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	644	201	470	665	298	335	2750	896	623	2607	812
V/C Ratio(X)	1.01	1.08	1.01	1.07	1.07	0.00	1.03	0.50	0.37	0.90	1.08	0.78
Avail Cap(c_a), veh/h	259	644	201	470	665	298	335	2750	896	769	2607	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	65.5	65.5	64.8	60.9	0.0	67.7	31.1	17.9	60.1	36.5	29.8
Incr Delay (d2), s/veh	58.6	59.2	66.7	62.0	54.2	0.0	57.9	0.1	0.3	11.6	43.6	5.1
Initial Q Delay(d3),s/veh	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	12.4	12.0	13.8	18.8	0.0	9.6	10.3	7.6	12.3	46.2	22.6
LnGrp Delay(d),s/veh	128.0	124.7	132.3	126.7	115.1	0.0	125.6	31.2	18.1	71.7	80.1	34.9
LnGrp LOS	F	F	F	F	F		F	C	B	E	F	C
Approach Vol, veh/h		1161			1214			2045			4011	
Approach Delay, s/veh		126.8			119.9			45.1			71.8	
Approach LOS		F			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.6	69.4	25.0	24.0	19.1	81.9	15.8	33.2
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	33.5	58.0	20.5	19.0	14.6	76.9	11.3	28.2
Max Q Clear Time (g_c+I1), s	25.8	25.2	22.5	21.0	16.6	78.9	13.3	30.2
Green Ext Time (p_c), s	1.3	32.3	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	79.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	298	47	120	227	57	92	1390	136	230	2393	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	76	324	51	130	247	62	100	1511	148	250	2601	167
Adj No. of Lanes	1	2	0	2	1	1	1	3	0	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	485	76	179	289	395	119	2367	232	324	2692	838
Arrive On Green	0.05	0.16	0.16	0.05	0.16	0.16	0.07	0.50	0.50	0.09	0.53	0.53
Sat Flow, veh/h	1774	3070	478	3442	1863	1583	1774	4710	461	3442	5085	1583
Grp Volume(v), veh/h	76	185	190	130	247	62	100	1087	572	250	2601	167
Grp Sat Flow(s),veh/h/ln	1774	1770	1778	1721	1863	1583	1774	1695	1781	1721	1695	1583
Q Serve(g_s), s	4.2	9.7	9.9	3.7	12.7	3.0	5.5	23.1	23.1	7.0	48.4	5.4
Cycle Q Clear(g_c), s	4.2	9.7	9.9	3.7	12.7	3.0	5.5	23.1	23.1	7.0	48.4	5.4
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	97	280	281	179	289	395	119	1704	895	324	2692	838
V/C Ratio(X)	0.78	0.66	0.67	0.73	0.85	0.16	0.84	0.64	0.64	0.77	0.97	0.20
Avail Cap(c_a), veh/h	99	296	297	179	303	407	119	1704	895	438	2739	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	38.9	39.0	45.9	40.4	28.8	45.3	17.9	17.9	43.5	22.3	12.2
Incr Delay (d2), s/veh	31.7	5.1	5.5	13.8	19.9	0.2	38.4	0.8	1.5	5.8	10.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.1	5.3	2.1	8.1	1.3	4.0	10.9	11.7	3.6	25.0	2.4
LnGrp Delay(d),s/veh	77.5	44.0	44.5	59.7	60.3	29.0	83.6	18.7	19.4	49.3	32.7	12.3
LnGrp LOS	E	D	D	E	E	C	F	B	B	D	C	B
Approach Vol, veh/h		451			439			1759			3018	
Approach Delay, s/veh		49.8			55.7			22.6			33.0	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	54.3	9.6	20.5	11.1	57.0	9.9	20.2
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	12.5	47.0	5.1	16.4	6.6	52.9	5.5	16.0
Max Q Clear Time (g_c+I1), s	9.0	25.1	5.7	11.9	7.5	50.4	6.2	14.7
Green Ext Time (p_c), s	0.3	21.5	0.0	1.6	0.0	1.6	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C


```
PM (E)                    Thu Oct 20, 2016 11:06:46                 Page 8-1
-------------------------------------------------------------------------------
                          Park Place Extension
                   Existing PM Peak Hour Conditions
                        With Existing Geometry
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
           ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
*******************************************************************************
Intersection #6 Plaza El Segundo / Park Pl
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.387
Loss Time (sec):       10              Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        100              Level Of Service:                    A
*******************************************************************************
Street Name:          Plaza El Segundo                  Park Pl
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|----------------||----------------||----------------||----------------|
Control:          Permitted        Permitted        Permitted        Permitted
Rights:             Include          Include          Include          Include
Min. Green:     0    0    0      0    0    0      0    0    0      0    0    0
Y+R:          4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:        1  0  0  1  0    0  1  0  0  1    1  0  1  1  0    1  0  1  1  0
------------|----------------||----------------||----------------||----------------|
Volume Module:
Base Vol:       39   15   12     1   16  230    129  134   26     13  115    4
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:    39   15   12     1   16  231    129  134   26     13  115    4
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     39   15   12     1   16  231    129  134   26     13  115    4
Reduct Vol:      0    0    0     0    0    0      0    0    0      0    0    0
Reduced Vol:    39   15   12     1   16  231    129  134   26     13  115    4
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
FinalVolume:    39   15   12     1   16  231    129  134   26     13  115    4
------------|----------------||----------------||----------------||----------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600   1600 1600 1600   1600 1600 1600
Adjustment:   1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:        1.00 0.56 0.44  0.06 0.94 1.00   1.00 1.68 0.32   1.00 1.93 0.07
Final Sat.:   1600  889  711    94 1506 1600   1600 2680  520   1600 3092  108
------------|----------------||----------------||----------------||----------------|
Capacity Analysis Module:
Vol/Sat:      0.02 0.02 0.02  0.00 0.01 0.14   0.08 0.05 0.05   0.01 0.04 0.04
Crit Moves:   ****                 ****  ****                    ****
*******************************************************************************
```

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #7 Village Dr / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.703
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Village Dr						Rosecrans 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			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	1	1	0	0	1	1	2	0
Volume Module:												
Base Vol:	135	0	191	15	0	1	13	1335	148	262	1498	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:	135	0	191	15	0	1	13	1338	148	263	1502	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:	135	0	191	15	0	1	13	1338	148	263	1502	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	0	191	15	0	1	13	1338	148	263	1502	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:	135	0	191	15	0	1	13	1338	148	263	1502	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	2.00	2.00	2.70	0.30	1.00	3.00	1.00
Final Sat.:	1600	0	1600	1600	0	3200	3200	4321	479	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.12	0.01	0.00	0.00	0.00	0.31	0.31	0.16	0.31	0.00
Crit Moves:			****	****				****		****		

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #8 Cedar Ave / Marine Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.610
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Cedar Ave						Marine 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			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	1! 0	0	0	0	1	0	1	1	0	1
Volume Module:												
Base Vol:	13	27	51	337	68	101	56	577	43	31	287	330
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	27	51	338	68	101	56	579	43	31	288	331
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	27	51	338	68	101	56	579	43	31	288	331
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	27	51	338	68	101	56	579	43	31	288	331
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	27	51	338	68	101	56	579	43	31	288	331
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:	0.14	0.30	0.56	0.83	0.17	1.00	1.00	1.86	0.14	1.00	2.00	1.00
Final Sat.:	229	475	897	1331	269	1600	1600	2978	222	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.06	0.06	0.21	0.25	0.06	0.04	0.19	0.19	0.02	0.09	0.21
Crit Moves:		****		****			****					****

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #9 Continental Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.406
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Continental Blvd						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1 0	1 1	1	1 0	1 1	2	0 3	0 1	2	0 2	1 0
Volume Module:												
Base Vol:	56	110	118	220	17	87	38	792	4	15	772	62
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:	56	110	118	221	17	87	38	794	4	15	774	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	110	118	221	17	87	38	794	4	15	774	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	110	118	221	17	87	38	794	4	15	774	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	110	118	221	17	87	38	794	4	15	774	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.34	1.66	2.00	0.33	1.67	2.00	3.00	1.00	2.00	2.78	0.22
Final Sat.:	1600	2145	2655	3200	523	2677	3200	4800	1600	3200	4443	357
Capacity Analysis Module:												
Vol/Sat:	0.04	0.05	0.04	0.07	0.03	0.03	0.01	0.17	0.00	0.00	0.17	0.17
Crit Moves:		****		****			****				****	

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #10 Allied Wy / Hughes Wy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.288
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Allied Wy						Hughes Wy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1!	0 0	0	0 0	0 1	1	0 1	1 0	1	0 2	0 1
Volume Module:												
Base Vol:	113	0	8	0	0	10	0	8	196	34	161	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:	113	0	8	0	0	10	0	8	197	34	161	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:	113	0	8	0	0	10	0	8	197	34	161	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	0	8	0	0	10	0	8	197	34	161	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:	113	0	8	0	0	10	0	8	197	34	161	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.87	0.00	0.13	0.00	0.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	2988	0	212	0	0	1600	1600	1600	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.04	0.00	0.00	0.01	0.00	0.01	0.12	0.02	0.05	0.00
Crit Moves:	****					****			****	****		

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #11 Ash St / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.503
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Ash St						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0 1	1	1	0 1	2	0	3 0 1	2	0	2 1 0
Volume Module:												
Base Vol:	6	47	154	403	15	78	92	997	6	19	758	105
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:	6	47	154	404	15	78	92	1000	6	19	760	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	47	154	404	15	78	92	1000	6	19	760	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	47	154	404	15	78	92	1000	6	19	760	105
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:	6	47	154	404	15	78	92	1000	6	19	760	105
OvlAdjVol:			140									
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	0.47	1.53	2.00	1.00	1.00	2.00	3.00	1.00	2.00	2.63	0.37
Final Sat.:	3200	748	2452	3200	1600	1600	3200	4800	1600	3200	4216	584
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.06	0.13	0.01	0.05	0.03	0.21	0.00	0.01	0.18	0.18
OvlAdjV/S:			0.06									
Crit Moves:	****			****				****		****		

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	130	26	0	30	52	0	43	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	141	28	0	33	57	0	47	28
Number of Lanes	0	1	1	0	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.2	7.6	8.6
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	0%	62%
Vol Thru, %	100%	0%	0%	0%	38%
Vol Right, %	0%	100%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	52	130	26	69
LT Vol	0	0	130	0	43
Through Vol	30	0	0	0	26
RT Vol	0	52	0	26	0
Lane Flow Rate	33	57	141	28	75
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.046	0.069	0.213	0.033	0.105
Departure Headway (Hd)	5.069	4.365	5.429	4.226	5.019
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	709	823	663	848	716
Service Time	2.782	2.079	3.15	1.947	3.034
HCM Lane V/C Ratio	0.047	0.069	0.213	0.033	0.105
HCM Control Delay	8	7.4	9.6	7.1	8.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.8	0.1	0.4

```
                          Park Place Extension
                     Existing PM Peak Hour Conditions
                          With Existing Geometry

                    Level Of Service Computation Report
          ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #13 Nash St-Park Wy / Rosecrans Ave
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.575
Loss Time (sec):      10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:       100              Level Of Service:                  A
********************************************************************************
Street Name:          Nash St-Park Wy                 Rosecrans 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        Protected        Protected
Rights:           Include          Ovl              Include          Include
Min. Green:     0    0    0      0    0    0      0    0    0      0    0    0
Y+R:          4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:        1  0  0  1  0    2  0  1  0  1    2  0  2  1  0    2  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       62   17   90    73   40  177    43 1431   61    87 1533   59
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:    62   17   90    73   40  177    43 1435   61    87 1537   59
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     62   17   90    73   40  177    43 1435   61    87 1537   59
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    62   17   90    73   40  177    43 1435   61    87 1537   59
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:    62   17   90    73   40  177    43 1435   61    87 1537   59
OvlAdjVol:                                156
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
Adjustment:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:        1.00 0.16 0.84  2.00 1.00 1.00  2.00 2.88 0.12  2.00 3.00 1.00
Final Sat.:   1600  254 1346  3200 1600 1600  3200 4604  196  3200 4800 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.04 0.07 0.07  0.02 0.03 0.11  0.01 0.31 0.31  0.03 0.32 0.04
OvlAdjV/S:                                0.10
Crit Moves:  ****                         ****       ****       ****
********************************************************************************
```


Intersection	
Intersection Delay, s/veh	10.6
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	120	19	0	58	134	0	0	12	2	246
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	130	21	0	63	146	0	0	13	2	267
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	2
HCM Control Delay	10.6	10.3	11
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	78%	0%
Vol Thru, %	0%	100%	0%	100%	86%	0%	100%	22%	39%
Vol Right, %	0%	0%	100%	0%	14%	0%	0%	0%	61%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	2	246	0	139	58	134	30	17
LT Vol	12	0	0	0	0	58	0	23	0
Through Vol	0	2	0	0	120	0	134	7	7
RT Vol	0	0	246	0	19	0	0	0	10
Lane Flow Rate	13	2	267	0	151	63	146	32	18
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.023	0.004	0.383	0	0.249	0.112	0.239	0.06	0.03
Departure Headway (Hd)	6.364	5.859	5.151	6.028	5.932	6.399	5.896	6.754	5.927
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	563	612	698	0	606	561	610	530	604
Service Time	4.092	3.586	2.879	3.761	3.665	4.128	3.626	4.494	3.666
HCM Lane V/C Ratio	0.023	0.003	0.383	0	0.249	0.112	0.239	0.06	0.03
HCM Control Delay	9.2	8.6	11.1	8.8	10.6	9.9	10.5	9.9	8.9
HCM Lane LOS	A	A	B	N	B	A	B	A	A
HCM 95th-tile Q	0.1	0	1.8	0	1	0.4	0.9	0.2	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	13	10
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	25	14	11
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.5
HCM LOS	A

