

Traffic Impact Analysis

EBB TIDE RESIDENTIAL PROJECT CITY OF NEWPORT BEACH

Prepared by



Project No. 14078-001
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TABLE OF CONTENTS

1.0	INTRODUCTION	1
	Purpose and Objectives of the TIA	1
	Analysis Scenarios	1
	Site Location and Study Area.....	2
	Methodology	2
2.0	EXISTING CONDITIONS.....	6
	Existing Traffic Conditions	6
3.0	PROJECT DESCRIPTION	14
	Project Size and Description.....	14
	Project Traffic	14
	Existing (2014) Plus Project	15
4.0	FUTURE (2019) CONDITIONS.....	21
	Future (2019) Plus Approved Plus Growth No Project - TPO Analysis.....	22
	Future (2019) Plus Approved Plus Growth Plus Project - TPO Analysis	27
	Future (2019) Plus Approved Plus Cumulative Plus Growth No Project - CEQA Analysis.....	30
	Future (2019) Plus Approved Plus Cumulative Plus Growth Plus Project - CEQA Analysis.....	36
5.0	CALTRANS METHODOLOGY ANALYSIS	40
7.0	CONGESTION MANAGEMENT PROGRAM (CMP) CONSISTENCY.....	43
8.0	SITE PLAN REVIEW	43
9.0	CONCLUSION	44

APPENDICES

Appendix A – Raw Turning Movement Counts
Appendix B – Regional Growth Percentages
Appendix C – Existing (2014) Intersection Level of Service Worksheets
Appendix D – Existing (2014) Plus Project Intersection Level of Service Worksheets
Appendix E – Approved Projects
Appendix F – Future (2019) Plus Approved Plus Growth Intersection Level of Service Worksheets-TPO
Appendix G – TPO Analysis One Percent Threshold Calculation Worksheets
Appendix H – Future (2019) Plus Approved Plus Growth Plus Project Intersection Level of Service Worksheets-TPO
Appendix I – Cumulative Projects
Appendix J – Future (2019) Plus Approved Plus Cumulative Plus Growth Intersection Level of Service Worksheets-CEQA
Appendix K – Future (2019) Plus Approved Plus Cumulative Plus Growth Plus Project Intersection Level of Service Worksheets-CEQA
Appendix L – Existing (2014) No Project and Plus Project Intersection Level of Service Worksheets (HCM Methodology)
Appendix M – Future (2019) Plus Approved Plus Cumulative Plus Growth No Project and Plus Project Intersection Level of Service Worksheets (HCM Methodology)



1.0 INTRODUCTION

The following presents the Traffic Impact Analysis (TIA) prepared by DKS Associates (DKS) for a proposed residential project which consists of 83 single family detached units. The site currently consists of a 73 unit mobile home park. The project is located on the east side of the intersection of Placentia Avenue and Production Place in Newport Beach, California. This TIA has been prepared consistent with the policies of the City of Newport Beach Traffic Phasing Ordinance (TPO) requirements, California Environmental Quality Act (CEQA), discussions with the City staff of Newport Beach and Costa Mesa, and methodologies from the Institute of Transportation Engineers (ITE) manuals.

Purpose and Objectives of the TIA

Based on discussions with the City, the purpose of this TIA is to evaluate the traffic and circulation impacts of the proposed project. The study objectives of this TIA include:

- Documentation of existing traffic conditions and future traffic conditions corresponding to the “future year” (existing plus ambient growth) of the proposed project when it would be completely built-out and fully occupied one year after the project completion. The project completion year is 2018.
- Conduct capacity and performance analysis of the study intersections based on the City of Newport Beach TPO and CEQA requirements.

Analysis Scenarios

Based on discussions with the City, the analysis was conducted at the study intersections for the following scenarios as part of the TIA:

- 1) Existing (2014) Conditions
- 2) Existing (2014) Conditions Plus Project
- 3) Future (2019) Plus Approved Projects Plus Growth (No Project Conditions) - TPO
- 4) Future (2019) Plus Approved Projects Plus Growth Plus Project Conditions - TPO
- 5) Future (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth (No Project Conditions) - CEQA
- 6) Future (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth Plus Project Conditions - CEQA
- 7) Future (2019) Plus Approved Projects Plus Growth Plus Project Conditions Plus Mitigation (if required) - TPO
- 8) Future (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth Plus Project Conditions Plus Mitigation (if required) - CEQA



Site Location and Study Area

The project site is located in the City of Newport Beach on the east side of the intersection of Placentia Avenue and Production Place. The TPO requires analyzing primary intersections within the project vicinity (see Appendix A of the TPO). Since the location of the project site is near the city limits of Newport Beach and Costa Mesa, intersections located in both the City of Newport Beach and the City of Costa Mesa are included in the analysis. Regional access is provided by State Route 55 (SR-55) and West Coast Highway (SR-1).

Based on discussions with the City of Newport Beach and Costa Mesa, the project's traffic related impact will be evaluated at following intersections:

- 1) Placentia Avenue/Superior Avenue (City of Newport Beach)
- 2) Newport Boulevard/Hospital Road (City of Newport Beach/Caltrans)
- 3) Orange Street/West Coast Highway (City of Newport Beach/Caltrans)
- 4) Superior Avenue-Balboa Boulevard/West Coast Highway (City of Newport Beach/Caltrans)
- 5) Newport Boulevard Southbound Ramps/West Coast Highway (City of Newport Beach/Caltrans)
- 6) Riverside Drive/West Coast Highway (City of Newport Beach/Caltrans)
- 7) Tustin Avenue/West Coast Highway (City of Newport Beach/Caltrans)
- 8) Dover Drive/West Coast Highway (City of Newport Beach/Caltrans)
- 9) Placentia Avenue/Production Place (City of Newport Beach)
- 10) Placentia Avenue/16th Street (City of Costa Mesa)
- 11) Superior Avenue/16th Street-Industrial Way (City of Costa Mesa)
- 12) Newport Boulevard/Industrial Way (City of Costa Mesa/Caltrans)

Figure 1 illustrates the project site location and study intersections.

Methodology

Per consultation with the City, and the review of the City of Newport Beach Traffic Phasing Ordinance (TPO), the analysis of signalized intersections was performed using the Intersection Capacity Utilization (ICU) methodology. The City of Newport Beach requires the analysis of all study intersections based on ICU methodology as part of the



LEGEND
 #  - Study Intersection



Figure 1
Project Site and Study Intersections



TIA. Intersections under the jurisdiction of Caltrans and unsignalized intersections require the analysis to be performed using the HCM methodology. The assessment of intersection conditions addresses level of service (LOS), in terms of volume-to-capacity (V/C) ratio for ICU analysis for signalized intersections. The Traffix Version 8 software package was used to determine intersection LOS based on ICU methodology and HCM methodology for the all study intersections. Brief level of service definitions along with the corresponding volume to capacity ratio for the ICU methodology and corresponding control delay for the HCM methodology for signalized and unsignalized intersections are shown in Tables A1, A2 and B, respectively.

The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. Table C provides a description of each specific level of service grade (LOS A through LOS F).

Table A1 – Level of Service Definitions for Signalized Intersections Based on ICU V/C

Level of Service	V/C Ratio
A	0.00-0.60
B	0.61-0.70
C	0.71-0.80
D	0.81-0.90
E	0.91-1.00
F	1.01 or greater

SOURCE: Orange County Congestion Management Plan, 2013

Table A2 – Level of Service Definitions for Signalized Intersections Based on HCM Delay

Level of Service	Delay per Vehicle (in seconds)
A	≤ 0 - 10
B	> 10 - 20
C	> 20 – 35
D	> 35 – 55
E	> 55 – 80
F	> 80

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.



Table B – Level of Service Definitions for Unsignalized Intersections Based on HCM Delay

Level of Service	Delay per Vehicle (in seconds)
A	≤ 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Table C – Level of Service Descriptions

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

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Significance Criteria

Based on the review of the TPO for the City of Newport Beach, and City of Costa Mesa General Plan the acceptable level of service for all study intersections is LOS D. For



intersections under the Congestion Management Program (CMP), the acceptable level of service is LOS E.

The “significant” traffic impact for study intersections in the City of Newport Beach and Costa Mesa requires an increase in 0.01 or more project related v/c for intersections already operating at unacceptable (E or F) level of service in the no project conditions. Also, if the project causes an intersection which is operating at an acceptable level of service in the no project conditions, to operate at unacceptable level of service (E or F); it is a “significant” traffic impact for that intersection.

For intersections under the jurisdiction of Caltrans, the significant impact criteria are based on the ‘Caltrans Guide for the Preparation of Traffic Impact Studies’ document. Caltrans maintains a target LOS at the transition between LOS C and LOS D using the HCM methodology. The project impact on a Caltrans intersection would be significant if the project either causes an intersection operating at LOS C to deteriorate to LOS D or worse or causes an intersection already operating at LOS D or worse to deteriorate to a worse Level of Service.

2.0 EXISTING CONDITIONS

Existing Traffic Conditions

Roadways

Regional access to the project vicinity is provided by the State Route 55 (SR-55) located north of the site and West Coast Highway (SR-1) located south of the site. Local access is provided via Placentia Avenue and Production Place immediately adjacent to the project site. The following describes the existing roads in the study area.

State Route 55 (SR-55)/Newport Boulevard

Within the vicinity of the project site, the State Route 55 (SR-55) is an eight-lane freeway (four lanes in each direction) and is oriented in a north-south direction going through the project vicinity. The freeway ends approximately one mile north of the project site and turns into a six lane divided roadway with a raised median which connects to the West Coast Highway in the south. SR-55 connects the other major freeways and highways in Orange County area such as I-5, I-405 and SR-73. SR-55 consists of signalized intersections with Industrial Way, Hospital Road, and Coast Highway Southbound Ramps which will be analyzed as part of the study. The speed limit is 40 MPH. On-street parking is prohibited along the roadway.

West Coast Highway

West Coast Highway is a four-lane divided roadway between Tustin Avenue and Dover Drive, five-lane divided roadway between Newport Boulevard and Tustin Avenue, seven-lane divided roadway between Newport Boulevard and Superior Avenue and six-



lane divided roadway between Superior Avenue and Orange Street. It is located south of the project site. In the study area, West Coast Highway is signalized at intersections with Orange Street, Superior Avenue, Newport Boulevard Ramps, Riverside Drive, Tustin Avenue and Dover Drive which will be analyzed as part of the study. On-street parking is permitted at some locations along the roadway. The speed limit is 50 MPH between Orange Avenue and Superior Avenue, 45 MPH between Superior Avenue and Tustin Avenue and 40 MPH east of Tustin Avenue. West Coast Highway is under the jurisdiction of Caltrans.

Superior Avenue

Superior Avenue is a four-lane divided roadway located southeast of the project site. In the study area, Superior Avenue is signalized at intersections with Placentia Avenue, 16th Street and West Coast Highway which will be analyzed. On-street parking is permitted at some locations along the roadway. The speed limit is 40 miles per hour (MPH).

Placentia Avenue

Placentia Avenue is a four-lane undivided roadway located west of the project site. In the study area, Placentia Avenue is signalized at intersections with 16th Street, and Superior Avenue and is unsignalized at Production Place. These intersections will be analyzed as part of the study. On-street parking is not permitted along the stretch of Placentia Avenue included in the study area. This roadway contains both northbound and southbound bike lanes. The speed limit is 40 miles per hour (MPH).

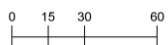
16th Street/Industrial Way

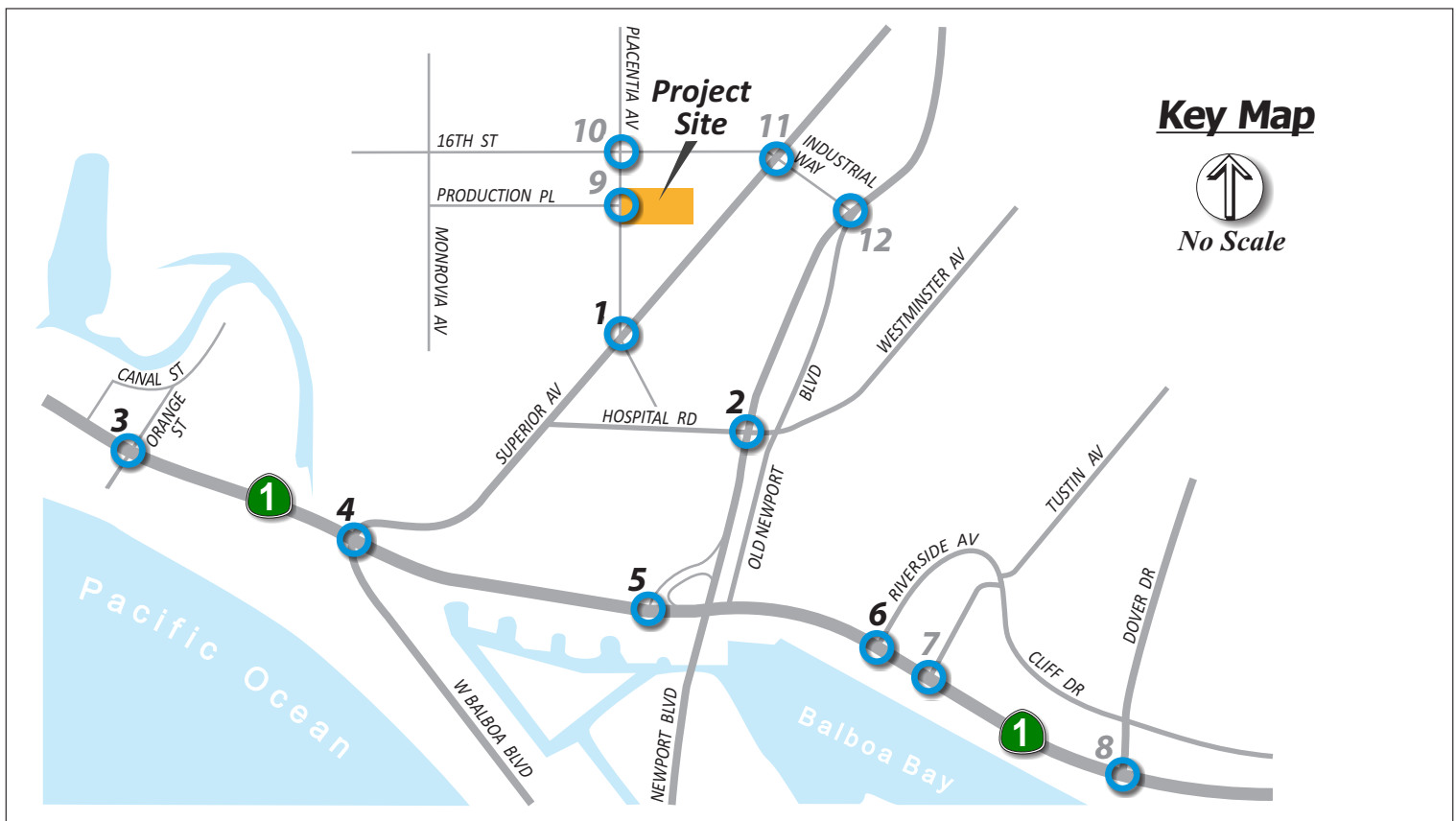
16th Street is a two-lane undivided roadway located north of the project site. The street turns into Industrial Way as it crosses east of Superior Avenue. In the study area, 16th Street is signalized at intersections with Placentia Avenue, Superior Avenue and Newport Boulevard which will be analyzed as part of the study. On-street parking is permitted along the roadway.

Production Place

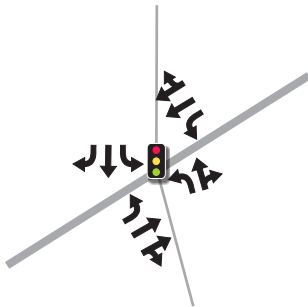
Production Place is a two-lane undivided roadway located directly west of the project site. The only access to the project site is provided from Production Place. In the study area, Production Place is unsignalized at Placentia Avenue which will be analyzed as part of the study. On-street parking is permitted along the roadway.

Figure 2 and Figure 3 illustrate the proposed project site plan and existing lane configurations at the study intersections respectively.



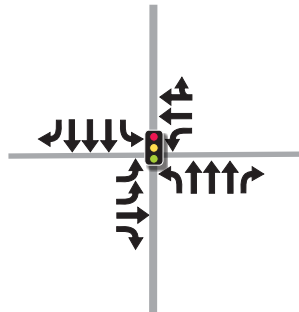


1. Placentia Avenue/Superior Avenue



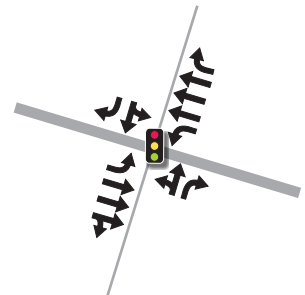
All Left Turns Protected

2. Newport Boulevard/Hospital Road



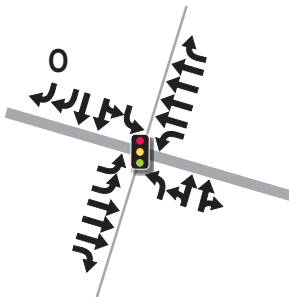
All Left Turns Protected

3. Orange Street/Coast Highway



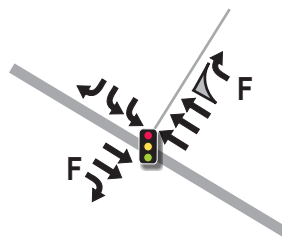
East - West Left Turns Protected

4. Superior Avenue-Balboa Boulevard/Coast Highway



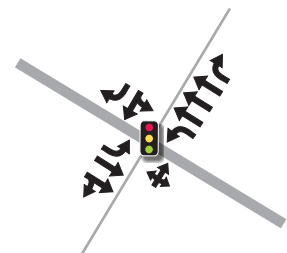
North - South Split
East - West Left Turns Protected

5. Newport Boulevard Southbound Ramps/Coast Highway

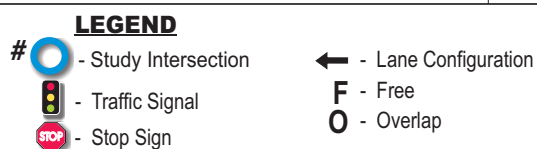


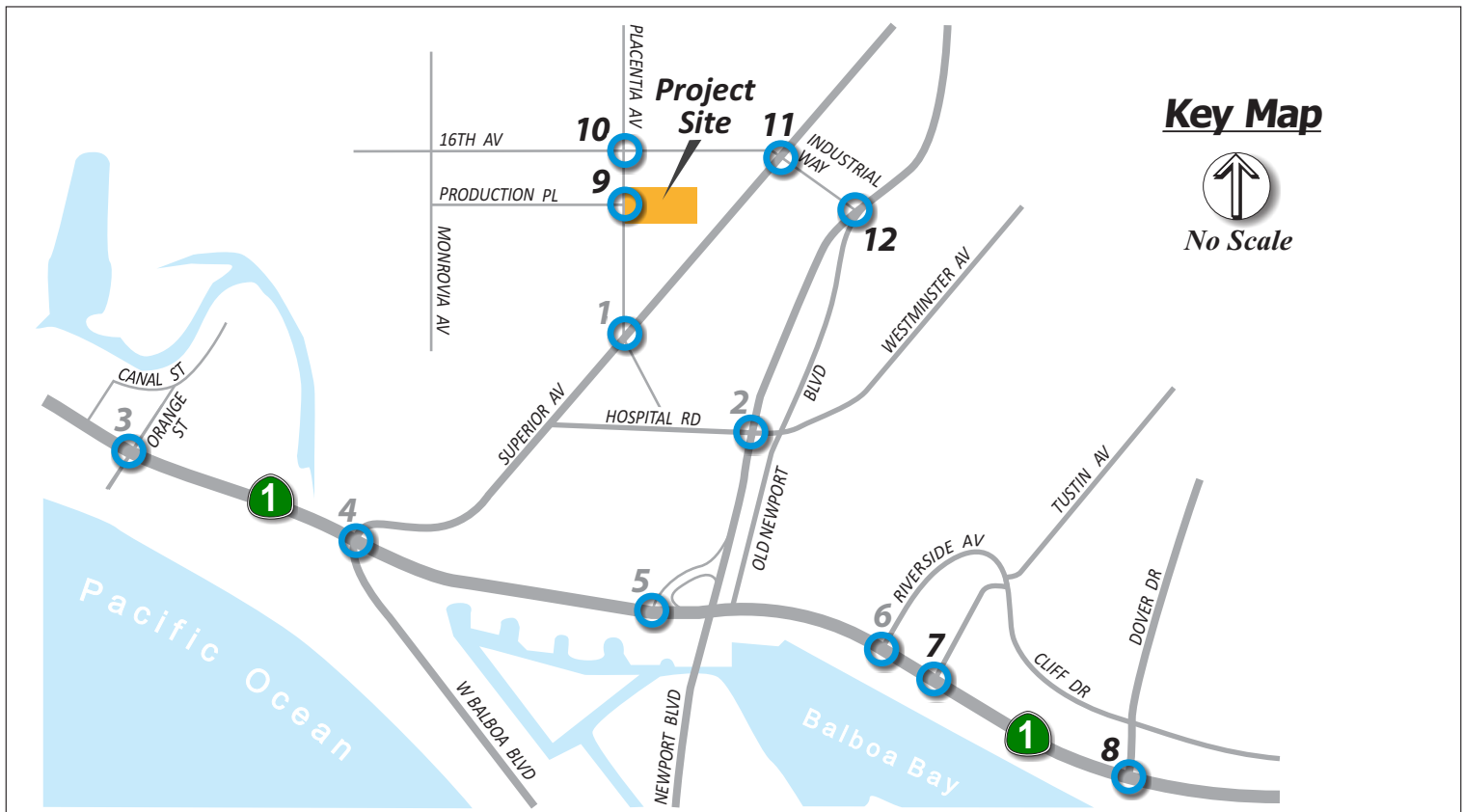
All Left Turns Protected

6. Riverside Drive/Coast Highway

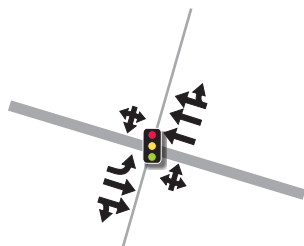


East - West Left Turns Protected



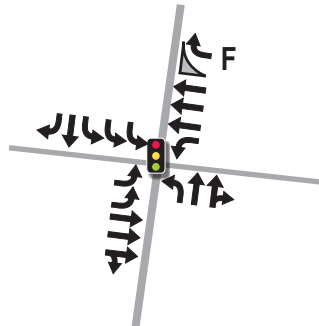


7. Tustin Avenue/Coast Highway



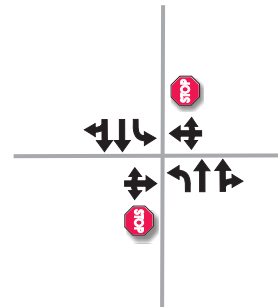
East - West Left Turns Protected

8. Dover Drive/Coast Highway

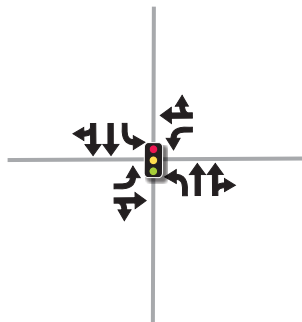


North - South Split
East - West Left Turns Protected

9. Placentia Avenue/Production Place

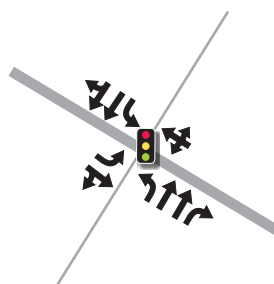


10. Placentia Avenue/16th Street



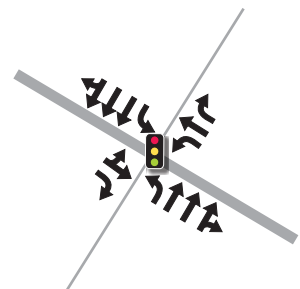
All Left Turns Permitted

11. Superior Avenue/ 16th Street-Industrial Way



All Left Turns Permitted

12. Newport Boulevard/Industrial Way



All Left Turns Permitted

LEGEND	
#	- Study Intersection
	- Traffic Signal
	- Stop Sign
	- Lane Configuration
F	- Free
O	- Overlap

DKS **Figure 3**
Existing (2014) Lane Configurations and Intersection Operations



Traffic Volumes

Existing traffic volumes at all study intersections in the City of Newport Beach were collected in 2012 and 2013. These counts were obtained from the City and were adjusted by applying a 1% growth rate (on arterials only) per year based on the rates obtained from the city. The counts were adjusted by adding growth rate until the year 2014. For intersections in the City of Costa Mesa and the project driveway, the counts were conducted in December 2014. The peak hours were determined by combining the four highest adjacent 15 minute periods during the AM peak period (7:00-9:00 AM) and the PM peak period (4:00-6:00 PM) at the intersections.

Figure 4 illustrates the existing AM and PM peak hour traffic volumes at the study intersections. The actual counts are provided in the Appendix A. The regional growth rates obtained from the City are provided in Appendix B.

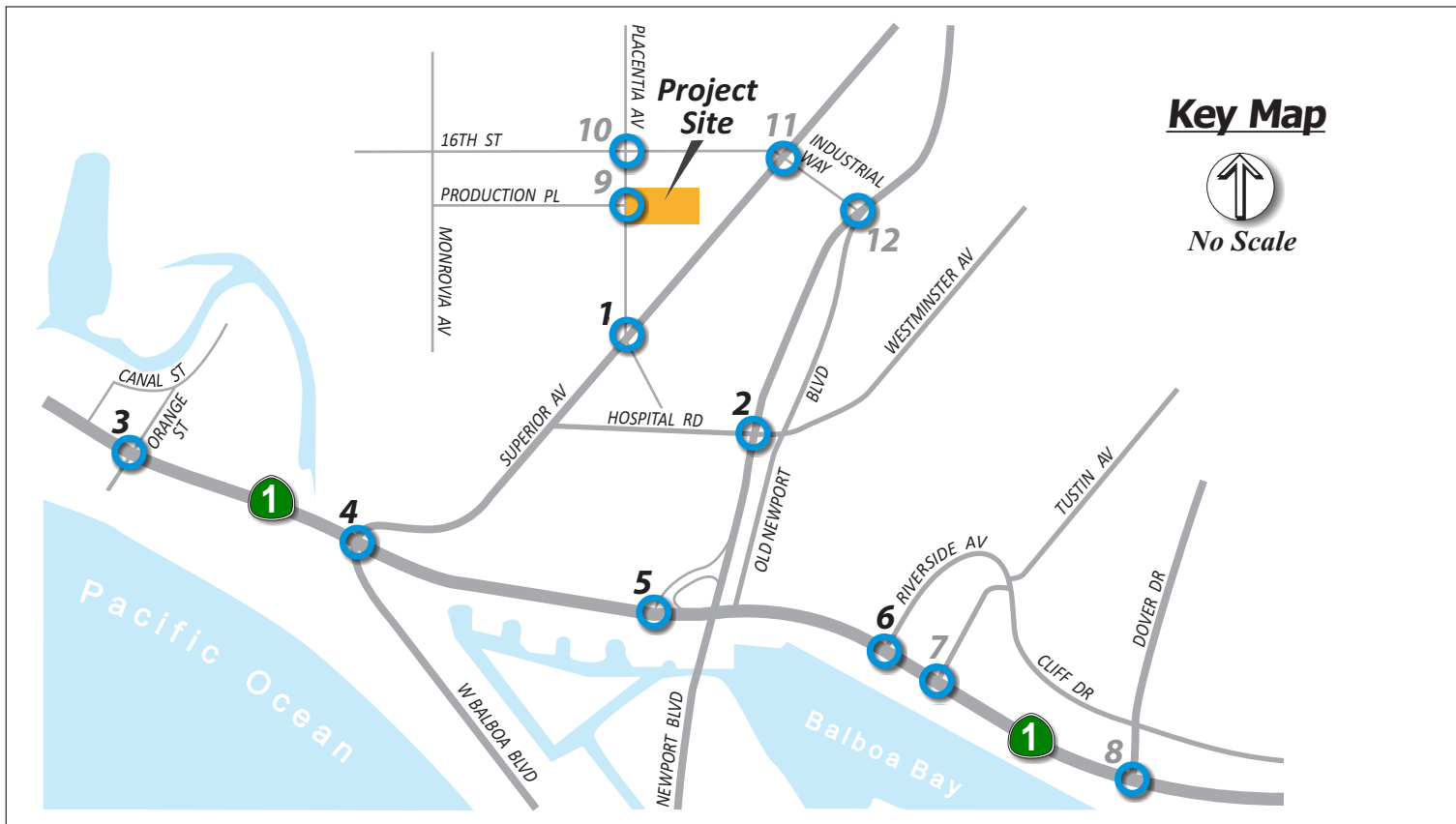
Level of Service

The existing level of service has been evaluated at the study intersections based on the ICU and HCM methodologies. The LOS summary for intersections is shown in Table D. As shown in Table D, all intersections operate at LOS D or better. Intersection LOS calculation sheets are provided in Appendix C.

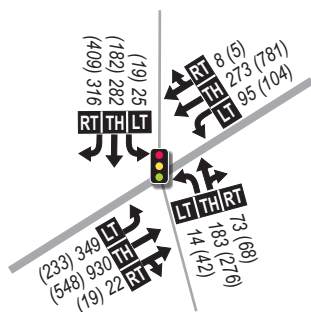
Table D: Existing (2014) Intersection Level of Service Summary

Intersection		Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay (sec)/ v/c	LOS	Delay (sec)/ v/c	LOS
1.	Placentia Avenue/Superior Avenue	Signalized	0.563	A	0.673	B
2.	Newport Boulevard/Hospital Road	Signalized	0.578	A	0.679	B
3.	Orange Street/West Coast Highway	Signalized	0.649	B	0.653	B
4.	Superior Avenue-Balboa Blvd/West Coast Highway	Signalized	0.653	B	0.669	B
5.	Newport Boulevard SB Ramps/West Coast Highway	Signalized	0.873	D	0.659	B
6.	Riverside Drive/West Coast Highway	Signalized	0.771	C	0.789	C
7.	Tustin Avenue/West Coast Highway	Signalized	0.761	C	0.609	B
8.	Dover Drive/West Coast Highway	Signalized	0.618	B	0.681	B
9.	Placentia Avenue/Production Place*	Unsignalized	20.0	C	20.0	C
10.	Placentia Avenue/16 th Street	Signalized	0.366	A	0.350	A
11.	Superior Avenue/16 th Street-Industrial Way	Signalized	0.456	A	0.378	A
12.	Newport Boulevard/Industrial Way	Signalized	0.609	B	0.565	A

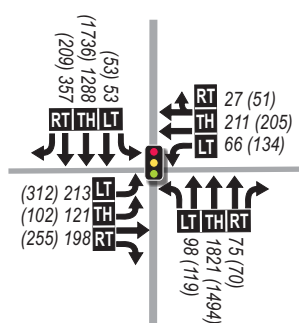
* Evaluated using the HCM methodology.



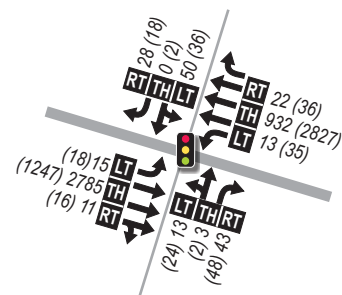
1. Placentia Avenue/Superior Avenue



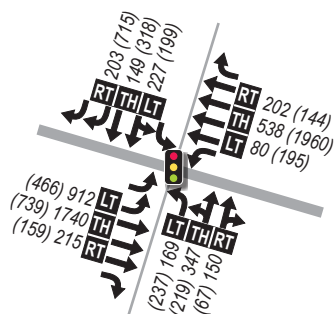
2. Newport Boulevard/Hospital Road



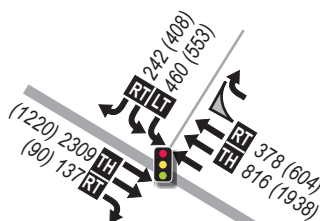
3. Orange Street/Coast Highway



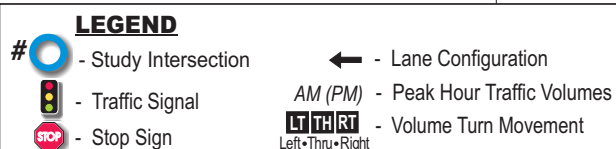
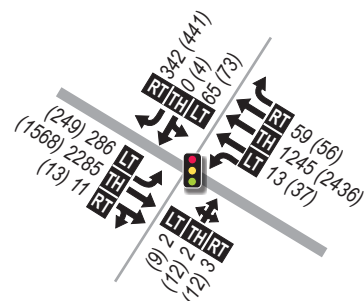
4. Superior Avenue-Balboa Boulevard/Coast Highway



5. Newport Boulevard Southbound Ramps/Coast Highway



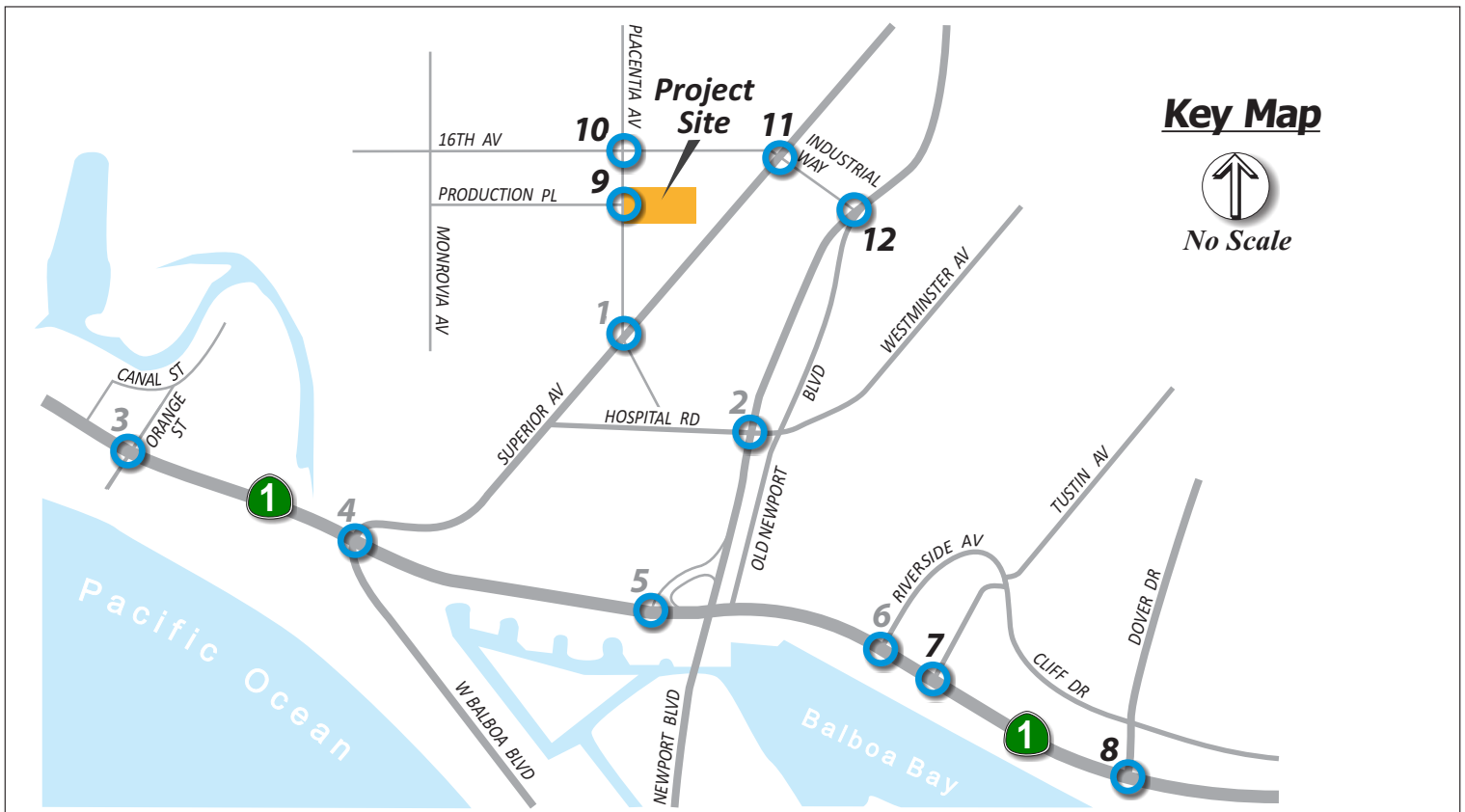
6. Riverside Drive/Coast Highway



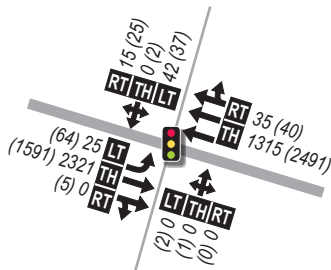
DKS

Figure 4

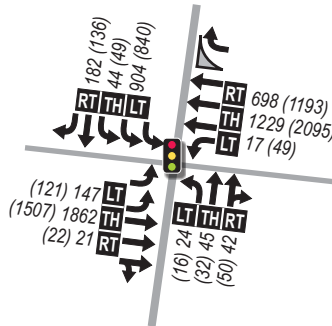
**Existing (2014)
Peak Hour Volumes**



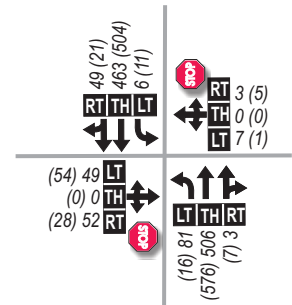
7. Tustin Avenue/Coast Highway



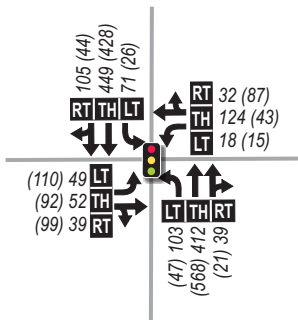
8. Dover Drive/Coast Highway



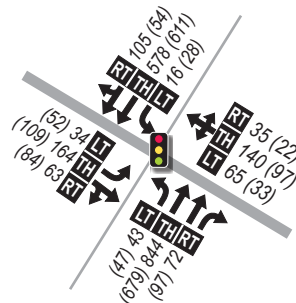
9. Placentia Avenue/Production Place



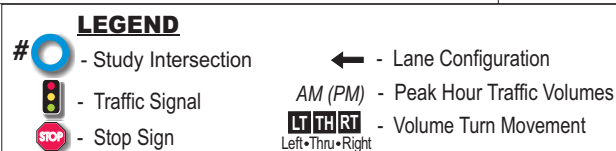
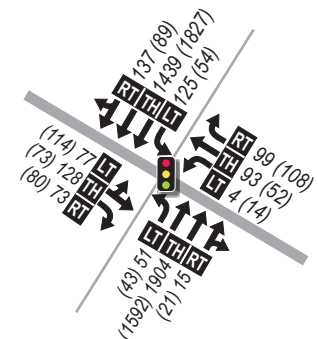
10. Placentia Avenue/16th Street



11. Superior Avenue/ 16th Street-Industrial Way



12. Newport Boulevard/Industrial Way



DKS

Figure 4

**Existing (2014)
Peak Hour Volumes**



3.0 PROJECT DESCRIPTION

Project Size and Description

Figure 2 illustrates the site plan of the proposed project. The proposed project would develop 83 single family dwelling units (detached). The existing site consists of 73 Mobile Home Park units which will be demolished as part of the project. The project would provide one full access driveway via Production Place along Placentia Avenue.

Project Traffic

Trip Generation

Trip generation estimates for the proposed project were developed using ITE trip rates Per the Institute of Transportation Engineers' (ITE) *Trip Generation*, 9th Edition. The trip generation table was obtained from the City of Newport Beach. A summary of the trip generation rates and resulting vehicle trips from the proposed project is presented in Table E. For the TPO and CEQA analysis, the existing trip credit from the Mobile Home Park was applied to the trip generation for the proposed project.

Table E: Project Trip Generation Summary

Land Use	ITE Code	Size	Daily	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Trip Rates										
Single Family Dwelling (Detached)	210	per	DU	9.52	0.19	0.56	0.75	0.63	0.37	1.00
Mobile Home Park	240	per	DU	4.99	0.09	0.35	0.44	0.37	0.22	0.59
Trip Generation										
Existing Use (For Credit)										
Existing Mobile Home Park	240	73	DU	364	7	26	33	27	16	43
Total				364	7	26	33	27	16	43
Proposed Project										
Single Family	210	83	DU	790	16	46	62	52	31	83
Total Trips				790	16	46	62	52	31	83
Net Change in Trips				426	9	20	29	25	15	40

ITE – Institute of Transportation Engineers



Trip Distribution and Assignment

Project trip distribution patterns were based on factors such as: 1) transportation facility characteristics that impact travel demand (i.e. location of urban arterials, freeways, and interchanges); 2) location of employment and commercial facilities; and 3) existing traffic patterns. Trip distribution assumptions were approved from the City.

Figure 5 illustrates trip distribution percentages for the proposed project. Trip distribution percentages were applied to the proposed project's trip generation to calculate the traffic volumes which the project would generate at study intersections (i.e. trip assignment). The resulting AM and PM peak hour trip assignments used for the TPO and CEQA analysis is shown in Figure 6.