Lane


```
PM (E)                    Thu Oct 20, 2016 11:06:46              Page 17-1
------------------------------------------------------------------------------
                          Park Place Extension
                    Existing PM Peak Hour Conditions
                         With Existing Geometry
------------------------------------------------------------------------------
                     Level Of Service Computation Report
           ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)
********************************************************************************
Intersection #15 Apollo St-Market Pl / Rosecrans Ave
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.659
Loss Time (sec):       10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        100              Level Of Service:                   B
********************************************************************************
Street Name:        Apollo St-Market Pl              Rosecrans 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        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:        2  0  1  0  1    2  0  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     111   45  145   326   58  109    57 1482   71   179 1473   65
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:  111   45  145   327   58  109    57 1486   71   179 1477   65
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   111   45  145   327   58  109    57 1486   71   179 1477   65
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  111   45  145   327   58  109    57 1486   71   179 1477   65
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  111   45  145   327   58  109    57 1486   71   179 1477   65
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600  1600  1600 1600  1600  1600 1600  1600  1600 1600  1600
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       2.00 1.00  1.00  2.00 1.00  1.00  2.00 3.00  1.00  2.00 2.87  0.13
Final Sat.:  3200 1600  1600  3200 1600  1600  3200 4800  1600  3200 4597   203
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.03  0.09  0.10 0.04  0.07  0.02 0.31  0.04  0.06 0.32  0.32
Crit Moves:             ****  ****              ****        ****
********************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #16 Douglas St / El Segundo Blvd

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

Street Name:	Douglas St						El Segundo Blvd					
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:	2	0 1	1 1	2	0 2	0 1	1	0 2	1 0	2	0 3	0 1
Volume Module:												
Base Vol:	115	428	302	403	1035	78	30	1285	220	121	647	136
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:	115	429	303	404	1038	78	30	1288	221	121	649	136
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	115	429	303	404	1038	78	30	1288	221	121	649	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	429	303	404	1038	78	30	1288	221	121	649	136
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:	115	429	303	404	1038	78	30	1288	221	121	649	136
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	1.76	1.24	2.00	2.00	1.00	1.00	2.56	0.44	2.00	3.00	1.00
Final Sat.:	3200	2814	1986	3200	3200	1600	1600	4098	702	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.15	0.13	0.32	0.05	0.02	0.31	0.31	0.04	0.14	0.09
Crit Moves:	****				****			****			****	

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #17 Douglas St / Transit Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.383
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Douglas St						Transit Center					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1	0	1 0	0 1
Volume Module:												
Base Vol:	1	271	1	1	898	0	0	0	1	1	0	1
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:	1	272	1	1	900	0	0	0	1	1	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	272	1	1	900	0	0	0	1	1	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	272	1	1	900	0	0	0	1	1	0	1
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:	1	272	1	1	900	0	0	0	1	1	0	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	2.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	1600	3188	12	1600	3200	0	1600	1600	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.00	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****				****	****		

Intersection	
Intersection Delay, s/veh	54.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	348	4	146	0	7	2	4	0	49	219	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	378	4	159	0	8	2	4	0	53	238	1
Number of Lanes	0	0	1	1	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	47.3	13.5	16
HCM LOS	E	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	99%	0%	54%	100%	0%	0%
Vol Thru, %	0%	100%	99%	1%	0%	15%	0%	100%	54%
Vol Right, %	0%	0%	1%	0%	100%	31%	0%	0%	46%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	146	74	352	146	13	11	491	453
LT Vol	49	0	0	348	0	7	11	0	0
Through Vol	0	146	73	4	0	2	0	491	246
RT Vol	0	0	1	0	146	4	0	0	207
Lane Flow Rate	53	159	80	383	159	14	12	534	492
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.141	0.399	0.202	0.941	0.338	0.041	0.028	1	1
Departure Headway (Hd)	9.554	9.053	9.043	8.851	7.662	10.324	8.446	7.93	7.599
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	377	398	398	413	471	347	424	459	477
Service Time	7.287	6.786	6.776	6.567	5.378	8.065	6.19	5.674	5.343
HCM Lane V/C Ratio	0.141	0.399	0.201	0.927	0.338	0.04	0.028	1.163	1.031
HCM Control Delay	13.9	17.7	14.1	61	14.2	13.5	11.4	70.6	69
HCM Lane LOS	B	C	B	F	B	B	B	F	F
HCM 95th-tile Q	0.5	1.9	0.7	10.6	1.5	0.1	0.1	13	13.3

Existing Conditions PM Peak
18: Douglas St & Park Pl/Private Dwy

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	737	207
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	12	801	225
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	69.2
HCM LOS	F

Lane

Michael Baker International
H:\pdata\145070\Technical Studies\Traffic\Synchro\Park_Place_E_PM.syn
Park Place Extension Project
HCM 2010 AWSC

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #19 Douglas St-Redondo Ave / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Douglas St-Redondo Ave						Rosecrans 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			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	2	0 1	0 1	2	0 3	0 1	2	0 3	0 1
Volume Module:												
Base Vol:	90	61	43	384	349	244	77	1829	131	26	1477	186
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:	90	61	43	385	350	245	77	1834	131	26	1481	186
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	90	61	43	385	350	245	77	1834	131	26	1481	186
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	61	43	385	350	245	77	1834	131	26	1481	186
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:	90	61	43	385	350	245	77	1834	131	26	1481	186
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4800	1600	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.04	0.03	0.12	0.22	0.15	0.02	0.38	0.08	0.01	0.31	0.12
OvlAdjV/S:												0.00
Crit Moves:	****			****			****			****		

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #20 Aviation Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.890
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Aviation Blvd						El Segundo Blvd					
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:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 1	1	0 1	1 1	1	0 3	1 0	2	0 2	1 0
Volume Module:												
Base Vol:	185	610	297	181	1038	127	164	1692	308	297	570	52
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:	185	612	298	181	1041	127	164	1696	309	298	571	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	185	612	298	181	1041	127	164	1696	309	298	571	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	185	612	298	181	1041	127	164	1696	309	298	571	52
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:	185	612	298	181	1041	127	164	1696	309	298	571	52
OvlAdjVol:			149									
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	2.00	1.00	1.00	2.00	1.00	1.00	3.38	0.62	2.00	2.75	0.25
Final Sat.:	3200	3200	1600	1600	3200	1600	1600	5414	986	3200	4399	401
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.19	0.11	0.33	0.08	0.10	0.31	0.31	0.09	0.13	0.13
OvlAdjV/S:			0.09									
Crit Moves:	****			****			****			****		

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #21 Aviation Blvd / Utah Ave-135th St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.788
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Aviation Blvd						Utah Ave-135th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	0	1 0	1 0	1	0 1	0 1
Volume Module:												
Base Vol:	16	916	147	157	1452	7	67	319	108	106	63	110
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:	16	918	147	157	1456	7	67	320	108	106	63	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	918	147	157	1456	7	67	320	108	106	63	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	918	147	157	1456	7	67	320	108	106	63	110
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:	16	918	147	157	1456	7	67	320	108	106	63	110
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	1.99	0.01	0.27	1.29	0.44	1.00	1.00	1.00
Final Sat.:	1600	2757	443	1600	3185	15	434	2066	700	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.33	0.33	0.10	0.46	0.46	0.04	0.15	0.15	0.07	0.04	0.07
Crit Moves:	****				****			****			****	

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #22 Aviation Blvd / Alaska Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.722
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Aviation Blvd						Alaska 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			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 0	0	0 1	1 0	1	0 0	0 2	0	0 0	0 0
Volume Module:												
Base Vol:	26	1013	0	0	1650	31	73	0	304	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:	26	1016	0	0	1654	31	73	0	305	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:	26	1016	0	0	1654	31	73	0	305	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1016	0	0	1654	31	73	0	305	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	1016	0	0	1654	31	73	0	305	0	0	0
OvlAdjVol:									253			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.96	0.04	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3141	59	1600	0	3200	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.32	0.00	0.00	0.53	0.53	0.05	0.00	0.10	0.00	0.00	0.00
OvlAdjV/S:									0.08			
Crit Moves:	****				****				****			

Park Place Extension
Existing PM Peak Hour Conditions
With Existing Geometry

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

Intersection #23 Aviation Blvd / Rosecrans Ave

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

Street Name:	Aviation Blvd						Rosecrans 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			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 3	0 1	2	0 4	0 1	2	0 4	0 1	2	0 4	0 1
Volume Module:												
Base Vol:	255	902	501	252	1756	90	361	1864	368	420	1000	106
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:	256	904	502	253	1761	90	362	1869	369	421	1003	106
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	256	904	502	253	1761	90	362	1869	369	421	1003	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	904	502	253	1761	90	362	1869	369	421	1003	106
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	256	904	502	253	1761	90	362	1869	369	421	1003	106
OvlAdjVol:			292			0			241			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	3.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3200	4800	1600	3200	6400	1600	3200	6400	1600	3200	6400	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.31	0.08	0.28	0.06	0.11	0.29	0.23	0.13	0.16	0.07
OvlAdjV/S:			0.18			0.00			0.15			0.00
Crit Moves:	****			****			****			****		

Appendix D – Existing 2016 Conditions Traffic Signal Warrant Analysis Worksheets

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing AM Peak**

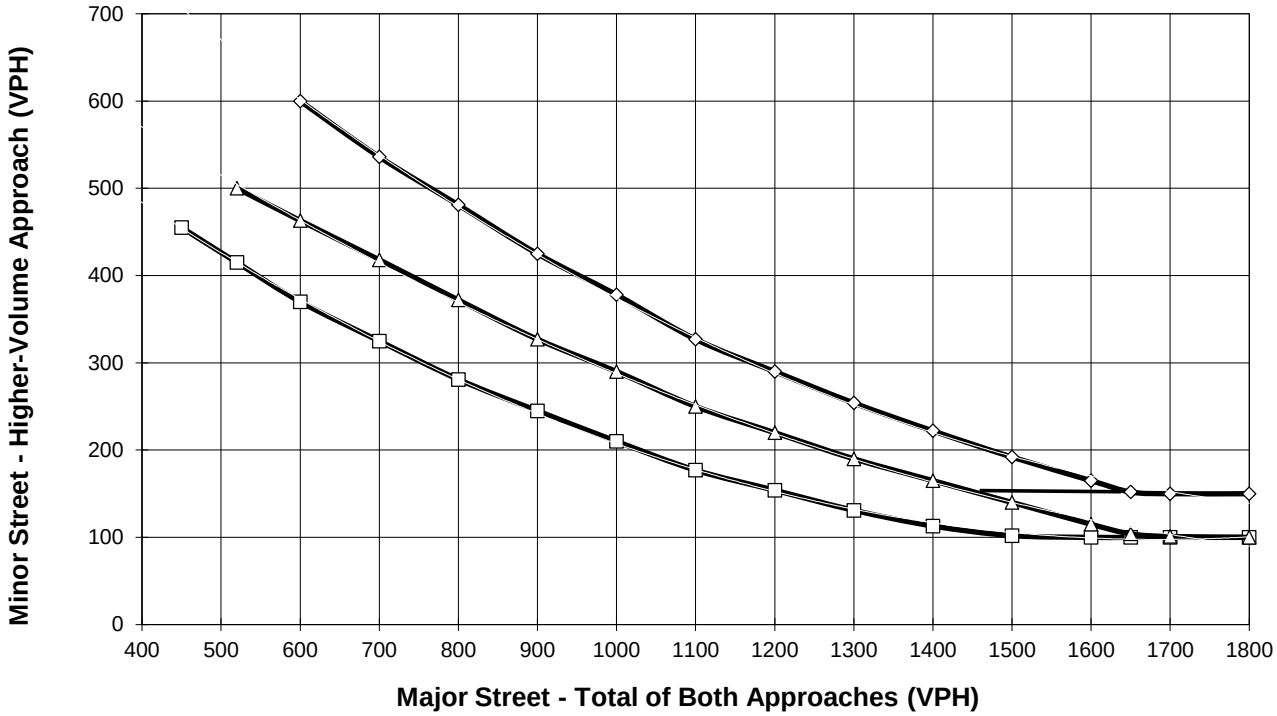
Major Street Name = **Nash St**

Total of Both Approaches (VPH) = **81**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Park Pl**

High Volume Approach (VPH) = **88**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing PM Peak**

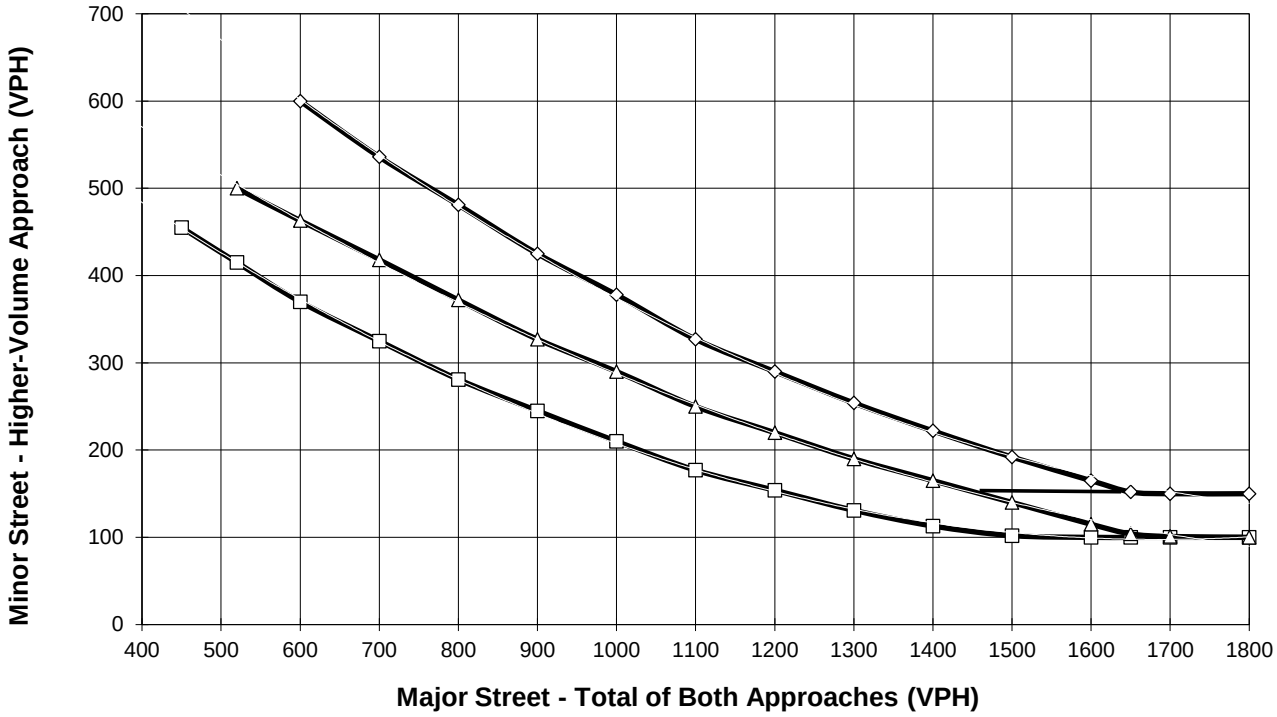
Major Street Name = **Nash St**

Total of Both Approaches (VPH) = **151**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Park Pl**

High Volume Approach (VPH) = **156**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing AM Peak**

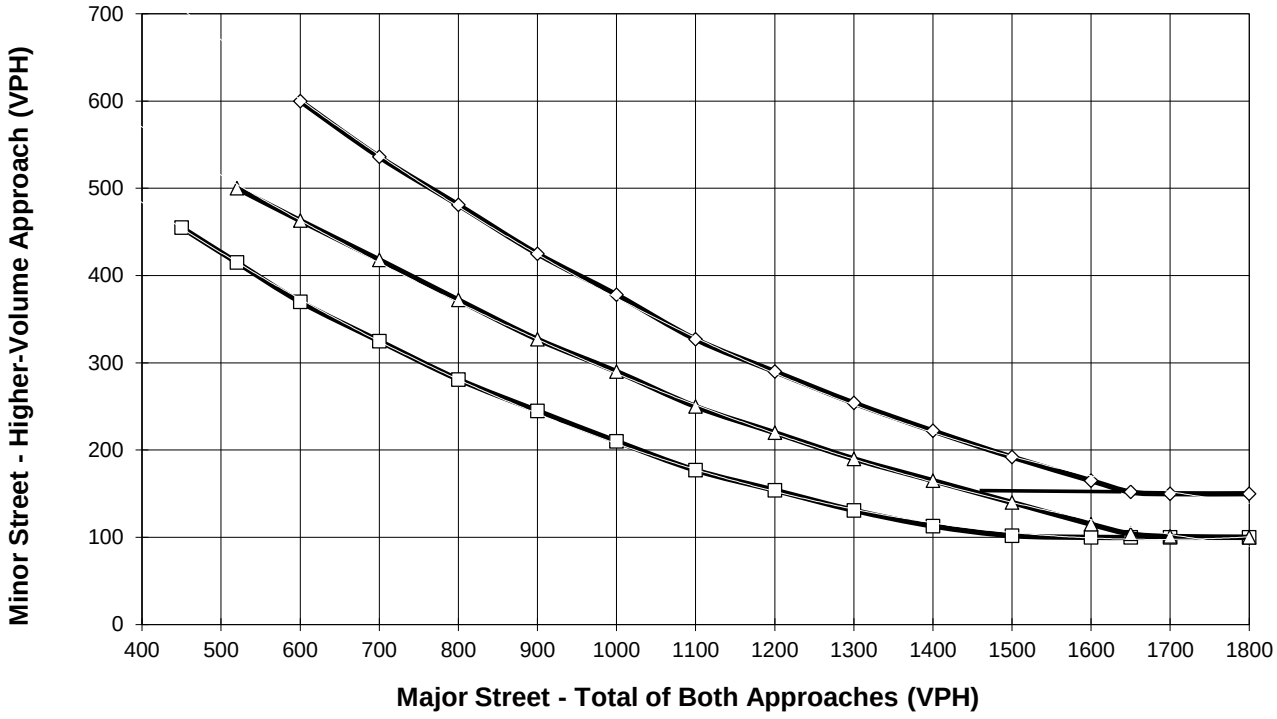
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **321**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Apollo St**

High Volume Approach (VPH) = **58**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



1 Lane (Major) & 1 Lane (Minor)
2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
2+ Lanes (Major) & 2+ Lanes (Minor)
Major Street Approaches
Minor Street Approaches

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing PM Peak**

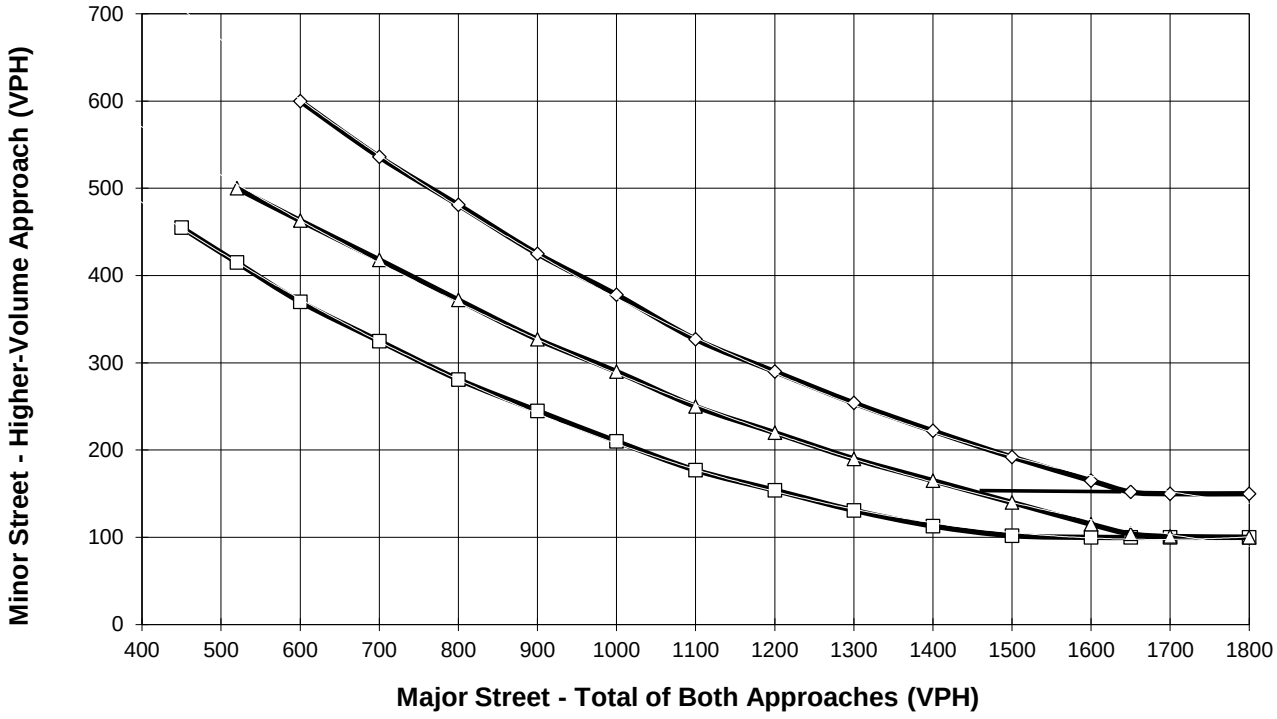
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **331**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Apollo St**

High Volume Approach (VPH) = **260**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



1 Lane (Major) & 1 Lane (Minor)
2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
2+ Lanes (Major) & 2+ Lanes (Minor)
Major Street Approaches
Minor Street Approaches

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing AM Peak**

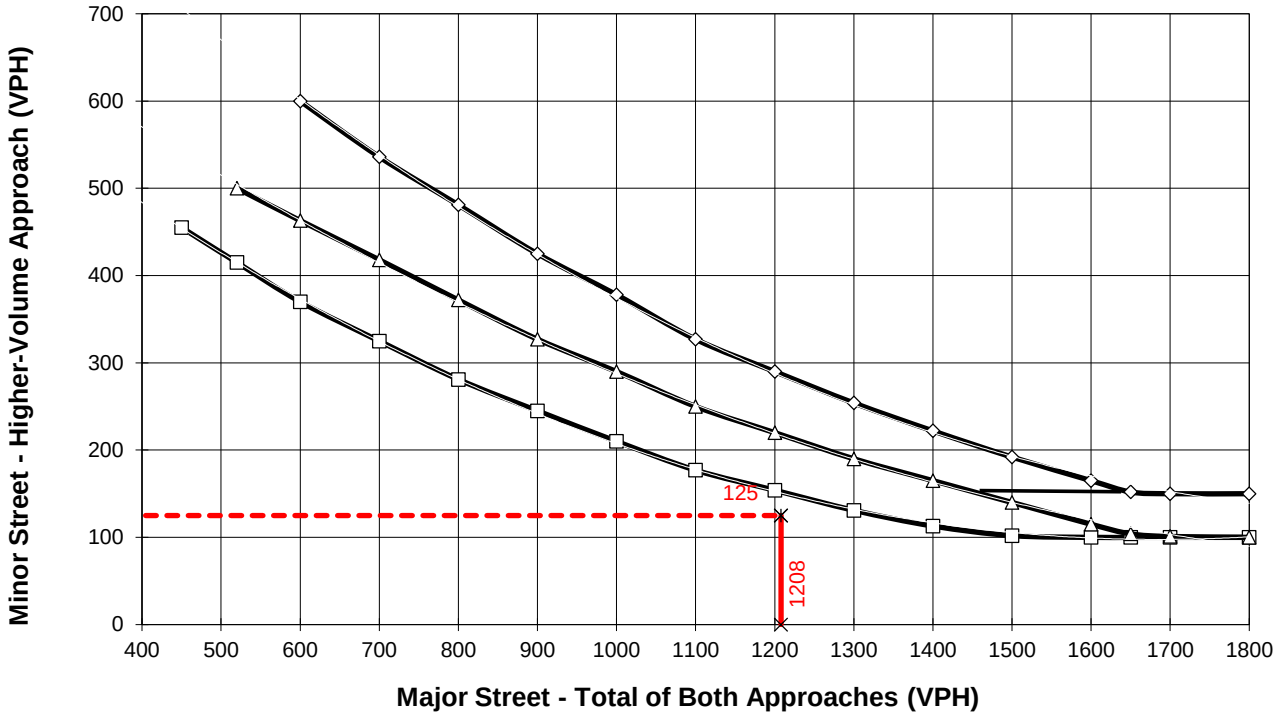
Major Street Name = **Douglas St**

Total of Both Approaches (VPH) = **1208**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Park Pl**

High Volume Approach (VPH) = **125**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing PM Peak**

Major Street Name = **Douglas St**

Total of Both Approaches (VPH) = **1224**

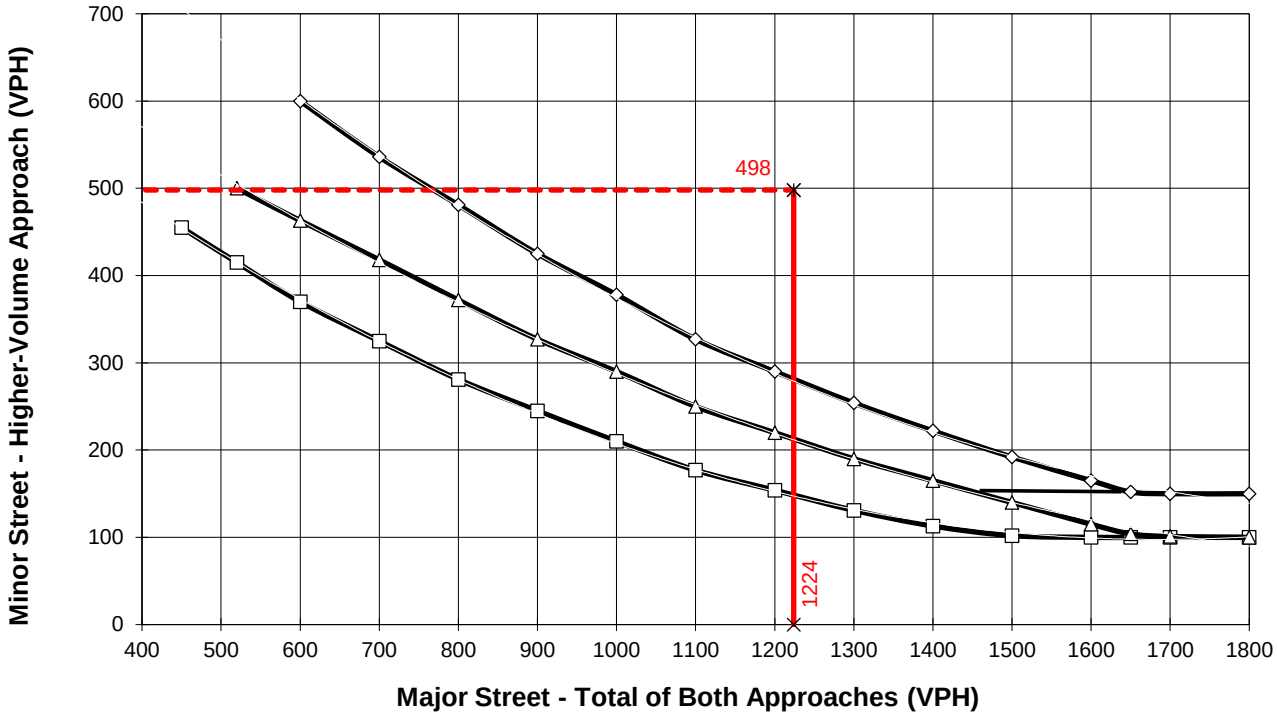
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Park Pl**

High Volume Approach (VPH) = **498**

Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Appendix E – Ambient Growth Rates and Cumulative Development Traffic Generation and Trip Distribution

Michael Baker INTERNATIONAL

We Make a Difference

MEMORANDUM

To: Kim Christensen, Stephanie Katsouleas – City of El Segundo

From: Bob Matson – RBF Consulting, a Michael Baker International company

Date: April 22, 2015
Updated May 15, 2015 With City Responses Shown Below

Subject: Park Place Extension Kickoff Meeting Traffic Impact Analysis Questions
With City Responses Shown Below

Following are questions related to preparation of the Park Place Extension Project Traffic Impact Analysis discussed at our April 28th meeting at the City with the City responses shown below.

1) Is the traffic impact analysis study area defined in the scope of work consisting of the 22 intersections shown in attached Exhibit A correct?

   City Response: *No, please expand the traffic study area to also include the Sepulveda Boulevard (SR-1)/Marine Avenue intersection and the Cedar Avenue/Marine Avenue intersection for a total 24 study intersections.*

2) Should the study intersections be analyzed under the analysis methodology & thresholds of significance established by the agency that has jurisdiction over the study intersection (consistent with the Raytheon South Campus Specific Plan Traffic Impact Analysis)?

   City Response: *Yes.*

3) For study intersections located in more than one city, should the analysis utilize the city thresholds of significance that are most stringent (consistent with the Raytheon South Campus Specific Plan Traffic Impact Analysis)?

   City Response: *No, the analysis should study such intersections under both cities' thresholds of significance.*

4) While the City of El Segundo has not established thresholds of significance for stop-controlled intersections, should the stop-controlled study intersections utilize the same thresholds of significance developed for the stop-controlled Coral Circle intersections in the Raytheon South Campus Specific Plan Traffic Impact Analysis (a significant impact occurs if one of the minor street approaches is forecast to operate at LOS E or F and the addition of project-generated trips causes an increase in delay of four or more seconds; however this is not a rigid threshold and judgement is required to consider the relevance of turning traffic volume, lane configuration, queuing impacts and other parameters affecting intersection operation)?

   City Response: *Yes.*

14725 Alton Parkway, Irvine, CA 92618-2027
Office: 949-472-3505 | Fax: 949-472-8373

5) Are the study analysis scenarios identified in the scope of work correct (1 - Existing Conditions, 2 - Forecast Existing Plus Project Conditions, 3 - Forecast Opening Year Without Project Conditions, and 4 – Forecast Opening Year With Project Conditions)?

   City Response: *Yes, but change 3 - Forecast Opening Year Without Project Conditions to 3 - Forecast Year 2021 Without Project Conditions and change 4 - Forecast Opening Year With Project Conditions to 4 - Forecast Year 2021 With Project Conditions.*

6) What is the project opening year?

   City Response: *2021*

7) To create project opening year conditions, does the City have a list of described approved/pending cumulative projects to be included in the analysis and/or should the approximate 0.26% LA CMP annualized traffic growth rate factor published for the LAX/South Bay Area be utilized?

   City Response: *The City will provide RBF with a list of approved/pending cumulative projects located in the City of El Segundo applicable for year 2021, RBF should contact the surrounding cities and County of Los Angeles to obtain a list of approved/pending cumulative projects applicable for year 2021, and RBF should also utilize the 0.26% LA CMP annualized traffic growth rate factor published for the LAX/South Bay Area to increase study intersection traffic volumes collected in 2015 to year 2021.*

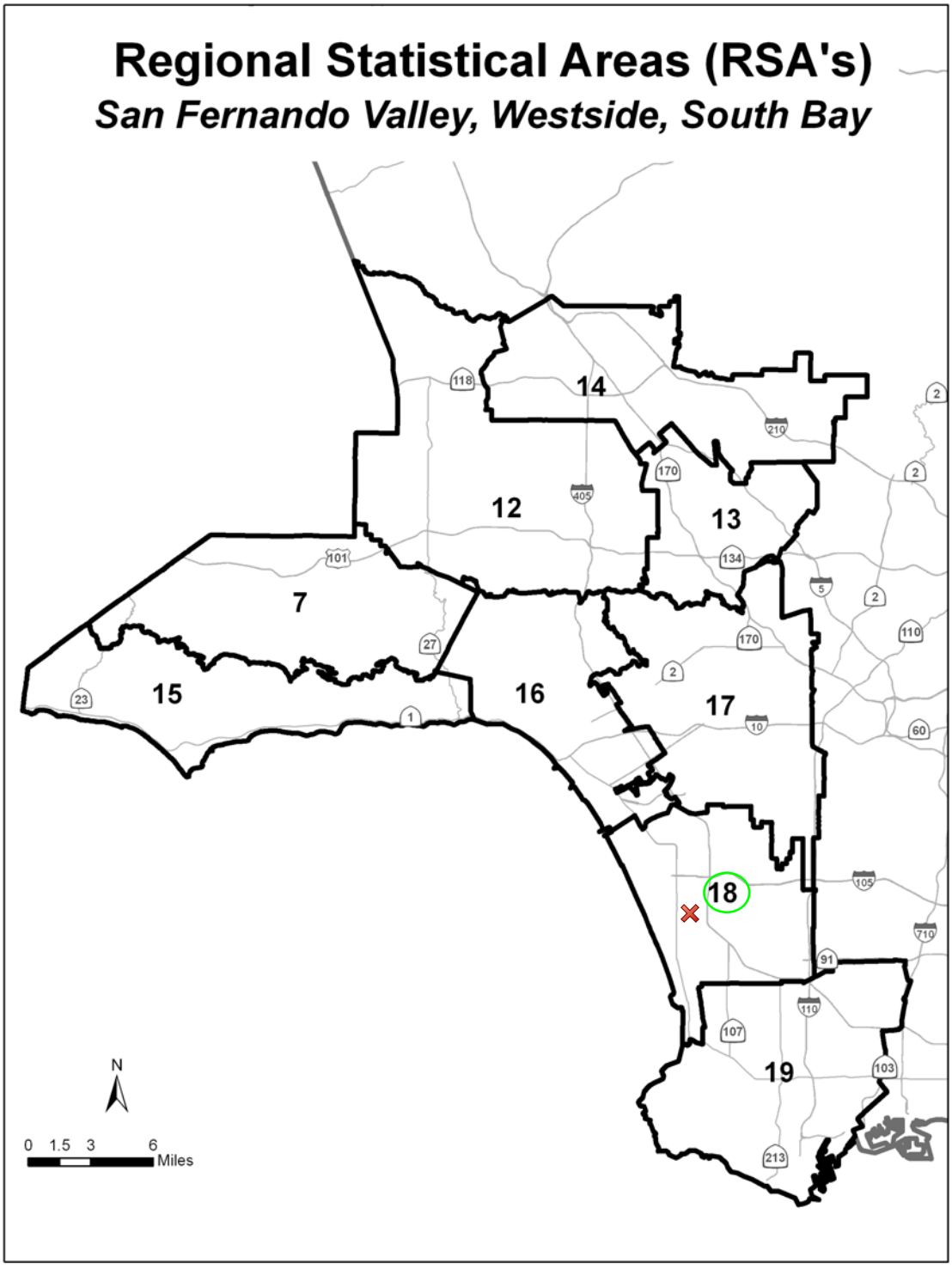
8) Are there any planned, programmed, and funded circulation improvements in the study area anticipated for completion by the project opening year to be assumed in the analysis?

   City Response: *None for completion by year 2021.*

Exhibit D-1

GENERAL TRAFFIC VOLUME GROWTH FACTORS

RSA	Representative City/Place	2010	2015	2020	2025	2030	2035
7	Agoura Hills	1.000	1.020	1.041	1.052	1.063	1.075
8	Santa Clarita	1.000	1.145	1.291	1.348	1.405	1.461
9	Lancaster	1.000	1.214	1.427	1.676	1.924	2.172
10	Palmdale	1.000	1.134	1.267	1.363	1.458	1.553
11	Angeles Forest	1.000	1.151	1.301	1.394	1.487	1.580
12	West S.F. Valley	1.000	1.027	1.054	1.068	1.083	1.097
13	Burbank	1.000	1.024	1.049	1.063	1.077	1.092
14	Sylmar	1.000	1.024	1.049	1.071	1.093	1.114
15	Malibu	1.000	1.027	1.054	1.075	1.096	1.117
16	Santa Monica	1.000	1.014	1.028	1.038	1.049	1.059
17	West/Central L.A.	1.000	1.007	1.014	1.024	1.034	1.044
18	South Bay/LAX	1.000	1.013	1.026	1.035	1.044	1.053
19	Palos Verdes	1.000	1.025	1.051	1.061	1.071	1.081
20	Long Beach	1.000	1.076	1.152	1.160	1.168	1.177
21	Vernon	1.000	1.073	1.146	1.158	1.170	1.182
22	Downey	1.000	1.052	1.104	1.116	1.127	1.139
23	Downtown L.A.	1.000	1.009	1.018	1.030	1.042	1.054
24	Glendale	1.000	1.014	1.027	1.041	1.055	1.068
25	Pasadena	1.000	1.041	1.082	1.098	1.115	1.131
26	West Covina	1.000	1.023	1.046	1.066	1.086	1.106
27	Pomona	1.000	1.081	1.161	1.190	1.219	1.248


Regional Statistical Areas (RSA's)
San Fernando Valley, Westside, South Bay
14
12
13
7
15
16
17
18
19
N
0 1.5 3 6
Miles

Trip Generation Rates

Trip Rates										
Project					AM Peak			PM Peak		
No.	Land Use	Code	Unit**	Daily	Total	In%	Out%	Total	In%	Out%
1	General Light Industrial	ITE 110	TSF	***6.970***	***0.92***	*88%*	*12%*	***0.97***	*12%*	*88%*
2	Data Center	ITE 160	TSF	***0.990***	***0.09***	*52%*	*48%*	***0.09***	*21%*	*79%*
3	Condominium/Townhouse - (Attached)	ITE 230	DU	***5.81***	***0.44***	*17%*	*83%*	***0.52***	*67%*	*33%*
4	Senior Adult Housing - Attached	ITE 252	DU	***3.44***	***0.20***	*34%*	*66%*	***0.25***	*54%*	*46%*
5	Hotel	ITE 310	ORM	***8.92***	***0.67***	*58%*	*42%*	***0.70***	*49%*	*51%*
6	Athletic Club	ITE 493	TSF	***43.00***	***2.97***	*61%*	*39%*	***5.96***	*62%*	*38%*
7	High School	ITE 530	TSF	***12.89***	***3.06***	*71%*	*29%*	***0.97***	*54%*	*46%*
8	General Office	ITE 710	TSF	***11.03***	***1.56***	*88%*	*12%*	***1.49***	*17%*	*83%*
9	Corporate Headquarters Building	ITE 714	TSF	***7.98***	***1.52***	*93%*	*7%*	***1.41***	*10%*	*90%*
10	Medical-Dental Office Building	ITE 720	TSF	***36.13***	***2.39***	*79%*	*21%*	***3.57***	*28%*	*72%*
11	Research and Development Center	ITE 760	TSF	***8.11***	***1.22***	*83%*	*17%*	***1.07***	*15%*	*85%*
12	Shopping Center	ITE 820	TSF	***42.70***	***0.96***	*62%*	*38%*	***3.71***	*48%*	*52%*
13	Supermarket	ITE 850	TSF	***102.24***	***3.40***	*62%*	*38%*	***9.48***	*51%*	*49%*
14	Pharmacy/Drugstore without Drive-Through Window	ITE 880	TSF	***90.06***	***2.94***	*65%*	*35%*	***8.40***	*49%*	*51%*
15	Fast Food w/ Drive-Thru	ITE 934	TSF	***496.12***	***45.42***	*51%*	*49%*	***32.65***	*52%*	*48%*
16	Coffee/Donut Shop no Drive-Thru[3]	ITE 936	TSF	***818.58***	***108.38***	*51%*	*49%*	***40.75***	*50%*	*50%*

Note

** TSF = Thousand Square Feet; DU = Dwelling Units; ORM = Occupied Rooms

Cumulative Development Traffic Generation

Traffic Generation									
Proj No.	Cumulative Project		Daily	AM Peak			PM Peak		
	Land Use	Quantity**		Total	In	Out	Total	In	Out
City of El Segundo									
1	Data Center	332.137 TSF	**329**	**30**	16	14	**30**	6	24
2	Hotel	152.000 ORM	**1356**	**102**	59	43	**107**	52	55
3	Senior Adult Housing - Attached	304.000 DU	**1046**	**61**	21	40	**79**	43	36
4	Retail	148.960 TSF	**6111**	**143**	89	54	**360**	173	187
	Non-Retail	1993.498 TSF	**20474**	**2899**	2545	354	**2760**	458	2302
5	Fast Food w/ Drive-Thru	7.100 TSF	**3522**	**322**	164	158	**232**	121	111
6	Data Center	75.435 TSF	**75**	**7**	4	3	**6**	1	5
	Less Existing Data Center	-11.769 TSF	**-12**	**-2**	-1	-1	**-1**	0	-1
7	Research and Development Center	300.000 TSF	**2433**	**366**	303	63	**321**	48	273
8	Hotel	190.000 ORM	**1695**	**127**	74	53	**133**	65	68
9	High School	240.000 TSF	**3094**	**735**	521	214	**233**	125	108
10	General Office	611.545 TSF	**6745**	**954**	838	116	**911**	153	758
	Shopping Center	13.660 TSF	**583**	**13**	8	5	**50**	24	26
11	General Office	67.000 TSF	**739**	**105**	92	13	**100**	17	83
12	Hotel	10.000 ORM	**89**	**7**	4	3	**7**	3	4
13	General Light Industrial	4.986 TSF	**35**	**5**	4	1	**5**	1	4
14	Corporate Headquarters Building	52.000 TSF	**415**	**79**	73	6	**73**	7	66
	Athletic Club	68.380 TSF	**2940**	**203**	124	79	**408**	253	155
15	General Office	78.000 TSF	**860**	**122**	107	15	**117**	20	97
16	General Office	14.998 TSF	**165**	**24**	21	3	**23**	4	19
17	Hotel	240.000 ORM	**2141**	**161**	94	67	**168**	82	86
	General Office	63.550 TSF	**701**	**99**	87	12	**95**	16	79
18	General Office	86.521 TSF	**954**	**135**	119	16	**129**	22	107
19	Condominium/Townhouse - (Attached)	86.521 DU	**503**	**38**	6	32	**45**	30	15
20	Hotel	178.000 ORM	**1588**	**119**	69	50	**125**	61	64
	General Office	20.955 TSF	**231**	**33**	29	4	**31**	5	26
21	Research and Development Center	7.692 TSF	**62**	**10**	8	2	**8**	1	7
City of Manhattan Beach [2]									
22	Shopping Center	110.000 TSF	**715**	**48**	29	19	**176**	97	79
23	Shopping Center	3.371 TSF	**144**	**3**	2	1	**13**	6	7
	General Office	3.073 TSF	**34**	**5**	4	1	**5**	1	4
24	Supermarket	12.000 TSF	**1227**	**41**	25	16	**114**	58	56
25	General Office	15.000 TSF	**165**	**23**	20	3	**22**	4	18
26	Day Care Center	119.000 STU	**170**	**87**	45	42	**65**	30	35
27	Medical-Dental Office Building	23.050 TSF	**833**	**55**	43	12	**82**	23	59
	Pharmacy/Drugstore without Drive-Through Window	0.665 TSF	**60**	**2**	1	1	**6**	3	3
	Coffee/Donut Shop no Drive-Thru[3]	1.715 TSF	**1860**	**186**	95	91	**70**	35	35
	Less Existing Restaurant		**-687**	**-58**	-32	-26	**-53**	-32	-21
28	Supermarket	27.583 TSF	**1717**	**8**	2	6	**109**	55	54
29	Medical-Dental Office Building	40.000 TSF	**1445**	**96**	76	20	**143**	40	103
	Less General Office	-40.000 TSF	**-441**	**-62**	-55	-7	**-60**	-10	-50

Cumulative Development Traffic Generation

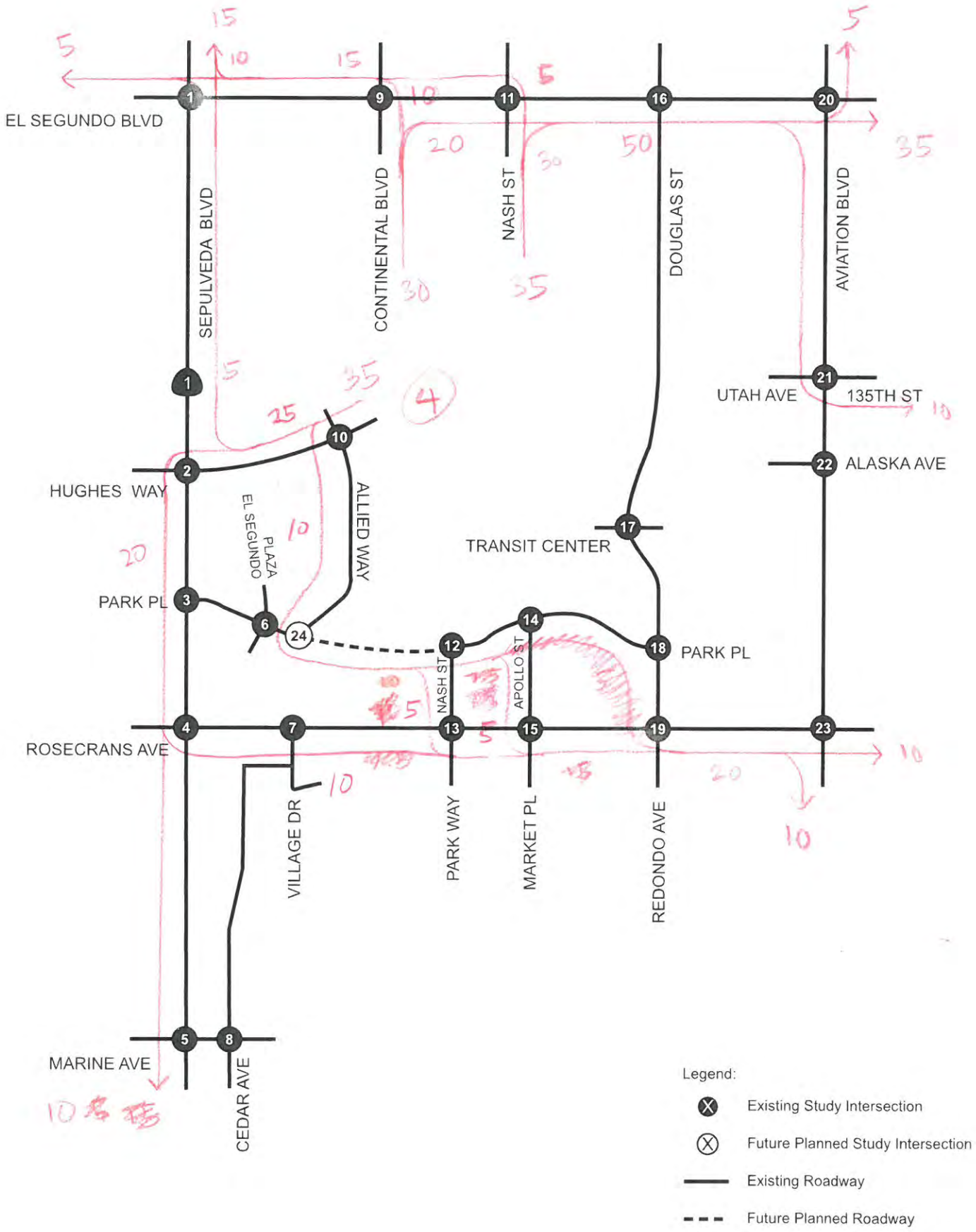
Traffic Generation									
Proj No.	Cumulative Project		Daily	AM Peak			PM Peak		
	Land Use	Quantity**		Total	In	Out	Total	In	Out
City of Redondo Beach									
30	Shopping Center	304.058 TSF	**12983**	**291**	182	109	**1128**	541	587
31	Shopping Center	217.864 TSF	**9303**	**209**	131	78	**808**	388	420
	Hotel	150.000 ORM	**1338**	**101**	59	42	**105**	51	54
	Condominium/Townhouse - (Attached)	650.000 DU	**3777**	**287**	46	241	**339**	228	111
32	Senior Adult Housing - Attached	98.000 DU	**337**	**20**	7	13	**26**	14	12
33	Condominium/Townhouse - (Attached)	149.000 DU	**866**	**65**	10	55	**77**	52	25
	Shopping Center	37.000 TSF	**1580**	**35**	22	13	**137**	66	71
34	General Office	6.451 TSF	**71**	**10**	9	1	**10**	2	8
35	Hotel	121.000 ORM	**1079**	**81**	47	34	**85**	41	44
36	Condominium/Townhouse - (Attached)	52.000 DU	**302**	**23**	4	19	**27**	18	9
	Shopping Center	10.000 TSF	**427**	**10**	6	4	**37**	18	19
City of Hawthorne									
37	Condominium/Townhouse - (Attached)	12.000 DU	**70**	**5**	1	4	**6**	4	2
38	Hotel	120.000 ORM	**1070**	**81**	47	34	**84**	41	43
Total Project Trips			**99,319**	**8,549**	**6,304**	**2,245**	**10,116**	**3,565**	**6,551**

Note

** TSF = Thousand Square Feet; ORM = Occupied Rooms; DU = Dwelling Units

[1] Trip generation rates taken from Approved 2014 Raytheon South Campus TIA by RBF

[2] Trip generation rates provided by the City of Manhattan

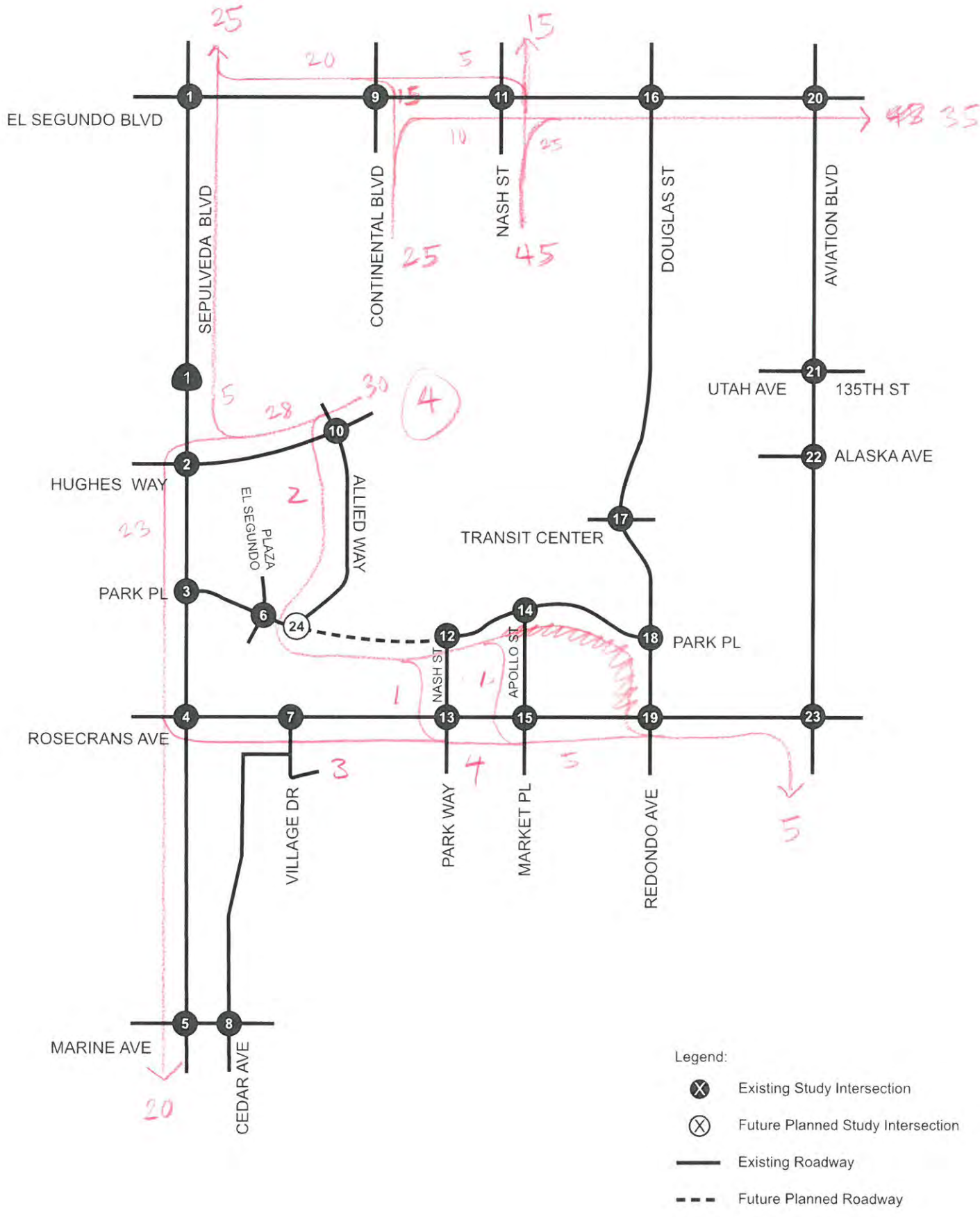


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

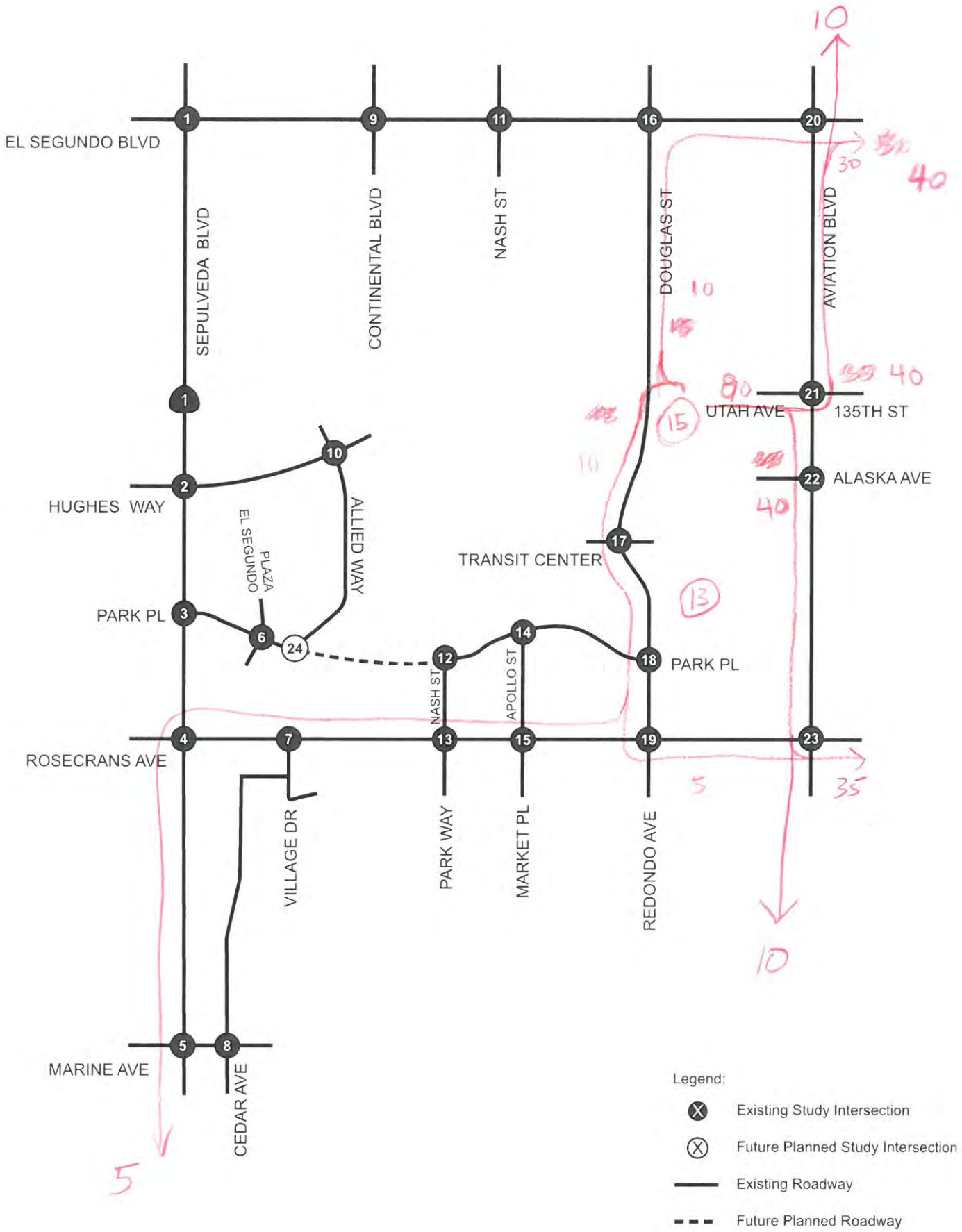


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis



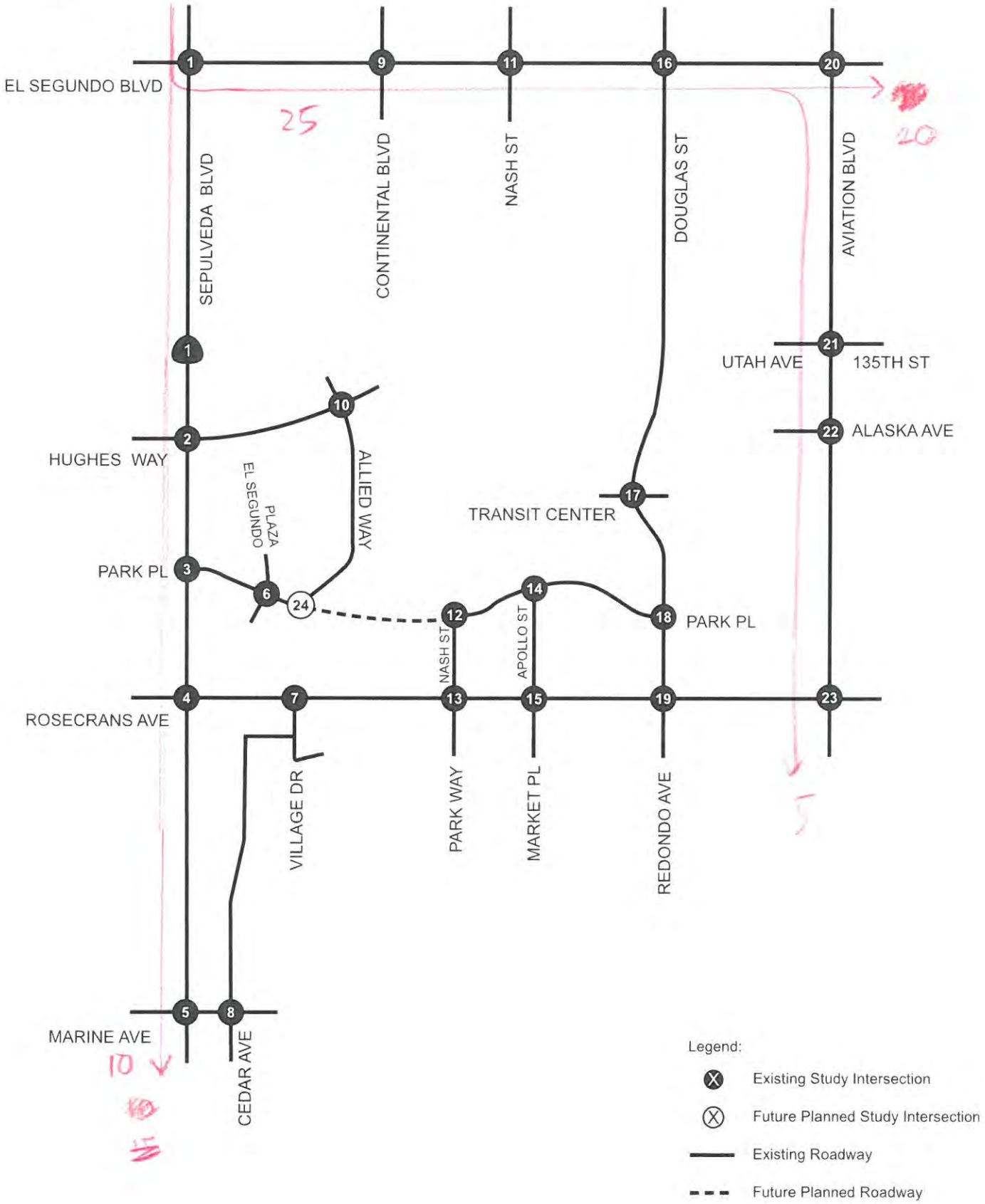
Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

PROJECT 15 & 13

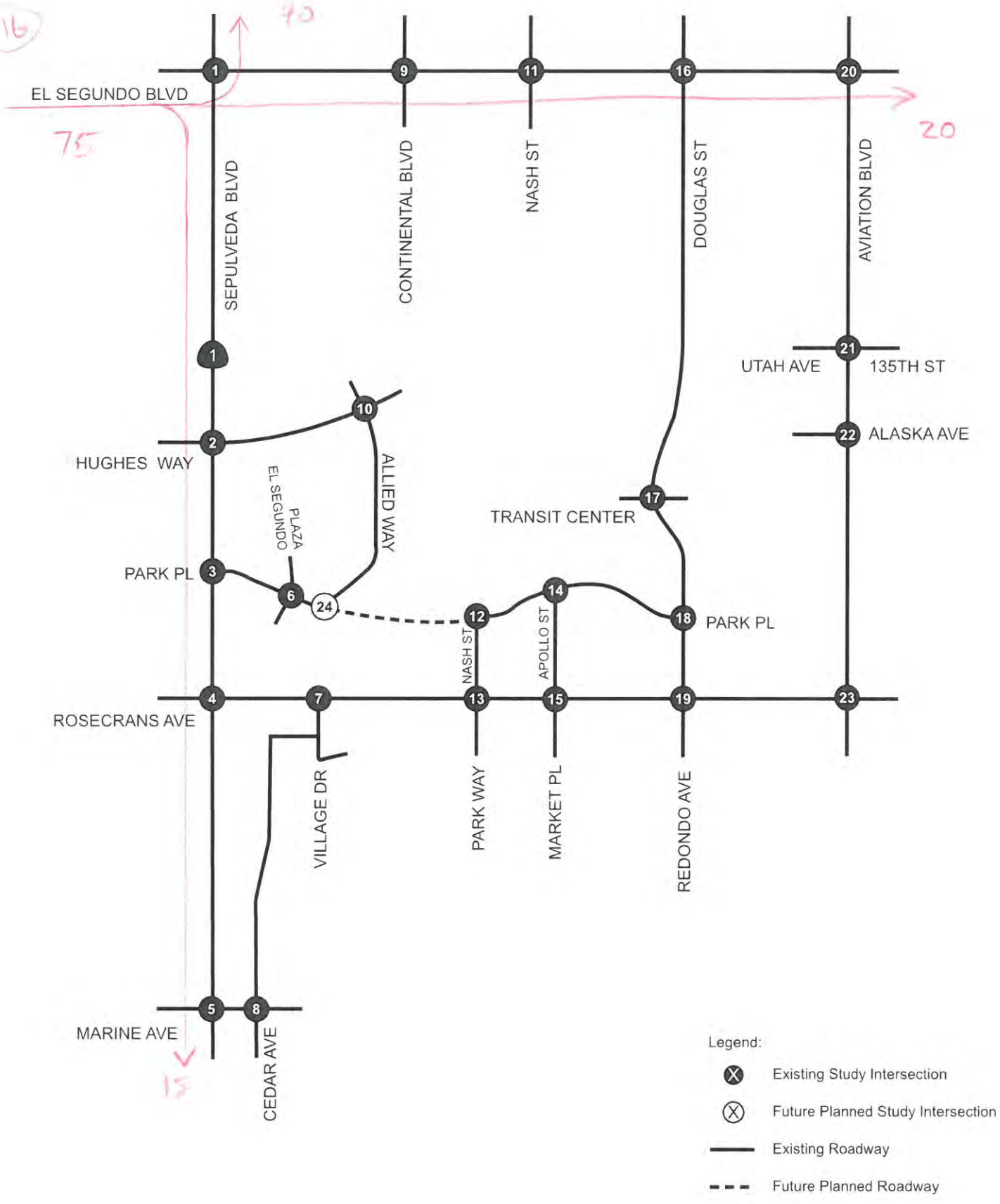


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

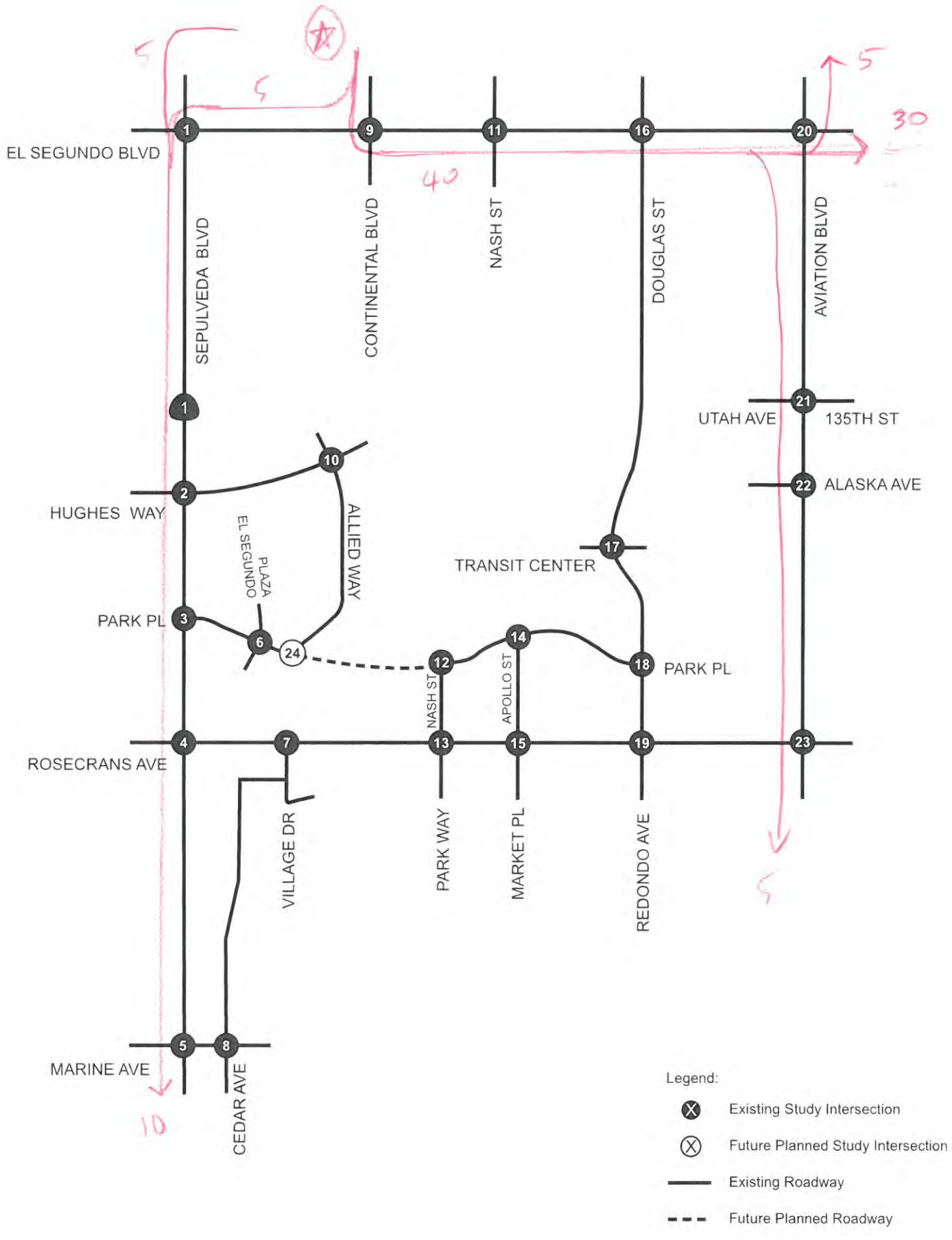


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

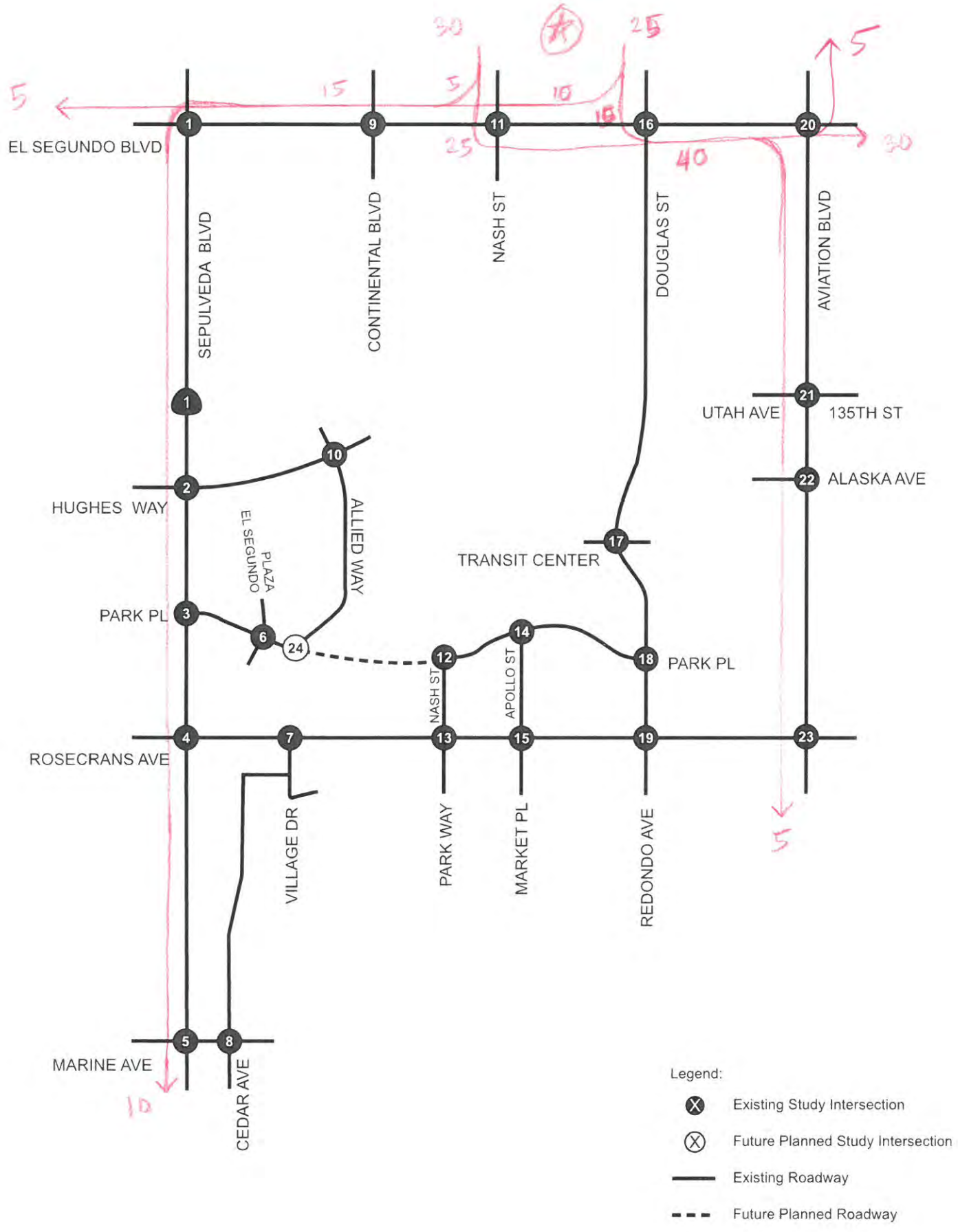


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

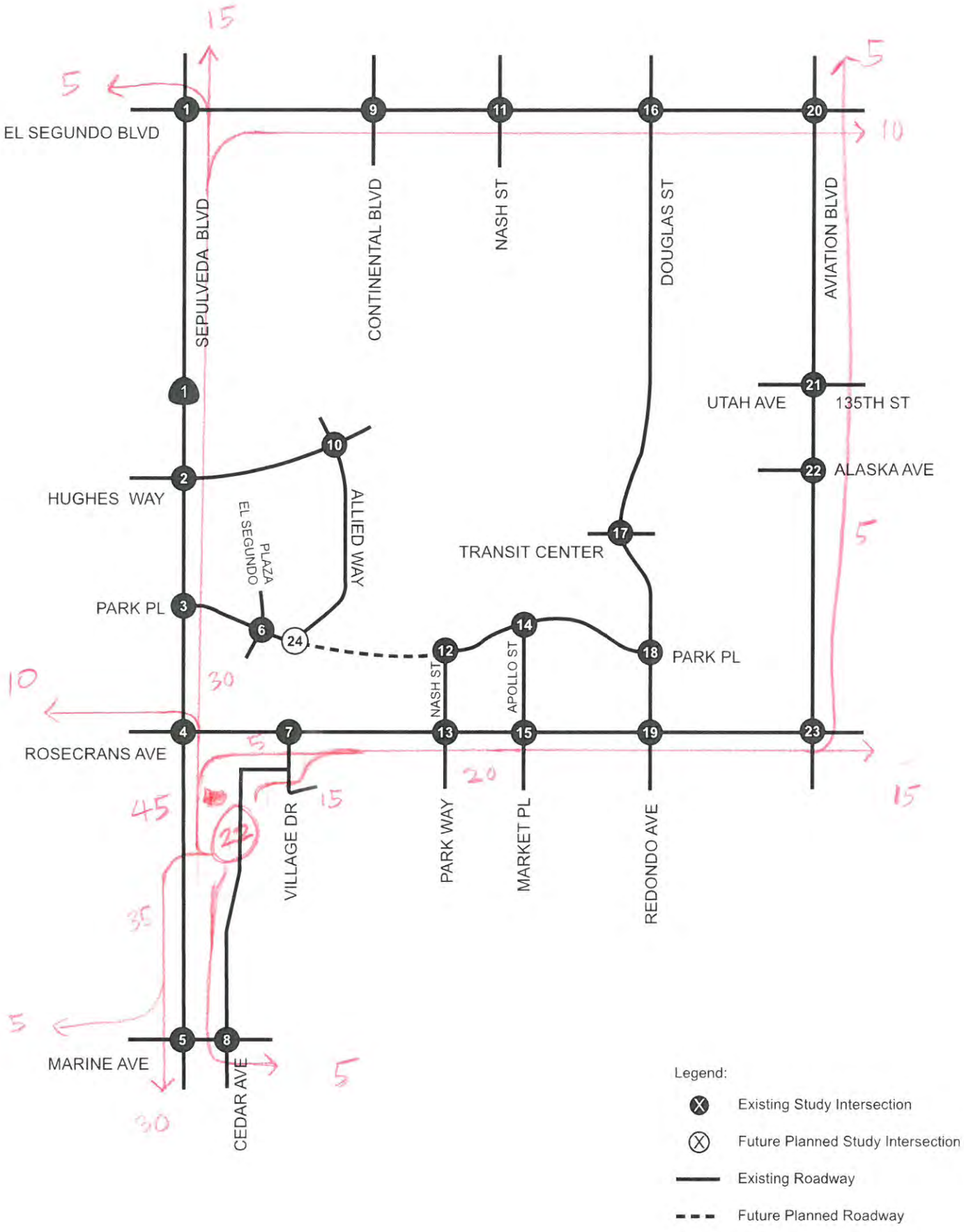


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

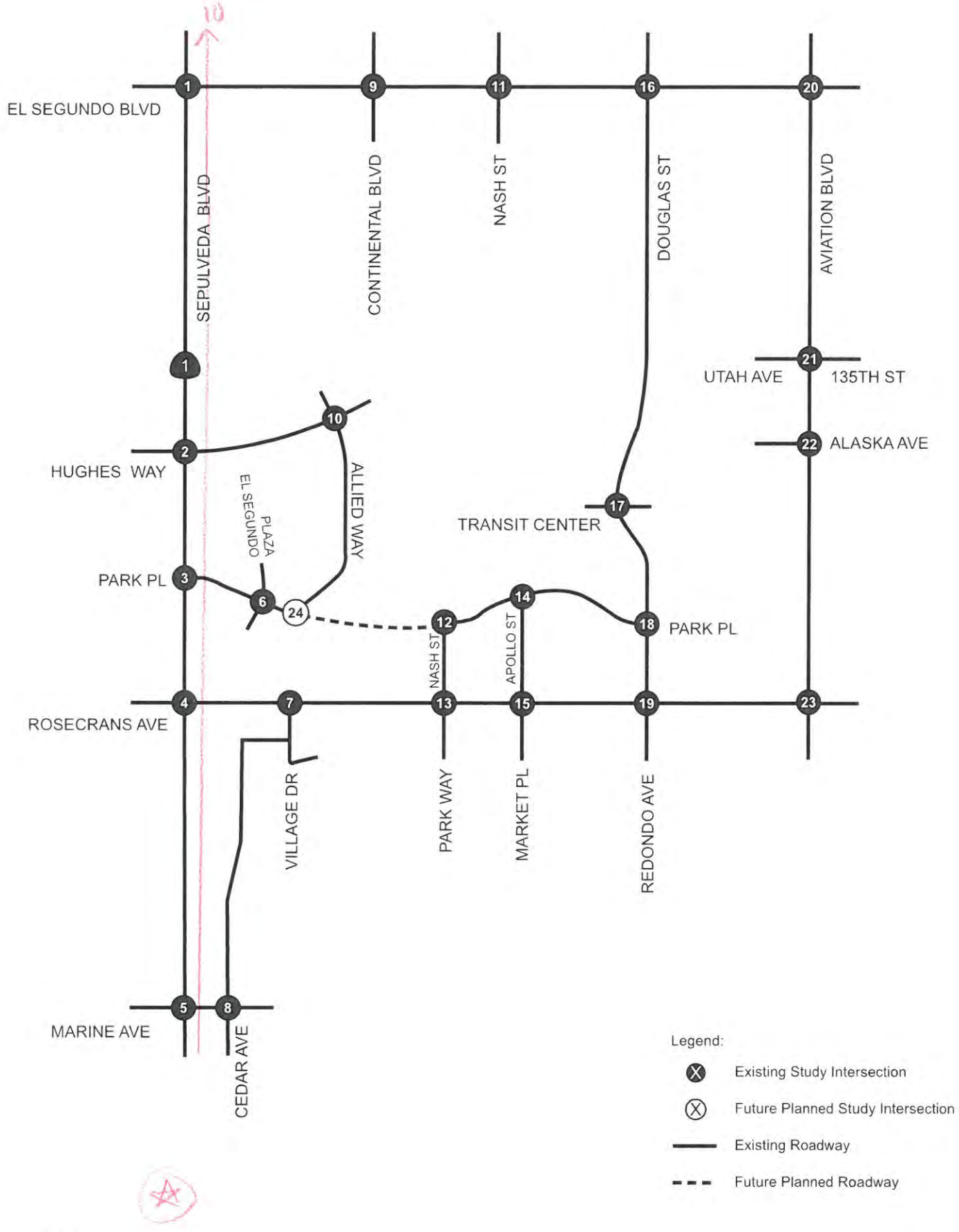


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

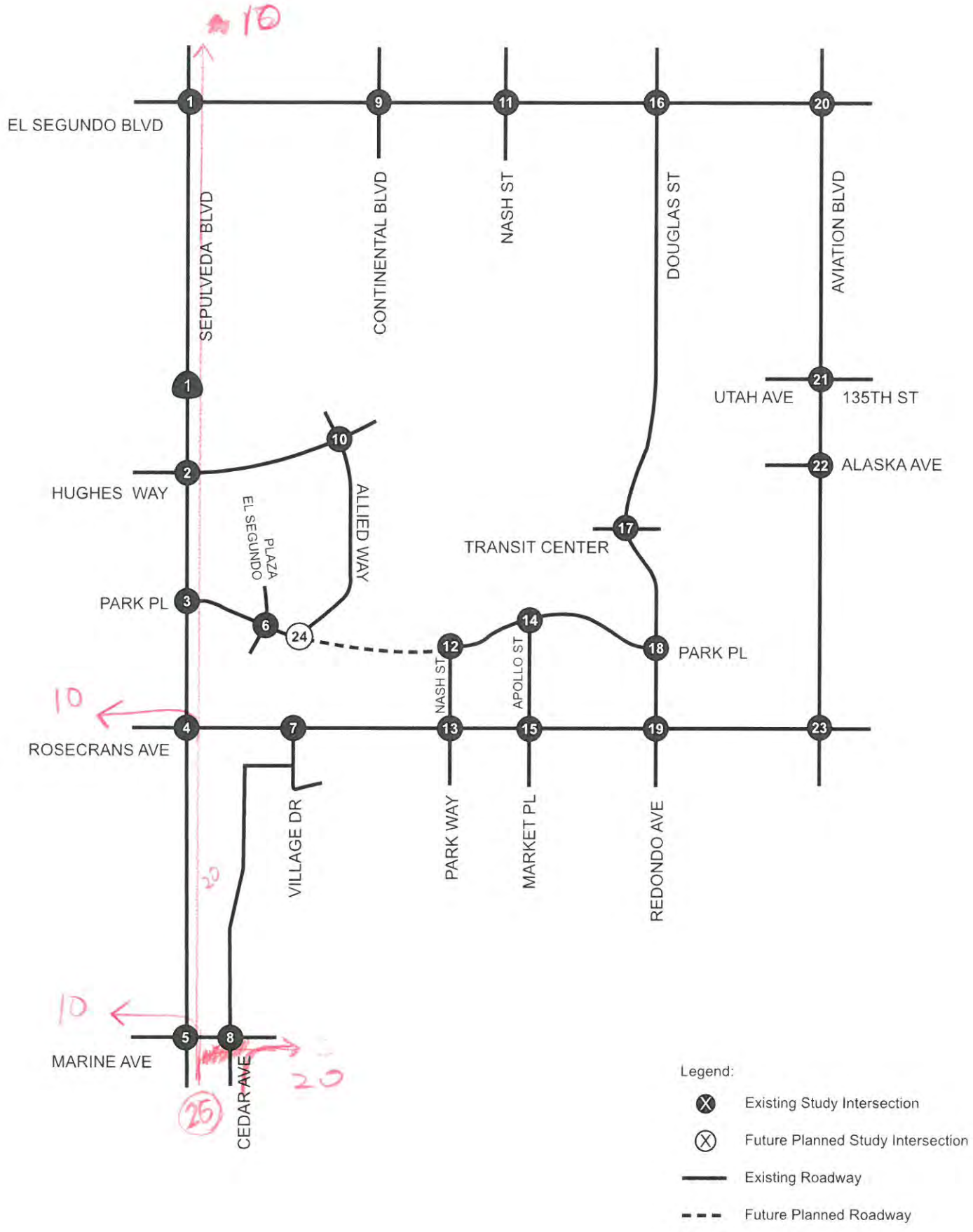


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

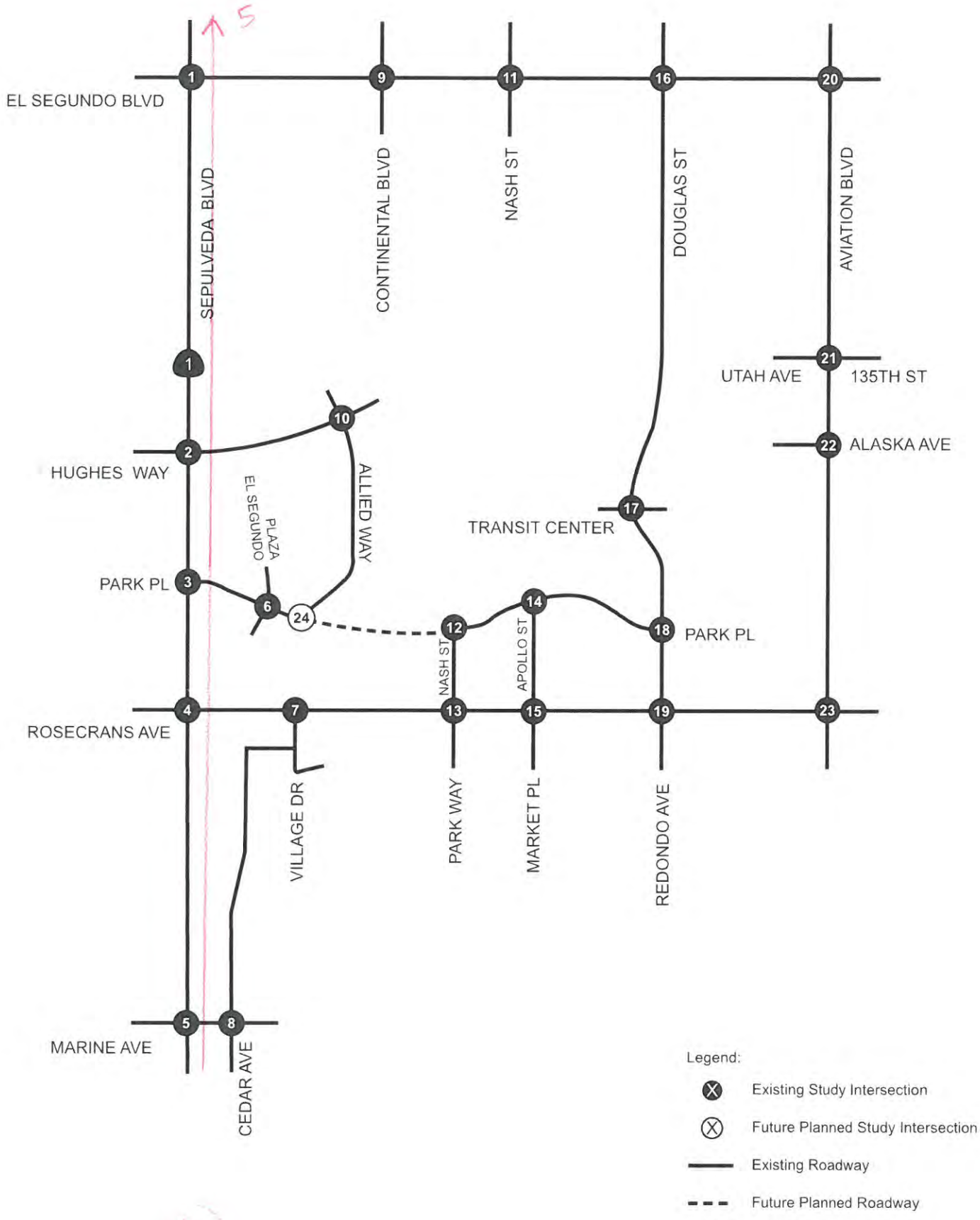


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

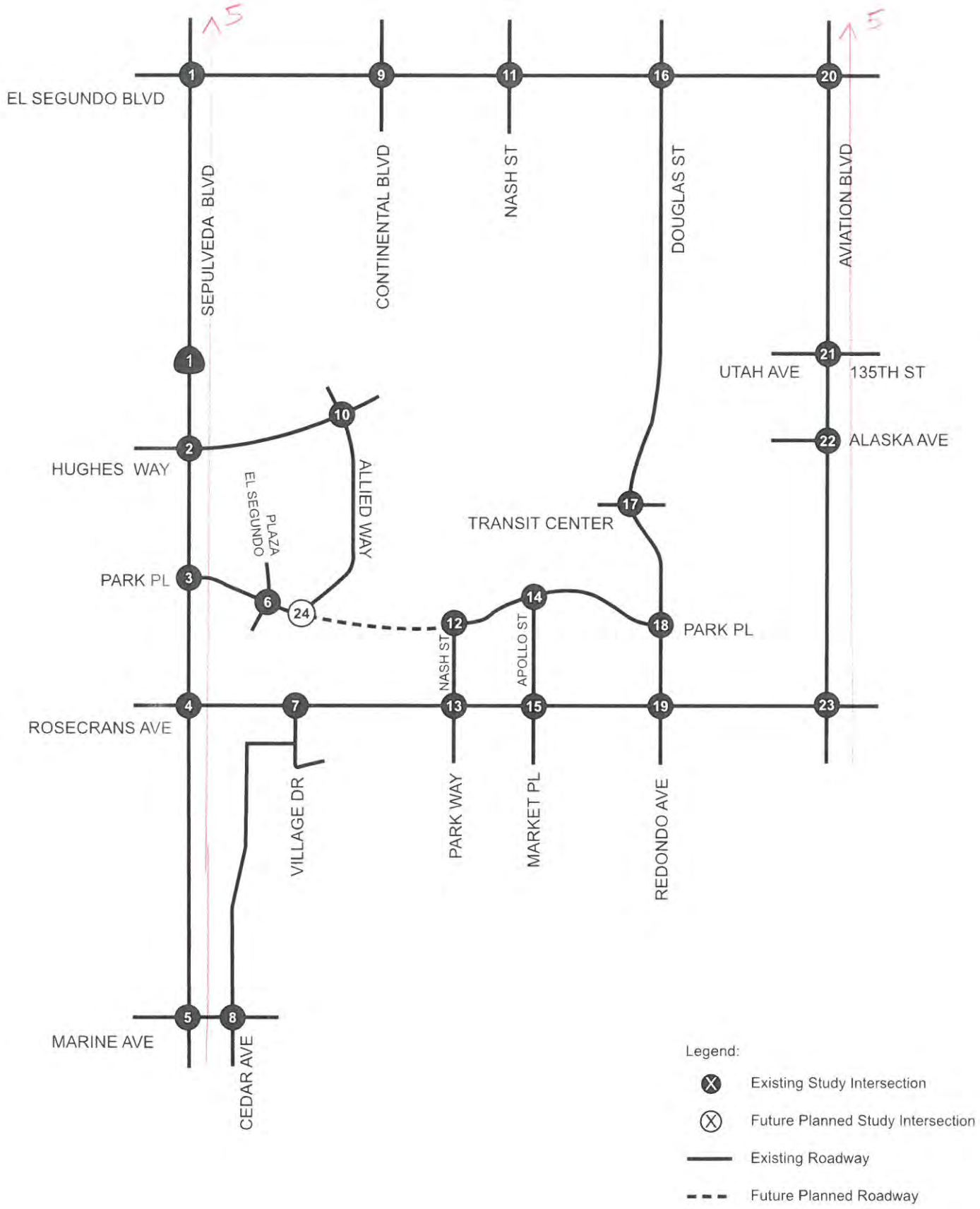


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

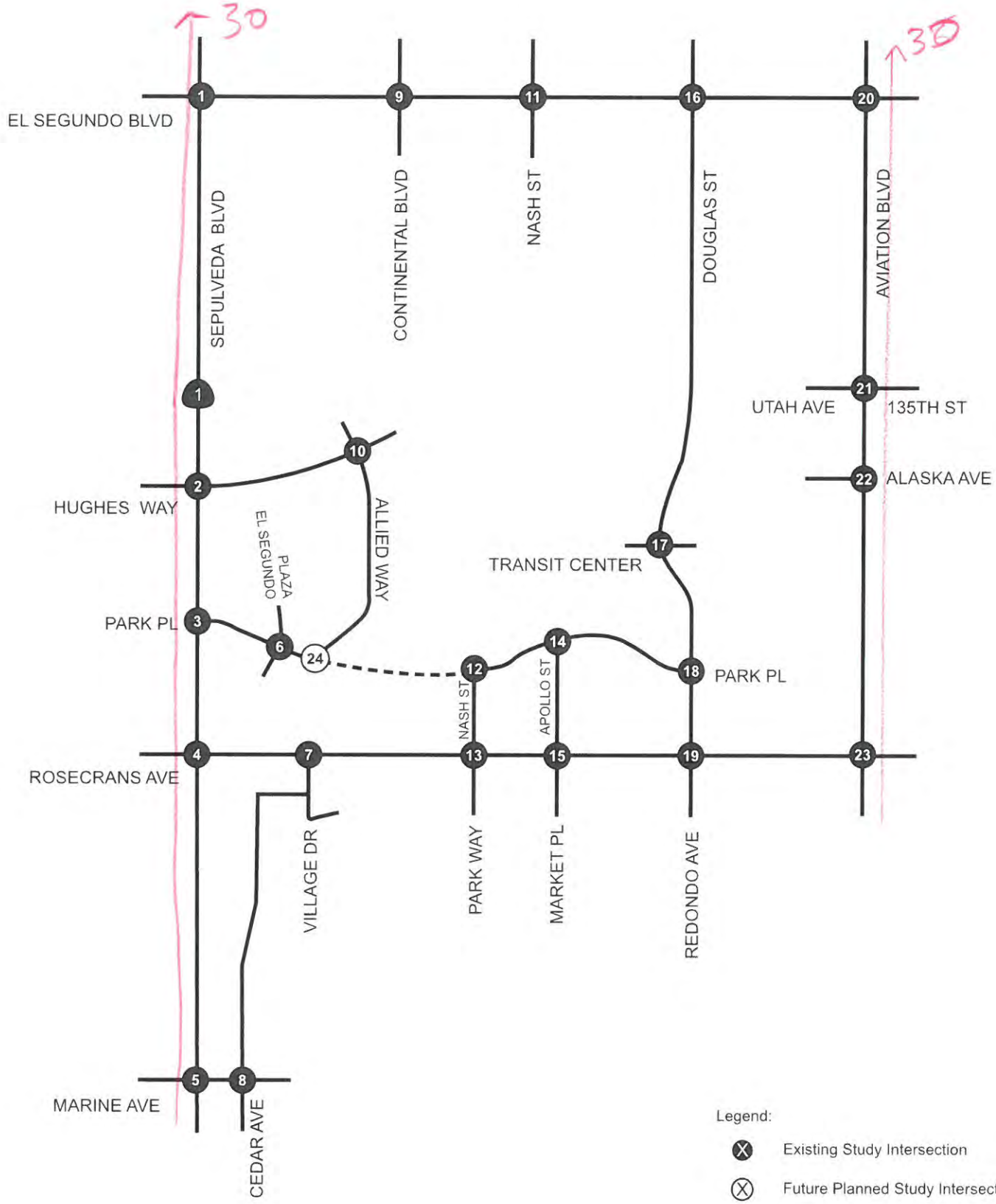


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

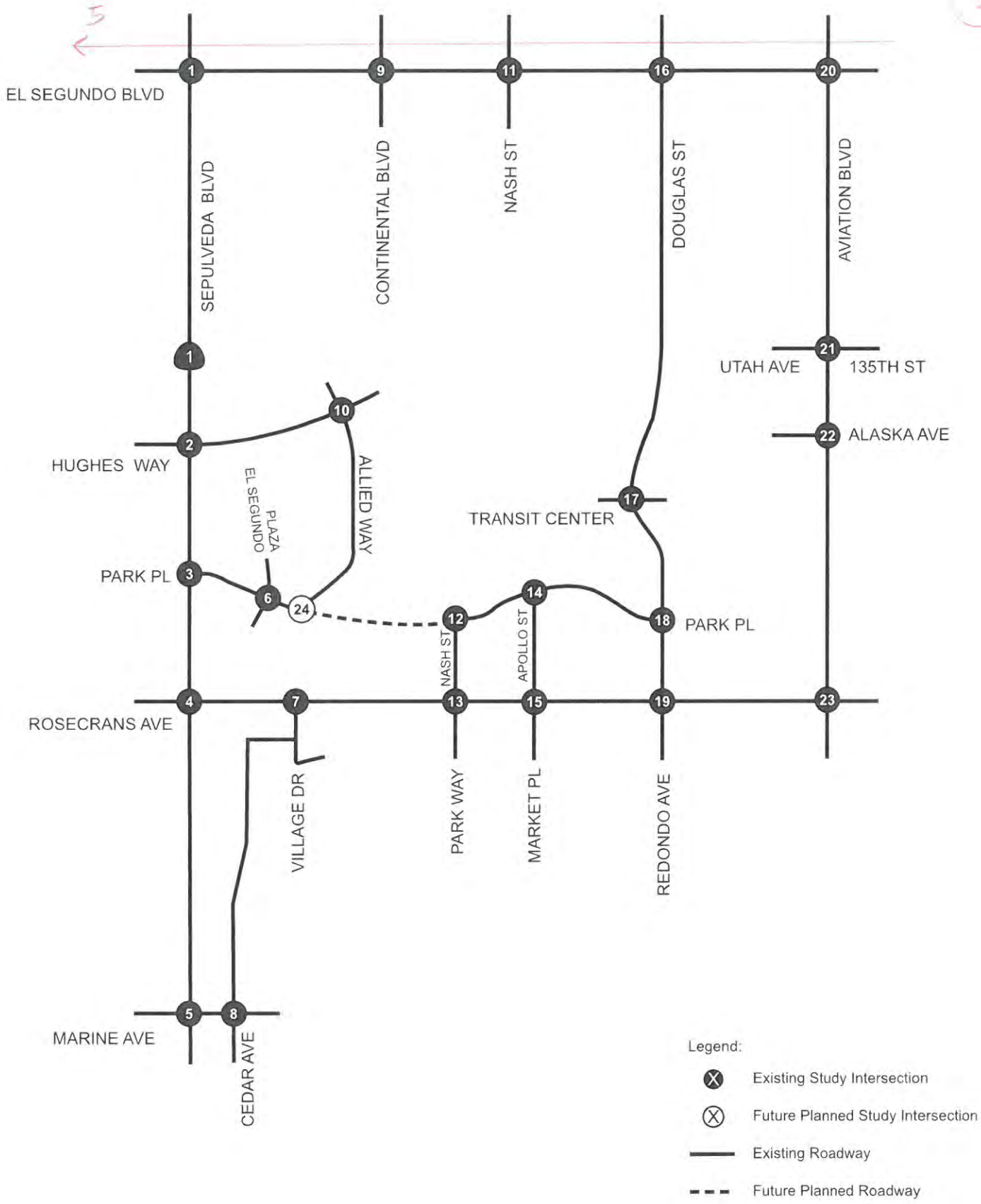


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

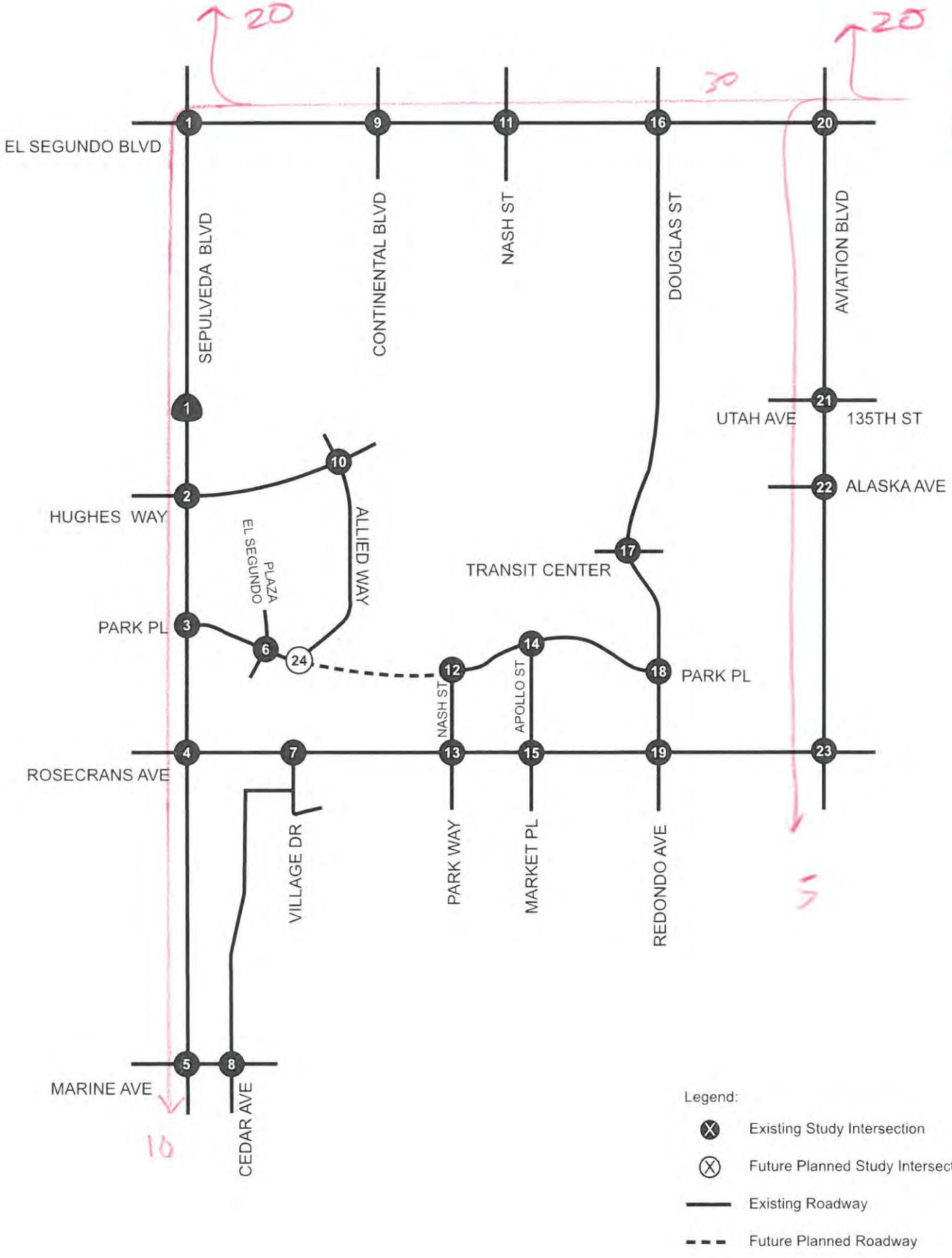


Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis



Not to Scale

Michael Baker INTERNATIONAL

Exhibit A
Proposed Study Area

Park Place Extension
Traffic Impact Analysis

Appendix F – Future Conditions Traffic Signal Warrant Analysis Worksheets

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing Plus Project AM Peak**

Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **287**

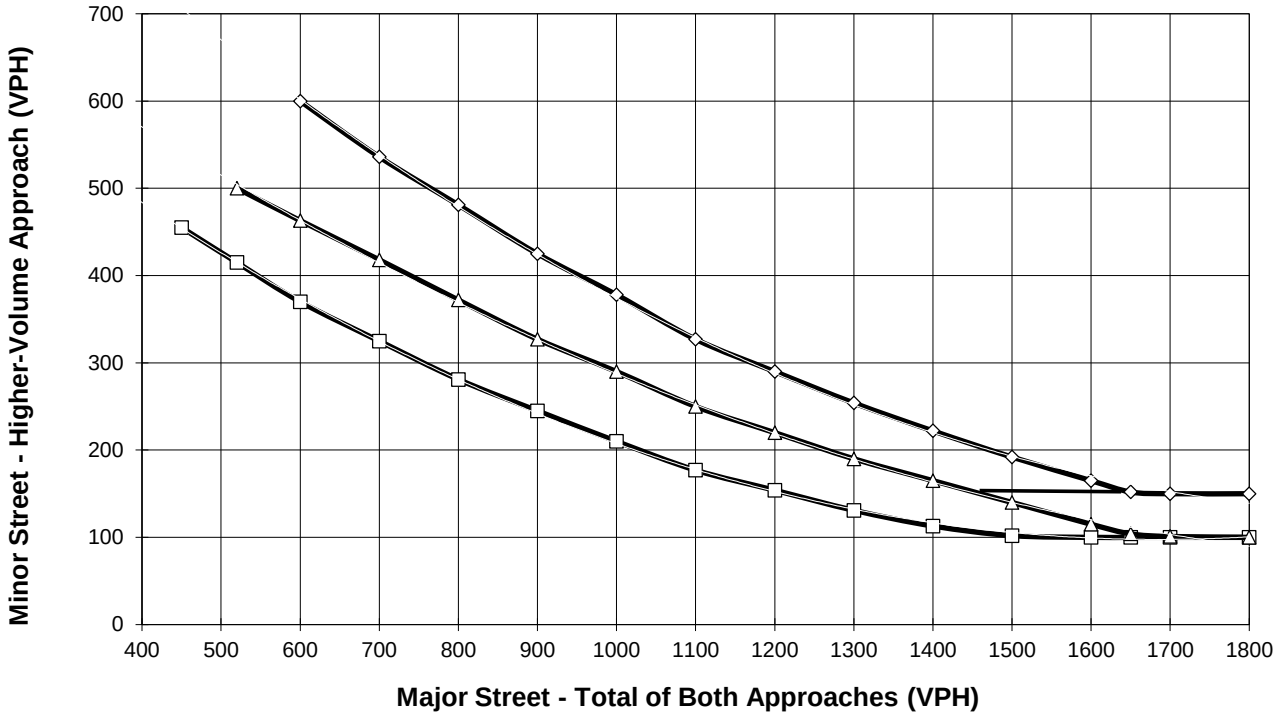
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nash St**

High Volume Approach (VPH) = **151**

Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



1 Lane (Major) & 1 Lane (Minor)

2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)

2+ Lanes (Major) & 2+ Lanes (Minor)

Major Street Approaches

Minor Street Approaches

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing Plus Project PM Peak**

Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **557**

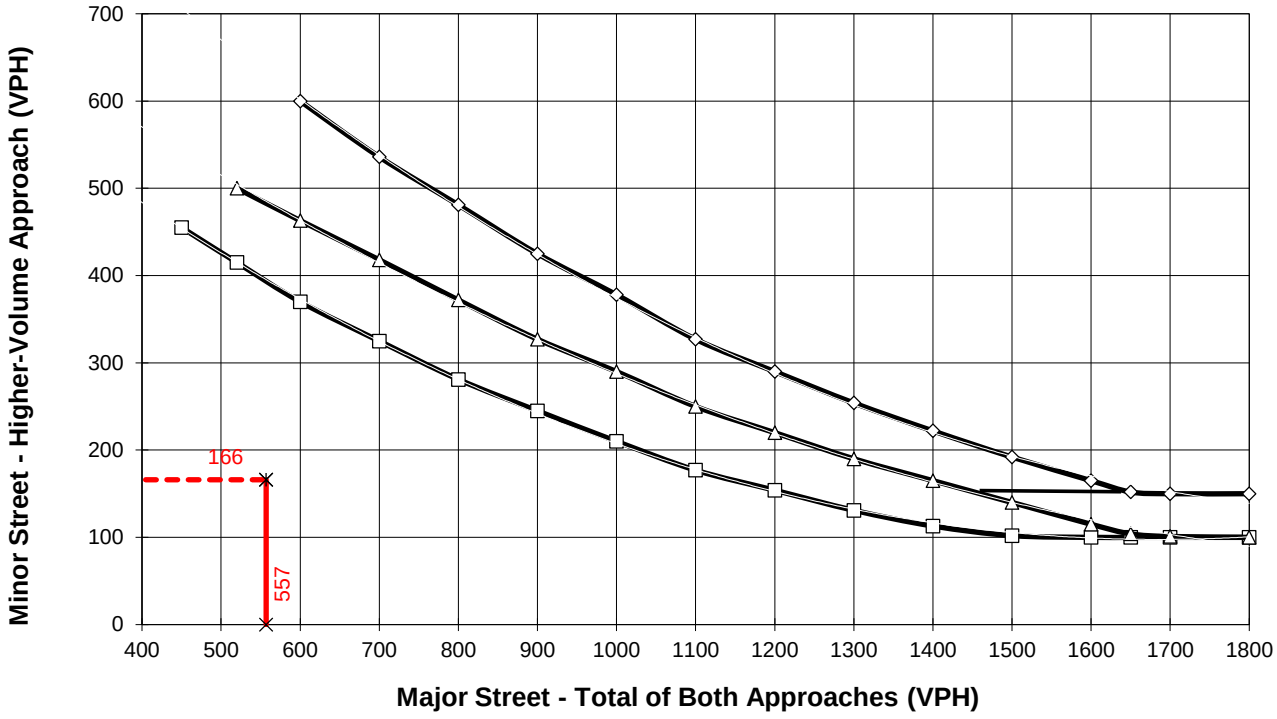
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nash St**

High Volume Approach (VPH) = **166**

Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 Without Project AM Peak**

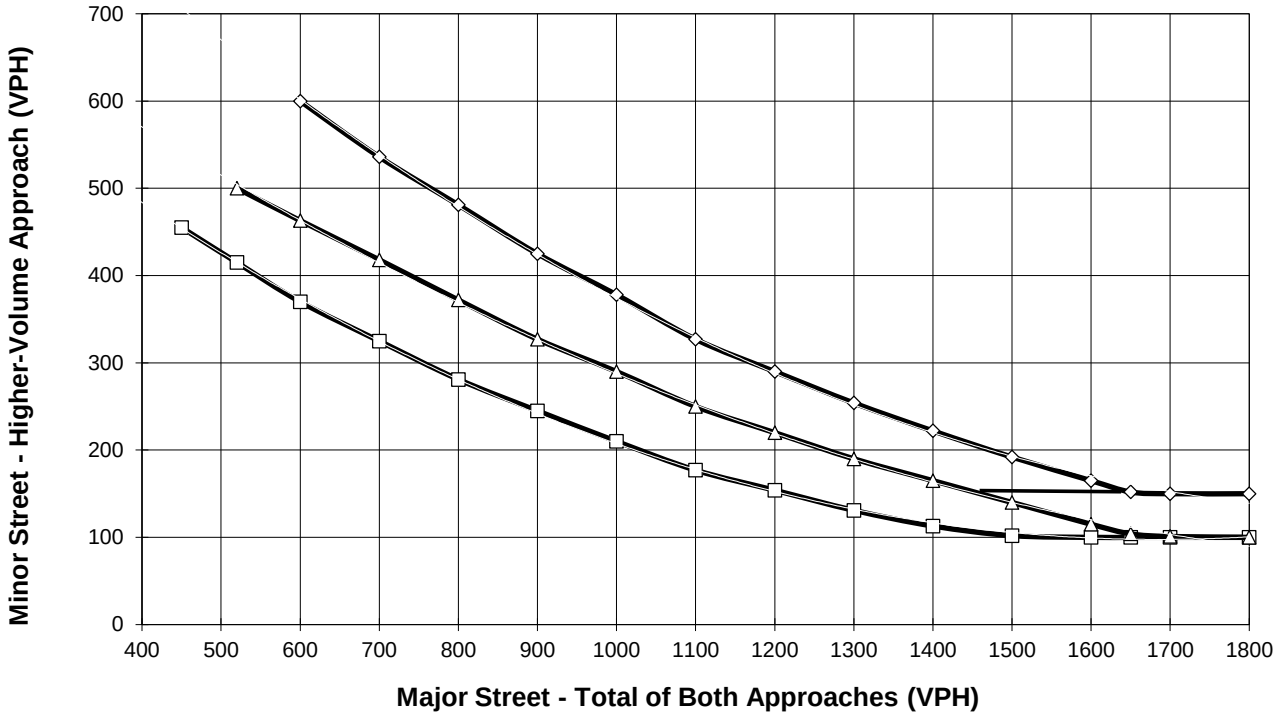
Major Street Name = **Nash St**

Total of Both Approaches (VPH) = **82**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Park Pl**

High Volume Approach (VPH) = **89**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



1 Lane (Major) & 1 Lane (Minor)
2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
2+ Lanes (Major) & 2+ Lanes (Minor)
Major Street Approaches
Minor Street Approaches

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 Without Project PM Peak**

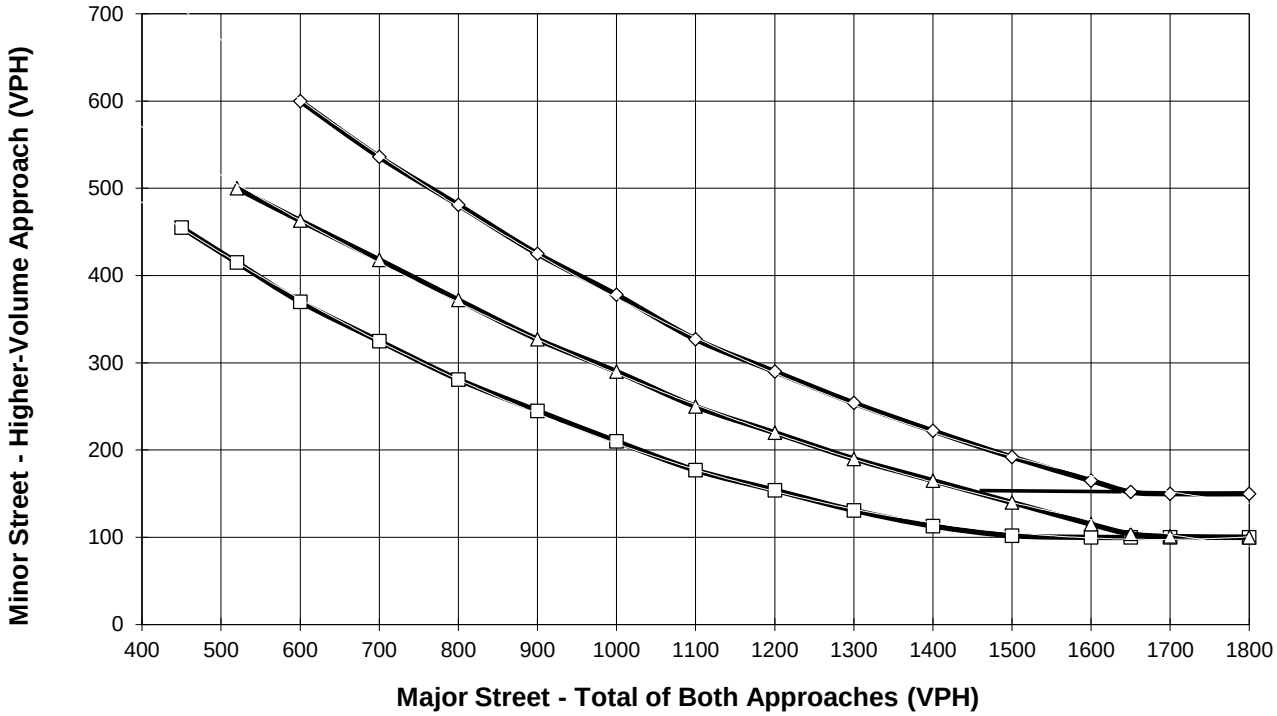
Major Street Name = **Nash St**

Total of Both Approaches (VPH) = **153**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Park Pl**

High Volume Approach (VPH) = **158**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 With Project AM Peak**

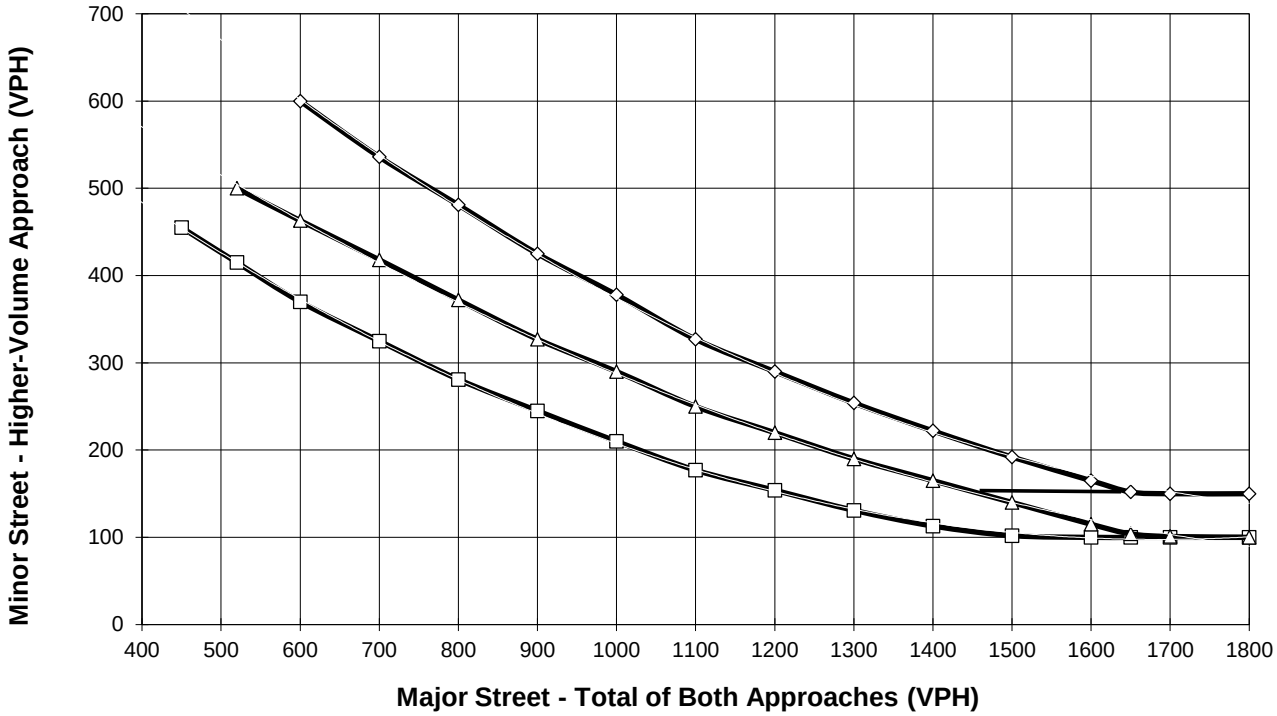
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **331**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nash St**

High Volume Approach (VPH) = **182**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



1 Lane (Major) & 1 Lane (Minor)
2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)
2+ Lanes (Major) & 2+ Lanes (Minor)
Major Street Approaches
Minor Street Approaches

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 With Project PM Peak**

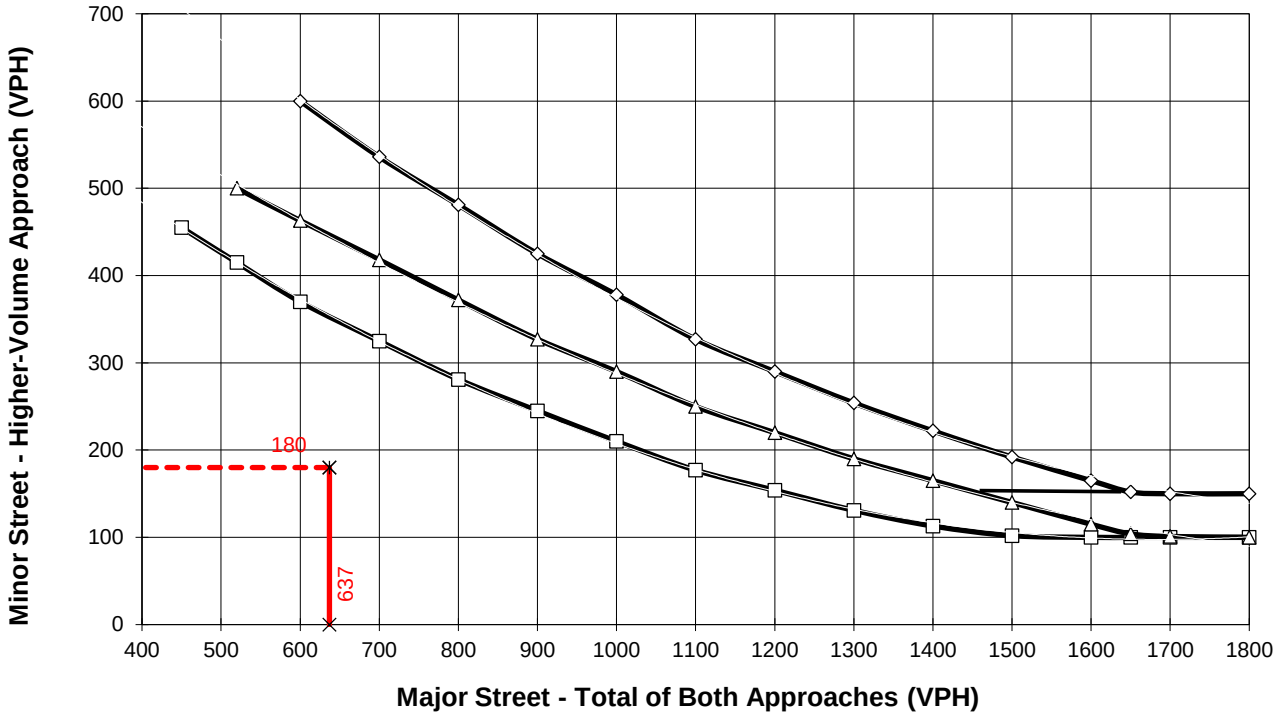
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **637**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Nash St**

High Volume Approach (VPH) = **180**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing Plus Project AM Peak**

Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **391**

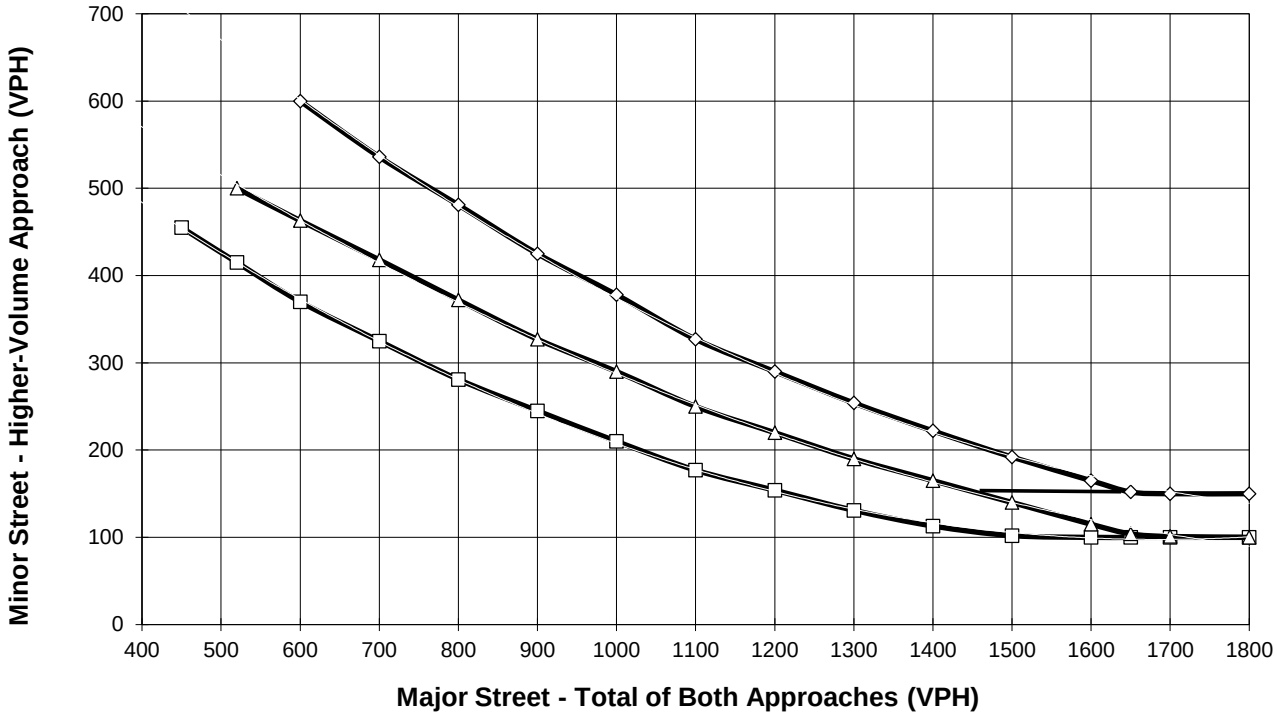
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Apollo St**

High Volume Approach (VPH) = **149**

Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



1 Lane (Major) & 1 Lane (Minor)

2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)

2+ Lanes (Major) & 2+ Lanes (Minor)

Major Street Approaches

Minor Street Approaches

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing Plus Project PM Peak**

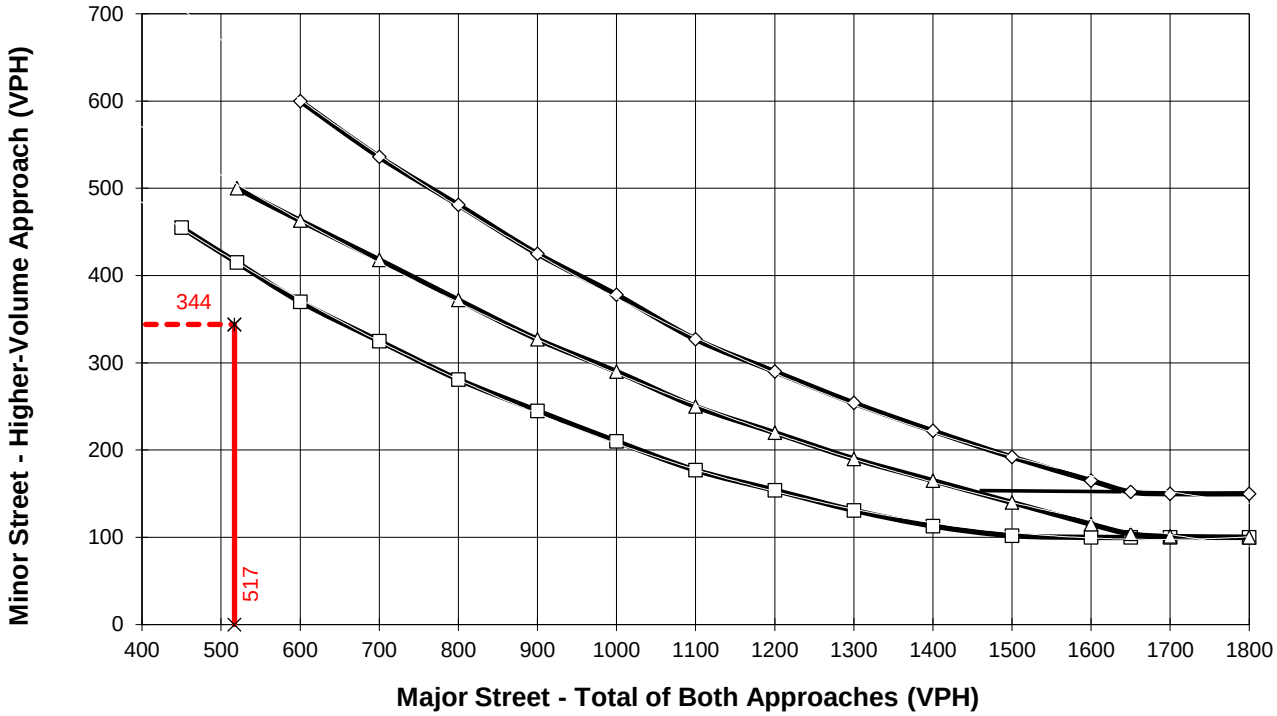
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **517**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Apollo St**

High Volume Approach (VPH) = **344**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 Without Project AM Peak**

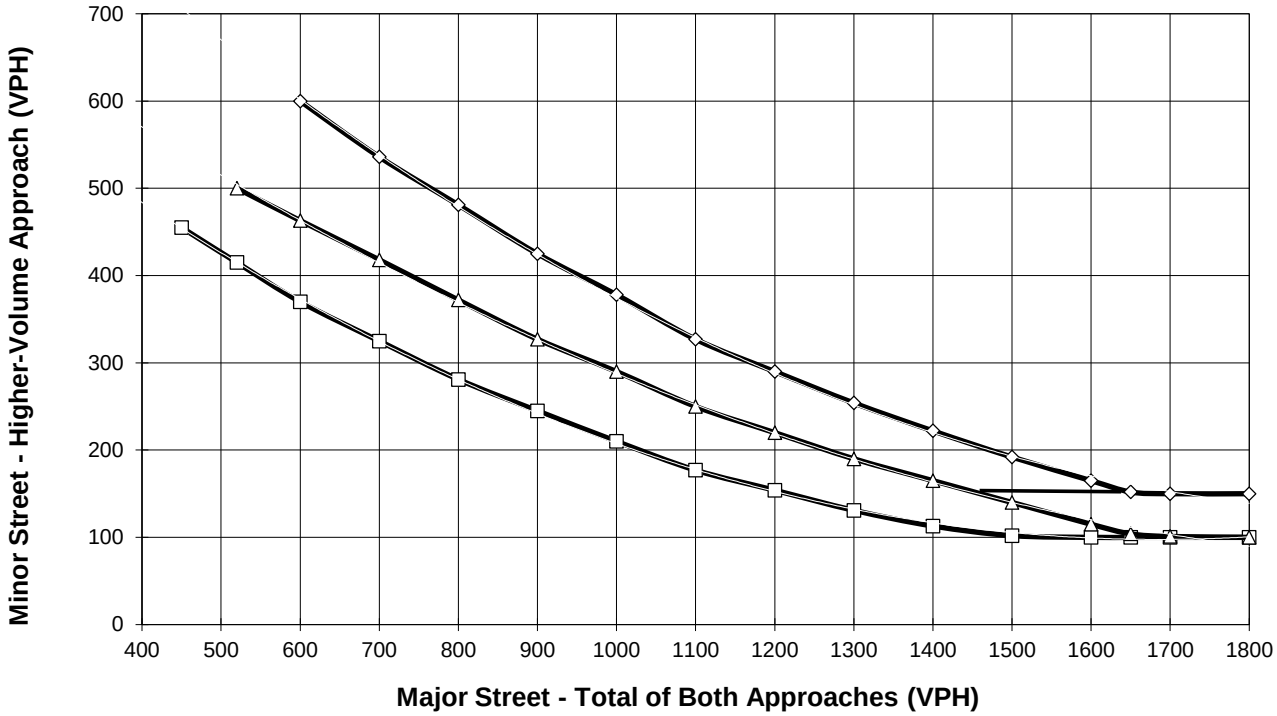
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **325**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Apollo St**

High Volume Approach (VPH) = **59**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 Without Project PM Peak**

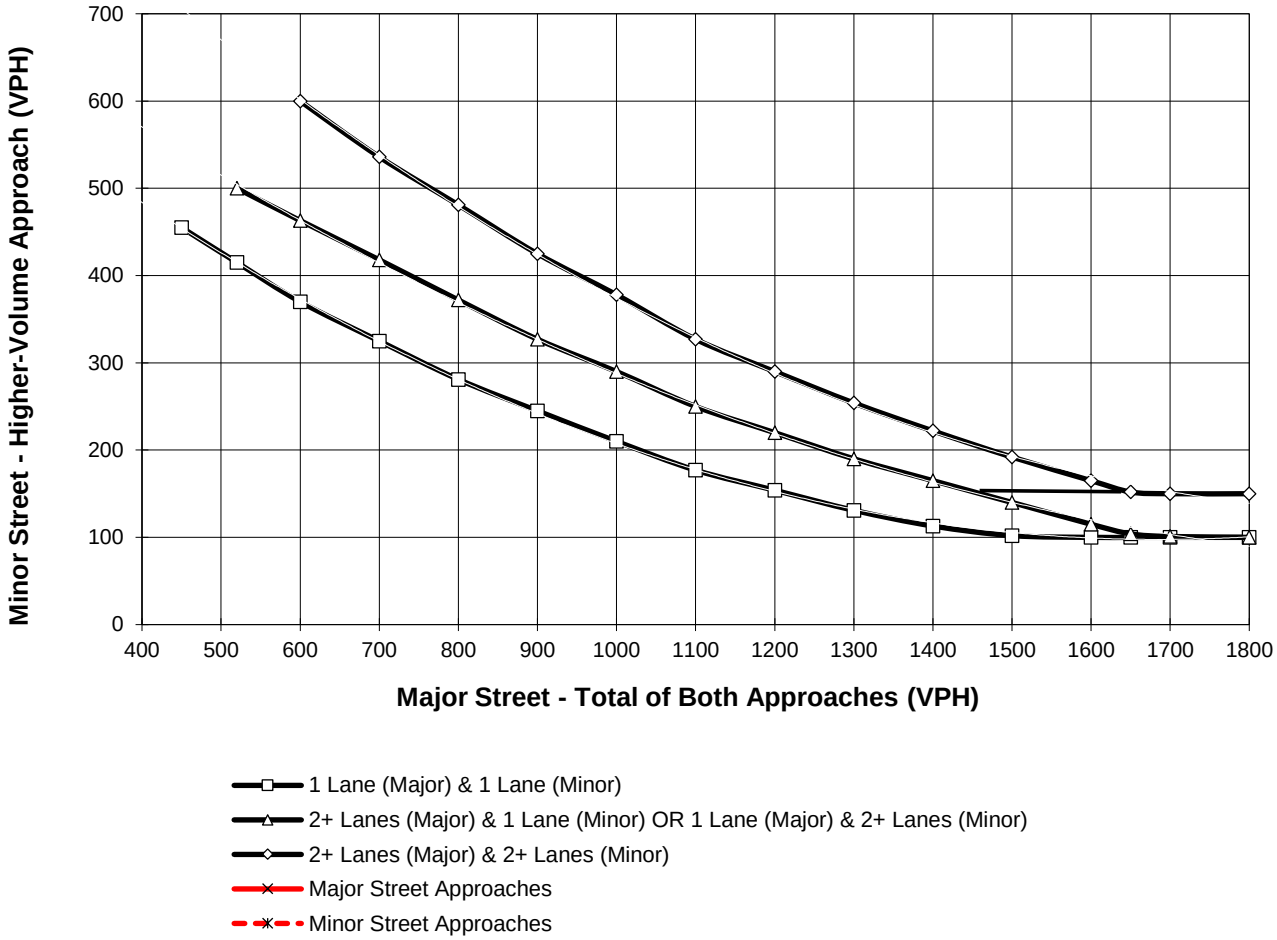
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **336**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Apollo St**

High Volume Approach (VPH) = **263**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 With Project AM Peak**

Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **401**

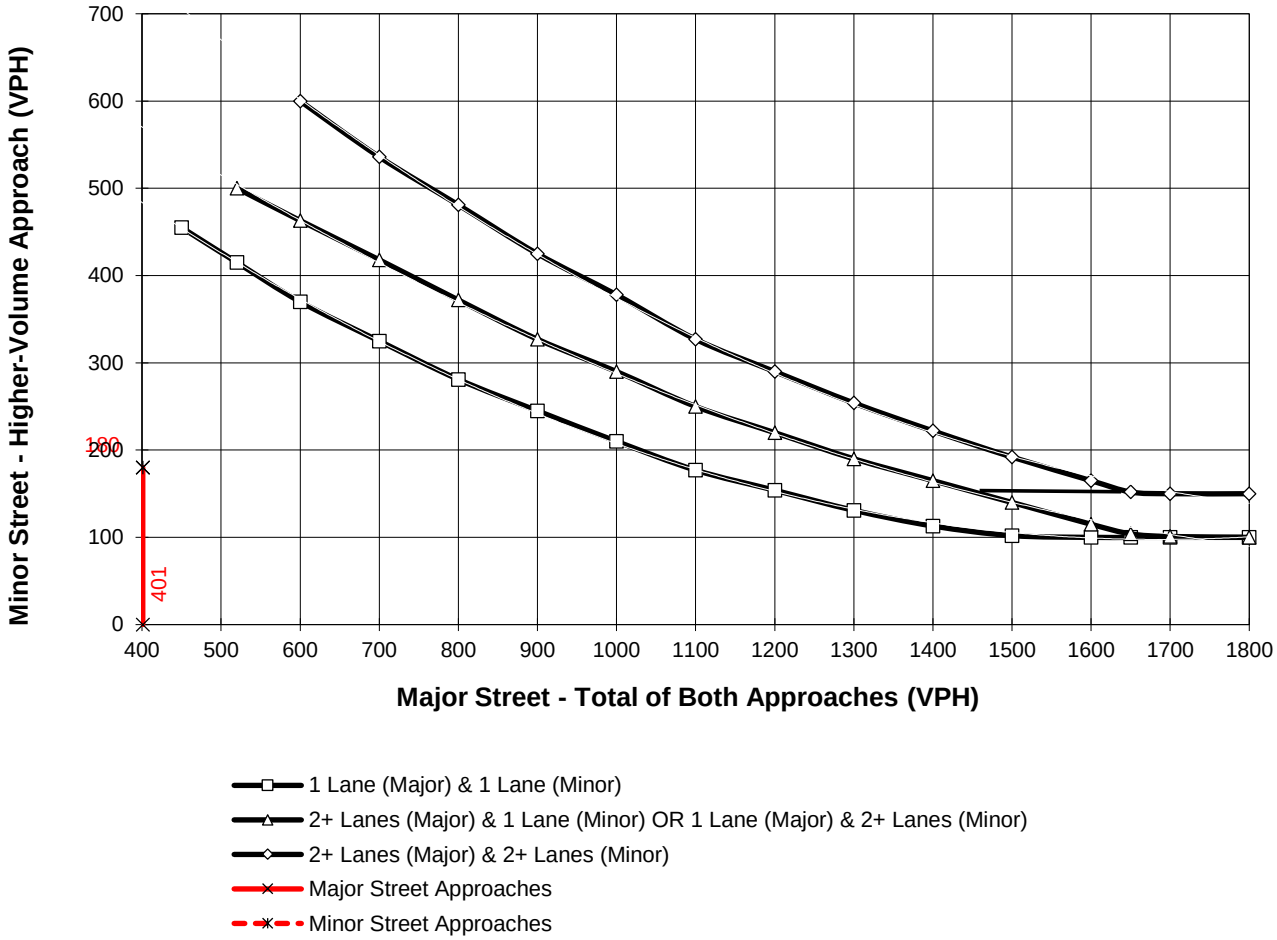
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Apollo St**

High Volume Approach (VPH) = **180**

Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 With Project PM Peak**

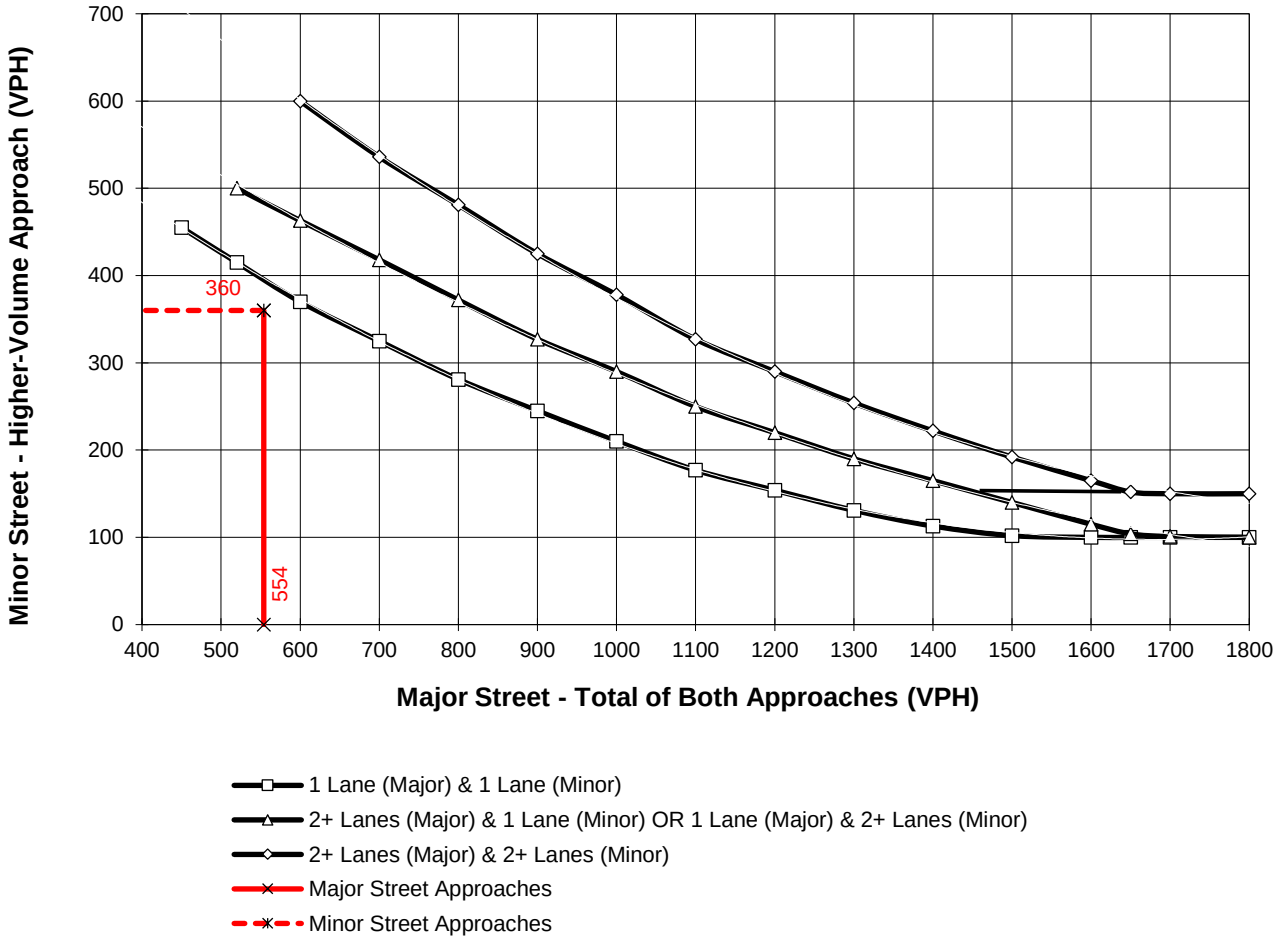
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **554**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Apollo St**

High Volume Approach (VPH) = **360**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing Plus Project AM Peak**

Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **344**

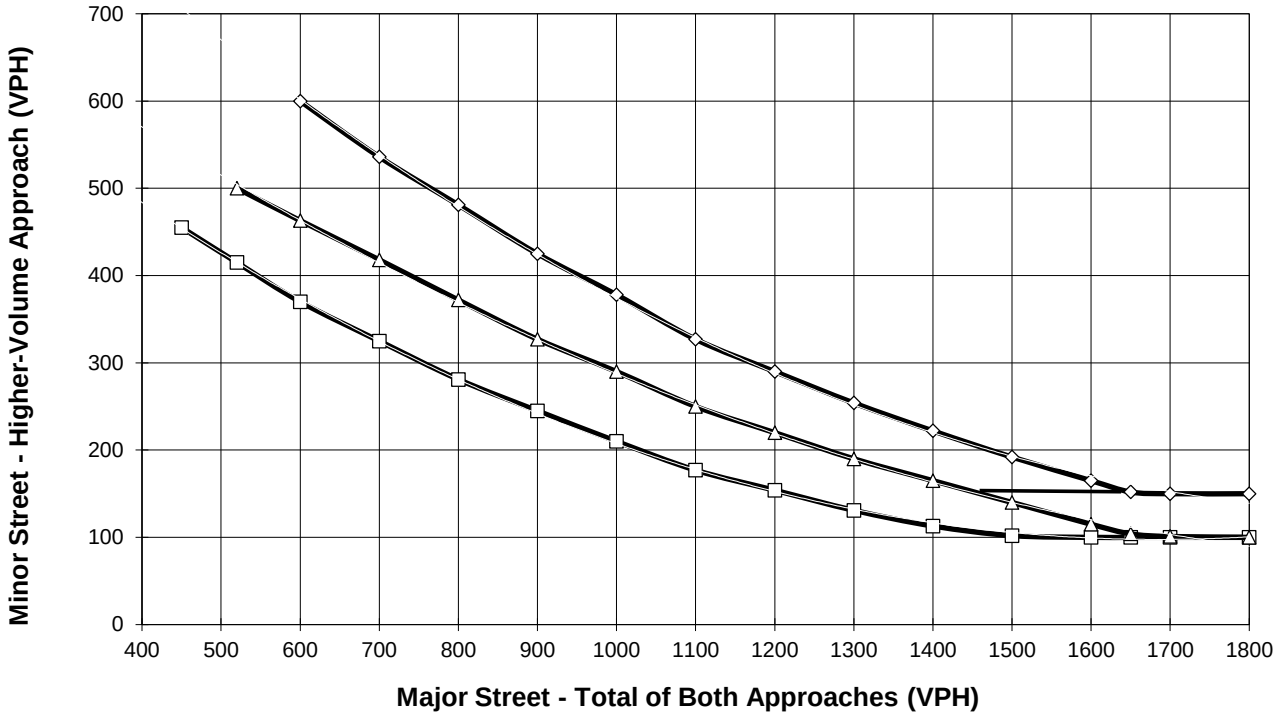
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Allied Way**

High Volume Approach (VPH) = **23**

Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



1 Lane (Major) & 1 Lane (Minor)

2+ Lanes (Major) & 1 Lane (Minor) OR 1 Lane (Major) & 2+ Lanes (Minor)

2+ Lanes (Major) & 2+ Lanes (Minor)

Major Street Approaches

Minor Street Approaches

*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing Plus Project PM Peak**

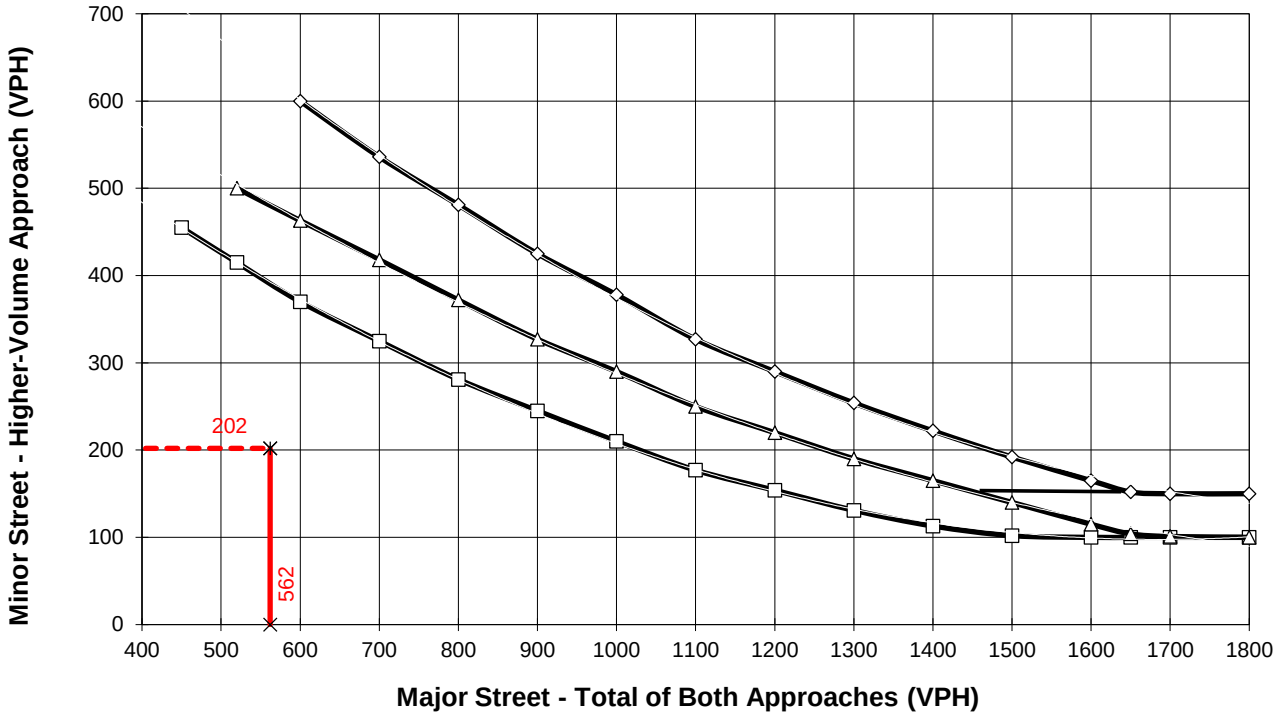
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **562**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Allied Way**

High Volume Approach (VPH) = **202**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 With Project AM Peak**

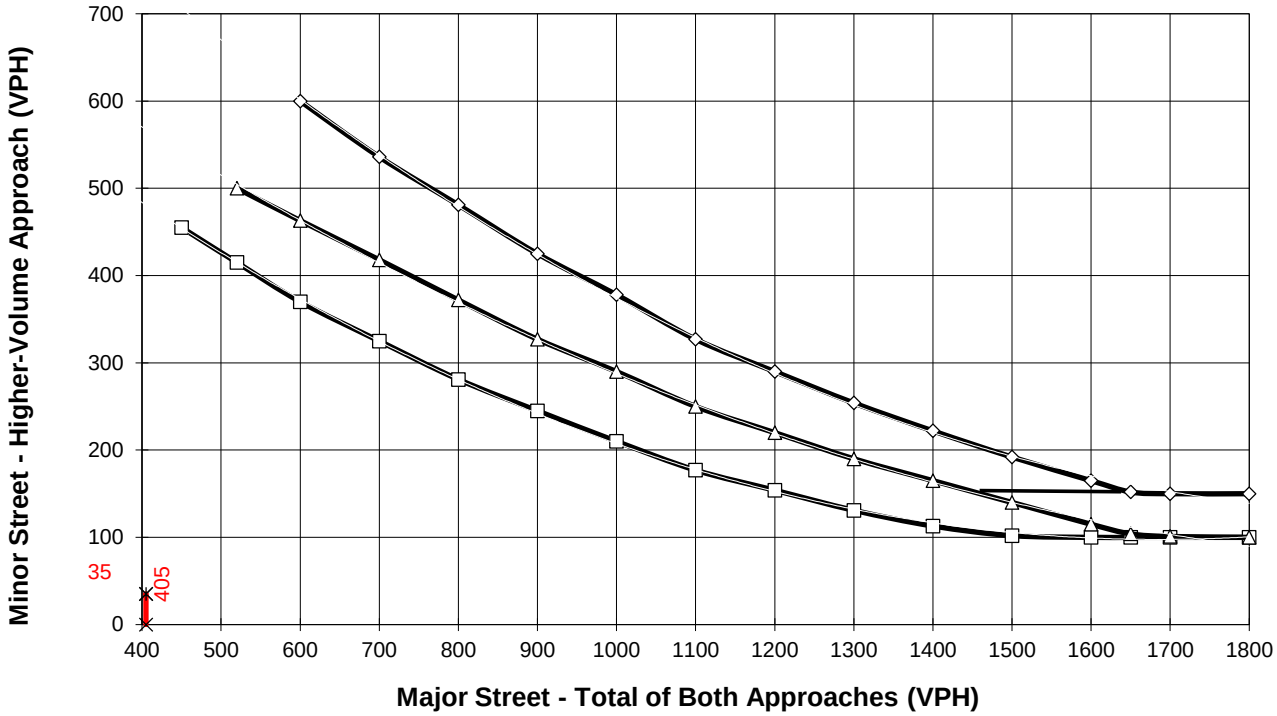
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **405**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Allied Way**

High Volume Approach (VPH) = **35**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Opening Year 2021 With Project PM Peak**

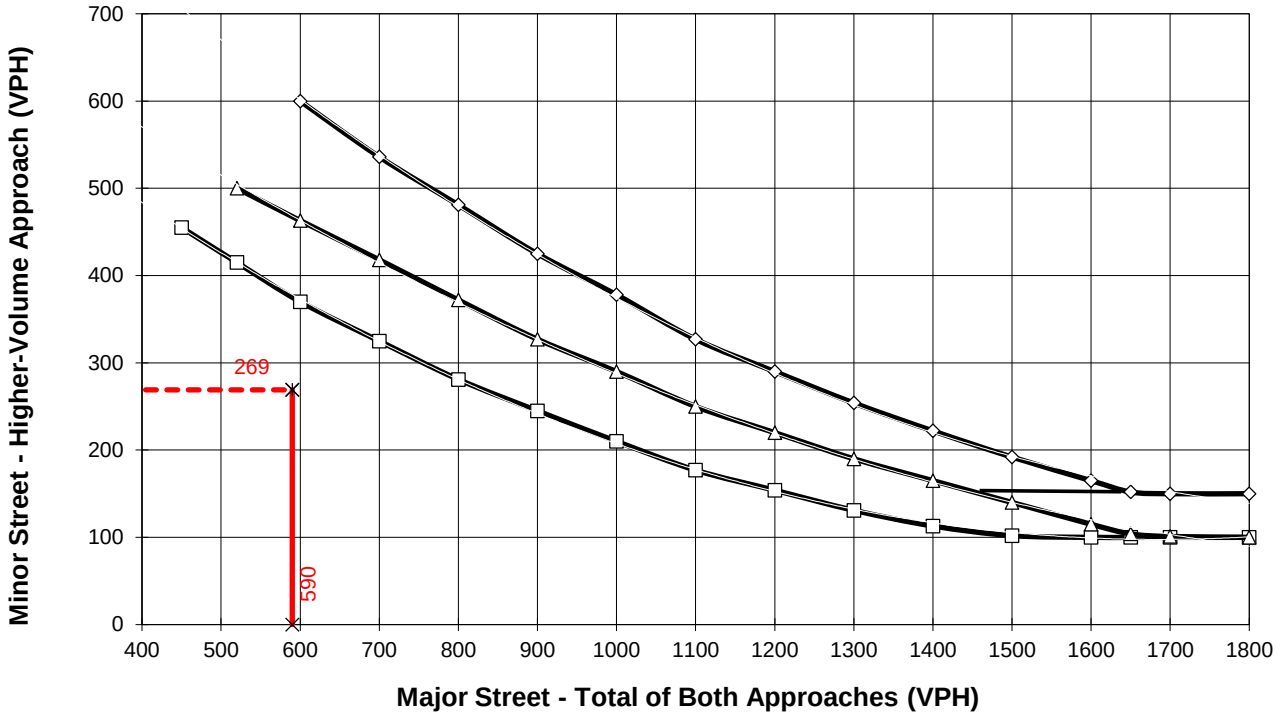
Major Street Name = **Park Pl**

Total of Both Approaches (VPH) = **590**
Number of Approach Lanes on Major Street = **2**

Minor Street Name = **Allied Way**

High Volume Approach (VPH) = **269**
Number of Approach Lanes On Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach

Appendix G – Existing 2016 Plus Project Conditions Intersection Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	98	405	240	160	355	185	341	2672	233	160	1060	112
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	107	440	261	174	386	201	371	2904	253	174	1152	122
Adj No. of Lanes	1	2	1	2	2	1	2	4	0	2	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	577	258	240	557	249	452	3136	269	193	2834	700
Arrive On Green	0.08	0.16	0.16	0.07	0.16	0.16	0.13	0.52	0.52	0.06	0.44	0.44
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	3442	6057	520	3442	6408	1583
Grp Volume(v), veh/h	107	440	261	174	386	201	371	2295	862	174	1152	122
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1721	1602	1771	1721	1602	1583
Q Serve(g_s), s	5.8	11.7	16.0	4.9	10.1	12.0	10.3	43.3	44.9	4.9	12.0	4.6
Cycle Q Clear(g_c), s	5.8	11.7	16.0	4.9	10.1	12.0	10.3	43.3	44.9	4.9	12.0	4.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		1.00
Lane Grp Cap(c), veh/h	134	577	258	240	557	249	452	2488	917	193	2834	700
V/C Ratio(X)	0.80	0.76	1.01	0.73	0.69	0.81	0.82	0.92	0.94	0.90	0.41	0.17
Avail Cap(c_a), veh/h	136	577	258	263	577	258	607	2546	938	193	2834	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.6	39.3	41.1	44.7	39.1	39.9	41.5	21.8	22.2	46.1	18.6	16.5
Incr Delay (d2), s/veh	27.6	6.0	58.9	8.7	3.4	16.6	6.6	6.2	16.7	38.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	6.2	11.2	2.6	5.2	6.4	5.3	20.3	26.0	3.4	5.3	2.0
LnGrp Delay(d),s/veh	72.2	45.2	100.0	53.5	42.6	56.5	48.1	28.0	38.9	84.8	18.7	16.7
LnGrp LOS	E	D	F	D	D	E	D	C	D	F	B	B
Approach Vol, veh/h		808			761			3528			1448	
Approach Delay, s/veh		66.5			48.7			32.8			26.5	
Approach LOS		E			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	55.8	11.3	21.0	17.4	48.4	11.9	20.4
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	5.5	52.0	7.5	16.0	17.3	40.2	7.5	16.0
Max Q Clear Time (g_c+I1), s	6.9	46.9	6.9	18.0	12.3	14.0	7.8	14.0
Green Ext Time (p_c), s	0.0	3.9	0.0	0.0	0.6	25.5	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	37.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	0	6	9	0	34	15	3068	126	60	1341	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	4.5	4.5	5.0	4.0	4.5	5.0	5.0
Lane Util. Factor		1.00		0.91	0.91	1.00	1.00	0.86	1.00	0.97	0.86	1.00
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1709		3221	1610	1583	1770	6408	1583	3433	6408	1583
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1709		3221	1610	1583	1770	6408	1583	3433	6408	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	0	7	10	0	37	16	3335	137	65	1458	9
RTOR Reduction (vph)	0	17	0	0	0	35	0	0	0	0	0	2
Lane Group Flow (vph)	0	0	0	7	3	2	16	3335	137	65	1458	7
Turn Type	Split	NA		Split	NA	pm+ov	Prot	NA	Free	Prot	NA	Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8			Free			6
Actuated Green, G (s)		0.9		1.0	1.0	4.5	0.9	67.8	92.7	3.5	70.4	70.4
Effective Green, g (s)		0.9		1.0	1.0	4.5	0.9	67.8	92.7	3.5	70.4	70.4
Actuated g/C Ratio		0.01		0.01	0.01	0.05	0.01	0.73	1.00	0.04	0.76	0.76
Clearance Time (s)		5.0		5.0	5.0	4.5	4.5	5.0		4.5	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		16		34	17	76	17	4686	1583	129	4866	1202
v/s Ratio Prot		0.00		0.00	0.00	0.00	0.01	c0.52		c0.02	0.23	
v/s Ratio Perm						0.00			c0.09			0.00
v/c Ratio		0.01		0.21	0.18	0.02	0.94	0.71	0.09	0.50	0.30	0.01
Uniform Delay, d1		45.5		45.5	45.4	42.0	45.9	7.0	0.0	43.7	3.5	2.7
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.3		3.0	4.9	0.1	188.5	0.5	0.1	3.1	0.0	0.0
Delay (s)		45.7		48.5	50.4	42.1	234.4	7.5	0.1	46.8	3.5	2.7
Level of Service		D		D	D	D	F	A	A	D	A	A
Approach Delay (s)		45.7			43.6			8.2			5.3	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	92.7	Sum of lost time (s)	19.5
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	75	0	95	2	3200	219	0	1350	2
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h				82	0	103	2	3478	238	0	1467	2
Adj No. of Lanes				2	0	1	1	4	1	2	4	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	2
Cap, veh/h				543	0	145	328	4499	1361	5	4674	6
Arrive On Green				0.16	0.00	0.16	0.70	0.70	0.70	0.00	0.70	0.70
Sat Flow, veh/h				3442	0	1583	359	6408	1583	3442	6658	9
Grp Volume(v), veh/h				82	0	103	2	3478	238	0	1059	410
Grp Sat Flow(s),veh/h/ln				1721	0	1583	359	1602	1583	1721	1602	1861
Q Serve(g_s), s				1.4	0.0	8.8	0.1	24.0	1.7	0.0	5.7	5.7
Cycle Q Clear(g_c), s				1.4	0.0	8.8	5.9	24.0	1.7	0.0	5.7	5.7
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				543	0	145	328	4499	1361	5	3374	1307
V/C Ratio(X)				0.15	0.00	0.71	0.01	0.77	0.17	0.00	0.31	0.31
Avail Cap(c_a), veh/h				813	0	269	328	4499	1361	229	3865	1497
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				24.6	0.0	94.9	5.0	6.6	0.8	0.0	3.9	3.9
Incr Delay (d2), s/veh				0.1	0.0	6.3	0.0	0.9	0.1	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.7	0.0	5.8	0.0	10.4	1.5	0.0	2.5	2.9
LnGrp Delay(d),s/veh				24.8	0.0	101.3	5.0	7.4	0.8	0.0	3.9	4.0
LnGrp LOS				C		F	A	A	A		A	A
Approach Vol, veh/h					185			3718			1469	
Approach Delay, s/veh					67.4			7.0			3.9	
Approach LOS					E			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	0.0	52.6				52.6		15.2
Change Period (Y+Rc), s	4.5	5.0				5.0		4.5
Max Green Setting (Gmax), s	4.5	45.5				54.5		16.0
Max Q Clear Time (g_c+I1), s	0.0	26.0				7.7		10.8
Green Ext Time (p_c), s	0.0	19.4				39.9		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	333	547	152	284	389	166	271	2700	519	161	1055	119
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	362	595	165	309	423	0	295	2935	564	175	1147	129
Adj No. of Lanes	2	3	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	405	817	254	376	539	241	371	3048	926	213	2185	680
Arrive On Green	0.12	0.16	0.16	0.11	0.15	0.00	0.11	0.48	0.48	0.06	0.43	0.43
Sat Flow, veh/h	3442	5085	1583	3442	3539	1583	3442	6408	1583	3442	5085	1583
Grp Volume(v), veh/h	362	595	165	309	423	0	295	2935	564	175	1147	129
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1602	1583	1721	1695	1583
Q Serve(g_s), s	10.2	11.0	9.6	8.7	11.3	0.0	8.2	43.7	22.7	5.0	16.4	5.0
Cycle Q Clear(g_c), s	10.2	11.0	9.6	8.7	11.3	0.0	8.2	43.7	22.7	5.0	16.4	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	405	817	254	376	539	241	371	3048	926	213	2185	680
V/C Ratio(X)	0.89	0.73	0.65	0.82	0.79	0.00	0.79	0.96	0.61	0.82	0.52	0.19
Avail Cap(c_a), veh/h	405	830	258	401	574	257	499	3073	932	213	2185	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.9	39.3	38.8	43.0	40.3	0.0	42.9	25.0	13.2	45.7	20.7	17.5
Incr Delay (d2), s/veh	21.6	3.2	5.5	12.3	6.7	0.0	6.3	9.2	1.1	22.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	5.4	4.6	4.8	6.0	0.0	4.3	21.1	10.2	3.0	7.7	2.2
LnGrp Delay(d),s/veh	64.5	42.5	44.2	55.3	47.0	0.0	49.3	34.2	14.3	67.8	20.9	17.6
LnGrp LOS	E	D	D	E	D		D	C	B	E	C	B
Approach Vol, veh/h		1122			732			3794			1451	
Approach Delay, s/veh		49.9			50.5			32.4			26.3	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.6	51.9	15.3	20.8	15.1	47.4	16.1	20.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	6.1	47.3	11.5	16.1	14.3	39.1	11.6	16.0
Max Q Clear Time (g_c+I1), s	7.0	45.7	10.7	13.0	10.2	18.4	12.2	13.3
Green Ext Time (p_c), s	0.0	1.2	0.1	1.9	0.4	20.5	0.0	1.7

Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	77	274	34	107	238	51	53	2992	82	176	1047	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	84	298	37	116	259	55	58	3252	89	191	1138	62
Adj No. of Lanes	1	2	0	2	1	1	1	3	0	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	428	53	162	239	288	74	3200	87	184	3256	1014
Arrive On Green	0.05	0.14	0.14	0.05	0.13	0.13	0.04	0.63	0.63	0.05	0.64	0.64
Sat Flow, veh/h	1774	3173	390	3442	1863	1583	1774	5090	138	3442	5085	1583
Grp Volume(v), veh/h	84	165	170	116	259	55	58	2156	1185	191	1138	62
Grp Sat Flow(s),veh/h/ln	1774	1770	1794	1721	1863	1583	1774	1695	1838	1721	1695	1583
Q Serve(g_s), s	6.6	12.5	12.7	4.7	18.0	4.1	4.5	88.0	88.0	7.5	14.5	2.1
Cycle Q Clear(g_c), s	6.6	12.5	12.7	4.7	18.0	4.1	4.5	88.0	88.0	7.5	14.5	2.1
Prop In Lane	1.00		0.22	1.00		1.00	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	95	239	242	162	239	288	74	2131	1156	184	3256	1014
V/C Ratio(X)	0.88	0.69	0.70	0.72	1.08	0.19	0.78	1.01	1.03	1.04	0.35	0.06
Avail Cap(c_a), veh/h	95	239	242	179	239	288	131	2131	1156	184	3256	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.8	57.8	57.9	65.8	61.0	48.5	66.4	26.0	26.0	66.3	11.7	9.4
Incr Delay (d2), s/veh	56.6	8.2	8.7	11.4	81.5	0.3	15.9	22.5	33.1	76.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	6.6	6.9	2.5	14.7	1.8	2.6	47.5	54.9	5.5	6.8	0.9
LnGrp Delay(d),s/veh	122.4	65.9	66.6	77.2	142.5	48.8	82.3	48.5	59.1	142.4	11.7	9.5
LnGrp LOS	F	E	E	E	F	D	F	F	F	F	B	A
Approach Vol, veh/h		419			430			3399			1391	
Approach Delay, s/veh		77.5			112.9			52.7			29.6	
Approach LOS		E			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	93.0	11.1	23.9	10.4	94.6	12.0	23.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	7.5	88.0	7.3	18.2	10.3	85.2	7.5	18.0
Max Q Clear Time (g_c+I1), s	9.5	90.0	6.7	14.7	6.5	16.5	8.6	20.0
Green Ext Time (p_c), s	0.0	0.0	0.0	1.3	0.0	66.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.5
HCM 2010 LOS	D

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