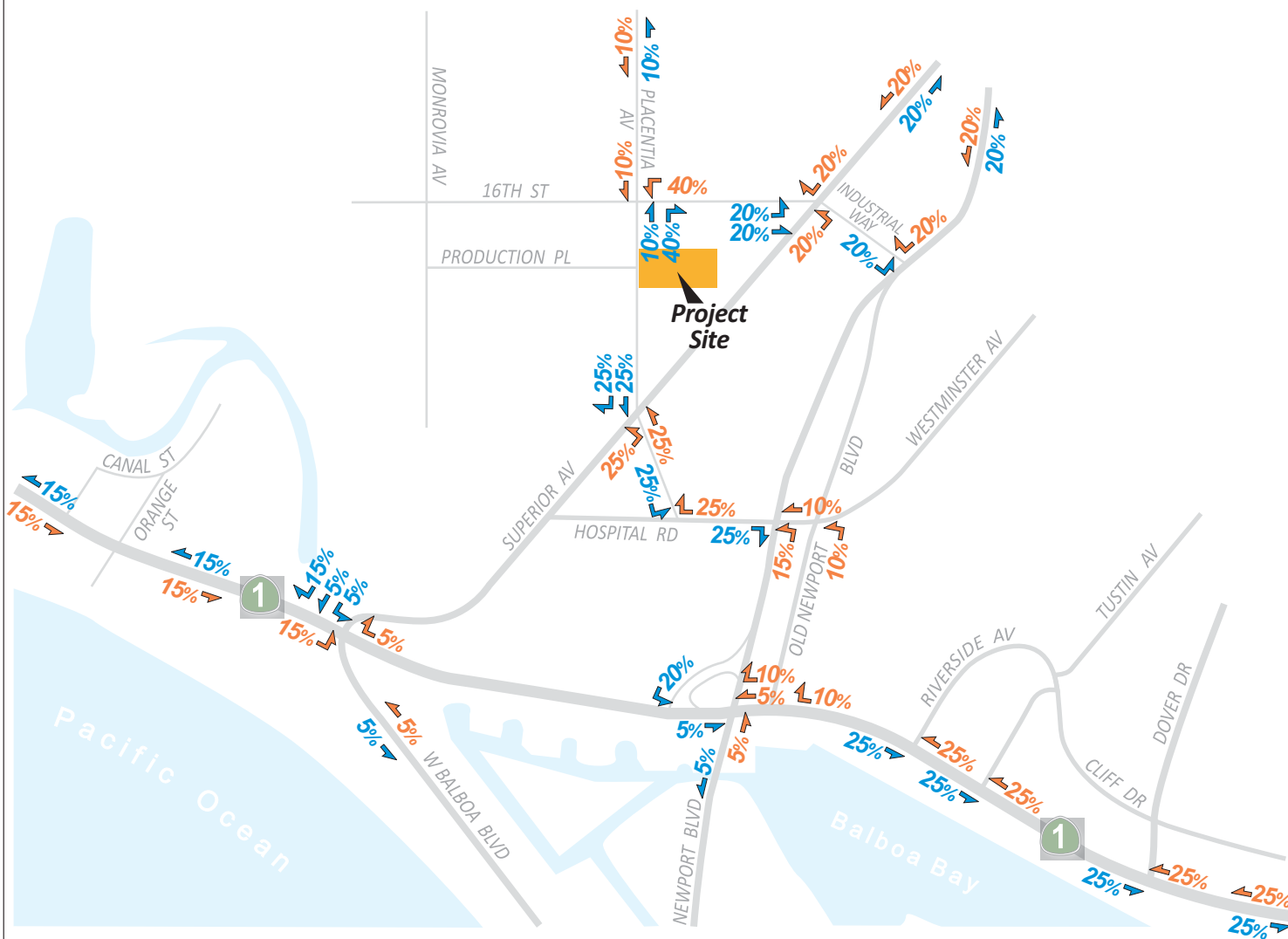
Existing (2014) Plus Project

Traffic Volumes

The trips generated from the project as shown in Figure 6 were added to the existing traffic volumes shown in Figure 4 which would result in the existing plus project traffic scenario. Figure 7 illustrates the Existing Year (2014) Plus Project traffic volumes.

Levels of Service

The Existing Plus Project level of service has been evaluated at study intersections based on the ICU and HCM methodologies. The LOS summary for intersections is shown in Table F. As shown in Table F, all intersections operate at LOS D or better. Intersection LOS calculation sheets are provided in the Appendix D.



LEGEND

- 0% - Inbound Trip Distribution Percentage
- 0% - Outbound Trip Distribution Percentage

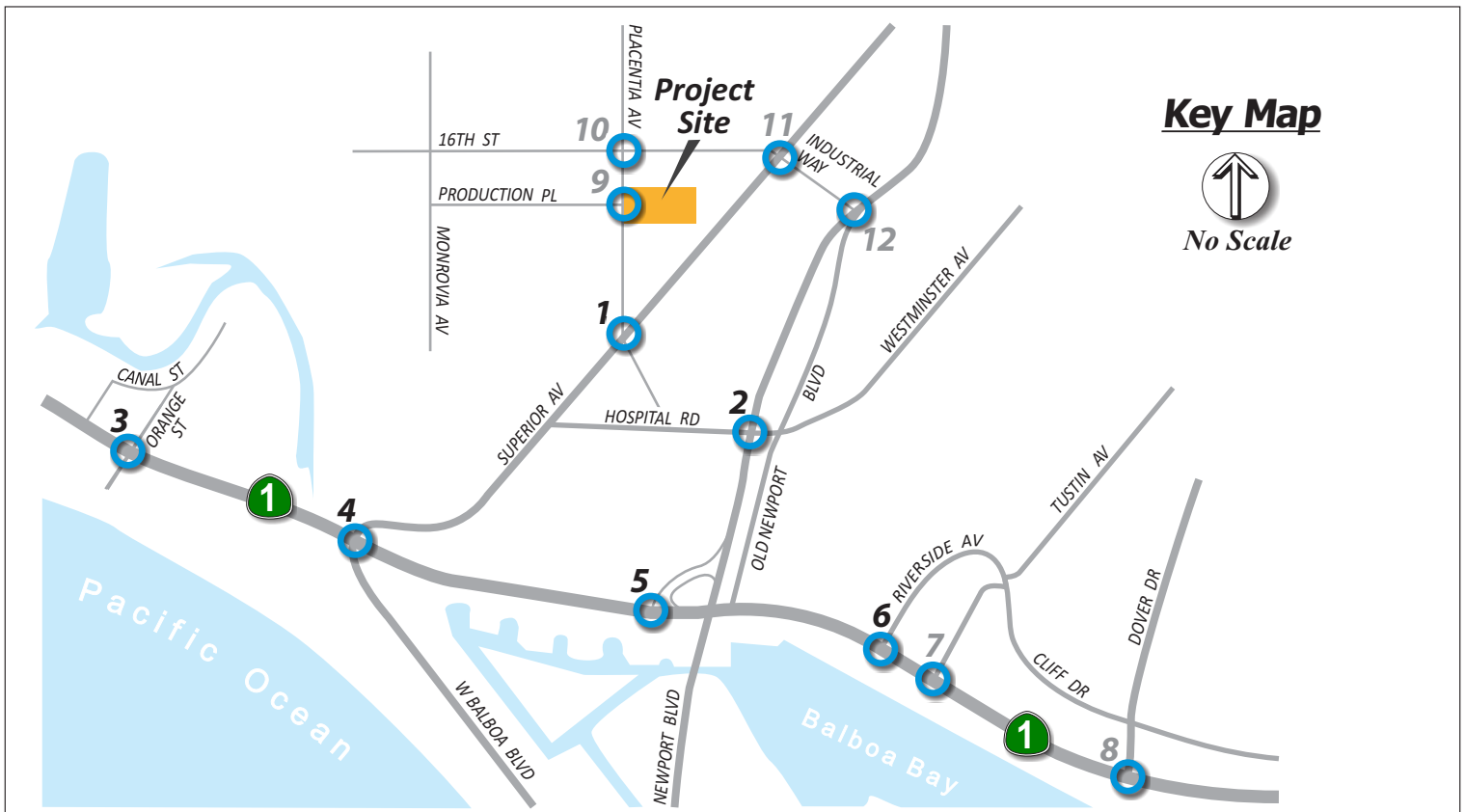
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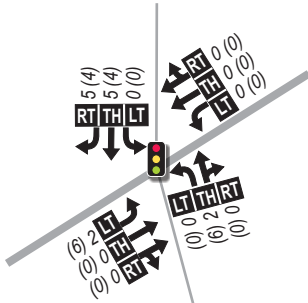
No Scale

Figure 5

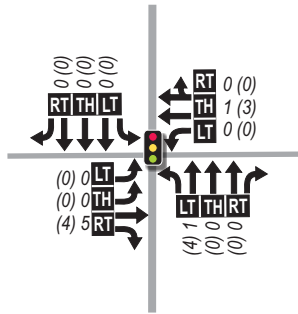
Project Trip Distribution



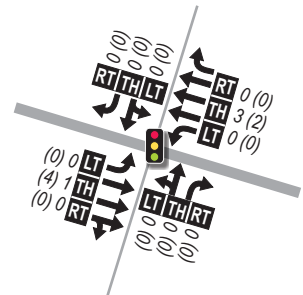
1. Placentia Avenue/Superior Avenue



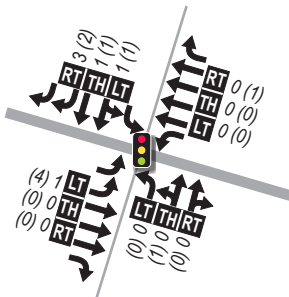
2. Newport Boulevard/Hospital Road



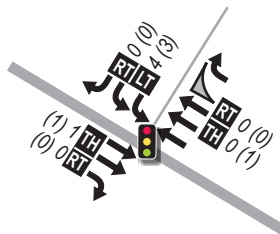
3. Orange Street/Coast Highway



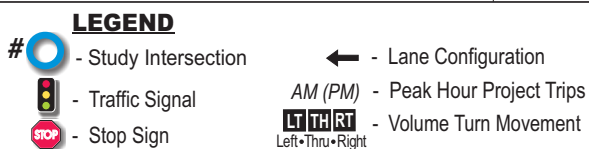
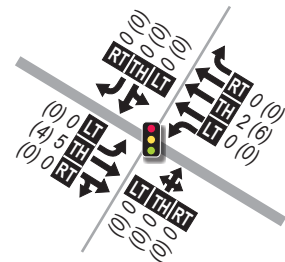
4. Superior Avenue-Balboa Boulevard/Coast Highway



5. Newport Boulevard Southbound Ramps/Coast Highway



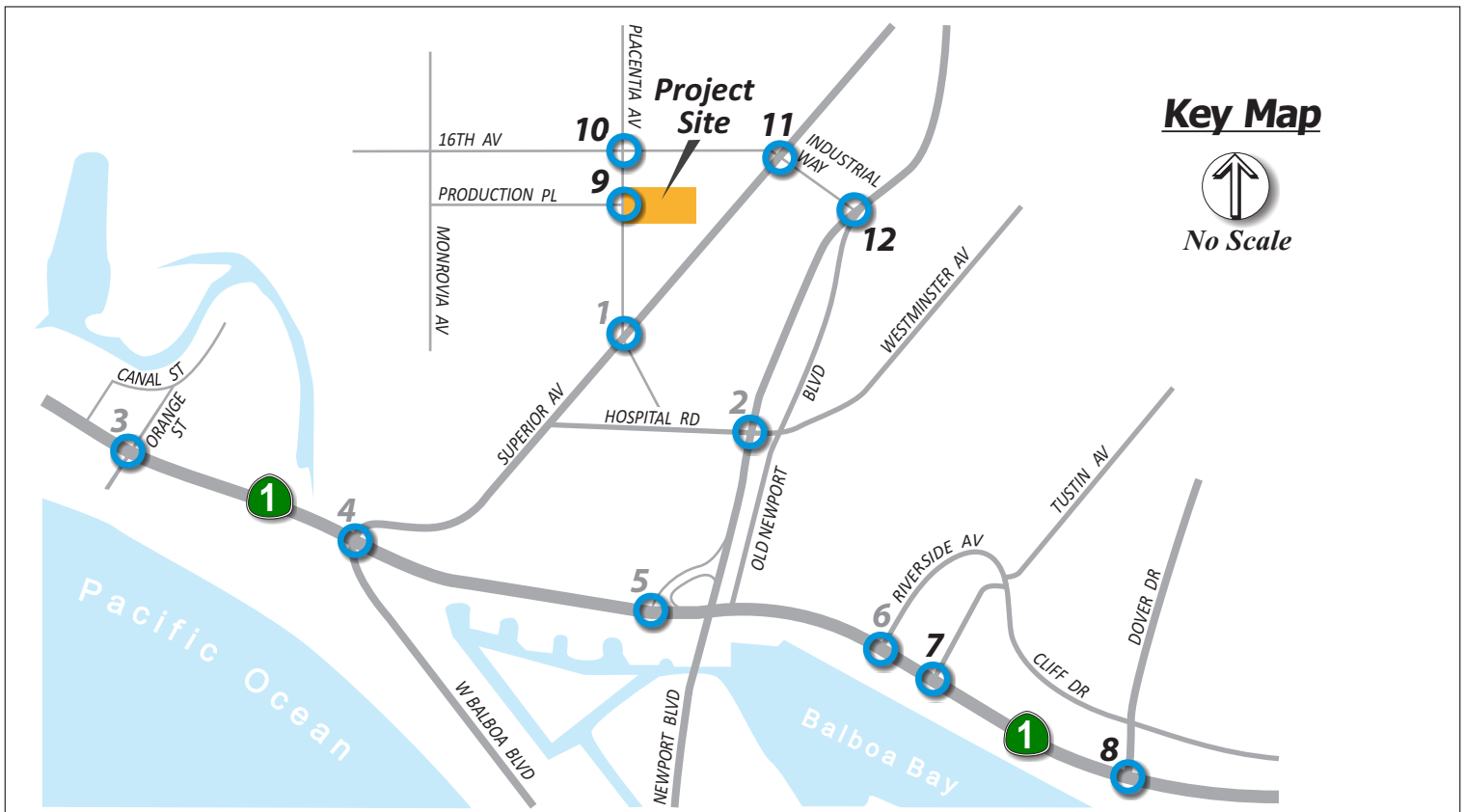
6. Riverside Drive/Coast Highway



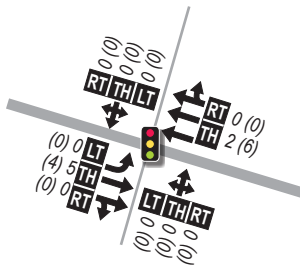
DKS

Figure 6

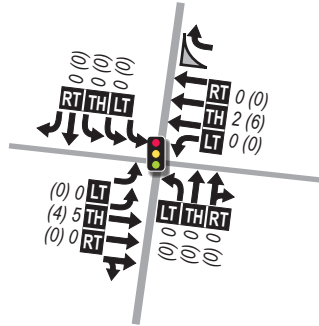
**Project Trip Assignment
(TPO and CEQA Analysis)**



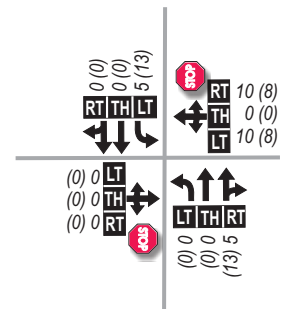
7. Tustin Avenue/Coast Highway



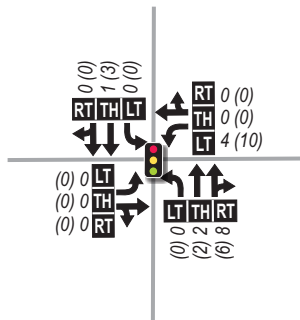
8. Dover Drive/Coast Highway



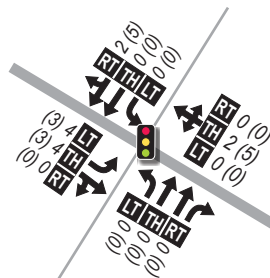
9. Placentia Avenue/Production Place



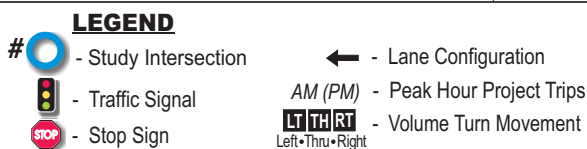
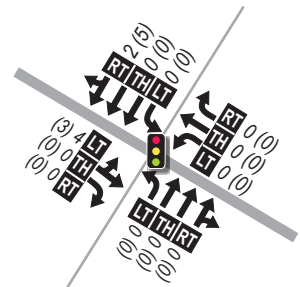
10. Placentia Avenue/16th Street



11. Superior Avenue/ 16th Street-Industrial Way



12. Newport Boulevard/Industrial Way



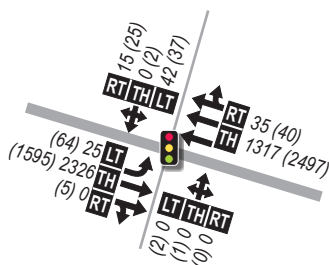
DKS

Figure 6

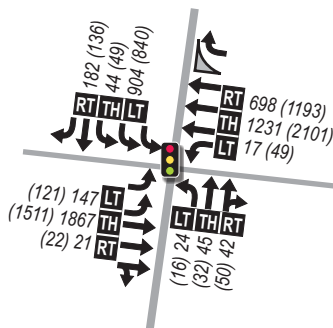
**Project Trip Assignment
(TPO and CEQA Analysis)**



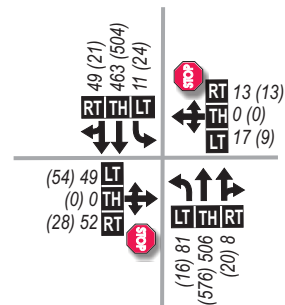
7. Tustin Avenue/Coast Highway



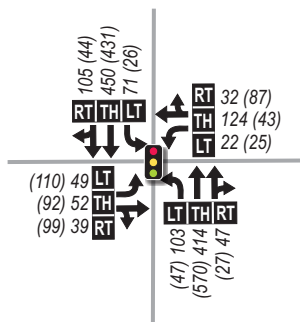
8. Dover Drive/Coast Highway



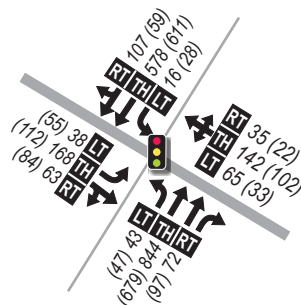
9. Placentia Avenue/Production Place



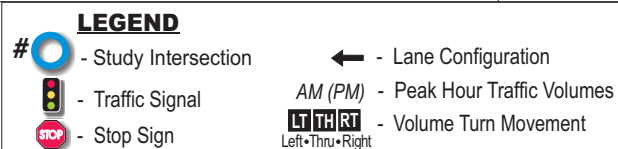
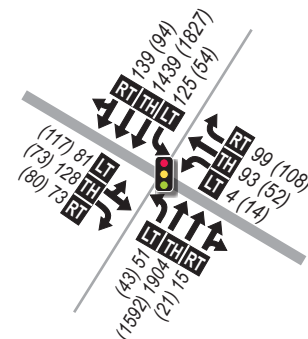
10. Placentia Avenue/16th Street



11. Superior Avenue/ 16th Street-Industrial Way



12. Newport Boulevard/Industrial Way



DKS

Figure 7

**Existing (2014) Plus Project
Peak Hour Volumes**



Table F: Existing (2014) Plus Project Intersection Level of Service Summary

Intersections		No Project				Plus Project				Difference		Project Impact
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	
		Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	Delay/ V/C	
1.	Placentia Avenue/Superior Avenue	0.563	A	0.673	B	0.566	A	0.679	B	0.003	0.006	No
2.	Newport Boulevard/Hospital Road	0.578	A	0.679	B	0.581	A	0.684	B	0.003	0.005	No
3.	Orange St/West Coast Highway	0.649	B	0.653	B	0.649	B	0.653	B	0.000	0.000	No
4.	Superior Avenue-Balboa Blvd/West Coast Highway	0.653	B	0.669	B	0.654	B	0.671	B	0.001	0.002	No
5.	Newport Boulevard SB Ramps/West Coast Highway	0.873	D	0.659	B	0.873	D	0.659	B	0.000	0.000	No
6.	Riverside Dr/West Coast Highway	0.771	C	0.789	C	0.772	C	0.790	C	0.001	0.001	No
7.	Tustin Ave/West Coast Highway	0.761	C	0.609	B	0.763	C	0.610	B	0.002	0.001	No
8.	Dover Drive/West Coast Highway	0.618	B	0.681	B	0.619	B	0.682	B	0.001	0.001	No
9.	Placentia Avenue/Production Place*	20.0	C	20.0	C	20.5	C	21.2	C	0.5	1.2	No
10.	Placentia Avenue/16 th Street	0.366	A	0.350	A	0.366	A	0.353	A	0.000	0.003	No
11.	Superior Avenue/16 th Street	0.456	A	0.378	A	0.459	A	0.382	A	0.003	0.004	No
12.	Newport Boulevard/Industrial Way	0.609	B	0.565	A	0.611	B	0.568	A	0.002	0.003	No

* Evaluated using the HCM methodology since it is a two-way stop controlled intersection. Delay is in seconds.

Significant Impact

Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the study intersections. Therefore, no mitigation measures are required on study intersections as part of the project.

4.0 FUTURE (2019) CONDITIONS

Future (2019) Plus Approved Projects Plus Growth (No Project) – TPO Analysis

Traffic Volumes

Future buildout traffic forecasts were developed in order to analyze the project traffic impacts during the buildout year of the project. A 1% annual growth was added to the existing vehicular traffic volumes (on arterials only) for a period of 5 years to determine the future 2019 traffic volumes at the study intersections based on the growth rate obtained from the City. In addition, the City of Newport Beach provided a list of approved projects and added trips on study intersections of approved projects to be



used for the future 2019 analysis. The approved projects consist of developments which are approved by the City, but have not been constructed. An approved project is a project that has been approved pursuant to the TPO, and requires no further discretionary approval from the City. Trips generated from the approved projects were distributed to the roadway network by the city. The list of approved projects is presented in Table G. The details of approved projects are included in Appendix E.

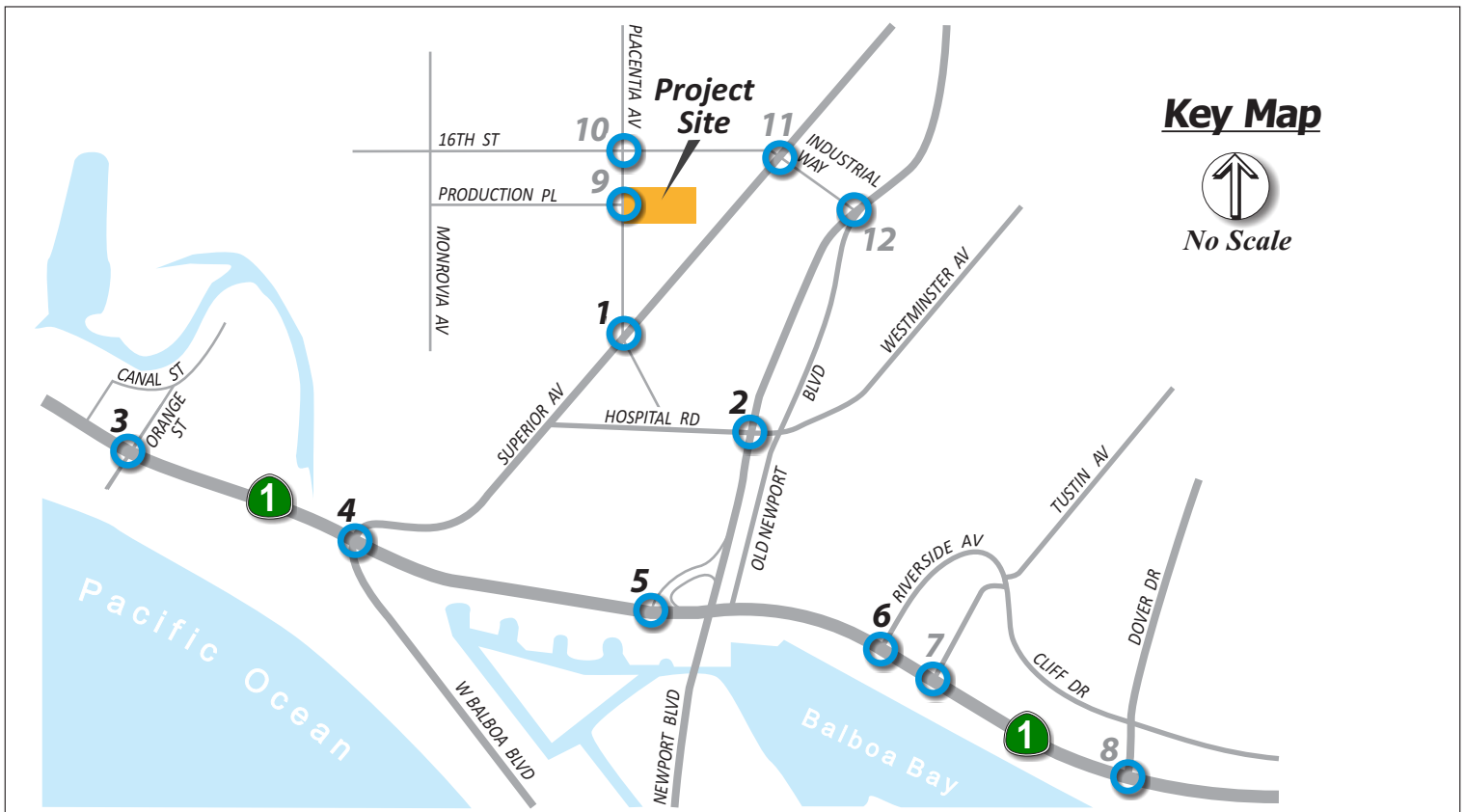
Table G: List of Approved Projects

No.	Approved Project	No.	Approved Project
1.	Fashion Island Expansion	11.	Bayview Medical Office
2.	Temple Bat Yahm Expansion	12.	Mariner's Pointe
3.	Newport Dunes	13.	4221 Dolphin Striker
4.	Hoag Hospital Phase III	14.	San Joaquin Hills Plaza
5.	St. Mark Presbyterian Church	15.	Uptown Newport (Phase 2)
6.	2300 Newport Boulevard	16.	Uptown Newport (Phase 1)
7.	Hoag Health Center	17.	Marina Park
8.	North Newport Center	18.	Back Bay Landing
9.	Santa Barbara Condo	19.	Westcliff Drive Medical
10.	328 Old Newport Medical	20.	Lido House Hotel Traffic

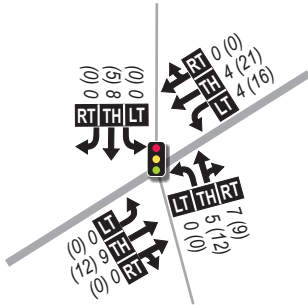
Figure 8 shows the future ambient growth and approved project volumes at study intersections. Figure 9 illustrates the Future (2019) Plus Approved Projects Plus Growth AM and PM peak hour traffic volumes in the study area.

Level of Service

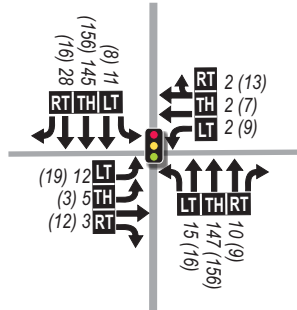
The Future (2019) Plus Approved Project Plus Growth (No Project) level of service has been evaluated at study intersections based on the ICU and HCM methodologies. The LOS summary for intersections is shown in Table H. As shown in Table H, all intersections operate at LOS D or better with the exception of Newport Boulevard Southbound Ramps/Coast Highway which operates at LOS E in the AM peak hour. Intersection LOS calculation sheets are provided in the Appendix F.



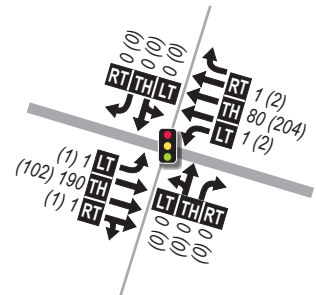
1. Placentia Avenue/Superior Avenue



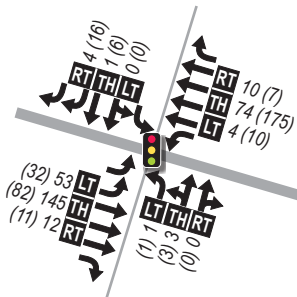
2. Newport Boulevard/Hospital Road



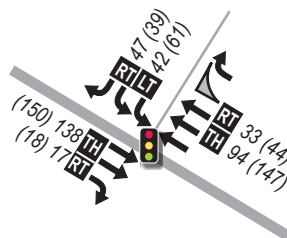
3. Orange Street/Coast Highway



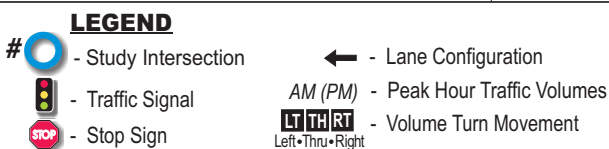
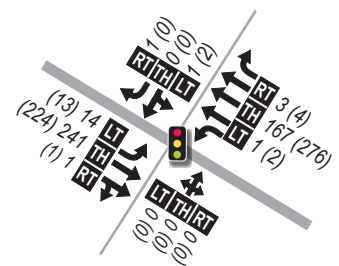
4. Superior Avenue-Balboa Boulevard/Coast Highway



5. Newport Boulevard Southbound Ramps/Coast Highway



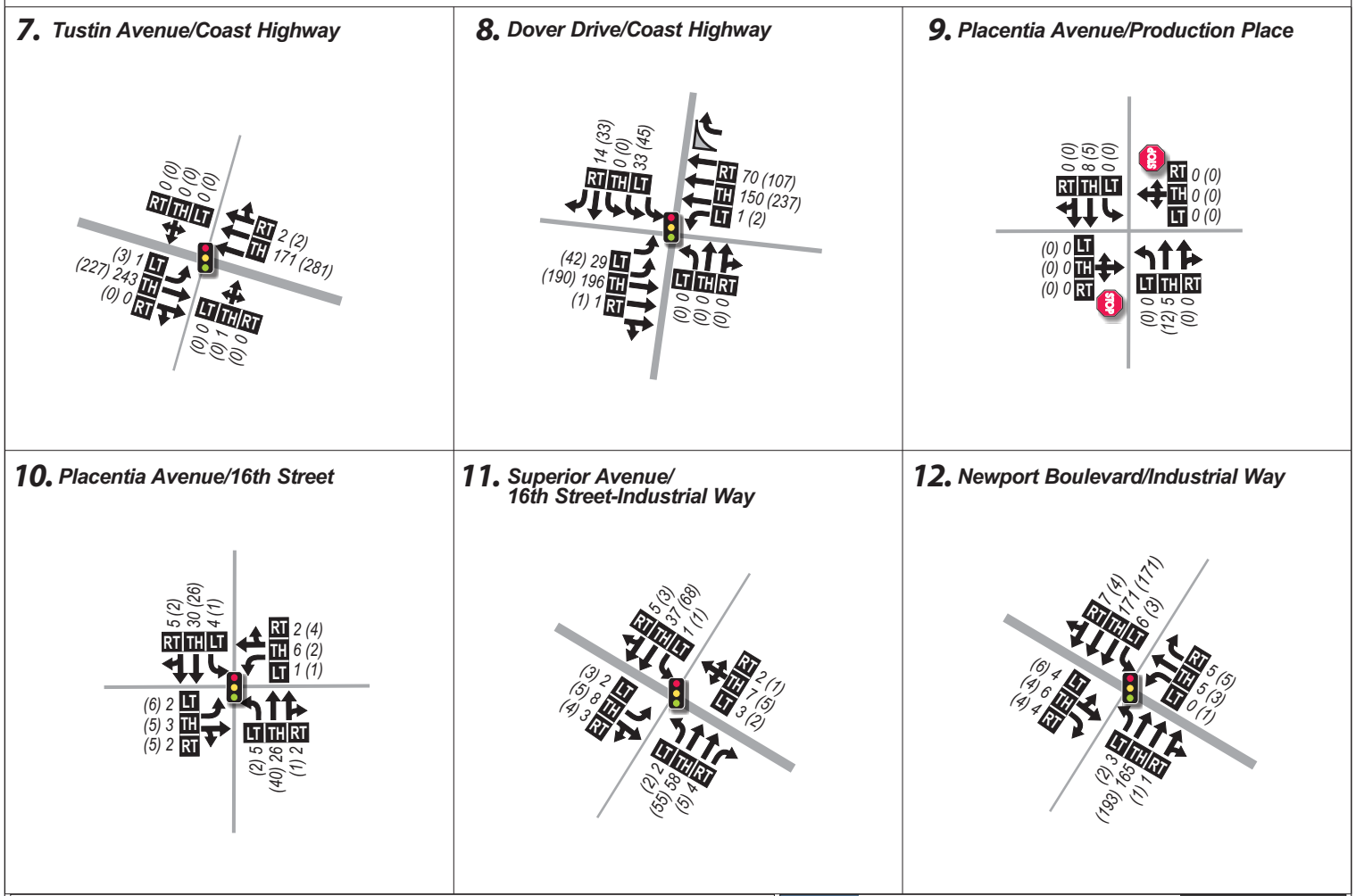
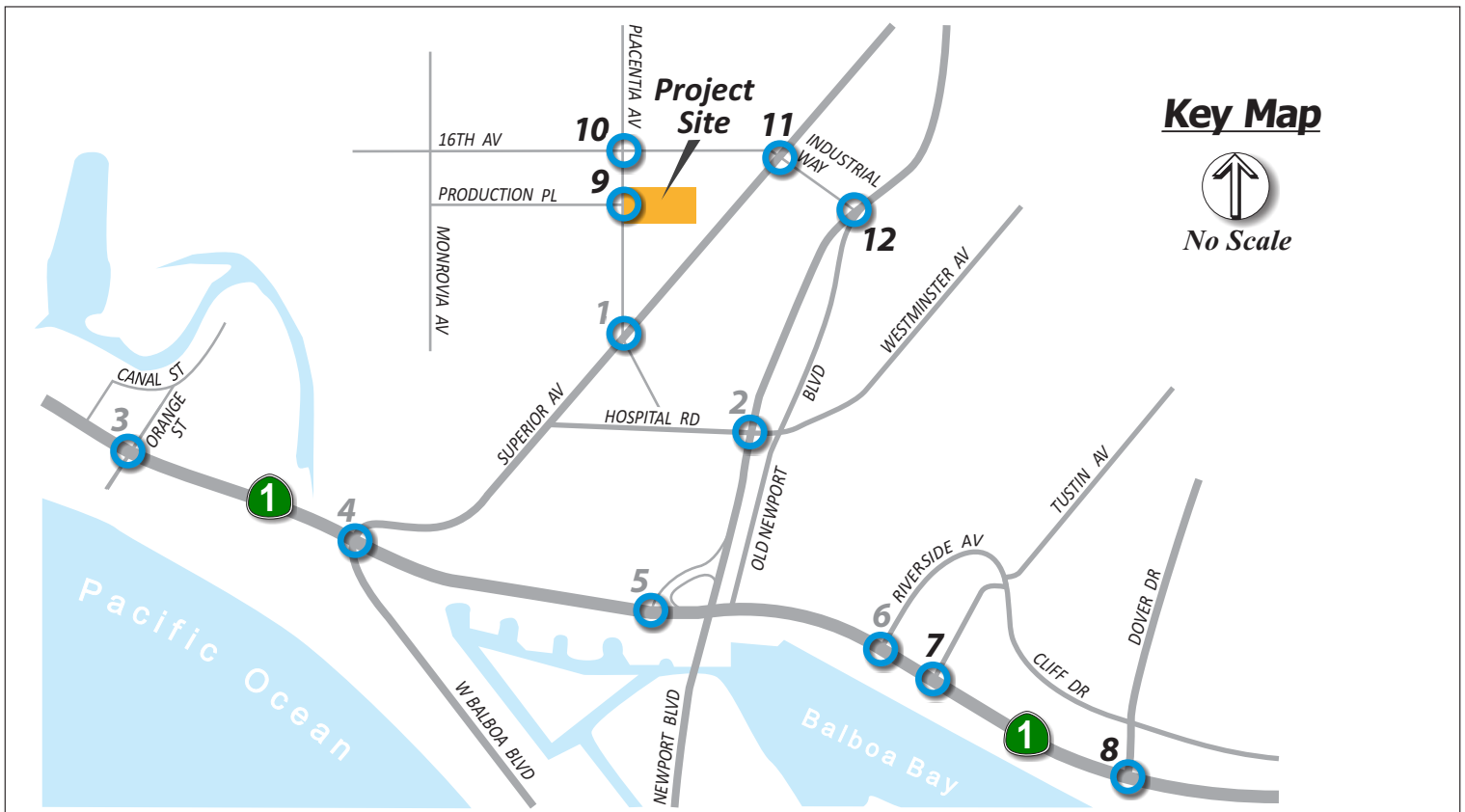
6. Riverside Drive/Coast Highway

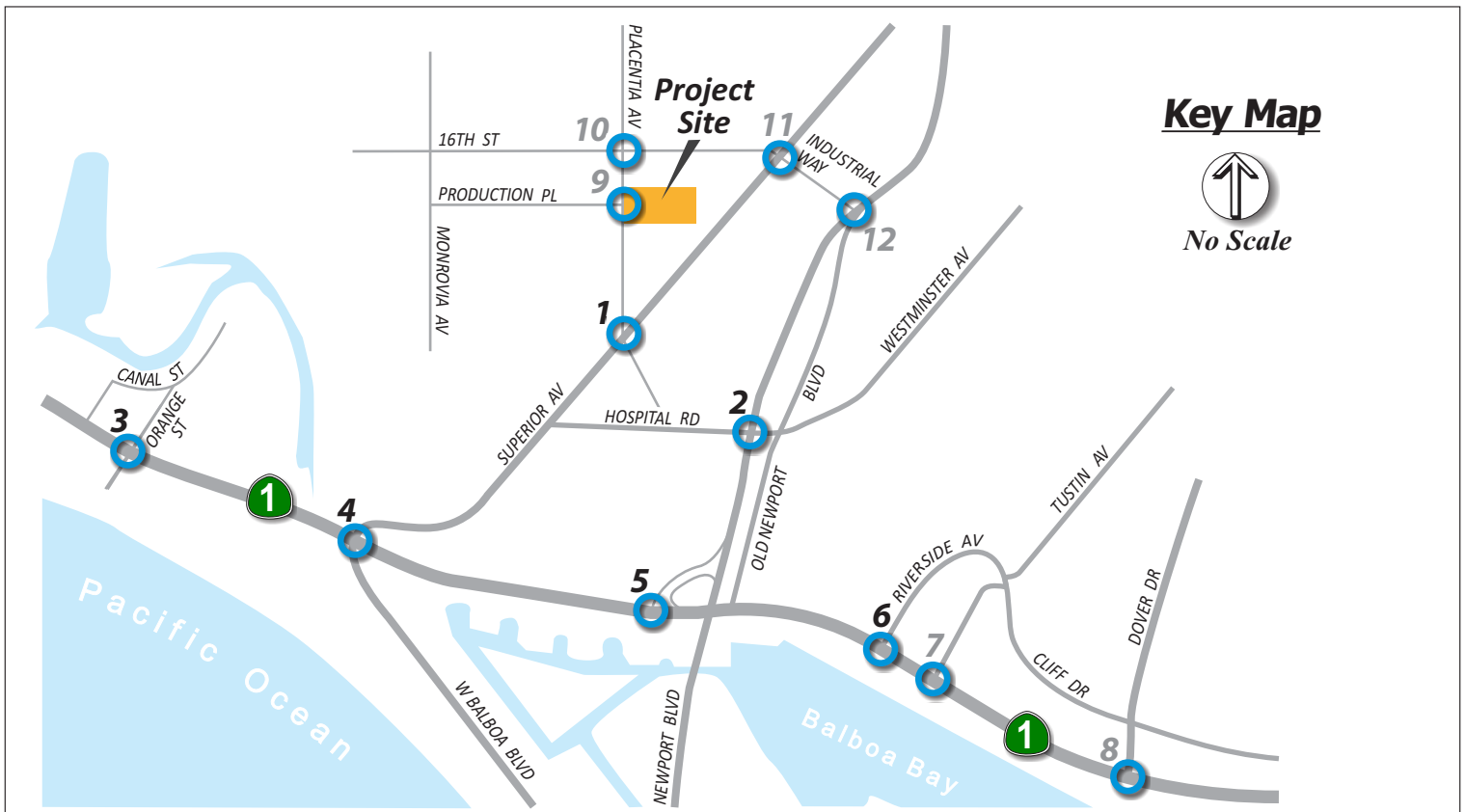


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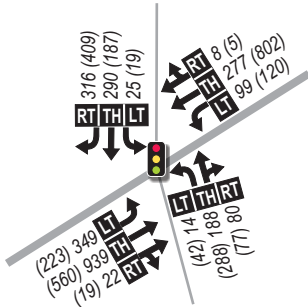
Figure 8

**Ambient Growth and
Approved Project
Peak Hour Volumes**

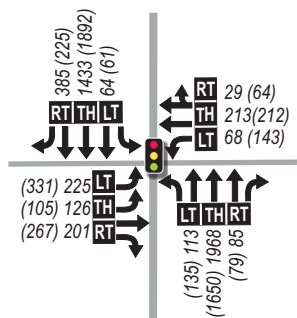




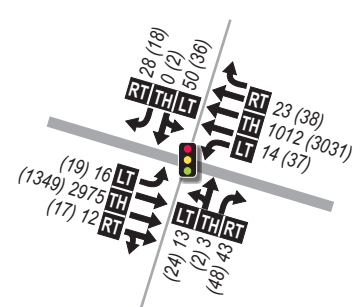
1. Placentia Avenue/Superior Avenue



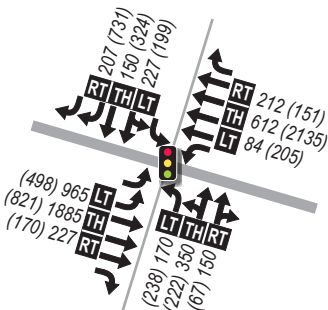
2. Newport Boulevard/Hospital Road



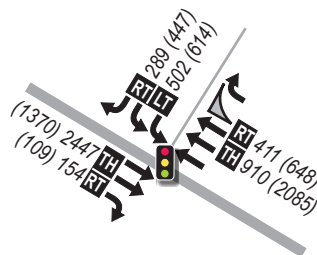
3. Orange Street/Coast Highway



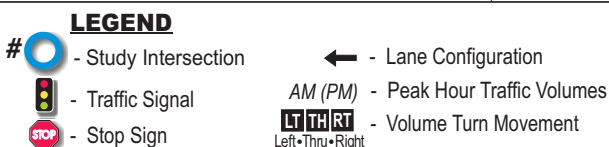
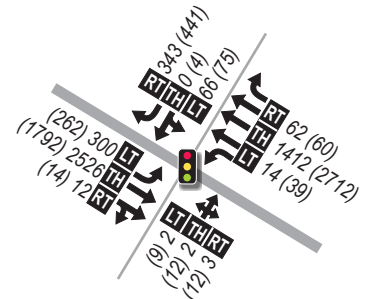
4. Superior Avenue-Balboa Boulevard/Coast Highway