```
********************************************************************************
Intersection #6 Plaza El Segundo / Park Pl
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.179
Loss Time (sec):       10              Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        100              Level Of Service:                    A
********************************************************************************
Street Name:          Plaza El Segundo                  Park Pl
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|----------------|----------------|----------------|----------------|
Control:          Permitted        Permitted        Permitted        Permitted
Rights:             Include          Include          Include          Include
Min. Green:     0    0    0      0    0    0      0    0    0      0    0    0
Y+R:          4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:        1  0  0  1  0    0  1  0  0  1    1  0  1  1  0    1  0  1  1  0
------------|----------------|----------------|----------------|----------------|
Volume Module:
Base Vol:       5    2    2      0    3   51     64   57   23      1   16    1
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:    5    2    2      0    3   51     64   57   23      1   16    1
Added Vol:      0    0    0     25    0  -25    -30   65    0      0   80   30
PasserByVol:    0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:    5    2    2     25    3   26     34  122   23      1   96   31
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     5    2    2     25    3   26     34  122   23      1   96   31
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:    5    2    2     25    3   26     34  122   23      1   96   31
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:    5    2    2     25    3   26     34  122   23      1   96   31
------------|----------------|----------------|----------------|----------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600   1600 1600 1600   1600 1600 1600   1600 1600 1600
Adjustment:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:       1.00 0.50 0.50   0.89 0.11 1.00   1.00 1.68 0.32   1.00 1.51 0.49
Final Sat.:  1600  800  800   1428  172 1600   1600 2692  508   1600 2419  781
------------|----------------|----------------|----------------|----------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00   0.02 0.02 0.02   0.02 0.05 0.05   0.00 0.04 0.04
Crit Moves:       ****             ****             ****             ****
********************************************************************************
```

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #7 Village Dr / Rosecrans Ave

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

Street Name:	Village Dr									Rosecrans 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				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	1	1	0	0	1	1	2	0	2	1	0	1	0	3	0	1
Volume Module:																				
Base Vol:	40	1	77		6	0	5		9	1202	67		128	973	9			
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:	40	1	77		6	0	5		9	1205	67		128	976	9			
Added Vol:	0	0	0		0	0	0		0	-80	0		0	-185	0			
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0			
Initial Fut:	40	1	77		6	0	5		9	1125	67		128	791	9			
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00			
PHF Volume:	40	1	77		6	0	5		9	1125	67		128	791	9			
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0			
Reduced Vol:	40	1	77		6	0	5		9	1125	67		128	791	9			
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:	40	1	77		6	0	5		9	1125	67		128	791	9			
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600			
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00			
Lanes:	0.98	0.02	1.00		1.00	0.00	2.00		2.00	2.83	0.17		1.00	3.00	1.00			
Final Sat.:	1561	39	1600		1600	0	3200		3200	4530	270		1600	4800	1600			
Capacity Analysis Module:																				
Vol/Sat:	0.03	0.03	0.05		0.00	0.00	0.00		0.00	0.25	0.25		0.08	0.16	0.01			
Crit Moves:			****		****					****			****					

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #8 Cedar Ave / Marine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.480
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Cedar Ave									Marine 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				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	1!	0	0	0	1	0	0	1	1	0	1	1	0	1	0	2	0	1
Volume Module:																				
Base Vol:	17	57	22		66	32	47		38	463	30		40	344	407			
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	57	22		66	32	47		38	464	30		40	345	408			
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0			
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0			
Initial Fut:	17	57	22		66	32	47		38	464	30		40	345	408			
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00			
PHF Adj:	1.00	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	57	22		66	32	47		38	464	30		40	345	408			
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0			
Reduced Vol:	17	57	22		66	32	47		38	464	30		40	345	408			
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00			
FinalVolume:	17	57	22		66	32	47		38	464	30		40	345	408			
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:	0.18	0.59	0.23		0.67	0.33	1.00		1.00	1.88	0.12		1.00	2.00	1.00			
Final Sat.:	283	950	367		1078	522	1600		1600	3005	195		1600	3200	1600			
Capacity Analysis Module:																				
Vol/Sat:	0.01	0.06	0.06		0.04	0.06	0.03		0.02	0.15	0.15		0.03	0.11	0.26			
Crit Moves:		****			****				****						****			

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #9 Continental Blvd / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.442
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Continental Blvd						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1 0	1 1	1	1 0	1 1	2	0 3	0 1	2	0 2	1 0
Volume Module:												
Base Vol:	5	24	8	50	23	40	119	620	42	34	957	393
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:	5	24	8	50	23	40	119	622	42	34	959	394
Added Vol:	0	0	0	0	0	0	0	-15	0	0	-10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	24	8	50	23	40	119	607	42	34	949	394
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	5	24	8	50	23	40	119	607	42	34	949	394
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	24	8	50	23	40	119	607	42	34	949	394
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:	5	24	8	50	23	40	119	607	42	34	949	394
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.78	0.81	1.41	2.00	3.00	1.00	2.00	2.12	0.88
Final Sat.:	1600	3200	1600	2835	1302	2263	3200	4800	1600	3200	3392	1408
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.02	0.02	0.02	0.04	0.13	0.03	0.01	0.28	0.28
Crit Moves:		****				****	****				****	

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #10 Allied Wy / Hughes Wy

Cycle (sec): 100 Critical Vol./Cap.(X): 0.410
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Allied Wy						Hughes Wy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1!	0	0	0 0	0 1	1	0 1	1 0	1	0 2	0 1
Volume Module:												
Base Vol:	33	4	15	0	0	3	13	220	41	1	9	1
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:	33	4	15	0	0	3	13	221	41	1	9	1
Added Vol:	0	0	85	0	0	0	0	-85	0	5	-5	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	4	100	0	0	3	13	136	41	6	4	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	4	100	0	0	3	13	136	41	6	4	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	4	100	0	0	3	13	136	41	6	4	1
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	4	100	0	0	3	13	136	41	6	4	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.01	0.99	0.00	0.00	1.00	1.00	1.53	0.47	1.00	2.00	1.00
Final Sat.:	1600	16	1584	0	0	1600	1600	2455	745	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.06	0.00	0.00	0.00	0.01	0.06	0.06	0.00	0.00	0.00
Crit Moves:		****			****				****		****	

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	56	39	0	63	104	25	0	91	7	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	61	42	0	68	113	27	0	99	8	58
Number of Lanes	0	1	1	1	0	1	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	8.4	8.7	9.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	100%	100%	0%	0%	100%	58%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	42%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	7	53	0	56	39	63	69	60	12	9
LT Vol	91	0	0	0	0	0	63	0	0	12	0
Through Vol	0	7	0	0	56	0	0	69	35	0	9
RT Vol	0	0	53	0	0	39	0	0	25	0	0
Lane Flow Rate	99	8	58	0	61	42	68	75	65	13	10
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.163	0.011	0.076	0	0.093	0.056	0.11	0.111	0.09	0.023	0.016
Departure Headway (Hd)	5.924	5.423	4.722	5.497	5.497	4.795	5.783	5.282	4.988	6.224	5.722
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	603	658	755	0	649	743	618	677	716	572	622
Service Time	3.677	3.176	2.474	3.253	3.253	2.551	3.533	3.031	2.737	3.991	3.488
HCM Lane V/C Ratio	0.164	0.012	0.077	0	0.094	0.057	0.11	0.111	0.091	0.023	0.016
HCM Control Delay	9.8	8.2	7.9	8.3	8.8	7.8	9.3	8.7	8.2	9.1	8.6
HCM Lane LOS	A	A	A	N	A	A	A	A	A	A	A
HCM 95th-tile Q	0.6	0	0.2	0	0.3	0.2	0.4	0.4	0.3	0.1	0

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