5. Newport Boulevard Southbound Ramps/Coast Highway



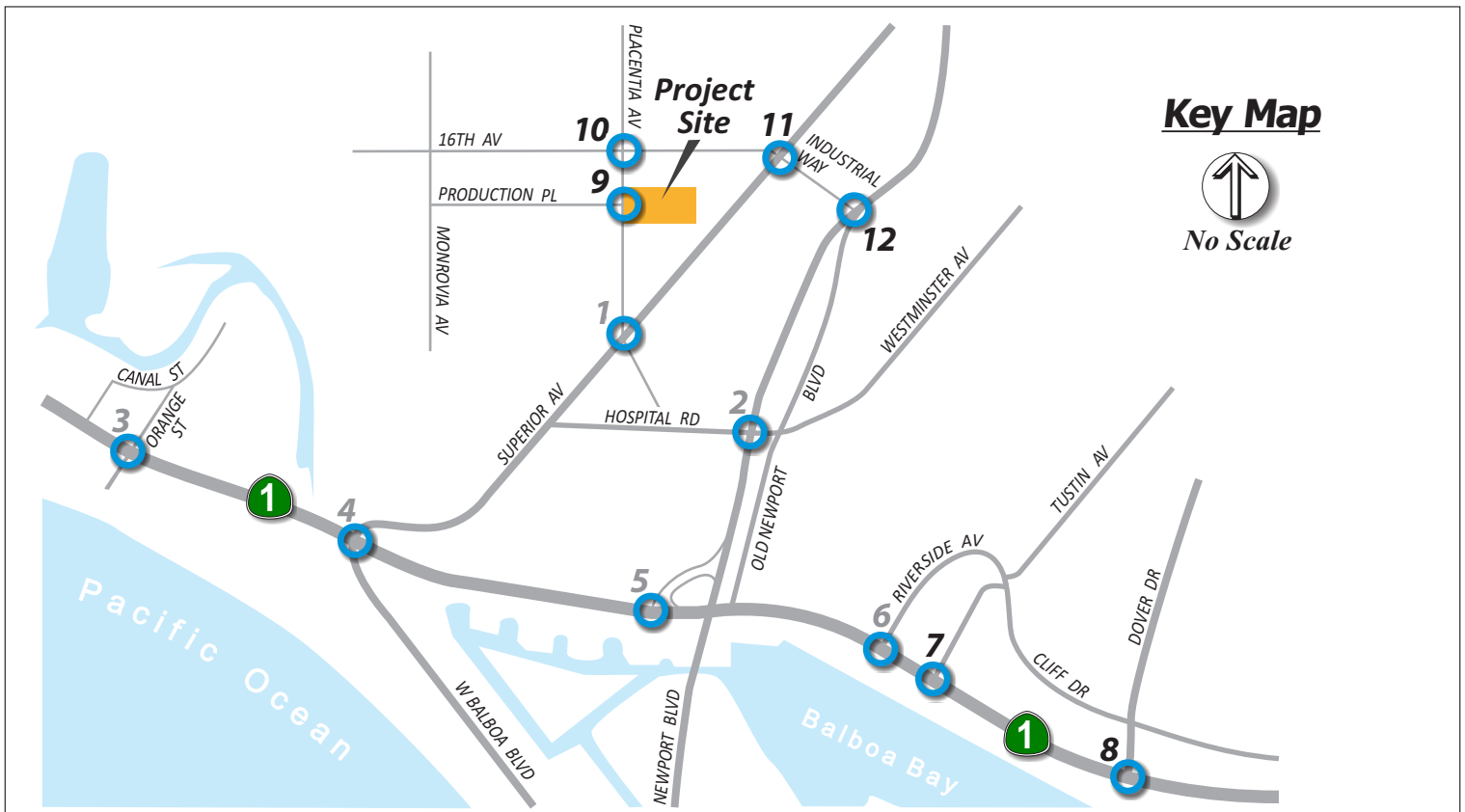
6. Riverside Drive/Coast Highway



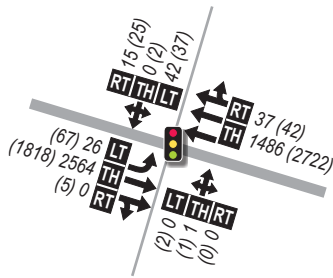
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Figure 9

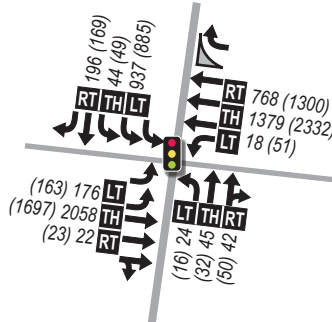
**Future Year (2019) Plus
Approved Projects Plus Growth
Peak Hour Volumes**



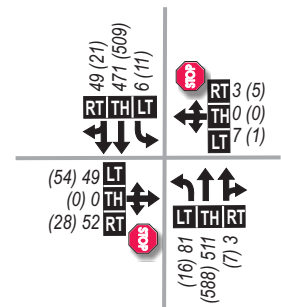
7. Tustin Avenue/Coast Highway



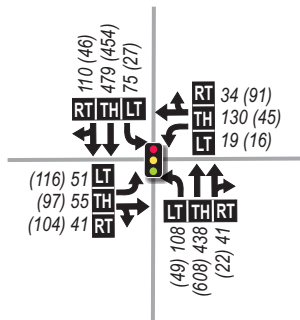
8. Dover Drive/Coast Highway



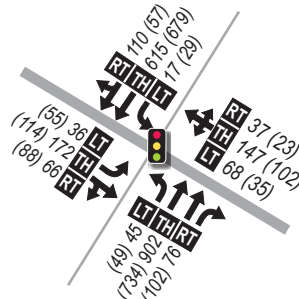
9. Placentia Avenue/Production Place



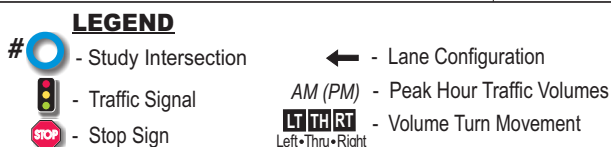
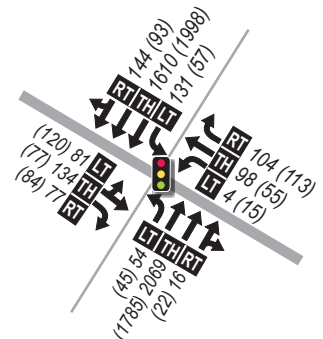
10. Placentia Avenue/16th Street



11. Superior Avenue/16th Street-Industrial Way



12. Newport Boulevard/Industrial Way



DKS

Figure 9

**Future Year (2019) Plus
Approved Projects Plus Growth
Peak Hour Volumes**



Table H: Future (2019) Plus Approved Projects Plus Growth (No Project) Intersection-Level of Service Summary (TPO Analysis)

Intersection		Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay (sec)/ V/C	LOS	Delay (sec)/ V/C	LOS
1.	Placentia Avenue/Superior Avenue	Signalized	0.57	A	0.67	B
2.	Newport Boulevard/Hospital Road	Signalized	0.62	B	0.74	C
3.	Orange Street/West Coast Highway	Signalized	0.69	B	0.70	B
4.	Superior Avenue-Balboa Blvd/West Coast Highway	Signalized	0.69	B	0.71	C
5.	Newport Boulevard SB Ramps/West Coast Highway	Signalized	0.95	E	0.71	C
6.	Riverside Drive/West Coast Highway	Signalized	0.85	D	0.85	D
7.	Tustin Avenue/West Coast Highway	Signalized	0.84	D	0.67	B
8.	Dover Drive/West Coast Highway	Signalized	0.67	B	0.75	C
9.	Placentia Avenue/Production Place*	Unsignalized	20.3	C	20.4	C
10.	Placentia Avenue/16 th Street	Signalized	0.39	A	0.37	A
11.	Superior Avenue/16 th Street-Industrial Way	Signalized	0.48	A	0.41	A
12.	Newport Boulevard/Industrial Way	Signalized	0.65	B	0.61	B

*Evaluated using the HCM methodology.

Future (2019) Plus Approved Plus Growth Plus Project – TPO Analysis

TPO Analysis

In addition to the CEQA analysis, the City of Newport Beach requires the future buildout year of the proposed development be analyzed as per the Traffic Phasing Ordinance (TPO) requirements as part of the traffic study. Unlike in the CEQA analysis where the cumulative projects are required to be included in the analysis, the TPO analysis includes only the approved projects in the no project baseline conditions. Therefore, this scenario is analyzed based on the TPO requirements only.

One Percent Methodology for TPO Analysis

As per the TPO analysis, the study intersections are required to be reviewed based on the one percent methodology in order to determine if they are needed to be analyzed further or not. Based on the TPO analysis methodology, at a study intersection if 1% of the no project baseline volume (Future 2019 Plus Approved Projects Plus Growth No Project) at each approach exceeds the proposed project trip assignment on that



approach, no further analysis is required for that intersection. However, if the proposed project trips at any approach are greater than the 1% of the no project volume (Future 2019 Plus Approved Plus Growth No Project) at that approach, the intersection qualifies for further analysis for level of service (ICU).

Based on the comparison between the Future (2019) Plus Approved Plus Growth No Project as shown in Figure 9 with the project trip assignment as shown in Figure 6, the following intersections didn't satisfy the one percent threshold and would require further analysis for this scenario. The threshold calculation worksheets are provided in appendix G.

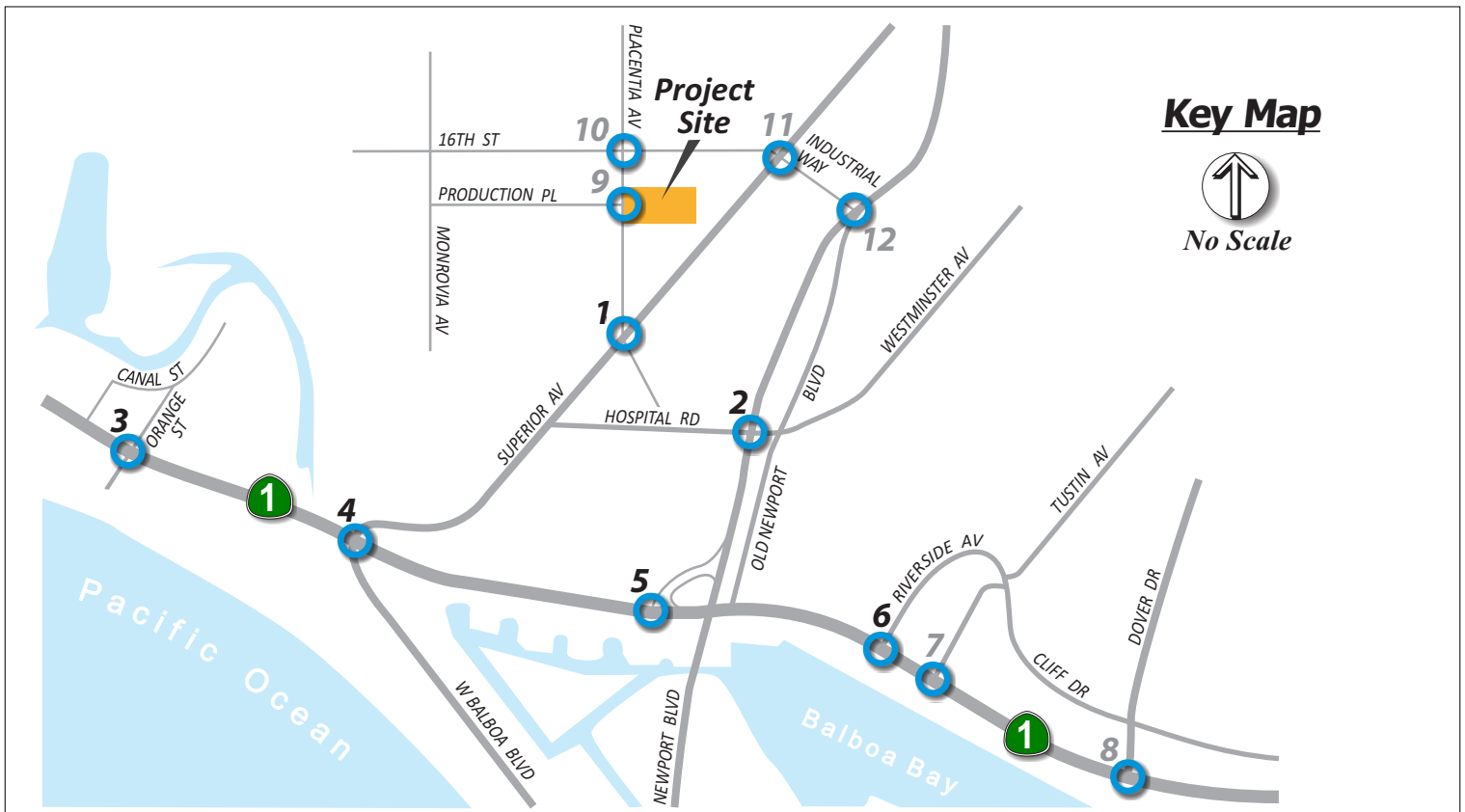
1. Placentia Avenue/Superior Avenue (AM and PM peak hour)
2. Placentia Avenue/Production Place (AM and PM peak hour)
3. Placentia Avenue/16th Street (AM and PM peak hour)
4. Superior Avenue/16th Street-Industrial Way (AM and PM peak hour)
5. Newport Boulevard/Industrial Way (AM and PM peak hour)

Traffic Volumes

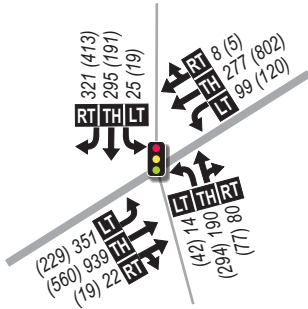
The trips generated from the project as shown in Figure 6 were added to the future (2019) no project traffic volumes shown in Figure 9 which would result in the future (2019) plus project traffic scenario. Figure 10 illustrates the Future (2019) Plus Approved Projects Plus Growth Plus Project traffic volumes.

Level of Service

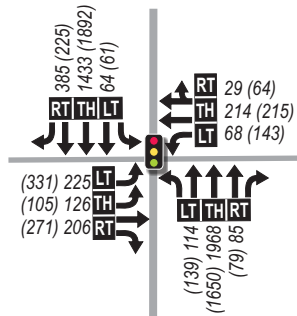
The Future (2019) Plus Approved Plus Growth Plus Project level of service has been evaluated at study intersections based on the ICU and HCM methodologies. The LOS summary for intersections is shown in Table I. As shown in Table I, all intersections operate at LOS C or better. Intersection LOS calculation sheets are provided in the Appendix H.



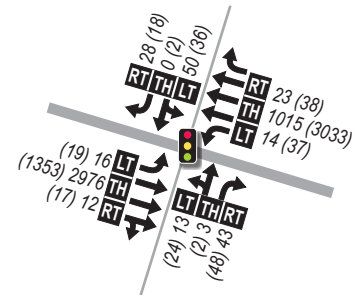
1. Placentia Avenue/Superior Avenue



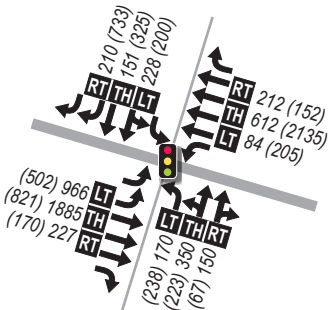
2. Newport Boulevard/Hospital Road



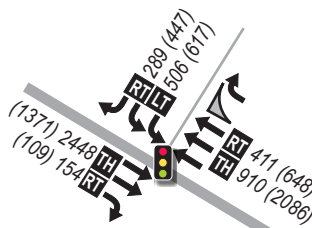
3. Orange Street/Coast Highway



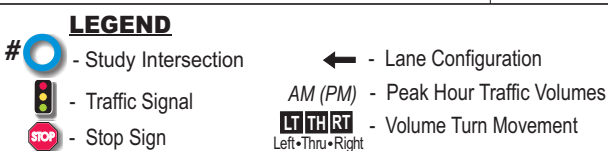
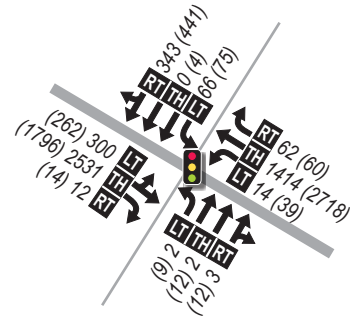
4. Superior Avenue-Balboa Boulevard/Coast Highway



5. Newport Boulevard Southbound Ramps/Coast Highway



6. Riverside Drive/Coast Highway



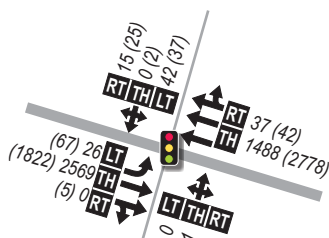
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Figure 10

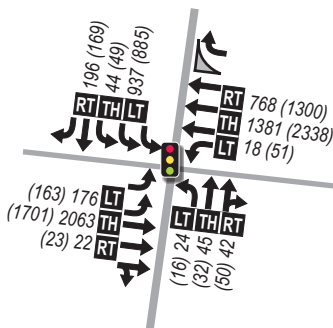
Future (2019) Plus Approved Projects Plus Growth Plus Project Peak Hour Volumes



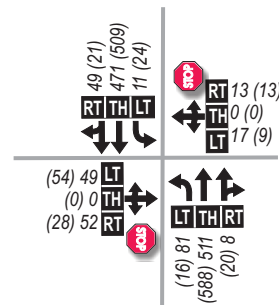
7. Tustin Avenue/Coast Highway



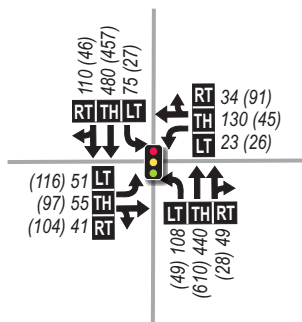
8. Dover Drive/Coast Highway



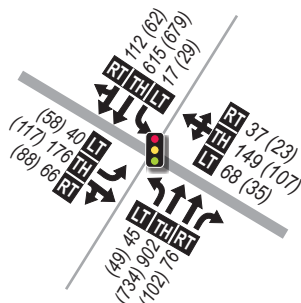
9. Placentia Avenue/Production Place



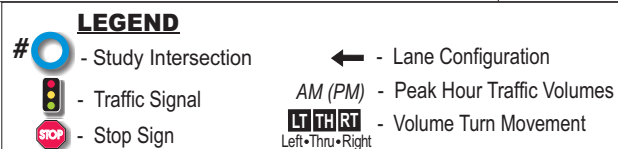
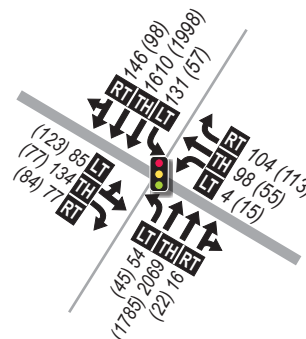
10. Placentia Avenue/16th Street



11. Superior Avenue/ 16th Street-Industrial Way



12. Newport Boulevard/Industrial Way



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Figure 10

**Future (2019) Plus Approved
Projects Plus Growth Plus Project
Peak Hour Volumes**



Table I: Future (2019) Plus Approved Projects Plus Growth Plus Project Intersection Level of Service Summary (TPO Analysis)

Intersections		No Project				Plus Project				Difference		Project Impact
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	
		Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	Delay/ V/C	
1.	Placentia Avenue/Superior Avenue	0.57	A	0.67	B	0.57	A	0.68	B	0.00	0.01	No
9.	Placentia Avenue/Production Place*	20.3	C	20.4	C	20.9	C	21.6	C	0.6	1.2	No
10.	Placentia Avenue/16 th Street	0.39	A	0.37	A	0.39	A	0.37	A	0.00	0.00	No
11.	Superior Avenue/16 th Street	0.48	A	0.41	A	0.49	A	0.41	A	0.01	0.00	No
12.	Newport Boulevard/Industrial Way	0.65	B	0.61	B	0.66	B	0.61	B	0.01	0.00	No

* Evaluated using the HCM methodology since it is a two-way stop controlled intersection. Delay is in seconds.

Significant Impact

Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the study intersections. Therefore, no mitigation measures are required on study intersections as part of the project.

Future (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth (No Project) – CEQA Analysis

Traffic Volumes

Future buildout traffic forecasts were developed in order to analyze the project traffic impacts during the buildout year of the project. A 1% annual growth was added to the existing vehicular traffic volumes (on arterials only) for a period of 5 years to determine the future 2019 traffic volumes at the study intersections based on the growth rate obtained from the City. In addition to the list of approved projects, the City of Newport Beach and City of Costa Mesa provided a list, locations and traffic study documents of cumulative projects which needed to be included for the future 2019 analysis. The cumulative projects consist of developments which are not yet approved by the City, but are expected to be completed or almost be completed around the completion of the proposed project. Trips generated from the approved and cumulative projects were



distributed to the roadway network. The list of cumulative project is presented in Table J. The details of cumulative projects are included in Appendix I.

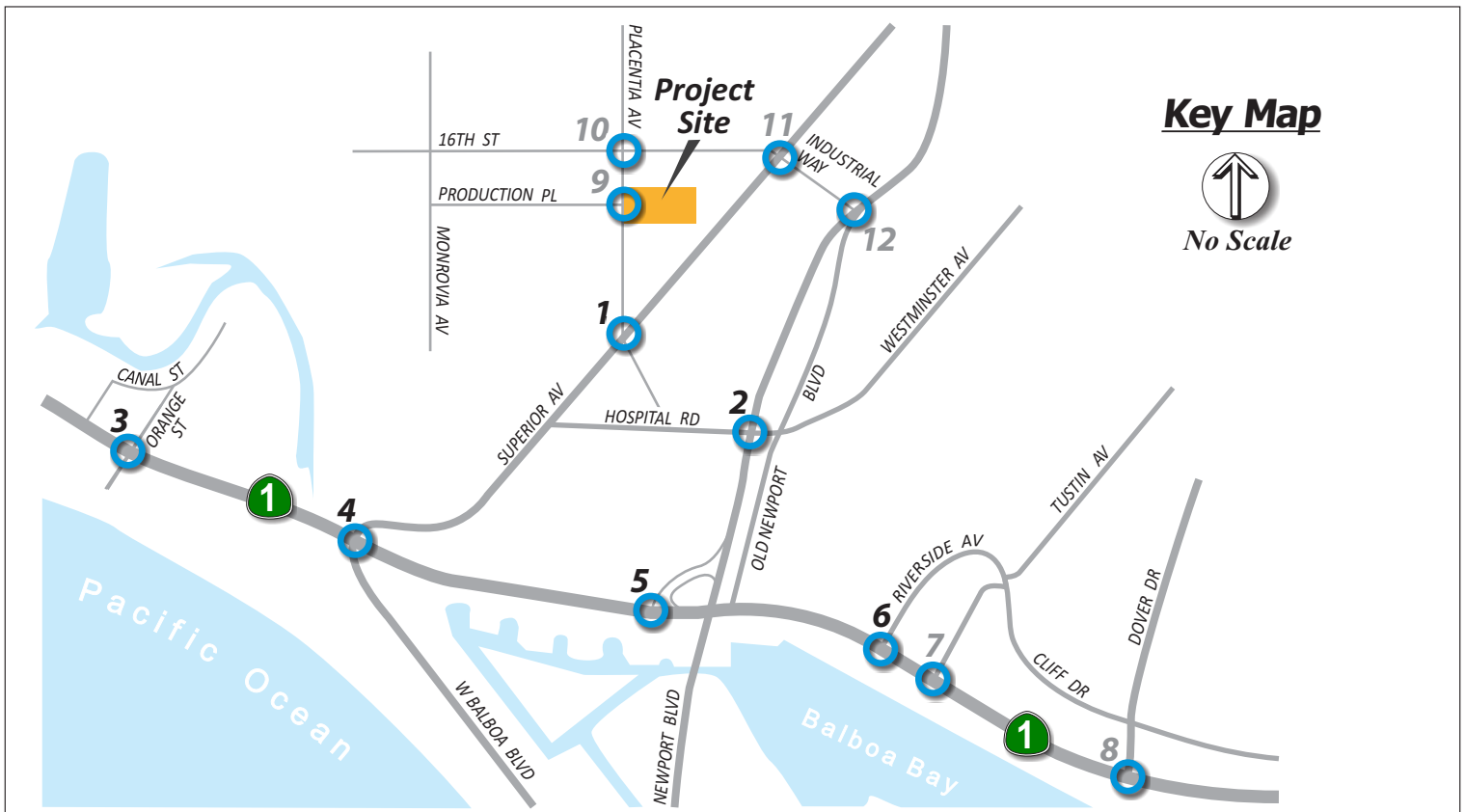
Table J: List of Cumulative Projects

No.	Cumulative Project	No.	Cumulative Project
1.	Banning Ranch	6.	Newport Coast TAZ
2.	Koll Mixed-Use Development	7.	Retail Center at 1726 Superior Avenue (Walgreens) (City of Costa Mesa)
3.	Balboa Marina West Expansion	8.	Superior Pointe Residential (City of Costa Mesa)
4.	ExplorOcean Amusement Park	9.	The Lighthouse Mixed Use Development (City of Costa Mesa)
5.	Newport Executive Center		

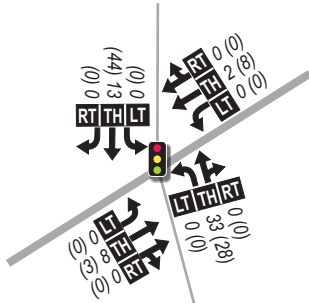
Figure 11 shows the cumulative project volumes at study intersections. Figure 12 illustrates the Future (2019) Plus Approved Projects Plus Cumulative Project Plus Growth AM and PM peak hour traffic volumes in the study area.

Level of Service

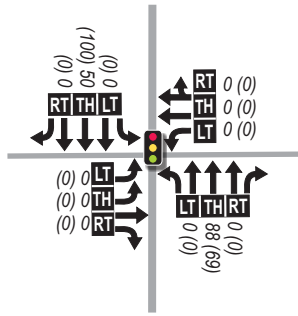
The Future (2019) Plus Approved Plus Cumulative Plus Growth (No Project) level of service has been evaluated at study intersections based on the ICU and HCM methodologies. The LOS summary for intersections is shown in Table K. As shown in Table K, all intersections operate at LOS D or better with the exception of Newport Boulevard Southbound Ramps/Coast Highway which operates at LOS E in the AM peak hour. Intersection LOS calculation sheets are provided in the Appendix J.



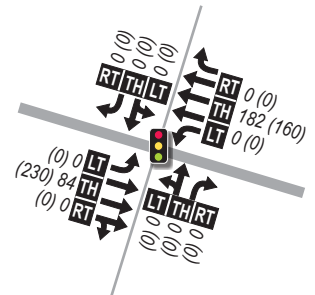
1. Placentia Avenue/Superior Avenue



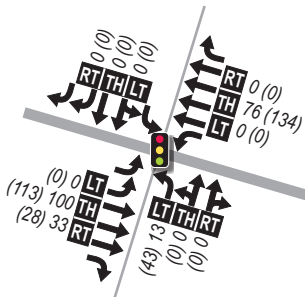
2. Newport Boulevard/Hospital Road



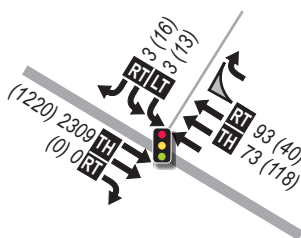
3. Orange Street/Coast Highway



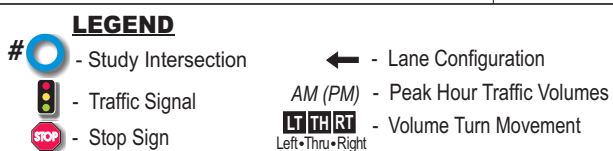
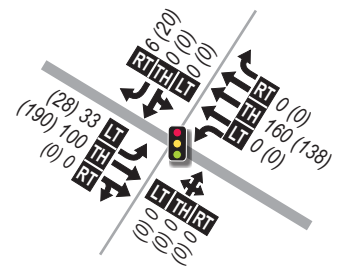
4. Superior Avenue-Balboa Boulevard/Coast Highway



5. Newport Boulevard Southbound Ramps/Coast Highway

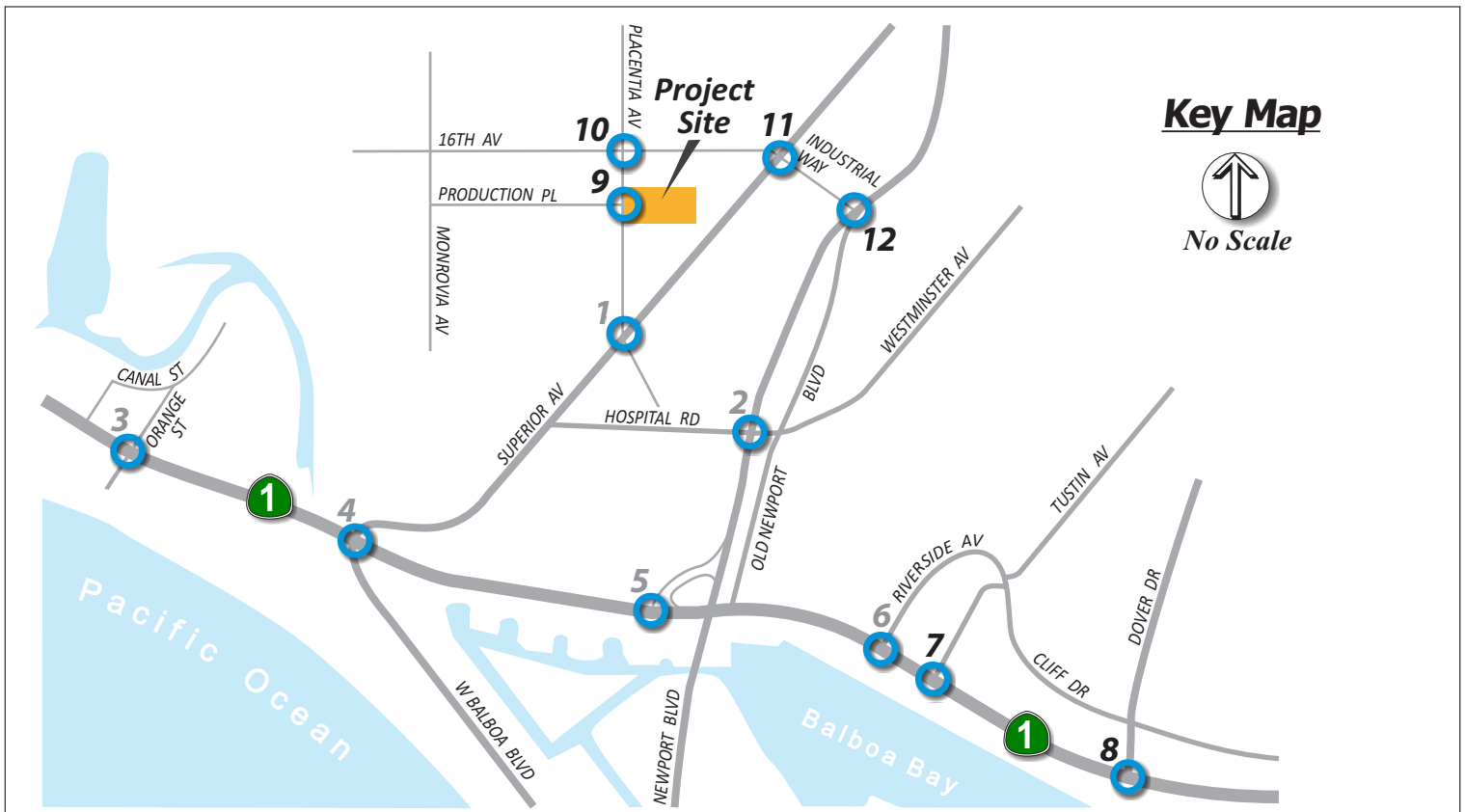


6. Riverside Drive/Coast Highway

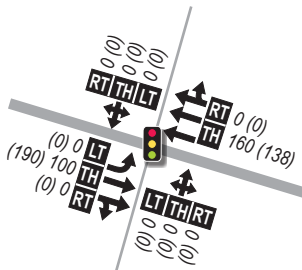


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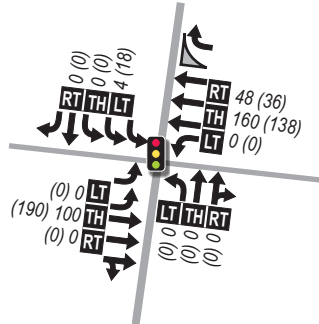
Figure 11
Cumulative Project Peak Hour Volumes



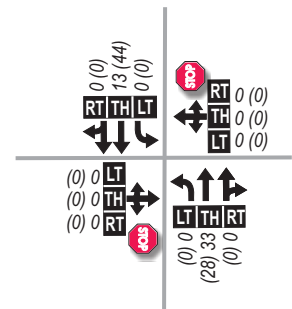
7. Tustin Avenue/Coast Highway



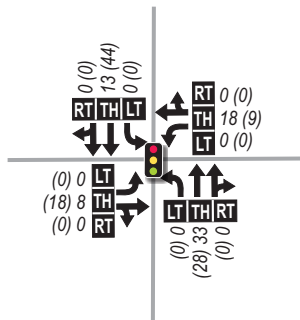
8. Dover Drive/Coast Highway



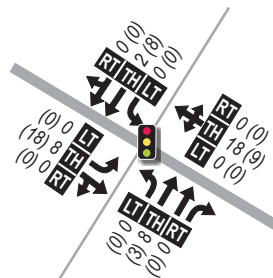
9. Placentia Avenue/Production Place



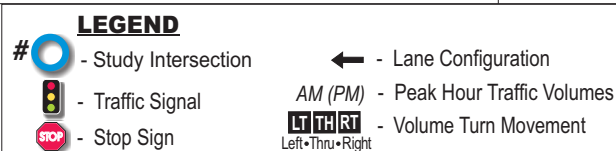
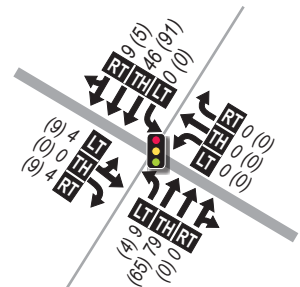
10. Placentia Avenue/16th Street



11. Superior Avenue/16th Street-Industrial Way

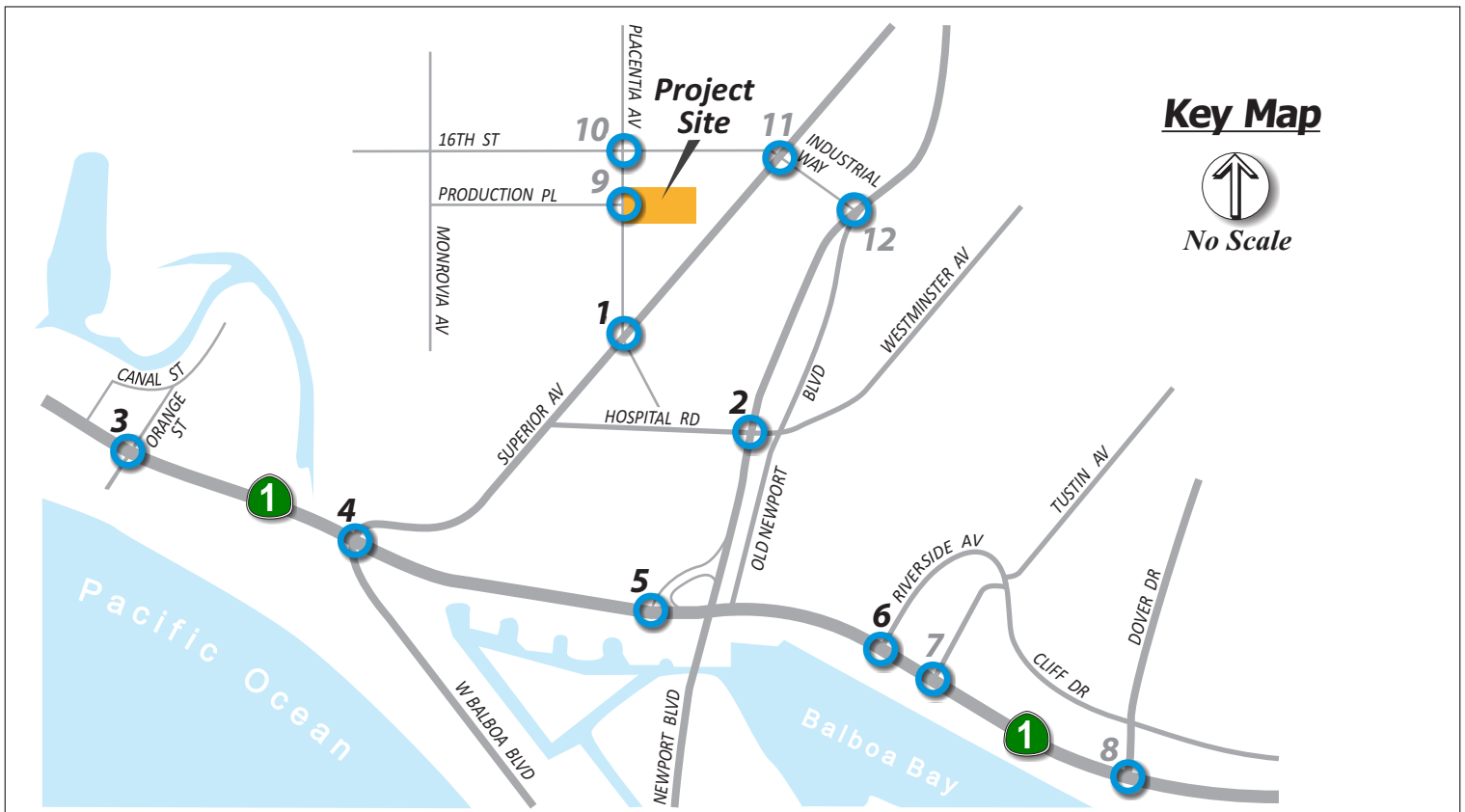


12. Newport Boulevard/Industrial Way

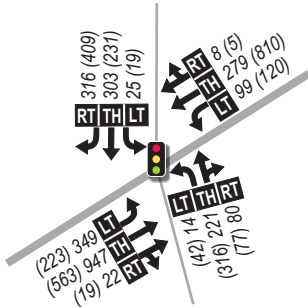


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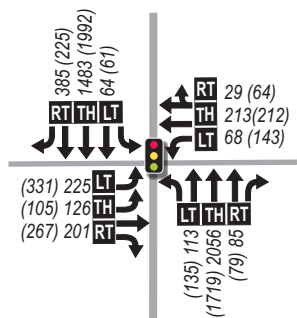
Figure 11
Cumulative Project Peak Hour Volumes



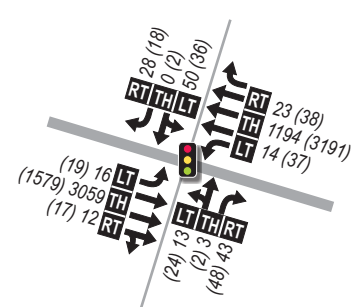
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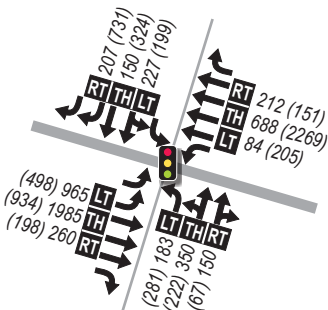
2. Newport Boulevard/Hospital Road



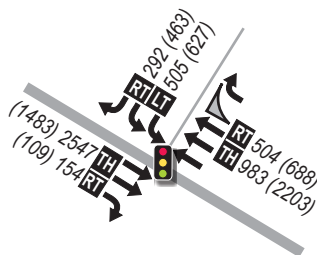
3. Orange Street/Coast Highway



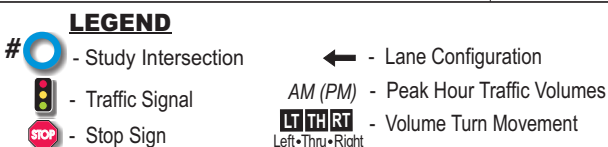
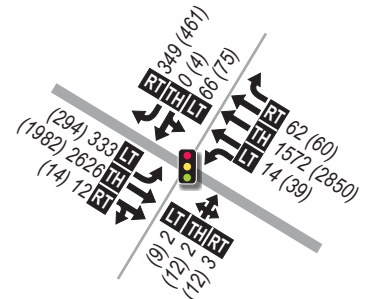
4. Superior Avenue-Balboa Boulevard/Coast Highway



5. Newport Boulevard Southbound Ramps/Coast Highway



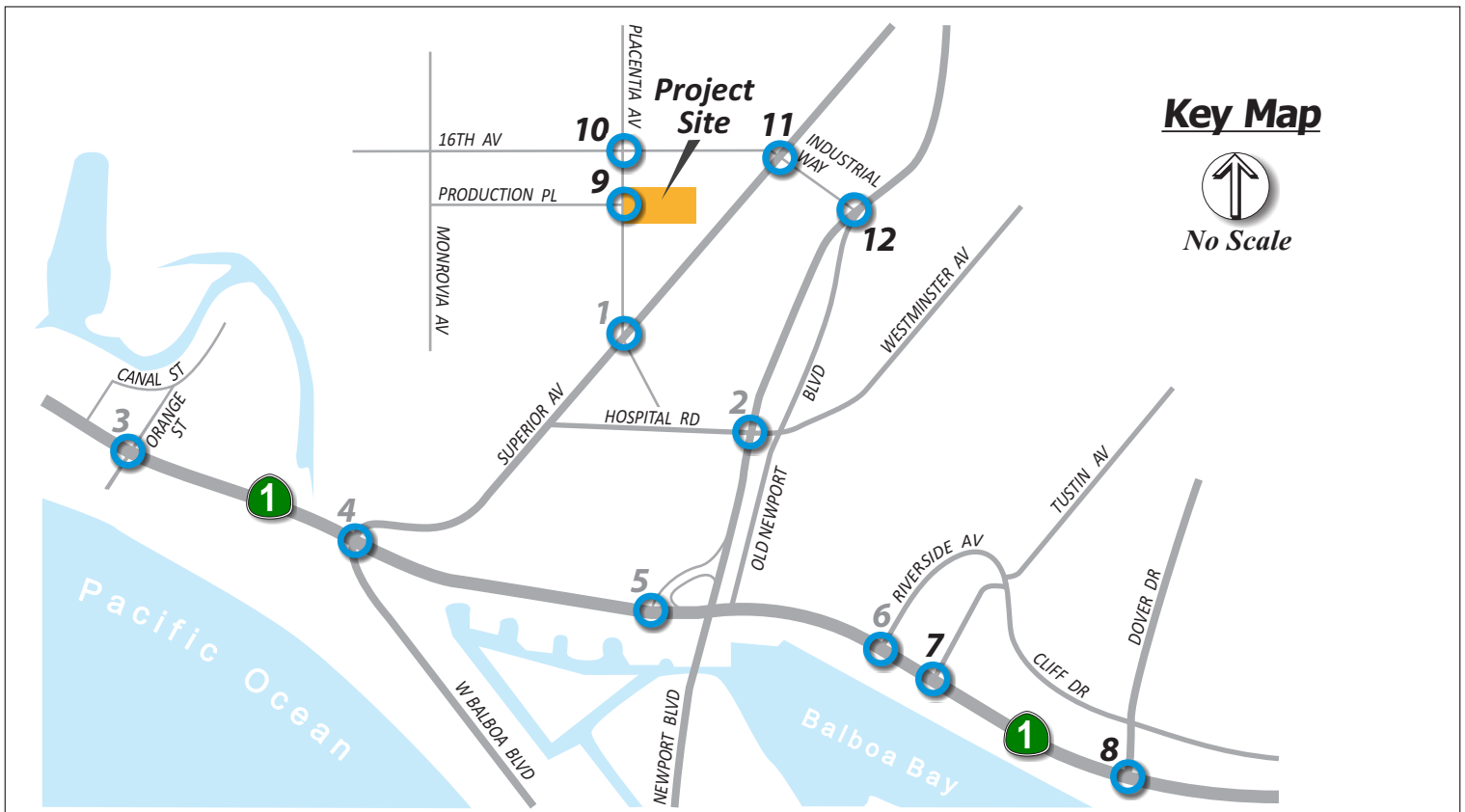
6. Riverside Drive/Coast Highway



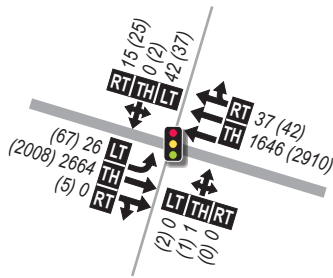
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Future Year (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth Peak Hour Volumes