```
Intersection #11 Ash St / El Segundo Blvd
Cycle (sec):          100          Critical Vol./Cap.(X):          0.511
Loss Time (sec):       10          Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        100          Level Of Service:                    A
```

Street Name:	Ash St						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0 1	1	1	1 0	1	2	0 3	0 1	2	0 2 1 0
Volume Module:												
Base Vol:	4	18	9	118	112	36	53	605	39	259	1354	261
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	18	9	118	112	36	53	607	39	260	1358	262
Added Vol:	0	0	0	0	0	0	0	-15	0	0	-10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	18	9	118	112	36	53	592	39	260	1348	262
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	18	9	118	112	36	53	592	39	260	1348	262
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	18	9	118	112	36	53	592	39	260	1348	262
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:	4	18	9	118	112	36	53	592	39	260	1348	262
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	1.00	1.00	1.54	1.46	1.00	2.00	3.00	1.00	2.00	2.51	0.49
Final Sat.:	3200	1600	1600	2463	2337	1600	3200	4800	1600	3200	4019	781
Capacity Analysis Module:												
Vol/Sat:	0.00	0.01	0.01	0.05	0.05	0.02	0.02	0.12	0.02	0.08	0.34	0.34
OvlAdjV/S:			0.00									
Crit Moves:	****			****			****			****		

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	12	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	10	0
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	8.9
HCM LOS	A

Lane


```
MITIG8 - E + P AM          Mon Oct 24, 2016 12:13:31                Page 1-1
--------------------------------------------------------------------------------
                        PARK PLACE EXTENSION PROJECT
                      EXISTING PLUS PROJECT CONDITION
                            AM PEAK HOUR
--------------------------------------------------------------------------------
                     Level Of Service Computation Report
          ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #12 Nash St / Park Pl
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.139
Loss Time (sec):        0              Average Delay (sec/veh):        xxxxxx
Optimal Cycle:         26              Level Of Service:                    A
********************************************************************************
Street Name:              Nash St                        Park Pl
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:        1  0  1  0  1    1  0  0  1  0    1  0  1  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    7   53     12    9    0      0    0    0     63    0   25
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    7   53     12    9    0      0    0    0     63    0   25
Added Vol:     91    0    0      0    0    0      0   56   39      0  104    0
PasserByVol:    0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:   91    7   53     12    9    0      0   56   39     63  104   25
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    91    7   53     12    9    0      0   56   39     63  104   25
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   91    7   53     12    9    0      0   56   39     63  104   25
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:   91    7   53     12    9    0      0   56   39     63  104   25
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600   1600 1600 1600   1600 1600 1600   1600 1600 1600
Adjustment:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:       1.00 1.00 1.00   1.00 1.00 0.00   1.00 1.00 1.00   1.00 1.61 0.39
Final Sat.:  1600 1600 1600   1600 1600    0   1600 1600 1600   1600 2580  620
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.00 0.03   0.01 0.01 0.00   0.00 0.04 0.02   0.04 0.04 0.04
Crit Moves:  ****             ****             ****             ****
********************************************************************************
```

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #13 Nash St-Park Wy / Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.423
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Nash St-Park Wy						Rosecrans 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			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0 1	0	2	0 1	0 1	2	0 2	1	0	2 0 3 0 1
Volume Module:												
Base Vol:	35	19	77	17	15	32	139	1075	49	87	1020	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	19	77	17	15	32	139	1078	49	87	1023	64
Added Vol:	0	0	0	39	0	0	0	-80	0	0	-185	91
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	19	77	56	15	32	139	998	49	87	838	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	35	19	77	56	15	32	139	998	49	87	838	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	19	77	56	15	32	139	998	49	87	838	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	19	77	56	15	32	139	998	49	87	838	155
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.20	0.80	2.00	1.00	1.00	2.00	2.86	0.14	2.00	3.00	1.00
Final Sat.:	1600	317	1283	3200	1600	1600	3200	4575	225	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.06	0.02	0.01	0.02	0.04	0.22	0.22	0.03	0.17	0.10
OvlAdjV/S:						0.00						
Crit Moves:	****			****				****		****		

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	62	58	0	143	87	30	0	106	8	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	67	63	0	155	95	33	0	115	9	38
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	2
HCM Control Delay	9.3	9.9	9.8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	52%	0%	74%	100%	100%
Vol Right, %	0%	0%	100%	0%	48%	0%	26%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	106	8	35	11	120	143	117	0	0
LT Vol	106	0	0	11	0	143	0	0	0
Through Vol	0	8	0	0	62	0	87	0	0
RT Vol	0	0	35	0	58	0	30	0	0
Lane Flow Rate	115	9	38	12	130	155	127	0	0
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.199	0.014	0.053	0.02	0.192	0.252	0.182	0	0
Departure Headway (Hd)	6.212	5.71	5.006	6.141	5.298	5.837	5.155	6.212	4.457
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	575	623	710	580	672	612	692	0	0
Service Time	3.986	3.483	2.779	3.914	3.07	3.603	2.921	3.912	2.157
HCM Lane V/C Ratio	0.2	0.014	0.054	0.021	0.193	0.253	0.184	0	0
HCM Control Delay	10.5	8.6	8.1	9	9.3	10.6	9.1	8.9	7.2
HCM Lane LOS	B	A	A	A	A	B	A	N	N
HCM 95th-tile Q	0.7	0	0.2	0.1	0.7	1	0.7	0	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	0
HCM LOS	-

Lane


```
E + P AM                    Thu Oct 20, 2016 11:40:01                Page 19-1
-------------------------------------------------------------------------------

                         PARK PLACE EXTENSION PROJECT
                         EXISTING PLUS PROJECT CONDITION
                               AM PEAK HOUR

-------------------------------------------------------------------------------

                      Level Of Service Computation Report
            ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #15 Apollo St-Market Pl / Rosecrans Ave
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.499
Loss Time (sec):       10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        100              Level Of Service:                   A
*******************************************************************************
Street Name:        Apollo St-Market Pl                Rosecrans 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        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:         2  0  1  0  1    2  0  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       33   33   38    28   18   20   115 1022   46    96 1144  396
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:    33   33   38    28   18   20   115 1025   46    96 1147  397
Added Vol:       0    0    0    39    0    0     0  -41    0     0  -94   91
PasserByVol:     0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    33   33   38    67   18   20   115  984   46    96 1053  488
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     33   33   38    67   18   20   115  984   46    96 1053  488
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    33   33   38    67   18   20   115  984   46    96 1053  488
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:    33   33   38    67   18   20   115  984   46    96 1053  488
------------|---------------||---------------||---------------||---------------|
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 1.00 1.00  2.00 1.00 1.00  2.00 3.00 1.00  2.00 2.05 0.95
Final Sat.:   3200 1600 1600  3200 1600 1600  3200 4800 1600  3200 3280 1520
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.01 0.02 0.02  0.02 0.01 0.01  0.04 0.20 0.03  0.03 0.32 0.32
Crit Moves:        ****            ****            ****            ****
*******************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #16 Douglas St / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.708
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: C

Street Name:	Douglas St						El Segundo Blvd					
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:	2	0 1	1	2	0 2	0 1	1	0 2	1 0	2	0 3	0 1
Volume Module:												
Base Vol:	429	679	89	118	284	52	101	484	137	205	1423	419
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:	430	681	89	118	285	52	101	485	137	206	1427	420
Added Vol:	0	0	15	0	0	0	0	-15	0	10	-10	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	430	681	104	118	285	52	101	470	137	216	1417	420
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	430	681	104	118	285	52	101	470	137	216	1417	420
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	430	681	104	118	285	52	101	470	137	216	1417	420
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:	430	681	104	118	285	52	101	470	137	216	1417	420
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	2.00	1.00	2.00	2.00	1.00	1.00	2.32	0.68	2.00	3.00	1.00
Final Sat.:	3200	3200	1600	3200	3200	1600	1600	3715	1085	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.13	0.21	0.07	0.04	0.09	0.03	0.06	0.13	0.13	0.07	0.30	0.26
Crit Moves:		****			****			****			****	

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #17 Douglas St / Transit Center

Cycle (sec): 100 Critical Vol./Cap.(X): 0.361
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Douglas St						Transit Center					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1	0	1 0	1 1	0	1 0	1 0	1	0 1	0 0
Volume Module:												
Base Vol:	2	806	1	6	221	9	0	0	0	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:	2	808	1	6	222	9	0	0	0	0	0	0
Added Vol:	0	15	0	0	10	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	823	1	6	232	9	0	0	0	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:	2	823	1	6	232	9	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	823	1	6	232	9	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	823	1	6	232	9	0	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.92	0.08	1.00	1.00	1.00	0.00	1.00	1.00
Final Sat.:	1600	3196	4	1600	3080	120	1600	1600	1600	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.26	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****			****							

Intersection	
Intersection Delay, s/veh	23.3
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	108	0	35	0	2	2	11	0	121	684	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	117	0	38	0	2	2	12	0	132	743	3
Number of Lanes	0	0	1	1	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	13.8	11.3	28.8
HCM LOS	B	B	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	13%	100%	0%	0%
Vol Thru, %	0%	100%	99%	0%	0%	13%	0%	100%	21%
Vol Right, %	0%	0%	1%	0%	100%	73%	0%	0%	79%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	456	231	108	35	15	6	119	282
LT Vol	121	0	0	108	0	2	6	0	0
Through Vol	0	456	228	0	0	2	0	119	59
RT Vol	0	0	3	0	35	11	0	0	223
Lane Flow Rate	132	496	251	117	38	16	7	129	307
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.253	0.885	0.448	0.283	0.079	0.037	0.014	0.261	0.564
Departure Headway (Hd)	6.932	6.426	6.417	8.67	7.459	8.258	7.783	7.276	6.725
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	514	560	557	417	483	435	462	497	540
Service Time	4.729	4.223	4.213	6.375	5.164	5.972	5.493	4.986	4.425
HCM Lane V/C Ratio	0.257	0.886	0.451	0.281	0.079	0.037	0.015	0.26	0.569
HCM Control Delay	12.1	40.5	14.4	14.8	10.8	11.3	10.6	12.5	17.8
HCM Lane LOS	B	E	B	B	B	B	B	B	C
HCM 95th-tile Q	1	10.1	2.3	1.1	0.3	0.1	0	1	3.5

Existing Plus Project Alternative 1A Conditions AM Peak
18: Douglas St & Park Pl/Private Dwy

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	6	178	223
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	193	242
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	16.1
HCM LOS	C

Lane

Michael Baker International Park Place Extension Project
H:\pdata\145070\Technical Studies\Traffic\Synchro\Park_Place_E+P-1A_AM.syn HCM 2010 AWSC

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION (WITH MITIGATION)
AM PEAK HOUR

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

Intersection #18 Douglas St / Park Pl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.292
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 32 Level Of Service: A

Street Name:	Douglas St						Park Pl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	0	1 0	0 1	0	0 1!	0 0
Volume Module:												
Base Vol:	121	685	3	6	181	209	90	0	35	2	2	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:	121	687	3	6	181	210	90	0	35	2	2	11
Added Vol:	0	-3	0	0	-3	13	18	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	684	3	6	178	223	108	0	35	2	2	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:	121	684	3	6	178	223	108	0	35	2	2	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	121	684	3	6	178	223	108	0	35	2	2	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:	121	684	3	6	178	223	108	0	35	2	2	11
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.00	1.00	1.00	0.00	1.00	0.13	0.13	0.74
Final Sat.:	1600	3186	14	1600	1600	1600	1600	0	1600	213	213	1173
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.21	0.00	0.11	0.14	0.07	0.00	0.02	0.01	0.01	0.01
Crit Moves:	****					****	****				****	

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #19 Douglas St-Redondo Ave / Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.657
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: B

Street Name:	Douglas St-Redondo Ave						Rosecrans 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			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	2	0 1	0 1	2	0 3	0 1	2	0 3	0 1
Volume Module:												
Base Vol:	32	80	10	125	50	89	280	692	37	37	1758	670
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	32	80	10	125	50	89	281	694	37	37	1763	672
Added Vol:	0	0	0	0	0	-3	-3	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	32	80	10	125	50	86	278	694	37	37	1763	672
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	32	80	10	125	50	86	278	694	37	37	1763	672
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	80	10	125	50	86	278	694	37	37	1763	672
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	80	10	125	50	86	278	694	37	37	1763	672
OvlAdjVol:												609
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4800	1600	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.01	0.04	0.03	0.05	0.09	0.14	0.02	0.01	0.37	0.42
OvlAdjV/S:												0.38
Crit Moves:		****			****			****				****

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #20 Aviation Blvd / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.860
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: D

Street Name:	Aviation Blvd						El Segundo Blvd					
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:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2.0	0 1	1	0 1.1	1 1	1	0 3.1	0	2	0 2.1	0
Volume Module:												
Base Vol:	313	1040	281	27	771	359	129	447	94	412	1530	82
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	314	1043	282	27	773	360	129	448	94	413	1534	82
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	314	1043	282	27	773	360	129	448	94	413	1534	82
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	314	1043	282	27	773	360	129	448	94	413	1534	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	314	1043	282	27	773	360	129	448	94	413	1534	82
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	314	1043	282	27	773	360	129	448	94	413	1534	82
OvlAdjVol:			75									
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	2.00	1.00	1.00	2.00	1.00	1.00	3.30	0.70	2.00	2.85	0.15
Final Sat.:	3200	3200	1600	1600	3200	1600	1600	5288	1112	3200	4556	244
Capacity Analysis Module:												
Vol/Sat:	0.10	0.33	0.18	0.02	0.24	0.22	0.08	0.08	0.08	0.13	0.34	0.34
OvlAdjV/S:			0.05									
Crit Moves:		****			****			****			****	

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #21 Aviation Blvd / Utah Ave-135th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.912
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 107 Level Of Service: E

Street Name:	Aviation Blvd						Utah Ave-135th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1.1	0	1	0 1.1	0	0	1 0.1	0	1	0 1.0	1
Volume Module:												
Base Vol:	73	1270	131	231	930	99	12	140	18	160	173	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:	73	1273	131	232	932	99	12	140	18	160	173	354
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	73	1273	131	232	932	99	12	140	18	160	173	354
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	73	1273	131	232	932	99	12	140	18	160	173	354
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	1273	131	232	932	99	12	140	18	160	173	354
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:	73	1273	131	232	932	99	12	140	18	160	173	354
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.81	0.19	1.00	1.81	0.19	0.14	1.65	0.21	1.00	1.00	1.00
Final Sat.:	1600	2901	299	1600	2892	308	226	2635	339	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.44	0.44	0.14	0.32	0.32	0.01	0.05	0.05	0.10	0.11	0.22
Crit Moves:		****			****			****				****

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #22 Aviation Blvd / Alaska Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.577
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Aviation Blvd						Alaska 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			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 0	0	0 1	1 0	1	0 0	0 2	0	0 0	0 0
Volume Module:												
Base Vol:	90	1494	0	0	935	159	14	0	36	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:	90	1498	0	0	937	159	14	0	36	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	90	1498	0	0	937	159	14	0	36	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:	90	1498	0	0	937	159	14	0	36	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	90	1498	0	0	937	159	14	0	36	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	90	1498	0	0	937	159	14	0	36	0	0	0
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.71	0.29	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	2735	465	1600	0	3200	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.47	0.00	0.00	0.34	0.34	0.01	0.00	0.01	0.00	0.00	0.00
OvlAdjV/S:									0.00			
Crit Moves:		****		****			****					

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

Intersection #23 Aviation Blvd / Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.917
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 109 Level Of Service: E

Street Name:	Aviation Blvd						Rosecrans 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			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 3	0 1	2	0 4	0 1	2	0 4	0 1	2	0 4	0 1
Volume Module:												
Base Vol:	658	1897	271	86	564	258	68	703	136	537	2377	529
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:	660	1902	272	86	565	259	68	705	136	538	2383	530
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	660	1902	272	86	565	259	68	705	136	538	2383	530
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	660	1902	272	86	565	259	68	705	136	538	2383	530
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	660	1902	272	86	565	259	68	705	136	538	2383	530
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:	660	1902	272	86	565	259	68	705	136	538	2383	530
OvlAdjVol:			3			225			0			487
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	3.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3200	4800	1600	3200	6400	1600	3200	6400	1600	3200	6400	1600
Capacity Analysis Module:												
Vol/Sat:	0.21	0.40	0.17	0.03	0.09	0.16	0.02	0.11	0.09	0.17	0.37	0.33
OvlAdjV/S:		0.00			0.14			0.00				0.30
Crit Moves:	****			****			****				****	

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITION
AM PEAK HOUR

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

```
**********************************************************************************
Intersection #24
**********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.099
Loss Time (sec):       0                Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        25                Level Of Service:                  A
**********************************************************************************
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|----------------||----------------||----------------||----------------|
Control:       Split Phase      Split Phase      Split Phase      Split Phase
Rights:          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  1! 0  1    1  1  1  0  0    0  0  1  1  0
------------|----------------||----------------||----------------||----------------|
Volume Module:
Base Vol:       0    0    0      0    0   18     59    0    0      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:    0    0    0      0    0   18     59    0    0      0    0    0
Added Vol:      0    0    0      5    0    0      0   90    0      0  110   85
PasserByVol:    0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:    0    0    0      5    0   18     59   90    0      0  110   85
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     0    0    0      5    0   18     59   90    0      0  110   85
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:    0    0    0      5    0   18     59   90    0      0  110   85
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
FinalVolume:    0    0    0      5    0   18     59   90    0      0  110   85
------------|----------------||----------------||----------------||----------------|
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   0.43 0.00 1.57   1.19 1.81 0.00   0.00 1.13 0.87
Final Sat.:     0    0    0    694    0 2506   1904 2896    0      0 1805 1395
------------|----------------||----------------||----------------||----------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00   0.01 0.00 0.01   0.03 0.03 0.00   0.00 0.06 0.06
Crit Moves:                              ****        ****                 ****
**********************************************************************************
```


Site: E+P AM

Allied Way / Park Place
Roundabout

Movement Performance - Vehicles

Mov ID	ODMov	Demand Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	ft		per veh	mph
East: Park Place											
6	T1	120	2.0	0.096	4.1	LOS A	0.4	11.2	0.20	0.08	29.4
16	R2	92	2.0	0.096	4.1	LOS A	0.4	11.2	0.20	0.08	28.2
Approach		212	2.0	0.096	4.1	LOS A	0.4	11.2	0.20	0.08	28.9
North: Allied Way											
7	L2	5	2.0	0.008	5.7	LOS A	0.0	0.8	0.31	0.15	27.4
14	R2	20	2.0	0.019	3.6	LOS A	0.1	2.0	0.27	0.12	28.3
Approach		25	2.0	0.019	4.1	LOS A	0.1	2.0	0.28	0.12	28.1
West: Park Place											
5	L2	64	2.0	0.076	4.1	LOS A	0.4	9.1	0.05	0.01	28.3
2	T1	98	2.0	0.076	4.1	LOS A	0.4	9.1	0.05	0.01	29.1
Approach		162	2.0	0.076	4.1	LOS A	0.4	9.1	0.05	0.01	28.8
All Vehicles		399	2.0	0.096	4.1	LOS A	0.4	11.2	0.15	0.06	28.8

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	59	90	110	85	5	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	98	120	92	5	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	212	0	-	0	343	106
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	177	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1356	-	-	-	627	928
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1356	-	-	-	597	928
Mov Cap-2 Maneuver	-	-	-	-	597	-
Stage 1	-	-	-	-	846	-
Stage 2	-	-	-	-	797	-

Approach	EB	WB	SB
HCM Control Delay, s	3.1	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1356	-	-	-	597	928
HCM Lane V/C Ratio	0.047	-	-	-	0.009	0.021
HCM Control Delay (s)	7.8	-	-	-	11.1	9
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.1	-	-	-	0	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	126	368	398	477	413	192	285	1312	202	180	2916	88
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	137	400	433	518	449	209	310	1426	220	196	3170	96
Adj No. of Lanes	1	2	1	2	2	1	2	4	0	2	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	560	251	490	739	330	307	2637	406	254	2894	715
Arrive On Green	0.09	0.16	0.16	0.14	0.21	0.21	0.09	0.47	0.47	0.07	0.45	0.45
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	3442	5646	870	3442	6408	1583
Grp Volume(v), veh/h	137	400	433	518	449	209	310	1214	432	196	3170	96
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1721	1602	1709	1721	1602	1583
Q Serve(g_s), s	9.1	12.9	19.0	17.1	13.8	14.4	10.7	21.6	21.7	6.7	54.2	4.2
Cycle Q Clear(g_c), s	9.1	12.9	19.0	17.1	13.8	14.4	10.7	21.6	21.7	6.7	54.2	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	163	560	251	490	739	330	307	2244	798	254	2894	715
V/C Ratio(X)	0.84	0.71	1.73	1.06	0.61	0.63	1.01	0.54	0.54	0.77	1.10	0.13
Avail Cap(c_a), veh/h	192	560	251	490	739	330	307	2244	798	330	2894	715
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.6	47.9	50.5	51.4	43.0	43.3	54.6	22.8	22.8	54.6	32.9	19.2
Incr Delay (d2), s/veh	23.7	4.3	343.5	56.3	1.4	3.9	54.0	0.3	0.7	8.1	49.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	6.6	32.2	11.9	6.9	6.7	7.4	9.6	10.4	3.5	33.8	1.9
LnGrp Delay(d),s/veh	77.2	52.2	394.0	107.7	44.5	47.2	108.7	23.1	23.6	62.7	82.0	19.3
LnGrp LOS	E	D	F	F	D	D	F	C	C	E	F	B
Approach Vol, veh/h		970			1176			1956			3462	
Approach Delay, s/veh		208.3			72.8			36.7			79.2	
Approach LOS		F			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.4	61.0	21.6	24.0	15.2	59.2	15.6	30.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	11.5	53.4	17.1	19.0	10.7	54.2	13.0	23.1
Max Q Clear Time (g_c+I1), s	8.7	23.7	19.1	21.0	12.7	56.2	11.1	16.4
Green Ext Time (p_c), s	0.2	29.4	0.0	0.0	0.0	0.0	0.1	4.0

Intersection Summary		
HCM 2010 Ctrl Delay	83.8	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	1	60	109	0	120	59	1604	9	189	2994	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	4.5	4.5	5.0	4.0	4.5	5.0	5.0
Lane Util. Factor		1.00		0.91	0.91	1.00	1.00	0.86	1.00	0.97	0.86	1.00
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1703		3221	1610	1583	1770	6408	1583	3433	6408	1583
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1703		3221	1610	1583	1770	6408	1583	3433	6408	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	1	65	118	0	130	64	1743	10	205	3254	60
RTOR Reduction (vph)	0	26	0	0	0	100	0	0	0	0	0	24
Lane Group Flow (vph)	0	117	0	79	39	30	64	1743	10	205	3254	36
Turn Type	Split	NA		Split	NA	pm+ov	Prot	NA	Free	Prot	NA	Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8			Free			6
Actuated Green, G (s)		12.0		6.7	6.7	17.7	4.2	57.3	106.5	11.0	64.1	64.1
Effective Green, g (s)		12.0		6.7	6.7	17.7	4.2	57.3	106.5	11.0	64.1	64.1
Actuated g/C Ratio		0.11		0.06	0.06	0.17	0.04	0.54	1.00	0.10	0.60	0.60
Clearance Time (s)		5.0		5.0	5.0	4.5	4.5	5.0		4.5	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		191		202	101	263	69	3447	1583	354	3856	952
v/s Ratio Prot		c0.07		c0.02	0.02	0.01	c0.04	0.27		0.06	c0.51	
v/s Ratio Perm						0.01			0.01			0.02
v/c Ratio		0.61		0.39	0.39	0.11	0.93	0.51	0.01	0.58	0.84	0.04
Uniform Delay, d1		45.0		47.9	47.9	37.7	51.0	15.6	0.0	45.5	17.2	8.6
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		5.7		1.3	2.4	0.2	82.5	0.1	0.0	2.3	1.8	0.0
Delay (s)		50.8		49.2	50.4	37.9	133.5	15.7	0.0	47.8	19.0	8.7
Level of Service		D		D	D	D	F	B	A	D	B	A
Approach Delay (s)		50.8			43.5			19.8			20.5	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	22.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	106.5	Sum of lost time (s)	19.5
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	489	0	131	1	1577	465	0	3110	1
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h				532	0	142	1	1714	505	0	3380	1
Adj No. of Lanes				2	0	1	1	4	1	2	4	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	2
Cap, veh/h				795	0	231	145	3774	1299	7	3926	1
Arrive On Green				0.23	0.00	0.23	0.59	0.59	0.59	0.00	0.59	0.59
Sat Flow, veh/h				3442	0	1583	54	6408	1583	3442	6666	2
Grp Volume(v), veh/h				532	0	142	1	1714	505	0	2437	944
Grp Sat Flow(s),veh/h/ln				1721	0	1583	54	1602	1583	1721	1602	1862
Q Serve(g_s), s				7.4	0.0	8.9	0.8	7.9	4.4	0.0	22.3	22.3
Cycle Q Clear(g_c), s				7.4	0.0	8.9	23.2	7.9	4.4	0.0	22.3	22.3
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				795	0	231	145	3774	1299	7	2831	1097
V/C Ratio(X)				0.67	0.00	0.61	0.01	0.45	0.39	0.00	0.86	0.86
Avail Cap(c_a), veh/h				1043	0	345	145	3774	1299	293	3140	1217
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				18.5	0.0	66.0	18.7	6.1	1.3	0.0	9.0	9.0
Incr Delay (d2), s/veh				1.1	0.0	2.6	0.0	0.1	0.2	0.0	2.5	6.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.6	0.0	5.8	0.0	3.5	4.4	0.0	10.3	13.1
LnGrp Delay(d),s/veh				19.5	0.0	68.6	18.7	6.2	1.4	0.0	11.5	15.1
LnGrp LOS				B		E	B	A	A		B	B
Approach Vol, veh/h					674			2220			3381	
Approach Delay, s/veh					29.9			5.1			12.5	
Approach LOS					C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	0.0	36.1				36.1		16.7
Change Period (Y+Rc), s	4.5	5.0				5.0		4.5
Max Green Setting (Gmax), s	4.5	25.5				34.5		16.0
Max Q Clear Time (g_c+I1), s	0.0	25.2				24.3		10.9
Green Ext Time (p_c), s	0.0	0.3				6.8		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	11.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	241	640	187	464	653	354	318	1258	305	239	2590	586
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	262	696	203	504	710	0	346	1367	332	260	2815	637
Adj No. of Lanes	2	3	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	644	201	470	665	298	335	3332	1040	310	2607	812
Arrive On Green	0.08	0.13	0.13	0.14	0.19	0.00	0.10	0.52	0.52	0.09	0.51	0.51
Sat Flow, veh/h	3442	5085	1583	3442	3539	1583	3442	6408	1583	3442	5085	1583
Grp Volume(v), veh/h	262	696	203	504	710	0	346	1367	332	260	2815	637
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1602	1583	1721	1695	1583
Q Serve(g_s), s	11.3	19.0	19.0	20.5	28.2	0.0	14.6	19.5	13.7	11.2	76.9	49.2
Cycle Q Clear(g_c), s	11.3	19.0	19.0	20.5	28.2	0.0	14.6	19.5	13.7	11.2	76.9	49.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	259	644	201	470	665	298	335	3332	1040	310	2607	812
V/C Ratio(X)	1.01	1.08	1.01	1.07	1.07	0.00	1.03	0.41	0.32	0.84	1.08	0.78
Avail Cap(c_a), veh/h	259	644	201	470	665	298	335	3332	1040	411	2607	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.3	65.5	65.5	64.8	60.9	0.0	67.7	22.0	11.2	67.2	36.5	29.8
Incr Delay (d2), s/veh	58.6	59.2	66.7	62.0	54.2	0.0	57.9	0.1	0.2	11.1	43.6	5.1
Initial Q Delay(d3),s/veh	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	12.4	12.0	13.8	18.8	0.0	9.6	8.7	6.0	5.8	46.2	22.6
LnGrp Delay(d),s/veh	128.0	124.7	132.3	126.7	115.1	0.0	125.6	22.1	11.4	78.3	80.1	34.9
LnGrp LOS	F	F	F	F	F		F	C	B	E	F	C
Approach Vol, veh/h		1161			1214			2045			3712	
Approach Delay, s/veh		126.8			119.9			37.8			72.2	
Approach LOS		F			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	83.0	25.0	24.0	19.1	81.9	15.8	33.2
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	17.9	73.6	20.5	19.0	14.6	76.9	11.3	28.2
Max Q Clear Time (g_c+I1), s	13.2	21.5	22.5	21.0	16.6	78.9	13.3	30.2
Green Ext Time (p_c), s	0.4	50.9	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.5
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	70	298	47	120	227	57	92	1390	136	230	2393	154
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	76	324	51	130	247	62	100	1511	148	250	2601	167
Adj No. of Lanes	1	2	0	2	1	1	1	3	0	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	485	76	179	289	395	119	2367	232	324	2692	838
Arrive On Green	0.05	0.16	0.16	0.05	0.16	0.16	0.07	0.50	0.50	0.09	0.53	0.53
Sat Flow, veh/h	1774	3070	478	3442	1863	1583	1774	4710	461	3442	5085	1583
Grp Volume(v), veh/h	76	185	190	130	247	62	100	1087	572	250	2601	167
Grp Sat Flow(s),veh/h/ln	1774	1770	1778	1721	1863	1583	1774	1695	1781	1721	1695	1583
Q Serve(g_s), s	4.2	9.7	9.9	3.7	12.7	3.0	5.5	23.1	23.1	7.0	48.4	5.4
Cycle Q Clear(g_c), s	4.2	9.7	9.9	3.7	12.7	3.0	5.5	23.1	23.1	7.0	48.4	5.4
Prop In Lane	1.00		0.27	1.00		1.00	1.00		0.26	1.00		1.00
Lane Grp Cap(c), veh/h	97	280	281	179	289	395	119	1704	895	324	2692	838
V/C Ratio(X)	0.78	0.66	0.67	0.73	0.85	0.16	0.84	0.64	0.64	0.77	0.97	0.20
Avail Cap(c_a), veh/h	99	296	297	179	303	407	119	1704	895	438	2739	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	38.9	39.0	45.9	40.4	28.8	45.3	17.9	17.9	43.5	22.3	12.2
Incr Delay (d2), s/veh	31.7	5.1	5.5	13.8	19.9	0.2	38.4	0.8	1.5	5.8	10.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	5.1	5.3	2.1	8.1	1.3	4.0	10.9	11.7	3.6	25.0	2.4
LnGrp Delay(d),s/veh	77.5	44.0	44.5	59.7	60.3	29.0	83.6	18.7	19.4	49.3	32.7	12.3
LnGrp LOS	E	D	D	E	E	C	F	B	B	D	C	B
Approach Vol, veh/h		451			439			1759			3018	
Approach Delay, s/veh		49.8			55.7			22.6			33.0	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	54.3	9.6	20.5	11.1	57.0	9.9	20.2
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	12.5	47.0	5.1	16.4	6.6	52.9	5.5	16.0
Max Q Clear Time (g_c+I1), s	9.0	25.1	5.7	11.9	7.5	50.4	6.2	14.7
Green Ext Time (p_c), s	0.3	21.5	0.0	1.6	0.0	1.6	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.9
HCM 2010 LOS	C

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

```
**********************************************************************
Intersection #6 Plaza El Segundo / Park Pl
**********************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):         0.341
Loss Time (sec):       10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        100              Level Of Service:                  A
**********************************************************************
Street Name:          Plaza El Segundo                  Park Pl
Approach:       North Bound      South Bound      East Bound      West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------|---------------|---------------|---------------|
Control:          Permitted        Permitted        Permitted        Permitted
Rights:             Include          Include          Include          Include
Min. Green:     0    0    0      0    0    0      0    0    0      0    0    0
Y+R:          4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:        1  0  0  1  0    0  1  0  0  1    1  0  1  1  0    1  0  1  1  0
------------|---------------|---------------|---------------|---------------|
Volume Module:
Base Vol:       39   15   12     1   16  230    129  134   26     13  115    4
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:    39   15   12     1   16  231    129  134   26     13  115    4
Added Vol:       0    0    0   105    0 -105    -60  110    0      0  130   60
PasserByVol:     0    0    0     0    0    0      0    0    0      0    0    0
Initial Fut:    39   15   12   106   16  126     69  244   26     13  245   64
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:     39   15   12   106   16  126     69  244   26     13  245   64
Reduct Vol:      0    0    0     0    0    0      0    0    0      0    0    0
Reduced Vol:    39   15   12   106   16  126     69  244   26     13  245   64
PCE Adj:      1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
FinalVolume:    39   15   12   106   16  126     69  244   26     13  245   64
------------|---------------|---------------|---------------|---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600   1600 1600 1600   1600 1600 1600
Adjustment:   1.00 1.00 1.00  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:        1.00 0.56 0.44  0.87 0.13 1.00   1.00 1.81 0.19   1.00 1.59 0.41
Final Sat.:   1600  889  711  1390  210 1600   1600 2892  308   1600 2538  662
------------|---------------|---------------|---------------|---------------|
Capacity Analysis Module:
Vol/Sat:      0.02 0.02 0.02  0.07 0.08 0.08   0.04 0.08 0.08   0.01 0.10 0.10
Crit Moves:   ****            ****             ****             ****
**********************************************************************
```

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #7 Village Dr / Rosecrans Ave

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

Street Name:	Village Dr						Rosecrans 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			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 1	1	0 0	1 1	2	0 2	1 0	1	0 3	0 1
Volume Module:												
Base Vol:	135	0	191	15	0	1	13	1335	148	262	1498	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:	135	0	191	15	0	1	13	1338	148	263	1502	0
Added Vol:	0	0	0	0	0	0	0	-275	0	0	-175	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	0	191	15	0	1	13	1063	148	263	1327	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:	135	0	191	15	0	1	13	1063	148	263	1327	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	0	191	15	0	1	13	1063	148	263	1327	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:	135	0	191	15	0	1	13	1063	148	263	1327	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.00	1.00	1.00	0.00	2.00	2.00	2.63	0.37	1.00	3.00	1.00
Final Sat.:	1600	0	1600	1600	0	3200	3200	4212	588	1600	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.00	0.12	0.01	0.00	0.00	0.00	0.25	0.25	0.16	0.28	0.00
Crit Moves:			****	****				****		****		

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #8 Cedar Ave / Marine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.610
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: B

Street Name:	Cedar Ave						Marine 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			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 1!	0 0	0	1 0	0 1	1	0 1	1 0	1	0 2	0 1
Volume Module:												
Base Vol:	13	27	51	337	68	101	56	577	43	31	287	330
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	27	51	338	68	101	56	579	43	31	288	331
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	27	51	338	68	101	56	579	43	31	288	331
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	27	51	338	68	101	56	579	43	31	288	331
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	27	51	338	68	101	56	579	43	31	288	331
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	27	51	338	68	101	56	579	43	31	288	331
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:	0.14	0.30	0.56	0.83	0.17	1.00	1.00	1.86	0.14	1.00	2.00	1.00
Final Sat.:	229	475	897	1331	269	1600	1600	2978	222	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.06	0.06	0.21	0.25	0.06	0.04	0.19	0.19	0.02	0.09	0.21
Crit Moves:		****		****			****					****

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #9 Continental Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.401
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Continental Blvd						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1 0	1 1	1	1 0	1 1	2	0 3	0 1	2	0 2	1 0
Volume Module:												
Base Vol:	56	110	118	220	17	87	38	792	4	15	772	62
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:	56	110	118	221	17	87	38	794	4	15	774	62
Added Vol:	0	0	0	0	0	0	0	-10	0	0	-25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	110	118	221	17	87	38	784	4	15	749	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	56	110	118	221	17	87	38	784	4	15	749	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	56	110	118	221	17	87	38	784	4	15	749	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	56	110	118	221	17	87	38	784	4	15	749	62
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.34	1.66	2.00	0.33	1.67	2.00	3.00	1.00	2.00	2.77	0.23
Final Sat.:	1600	2145	2655	3200	523	2677	3200	4800	1600	3200	4432	368
Capacity Analysis Module:												
Vol/Sat:	0.04	0.05	0.04	0.07	0.03	0.03	0.01	0.16	0.00	0.00	0.17	0.17
Crit Moves:		****		****			****				****	

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #10 Allied Wy / Hughes Wy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.335
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Allied Wy						Hughes Wy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1!	0	0	0 0	0 1	1	0 1	1 0	1	0 2	0 1
Volume Module:												
Base Vol:	113	0	8	0	0	10	0	8	196	34	161	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:	113	0	8	0	0	10	0	8	197	34	161	0
Added Vol:	0	0	10	0	0	0	0	-10	0	70	-70	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	113	0	18	0	0	10	0	-1	197	104	91	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
PHF Volume:	113	0	18	0	0	10	0	0	197	104	91	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	0	18	0	0	10	0	0	197	104	91	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
FinalVolume:	113	0	18	0	0	10	0	0	197	104	91	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.73	0.00	0.27	0.00	0.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	2761	0	439	0	0	1600	1600	1600	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.04	0.00	0.00	0.01	0.00	0.00	0.12	0.07	0.03	0.00
Crit Moves:	****					****			****	****		

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #11 Ash St / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.501
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Ash St						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0 1	1	1	1 0	1	2	0 3	0 1	2	0 2 1 0
Volume Module:												
Base Vol:	6	47	154	403	15	78	92	997	6	19	758	105
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:	6	47	154	404	15	78	92	1000	6	19	760	105
Added Vol:	0	0	0	0	0	0	0	-10	0	0	-25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	47	154	404	15	78	92	990	6	19	735	105
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	47	154	404	15	78	92	990	6	19	735	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	47	154	404	15	78	92	990	6	19	735	105
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:	6	47	154	404	15	78	92	990	6	19	735	105
OvlAdjVol:			140									
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	0.47	1.53	2.00	1.00	1.00	2.00	3.00	1.00	2.00	2.62	0.38
Final Sat.:	3200	748	2452	3200	1600	1600	3200	4800	1600	3200	4199	601
Capacity Analysis Module:												
Vol/Sat:	0.00	0.06	0.06	0.13	0.01	0.05	0.03	0.21	0.00	0.01	0.18	0.18
OvlAdjV/S:			0.06									
Crit Moves:	****			****				****		****		

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	153	132	0	130	116	26	0	85	29	52
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	166	143	0	141	126	28	0	92	32	57
Number of Lanes	0	1	1	1	0	1	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	10.6	10.6	10.4
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	100%	100%	0%	0%	100%	60%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	40%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	85	29	52	0	153	132	130	77	65	43	26
LT Vol	85	0	0	0	0	0	130	0	0	43	0
Through Vol	0	29	0	0	153	0	0	77	39	0	26
RT Vol	0	0	52	0	0	132	0	0	26	0	0
Lane Flow Rate	92	32	57	0	166	143	141	84	70	47	28
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.181	0.057	0.092	0	0.284	0.217	0.261	0.143	0.114	0.095	0.053
Departure Headway (Hd)	7.047	6.543	5.837	6.137	6.137	5.433	6.644	6.141	5.857	7.301	6.795
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	508	546	612	0	585	660	540	583	611	490	526
Service Time	4.798	4.294	3.588	3.878	3.878	3.174	4.389	3.885	3.602	5.058	4.552
HCM Lane V/C Ratio	0.181	0.059	0.093	0	0.284	0.217	0.261	0.144	0.115	0.096	0.053
HCM Control Delay	11.4	9.7	9.2	8.9	11.3	9.7	11.7	9.9	9.4	10.8	9.9
HCM Lane LOS	B	A	A	N	B	A	B	A	A	B	A
HCM 95th-tile Q	0.7	0.2	0.3	0	1.2	0.8	1	0.5	0.4	0.3	0.2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	43	26	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	47	28	0
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	10.5
HCM LOS	B

Lane


```
MITIG8 - E + P PM          Mon Oct 24, 2016 12:21:46                Page 1-1
-------------------------------------------------------------------------------
                        PARK PLACE EXTENSION PROJECT
                      EXISTING PLUS PROJECT CONDITIONS
                            PM PEAK HOUR
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
          ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #12 Nash St / Park Pl
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.257
Loss Time (sec):      0                Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        31               Level Of Service:                    A
*******************************************************************************
Street Name:              Nash St                        Park Pl
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:        1  0  1  0  1    1  0  0  1  0    1  0  1  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1   29   52    43   26    0     0    0    0   130    0   26
Growth Adj:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Initial Bse:    1   29   52    43   26    0     0    0    0   130    0   26
Added Vol:     84    0    0     0    0    0     0  153  132     0  116    0
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   85   29   52    43   26    0     0  153  132   130  116   26
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    85   29   52    43   26    0     0  153  132   130  116   26
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   85   29   52    43   26    0     0  153  132   130  116   26
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   85   29   52    43   26    0     0  153  132   130  116   26
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
Adjustment:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:       1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.63 0.37
Final Sat.:  1600 1600 1600  1600 1600    0  1600 1600 1600  1600 2614  586
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.02 0.03  0.03 0.02 0.00  0.00 0.10 0.08  0.08 0.04 0.04
Crit Moves:  ****            ****               ****         ****
*******************************************************************************
```

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #13 Nash St-Park Wy / Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.534
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Nash St-Park Wy						Rosecrans 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			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0 1	0	2	0 1	0 1	2	0 2	1 0	2	0 3 0 1
Volume Module:												
Base Vol:	62	17	90	73	40	177	43	1431	61	87	1533	59
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:	62	17	90	73	40	177	43	1435	61	87	1537	59
Added Vol:	0	0	0	132	0	0	0	-275	0	0	-175	84
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	17	90	205	40	177	43	1160	61	87	1362	143
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	17	90	205	40	177	43	1160	61	87	1362	143
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	17	90	205	40	177	43	1160	61	87	1362	143
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:	62	17	90	205	40	177	43	1160	61	87	1362	143
OvlAdjVol:						156						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.16	0.84	2.00	1.00	1.00	2.00	2.85	0.15	2.00	3.00	1.00
Final Sat.:	1600	254	1346	3200	1600	1600	3200	4560	240	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.07	0.07	0.06	0.03	0.11	0.01	0.25	0.25	0.03	0.28	0.09
OvlAdjV/S:						0.10						
Crit Moves:	****					****	****				****	

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	142	151	0	58	166	0	0	96	2	246
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	154	164	0	63	180	0	0	104	2	267
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	2
HCM Control Delay	16.3	12.4	12.9
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	78%	0%
Vol Thru, %	0%	100%	0%	100%	48%	0%	100%	22%	39%
Vol Right, %	0%	0%	100%	0%	52%	0%	0%	0%	61%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	2	246	0	293	58	166	30	17
LT Vol	96	0	0	0	0	58	0	23	0
Through Vol	0	2	0	0	142	0	166	7	7
RT Vol	0	0	246	0	151	0	0	0	10
Lane Flow Rate	104	2	267	0	318	63	180	32	18
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.207	0.004	0.439	0	0.548	0.127	0.337	0.071	0.035
Departure Headway (Hd)	7.129	6.621	5.909	6.558	6.194	7.238	6.732	7.956	7.118
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	501	537	604	0	580	492	530	453	506
Service Time	4.91	4.401	3.689	4.335	3.971	5.025	4.518	5.656	4.818
HCM Lane V/C Ratio	0.208	0.004	0.442	0	0.548	0.128	0.34	0.071	0.036
HCM Control Delay	11.8	9.4	13.3	9.3	16.3	11.1	12.9	11.3	10.1
HCM Lane LOS	B	A	B	N	C	B	B	B	B
HCM 95th-tile Q	0.8	0	2.2	0	3.3	0.4	1.5	0.2	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	13	10
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	25	14	11
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	10.9
HCM LOS	B