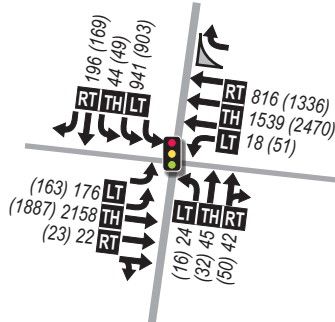
Figure 12



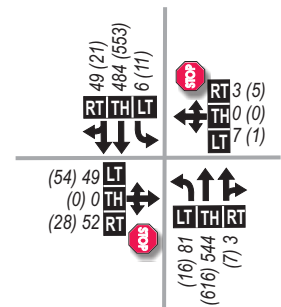
7. Tustin Avenue/Coast Highway



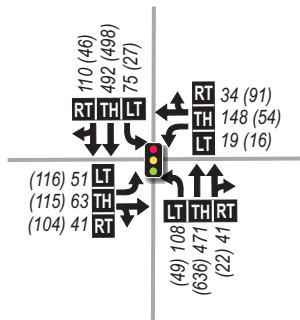
8. Dover Drive/Coast Highway



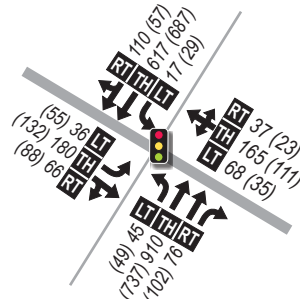
9. Placentia Avenue/Production Place



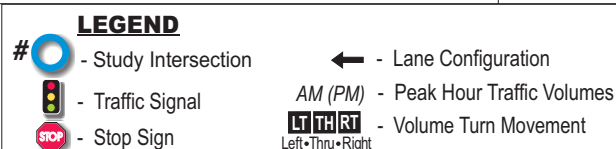
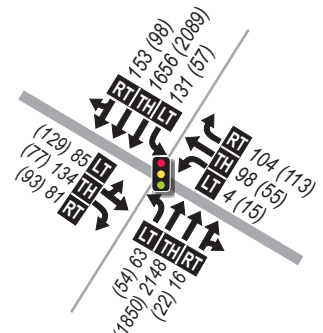
10. Placentia Avenue/16th Street



11. Superior Avenue/16th Street-Industrial Way



12. Newport Boulevard/Industrial Way



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Future Year (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth Peak Hour Volumes

Figure 12



**Table K: Future (2019) Plus Approved Plus Cumulative Plus Growth (No Project)
Intersection Level of Service Summary (CEQA Analysis)**

Intersection		Traffic Control	AM Peak Hour		PM Peak Hour	
			Delay (sec)/ V/C	LOS	Delay (sec)/ V/C	LOS
1.	Placentia Avenue/Superior Avenue	Signalized	0.571	A	0.676	B
2.	Newport Boulevard/Hospital Road	Signalized	0.636	B	0.756	C
3.	Orange Street/West Coast Highway	Signalized	0.706	C	0.729	C
4.	Superior Avenue-Balboa Blvd/West Coast Highway	Signalized	0.708	C	0.738	C
5.	Newport Boulevard SB Ramps/West Coast Highway	Signalized	0.979	E	0.749	C
6.	Riverside Drive/West Coast Highway	Signalized	0.878	D	0.887	D
7.	Tustin Avenue/West Coast Highway	Signalized	0.868	D	0.698	B
8.	Dover Drive/West Coast Highway	Signalized	0.689	B	0.785	C
9.	Placentia Avenue/Production Place*	Unsignalized	21.2	C	22.3	C
10.	Placentia Avenue/16 th Street	Signalized	0.402	A	0.386	A
11.	Superior Avenue/16 th Street-Industrial Way	Signalized	0.492	A	0.423	A
12.	Newport Boulevard/Industrial Way	Signalized	0.673	B	0.641	B

* Evaluated using the HCM methodology.

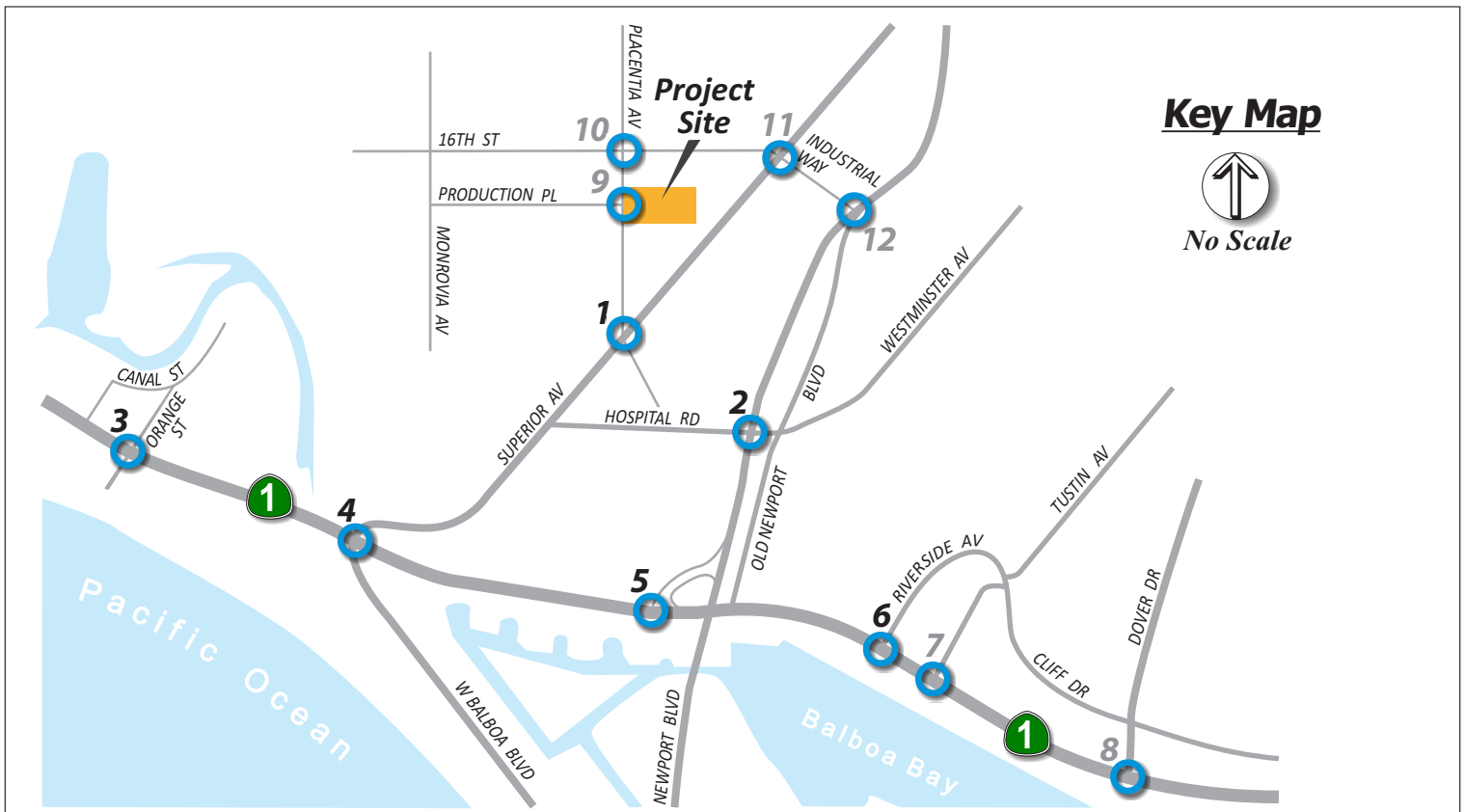
Future (2019) Plus Approved Plus Cumulative Plus Growth Plus Project – CEQA Analysis

Traffic Volumes

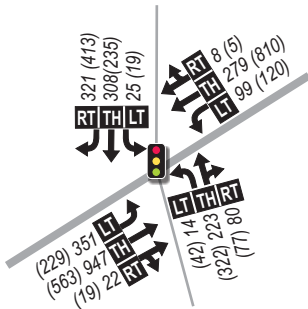
The trips generated from the project as shown in Figure 6 were added to the future (2019) no project traffic volumes shown in Figure 12 which would result in the future (2019) plus project traffic scenario. Figure 13 illustrates the Future (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth Plus Project traffic volumes. A typical CEQA analysis is conducted for this scenario.

Level of Service

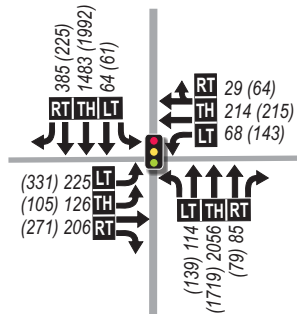
The Future (2019) Plus Approved Plus Cumulative Plus Growth Plus Project level of service has been evaluated at study intersections based on the ICU and HCM methodologies. The LOS summary for intersections is shown in Table L. As shown in Table L, all intersections operate at LOS D or better with the exception of Newport Boulevard/West Coast Highway which operates at LOS E in the AM peak hour.



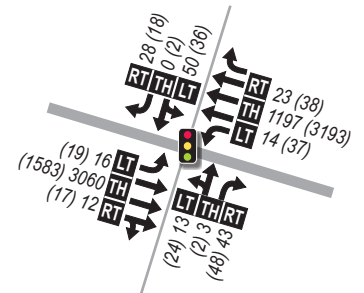
1. Placentia Avenue/Superior Avenue



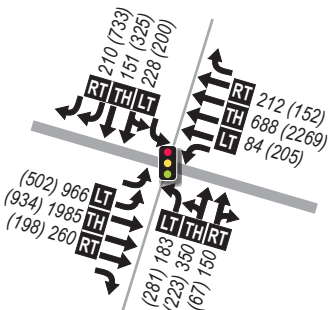
2. Newport Boulevard/Hospital Road



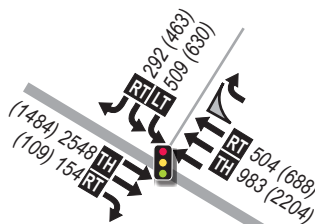
3. Orange Street/Coast Highway



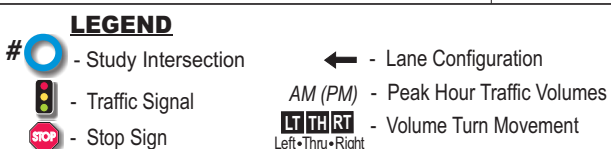
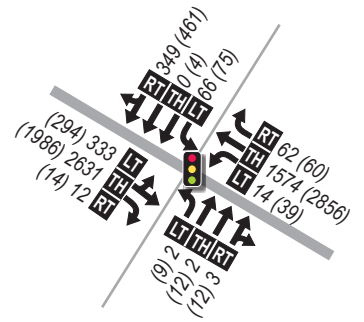
4. Superior Avenue-Balboa Boulevard/Coast Highway



5. Newport Boulevard Southbound Ramps/Coast Highway



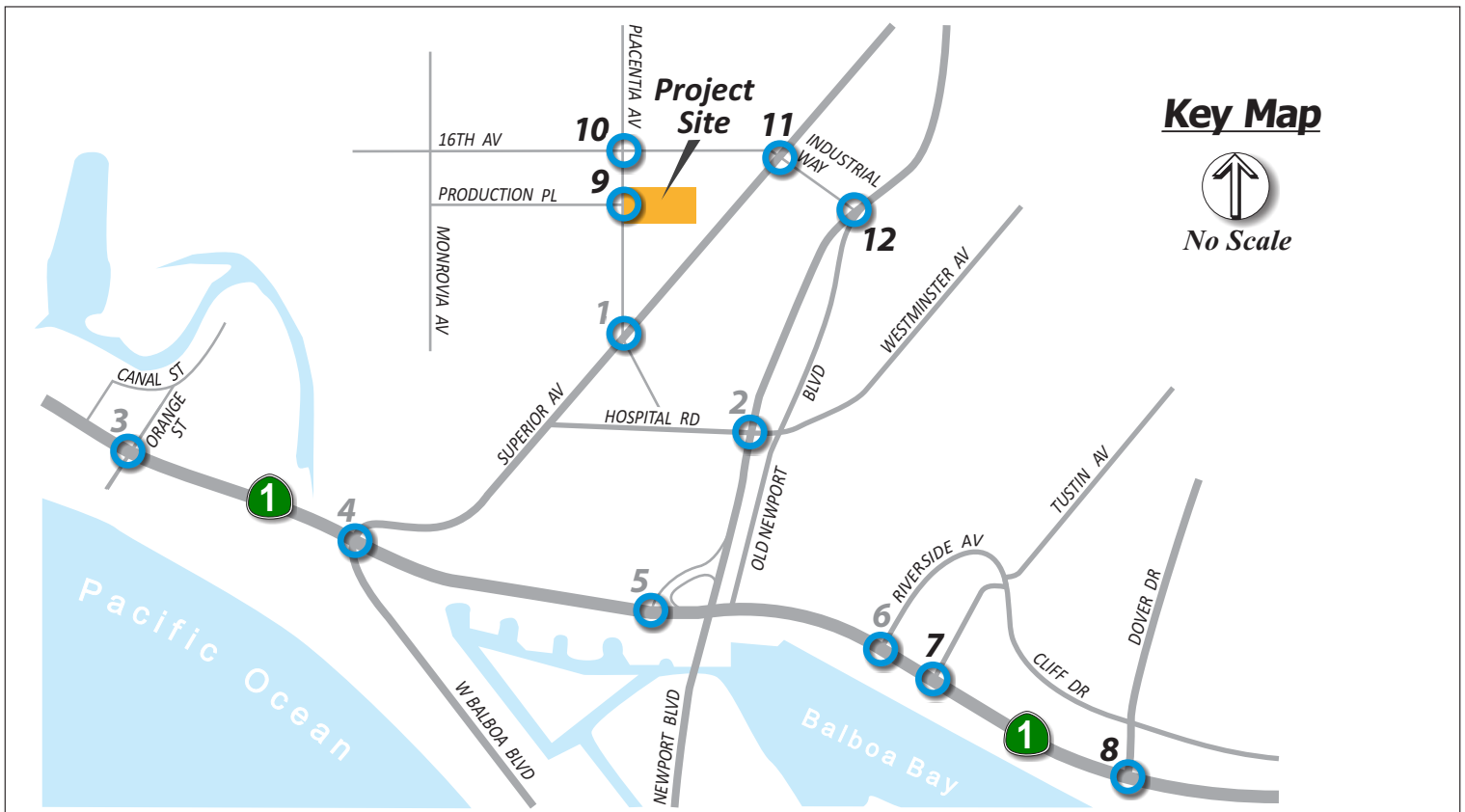
6. Riverside Drive/Coast Highway



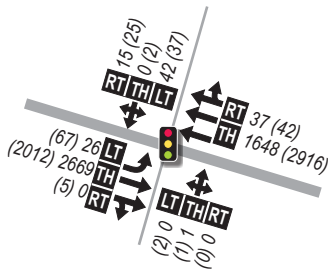
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Figure 13

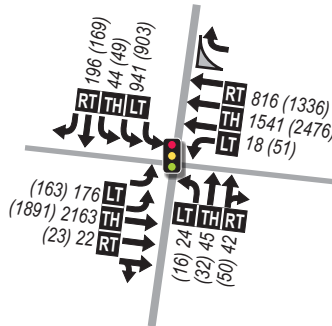
**Future (2019) Plus Approved
Projects Plus Cumulative Projects Plus
Growth Plus Project Peak Hour Volumes**



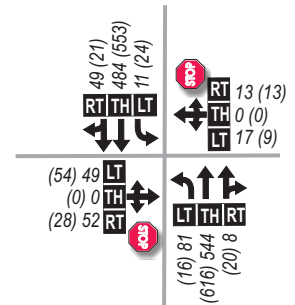
7. Tustin Avenue/Coast Highway



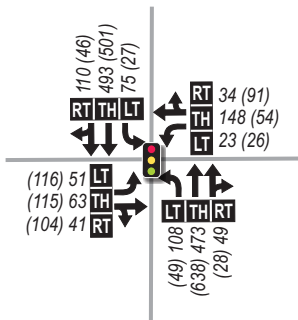
8. Dover Drive/Coast Highway



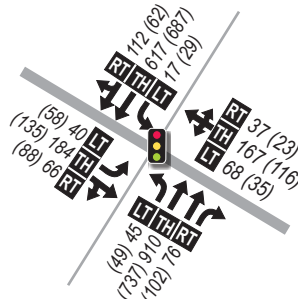
9. Placentia Avenue/Production Place



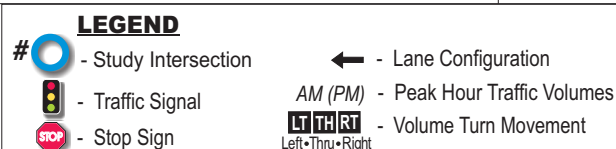
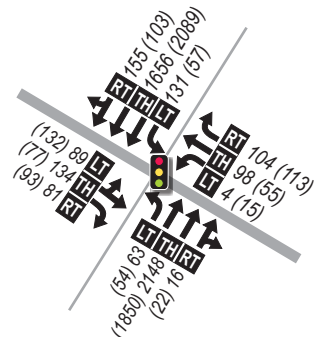
10. Placentia Avenue/16th Street



11. Superior Avenue/ 16th Street-Industrial Way



12. Newport Boulevard/Industrial Way



DKS

Figure 13

**Future (2019) Plus Approved
Projects Plus Cumulative Projects Plus
Growth Plus Project Peak Hour Volumes**



Intersection LOS calculation sheets are provided in the Appendix K.

Table L: Future (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth Plus Project Intersection Level of Service Summary (CEQA Analysis)

Intersections		No Project				Plus Project				Difference		Project Impact
		AM Peak		PM Peak		AM Peak		PM Peak		AM	PM	
		Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	LOS	Delay/ V/C	Delay/ V/C	
1.	Placentia Avenue/Superior Avenue	0.571	A	0.676	B	0.574	A	0.682	B	0.003	0.006	No
2.	Newport Boulevard/Hospital Road	0.636	B	0.756	C	0.639	B	0.761	C	0.003	0.005	No
3.	Orange Street/West Coast Highway	0.706	C	0.729	C	0.707	C	0.730	C	0.001	0.001	No
4.	Superior Ave/West Coast Highway	0.708	C	0.738	C	0.708	C	0.740	C	0.000	0.002	No
5.	Newport Boulevard Southbound Ramps/West Coast Highway	0.979	E	0.749	C	0.979	E	0.749	C	0.000	0.000	No
6.	Riverside Drive/West Coast Highway	0.878	D	0.887	D	0.880	D	0.889	D	0.002	0.002	No
7.	Tustin Avenue/West Coast Highway	0.868	D	0.698	B	0.870	D	0.699	B	0.002	0.001	No
8.	Dover Drive/West Coast Highway	0.689	B	0.785	C	0.690	B	0.786	C	0.001	0.001	No
9.	Placentia Avenue/Production Place*	21.2	C	22.3	C	21.8	C	23.8	C	0.6	1.5	No
10.	Placentia Avenue/16 th Street	0.402	A	0.386	A	0.402	A	0.388	A	0.000	0.002	No
11.	Superior Avenue/16 th Street	0.492	A	0.423	A	0.494	A	0.426	A	0.002	0.003	No
12.	Newport Boulevard/Industrial Way	0.673	B	0.641	B	0.675	B	0.644	B	0.002	0.003	No

* Evaluated using the HCM methodology since it is a two-way stop controlled intersection. Delay is in seconds.

Significant Impact

Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the study intersections. Therefore, no mitigation measures are required on study intersections as part of the project.

5.0 CALTRANS METHODOLOGY ANALYSIS

The following eight study intersections are owned and operated by Caltrans, and therefore would require a specialized analysis using the HCM methodology.

- Newport Boulevard/Hospital Road
- Orange Street/West Coast Highway



- Superior Avenue-Balboa Boulevard/West Coast Highway
- Newport Boulevard Southbound Ramps/West Coast Highway
- Riverside Drive/West Coast Highway
- Tustin Avenue/West Coast Highway
- Dover Drive/West Coast Highway
- Newport Boulevard/Industrial Way

Existing (2014) Plus Project

Level of Service

The Existing (2014) No Project and Plus Project level of service comparison has been evaluated at study intersections based on the HCM methodology. The LOS summary for intersections is shown in Table M. As shown in Table M, all intersections operate at LOS C or better. Intersection LOS calculation sheets are provided in Appendix L.

Table M: Existing (2014) Plus Project Intersection Level of Service Summary (HCM Methodology)

Intersection		No Project				Plus Project				Difference		Project Impact
		AM Peak Hour		PM Peak Hour		AM Peak Hour		AM Peak Hour		AM	PM	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS			
2.	Newport Boulevard/Hospital Road	19.6	B	24.3	C	19.7	C	24.5	C	0.1	0.2	No
3.	Orange Street/West Coast Highway	4.2	A	4.2	A	4.2	A	4.2	A	0.0	0.0	No
4.	Superior Avenue/West Coast Highway	27.0	C	30.1	C	27.0	C	30.1	C	0.0	0.0	No
5.	Newport Boulevard Southbound Ramps/West Coast Highway	14.7	B	17.1	B	14.7	B	17.1	B	0.0	0.0	No
6.	Riverside Drive/West Coast Highway	11.4	B	17.9	B	11.4	B	17.9	B	0.0	0.0	No
7.	Tustin Avenue/West Coast Highway	3.8	A	4.6	A	3.8	A	4.6	A	0.0	0.0	No
8.	Dover Drive/West Coast Highway	21.1	C	20.5	C	21.1	C	20.5	C	0.0	0.0	No
12.	Newport Boulevard/Industrial Way	10.7	B	9.3	A	11.0	B	9.4	A	0.3	0.1	No

Significant Impact

Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the



study intersections. Therefore, no mitigation measures are required on study intersections as part of the project.