Lane


```
E + P PM                    Thu Oct 20, 2016 11:51:40                Page 19-1
-------------------------------------------------------------------------------

                        PARK PLACE EXTENSION PROJECT
                      EXISTING PLUS PROJECT CONDITIONS
                             PM PEAK HOUR

-------------------------------------------------------------------------------

                      Level Of Service Computation Report
          ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #15 Apollo St-Market Pl / Rosecrans Ave
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.670
Loss Time (sec):       10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        100              Level Of Service:                   B
*******************************************************************************
Street Name:        Apollo St-Market Pl              Rosecrans 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        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:         2  0  1  0  1    2  0  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      111   45  145    326   58  109     57 1482   71    179 1473   65
Growth Adj:   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Initial Bse:   111   45  145    327   58  109     57 1486   71    179 1477   65
Added Vol:       0    0    0    132    0    0      0 -143    0      0  -91   84
PasserByVol:     0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:   111   45  145    459   58  109     57 1343   71    179 1386  149
User Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    111   45  145    459   58  109     57 1343   71    179 1386  149
Reduct Vol:      0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   111   45  145    459   58  109     57 1343   71    179 1386  149
PCE Adj:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
FinalVolume:   111   45  145    459   58  109     57 1343   71    179 1386  149
------------|---------------||---------------||---------------||---------------|
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 1.00 1.00   2.00 1.00 1.00   2.00 3.00 1.00   2.00 2.71 0.29
Final Sat.:   3200 1600 1600   3200 1600 1600   3200 4800 1600   3200 4334  466
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.03 0.03 0.09   0.14 0.04 0.07   0.02 0.28 0.04   0.06 0.32 0.32
Crit Moves:             ****  ****                   ****        ****
*******************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #16 Douglas St / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: D

Street Name:	Douglas St						El Segundo Blvd					
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:	2	0 1	1 1	2	0 2	0 1	1	0 2	1 0	2	0 3	0 1
Volume Module:												
Base Vol:	115	428	302	403	1035	78	30	1285	220	121	647	136
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:	115	429	303	404	1038	78	30	1288	221	121	649	136
Added Vol:	0	0	10	0	0	0	0	-10	0	25	-25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	429	313	404	1038	78	30	1278	221	146	624	136
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	115	429	313	404	1038	78	30	1278	221	146	624	136
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	429	313	404	1038	78	30	1278	221	146	624	136
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:	115	429	313	404	1038	78	30	1278	221	146	624	136
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	1.74	1.26	2.00	2.00	1.00	1.00	2.56	0.44	2.00	3.00	1.00
Final Sat.:	3200	2776	2024	3200	3200	1600	1600	4094	706	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.15	0.13	0.32	0.05	0.02	0.31	0.31	0.05	0.13	0.09
Crit Moves:	****				****			****			****	

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #17 Douglas St / Transit Center

Cycle (sec): 100 Critical Vol./Cap.(X): 0.391
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Douglas St						Transit Center					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1	0	1 0	0 1
Volume Module:												
Base Vol:	1	271	1	1	898	0	0	0	1	1	0	1
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:	1	272	1	1	900	0	0	0	1	1	0	1
Added Vol:	0	10	0	0	25	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	282	1	1	925	0	0	0	1	1	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	282	1	1	925	0	0	0	1	1	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	282	1	1	925	0	0	0	1	1	0	1
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:	1	282	1	1	925	0	0	0	1	1	0	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	2.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	1600	3189	11	1600	3200	0	1600	1600	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****				****	****		

Intersection	
Intersection Delay, s/veh	57.2
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	370	4	146	0	7	2	4	0	49	207	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	402	4	159	0	8	2	4	0	53	225	1
Number of Lanes	0	0	1	1	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	56	13.5	15.8
HCM LOS	F	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	99%	0%	54%	100%	0%	0%
Vol Thru, %	0%	100%	99%	1%	0%	15%	0%	100%	50%
Vol Right, %	0%	0%	1%	0%	100%	31%	0%	0%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	138	70	374	146	13	11	487	482
LT Vol	49	0	0	370	0	7	11	0	0
Through Vol	0	138	69	4	0	2	0	487	243
RT Vol	0	0	1	0	146	4	0	0	239
Lane Flow Rate	53	150	76	407	159	14	12	529	524
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.143	0.382	0.193	0.991	0.334	0.041	0.028	1	1
Departure Headway (Hd)	9.661	9.16	9.15	8.773	7.584	10.381	8.528	8.012	7.654
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	373	395	394	415	473	346	422	455	477
Service Time	7.364	6.862	6.852	6.536	5.347	8.095	6.242	5.725	5.367
HCM Lane V/C Ratio	0.142	0.38	0.193	0.981	0.336	0.04	0.028	1.163	1.099
HCM Control Delay	14	17.4	14	72.3	14.1	13.5	11.5	70.8	69.1
HCM Lane LOS	B	C	B	F	B	B	B	F	F
HCM 95th-tile Q	0.5	1.8	0.7	12.1	1.5	0.1	0.1	13	13.3

Existing Plus Project Alternative 1A Conditions PM Peak
18: Douglas St & Park Pl/Private Dwy

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	730	239
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	12	793	260
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	69.3
HCM LOS	F

Lane

Michael Baker International
H:\pdata\145070\Technical Studies\Traffic\Synchro\Park_Place_E+P-1A_PM.syn
Park Place Extension Project
HCM 2010 AWSC

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS (WITH MITIGATION)
PM PEAK HOUR

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

Intersection #18 Douglas St / Park Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.575
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	54	Level Of Service:	A

Street Name:	Douglas St								Park Pl							
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Protected				Protected				Split Phase				Split Phase			
Rights:	Include				Include				Include				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	1	1 0	1	0	1	1 0	0	1	0	0 1	0	0	1!	0 0
Volume Module:																
Base Vol:	49	218		1	11	735		206	347		4	146	7	2		4
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:	49	219		1	11	737		207	348		4	146	7	2		4
Added Vol:	0	-12		0	0	-7		32	22		0	0	0	0		0
PasserByVol:	0	0		0	0	0		0	0		0	0	0	0		0
Initial Fut:	49	207		1	11	730		239	370		4	146	7	2		4
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		1.00
PHF Volume:	49	207		1	11	730		239	370		4	146	7	2		4
Reduct Vol:	0	0		0	0	0		0	0		0	0	0	0		0
Reduced Vol:	49	207		1	11	730		239	370		4	146	7	2		4
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		1.00
FinalVolume:	49	207		1	11	730		239	370		4	146	7	2		4
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00		1.00
Lanes:	1.00	1.99		0.01	1.00	1.51		0.49	0.99	0.01		1.00	0.54	0.15		0.31
Final Sat.:	1600	3185		15	1600	2412		788	1583		17	1600	862	246		492
Capacity Analysis Module:																
Vol/Sat:	0.03	0.06		0.06	0.01	0.30		0.30	0.23	0.23		0.09	0.01	0.01		0.01
Crit Moves:	****				****				****							****

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #19 Douglas St-Redondo Ave / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.765
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Douglas St-Redondo Ave								Rosecrans 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				Protected				Protected			
Rights:	Include				Include				Include				Ovl			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	1	0 1	2	0	1	0 1	2	0	3	0 1	2	0	3	0 1
Volume Module:																
Base Vol:	90	61		43	384	349		244	77	1829		131	26	1477		186
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:	90	61		43	385	350		245	77	1834		131	26	1481		186
Added Vol:	0	0		0	0	0		-7	-12	0		0	0	0		0
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	90	61		43	385	350		238	65	1834		131	26	1481		186
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	90	61		43	385	350		238	65	1834		131	26	1481		186
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	90	61		43	385	350		238	65	1834		131	26	1481		186
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:	90	61		43	385	350		238	65	1834		131	26	1481		186
OvlAdjVol:																0
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	1.00	1.00		1.00	2.00	1.00		1.00	2.00	3.00		1.00	2.00	3.00		1.00
Final Sat.:	1600	1600		1600	3200	1600		1600	3200	4800		1600	3200	4800		1600
Capacity Analysis Module:																
Vol/Sat:	0.06	0.04		0.03	0.12	0.22		0.15	0.02	0.38		0.08	0.01	0.31		0.12
OvlAdjV/S:																0.00
Crit Moves:	****					****				****			****			

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #20 Aviation Blvd / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.890
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: D

Street Name:	Aviation Blvd						El Segundo Blvd					
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:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	2	0 1	1 0	1	1 1	1 0	3	1 0	2 0	2	1 0
Volume Module:												
Base Vol:	185	610	297	181	1038	127	164	1692	308	297	570	52
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:	185	612	298	181	1041	127	164	1696	309	298	571	52
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	185	612	298	181	1041	127	164	1696	309	298	571	52
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	185	612	298	181	1041	127	164	1696	309	298	571	52
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	185	612	298	181	1041	127	164	1696	309	298	571	52
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:	185	612	298	181	1041	127	164	1696	309	298	571	52
OvlAdjVol:			149									
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	2.00	1.00	1.00	2.00	1.00	1.00	3.38	0.62	2.00	2.75	0.25
Final Sat.:	3200	3200	1600	1600	3200	1600	1600	5414	986	3200	4399	401
Capacity Analysis Module:												
Vol/Sat:	0.06	0.19	0.19	0.11	0.33	0.08	0.10	0.31	0.31	0.09	0.13	0.13
OvlAdjV/S:			0.09									
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #21 Aviation Blvd / Utah Ave-135th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.788
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: C

Street Name:	Aviation Blvd						Utah Ave-135th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	16	916	147	157	1452	7	67	319	108	106	63	110
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:	16	918	147	157	1456	7	67	320	108	106	63	110
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	918	147	157	1456	7	67	320	108	106	63	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	918	147	157	1456	7	67	320	108	106	63	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	918	147	157	1456	7	67	320	108	106	63	110
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:	16	918	147	157	1456	7	67	320	108	106	63	110
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.72	0.28	1.00	1.99	0.01	0.27	1.29	0.44	1.00	1.00	1.00
Final Sat.:	1600	2757	443	1600	3185	15	434	2066	700	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.01	0.33	0.33	0.10	0.46	0.46	0.04	0.15	0.15	0.07	0.04	0.07
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #22 Aviation Blvd / Alaska Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.722
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: C

Street Name:	Aviation Blvd						Alaska 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			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 0	0	0 1	1 0	1	0 0	0 2	0	0 0	0 0
Volume Module:												
Base Vol:	26	1013	0	0	1650	31	73	0	304	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:	26	1016	0	0	1654	31	73	0	305	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	1016	0	0	1654	31	73	0	305	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:	26	1016	0	0	1654	31	73	0	305	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1016	0	0	1654	31	73	0	305	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	1016	0	0	1654	31	73	0	305	0	0	0
OvlAdjVol:									253			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.96	0.04	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3141	59	1600	0	3200	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.32	0.00	0.00	0.53	0.53	0.05	0.00	0.10	0.00	0.00	0.00
OvlAdjV/S:									0.08			
Crit Moves:	****				****				****			

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #23 Aviation Blvd / Rosecrans Ave

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

Street Name:	Aviation Blvd						Rosecrans 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			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 3	0 1	2	0 4	0 1	2	0 4	0 1	2	0 4	0 1
Volume Module:												
Base Vol:	255	902	501	252	1756	90	361	1864	368	420	1000	106
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:	256	904	502	253	1761	90	362	1869	369	421	1003	106
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	256	904	502	253	1761	90	362	1869	369	421	1003	106
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	256	904	502	253	1761	90	362	1869	369	421	1003	106
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	256	904	502	253	1761	90	362	1869	369	421	1003	106
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	256	904	502	253	1761	90	362	1869	369	421	1003	106
OvlAdjVol:			292			0			241			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	3.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3200	4800	1600	3200	6400	1600	3200	6400	1600	3200	6400	1600
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.31	0.08	0.28	0.06	0.11	0.29	0.23	0.13	0.16	0.07
OvlAdjV/S:			0.18			0.00			0.15			0.00
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
EXISTING PLUS PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #24

Cycle (sec):	100	Critical Vol./Cap.(X):	0.201
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	29	Level Of Service:	A

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Control:	Split Phase				Split Phase				Split Phase				Split Phase			
Rights:	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	1!	0 1	1	1	1	0 0	0	0	1	1 0
Volume Module:																
Base Vol:	0	0	0		0	0	132		147	0	0		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:	0	0	0		0	0	132		147	0	0		0	0	0	
Added Vol:	0	0	0		70	0	0		0	215	0		0	190	10	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	0	0	0		70	0	132		147	215	0		0	190	10	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	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		70	0	132		147	215	0		0	190	10	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	0	0	0		70	0	132		147	215	0		0	190	10	
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		70	0	132		147	215	0		0	190	10	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	0.00	0.00	0.00		0.69	0.00	1.31		1.22	1.78	0.00		0.00	1.90	0.10	
Final Sat.:	0	0	0		1107	0	2093		1952	2848	0		0	3040	160	
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00		0.06	0.00	0.06		0.08	0.08	0.00		0.00	0.06	0.06	
Crit Moves:							****		****					****		

Site: E+P PM

Allied Way / Park Place
Roundabout

Movement Performance - Vehicles

Mov ID	ODMov	Demand Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	ft		per veh	mph
East: Park Place											
6	T1	207	2.0	0.108	4.6	LOS A	0.5	13.4	0.35	0.20	29.2
16	R2	11	2.0	0.108	4.6	LOS A	0.5	13.4	0.35	0.20	28.3
Approach		217	2.0	0.108	4.6	LOS A	0.5	13.4	0.35	0.20	29.2
North: Allied Way											
7	L2	76	2.0	0.094	5.4	LOS A	0.4	10.4	0.39	0.26	27.5
14	R2	143	2.0	0.151	5.2	LOS A	0.7	17.8	0.39	0.26	27.8
Approach		220	2.0	0.151	5.3	LOS A	0.7	17.8	0.39	0.26	27.7
West: Park Place											
5	L2	160	2.0	0.202	5.6	LOS A	1.1	27.2	0.27	0.13	27.8
2	T1	234	2.0	0.202	5.6	LOS A	1.1	27.2	0.27	0.13	28.6
Approach		393	2.0	0.202	5.6	LOS A	1.1	27.2	0.27	0.13	28.2
All Vehicles		830	2.0	0.202	5.3	LOS A	1.1	27.2	0.32	0.18	28.3

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	147	215	190	10	70	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	160	234	207	11	76	143

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	217	0	-	0	648	109
Stage 1	-	-	-	-	212	-
Stage 2	-	-	-	-	436	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1350	-	-	-	403	924
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	619	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1350	-	-	-	355	924
Mov Cap-2 Maneuver	-	-	-	-	355	-
Stage 1	-	-	-	-	803	-
Stage 2	-	-	-	-	546	-

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1350	-	-	-	355	924
HCM Lane V/C Ratio	0.118	-	-	-	0.214	0.155
HCM Control Delay (s)	8	-	-	-	17.9	9.6
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8	0.5

Appendix H – Opening Year 2021 Without Project Conditions Intersection Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	101	513	245	243	396	368	349	2842	472	766	1306	122
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	110	558	266	264	430	400	379	3089	513	833	1420	133
Adj No. of Lanes	1	2	1	2	2	1	2	4	0	2	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	472	211	218	453	203	434	2701	425	677	3528	872
Arrive On Green	0.07	0.13	0.13	0.06	0.13	0.13	0.13	0.48	0.48	0.20	0.55	0.55
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	3442	5626	886	3442	6408	1583
Grp Volume(v), veh/h	110	558	266	264	430	400	379	2614	988	833	1420	133
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1721	1602	1706	1721	1602	1583
Q Serve(g_s), s	9.2	20.0	20.0	9.5	18.1	19.2	16.2	72.0	72.0	29.5	19.2	6.2
Cycle Q Clear(g_c), s	9.2	20.0	20.0	9.5	18.1	19.2	16.2	72.0	72.0	29.5	19.2	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	122	472	211	218	453	203	434	2307	819	677	3528	872
V/C Ratio(X)	0.90	1.18	1.26	1.21	0.95	1.97	0.87	1.13	1.21	1.23	0.40	0.15
Avail Cap(c_a), veh/h	122	472	211	218	453	203	558	2307	819	677	3528	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.4	65.0	65.0	70.3	64.9	65.4	64.4	39.0	39.0	60.3	19.5	16.5
Incr Delay (d2), s/veh	52.8	102.0	149.4	129.7	29.7	455.5	11.8	65.9	104.3	116.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	16.5	17.5	8.4	10.7	34.1	8.4	45.9	57.6	25.0	8.5	2.7
LnGrp Delay(d),s/veh	122.1	167.0	214.4	200.0	94.6	520.9	76.1	104.9	143.3	176.7	19.5	16.6
LnGrp LOS	F	F	F	F	F	F	E	F	F	F	B	B
Approach Vol, veh/h		934			1094			3981			2386	
Approach Delay, s/veh		175.2			275.9			111.7			74.2	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	77.0	14.0	25.0	23.4	87.6	14.8	24.2
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	29.5	72.0	9.5	20.0	24.3	77.2	10.3	19.2
Max Q Clear Time (g_c+I1), s	31.5	74.0	11.5	22.0	18.2	21.2	11.2	21.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.7	55.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	129.5
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	0	6	119	0	55	15	3463	876	193	1540	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	4.5	4.5	5.0	4.0	4.5	5.0	5.0
Lane Util. Factor		1.00		0.91	0.91	1.00	1.00	0.86	1.00	0.97	0.86	1.00
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1709		3221	1610	1583	1770	6408	1583	3433	6408	1583
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1709		3221	1610	1583	1770	6408	1583	3433	6408	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	0	7	129	0	60	16	3764	952	210	1674	9
RTOR Reduction (vph)	0	17	0	0	0	52	0	0	0	0	0	2
Lane Group Flow (vph)	0	0	0	86	43	8	16	3764	952	210	1674	7
Turn Type	Split	NA		Split	NA	pm+ov	Prot	NA	Free	Prot	NA	Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8			Free			6
Actuated Green, G (s)		2.1		8.7	8.7	17.2	2.1	83.2	122.0	8.5	89.6	89.6
Effective Green, g (s)		2.1		8.7	8.7	17.2	2.1	83.2	122.0	8.5	89.6	89.6
Actuated g/C Ratio		0.02		0.07	0.07	0.14	0.02	0.68	1.00	0.07	0.73	0.73
Clearance Time (s)		5.0		5.0	5.0	4.5	4.5	5.0		4.5	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		29		229	114	223	30	4370	1583	239	4706	1162
v/s Ratio Prot		0.00		0.03	0.03	0.00	0.01	c0.59		c0.06	0.26	
v/s Ratio Perm						0.00			c0.60			0.00
v/c Ratio		0.01		0.38	0.38	0.04	0.53	0.86	0.60	0.88	0.36	0.01
Uniform Delay, d1		58.9		54.1	54.1	45.3	59.5	15.0	0.0	56.2	5.8	4.3
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1		1.0	2.1	0.1	17.0	1.9	1.7	28.4	0.0	0.0
Delay (s)		59.1		55.1	56.2	45.3	76.5	16.9	1.7	84.6	5.9	4.3
Level of Service		E		E	E	D	E	B	A	F	A	A
Approach Delay (s)		59.1			52.2			14.0			14.6	
Approach LOS		E			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	122.0	Sum of lost time (s)	19.5
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	66	0	51	2	4260	206	23	1656	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				72	0	55	2	4630	224	25	1800	0
Adj No. of Lanes				2	0	1	1	4	1	2	4	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				182	0	115	275	5110	1346	67	5503	0
Arrive On Green				0.05	0.00	0.05	0.80	0.80	0.80	0.02	0.86	0.00
Sat Flow, veh/h				3442	0	1583	261	6408	1583	3442	6669	0
Grp Volume(v), veh/h				72	0	55	2	4630	224	25	1800	0
Grp Sat Flow(s),veh/h/ln				1721	0	1583	261	1602	1583	1721	1602	0
Q Serve(g_s), s				2.2	0.0	3.6	0.2	56.8	2.7	0.8	5.9	0.0
Cycle Q Clear(g_c), s				2.2	0.0	3.6	0.2	56.8	2.7	0.8	5.9	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				182	0	115	275	5110	1346	67	5503	0
V/C Ratio(X)				0.39	0.00	0.48	0.01	0.91	0.17	0.37	0.33	0.00
Avail Cap(c_a), veh/h				512	0	266	275	5110	1346	144	5626	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				49.3	0.0	48.0	2.2	8.0	1.4	52.1	1.5	0.0
Incr Delay (d2), s/veh				1.4	0.0	3.1	0.0	2.7	0.1	3.4	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.1	0.0	1.7	0.0	25.4	1.6	0.4	2.5	0.0
LnGrp Delay(d),s/veh				50.7	0.0	51.0	2.2	10.7	1.5	55.5	1.5	0.0
LnGrp LOS				D		D	A	B	A	E	A	
Approach Vol, veh/h					127			4856			1825	
Approach Delay, s/veh					50.8			10.3			2.3	
Approach LOS					D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	6.6	90.8				97.4		10.2
Change Period (Y+Rc), s	4.5	5.0				5.0		4.5
Max Green Setting (Gmax), s	4.5	85.5				94.5		16.0
Max Q Clear Time (g_c+I1), s	2.8	58.8				7.9		5.6
Green Ext Time (p_c), s	0.0	26.6				84.5		0.2

Intersection Summary	
HCM 2010 Ctrl Delay	8.9
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	337	555	161	289	394	500	280	3593	533	273	1317	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	366	603	175	314	428	0	304	3905	579	297	1432	132
Adj No. of Lanes	2	3	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	610	190	333	401	179	356	3665	1059	291	2813	876
Arrive On Green	0.10	0.12	0.12	0.10	0.11	0.00	0.10	0.57	0.57	0.08	0.55	0.55
Sat Flow, veh/h	3442	5085	1583	3442	3539	1583	3442	6408	1583	3442	5085	1583
Grp Volume(v), veh/h	366	603	175	314	428	0	304	3905	579	297	1432	132
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1602	1583	1721	1695	1583
Q Serve(g_s), s	15.5	17.8	16.4	13.6	17.0	0.0	13.0	85.8	28.7	12.7	26.3	6.1
Cycle Q Clear(g_c), s	15.5	17.8	16.4	13.6	17.0	0.0	13.0	85.8	28.7	12.7	26.3	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	356	610	190	333	401	179	356	3665	1059	291	2813	876
V/C Ratio(X)	1.03	0.99	0.92	0.94	1.07	0.00	0.85	1.07	0.55	1.02	0.51	0.15
Avail Cap(c_a), veh/h	356	610	190	333	401	179	466	3665	1059	291	2813	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.3	65.9	65.3	67.3	66.5	0.0	66.1	32.1	13.0	68.6	20.8	16.3
Incr Delay (d2), s/veh	55.4	33.3	43.5	34.8	63.9	0.0	11.4	36.0	0.6	57.7	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.1	10.2	9.5	8.1	11.9	0.0	6.8	46.8	12.7	8.4	12.4	2.7
LnGrp Delay(d),s/veh	122.7	99.2	108.8	102.2	130.4	0.0	77.6	68.1	13.6	126.5	21.0	16.4
LnGrp LOS	F	F	F	F	F		E	F	B	F	C	B
Approach Vol, veh/h		1144			742			4788			1861	
Approach Delay, s/veh		108.2			118.5			62.1			37.5	
Approach LOS		F			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	90.8	19.0	23.0	20.0	88.0	20.0	22.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	12.7	85.8	14.5	18.0	20.3	78.2	15.5	17.0
Max Q Clear Time (g_c+I1), s	14.7	87.8	15.6	19.8	15.0	28.3	17.5	19.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.5	49.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.8
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	79	277	40	109	241	52	58	3901	83	179	1311	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	86	301	43	118	262	57	63	4240	90	195	1425	64
Adj No. of Lanes	1	2	0	2	1	1	1	3	0	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	374	53	149	224	259	80	3417	72	149	3381	1053
Arrive On Green	0.04	0.12	0.12	0.04	0.12	0.12	0.05	0.67	0.67	0.04	0.66	0.66
Sat Flow, veh/h	1774	3114	440	3442	1863	1583	1774	5126	108	3442	5085	1583
Grp Volume(v), veh/h	86	170	174	118	262	57	63	2795	1535	195	1425	64
Grp Sat Flow(s),veh/h/ln	1774	1770	1785	1721	1863	1583	1774	1695	1844	1721	1695	1583
Q Serve(g_s), s	6.5	14.0	14.3	5.1	18.0	4.7	5.3	100.0	100.0	6.5	19.6	2.1
Cycle Q Clear(g_c), s	6.5	14.0	14.3	5.1	18.0	4.7	5.3	100.0	100.0	6.5	19.6	2.1
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	77	212	214	149	224	259	80	2260	1229	149	3381	1053
V/C Ratio(X)	1.12	0.80	0.81	0.79	1.17	0.22	0.79	1.24	1.25	1.31	0.42	0.06
Avail Cap(c_a), veh/h	77	212	214	149	224	259	140	2260	1229	149	3381	1053
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.8	64.2	64.4	71.1	66.0	54.5	70.9	25.0	25.0	71.8	11.7	8.8
Incr Delay (d2), s/veh	138.5	19.1	20.8	24.4	114.5	0.4	15.3	110.4	119.1	178.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	8.0	8.3	2.9	16.4	2.1	2.9	81.1	91.2	6.8	9.1	0.9
LnGrp Delay(d),s/veh	210.3	83.3	85.2	95.5	180.5	54.9	86.2	135.4	144.1	250.0	11.8	8.8
LnGrp LOS	F	F	F	F	F	D	F	F	F	F	B	A
Approach Vol, veh/h		430			437			4393			1684	
Approach Delay, s/veh		109.5			141.2			137.7			39.3	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	105.0	11.0	23.0	11.3	104.7	11.0	23.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	100.0	6.5	18.0	11.8	94.7	6.5	18.0
Max Q Clear Time (g_c+I1), s	8.5	102.0	7.1	16.3	7.3	21.6	8.5	20.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	72.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	112.3
HCM 2010 LOS	F

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #6 Plaza El Segundo / Park Pl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.182
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Plaza El Segundo									Park Pl					
Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	0	1	0	0	1	0	0	1	1	0	1	1	0	1	0	1	1	0
Volume Module:																				
Base Vol:	5	2	2			0	3	51			64	57	23			1	16	1		
Growth Adj:	1.02	1.02	1.02			1.02	1.02	1.02			1.02	1.02	1.02			1.02	1.02	1.02		
Initial Bse:	5	2	2			0	3	52			65	58	23			1	16	1		
Added Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	5	2	2			0	3	52			65	58	23			1	16	1		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	5	2	2			0	3	52			65	58	23			1	16	1		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	5	2	2			0	3	52			65	58	23			1	16	1		
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:	5	2	2			0	3	52			65	58	23			1	16	1		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	1.00	0.50	0.50			0.00	1.00	1.00			1.00	1.43	0.57			1.00	1.88	0.12		
Final Sat.:	1600	800	800			0	1600	1600			1600	2280	920			1600	3012	188		
Capacity Analysis Module:																				
Vol/Sat:	0.00	0.00	0.00			0.00	0.00	0.03			0.04	0.03	0.03			0.00	0.01	0.01		
Crit Moves:	****							****			****						****			

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #7 Village Dr / Rosecrans Ave

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

Street Name:	Village Dr									Rosecrans 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			Protected			Protected					
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	1	0	0	1	1	0	0	1	1	2	0	2	1	0	1	0	3	0	1
Volume Module:																				
Base Vol:	40		1	77		6	0		5	9	1202		67	128	973		9			
Growth Adj:	1.02	1.02		1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	41		1	78		6	0		5	9	1221		68	130	988		9			
Added Vol:	0		0	3		0	0		0	0	35		0	4	147		0			
PasserByVol:	0		0	0		0	0		0	0	0		0	0	0		0			
Initial Fut:	41		1	81		6	0		5	9	1256		68	134	1135		9			
User Adj:	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	1.00	1.00	1.00	1.00
PHF Adj:	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	1.00	1.00	1.00	1.00
PHF Volume:	41		1	81		6	0		5	9	1256		68	134	1135		9			
Reduct Vol:	0		0	0		0	0		0	0	0		0	0	0		0			
Reduced Vol:	41		1	81		6	0		5	9	1256		68	134	1135		9			
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	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	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41		1	81		6	0		5	9	1256		68	134	1135		9			
Saturation Flow Module:																				
Sat/Lane:	1600	1600		1600	1600	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	1.00	1.00	1.00	1.00
Lanes:	0.98	0.02		1.00	1.00	0.00	2.00	2.00	2.85	0.15	1.00	3.00	1.00							
Final Sat.:	1561		39	1600		1600	0		3200	3200	4553		247	1600	4800		1600			
Capacity Analysis Module:																				
Vol/Sat:	0.03	0.03		0.05	0.00	0.00	0.00	0.00	0.28	0.28	0.08	0.24	0.01							
Crit Moves:				****	****				****		****									

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #8 Cedar Ave / Marine Ave

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

Street Name:	Cedar Ave									Marine 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			Protected			Protected					
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	1!	0	0	0	1	0	0	1	1	0	1	1	0	1	0	2	0	1
Volume Module:																				
Base Vol:	17		57	22		66	32		47	38	463		30	40	344		407			
Growth Adj:	1.02	1.02		1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	17		58	22		67	33		48	39	470		30	41	349		413			
Added Vol:	0		0	8		1	0		0	0	0		0	9	0		1			
PasserByVol:	0		0	0		0	0		0	0	0		0	0	0		0			
Initial Fut:	17		58	30		68	33		48	39	470		30	50	349		414			
User Adj:	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	1.00	1.00	1.00	1.00
PHF Adj:	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	1.00	1.00	1.00	1.00
PHF Volume:	17		58	30		68	33		48	39	470		30	50	349		414			
Reduct Vol:	0		0	0		0	0		0	0	0		0	0	0		0			
Reduced Vol:	17		58	30		68	33		48	39	470		30	50	349		414			
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	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	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17		58	30		68	33		48	39	470		30	50	349		414			
Saturation Flow Module:																				
Sat/Lane:	1600	1600		1600	1600	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	1.00	1.00	1.00	1.00
Lanes:	0.16	0.55		0.29	0.68	0.32	1.00	1.00	1.88	0.12	1.00	2.00	1.00							
Final Sat.:	262		878	460		1083	517		1600	1600	3005		195	1600	3200		1600			
Capacity Analysis Module:																				
Vol/Sat:	0.01	0.07		0.07	0.04	0.06	0.03	0.02	0.16	0.16	0.03	0.11	0.26							
Crit Moves:		****			****			****					****							

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #9 Continental Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.557
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Continental Blvd						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1 0	1 1	1	1 0	1 1	2	0 3	0 1	2	0 2	1 0
Volume Module:												
Base Vol:	5	24	8	50	23	40	119	620	42	34	957	393
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	5	24	8	51	23	41	121	630	43	35	972	399
Added Vol:	58	0	46	42	0	5	18	518	391	272	222	145
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	24	54	93	23	46	139	1148	434	307	1194	544
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	63	24	54	93	23	46	139	1148	434	307	1194	544
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	24	54	93	23	46	139	1148	434	307	1194	544
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:	63	24	54	93	23	46	139	1148	434	307	1194	544
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.79	0.69	1.52	2.00	0.68	1.32	2.00	3.00	1.00	2.00	2.06	0.94
Final Sat.:	2858	1101	2441	3200	1084	2116	3200	4800	1600	3200	3297	1503
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.03	0.02	0.02	0.04	0.24	0.27	0.10	0.36	0.36
Crit Moves:			****	****			****				****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #10 Allied Wy / Hughes Wy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.448
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Allied Wy						Hughes Wy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1!	0	0	0 0	0 1	1	0 1	1 0	1	0 2	0 1
Volume Module:												
Base Vol:	33	4	15	0	0	3	13	220	41	1	9	1
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	34	4	15	0	0	3	13	223	42	1	9	1
Added Vol:	0	0	0	0	0	0	0	795	0	0	125	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	4	15	0	0	3	13	1018	42	1	134	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	4	15	0	0	3	13	1018	42	1	134	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	4	15	0	0	3	13	1018	42	1	134	1
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	4	15	0	0	3	13	1018	42	1	134	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.27	0.15	0.58	0.00	0.00	1.00	1.00	1.92	0.08	1.00	2.00	1.00
Final Sat.:	2031	246	923	0	0	1600	1600	3074	126	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.00	0.00	0.00	0.01	0.33	0.33	0.00	0.04	0.00
Crit Moves:	****				****			****			****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #11 Ash St / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.931
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 118 Level Of Service: E

Street Name:	Ash St						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0 1	1	1	1 0	1	2	0 3	0 1	2	0 2 1 0
Volume Module:												
Base Vol:	4	18	9	118	112	36	53	605	39	259	1354	261
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	4	18	9	120	114	37	54	614	40	263	1375	265
Added Vol:	20	53	105	146	382	29	98	377	132	663	590	491
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	71	114	266	496	66	152	991	172	926	1965	756
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	71	114	266	496	66	152	991	172	926	1965	756
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	71	114	266	496	66	152	991	172	926	1965	756
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:	24	71	114	266	496	66	152	991	172	926	1965	756
OvlAdjVol:			0									
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	2.00	0.77	1.23	1.05	1.95	1.00	2.00	3.00	1.00	2.00	2.17	0.83
Final Sat.:	3200	1230	1970	1676	3124	1600	3200	4800	1600	3200	3466	1334
Capacity Analysis Module:												
Vol/Sat:	0.01	0.06	0.06	0.16	0.16	0.04	0.05	0.21	0.11	0.29	0.57	0.57
OvlAdjV/S:			0.00									
Crit Moves:	****			****			****			****		

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	64	25	0	7	54	0	12	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	70	27	0	8	59	0	13	10
Number of Lanes	0	1	1	0	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	8.1	7.2	7.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	0%	57%
Vol Thru, %	100%	0%	0%	0%	43%
Vol Right, %	0%	100%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	54	64	25	21
LT Vol	0	0	64	0	12
Through Vol	7	0	0	0	9
RT Vol	0	54	0	25	0
Lane Flow Rate	8	59	70	27	23
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.01	0.065	0.1	0.03	0.03
Departure Headway (Hd)	4.712	4.011	5.186	3.985	4.665
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	749	879	689	893	756
Service Time	2.504	1.802	2.936	1.734	2.764
HCM Lane V/C Ratio	0.011	0.067	0.102	0.03	0.03
HCM Control Delay	7.6	7.1	8.5	6.9	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0	0.2	0.3	0.1	0.1

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #13 Nash St-Park Wy / Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.458
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Nash St-Park Wy						Rosecrans 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			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0 1	0	2	0 1	0 1	2	0 2	1 0	2	0 3 0 1
Volume Module:												
Base Vol:	35	19	77	17	15	32	139	1075	49	87	1020	64
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	36	19	78	17	15	33	141	1092	50	88	1036	65
Added Vol:	0	0	0	0	0	0	0	38	0	0	152	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	19	78	17	15	33	141	1130	50	88	1188	65
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	19	78	17	15	33	141	1130	50	88	1188	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	19	78	17	15	33	141	1130	50	88	1188	65
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	19	78	17	15	33	141	1130	50	88	1188	65
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.20	0.80	2.00	1.00	1.00	2.00	2.87	0.13	2.00	3.00	1.00
Final Sat.:	1600	317	1283	3200	1600	1600	3200	4597	203	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.06	0.01	0.01	0.02	0.04	0.25	0.25	0.03	0.25	0.04
OvlAdjV/S:						0.00						
Crit Moves:	****			****			****				****	

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	45	19	0	145	75	30	0	15	8	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	49	21	0	158	82	33	0	16	9	39
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	2
HCM Control Delay	8.3	9.1	8.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	70%	0%	71%	100%	100%
Vol Right, %	0%	0%	100%	0%	30%	0%	29%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	8	36	11	64	145	105	0	0
LT Vol	15	0	0	11	0	145	0	0	0
Through Vol	0	8	0	0	45	0	75	0	0
RT Vol	0	0	36	0	19	0	30	0	0
Lane Flow Rate	16	9	39	12	70	158	114	0	0
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.027	0.013	0.052	0.019	0.098	0.236	0.148	0	0
Departure Headway (Hd)	5.991	5.489	4.786	5.765	5.054	5.384	4.683	5.643	3.895
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	598	653	749	622	710	668	767	0	0
Service Time	3.718	3.216	2.514	3.488	2.777	3.103	2.402	3.379	1.63
HCM Lane V/C Ratio	0.027	0.014	0.052	0.019	0.099	0.237	0.149	0	0
HCM Control Delay	8.9	8.3	7.8	8.6	8.3	9.8	8.2	8.4	6.6
HCM Lane LOS	A	A	A	A	A	A	A	N	N
HCM 95th-tile Q	0.1	0	0.2	0.1	0.3	0.9	0.5	0	0

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	0
HCM LOS	-

Lane


```
FY 2021 AM                 Thu Oct 13, 2016 14:28:48                Page 19-1
-------------------------------------------------------------------------------
                        PARK PLACE EXTENSION PROJECT
                FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
                              AM PEAK HOUR
-------------------------------------------------------------------------------
                        Level Of Service Computation Report
                ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #15 Apollo St-Market Pl / Rosecrans Ave
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.524
Loss Time (sec):       10              Average Delay (sec/veh):        xxxxxx
Optimal Cycle:        100              Level Of Service:                    A
*******************************************************************************
Street Name:        Apollo St-Market Pl              Rosecrans 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        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:         2  0  1  0  1    2  0  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       33   33   38    28   18   20   115 1022   46    96 1144  396
Growth Adj:   1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02
Initial Bse:    34   34   39    28   18   20   117 1038   47    98 1162  402
Added Vol:       0    0    0     0    0    0     0   38    0     0  152    0
PasserByVol:     0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    34   34   39    28   18   20   117 1076   47    98 1314  402
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 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   34   39    28   18   20   117 1076   47    98 1314  402
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    34   34   39    28   18   20   117 1076   47    98 1314  402
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   34   39    28   18   20   117 1076   47    98 1314  402
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
Adjustment:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:        2.00 1.00 1.00  2.00 1.00 1.00  2.00 3.00 1.00  2.00 2.30 0.70
Final Sat.:   3200 1600 1600  3200 1600 1600  3200 4800 1600  3200 3675 1125
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.01 0.02 0.02  0.01 0.01 0.01  0.04 0.22 0.03  0.03 0.36 0.36
Crit Moves:        ****            ****            ****            ****
*******************************************************************************
```

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #16 Douglas St / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.219
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Douglas St						El Segundo Blvd					
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:	2	0 1	1	2	0 2	0 1	1	0 2	1 0	2	0 3	0 1
Volume Module:												
Base Vol:	429	679	89	118	284	52	101	484	137	205	1423	419
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	436	690	90	120	288	53	103	492	139	208	1445	426
Added Vol:	0	0	2	88	0	58	196	431	0	11	1685	294
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	436	690	92	208	288	111	299	923	139	219	3130	720
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	436	690	92	208	288	111	299	923	139	219	3130	720
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	436	690	92	208	288	111	299	923	139	219	3130	720
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:	436	690	92	208	288	111	299	923	139	219	3130	720
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	2.00	1.00	2.00	2.00	1.00	1.00	2.61	0.39	2.00	3.00	1.00
Final Sat.:	3200	3200	1600	3200	3200	1600	1600	4171	629	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.22	0.06	0.06	0.09	0.07	0.19	0.22	0.22	0.07	0.65	0.45
Crit Moves:		****			****			****			****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #17 Douglas St / Transit Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.363
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Douglas St						Transit Center					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1	0 1	0 1	1 0	1	0 1	0 1	0	1 0	0 1
Volume Module:												
Base Vol:	2	806	1	6	221	9	0	0	0	0	0	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	2	819	1	6	224	9	0	0	0	0	0	0
Added Vol:	0	11	0	0	2	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	830	1	6	226	9	0	0	0	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:	2	830	1	6	226	9	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	830	1	6	226	9	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	830	1	6	226	9	0	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.92	0.08	1.00	1.00	1.00	0.00	1.00	1.00
Final Sat.:	1600	3196	4	1600	3076	124	1600	1600	1600	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.26	0.00	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****			****							

Intersection	
Intersection Delay, s/veh	23.9
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	91	0	36	0	2	2	11	0	123	707	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	99	0	39	0	2	2	12	0	134	768	3
Number of Lanes	0	0	1	1	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	13.2	11.2	29.9
HCM LOS	B	B	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	13%	100%	0%	0%
Vol Thru, %	0%	100%	99%	0%	0%	13%	0%	100%	23%
Vol Right, %	0%	0%	1%	0%	100%	73%	0%	0%	77%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	123	471	239	91	36	15	6	124	274
LT Vol	123	0	0	91	0	2	6	0	0
Through Vol	0	471	236	0	0	2	0	124	62
RT Vol	0	0	3	0	36	11	0	0	212
Lane Flow Rate	134	512	259	99	39	16	7	135	298
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.254	0.901	0.455	0.238	0.081	0.037	0.014	0.266	0.544
Departure Headway (Hd)	6.833	6.328	6.319	8.676	7.465	8.189	7.725	7.118	6.57
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	523	569	566	416	483	439	466	501	545
Service Time	4.617	4.111	4.102	6.378	5.167	5.896	5.425	4.918	4.369
HCM Lane V/C Ratio	0.256	0.9	0.458	0.238	0.081	0.036	0.015	0.269	0.547
HCM Control Delay	12	42.5	14.3	14.1	10.8	11.2	10.5	12.5	17
HCM Lane LOS	B	E	B	B	B	B	B	B	C
HCM 95th-tile Q	1	10.7	2.4	0.9	0.3	0.1	0	1.1	3.2

Opening Year 2021 Plus Cumulative Without Project Conditions AM Peak
18: Douglas St & Park Pl/Private Dwy

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	6	186	212
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	202	230
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	15.5
HCM LOS	C

Lane

Michael Baker International
H:\pdata\145070\Technical Studies\Traffic\Synchro\Park_Place_OY2021nP+C_AM.syn
Park Place Extension Project
HCM 2010 AWSC

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #19 Douglas St-Redondo Ave / Rosecrans Ave

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

Street Name:	Douglas St-Redondo Ave						Rosecrans 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			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	2	0 1	0 1	2	0 3	0 1	2	0 3	0 1
Volume Module:												
Base Vol:	32	80	10	125	50	89	280	692	37	37	1758	670
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	33	81	10	127	51	90	284	703	38	38	1786	681
Added Vol:	0	0	0	1	0	1	6	32	0	0	151	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	81	10	128	51	91	290	735	38	38	1937	687
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	81	10	128	51	91	290	735	38	38	1937	687
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	81	10	128	51	91	290	735	38	38	1937	687
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	81	10	128	51	91	290	735	38	38	1937	687
OvlAdjVol:												623
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4800	1600	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.01	0.04	0.03	0.06	0.09	0.15	0.02	0.01	0.40	0.43
OvlAdjV/S:												0.39
Crit Moves:		****			****			****			****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #20 Aviation Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.324
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Aviation Blvd						El Segundo Blvd					
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:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 1	1	0 1	1 1	1	0 3	1 0	2	0 2	1 0
Volume Module:												
Base Vol:	313	1040	281	27	771	359	129	447	94	412	1530	82
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	318	1056	285	27	783	365	131	454	95	418	1554	83
Added Vol:	145	31	7	9	38	121	37	428	55	35	1725	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	463	1087	292	36	821	486	168	882	150	453	3279	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	463	1087	292	36	821	486	168	882	150	453	3279	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	463	1087	292	36	821	486	168	882	150	453	3279	90
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:	463	1087	292	36	821	486	168	882	150	453	3279	90
OvlAdjVol:			66									
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	2.00	1.00	1.00	1.89	1.11	1.00	3.42	0.58	2.00	2.92	0.08
Final Sat.:	3200	3200	1600	1600	3016	1784	1600	5467	933	3200	4671	129
Capacity Analysis Module:												
Vol/Sat:	0.14	0.34	0.18	0.02	0.27	0.27	0.11	0.16	0.16	0.14	0.70	0.70
OvlAdjV/S:			0.04									
Crit Moves:	****				****			****			****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #21 Aviation Blvd / Utah Ave-135th St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.988
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	178	Level Of Service:	E

Street Name:	Aviation Blvd						Utah Ave-135th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	0	1 0	1 0	1	0 1	0 1
Volume Module:												
Base Vol:	73	1270	131	231	930	99	12	140	18	160	173	353
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	74	1290	133	235	945	101	12	142	18	163	176	359
Added Vol:	44	167	0	5	79	44	6	0	6	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	118	1457	133	240	1024	145	18	142	24	163	176	368
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	118	1457	133	240	1024	145	18	142	24	163	176	368
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	118	1457	133	240	1024	145	18	142	24	163	176	368
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:	118	1457	133	240	1024	145	18	142	24	163	176	368
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.83	0.17	1.00	1.75	0.25	0.20	1.54	0.26	1.00	1.00	1.00
Final Sat.:	1600	2932	268	1600	2804	396	315	2464	421	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.50	0.50	0.15	0.37	0.37	0.01	0.06	0.06	0.10	0.11	0.23
Crit Moves:		****			****			****				****

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #22 Aviation Blvd / Alaska Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.649
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Aviation Blvd						Alaska 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			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 0	0	0 1	1 0	1	0 0	0 2	0	0 0	0 0
Volume Module:												
Base Vol:	90	1494	0	0	935	159	14	0	36	0	0	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	91	1517	0	0	950	161	14	0	37	0	0	0
Added Vol:	0	212	0	0	85	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	1729	0	0	1035	161	14	0	37	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:	91	1729	0	0	1035	161	14	0	37	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	1729	0	0	1035	161	14	0	37	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	1729	0	0	1035	161	14	0	37	0	0	0
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.73	0.27	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	2768	432	1600	0	3200	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.54	0.00	0.00	0.37	0.37	0.01	0.00	0.01	0.00	0.00	0.00
OvlAdjV/S:									0.00			
Crit Moves:		****			****			****				

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #23 Aviation Blvd / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.969
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	153	Level Of Service:	E

Street Name:	Aviation Blvd						Rosecrans 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			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 3	0 1	2	0 4	0 1	2	0 4	0 1	2	0 4	0 1
Volume Module:												
Base Vol:	658	1897	271	86	564	258	68	703	136	537	2377	529
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	668	1927	275	87	573	262	69	714	138	545	2414	537
Added Vol:	136	177	0	5	79	1	1	9	23	0	19	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	804	2104	275	92	652	263	70	723	161	545	2433	570
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	804	2104	275	92	652	263	70	723	161	545	2433	570
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	804	2104	275	92	652	263	70	723	161	545	2433	570
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	804	2104	275	92	652	263	70	723	161	545	2433	570
OvlAdjVol:			3			228			0			524
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	3.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3200	4800	1600	3200	6400	1600	3200	6400	1600	3200	6400	1600
Capacity Analysis Module:												
Vol/Sat:	0.25	0.44	0.17	0.03	0.10	0.16	0.02	0.11	0.10	0.17	0.38	0.36
OvlAdjV/S:			0.00			0.14			0.00			0.33
Crit Moves:	****			****			****			****		

Opening Year 2021 Plus Cumulative Without Project Conditions PM Peak
1: Sepulveda Blvd & El Segundo Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	136	423	411	688	503	754	293	1609	306	385	3153	91
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	148	460	447	748	547	820	318	1749	333	418	3427	99
Adj No. of Lanes	1	2	1	2	2	1	2	4	0	2	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	581	260	676	1036	464	258	2063	393	430	2746	679
Arrive On Green	0.07	0.16	0.16	0.20	0.29	0.29	0.08	0.38	0.38	0.13	0.43	0.43
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	3442	5449	1037	3442	6408	1583
Grp Volume(v), veh/h	148	460	447	748	547	820	318	1543	539	418	3427	99
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1721	1602	1680	1721	1602	1583
Q Serve(g_s), s	9.5	17.5	23.0	27.5	18.1	41.0	10.5	41.1	41.2	16.9	60.0	5.3
Cycle Q Clear(g_c), s	9.5	17.5	23.0	27.5	18.1	41.0	10.5	41.1	41.2	16.9	60.0	5.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.62	1.00		1.00
Lane Grp Cap(c), veh/h	120	581	260	676	1036	464	258	1819	636	430	2746	679
V/C Ratio(X)	1.23	0.79	1.72	1.11	0.53	1.77	1.23	0.85	0.85	0.97	1.25	0.15
Avail Cap(c_a), veh/h	120	581	260	676	1036	464	258	1819	636	430	2746	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.3	56.2	58.5	56.2	41.4	49.5	64.8	39.8	39.8	61.0	40.0	24.4
Incr Delay (d2), s/veh	156.2	7.3	339.1	67.5	0.5	354.5	133.4	4.0	10.5	35.9	114.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	9.2	34.5	19.4	8.9	63.6	9.8	18.8	20.9	10.2	48.4	2.4
LnGrp Delay(d),s/veh	221.5	63.5	397.6	123.8	41.9	404.0	198.1	43.8	50.3	96.9	154.8	24.5
LnGrp LOS	F	E	F	F	D	F	F	D	D	F	F	C
Approach Vol, veh/h		1055			2115			2400			3944	
Approach Delay, s/veh		227.2			211.3			65.7			145.4	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	58.0	32.0	28.0	15.0	65.0	14.0	46.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	17.5	53.0	27.5	23.0	10.5	60.0	9.5	41.0
Max Q Clear Time (g_c+I1), s	18.9	43.2	29.5	25.0	12.5	62.0	11.5	43.0
Green Ext Time (p_c), s	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay	149.0	
HCM 2010 LOS	F	

Opening Year 2021 Plus Cumulative Without Project Conditions PM Peak
2: Sepulveda Blvd & Private Dwy/Hughes Way

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	1	61	814	0	246	60	1886	185	224	3412	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	4.5	4.5	5.0	4.0	4.5	5.0	5.0
Lane Util. Factor		1.00		0.91	0.91	1.00	1.00	0.86	1.00	0.97	0.86	1.00
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1702		3221	1610	1583	1770	6408	1583	3433	6408	1583
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1702		3221	1610	1583	1770	6408	1583	3433	6408	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	1	66	885	0	267	65	2050	201	243	3709	61
RTOR Reduction (vph)	0	20	0	0	0	57	0	0	0	0	0	27
Lane Group Flow (vph)	0	125	0	593	292	210	65	2050	201	243	3709	34
Turn Type	Split	NA		Split	NA	pm+ov	Prot	NA	Free	Prot	NA	Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8			Free			6
Actuated Green, G (s)		14.3		26.0	26.0	40.8	6.0	73.7	148.3	14.8	82.5	82.5
Effective Green, g (s)		14.3		26.0	26.0	40.8	6.0	73.7	148.3	14.8	82.5	82.5
Actuated g/C Ratio		0.10		0.18	0.18	0.28	0.04	0.50	1.00	0.10	0.56	0.56
Clearance Time (s)		5.0		5.0	5.0	4.5	4.5	5.0		4.5	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		164		564	282	435	71	3184	1583	342	3564	880
v/s Ratio Prot		c0.07		c0.18	0.18	0.05	0.04	0.32		c0.07	c0.58	
v/s Ratio Perm						0.08			0.13			0.02
v/c Ratio		0.76		1.05	1.04	0.48	0.92	0.64	0.13	0.71	1.04	0.04
Uniform Delay, d1		65.3		61.2	61.2	44.9	70.9	27.6	0.0	64.7	32.9	14.9
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		18.7		52.1	63.1	0.8	77.4	0.5	0.2	6.8	27.1	0.0
Delay (s)		84.1		113.3	124.2	45.8	148.3	28.0	0.2	71.5	60.0	14.9
Level of Service		F		F	F	D	F	C	A	E	E	B
Approach Delay (s)		84.1			100.4			29.0			60.0	
Approach LOS		F			F			C			E	

Intersection Summary				
HCM 2000 Control Delay	57.1	HCM 2000 Level of Service	E	
HCM 2000 Volume to Capacity ratio	1.01			
Actuated Cycle Length (s)	148.3	Sum of lost time (s)	19.5	
Intersection Capacity Utilization	87.0%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	470	0	133	1	2026	461	69	4163	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				511	0	145	1	2202	501	75	4525	0
Adj No. of Lanes				2	0	1	1	4	1	2	4	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				571	0	321	74	4205	1302	126	4730	0
Arrive On Green				0.17	0.00	0.17	0.66	0.66	0.66	0.04	0.74	0.00
Sat Flow, veh/h				3442	0	1583	16	6408	1583	3442	6669	0
Grp Volume(v), veh/h				511	0	145	1	2202	501	75	4525	0
Grp Sat Flow(s),veh/h/ln				1721	0	1583	16	1602	1583	1721	1602	0
Q Serve(g_s), s				14.4	0.0	8.0	5.8	17.8	8.2	2.1	62.3	0.0
Cycle Q Clear(g_c), s				14.4	0.0	8.0	60.0	17.8	8.2	2.1	62.3	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				571	0	321	74	4205	1302	126	4730	0
V/C Ratio(X)				0.89	0.00	0.45	0.01	0.52	0.38	0.59	0.96	0.00
Avail Cap(c_a), veh/h				573	0	322	74	4205	1302	226	4785	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				40.5	0.0	34.7	41.9	8.9	2.3	47.0	11.6	0.0
Incr Delay (d2), s/veh				16.5	0.0	1.0	0.1	0.1	0.2	4.4	5.9	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.1	0.0	3.6	0.0	7.8	6.9	1.1	29.0	0.0
LnGrp Delay(d),s/veh				57.0	0.0	35.7	42.0	9.0	2.5	51.4	17.4	0.0
LnGrp LOS				E		D	D	A	A	D	B	
Approach Vol, veh/h					656			2704			4600	
Approach Delay, s/veh					52.3			7.8			18.0	
Approach LOS					D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	70.0				78.2		20.9
Change Period (Y+Rc), s	4.5	5.0				5.0		4.5
Max Green Setting (Gmax), s	6.5	63.0				74.0		16.5
Max Q Clear Time (g_c+I1), s	4.1	62.0				64.3		16.4
Green Ext Time (p_c), s	0.0	1.0				8.8		0.0

Intersection Summary			
HCM 2010 Ctrl Delay			17.4
HCM 2010 LOS			B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	244	648	203	480	661	594	333	1635	314	674	3457	593
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	265	704	221	522	718	0	362	1777	341	733	3758	645
Adj No. of Lanes	2	3	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	576	179	390	590	264	252	2604	823	804	2882	897
Arrive On Green	0.06	0.11	0.11	0.11	0.17	0.00	0.07	0.41	0.41	0.23	0.57	0.57
Sat Flow, veh/h	3442	5085	1583	3442	3539	1583	3442	6408	1583	3442	5085	1583
Grp Volume(v), veh/h	265	704	221	522	718	0	362	1777	341	733	3758	645
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1602	1583	1721	1695	1583
Q Serve(g_s), s	9.0	17.0	17.0	17.0	25.0	0.0	11.0	34.2	19.8	31.1	85.0	44.7
Cycle Q Clear(g_c), s	9.0	17.0	17.0	17.0	25.0	0.0	11.0	34.2	19.8	31.1	85.0	44.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	206	576	179	390	590	264	252	2604	823	804	2882	897
V/C Ratio(X)	1.28	1.22	1.23	1.34	1.22	0.00	1.43	0.68	0.41	0.91	1.30	0.72
Avail Cap(c_a), veh/h	206	576	179	390	590	264	252	2604	823	964	2882	897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.5	66.5	66.5	66.5	62.5	0.0	69.5	36.6	22.1	56.0	32.5	23.8
Incr Delay (d2), s/veh	159.1	114.7	143.1	168.7	112.6	0.0	216.7	0.7	0.3	11.2	139.5	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	14.1	14.6	17.2	21.4	0.0	12.8	15.2	8.7	16.0	76.7	20.0
LnGrp Delay(d),s/veh	229.6	181.2	209.6	235.2	175.1	0.0	286.2	37.3	22.4	67.2	172.0	26.6
LnGrp LOS	F	F	F	F	F		F	D	C	E	F	C
Approach Vol, veh/h		1190			1240			2480			5136	
Approach Delay, s/veh		197.2			200.4			71.6			138.8	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	40.1	65.9	22.0	22.0	16.0	90.0	14.0	30.0
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	42.0	54.0	17.0	17.0	11.0	85.0	9.0	25.0
Max Q Clear Time (g_c+I1), s	33.1	36.2	19.0	19.0	13.0	87.0	11.0	27.0
Green Ext Time (p_c), s	1.9	17.8	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary			
HCM 2010 Ctrl Delay			136.7
HCM 2010 LOS			F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	302	51	122	230	58	97	1778	138	233	3260	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	83	328	55	133	250	63	105	1933	150	253	3543	174
Adj No. of Lanes	1	2	0	2	1	1	1	3	0	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	377	63	177	236	340	106	2937	227	303	3244	1010
Arrive On Green	0.05	0.12	0.12	0.05	0.13	0.13	0.06	0.61	0.61	0.09	0.64	0.64
Sat Flow, veh/h	1774	3039	504	3442	1863	1583	1774	4815	372	3442	5085	1583
Grp Volume(v), veh/h	83	190	193	133	250	63	105	1358	725	253	3543	174
Grp Sat Flow(s),veh/h/ln	1774	1770	1774	1721	1863	1583	1774	1695	1797	1721	1695	1583
Q Serve(g_s), s	7.0	15.8	16.1	5.7	19.0	4.9	8.9	39.1	39.5	10.9	95.7	6.7
Cycle Q Clear(g_c), s	7.0	15.8	16.1	5.7	19.0	4.9	8.9	39.1	39.5	10.9	95.7	6.7
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	86	219	220	177	236	340	106	2068	1096	303	3244	1010
V/C Ratio(X)	0.96	0.86	0.88	0.75	1.06	0.19	0.99	0.66	0.66	0.84	1.09	0.17
Avail Cap(c_a), veh/h	86	219	220	190	236	340	106	2068	1096	402	3244	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.2	64.5	64.6	70.2	65.5	48.2	70.4	19.0	19.1	67.3	27.2	11.0
Incr Delay (d2), s/veh	83.8	28.2	31.0	14.4	75.2	0.3	82.7	0.8	1.5	11.0	47.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	9.5	9.8	3.1	14.7	2.2	6.8	18.5	20.0	5.6	58.6	2.9
LnGrp Delay(d),s/veh	155.0	92.7	95.6	84.6	140.7	48.4	153.2	19.8	20.6	78.3	74.3	11.1
LnGrp LOS	F	F	F	F	F	D	F	B	C	E	F	B
Approach Vol, veh/h		466			446			2188			3970	
Approach Delay, s/veh		105.0			110.9			26.5			71.8	
Approach LOS		F			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	96.5	12.2	23.6	13.5	100.7	11.8	24.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	17.5	87.2	8.3	18.0	9.0	95.7	7.3	19.0
Max Q Clear Time (g_c+I1), s	12.9	41.5	7.7	18.1	10.9	97.7	9.0	21.0
Green Ext Time (p_c), s	0.4	45.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.4
HCM 2010 LOS	E

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #6 Plaza El Segundo / Park Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.390
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Plaza El Segundo								Park Pl			
Approach:	North Bound				South Bound				East Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Permitted				
Rights:	Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	0	1	0	0	1	0	0	1	1	0	1	1	0
Volume Module:															
Base Vol:	39	15	12			1	16	230			129	134	26		
Growth Adj:	1.02	1.02	1.02			1.02	1.02	1.02			1.02	1.02	1.02		
Initial Bse:	40	15	12			1	16	234			131	136	26		
Added Vol:	0	0	0			0	0	0			0	0	0		
PasserByVol:	0	0	0			0	0	0			0	0	0		
Initial Fut:	40	15	12			1	16	234			131	136	26		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	40	15	12			1	16	234			131	136	26		
Reduct Vol:	0	0	0			0	0	0			0	0	0		
Reduced Vol:	40	15	12			1	16	234			131	136	26		
PCE Adj:	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		
FinalVolume:	40	15	12			1	16	234			131	136	26		
Saturation Flow Module:															
Sat/Lane:	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		
Lanes:	1.00	0.56	0.44			0.06	0.94	1.00			1.00	1.68	0.32		
Final Sat.:	1600	889	711			94	1506	1600			1600	2680	520		
Capacity Analysis Module:															
Vol/Sat:	0.02	0.02	0.02			0.00	0.01	0.15			0.08	0.05	0.05		
Crit Moves:	****							****			****				

Street Name:	Park Pl		
Approach:	West Bound		
Movement:	L	-	T	-	R
Control:	Permitted				
Rights:	Include				
Min. Green:	0	0	0		
Y+R:	4.0	4.0	4.0		
Lanes:	1	0	1	1	0
Volume Module:					
Base Vol:	13	115	4		
Growth Adj:	1.02	1.02	1.02		
Initial Bse:	13	117	4		
Added Vol:	0	0	0		
PasserByVol:	0	0	0		
Initial Fut:	13	117	4		
User Adj:	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00		
PHF Volume:	13	117	4		
Reduct Vol:	0	0	0		
Reduced Vol:	13	117	4		
PCE Adj:	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00		
FinalVolume:	13	117	4		
Saturation Flow Module:					
Sat/Lane:	1600	1600	1600		
Adjustment:	1.00	1.00	1.00		
Lanes:	1.00	1.93	0.07		
Final Sat.:	1600	3092	108		
Capacity Analysis Module:					
Vol/Sat:	0.01	0.04	0.04		
Crit Moves:		****			

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #7 Village Dr / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.761
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Village Dr									Rosecrans 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				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 1	1	0	0	1 1	2	0	2	1 0	1	0	3	0 1
Volume Module:																
Base Vol:	135	0	191		15	0	1		13	1335	148		262	1498	0	
Growth Adj:	1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02	
Initial Bse:	137	0	194		15	0	1		13	1356	150		266	1522	0	
Added Vol:	0	0	12		0	0	0		0	158	0		15	67	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	137	0	206		15	0	1		13	1514	150		281	1589	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:	137	0	206		15	0	1		13	1514	150		281	1589	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	137	0	206		15	0	1		13	1514	150		281	1589	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:	137	0	206		15	0	1		13	1514	150		281	1589	0	
Saturation Flow Module:																
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600	
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Lanes:	1.00	0.00	1.00		1.00	0.00	2.00		2.00	2.73	0.27		1.00	3.00	1.00	
Final Sat.:	1600	0	1600		1600	0	3200		3200	4366	434		1600	4800	1600	
Capacity Analysis Module:																
Vol/Sat:	0.09	0.00	0.13		0.01	0.00	0.00		0.00	0.35	0.35		0.18	0.33	0.00	
Crit Moves:			****		****					****			****			

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #8 Cedar Ave / Marine Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Cedar Ave									Marine 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				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	1!	0 0	0	1	0	0 1	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	13	27	51		337	68	101		56	577	43		31	287	330	
Growth Adj:	1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02	
Initial Bse:	13	27	52		342	69	103		57	586	44		31	292	335	
Added Vol:	0	0	7		4	0	0		0	0	0		6	0	5	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	13	27	59		346	69	103		57	586	44		37	292	340	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	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	27	59		346	69	103		57	586	44		37	292	340	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	13	27	59		346	69	103		57	586	44		37	292	340	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	13	27	59		346	69	103		57	586	44		37	292	340	
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:	0.13	0.28	0.59		0.83	0.17	1.00		1.00	1.86	0.14		1.00	2.00	1.00	
Final Sat.:	212	441	946		1334	266	1600		1600	2978	222		1600	3200	1600	
Capacity Analysis Module:																
Vol/Sat:	0.01	0.06	0.06		0.22	0.26	0.06		0.04	0.20	0.20		0.02	0.09	0.21	
Crit Moves:		****			****					****					****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #9 Continental Blvd / El Segundo Blvd

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

Street Name:	Continental Blvd						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1 0	1 1	1	1 0	1 1	2	0 3	0 1	2	0 2	1 0
Volume Module:												
Base Vol:	56	110	118	220	17	87	38	792	4	15	772	62
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	57	112	120	223	17	88	39	804	4	15	784	63
Added Vol:	364	0	268	131	0	16	5	254	86	80	442	40
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	421	112	388	354	17	104	44	1058	90	95	1226	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	421	112	388	354	17	104	44	1058	90	95	1226	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	421	112	388	354	17	104	44	1058	90	95	1226	103
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:	421	112	388	354	17	104	44	1058	90	95	1226	103
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.83	0.49	1.68	2.00	0.28	1.72	2.00	3.00	1.00	2.00	2.77	0.23
Final Sat.:	2935	776	2689	3200	454	2746	3200	4800	1600	3200	4428	372
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.11	0.04	0.04	0.01	0.22	0.06	0.03	0.28	0.28
Crit Moves:			****	****			****				****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #10 Allied Wy / Hughes Wy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.432
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Allied Wy						Hughes Wy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1!	0 0	0	0 0	0 1	1	0 1	1 0	1	0 2	0 1
Volume Module:												
Base Vol:	113	0	8	0	0	10	0	8	196	34	161	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	115	0	8	0	0	10	0	8	199	35	164	0
Added Vol:	0	0	0	0	0	0	0	198	0	0	756	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	0	8	0	0	10	0	206	199	35	920	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:	115	0	8	0	0	10	0	206	199	35	920	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	0	8	0	0	10	0	206	199	35	920	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:	115	0	8	0	0	10	0	206	199	35	920	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.86	0.01	0.13	0.00	0.00	1.00	1.00	1.02	0.98	1.00	2.00	1.00
Final Sat.:	2988	0	212	0	0	1600	1600	1628	1572	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.00	0.04	0.00	0.00	0.01	0.00	0.13	0.13	0.02	0.29	0.00
Crit Moves:	****					****	****				****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #11 Ash St / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.104
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Ash St						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	0 1	1	1	1 0	1	2	0 3	0 1	2	0 2 1 0
Volume Module:												
Base Vol:	6	47	154	403	15	78	92	997	6	19	758	105
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	6	48	156	409	15	79	93	1013	6	19	770	107
Added Vol:	124	345	632	372	69	74	38	583	32	166	363	188
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	130	393	788	781	84	153	131	1596	38	185	1133	295
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	130	393	788	781	84	153	131	1596	38	185	1133	295
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	130	393	788	781	84	153	131	1596	38	185	1133	295
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:	130	393	788	781	84	153	131	1596	38	185	1133	295
OvlAdjVol:			665									
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	0.67	1.33	2.00	1.00	1.00	2.00	3.00	1.00	2.00	2.38	0.62
Final Sat.:	3200	1064	2136	3200	1600	1600	3200	4800	1600	3200	3809	991
Capacity Analysis Module:												
Vol/Sat:	0.04	0.37	0.37	0.24	0.05	0.10	0.04	0.33	0.02	0.06	0.30	0.30
OvlAdjV/S:			0.31									
Crit Moves:	****			****				****		****		

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	132	26	0	30	53	0	44	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	143	28	0	33	58	0	48	28
Number of Lanes	0	1	1	0	1	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	2	0
HCM Control Delay	9.3	7.6	8.6
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	0%	0%	100%	0%	63%
Vol Thru, %	100%	0%	0%	0%	37%
Vol Right, %	0%	100%	0%	100%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	53	132	26	70
LT Vol	0	0	132	0	44
Through Vol	30	0	0	0	26
RT Vol	0	53	0	26	0
Lane Flow Rate	33	58	143	28	76
Geometry Grp	7	7	7	7	4
Degree of Util (X)	0.046	0.07	0.217	0.033	0.106
Departure Headway (Hd)	5.076	4.373	5.437	4.234	5.028
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	708	822	663	848	715
Service Time	2.791	2.087	3.153	1.95	3.044
HCM Lane V/C Ratio	0.047	0.071	0.216	0.033	0.106
HCM Control Delay	8	7.4	9.7	7.1	8.6
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.8	0.1	0.4

```
FY 2021 PM                  Thu Oct 13, 2016 15:41:36                Page 17-1
--------------------------------------------------------------------------------
                        PARK PLACE EXTENSION PROJECT
                FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
--------------------------------------------------------------------------------
                        Level Of Service Computation Report
                ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #13 Nash St-Park Wy / Rosecrans Ave
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.617
Loss Time (sec):      10                Average Delay (sec/veh):       xxxxxx
Optimal Cycle:       100                Level Of Service:                   B
********************************************************************************
Street Name:          Nash St-Park Wy                  Rosecrans 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        Protected        Protected
Rights:           Include          Ovl              Include          Include
Min. Green:     0    0    0     0    0    0     0    0    0     0    0    0
Y+R:          4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0
Lanes:        1  0  0  1  0    2  0  1  0  1    2  0  2  1  0    2  0  3  0  1
----------|----------------||----------------||----------------||----------------|
Volume Module:
Base Vol:       62   17   90    73   40  177    43 1431   61    87 1533   59
Growth Adj:   1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02
Initial Bse:    63   17   91    74   41  180    44 1453   62    88 1557   60
Added Vol:       0    0    0     0    0    0     0  169    0     0   82    0
PasserByVol:     0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    63   17   91    74   41  180    44 1622   62    88 1639   60
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:     63   17   91    74   41  180    44 1622   62    88 1639   60
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    63   17   91    74   41  180    44 1622   62    88 1639   60
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:    63   17   91    74   41  180    44 1622   62    88 1639   60
OvlAdjVol:                                158
----------|----------------||----------------||----------------||----------------|
Saturation Flow Module:
Sat/Lane:     1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
Adjustment:   1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:        1.00 0.16 0.84  2.00 1.00 1.00  2.00 2.89 0.11  2.00 3.00 1.00
Final Sat.:   1600  254 1346  3200 1600 1600  3200 4623  177  3200 4800 1600
----------|----------------||----------------||----------------||----------------|
Capacity Analysis Module:
Vol/Sat:      0.04 0.07 0.07  0.02 0.03 0.11  0.01 0.35 0.35  0.03 0.34 0.04
OvlAdjV/S:                                0.10
Crit Moves:   ****                        ****       ****        ****
********************************************************************************
```

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE

Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	122	19	0	59	136	0	0	12	2	249
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	133	21	0	64	148	0	0	13	2	271
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	2
HCM Control Delay	10.7	10.3	11.1
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	78%	0%
Vol Thru, %	0%	100%	0%	100%	87%	0%	100%	22%	39%
Vol Right, %	0%	0%	100%	0%	13%	0%	0%	0%	61%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	2	249	0	141	59	136	30	17
LT Vol	12	0	0	0	0	59	0	23	0
Through Vol	0	2	0	0	122	0	136	7	7
RT Vol	0	0	249	0	19	0	0	0	10
Lane Flow Rate	13	2	271	0	153	64	148	32	18
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.023	0.004	0.389	0	0.254	0.114	0.243	0.06	0.03
Departure Headway (Hd)	6.385	5.879	5.172	6.05	5.955	6.417	5.915	6.785	5.958
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	562	609	696	0	604	559	608	528	601
Service Time	4.113	3.607	2.9	3.782	3.687	4.148	3.646	4.525	3.697
HCM Lane V/C Ratio	0.023	0.003	0.389	0	0.253	0.114	0.243	0.061	0.03
HCM Control Delay	9.3	8.6	11.2	8.8	10.7	10	10.5	10	8.9
HCM Lane LOS	A	A	B	N	B	A	B	A	A
HCM 95th-tile Q	0.1	0	1.8	0	1	0.4	0.9	0.2	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	13	10
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	25	14	11
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	9.6
HCM LOS	A

Lane


```
FY 2021 PM                  Thu Oct 13, 2016 15:41:36                  Page 19-1
-------------------------------------------------------------------------------

                        PARK PLACE EXTENSION PROJECT
                FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
                                PM PEAK HOUR
-------------------------------------------------------------------------------

                        Level Of Service Computation Report
                ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #15 Apollo St-Market Pl / Rosecrans Ave
*******************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):         0.701
Loss Time (sec):      10               Average Delay (sec/veh):       xxxxxx
Optimal Cycle:       100               Level Of Service:                   C
*******************************************************************************
Street Name:        Apollo St-Market Pl                Rosecrans 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        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:         2  0  1  0  1    2  0  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      111   45  145    326   58  109     57 1482   71    179 1473   65
Growth Adj:   1.02 1.02 1.02   1.02 1.02 1.02   1.02 1.02 1.02   1.02 1.02 1.02
Initial Bse:   113   46  147    331   59  111     58 1505   72    182 1496   66
Added Vol:       0    0    0      0    0    0      0  169    0      0   82    0
PasserByVol:     0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:   113   46  147    331   59  111     58 1674   72    182 1578   66
User Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:    113   46  147    331   59  111     58 1674   72    182 1578   66
Reduct Vol:      0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   113   46  147    331   59  111     58 1674   72    182 1578   66
PCE Adj:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
FinalVolume:   113   46  147    331   59  111     58 1674   72    182 1578   66
------------|---------------||---------------||---------------||---------------|
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 1.00 1.00   2.00 1.00 1.00   2.00 3.00 1.00   2.00 2.88 0.12
Final Sat.:   3200 1600 1600   3200 1600 1600   3200 4800 1600   3200 4607  193
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.04 0.03 0.09   0.10 0.04 0.07   0.02 0.35 0.05   0.06 0.34 0.34
Crit Moves:             ****  ****                   ****        ****
*******************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #16 Douglas St / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.137
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Street Name:	Douglas St						El Segundo Blvd					
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:	2	0 1	1	2	0 2	0 1	1	0 2	1 0	2	0 3	0 1
Volume Module:												
Base Vol:	115	428	302	403	1035	78	30	1285	220	121	647	136
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	117	435	307	409	1051	79	30	1305	223	123	657	138
Added Vol:	0	0	10	223	0	149	75	1511	0	2	569	113
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	435	317	632	1051	228	105	2816	223	125	1226	251
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	435	317	632	1051	228	105	2816	223	125	1226	251
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	435	317	632	1051	228	105	2816	223	125	1226	251
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	117	435	317	632	1051	228	105	2816	223	125	1226	251
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	1.74	1.26	2.00	2.00	1.00	1.00	2.78	0.22	2.00	3.00	1.00
Final Sat.:	3200	2777	2023	3200	3200	1600	1600	4447	353	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.20	0.33	0.14	0.07	0.63	0.63	0.04	0.26	0.16
Crit Moves:	****				****			****			****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #17 Douglas St / Transit Center

Cycle (sec): 100 Critical Vol./Cap.(X): 0.390
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Douglas St						Transit Center					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0	1	0 1	0	1	0 1	0 1	0	1 0	1
Volume Module:												
Base Vol:	1	271	1	1	898	0	0	0	1	1	0	1
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	1	275	1	1	912	0	0	0	1	1	0	1
Added Vol:	0	2	0	0	10	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	277	1	1	922	0	0	0	1	1	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	277	1	1	922	0	0	0	1	1	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	277	1	1	922	0	0	0	1	1	0	1
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:	1	277	1	1	922	0	0	0	1	1	0	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	2.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	1600	3188	12	1600	3200	0	1600	1600	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****				****				****	****		

Intersection	
Intersection Delay, s/veh	55
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	352	4	148	0	7	2	4	0	50	223	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	383	4	161	0	8	2	4	0	54	242	1
Number of Lanes	0	0	1	1	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	49.4	13.6	16.2
HCM LOS	E	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	99%	0%	54%	100%	0%	0%
Vol Thru, %	0%	100%	99%	1%	0%	15%	0%	100%	55%
Vol Right, %	0%	0%	1%	0%	100%	31%	0%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	149	75	356	148	13	11	505	461
LT Vol	50	0	0	352	0	7	11	0	0
Through Vol	0	149	74	4	0	2	0	505	252
RT Vol	0	0	1	0	148	4	0	0	209
Lane Flow Rate	54	162	82	387	161	14	12	549	501
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.145	0.408	0.206	0.954	0.344	0.041	0.028	1	1
Departure Headway (Hd)	9.587	9.086	9.077	8.875	7.687	10.38	8.501	7.984	7.657
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	375	398	396	410	470	346	422	455	476
Service Time	7.314	6.812	6.803	6.589	5.4	8.117	6.238	5.722	5.395
HCM Lane V/C Ratio	0.144	0.407	0.207	0.944	0.343	0.04	0.028	1.207	1.053
HCM Control Delay	13.9	18	14.1	63.9	14.4	13.6	11.5	70.8	69.2
HCM Lane LOS	B	C	B	F	B	B	B	F	F
HCM 95th-tile Q	0.5	1.9	0.8	10.9	1.5	0.1	0.1	13	13.2

Opening Year 2021 Plus Cumulative Without Project Conditions PM Peak
18: Douglas St & Park Pl/Private Dwy

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	757	209
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	12	823	227
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	69.4
HCM LOS	F

Lane

Michael Baker International Park Place Extension Project
H:\pdata\145070\Technical Studies\Traffic\Synchro\Park_Place_OY2021nP+C_PM.syn HCM 2010 AWSC

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #19 Douglas St-Redondo Ave / Rosecrans Ave

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

Street Name:	Douglas St-Redondo Ave						Rosecrans 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			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	2	0 1	0 1	2	0 3	0 1	2	0 3	0 1
Volume Module:												
Base Vol:	90	61	43	384	349	244	77	1829	131	26	1477	186
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	91	62	44	390	354	248	78	1858	133	26	1500	189
Added Vol:	0	0	0	5	0	5	1	168	0	0	77	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	62	44	395	354	253	79	2026	133	26	1577	190
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	62	44	395	354	253	79	2026	133	26	1577	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	62	44	395	354	253	79	2026	133	26	1577	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	62	44	395	354	253	79	2026	133	26	1577	190
OvlAdjVol:												0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4800	1600	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.06	0.04	0.03	0.12	0.22	0.16	0.02	0.42	0.08	0.01	0.33	0.12
OvlAdjV/S:												0.00
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #20 Aviation Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.199
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Aviation Blvd						El Segundo Blvd					
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:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2	0 1	1	0 1	1 1	1	0 3	1 0	2	0 2	1 0
Volume Module:												
Base Vol:	185	610	297	181	1038	127	164	1692	308	297	570	52
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	188	620	302	184	1054	129	167	1719	313	302	579	53
Added Vol:	74	57	32	8	53	51	100	1518	126	8	559	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	262	677	334	192	1107	180	267	3237	439	310	1138	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	262	677	334	192	1107	180	267	3237	439	310	1138	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	677	334	192	1107	180	267	3237	439	310	1138	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	262	677	334	192	1107	180	267	3237	439	310	1138	62
OvlAdjVol:			179									
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	2.00	1.00	1.00	2.00	1.00	1.00	3.52	0.48	2.00	2.85	0.15
Final Sat.:	3200	3200	1600	1600	3200	1600	1600	5636	764	3200	4553	247
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.21	0.12	0.35	0.11	0.17	0.57	0.57	0.10	0.25	0.25
OvlAdjV/S:			0.11									
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #21 Aviation Blvd / Utah Ave-135th St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.880
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	D

Street Name:	Aviation Blvd						Utah Ave-135th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	0	1 0	1 0	1	0 1	0 1
Volume Module:												
Base Vol:	16	916	147	157	1452	7	67	319	108	106	63	110
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	16	930	149	159	1475	7	68	324	110	108	64	112
Added Vol:	8	105	0	19	160	8	40	0	40	0	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	1035	149	178	1635	15	108	324	150	108	64	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	1035	149	178	1635	15	108	324	150	108	64	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	1035	149	178	1635	15	108	324	150	108	64	129
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:	24	1035	149	178	1635	15	108	324	150	108	64	129
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.75	0.25	1.00	1.98	0.02	0.37	1.12	0.51	1.00	1.00	1.00
Final Sat.:	1600	2797	403	1600	3171	29	594	1782	823	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.37	0.37	0.11	0.52	0.52	0.07	0.18	0.18	0.07	0.04	0.08
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #22 Aviation Blvd / Alaska Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.793
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	C

Street Name:	Aviation Blvd						Alaska 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			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 0	0	0 1	1 0	1	0 0	0 2	0	0 0	0 0
Volume Module:												
Base Vol:	26	1013	0	0	1650	31	73	0	304	0	0	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	26	1029	0	0	1676	31	74	0	309	0	0	0
Added Vol:	0	114	0	0	201	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	26	1143	0	0	1877	31	74	0	309	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:	26	1143	0	0	1877	31	74	0	309	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	1143	0	0	1877	31	74	0	309	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	1143	0	0	1877	31	74	0	309	0	0	0
OvlAdjVol:									256			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.97	0.03	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3147	53	1600	0	3200	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.02	0.36	0.00	0.00	0.60	0.60	0.05	0.00	0.10	0.00	0.00	0.00
OvlAdjV/S:									0.08			
Crit Moves:	****				****				****			

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 PLUS CUMULATIVE WITHOUT PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #23 Aviation Blvd / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.933
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	120	Level Of Service:	E

Street Name:	Aviation Blvd						Rosecrans 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			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2 0	3 0	1	2 0	4 0	1	2 0	4 0	1	2 0	4 0	1
Volume Module:												
Base Vol:	255	902	501	252	1756	90	361	1864	368	420	1000	106
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	259	916	509	256	1784	91	367	1893	374	427	1016	108
Added Vol:	40	103	0	30	166	5	4	36	134	0	33	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	299	1019	509	286	1950	96	371	1929	508	427	1049	114
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	299	1019	509	286	1950	96	371	1929	508	427	1049	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	299	1019	509	286	1950	96	371	1929	508	427	1049	114
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	299	1019	509	286	1950	96	371	1929	508	427	1049	114
OvlAdjVol:			296			0			358			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	3.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3200	4800	1600	3200	6400	1600	3200	6400	1600	3200	6400	1600
Capacity Analysis Module:												
Vol/Sat:	0.09	0.21	0.32	0.09	0.30	0.06	0.12	0.30	0.32	0.13	0.16	0.07
OvlAdjV/S:			0.18			0.00			0.22			0.00
Crit Moves:	****			****			****			****		

Appendix I – Opening Year 2021 With Project Conditions Intersection Analysis Worksheets

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	101	513	245	233	396	368	349	2842	457	766	1306	122
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	110	558	266	253	430	400	379	3089	497	833	1420	133
Adj No. of Lanes	1	2	1	2	2	1	2	4	0	2	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	122	472	211	218	453	203	434	2713	415	677	3528	872
Arrive On Green	0.07	0.13	0.13	0.06	0.13	0.13	0.13	0.48	0.48	0.20	0.55	0.55
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	3442	5652	864	3442	6408	1583
Grp Volume(v), veh/h	110	558	266	253	430	400	379	2603	983	833	1420	133
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1721	1602	1710	1721	1602	1583
Q Serve(g_s), s	9.2	20.0	20.0	9.5	18.1	19.2	16.2	72.0	72.0	29.5	19.2	6.2
Cycle Q Clear(g_c), s	9.2	20.0	20.0	9.5	18.1	19.2	16.2	72.0	72.0	29.5	19.2	6.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		1.00
Lane Grp Cap(c), veh/h	122	472	211	218	453	203	434	2307	821	677	3528	872
V/C Ratio(X)	0.90	1.18	1.26	1.16	0.95	1.97	0.87	1.13	1.20	1.23	0.40	0.15
Avail Cap(c_a), veh/h	122	472	211	218	453	203	558	2307	821	677	3528	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.4	65.0	65.0	70.3	64.9	65.4	64.4	39.0	39.0	60.3	19.5	16.5
Incr Delay (d2), s/veh	52.8	102.0	149.4	111.1	29.7	455.5	11.8	63.9	100.8	116.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	16.5	17.5	7.9	10.7	34.1	8.4	45.5	57.0	25.0	8.5	2.7
LnGrp Delay(d),s/veh	122.1	167.0	214.4	181.4	94.6	520.9	76.1	102.9	139.8	176.7	19.5	16.6
LnGrp LOS	F	F	F	F	F	F	E	F	F	F	B	B
Approach Vol, veh/h		934			1083			3965			2386	
Approach Delay, s/veh		175.2			272.3			109.5			74.2	
Approach LOS		F			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	34.0	77.0	14.0	25.0	23.4	87.6	14.8	24.2
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	29.5	72.0	9.5	20.0	24.3	77.2	10.3	19.2
Max Q Clear Time (g_c+I1), s	31.5	74.0	11.5	22.0	18.2	21.2	11.2	21.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.7	55.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	127.9
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	0	6	101	0	55	15	3448	731	193	1530	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	4.5	4.5	5.0	4.0	4.5	5.0	5.0
Lane Util. Factor		1.00		0.91	0.91	1.00	1.00	0.86	1.00	0.97	0.86	1.00
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1709		3221	1610	1583	1770	6408	1583	3433	6408	1583
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1709		3221	1610	1583	1770	6408	1583	3433	6408	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	0	7	110	0	60	16	3748	795	210	1663	9
RTOR Reduction (vph)	0	17	0	0	0	52	0	0	0	0	0	2
Lane Group Flow (vph)	0	0	0	74	36	8	16	3748	795	210	1663	7
Turn Type	Split	NA		Split	NA	pm+ov	Prot	NA	Free	Prot	NA	Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8			Free			6
Actuated Green, G (s)		2.0		6.8	6.8	15.4	2.0	83.4	120.3	8.6	90.0	90.0
Effective Green, g (s)		2.0		6.8	6.8	15.4	2.0	83.4	120.3	8.6	90.0	90.0
Actuated g/C Ratio		0.02		0.06	0.06	0.13	0.02	0.69	1.00	0.07	0.75	0.75
Clearance Time (s)		5.0		5.0	5.0	4.5	4.5	5.0		4.5	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		28		182	91	202	29	4442	1583	245	4794	1184
v/s Ratio Prot		0.00		0.02	0.02	0.00	0.01	c0.58		c0.06	0.26	
v/s Ratio Perm						0.00			c0.50			0.00
v/c Ratio		0.01		0.41	0.40	0.04	0.55	0.84	0.50	0.86	0.35	0.01
Uniform Delay, d1		58.2		54.8	54.8	46.0	58.7	13.6	0.0	55.2	5.2	3.8
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.1		1.5	2.8	0.1	20.8	1.6	1.1	24.3	0.0	0.0
Delay (s)		58.3		56.3	57.6	46.0	79.5	15.2	1.1	79.6	5.2	3.8
Level of Service		E		E	E	D	E	B	A	E	A	A
Approach Delay (s)		58.3			52.9			13.0			13.5	
Approach LOS		E			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	120.3	Sum of lost time (s)	19.5
Intersection Capacity Utilization	75.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	51	0	121	2	4030	191	73	1576	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				55	0	132	2	4380	208	79	1713	0
Adj No. of Lanes				2	0	1	1	4	1	2	4	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				352	0	223	279	4538	1283	132	5096	0
Arrive On Green				0.10	0.00	0.10	0.71	0.71	0.71	0.04	0.80	0.00
Sat Flow, veh/h				3442	0	1583	284	6408	1583	3442	6669	0
Grp Volume(v), veh/h				55	0	132	2	4380	208	79	1713	0
Grp Sat Flow(s),veh/h/ln				1721	0	1583	284	1602	1583	1721	1602	0
Q Serve(g_s), s				1.4	0.0	7.2	0.2	58.4	2.7	2.1	6.9	0.0
Cycle Q Clear(g_c), s				1.4	0.0	7.2	0.2	58.4	2.7	2.1	6.9	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				352	0	223	279	4538	1283	132	5096	0
V/C Ratio(X)				0.16	0.00	0.59	0.01	0.97	0.16	0.60	0.34	0.00
Avail Cap(c_a), veh/h				594	0	334	279	4538	1283	167	5153	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				37.9	0.0	37.3	4.0	12.5	1.9	43.8	2.6	0.0
Incr Delay (d2), s/veh				0.2	0.0	2.5	0.0	7.1	0.1	4.3	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.7	0.0	3.3	0.0	27.5	1.8	1.1	3.0	0.0
LnGrp Delay(d),s/veh				38.2	0.0	39.8	4.0	19.6	2.0	48.1	2.7	0.0
LnGrp LOS				D		D	A	B	A	D	A	
Approach Vol, veh/h					187			4590			1792	
Approach Delay, s/veh					39.3			18.8			4.7	
Approach LOS					D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	70.6				78.7		14.0
Change Period (Y+Rc), s	4.5	5.0				5.0		4.5
Max Green Setting (Gmax), s	4.5	65.5				74.5		16.0
Max Q Clear Time (g_c+I1), s	4.1	60.4				8.9		9.2
Green Ext Time (p_c), s	0.0	5.1				64.8		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	15.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	337	555	161	289	394	255	280	3593	533	180	1317	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	366	603	175	314	428	0	304	3905	579	196	1432	132
Adj No. of Lanes	2	3	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	361	625	195	332	404	181	360	3762	1082	199	2749	856
Arrive On Green	0.11	0.12	0.12	0.10	0.11	0.00	0.10	0.59	0.59	0.06	0.54	0.54
Sat Flow, veh/h	3442	5085	1583	3442	3539	1583	3442	6408	1583	3442	5085	1583
Grp Volume(v), veh/h	366	603	175	314	428	0	304	3905	579	196	1432	132
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1602	1583	1721	1695	1583
Q Serve(g_s), s	14.7	16.5	15.3	12.7	16.0	0.0	12.1	82.2	25.5	8.0	25.2	5.9
Cycle Q Clear(g_c), s	14.7	16.5	15.3	12.7	16.0	0.0	12.1	82.2	25.5	8.0	25.2	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	361	625	195	332	404	181	360	3762	1082	199	2749	856
V/C Ratio(X)	1.01	0.97	0.90	0.95	1.06	0.00	0.85	1.04	0.53	0.98	0.52	0.15
Avail Cap(c_a), veh/h	361	625	195	332	404	181	474	3762	1082	199	2749	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.7	61.1	60.5	62.9	62.0	0.0	61.6	28.9	11.0	65.9	20.6	16.1
Incr Delay (d2), s/veh	50.6	27.4	38.0	35.4	60.9	0.0	10.4	25.7	0.5	59.1	0.2	0.1
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.5	9.3	8.8	7.7	11.2	0.0	6.3	42.8	11.1	5.4	11.8	2.6
LnGrp Delay(d),s/veh	113.3	88.5	98.5	98.3	122.9	0.0	72.0	54.6	11.6	125.0	20.8	16.2
LnGrp LOS	F	F	F	F	F		E	F	B	F	C	B
Approach Vol, veh/h		1144			742			4788			1760	
Approach Delay, s/veh		98.0			112.5			50.5			32.0	
Approach LOS		F			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	87.2	18.0	22.2	19.1	80.7	19.2	21.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	8.1	82.2	13.5	17.2	19.3	71.0	14.7	16.0
Max Q Clear Time (g_c+I1), s	10.0	84.2	14.7	18.5	14.1	27.2	16.7	18.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.5	43.6	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	58.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	79	277	40	109	241	52	58	3901	83	179	1311	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	86	301	43	118	262	57	63	4240	90	195	1425	64
Adj No. of Lanes	1	2	0	2	1	1	1	3	0	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	77	374	53	149	224	259	80	3417	72	149	3381	1053
Arrive On Green	0.04	0.12	0.12	0.04	0.12	0.12	0.05	0.67	0.67	0.04	0.66	0.66
Sat Flow, veh/h	1774	3114	440	3442	1863	1583	1774	5126	108	3442	5085	1583
Grp Volume(v), veh/h	86	170	174	118	262	57	63	2795	1535	195	1425	64
Grp Sat Flow(s),veh/h/ln	1774	1770	1785	1721	1863	1583	1774	1695	1844	1721	1695	1583
Q Serve(g_s), s	6.5	14.0	14.3	5.1	18.0	4.7	5.3	100.0	100.0	6.5	19.6	2.1
Cycle Q Clear(g_c), s	6.5	14.0	14.3	5.1	18.0	4.7	5.3	100.0	100.0	6.5	19.6	2.1
Prop In Lane	1.00		0.25	1.00		1.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	77	212	214	149	224	259	80	2260	1229	149	3381	1053
V/C Ratio(X)	1.12	0.80	0.81	0.79	1.17	0.22	0.79	1.24	1.25	1.31	0.42	0.06
Avail Cap(c_a), veh/h	77	212	214	149	224	259	140	2260	1229	149	3381	1053
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.8	64.2	64.4	71.1	66.0	54.5	70.9	25.0	25.0	71.8	11.7	8.8
Incr Delay (d2), s/veh	138.5	19.1	20.8	24.4	114.5	0.4	15.3	110.4	119.1	178.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	8.0	8.3	2.9	16.4	2.1	2.9	81.1	91.2	6.8	9.1	0.9
LnGrp Delay(d),s/veh	210.3	83.3	85.2	95.5	180.5	54.9	86.2	135.4	144.1	250.0	11.8	8.8
LnGrp LOS	F	F	F	F	F	D	F	F	F	F	B	A
Approach Vol, veh/h		430			437			4393			1684	
Approach Delay, s/veh		109.5			141.2			137.7			39.3	
Approach LOS		F			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	105.0	11.0	23.0	11.3	104.7	11.0	23.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	6.5	100.0	6.5	18.0	11.8	94.7	6.5	18.0
Max Q Clear Time (g_c+I1), s	8.5	102.0	7.1	16.3	7.3	21.6	8.5	20.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	72.7	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	112.3
HCM 2010 LOS	F

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #6 Plaza El Segundo / Park Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.180
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Plaza El Segundo												Park Pl											
Approach:	North Bound				South Bound				East Bound				West Bound											
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Permitted				Permitted				Permitted				Permitted											
Rights:	Include				Include				Include				Include											
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0									
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0									
Lanes:	1	0	0	1	0	0	1	0	0	1	1	0	1	1	0		1	0	1	1	0			
Volume Module:																								
Base Vol:	5	2	2		0	3	51		64	57	23		1	16	1									
Growth Adj:	1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02									
Initial Bse:	5	2	2		0	3	52		65	58	23		1	16	1									
Added Vol:	0	0	0		25	0	-25		-30	65	0		0	80	30									
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0									
Initial Fut:	5	2	2		25	3	27		35	123	23		1	96	31									
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00									
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00									
PHF Volume:	5	2	2		25	3	27		35	123	23		1	96	31									
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0									
Reduced Vol:	5	2	2		25	3	27		35	123	23		1	96	31									
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:	5	2	2		25	3	27		35	123	23		1	96	31									
Saturation Flow Module:																								
Sat/Lane:	1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600									
Adjustment:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00									
Lanes:	1.00	0.50	0.50		0.89	0.11	1.00		1.00	1.68	0.32		1.00	1.51	0.49									
Final Sat.:	1600	800	800		1426	174	1600		1600	2689	511		1600	2420	780									
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.00	0.00		0.02	0.02	0.02		0.02	0.05	0.05		0.00	0.04	0.04									
Crit Moves:		****				****				****					****									

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #7 Village Dr / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.495
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Village Dr									Rosecrans 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				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 1	1	0	0	1 1	2	0	2	1 0	1	0	3	0 1
Volume Module:																
Base Vol:	40		1	77	6		0	5	9		1202	67	128		973	9
Growth Adj:	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02
Initial Bse:	41		1	78	6		0	5	9		1221	68	130		988	9
Added Vol:	0		0	3	0		0	0	0		-57	0	4		-98	0
PasserByVol:	0		0	0	0		0	0	0		0	0	0		0	0
Initial Fut:	41		1	81	6		0	5	9		1164	68	134		890	9
User Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Volume:	41		1	81	6		0	5	9		1164	68	134		890	9
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	41		1	81	6		0	5	9		1164	68	134		890	9
PCE Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
MLF Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
FinalVolume:	41		1	81	6		0	5	9		1164	68	134		890	9
Saturation Flow Module:																
Sat/Lane:	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600
Adjustment:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
Lanes:	0.98		0.02	1.00	1.00		0.00	2.00	2.00		2.83	0.17	1.00		3.00	1.00
Final Sat.:	1561		39	1600	1600		0	3200	3200		4535	265	1600		4800	1600
Capacity Analysis Module:																
Vol/Sat:	0.03		0.03	0.05	0.00		0.00	0.00	0.00		0.26	0.26	0.08		0.19	0.01
Crit Moves:				****	****						****		****			

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #8 Cedar Ave / Marine Ave

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

Street Name:	Cedar Ave									Marine 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				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	1!	0 0	0	1	0	0 1	1	0	1	1 0	1	0	2	0 1
Volume Module:																
Base Vol:	17		57	22	66		32	47	38		463	30	40		344	407
Growth Adj:	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02
Initial Bse:	17		58	22	67		33	48	39		470	30	41		349	413
Added Vol:	0		0	8	1		0	0	0		0	0	9		0	1
PasserByVol:	0		0	0	0		0	0	0		0	0	0		0	0
Initial Fut:	17		58	30	68		33	48	39		470	30	50		349	414
User Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
PHF Adj:	1.00		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		58	30	68		33	48	39		470	30	50		349	414
Reduct Vol:	0		0	0	0		0	0	0		0	0	0		0	0
Reduced Vol:	17		58	30	68		33	48	39		470	30	50		349	414
PCE Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
MLF Adj:	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00
FinalVolume:	17		58	30	68		33	48	39		470	30	50		349	414
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		0.55	0.29	0.68		0.32	1.00	1.00		1.88	0.12	1.00		2.00	1.00
Final Sat.:	262		878	460	1083		517	1600	1600		3005	195	1600		3200	1600
Capacity Analysis Module:																
Vol/Sat:	0.01		0.07	0.07	0.04		0.06	0.03	0.02		0.16	0.16	0.03		0.11	0.26
Crit Moves:			****		****				****							****

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #9 Continental Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.555
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Continental Blvd						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 1	0 1	1	1 1	0 1	1	2 0	3 0	1	2 0	2 1	0
Volume Module:												
Base Vol:	5	24	8	50	23	40	119	620	42	34	957	393
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	5	24	8	51	23	41	121	630	43	35	972	399
Added Vol:	58	0	46	42	0	5	18	503	391	272	212	145
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	63	24	54	93	23	46	139	1133	434	307	1184	544
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	63	24	54	93	23	46	139	1133	434	307	1184	544
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	24	54	93	23	46	139	1133	434	307	1184	544
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:	63	24	54	93	23	46	139	1133	434	307	1184	544
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.79	0.69	1.52	2.00	0.68	1.32	2.00	3.00	1.00	2.00	2.06	0.94
Final Sat.:	2858	1101	2441	3200	1084	2116	3200	4800	1600	3200	3289	1511
Capacity Analysis Module:												
Vol/Sat:	0.02	0.02	0.02	0.03	0.02	0.02	0.04	0.24	0.27	0.10	0.36	0.36
Crit Moves:			****	****			****				****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #10 Allied Wy / Hughes Wy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.651
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Allied Wy						Hughes Wy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1! 0	0	0 0	0 0	1	1 0	1 1	0	1 0	2 0	1
Volume Module:												
Base Vol:	33	4	15	0	0	3	13	220	41	1	9	1
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	34	4	15	0	0	3	13	223	42	1	9	1
Added Vol:	0	0	145	0	0	0	0	650	0	17	108	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	34	4	160	0	0	3	13	873	42	18	117	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	4	160	0	0	3	13	873	42	18	117	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	4	160	0	0	3	13	873	42	18	117	1
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	4	160	0	0	3	13	873	42	18	117	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.01	0.99	0.00	0.00	1.00	1.00	1.91	0.09	1.00	2.00	1.00
Final Sat.:	1600	16	1584	0	0	1600	1600	3054	146	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.25	0.10	0.00	0.00	0.00	0.01	0.29	0.29	0.01	0.04	0.00
Crit Moves:		****		****				****		****		

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	63	45	0	64	134	25	0	121	7	54
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	68	49	0	70	146	27	0	132	8	59
Number of Lanes	0	1	1	1	0	1	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	8.7	9.1	9.7
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	100%	100%	0%	0%	100%	64%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	36%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	7	54	0	63	45	64	89	70	12	9
LT Vol	121	0	0	0	0	0	64	0	0	12	0
Through Vol	0	7	0	0	63	0	0	89	45	0	9
RT Vol	0	0	54	0	0	45	0	0	25	0	0
Lane Flow Rate	132	8	59	0	68	49	70	97	76	13	10
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.221	0.012	0.079	0	0.108	0.068	0.115	0.146	0.109	0.023	0.016
Departure Headway (Hd)	6.059	5.558	4.856	5.678	5.678	4.975	5.928	5.427	5.175	6.439	5.936
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	589	640	732	0	627	714	602	657	688	551	597
Service Time	3.828	3.327	2.625	3.452	3.452	2.749	3.692	3.191	2.939	4.233	3.73
HCM Lane V/C Ratio	0.224	0.013	0.081	0	0.108	0.069	0.116	0.148	0.11	0.024	0.017
HCM Control Delay	10.6	8.4	8	8.5	9.1	8.1	9.5	9.1	8.6	9.4	8.8
HCM Lane LOS	B	A	A	N	A	A	A	A	A	A	A
HCM 95th-tile Q	0.8	0	0.3	0	0.4	0.2	0.4	0.5	0.4	0.1	0


```
                    PARK PLACE EXTENSION PROJECT
              FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
                              AM PEAK HOUR

                    Level Of Service Computation Report
          ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
********************************************************************************
Intersection #11 Ash St / El Segundo Blvd
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.929
Loss Time (sec):      10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:       117              Level Of Service:                 E
********************************************************************************
Street Name:              Ash St                    El Segundo Blvd
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase      Protected        Protected
Rights:            Ovl              Include          Include          Include
Min. Green:    0    0    0      0    0    0      0    0    0      0    0    0
Y+R:         4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:       2  0  0  1  1    1  1  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      4   18    9   118  112   36   53  605   39   259 1354  261
Growth Adj:  1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02 1.02
Initial Bse:   4   18    9   120  114   37   54  614   40   263 1375  265
Added Vol:    20   53  105   146  382   29   98  362  132   663  580  491
PasserByVol:   0    0    0     0    0    0    0    0    0     0    0    0
Initial Fut:  24   71  114   266  496   66  152  976  172   926 1955  756
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:   24   71  114   266  496   66  152  976  172   926 1955  756
Reduct Vol:    0    0    0     0    0    0    0    0    0     0    0    0
Reduced Vol:  24   71  114   266  496   66  152  976  172   926 1955  756
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:  24   71  114   266  496   66  152  976  172   926 1955  756
OvlAdjVol:                0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
Adjustment:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:       2.00 0.77 1.23  1.05 1.95 1.00  2.00 3.00 1.00  2.00 2.16 0.84
Final Sat.:  3200 1230 1970  1676 3124 1600  3200 4800 1600  3200 3461 1339
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.06 0.06  0.16 0.16 0.04  0.05 0.20 0.11  0.29 0.56 0.56
OvlAdjV/S:                0.00
Crit Moves:       ****            ****        ****                ****
********************************************************************************
```

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	12	9	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	13	10	0
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	9.1
HCM LOS	A

Lane


```
FY 2021 + P AM            Thu Oct 13, 2016 16:46:04              Page 17-1
-------------------------------------------------------------------------------
                      PARK PLACE EXTENSION PROJECT
                FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
                             AM PEAK HOUR
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
              ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #12 Nash St / Park Pl
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.163
Loss Time (sec):        0              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:         27              Level Of Service:                    A
*******************************************************************************
Street Name:             Nash St                        Park Pl
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:        1  0  1  0  1    1  0  0  1  0    1  0  1  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    7   53     12    9    0      0    0    0     63    0   25
Growth Adj:  1.02 1.02 1.02   1.02 1.02 1.02   1.02 1.02 1.02   1.02 1.02 1.02
Initial Bse:    0    7   54     12    9    0      0    0    0     64    0   25
Added Vol:    121    0    0      0    0    0      0   63   45      0  134    0
PasserByVol:    0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:  121    7   54     12    9    0      0   63   45     64  134   25
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Volume:   121    7   54     12    9    0      0   63   45     64  134   25
Reduct Vol:     0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:  121    7   54     12    9    0      0   63   45     64  134   25
PCE Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
FinalVolume:  121    7   54     12    9    0      0   63   45     64  134   25
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600   1600 1600 1600   1600 1600 1600   1600 1600 1600
Adjustment:  1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
Lanes:       1.00 1.00 1.00   1.00 1.00 0.00   1.00 1.00 1.00   1.00 1.68 0.32
Final Sat.:  1600 1600 1600   1600 1600    0   1600 1600 1600   1600 2690  510
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.00 0.03   0.01 0.01 0.00   0.00 0.04 0.03   0.04 0.05 0.05
Crit Moves:  ****             ****             ****             ****
*******************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	11	63	64	0	145	88	30	0	136	8	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	12	68	70	0	158	96	33	0	148	9	39
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	2
HCM Control Delay	9.6	10.2	10.5
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	100%	0%	0%	50%	0%	75%	100%	100%
Vol Right, %	0%	0%	100%	0%	50%	0%	25%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	136	8	36	11	127	145	118	0	0
LT Vol	136	0	0	11	0	145	0	0	0
Through Vol	0	8	0	0	63	0	88	0	0
RT Vol	0	0	36	0	64	0	30	0	0
Lane Flow Rate	148	9	39	12	138	158	128	0	0
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.257	0.014	0.055	0.021	0.207	0.261	0.188	0	0
Departure Headway (Hd)	6.255	5.752	5.048	6.27	5.411	5.972	5.29	6.36	4.603
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	569	617	702	566	657	597	672	0	0
Service Time	4.042	3.539	2.835	4.058	3.199	3.75	3.068	4.06	2.303
HCM Lane V/C Ratio	0.26	0.015	0.056	0.021	0.21	0.265	0.19	0	0
HCM Control Delay	11.2	8.6	8.1	9.2	9.6	10.9	9.3	9.1	7.3
HCM Lane LOS	B	A	A	A	A	B	A	N	N
HCM 95th-tile Q	1	0	0.2	0.1	0.8	1	0.7	0	0

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #13 Nash St-Park Wy / Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.434
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Nash St-Park Wy						Rosecrans 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			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	0 1	0	2	0 1	0 1	2	0 2	1 0	2	0 3 0 1
Volume Module:												
Base Vol:	35	19	77	17	15	32	139	1075	49	87	1020	64
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	36	19	78	17	15	33	141	1092	50	88	1036	65
Added Vol:	0	0	0	45	0	0	0	-55	0	0	-93	121
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	36	19	78	62	15	33	141	1037	50	88	943	186
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	36	19	78	62	15	33	141	1037	50	88	943	186
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	19	78	62	15	33	141	1037	50	88	943	186
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:	36	19	78	62	15	33	141	1037	50	88	943	186
OvlAdjVol:						0						
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	0.20	0.80	2.00	1.00	1.00	2.00	2.86	0.14	2.00	3.00	1.00
Final Sat.:	1600	317	1283	3200	1600	1600	3200	4580	220	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.06	0.06	0.02	0.01	0.02	0.04	0.23	0.23	0.03	0.20	0.12
OvlAdjV/S:						0.00						
Crit Moves:	****			****			****			****		

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	0	0	0
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	0
HCM LOS	-

Lane


```
FY 2021 + P AM            Thu Oct 13, 2016 16:46:04              Page 20-1
-------------------------------------------------------------------------------
                      PARK PLACE EXTENSION PROJECT
                FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
                             AM PEAK HOUR
-------------------------------------------------------------------------------
                      Level Of Service Computation Report
            ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #15 Apollo St-Market Pl / Rosecrans Ave
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.537
Loss Time (sec):       10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        100              Level Of Service:                   A
*******************************************************************************
Street Name:        Apollo St-Market Pl              Rosecrans 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        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:         2  0  1  0  1    2  0  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       33   33   38    28   18   20   115 1022   46    96 1144  396
Growth Adj:   1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02
Initial Bse:    34   34   39    28   18   20   117 1038   47    98 1162  402
Added Vol:       0    0    0    45    0    0     0  -10    0     0   28  121
PasserByVol:     0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:    34   34   39    73   18   20   117 1028   47    98 1190  523
User Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:      1.00 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   34   39    73   18   20   117 1028   47    98 1190  523
Reduct Vol:      0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:    34   34   39    73   18   20   117 1028   47    98 1190  523
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   34   39    73   18   20   117 1028   47    98 1190  523
------------|---------------||---------------||---------------||---------------|
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 1.00 1.00  2.00 1.00 1.00  2.00 3.00 1.00  2.00 2.08 0.92
Final Sat.:   3200 1600 1600  3200 1600 1600  3200 4800 1600  3200 3334 1466
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.01 0.02 0.02  0.02 0.01 0.01  0.04 0.21 0.03  0.03 0.36 0.36
Crit Moves:        ****            ****            ****            ****
*******************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #16 Douglas St / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.217
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Douglas St						El Segundo Blvd					
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:	2	0 1	1 1	2	0 2	0 1	1	0 2	1 0	2	0 3	0 1
Volume Module:												
Base Vol:	429	679	89	118	284	52	101	484	137	205	1423	419
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	436	690	90	120	288	53	103	492	139	208	1445	426
Added Vol:	0	0	17	88	0	58	196	416	0	21	1675	294
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	436	690	107	208	288	111	299	908	139	229	3120	720
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	436	690	107	208	288	111	299	908	139	229	3120	720
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	436	690	107	208	288	111	299	908	139	229	3120	720
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:	436	690	107	208	288	111	299	908	139	229	3120	720
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	2.00	1.00	2.00	2.00	1.00	1.00	2.60	0.40	2.00	3.00	1.00
Final Sat.:	3200	3200	1600	3200	3200	1600	1600	4162	638	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.14	0.22	0.07	0.06	0.09	0.07	0.19	0.22	0.22	0.07	0.65	0.45
Crit Moves:		****			****			****			****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #17 Douglas St / Transit Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.368
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Douglas St						Transit Center					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1	0	1 0	0 1
Volume Module:												
Base Vol:	2	806	1	6	221	9	0	0	0	0	0	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	2	819	1	6	224	9	0	0	0	0	0	0
Added Vol:	0	26	0	0	12	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	845	1	6	236	9	0	0	0	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:	2	845	1	6	236	9	0	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	845	1	6	236	9	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	845	1	6	236	9	0	0	0	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.93	0.07	1.00	1.00	1.00	0.00	1.00	1.00
Final Sat.:	1600	3196	4	1600	3081	119	1600	1600	1600	0	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.26	0.26	0.00	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:		****			****							

Intersection	
Intersection Delay, s/veh	25.4
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	109	0	36	0	2	2	11	0	123	704	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	118	0	39	0	2	2	12	0	134	765	3
Number of Lanes	0	0	1	1	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	14	11.4	31.9
HCM LOS	B	B	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	100%	0%	13%	100%	0%	0%
Vol Thru, %	0%	100%	99%	0%	0%	13%	0%	100%	21%
Vol Right, %	0%	0%	1%	0%	100%	73%	0%	0%	79%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	123	469	238	109	36	15	6	121	286
LT Vol	123	0	0	109	0	2	6	0	0
Through Vol	0	469	235	0	0	2	0	121	61
RT Vol	0	0	3	0	36	11	0	0	225
Lane Flow Rate	134	510	258	118	39	16	7	132	311
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.259	0.916	0.463	0.288	0.082	0.038	0.014	0.269	0.585
Departure Headway (Hd)	7.083	6.577	6.568	8.752	7.54	8.355	7.849	7.341	6.782
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	511	556	553	412	477	430	458	492	534
Service Time	4.783	4.277	4.268	6.472	5.26	6.083	5.561	5.054	4.494
HCM Lane V/C Ratio	0.262	0.917	0.467	0.286	0.082	0.037	0.015	0.268	0.582
HCM Control Delay	12.2	45.8	14.8	15	10.9	11.4	10.7	12.7	18.6
HCM Lane LOS	B	E	B	B	B	B	B	B	C
HCM 95th-tile Q	1	11.1	2.4	1.2	0.3	0.1	0	1.1	3.7

Opening Year 2021 Plus Cumulative with Project Conditions AM Peak
18: Douglas St & Park Pl/Private Dwy

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	6	182	225
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	198	245
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	16.8
HCM LOS	C

Lane

Michael Baker International Park Place Extension Project
H:\pdata\145070\Technical Studies\Traffic\Synchro\Park_Place_OY2021wP+C_AM.syn HCM 2010 AWSC

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS (WITH MITIGATION)
AM PEAK HOUR

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

Intersection #18 Douglas St / Park Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.296
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

Street Name:	Douglas St						Park Pl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	0	1 0	0 1	0	0 1!	0 0
Volume Module:												
Base Vol:	121	685	3	6	181	209	90	0	35	2	2	11
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	123	696	3	6	184	212	91	0	36	2	2	11
Added Vol:	0	8	0	0	-2	13	18	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	123	704	3	6	182	225	109	0	36	2	2	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:	123	704	3	6	182	225	109	0	36	2	2	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	123	704	3	6	182	225	109	0	36	2	2	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:	123	704	3	6	182	225	109	0	36	2	2	11
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.00	1.00	1.00	0.00	1.00	0.13	0.13	0.74
Final Sat.:	1600	3186	14	1600	1600	1600	1600	0	1600	213	213	1173
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.22	0.00	0.11	0.14	0.07	0.00	0.02	0.01	0.01	0.01
Crit Moves:	****					****	****				****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #19 Douglas St-Redondo Ave / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.684
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Douglas St-Redondo Ave						Rosecrans 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			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	0 1	2	0 1	0 1	2	0 3	0 1	2	0 3	0 1
Volume Module:												
Base Vol:	32	80	10	125	50	89	280	692	37	37	1758	670
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	33	81	10	127	51	90	284	703	38	38	1786	681
Added Vol:	0	0	0	1	0	-3	3	32	0	0	151	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	33	81	10	128	51	87	287	735	38	38	1937	687
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	33	81	10	128	51	87	287	735	38	38	1937	687
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	33	81	10	128	51	87	287	735	38	38	1937	687
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	33	81	10	128	51	87	287	735	38	38	1937	687
OvlAdjVol:												623
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4800	1600	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.05	0.01	0.04	0.03	0.05	0.09	0.15	0.02	0.01	0.40	0.43
OvlAdjV/S:												0.39
Crit Moves:		****			****			****			****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #20 Aviation Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.324
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Aviation Blvd						El Segundo Blvd					
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:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 2.0	0 1	1	0 1.1	1 1	1	0 3.1	0	2	0 2.1	0
Volume Module:												
Base Vol:	313	1040	281	27	771	359	129	447	94	412	1530	82
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	318	1056	285	27	783	365	131	454	95	418	1554	83
Added Vol:	145	31	7	9	38	121	37	428	55	35	1725	7
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	463	1087	292	36	821	486	168	882	150	453	3279	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	463	1087	292	36	821	486	168	882	150	453	3279	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	463	1087	292	36	821	486	168	882	150	453	3279	90
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:	463	1087	292	36	821	486	168	882	150	453	3279	90
OvlAdjVol:			66									
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	2.00	1.00	1.00	1.89	1.11	1.00	3.42	0.58	2.00	2.92	0.08
Final Sat.:	3200	3200	1600	1600	3016	1784	1600	5467	933	3200	4671	129
Capacity Analysis Module:												
Vol/Sat:	0.14	0.34	0.18	0.02	0.27	0.27	0.11	0.16	0.16	0.14	0.70	0.70
OvlAdjV/S:			0.04									
Crit Moves:	****				****		****				****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #21 Aviation Blvd / Utah Ave-135th St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.988
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	178	Level Of Service:	E

Street Name:	Aviation Blvd						Utah Ave-135th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1.1	0	1	0 1.1	0	0	1 0.1	0	1	0 1.0	1
Volume Module:												
Base Vol:	73	1270	131	231	930	99	12	140	18	160	173	353
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	74	1290	133	235	945	101	12	142	18	163	176	359
Added Vol:	44	167	0	5	79	44	6	0	6	0	0	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	118	1457	133	240	1024	145	18	142	24	163	176	368
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	118	1457	133	240	1024	145	18	142	24	163	176	368
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	118	1457	133	240	1024	145	18	142	24	163	176	368
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:	118	1457	133	240	1024	145	18	142	24	163	176	368
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.83	0.17	1.00	1.75	0.25	0.20	1.54	0.26	1.00	1.00	1.00
Final Sat.:	1600	2932	268	1600	2804	396	315	2464	421	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.07	0.50	0.50	0.15	0.37	0.37	0.01	0.06	0.06	0.10	0.11	0.23
Crit Moves:		****			****			****				****

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #22 Aviation Blvd / Alaska Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.649
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Aviation Blvd						Alaska 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			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 2	0 0	0	0 1	1 0	1	0 0	0 2	0	0 0	0 0
Volume Module:												
Base Vol:	90	1494	0	0	935	159	14	0	36	0	0	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	91	1517	0	0	950	161	14	0	37	0	0	0
Added Vol:	0	212	0	0	85	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	1729	0	0	1035	161	14	0	37	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:	91	1729	0	0	1035	161	14	0	37	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	1729	0	0	1035	161	14	0	37	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	1729	0	0	1035	161	14	0	37	0	0	0
OvlAdjVol:									0			
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.73	0.27	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	2768	432	1600	0	3200	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.54	0.00	0.00	0.37	0.37	0.01	0.00	0.01	0.00	0.00	0.00
OvlAdjV/S:									0.00			
Crit Moves:		****		****			****					

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

Intersection #23 Aviation Blvd / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.969
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	153	Level Of Service:	E

Street Name:	Aviation Blvd						Rosecrans 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			Protected			Protected		
Rights:	Ovl			Ovl			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0 3	0 1	2	0 4	0 1	2	0 4	0 1	2	0 4	0 1
Volume Module:												
Base Vol:	658	1897	271	86	564	258	68	703	136	537	2377	529
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	668	1927	275	87	573	262	69	714	138	545	2414	537
Added Vol:	136	177	0	5	79	1	1	9	23	0	19	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	804	2104	275	92	652	263	70	723	161	545	2433	570
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	804	2104	275	92	652	263	70	723	161	545	2433	570
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	804	2104	275	92	652	263	70	723	161	545	2433	570
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	804	2104	275	92	652	263	70	723	161	545	2433	570
OvlAdjVol:			3			228			0			524
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	3.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00	2.00	4.00	1.00
Final Sat.:	3200	4800	1600	3200	6400	1600	3200	6400	1600	3200	6400	1600
Capacity Analysis Module:												
Vol/Sat:	0.25	0.44	0.17	0.03	0.10	0.16	0.02	0.11	0.10	0.17	0.38	0.36
OvlAdjV/S:			0.00			0.14			0.00			0.33
Crit Moves:		****		****			****				****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH CUMULATIVE AND PROJECT CONDITIONS
AM PEAK HOUR

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

```
**********************************************************************************
Intersection #24 Allied Way / Park Pl
**********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.133
Loss Time (sec):       0              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:        26              Level Of Service:                  A
**********************************************************************************
Street Name:            Allied Way                      Park Pl
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase      Split Phase      Split Phase
Rights:          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  1! 0  1    1  1  1  0  0    0  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      0    0    0      0    0   18     59    0    0      0    0    0
Growth Adj:  1.02 1.02 1.02   1.02 1.02 1.02   1.02 1.02 1.02   1.02 1.02 1.02
Initial Bse:   0    0    0      0    0   18     60    0    0      0    0    0
Added Vol:     0    0    0     17    0    0      0   90    0      0  110  145
PasserByVol:   0    0    0      0    0    0      0    0    0      0    0    0
Initial Fut:   0    0    0     17    0   18     60   90    0      0  110  145
User Adj:    1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00   1.00 1.00 1.00
PHF Adj:     1.00 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     17    0   18     60   90    0      0  110  145
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   0    0    0     17    0   18     60   90    0      0  110  145
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     17    0   18     60   90    0      0  110  145
------------|---------------||---------------||---------------||---------------|
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   0.96 0.01 1.03   1.20 1.80 0.00   0.00 1.00 1.00
Final Sat.:    0    0    0   1542    0 1658   1919 2881    0      0 1600 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00 0.00   0.01 0.00 0.01   0.03 0.03 0.00   0.00 0.07 0.09
Crit Moves:                                   ****  ****                ****
**********************************************************************************
```


Site: OY+P AM

Allied Way / Park Place
Roundabout

Movement Performance - Vehicles

Mov ID	ODMov	Demand Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	ft		per veh	mph
East: Park Place											
6	T1	120	2.0	0.110	4.3	LOS A	0.5	13.2	0.21	0.09	29.3
16	R2	158	2.0	0.142	4.5	LOS A	0.7	17.7	0.22	0.09	28.0
Approach		277	2.0	0.142	4.4	LOS A	0.7	17.7	0.21	0.09	28.6
North: Allied Way											
7	L2	18	2.0	0.018	3.6	LOS A	0.1	2.0	0.27	0.12	28.1
14	R2	20	2.0	0.019	3.6	LOS A	0.1	2.1	0.27	0.12	28.3
Approach		38	2.0	0.019	3.6	LOS A	0.1	2.1	0.27	0.12	28.2
West: Park Place											
5	L2	65	2.0	0.078	4.1	LOS A	0.4	9.2	0.11	0.03	28.3
2	T1	98	2.0	0.078	4.1	LOS A	0.4	9.2	0.11	0.03	29.1
Approach		163	2.0	0.078	4.1	LOS A	0.4	9.2	0.11	0.03	28.8
All Vehicles		478	2.0	0.142	4.3	LOS A	0.7	17.7	0.18	0.07	28.6

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	60	90	110	145	17	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	98	120	158	18	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	277	0	-	0	377	139
Stage 1	-	-	-	-	198	-
Stage 2	-	-	-	-	179	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1283	-	-	-	597	884
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	834	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1283	-	-	-	567	884
Mov Cap-2 Maneuver	-	-	-	-	567	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	792	-

Approach	EB	WB	SB
HCM Control Delay, s	3.2	0	10.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1283	-	-	-	567	884
HCM Lane V/C Ratio	0.051	-	-	-	0.033	0.022
HCM Control Delay (s)	8	-	-	-	11.6	9.2
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	136	423	411	663	503	754	293	1609	296	385	3153	91
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	148	460	447	721	547	820	318	1749	322	418	3427	99
Adj No. of Lanes	1	2	1	2	2	1	2	4	0	2	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	684	306	562	1015	454	264	2120	390	447	2819	697
Arrive On Green	0.07	0.19	0.19	0.16	0.29	0.29	0.08	0.39	0.39	0.13	0.44	0.44
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	3442	5482	1009	3442	6408	1583
Grp Volume(v), veh/h	148	460	447	721	547	820	318	1533	538	418	3427	99
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1721	1602	1685	1721	1602	1583
Q Serve(g_s), s	10.5	18.1	29.0	24.5	19.6	43.0	11.5	43.1	43.1	18.0	66.0	5.6
Cycle Q Clear(g_c), s	10.5	18.1	29.0	24.5	19.6	43.0	11.5	43.1	43.1	18.0	66.0	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		1.00
Lane Grp Cap(c), veh/h	124	684	306	562	1015	454	264	1858	651	447	2819	697
V/C Ratio(X)	1.19	0.67	1.46	1.28	0.54	1.81	1.21	0.83	0.83	0.93	1.22	0.14
Avail Cap(c_a), veh/h	124	684	306	562	1015	454	264	1858	651	447	2819	697
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.8	56.1	60.5	62.8	45.1	53.5	69.3	41.4	41.4	64.6	42.0	25.1
Incr Delay (d2), s/veh	141.3	2.6	224.3	140.3	0.6	371.6	122.5	3.2	8.6	26.9	100.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	9.1	31.7	22.6	9.7	65.6	10.0	19.6	21.6	10.3	48.8	2.5
LnGrp Delay(d),s/veh	211.1	58.7	284.8	203.1	45.7	425.1	191.8	44.6	50.0	91.5	142.4	25.2
LnGrp LOS	F	E	F	F	D	F	F	D	D	F	F	C
Approach Vol, veh/h		1055			2088			2389			3944	
Approach Delay, s/veh		175.9			249.1			65.4			134.1	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	24.0	63.0	29.0	34.0	16.0	71.0	15.0	48.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	19.5	58.0	24.5	29.0	11.5	66.0	10.5	43.0
Max Q Clear Time (g_c+I1), s	20.0	45.1	26.5	31.0	13.5	68.0	12.5	45.0
Green Ext Time (p_c), s	0.0	12.9	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay	146.8	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	1	61	679	0	246	60	1876	149	224	3387	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0		5.0	5.0	4.5	4.5	5.0	4.0	4.5	5.0	5.0
Lane Util. Factor		1.00		0.91	0.91	1.00	1.00	0.86	1.00	0.97	0.86	1.00
Frt		0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1702		3221	1610	1583	1770	6408	1583	3433	6408	1583
Flt Permitted		0.97		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1702		3221	1610	1583	1770	6408	1583	3433	6408	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	1	66	738	0	267	65	2039	162	243	3682	61
RTOR Reduction (vph)	0	20	0	0	0	58	0	0	0	0	0	26
Lane Group Flow (vph)	0	125	0	494	244	209	65	2039	162	243	3682	35
Turn Type	Split	NA		Split	NA	pm+ov	Prot	NA	Free	Prot	NA	Perm
Protected Phases	4	4		8	8	1	5	2		1	6	
Permitted Phases						8			Free			6
Actuated Green, G (s)		14.3		23.0	23.0	37.8	6.2	76.7	148.3	14.8	85.3	85.3
Effective Green, g (s)		14.3		23.0	23.0	37.8	6.2	76.7	148.3	14.8	85.3	85.3
Actuated g/C Ratio		0.10		0.16	0.16	0.25	0.04	0.52	1.00	0.10	0.58	0.58
Clearance Time (s)		5.0		5.0	5.0	4.5	4.5	5.0		4.5	5.0	5.0
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)		164		499	249	403	73	3314	1583	342	3685	910
v/s Ratio Prot		c0.07		c0.15	0.15	0.05	0.04	0.32		c0.07	c0.57	
v/s Ratio Perm						0.08			0.10			0.02
v/c Ratio		0.76		0.99	0.98	0.52	0.89	0.62	0.10	0.71	1.00	0.04
Uniform Delay, d1		65.3		62.5	62.4	47.4	70.7	25.4	0.0	64.7	31.5	13.7
Progression Factor		1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		18.7		37.3	50.8	1.1	68.9	0.3	0.1	6.8	14.5	0.0
Delay (s)		84.1		99.8	113.2	48.6	139.6	25.7	0.1	71.5	46.0	13.7
Level of Service		F		F	F	D	F	C	A	E	D	B
Approach Delay (s)		84.1			89.4			27.1			47.0	
Approach LOS		F			F			C			D	

Intersection Summary				
HCM 2000 Control Delay	47.4	HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio	0.97			
Actuated Cycle Length (s)	148.3	Sum of lost time (s)	19.5	
Intersection Capacity Utilization	84.1%	ICU Level of Service	E	
Analysis Period (min)	15			
c Critical Lane Group				

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	390	0	238	1	1874	411	169	3902	0
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	1863	1863	1863	0
Adj Flow Rate, veh/h				424	0	259	1	2037	447	184	4241	0
Adj No. of Lanes				2	0	1	1	4	1	2	4	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	2	2	2	2	2	0
Cap, veh/h				625	0	413	96	3565	1168	273	4449	0
Arrive On Green				0.18	0.00	0.18	0.56	0.56	0.56	0.08	0.69	0.00
Sat Flow, veh/h				3442	0	1583	22	6408	1583	3442	6669	0
Grp Volume(v), veh/h				424	0	259	1	2037	447	184	4241	0
Grp Sat Flow(s),veh/h/ln				1721	0	1583	22	1602	1583	1721	1602	0
Q Serve(g_s), s				8.8	0.0	11.1	3.3	15.8	7.9	4.0	45.8	0.0
Cycle Q Clear(g_c), s				8.8	0.0	11.1	38.6	15.8	7.9	4.0	45.8	0.0
Prop In Lane				1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h				625	0	413	96	3565	1168	273	4449	0
V/C Ratio(X)				0.68	0.00	0.63	0.01	0.57	0.38	0.67	0.95	0.00
Avail Cap(c_a), veh/h				719	0	456	96	3565	1168	472	4561	0
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh				29.2	0.0	25.0	32.8	11.1	3.7	34.3	10.6	0.0
Incr Delay (d2), s/veh				2.1	0.0	2.3	0.0	0.2	0.2	2.9	5.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.4	0.0	5.1	0.0	7.0	5.8	2.0	21.5	0.0
LnGrp Delay(d),s/veh				31.4	0.0	27.3	32.8	11.3	3.9	37.2	16.3	0.0
LnGrp LOS				C		C	C	B	A	D	B	
Approach Vol, veh/h					683			2485			4425	
Approach Delay, s/veh					29.8			9.9			17.2	
Approach LOS					C			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.6	47.6				58.2		18.4
Change Period (Y+Rc), s	4.5	5.0				5.0		4.5
Max Green Setting (Gmax), s	10.5	39.5				54.5		16.0
Max Q Clear Time (g_c+I1), s	6.0	40.6				47.8		13.1
Green Ext Time (p_c), s	0.2	0.0				5.4		0.8

Intersection Summary		
HCM 2010 Ctrl Delay		16.0
HCM 2010 LOS		B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	244	648	203	480	661	392	333	1635	314	334	3457	593
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	265	704	221	522	718	0	362	1777	341	363	3758	645
Adj No. of Lanes	2	3	1	2	2	1	2	4	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	576	179	402	590	264	287	3324	1006	429	2848	887
Arrive On Green	0.06	0.11	0.11	0.12	0.17	0.00	0.08	0.52	0.52	0.12	0.56	0.56
Sat Flow, veh/h	3442	5085	1583	3442	3539	1583	3442	6408	1583	3442	5085	1583
Grp Volume(v), veh/h	265	704	221	522	718	0	362	1777	341	363	3758	645
Grp Sat Flow(s),veh/h/ln	1721	1695	1583	1721	1770	1583	1721	1602	1583	1721	1695	1583
Q Serve(g_s), s	9.5	17.0	17.0	17.5	25.0	0.0	12.5	27.7	15.0	15.5	84.0	45.4
Cycle Q Clear(g_c), s	9.5	17.0	17.0	17.5	25.0	0.0	12.5	27.7	15.0	15.5	84.0	45.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	576	179	402	590	264	287	3324	1006	429	2848	887
V/C Ratio(X)	1.22	1.22	1.23	1.30	1.22	0.00	1.26	0.53	0.34	0.85	1.32	0.73
Avail Cap(c_a), veh/h	218	576	179	402	590	264	287	3324	1006	982	2848	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	70.3	66.5	66.5	66.3	62.5	0.0	68.8	24.0	12.7	64.2	33.0	24.5
Incr Delay (d2), s/veh	131.5	114.7	143.1	152.2	112.6	0.0	142.9	0.2	0.2	4.7	146.4	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	14.1	14.6	16.8	21.4	0.0	11.6	12.3	6.6	7.6	77.6	20.5
LnGrp Delay(d),s/veh	201.7	181.2	209.6	218.5	175.1	0.0	211.7	24.2	12.9	68.9	179.4	27.5
LnGrp LOS	F	F	F	F	F		F	C	B	E	F	C
Approach Vol, veh/h		1190			1240			2480			4766	
Approach Delay, s/veh		191.0			193.4			50.0			150.4	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	82.8	22.0	22.0	17.0	89.0	14.0	30.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	42.8	53.7	17.5	17.0	12.5	84.0	9.5	25.0
Max Q Clear Time (g_c+I1), s	17.5	29.7	19.5	19.0	14.5	86.0	11.5	27.0
Green Ext Time (p_c), s	1.2	23.9	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		135.2
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	302	51	122	230	58	97	1778	138	233	3260	160
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	83	328	55	133	250	63	105	1933	150	253	3543	174
Adj No. of Lanes	1	2	0	2	1	1	1	3	0	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	86	377	63	177	236	340	106	2937	227	303	3244	1010
Arrive On Green	0.05	0.12	0.12	0.05	0.13	0.13	0.06	0.61	0.61	0.09	0.64	0.64
Sat Flow, veh/h	1774	3039	504	3442	1863	1583	1774	4815	372	3442	5085	1583
Grp Volume(v), veh/h	83	190	193	133	250	63	105	1358	725	253	3543	174
Grp Sat Flow(s),veh/h/ln	1774	1770	1774	1721	1863	1583	1774	1695	1797	1721	1695	1583
Q Serve(g_s), s	7.0	15.8	16.1	5.7	19.0	4.9	8.9	39.1	39.5	10.9	95.7	6.7
Cycle Q Clear(g_c), s	7.0	15.8	16.1	5.7	19.0	4.9	8.9	39.1	39.5	10.9	95.7	6.7
Prop In Lane	1.00		0.28	1.00		1.00	1.00		0.21	1.00		1.00
Lane Grp Cap(c), veh/h	86	219	220	177	236	340	106	2068	1096	303	3244	1010
V/C Ratio(X)	0.96	0.86	0.88	0.75	1.06	0.19	0.99	0.66	0.66	0.84	1.09	0.17
Avail Cap(c_a), veh/h	86	219	220	190	236	340	106	2068	1096	402	3244	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.2	64.5	64.6	70.2	65.5	48.2	70.4	19.0	19.1	67.3	27.2	11.0
Incr Delay (d2), s/veh	83.8	28.2	31.0	14.4	75.2	0.3	82.7	0.8	1.5	11.0	47.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	9.5	9.8	3.1	14.7	2.2	6.8	18.5	20.0	5.6	58.6	2.9
LnGrp Delay(d),s/veh	155.0	92.7	95.6	84.6	140.7	48.4	153.2	19.8	20.6	78.3	74.3	11.1
LnGrp LOS	F	F	F	F	F	D	F	B	C	E	F	B
Approach Vol, veh/h		466			446			2188			3970	
Approach Delay, s/veh		105.0			110.9			26.5			71.8	
Approach LOS		F			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.7	96.5	12.2	23.6	13.5	100.7	11.8	24.0
Change Period (Y+Rc), s	4.5	5.0	4.5	5.0	4.5	5.0	4.5	5.0
Max Green Setting (Gmax), s	17.5	87.2	8.3	18.0	9.0	95.7	7.3	19.0
Max Q Clear Time (g_c+I1), s	12.9	41.5	7.7	18.1	10.9	97.7	9.0	21.0
Green Ext Time (p_c), s	0.4	45.5	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.4
HCM 2010 LOS	E

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #6 Plaza El Segundo / Park Pl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.343
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: A

Street Name:	Plaza El Segundo									Park Pl								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted					Permitted					Permitted					Permitted				
Rights:	Include					Include					Include					Include				
Min. Green:	0	0	0			0	0	0			0	0	0			0	0	0		
Y+R:	4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0			4.0	4.0	4.0		
Lanes:	1	0	0	1	0	0	1	0	0	1	1	0	1	1	0	1	0	1	1	0
Volume Module:																				
Base Vol:	39	15	12			1	16	230			129	134	26			13	115	4		
Growth Adj:	1.02	1.02	1.02			1.02	1.02	1.02			1.02	1.02	1.02			1.02	1.02	1.02		
Initial Bse:	40	15	12			1	16	234			131	136	26			13	117	4		
Added Vol:	0	0	0			105	0	-105			-60	110	0			0	130	60		
PasserByVol:	0	0	0			0	0	0			0	0	0			0	0	0		
Initial Fut:	40	15	12			106	16	129			71	246	26			13	247	64		
User Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
PHF Volume:	40	15	12			106	16	129			71	246	26			13	247	64		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
Reduced Vol:	40	15	12			106	16	129			71	246	26			13	247	64		
PCE Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
FinalVolume:	40	15	12			106	16	129			71	246	26			13	247	64		
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600			1600	1600	1600			1600	1600	1600			1600	1600	1600		
Adjustment:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Lanes:	1.00	0.56	0.44			0.87	0.13	1.00			1.00	1.81	0.19			1.00	1.59	0.41		
Final Sat.:	1600	889	711			1387	213	1600			1600	2890	310			1600	2541	659		
Capacity Analysis Module:																				
Vol/Sat:	0.02	0.02	0.02			0.07	0.08	0.08			0.04	0.09	0.09			0.01	0.10	0.10		
Crit Moves:	****						****				****						****			

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #7 Village Dr / Rosecrans Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.690
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Village Dr									Rosecrans 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			Protected			Protected					
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	1	0	0	1	1	0	0	1	1	2	0	2	1	0	1	0	3	0	1
Volume Module:																				
Base Vol:	135	0	191	15	0	1	13	1335	148	262	1498	0								
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02								
Initial Bse:	137	0	194	15	0	1	13	1356	150	266	1522	0								
Added Vol:	0	0	12	0	0	0	0	-182	0	15	-134	0								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	137	0	206	15	0	1	13	1174	150	281	1388	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:	137	0	206	15	0	1	13	1174	150	281	1388	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	137	0	206	15	0	1	13	1174	150	281	1388	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:	137	0	206	15	0	1	13	1174	150	281	1388	0								
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600								
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Lanes:	1.00	0.00	1.00	1.00	0.00	2.00	2.00	2.66	0.34	1.00	3.00	1.00								
Final Sat.:	1600	0	1600	1600	0	3200	3200	4255	545	1600	4800	1600								
Capacity Analysis Module:																				
Vol/Sat:	0.09	0.00	0.13	0.01	0.00	0.00	0.00	0.28	0.28	0.18	0.29	0.00								
Crit Moves:			****	****				****		****										

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #8 Cedar Ave / Marine Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.627
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Cedar Ave									Marine 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			Protected			Protected					
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	1!	0	0	0	1	0	0	1	1	0	1	1	0	1	0	2	0	1
Volume Module:																				
Base Vol:	13	27	51	337	68	101	56	577	43	31	287	330								
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02								
Initial Bse:	13	27	52	342	69	103	57	586	44	31	292	335								
Added Vol:	0	0	7	4	0	0	0	0	0	6	0	5								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	13	27	59	346	69	103	57	586	44	37	292	340								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
PHF Adj:	1.00	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	27	59	346	69	103	57	586	44	37	292	340								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	13	27	59	346	69	103	57	586	44	37	292	340								
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
FinalVolume:	13	27	59	346	69	103	57	586	44	37	292	340								
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:	0.13	0.28	0.59	0.83	0.17	1.00	1.00	1.86	0.14	1.00	2.00	1.00								
Final Sat.:	212	441	946	1334	266	1600	1600	2978	222	1600	3200	1600								
Capacity Analysis Module:																				
Vol/Sat:	0.01	0.06	0.06	0.22	0.26	0.06	0.04	0.20	0.20	0.02	0.09	0.21								
Crit Moves:		****		****			****					****								

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #9 Continental Blvd / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.640
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	B

Street Name:	Continental Blvd						El Segundo Blvd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1 0	1 1	1	1 0	1 1	2	0 3	0 1	2	0 2	1 0
Volume Module:												
Base Vol:	56	110	118	220	17	87	38	792	4	15	772	62
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	57	112	120	223	17	88	39	804	4	15	784	63
Added Vol:	364	0	268	131	0	16	5	244	86	80	417	40
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	421	112	388	354	17	104	44	1048	90	95	1201	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	421	112	388	354	17	104	44	1048	90	95	1201	103
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	421	112	388	354	17	104	44	1048	90	95	1201	103
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:	421	112	388	354	17	104	44	1048	90	95	1201	103
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.83	0.49	1.68	2.00	0.28	1.72	2.00	3.00	1.00	2.00	2.76	0.24
Final Sat.:	2935	776	2689	3200	454	2746	3200	4800	1600	3200	4421	379
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.14	0.11	0.04	0.04	0.01	0.22	0.06	0.03	0.27	0.27
Crit Moves:			****	****			****				****	

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #10 Allied Wy / Hughes Wy

Cycle (sec):	100	Critical Vol./Cap.(X):	0.401
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Allied Wy						Hughes Wy					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1!	0 0	0	0 0	0 1	1	0 1	1 0	1	0 2	0 1
Volume Module:												
Base Vol:	113	0	8	0	0	10	0	8	196	34	161	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	115	0	8	0	0	10	0	8	199	35	164	0
Added Vol:	0	0	36	0	0	0	0	161	0	135	621	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	115	0	44	0	0	10	0	169	199	170	785	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:	115	0	44	0	0	10	0	169	199	170	785	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	0	44	0	0	10	0	169	199	170	785	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:	115	0	44	0	0	10	0	169	199	170	785	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.44	0.00	0.56	0.00	0.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00
Final Sat.:	2311	0	889	0	0	1600	1600	1600	1600	1600	3200	1600
Capacity Analysis Module:												
Vol/Sat:	0.05	0.00	0.05	0.00	0.00	0.01	0.00	0.11	0.12	0.11	0.25	0.00
Crit Moves:	****					****	****				****	

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	186	164	0	132	129	26	0	98	29	53
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	202	178	0	143	140	28	0	107	32	58
Number of Lanes	0	1	1	1	0	1	2	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	3
HCM Control Delay	11.6	11.1	11
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	0%	100%	100%	0%	0%	100%	62%	0%	100%
Vol Right, %	0%	0%	100%	0%	0%	100%	0%	0%	38%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	29	53	0	186	164	132	86	69	44	26
LT Vol	98	0	0	0	0	0	132	0	0	44	0
Through Vol	0	29	0	0	186	0	0	86	43	0	26
RT Vol	0	0	53	0	0	164	0	0	26	0	0
Lane Flow Rate	107	32	58	0	202	178	143	93	75	48	28
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.217	0.06	0.098	0	0.353	0.276	0.275	0.166	0.128	0.101	0.056
Departure Headway (Hd)	7.324	6.819	6.112	6.285	6.285	5.58	6.902	6.398	6.132	7.626	7.12
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	489	524	584	0	570	642	519	559	583	468	501
Service Time	5.088	4.583	3.875	4.04	4.04	3.335	4.66	4.156	3.889	5.401	4.894
HCM Lane V/C Ratio	0.219	0.061	0.099	0	0.354	0.277	0.276	0.166	0.129	0.103	0.056
HCM Control Delay	12.1	10	9.5	9	12.5	10.5	12.3	10.4	9.8	11.3	10.3
HCM Lane LOS	B	A	A	N	B	B	B	B	A	B	B
HCM 95th-tile Q	0.8	0.2	0.3	0	1.6	1.1	1.1	0.6	0.4	0.3	0.2

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

```
********************************************************************************
Intersection #11 Ash St / El Segundo Blvd
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         1.102
Loss Time (sec):      10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:       180              Level Of Service:                  F
********************************************************************************
Street Name:              Ash St                    El Segundo Blvd
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase      Protected        Protected
Rights:            Ovl              Include          Include          Include
Min. Green:    0    0    0      0    0    0      0    0    0      0    0    0
Y+R:         4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:       2  0  0  1  1    1  1  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      6   47  154   403   15   78    92  997    6    19  758  105
Growth Adj:  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02
Initial Bse:   6   48  156   409   15   79    93 1013    6    19  770  107
Added Vol:   124  345  632   372   69   74    38  573   32   166  338  188
PasserByVol:   0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut: 130  393  788   781   84  153   131 1586   38   185 1108  295
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:  130  393  788   781   84  153   131 1586   38   185 1108  295
Reduct Vol:    0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol: 130  393  788   781   84  153   131 1586   38   185 1108  295
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: 130  393  788   781   84  153   131 1586   38   185 1108  295
OvlAdjVol:               665
------------|---------------||---------------||---------------||---------------|
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 0.67  1.33  2.00 1.00  1.00  2.00 3.00  1.00  2.00 2.37  0.63
Final Sat.:  3200 1064  2136  3200 1600  1600  3200 4800  1600  3200 3792  1008
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.37  0.37  0.24 0.05  0.10  0.04 0.33  0.02  0.06 0.29  0.29
OvlAdjV/S:               0.31
Crit Moves:       ****          ****                ****          ****
********************************************************************************
```

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	44	26	0
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	48	28	0
Number of Lanes	0	1	1	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	10.9
HCM LOS	B

Lane


```
FY 2021 + P PM            Thu Oct 13, 2016 17:41:21              Page 17-1
-------------------------------------------------------------------------------

                      PARK PLACE EXTENSION PROJECT
                  FORECAST YEAR 2021 WITH PROJECT CONDITIONS
                           PM PEAK HOUR
-------------------------------------------------------------------------------

                    Level Of Service Computation Report
          ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #12 Nash St / Park Pl
*******************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):          0.287
Loss Time (sec):        0              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:         32              Level Of Service:                    A
*******************************************************************************
Street Name:              Nash St                        Park Pl
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:        1  0  1  0  1    1  0  0  1  0    1  0  1  0  1    1  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       1   29   52    43   26    0     0    0    0    130    0   26
Growth Adj:  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02
Initial Bse:    1   29   53    44   26    0     0    0    0    132    0   26
Added Vol:     97    0    0     0    0    0     0  186  164      0  129    0
PasserByVol:    0    0    0     0    0    0     0    0    0      0    0    0
Initial Fut:   98   29   53    44   26    0     0  186  164    132  129   26
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    98   29   53    44   26    0     0  186  164    132  129   26
Reduct Vol:     0    0    0     0    0    0     0    0    0      0    0    0
Reduced Vol:   98   29   53    44   26    0     0  186  164    132  129   26
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:   98   29   53    44   26    0     0  186  164    132  129   26
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
Adjustment:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:       1.00 1.00 1.00  1.00 1.00 0.00  1.00 1.00 1.00  1.00 1.66 0.34
Final Sat.:  1600 1600 1600  1600 1600    0  1600 1600 1600  1600 2656  544
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.06 0.02 0.03  0.03 0.02 0.00  0.00 0.12 0.10  0.08 0.05 0.05
Crit Moves:  ****            ****               ****         ****
*******************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

```
FY 2021 + P PM              Thu Oct 13, 2016 17:41:21              Page 18-1
-------------------------------------------------------------------------------

                    PARK PLACE EXTENSION PROJECT
                FORECAST YEAR 2021 WITH PROJECT CONDITIONS
                          PM PEAK HOUR

-------------------------------------------------------------------------------

                  Level Of Service Computation Report
       ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #13 Nash St-Park Wy / Rosecrans Ave
*******************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.550
Loss Time (sec):      10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:       100              Level Of Service:                  A
*******************************************************************************
Street Name:          Nash St-Park Wy                 Rosecrans 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        Protected        Protected
Rights:           Include          Ovl              Include          Include
Min. Green:     0    0    0      0    0    0      0    0    0      0    0    0
Y+R:          4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0    4.0  4.0  4.0
Lanes:        1  0  0  1  0    2  0  1  0  1    2  0  2  1  0    2  0  3  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      62   17   90    73   40  177    43 1431   61    87 1533   59
Growth Adj:  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02
Initial Bse:   63   17   91    74   41  180    44 1453   62    88 1557   60
Added Vol:      0    0    0   164    0    0     0 -170    0     0 -120   97
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:   63   17   91   238   41  180    44 1283   62    88 1437  157
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:    63   17   91   238   41  180    44 1283   62    88 1437  157
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:   63   17   91   238   41  180    44 1283   62    88 1437  157
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:   63   17   91   238   41  180    44 1283   62    88 1437  157
OvlAdjVol:                              158
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1600 1600 1600  1600 1600 1600  1600 1600 1600  1600 1600 1600
Adjustment:  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
Lanes:       1.00 0.16 0.84  2.00 1.00 1.00  2.00 2.86 0.14  2.00 3.00 1.00
Final Sat.:  1600  254 1346  3200 1600 1600  3200 4579  221  3200 4800 1600
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.07 0.07  0.07 0.03 0.11  0.01 0.28 0.28  0.03 0.30 0.10
OvlAdjV/S:                              0.10
Crit Moves:       ****            ****            ****            ****
*******************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

Intersection	
Intersection Delay, s/veh	15
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	0	144	183	0	59	168	0	0	109	2	249
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	157	199	0	64	183	0	0	118	2	271
Number of Lanes	0	1	1	0	0	1	1	0	0	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	2	2	2
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	2	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	2	2
HCM Control Delay	18.8	13	13.4
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	78%	0%
Vol Thru, %	0%	100%	0%	100%	44%	0%	100%	22%	39%
Vol Right, %	0%	0%	100%	0%	56%	0%	0%	0%	61%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	109	2	249	0	327	59	168	30	17
LT Vol	109	0	0	0	0	59	0	23	0
Through Vol	0	2	0	0	144	0	168	7	7
RT Vol	0	0	249	0	183	0	0	0	10
Lane Flow Rate	118	2	271	0	355	64	183	32	18
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.24	0.004	0.456	0	0.618	0.134	0.356	0.073	0.037
Departure Headway (Hd)	7.396	6.886	6.173	6.757	6.361	7.521	7.014	8.207	7.366
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	488	523	587	0	572	479	515	438	488
Service Time	5.096	4.586	3.873	4.457	4.061	5.225	4.718	5.919	5.079
HCM Lane V/C Ratio	0.242	0.004	0.462	0	0.621	0.134	0.355	0.073	0.037
HCM Control Delay	12.4	9.6	13.9	9.5	18.8	11.4	13.5	11.6	10.4
HCM Lane LOS	B	A	B	N	C	B	B	B	B
HCM 95th-tile Q	0.9	0	2.4	0	4.2	0.5	1.6	0.2	0.1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	23	13	10
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	25	14	11
Number of Lanes	0	0	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	2
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	11.2
HCM LOS	B

Lane


```
FY 2021 + P PM            Thu Oct 13, 2016 17:41:21              Page 20-1
-------------------------------------------------------------------------------
                      PARK PLACE EXTENSION PROJECT
                  FORECAST YEAR 2021 WITH PROJECT CONDITIONS
                           PM PEAK HOUR
-------------------------------------------------------------------------------
                     Level Of Service Computation Report
          ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*******************************************************************************
Intersection #15 Apollo St-Market Pl / Rosecrans Ave
*******************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):         0.716
Loss Time (sec):      10              Average Delay (sec/veh):       xxxxxx
Optimal Cycle:       100              Level Of Service:                  C
*******************************************************************************
Street Name:       Apollo St-Market Pl                Rosecrans 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        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:        2  0  1  0  1    2  0  1  0  1    2  0  3  0  1    2  0  2  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     111   45  145   326   58  109    57 1482   71   179 1473   65
Growth Adj:  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02  1.02 1.02 1.02
Initial Bse:  113   46  147   331   59  111    58 1505   72   182 1496   66
Added Vol:      0    0    0   164    0    0     0   -6    0     0  -22   97
PasserByVol:    0    0    0     0    0    0     0    0    0     0    0    0
Initial Fut:  113   46  147   495   59  111    58 1499   72   182 1474  163
User Adj:    1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
PHF Volume:   113   46  147   495   59  111    58 1499   72   182 1474  163
Reduct Vol:     0    0    0     0    0    0     0    0    0     0    0    0
Reduced Vol:  113   46  147   495   59  111    58 1499   72   182 1474  163
PCE Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00
FinalVolume:  113   46  147   495   59  111    58 1499   72   182 1474  163
------------|---------------||---------------||---------------||---------------|
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 1.00 1.00  2.00 1.00 1.00  2.00 3.00 1.00  2.00 2.70 0.30
Final Sat.:  3200 1600 1600  3200 1600 1600  3200 4800 1600  3200 4322  478
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.03 0.09  0.15 0.04 0.07  0.02 0.31 0.05  0.06 0.34 0.34
Crit Moves:            ****  ****               ****        ****
*******************************************************************************

Traffix 8.0.0715 (c) 2008 Dowling Assoc. Licensed to RBF CONSULTING, IRVINE
```

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #16 Douglas St / El Segundo Blvd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.143
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	180	Level Of Service:	F

Street Name:	Douglas St						El Segundo Blvd					
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:	2	0 1	1 1	2	0 2	0 1	1	0 2	1 0	2	0 3	0 1
Volume Module:												
Base Vol:	115	428	302	403	1035	78	30	1285	220	121	647	136
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	117	435	307	409	1051	79	30	1305	223	123	657	138
Added Vol:	0	0	20	223	0	149	75	1501	0	27	544	113
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	117	435	327	632	1051	228	105	2806	223	150	1201	251
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	117	435	327	632	1051	228	105	2806	223	150	1201	251
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	435	327	632	1051	228	105	2806	223	150	1201	251
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	117	435	327	632	1051	228	105	2806	223	150	1201	251
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	1.71	1.29	2.00	2.00	1.00	1.00	2.78	0.22	2.00	3.00	1.00
Final Sat.:	3200	2740	2060	3200	3200	1600	1600	4446	354	3200	4800	1600
Capacity Analysis Module:												
Vol/Sat:	0.04	0.16	0.16	0.20	0.33	0.14	0.07	0.63	0.63	0.05	0.25	0.16
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #17 Douglas St / Transit Center

Cycle (sec):	100	Critical Vol./Cap.(X):	0.398
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	100	Level Of Service:	A

Street Name:	Douglas St						Transit Center					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1	0	1 0	0 1
Volume Module:												
Base Vol:	1	271	1	1	898	0	0	0	1	1	0	1
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	1	275	1	1	912	0	0	0	1	1	0	1
Added Vol:	0	12	0	0	35	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	287	1	1	947	0	0	0	1	1	0	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	287	1	1	947	0	0	0	1	1	0	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	287	1	1	947	0	0	0	1	1	0	1
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:	1	287	1	1	947	0	0	0	1	1	0	1
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	2.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00
Final Sat.:	1600	3189	11	1600	3200	0	1600	1600	1600	1600	0	1600
Capacity Analysis Module:												
Vol/Sat:	0.00	0.09	0.09	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crit Moves:	****			****					****	****		

Intersection	
Intersection Delay, s/veh	57.3
Intersection LOS	F

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	374	4	148	0	7	2	4	0	50	212	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	407	4	161	0	8	2	4	0	54	230	1
Number of Lanes	0	0	1	1	0	0	1	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	1
HCM Control Delay	57.7	13.6	15.9
HCM LOS	F	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	WBLn1	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	99%	0%	54%	100%	0%	0%
Vol Thru, %	0%	100%	99%	1%	0%	15%	0%	100%	51%
Vol Right, %	0%	0%	1%	0%	100%	31%	0%	0%	49%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	141	72	378	148	13	11	501	491
LT Vol	50	0	0	374	0	7	11	0	0
Through Vol	0	141	71	4	0	2	0	501	250
RT Vol	0	0	1	0	148	4	0	0	241
Lane Flow Rate	54	154	78	411	161	14	12	544	534
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.145	0.388	0.196	1	0.34	0.041	0.028	1	1
Departure Headway (Hd)	9.585	9.084	9.074	8.802	7.613	10.465	8.44	7.924	7.57
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	374	395	395	415	473	344	430	468	486
Service Time	7.355	6.855	6.846	6.55	5.361	8.165	6.067	5.57	5.228
HCM Lane V/C Ratio	0.144	0.39	0.197	0.99	0.34	0.041	0.028	1.162	1.099
HCM Control Delay	14	17.5	14.1	74.7	14.3	13.6	11.3	70.1	68.4
HCM Lane LOS	B	C	B	F	B	B	B	F	F
HCM 95th-tile Q	0.5	1.8	0.7	12.4	1.5	0.1	0.1	13.1	13.4

Opening Year 2021 Plus Cumulative With Project Conditions PM Peak
18: Douglas St & Park Pl/Private Dwy

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	11	751	241
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	12	816	262
Number of Lanes	0	1	2	0

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	68.6
HCM LOS	F

Lane

Michael Baker International
H:\pdata\145070\Technical Studies\Traffic\Synchro\Park_Place_OY2021wP+C_PM.syn
Park Place Extension Project
HCM 2010 AWSC

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS (WITH MITIGATION)
PM PEAK HOUR

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

Intersection #18 Douglas St / Park Pl

Cycle (sec): 100 Critical Vol./Cap.(X): 0.586
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: A

Street Name:	Douglas St									Park Pl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	1	0	0	1	0	0	1	0	0	1!	0	0
Volume Module:																				
Base Vol:	49	218	1	11	735	206	347	4	146	7	2	4
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	50	221	1	11	747	209	352	4	148	7	2	4
Added Vol:	0	-9	0	0	4	32	22	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	50	212	1	11	751	241	374	4	148	7	2	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	212	1	11	751	241	374	4	148	7	2	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	212	1	11	751	241	374	4	148	7	2	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	212	1	11	751	241	374	4	148	7	2	4
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.99	0.01	1.00	1.51	0.49	0.99	0.01	1.00	0.54	0.15	0.31
Final Sat.:	1600	3185	15	1600	2422	778	1583	17	1600	862	246	492
Capacity Analysis Module:																				
Vol/Sat:	0.03	0.07	0.07	0.01	0.31	0.31	0.24	0.24	0.09	0.01	0.01	0.01
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #19 Douglas St-Redondo Ave / Rosecrans Ave

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

Street Name:	Douglas St-Redondo Ave									Rosecrans 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			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	0	1	2	0	1	0	1	2	0	3	0	1	2	0	3	0	1
Volume Module:																				
Base Vol:	90	61	43	384	349	244	77	1829	131	26	1477	186
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	91	62	44	390	354	248	78	1858	133	26	1500	189
Added Vol:	0	0	0	5	0	-2	-11	168	0	0	77	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	91	62	44	395	354	246	67	2026	133	26	1577	190
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	91	62	44	395	354	246	67	2026	133	26	1577	190
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	62	44	395	354	246	67	2026	133	26	1577	190
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	91	62	44	395	354	246	67	2026	133	26	1577	190
OvlAdjVol:												0
Saturation Flow Module:																				
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1600	1600	1600	3200	1600	1600	3200	4800	1600	3200	4800	1600
Capacity Analysis Module:																				
Vol/Sat:	0.06	0.04	0.03	0.12	0.22	0.15	0.02	0.42	0.08	0.01	0.33	0.12
OvlAdjV/S:												0.00
Crit Moves:	****				****			****			****				

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #20 Aviation Blvd / El Segundo Blvd

Cycle (sec): 100 Critical Vol./Cap.(X): 1.199
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Street Name:	Aviation Blvd						El Segundo Blvd					
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:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	2	0	2 0 1	1	0	1 1 1	1	0	3 1 0	2	0	2 1 0
Volume Module:												
Base Vol:	185	610	297	181	1038	127	164	1692	308	297	570	52
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	188	620	302	184	1054	129	167	1719	313	302	579	53
Added Vol:	74	57	32	8	53	51	100	1518	126	8	559	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	262	677	334	192	1107	180	267	3237	439	310	1138	62
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	262	677	334	192	1107	180	267	3237	439	310	1138	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	262	677	334	192	1107	180	267	3237	439	310	1138	62
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	262	677	334	192	1107	180	267	3237	439	310	1138	62
OvlAdjVol:			179									
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	2.00	1.00	1.00	2.00	1.00	1.00	3.52	0.48	2.00	2.85	0.15
Final Sat.:	3200	3200	1600	1600	3200	1600	1600	5636	764	3200	4553	247
Capacity Analysis Module:												
Vol/Sat:	0.08	0.21	0.21	0.12	0.35	0.11	0.17	0.57	0.57	0.10	0.25	0.25
OvlAdjV/S:			0.11									
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #21 Aviation Blvd / Utah Ave-135th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.880
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: D

Street Name:	Aviation Blvd						Utah Ave-135th St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1 1 0	1	0	1 1 0	0	1	0 1 0	1	0	1 0 1
Volume Module:												
Base Vol:	16	916	147	157	1452	7	67	319	108	106	63	110
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	16	930	149	159	1475	7	68	324	110	108	64	112
Added Vol:	8	105	0	19	160	8	40	0	40	0	0	17
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	1035	149	178	1635	15	108	324	150	108	64	129
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	24	1035	149	178	1635	15	108	324	150	108	64	129
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	1035	149	178	1635	15	108	324	150	108	64	129
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:	24	1035	149	178	1635	15	108	324	150	108	64	129
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.75	0.25	1.00	1.98	0.02	0.37	1.12	0.51	1.00	1.00	1.00
Final Sat.:	1600	2797	403	1600	3171	29	594	1782	823	1600	1600	1600
Capacity Analysis Module:												
Vol/Sat:	0.02	0.37	0.37	0.11	0.52	0.52	0.07	0.18	0.18	0.07	0.04	0.08
Crit Moves:	****			****			****			****		

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #22 Aviation Blvd / Alaska Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.793
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 100 Level Of Service: C

Street Name:	Aviation Blvd								Alaska 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				Split Phase				Split Phase			
Rights:	Include				Include				Ovl				Include			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	1	0	2	0 0	0	0	1	1 0	1	0	0	0 2	0	0	0	0 0
Volume Module:																
Base Vol:	26	1013		0	0	1650		31	73		0	304	0		0	0
Growth Adj:	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02
Initial Bse:	26	1029		0	0	1676		31	74		0	309	0		0	0
Added Vol:	0	114		0	0	201		0	0		0	0	0		0	0
PasserByVol:	0	0		0	0	0		0	0		0	0	0		0	0
Initial Fut:	26	1143		0	0	1877		31	74		0	309	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:	26	1143		0	0	1877		31	74		0	309	0		0	0
Reduct Vol:	0	0		0	0	0		0	0		0	0	0		0	0
Reduced Vol:	26	1143		0	0	1877		31	74		0	309	0		0	0
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:	26	1143		0	0	1877		31	74		0	309	0		0	0
OvlAdjVol:												256				
Saturation Flow Module:																
Sat/Lane:	1600	1600		1600	1600	1600		1600	1600	1600		1600	1600	1600		1600
Adjustment:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
Lanes:	1.00	2.00		0.00	0.00	1.97		0.03	1.00	0.00		2.00	0.00	0.00		0.00
Final Sat.:	1600	3200		0	0	3147		53	1600		0	3200	0		0	0
Capacity Analysis Module:																
Vol/Sat:	0.02	0.36		0.00	0.00	0.60		0.60	0.05	0.00		0.10	0.00	0.00		0.00
OvlAdjV/S:												0.08				
Crit Moves:	****					****						****				

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #23 Aviation Blvd / Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.933
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 120 Level Of Service: E

Street Name:	Aviation Blvd								Rosecrans 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				Protected				Protected			
Rights:	Ovl				Ovl				Ovl				Ovl			
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Lanes:	2	0	3	0 1	2	0	4	0 1	2	0	4	0 1	2	0	4	0 1
Volume Module:																
Base Vol:	255	902		501	252	1756		90	361	1864		368	420	1000		106
Growth Adj:	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02	1.02	1.02		1.02
Initial Bse:	259	916		509	256	1784		91	367	1893		374	427	1016		108
Added Vol:	40	103		0	30	166		5	4	36		134	0	33		6
PasserByVol:	0	0		0	0	0		0	0	0		0	0	0		0
Initial Fut:	299	1019		509	286	1950		96	371	1929		508	427	1049		114
User Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
PHF Volume:	299	1019		509	286	1950		96	371	1929		508	427	1049		114
Reduct Vol:	0	0		0	0	0		0	0	0		0	0	0		0
Reduced Vol:	299	1019		509	286	1950		96	371	1929		508	427	1049		114
PCE Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
MLF Adj:	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00
FinalVolume:	299	1019		509	286	1950		96	371	1929		508	427	1049		114
OvlAdjVol:				296				0				358				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	3.00		1.00	2.00	4.00		1.00	2.00	4.00		1.00	2.00	4.00		1.00
Final Sat.:	3200	4800		1600	3200	6400		1600	3200	6400		1600	3200	6400		1600
Capacity Analysis Module:																
Vol/Sat:	0.09	0.21		0.32	0.09	0.30		0.06	0.12	0.30		0.32	0.13	0.16		0.07
OvlAdjV/S:				0.18				0.00				0.22				0.00
Crit Moves:	****					****				****				****		

PARK PLACE EXTENSION PROJECT
FORECAST YEAR 2021 WITH PROJECT CONDITIONS
PM PEAK HOUR

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

Intersection #24 Allied Way / Park Pl

Cycle (sec):	100	Critical Vol./Cap.(X):	0.231
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	30	Level Of Service:	A

Street Name:	Allied Way						Park Pl					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Split Phase			Split Phase			Split Phase			Split Phase		
Rights:	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	1!	0	1	1	1	0	0	0	1	1	0
Volume Module:												
Base Vol:	0	0	0	0	0	132	147	0	0	0	0	0
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	0	0	0	0	0	134	149	0	0	0	0	0
Added Vol:	0	0	0	135	0	0	0	215	0	0	190	36
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	135	0	134	149	215	0	0	190	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	135	0	134	149	215	0	0	190	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	135	0	134	149	215	0	0	190	36
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	135	0	134	149	215	0	0	190	36
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	1.23	1.77	0.00	0.00	1.68	0.32
Final Sat.:	0	0	0	1600	0	1600	1967	2833	0	0	2690	510
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.08	0.00	0.08	0.08	0.08	0.00	0.00	0.07	0.07
Crit Moves:				****			****					****

Site: OY+P PM

Allied Way / Park Place
Roundabout

Movement Performance - Vehicles

Mov ID	ODMov	Demand Flows Total	HV	Deg. Satn	Average Delay	Level of Service	95% Back of Queue Vehicles	Distance	Prop. Queued	Effective Stop Rate	Average Speed
		veh/h	%	v/c	sec		veh	ft		per veh	mph
East: Park Place											
6	T1	207	2.0	0.123	4.7	LOS A	0.6	15.8	0.36	0.21	29.1
16	R2	39	2.0	0.123	4.7	LOS A	0.6	15.8	0.36	0.21	28.1
Approach		246	2.0	0.123	4.7	LOS A	0.6	15.8	0.36	0.21	29.0
North: Allied Way											
7	L2	147	2.0	0.154	5.3	LOS A	0.7	18.4	0.39	0.26	27.5
14	R2	146	2.0	0.153	5.2	LOS A	0.7	18.2	0.39	0.26	27.7
Approach		292	2.0	0.154	5.2	LOS A	0.7	18.4	0.39	0.26	27.6
West: Park Place											
5	L2	162	2.0	0.220	6.2	LOS A	1.2	29.4	0.38	0.24	27.6
2	T1	234	2.0	0.220	6.2	LOS A	1.2	29.4	0.38	0.24	28.4
Approach		396	2.0	0.220	6.2	LOS A	1.2	29.4	0.38	0.24	28.0
All Vehicles		934	2.0	0.220	5.5	LOS A	1.2	29.4	0.38	0.24	28.1

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: SIDRA Standard.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	149	215	190	36	135	134
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	162	234	207	39	147	146

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	246	0	-	0	667	123
Stage 1	-	-	-	-	226	-
Stage 2	-	-	-	-	441	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1317	-	-	-	392	905
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	616	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1317	-	-	-	344	905
Mov Cap-2 Maneuver	-	-	-	-	344	-
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	540	-

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1317	-	-	-	344	905
HCM Lane V/C Ratio	0.123	-	-	-	0.427	0.161
HCM Control Delay (s)	8.1	-	-	-	23	9.7
HCM Lane LOS	A	-	-	-	C	A
HCM 95th %tile Q(veh)	0.4	-	-	-	2.1	0.6