Future (2019) Plus Approved Projects Plus Cumulative Projects Plus Growth Plus Project

Level of Service

The Future (2019) No Project and Plus Project level of service comparison has been evaluated at study intersections based on the HCM methodology. The LOS summary for intersections is shown in Table N. As shown in Table N, all intersections operate at LOS C or better. The delay at the intersection of Riverside Drive/West Coast Highway improves in the plus project condition due to the allocation of green time to the through movement since project trips are added in the eastbound and westbound through directions. Intersection LOS calculation sheets are provided in Appendix M.

Table N: Future (2019) Plus Approved Projects Plus Cumulative Projects Plus Project Intersection Level of Service Summary (HCM Methodology)

Intersection		No Project				Plus Project				Difference		Project Impact
		AM Peak Hour		PM Peak Hour		AM Peak Hour		AM Peak Hour		AM	PM	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS			
2.	Newport Boulevard/Hospital Road	19.6	B	25.2	C	19.8	B	25.5	C	0.2	0.3	No
3.	Orange Street/West Coast Highway	4.1	A	4.3	A	4.1	A	4.3	A	0.0	0.0	No
4.	Superior Avenue/West Coast Highway	27.1	C	30.5	C	27.1	C	30.6	C	0.0	0.1	No
5.	Newport Boulevard Southbound Ramps/West Coast Highway	19.5	B	19.0	B	19.6	B	19.0	B	0.1	0.0	No
6.	Riverside Drive/West Coast Highway	12.9	B	20.4	C	12.5	B	20.5	C	-0.4	0.1	No
7.	Tustin Avenue/West Coast Highway	4.7	A	5.0	A	4.8	A	5.0	A	0.1	0.0	No
8.	Dover Drive/West Coast Highway	21.4	C	21.9	C	21.4	C	21.9	C	0.0	0.0	No
12.	Newport Boulevard/Industrial Way	18.6	B	9.0	A	19.3	B	9.1	A	0.7	0.1	No

Significant Impact

Based on the threshold for significant impacts of the proposed project, the trips generated from the proposed project would not cause significant impact on any of the study intersections. Therefore, no mitigation measures are required on study intersections as part of the project.



7.0 CONGESTION MANAGEMENT PROGRAM (CMP) CONSISTENCY

The traffic study requires the level of service analysis of intersections monitored by the Congestion Management Program (CMP) to be consistent with the analysis provided in the 2013 Orange County Congestion Management Program. The only CMP intersection analyzed as part of the study is Newport Boulevard-Southbound Ramps/West Coast Highway which is required to be monitored for consistency with the CMP as part of the traffic study.

As per the performance criteria stated in the 2013 Orange County Congestion Management Program, the CMP uses LOS E for the intersection analysis based on the Intersection Capacity Utilization (ICU) methodology. As per Table D, the intersection of Newport Boulevard-Southbound Ramps/West Coast Highway operates at LOS E based on the ICU methodology.

Based on the CMP guidelines, a traffic impact analysis will be required for CMP purpose for development projects generating 2,400 or more daily trips for projects located adjacent to a Congestion Management Program Highway System (CMPHS) and 1,600 or more daily trips for projects that directly access a CMP highway. Since this project generates 426 daily trips, which is less than 2,400 daily trips, therefore it does not meet the CMP threshold.

For a CMP location, the impacts are considered significant if the proposed project increases the v/c by 0.03 or more for an intersection operating at LOS F or causing an intersection already operating at LOS E or better to operate at LOS F. Therefore the project generated trips did not result in a significant impact at Newport Boulevard-Southbound Ramps/Coast Highway.

8.0 SITE PLAN REVIEW

The project site plan provides one full access driveway to the project site. The access is the east leg of the intersection of Placentia Avenue/Production Place. This intersection is a two-way stop controlled intersection along Production Place. The driveway is a full access driveway measuring 34 ft. with a 14 ft. inbound and outbound lane separated by a 8 ft. median. The throat length is approximately 57 ft. Internal circulation consists of curb to curb width from 24 ft. to 26 ft.

Based on the site plan, for the proposed 83 dwelling units, the 208 total parking spaces provided (166 private garage and 42 open spaces). Based on the City of Newport Beach



Zoning Code, Chapter 20.40, the parking requirement for single family unit (detached) is 2.5 spaces per unit (2 spaces per dwelling unit and 0.5 space per dwelling unit for guest parking). Therefore, the parking required for proposed project is 208 units. Therefore, adequate parking supply is provided at the project site based on the City's zoning code.

9.0 CONCLUSION

Based on the results of the analysis, the proposed project generated trips would not cause significant impact at any of the study intersections. Therefore, no mitigation measures are required at any study intersection as a part of the proposed project. The project would have adequate on-site parking based on the City's parking requirements. The proposed project would allow for adequate vehicular circulation for vehicles within the project site.



APPENDIX A

Raw Turning Movement Counts

City: NEWPORT BEACH
N-S Direction: SUPERIOR AVENUE
E-W Direction: PLACENTIA AVENUE

File Name : H1302036
Site Code : 00005060
Start Date : 3/12/2013
Page No : 1

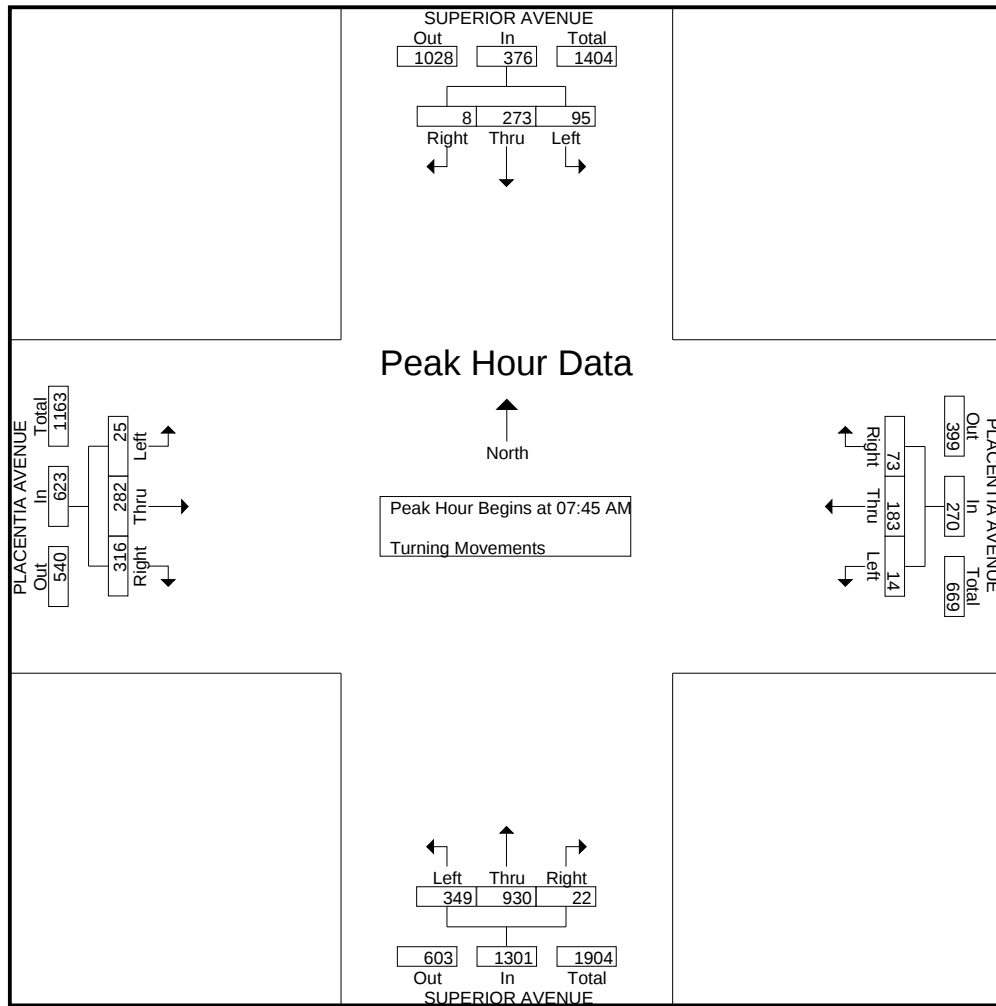
Groups Printed- Turning Movements

	SUPERIOR AVENUE Southbound			PLACENTIA AVENUE Westbound			SUPERIOR AVENUE Northbound			PLACENTIA AVENUE Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	64	8	11	22	2	4	126	32	44	35	3	351
07:15 AM	1	57	9	6	23	5	1	154	35	57	50	4	402
07:30 AM	0	56	11	18	46	3	2	200	49	67	68	11	531
07:45 AM	1	48	24	27	58	1	4	229	88	80	98	6	664
Total	2	225	52	62	149	11	11	709	204	248	251	24	1948
08:00 AM	2	78	32	19	60	7	8	232	90	69	77	4	678
08:15 AM	1	61	24	15	36	4	6	255	77	71	48	9	607
08:30 AM	4	86	15	12	29	2	4	214	94	96	59	6	621
08:45 AM	3	96	33	29	27	1	8	239	82	67	62	4	651
Total	10	321	104	75	152	14	26	940	343	303	246	23	2557
*** BREAK ***													
04:30 PM	2	198	16	15	58	16	6	155	32	106	56	5	665
04:45 PM	2	180	18	17	59	9	3	129	61	89	37	10	614
Total	4	378	34	32	117	25	9	284	93	195	93	15	1279
05:00 PM	0	188	17	18	83	7	5	120	63	109	54	1	665
05:15 PM	1	215	53	18	76	10	5	144	67	105	35	3	732
05:30 PM	2	258	13	12	59	8	6	119	41	93	33	5	649
05:45 PM	0	177	5	11	60	4	1	95	64	120	40	5	582
Total	3	838	88	59	278	29	17	478	235	427	162	14	2628
06:00 PM	3	207	27	8	33	3	1	102	59	107	40	1	591
06:15 PM	2	204	10	14	27	0	3	114	65	103	25	0	567
Grand Total	24	2173	315	250	756	82	67	2627	999	1383	817	77	9570
Apprch %	1	86.5	12.5	23	69.5	7.5	1.8	71.1	27.1	60.7	35.9	3.4	
Total %	0.3	22.7	3.3	2.6	7.9	0.9	0.7	27.5	10.4	14.5	8.5	0.8	

City: NEWPORT BEACH
N-S Direction: SUPERIOR AVENUE
E-W Direction: PLACENTIA AVENUE

File Name : H1302036
Site Code : 00005060
Start Date : 3/12/2013
Page No : 2

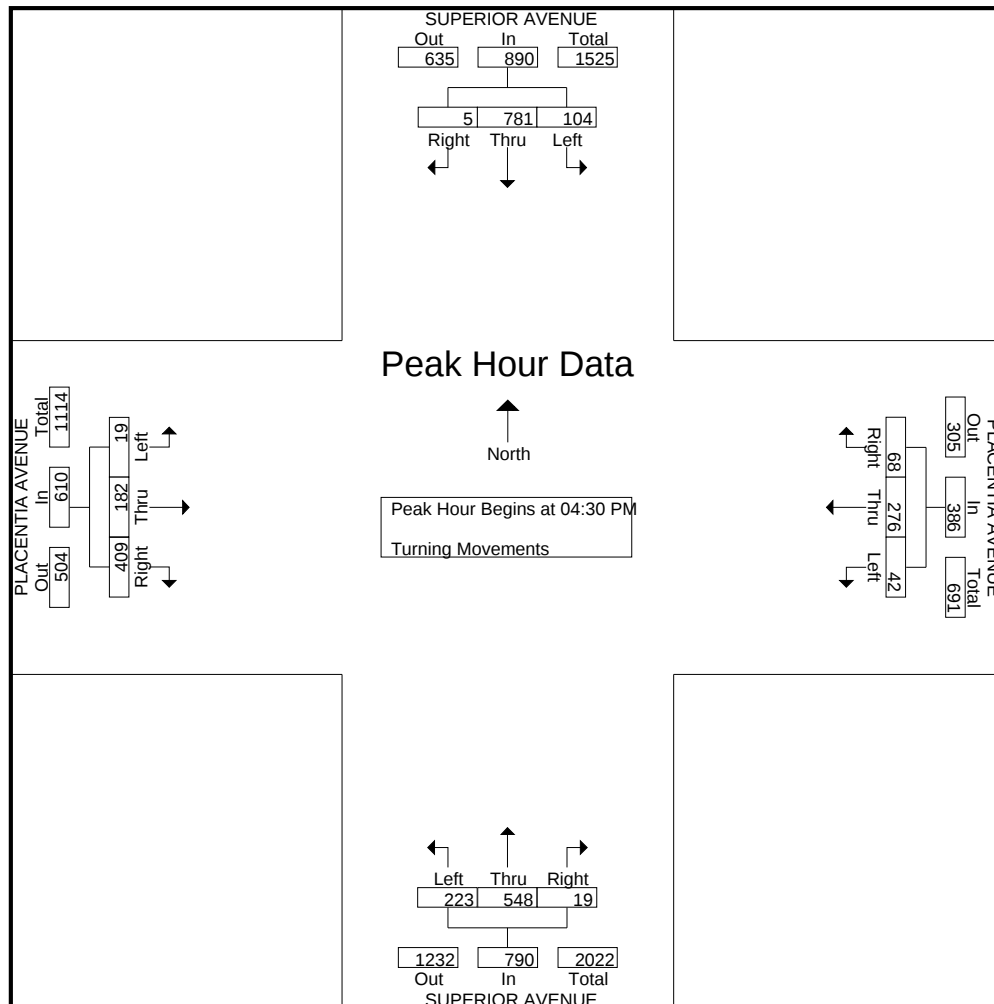
	SUPERIOR AVENUE Southbound				PLACENTIA AVENUE Westbound				SUPERIOR AVENUE Northbound				PLACENTIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	1	48	24	73	27	58	1	86	4	229	88	321	80	98	6	184	664
08:00 AM	2	78	32	112	19	60	7	86	8	232	90	330	69	77	4	150	678
08:15 AM	1	61	24	86	15	36	4	55	6	255	77	338	71	48	9	128	607
08:30 AM	4	86	15	105	12	29	2	43	4	214	94	312	96	59	6	161	621
Total Volume	8	273	95	376	73	183	14	270	22	930	349	1301	316	282	25	623	2570
% App. Total	2.1	72.6	25.3		27	67.8	5.2		1.7	71.5	26.8		50.7	45.3	4		
PHF	.500	.794	.742	.839	.676	.763	.500	.785	.688	.912	.928	.962	.823	.719	.694	.846	.948



City: NEWPORT BEACH
N-S Direction: SUPERIOR AVENUE
E-W Direction: PLACENTIA AVENUE

File Name : H1302036
Site Code : 00005060
Start Date : 3/12/2013
Page No : 3

	SUPERIOR AVENUE Southbound				PLACENTIA AVENUE Westbound				SUPERIOR AVENUE Northbound				PLACENTIA AVENUE Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	2	198	16	216	15	58	16	89	6	155	32	193	106	56	5	167	665
04:45 PM	2	180	18	200	17	59	9	85	3	129	61	193	89	37	10	136	614
05:00 PM	0	188	17	205	18	83	7	108	5	120	63	188	109	54	1	164	665
05:15 PM	1	215	53	269	18	76	10	104	5	144	67	216	105	35	3	143	732
Total Volume	5	781	104	890	68	276	42	386	19	548	223	790	409	182	19	610	2676
% App. Total	0.6	87.8	11.7		17.6	71.5	10.9		2.4	69.4	28.2		67	29.8	3.1		
PHF	.625	.908	.491	.827	.944	.831	.656	.894	.792	.884	.832	.914	.938	.813	.475	.913	.914



City: NEWPORT BEACH
N-S Direction: NEWPORT BOULEVARD
E-W Direction: HOSPITAL ROAD

File Name : H1302033
Site Code : 00003874
Start Date : 3/12/2013
Page No : 1

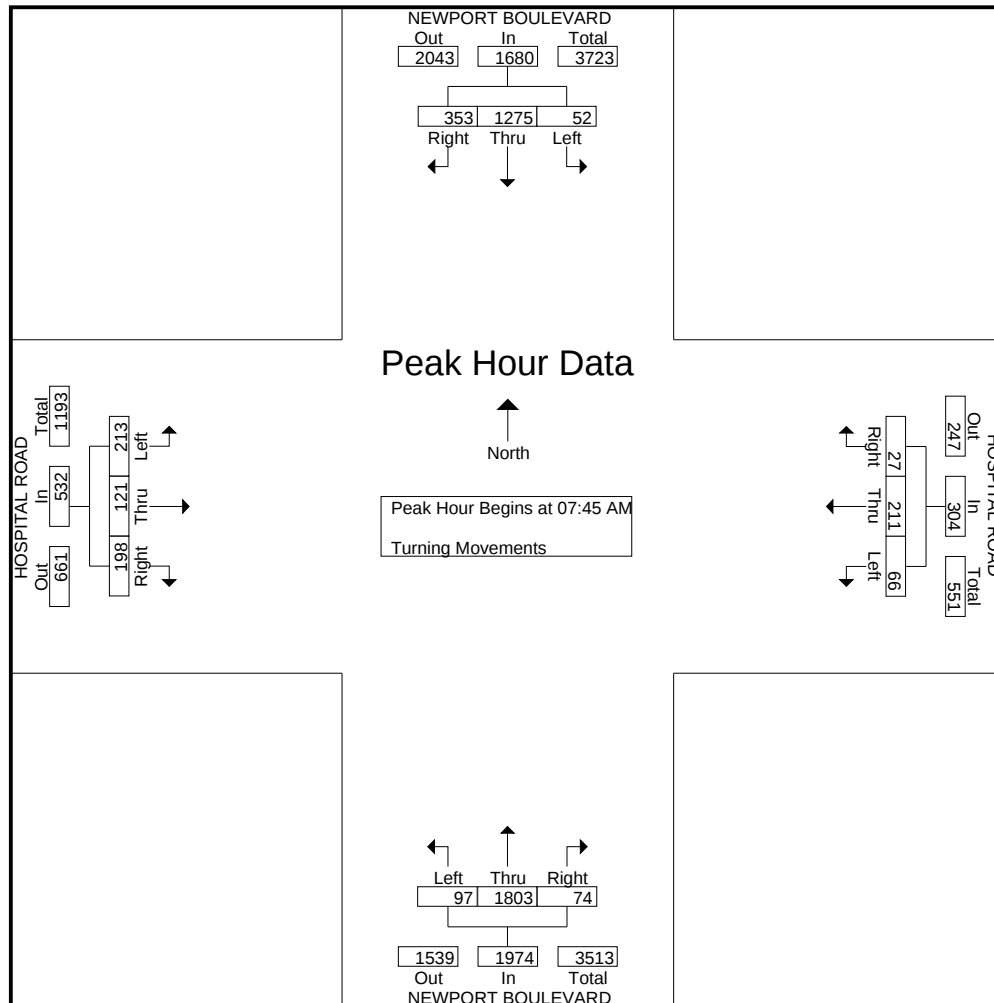
Groups Printed- Turning Movements

	NEWPORT BOULEVARD Southbound			HOSPITAL ROAD Westbound			NEWPORT BOULEVARD Northbound			HOSPITAL ROAD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	81	223	6	3	13	5	5	264	18	42	13	34	707
07:15 AM	83	247	5	6	26	6	13	317	13	35	15	52	818
07:30 AM	77	281	8	6	30	11	21	406	20	38	57	67	1022
07:45 AM	73	321	16	8	59	14	28	472	24	48	65	63	1191
Total	314	1072	35	23	128	36	67	1459	75	163	150	216	3738
08:00 AM	81	294	18	3	66	18	14	446	25	44	26	62	1097
08:15 AM	97	331	5	8	40	21	13	410	26	62	11	52	1076
08:30 AM	102	329	13	8	46	13	19	475	22	44	19	36	1126
08:45 AM	101	317	14	13	68	9	25	424	33	47	18	56	1125
Total	381	1271	50	32	220	61	71	1755	106	197	74	206	4424
*** BREAK ***													
04:30 PM	61	370	15	12	68	22	25	370	42	41	28	63	1117
04:45 PM	33	345	16	11	49	34	15	332	40	61	29	71	1036
Total	94	715	31	23	117	56	40	702	82	102	57	134	2153
05:00 PM	47	359	12	12	37	21	15	332	30	56	27	77	1025
05:15 PM	55	442	17	19	49	41	13	402	27	81	27	115	1288
05:30 PM	33	421	14	10	64	28	19	363	27	59	29	72	1139
05:45 PM	53	437	10	14	41	32	20	384	33	61	23	67	1175
Total	188	1659	53	55	191	122	67	1481	117	257	106	331	4627
06:00 PM	66	419	11	8	51	33	17	330	31	54	23	58	1101
06:15 PM	59	455	14	9	32	34	16	372	28	51	16	75	1161
Grand Total	1102	5591	194	150	739	342	278	6099	439	824	426	1020	17204
Apprch %	16	81.2	2.8	12.2	60	27.8	4.1	89.5	6.4	36.3	18.8	44.9	
Total %	6.4	32.5	1.1	0.9	4.3	2	1.6	35.5	2.6	4.8	2.5	5.9	

City: NEWPORT BEACH
N-S Direction: NEWPORT BOULEVARD
E-W Direction: HOSPITAL ROAD

File Name : H1302033
Site Code : 00003874
Start Date : 3/12/2013
Page No : 2

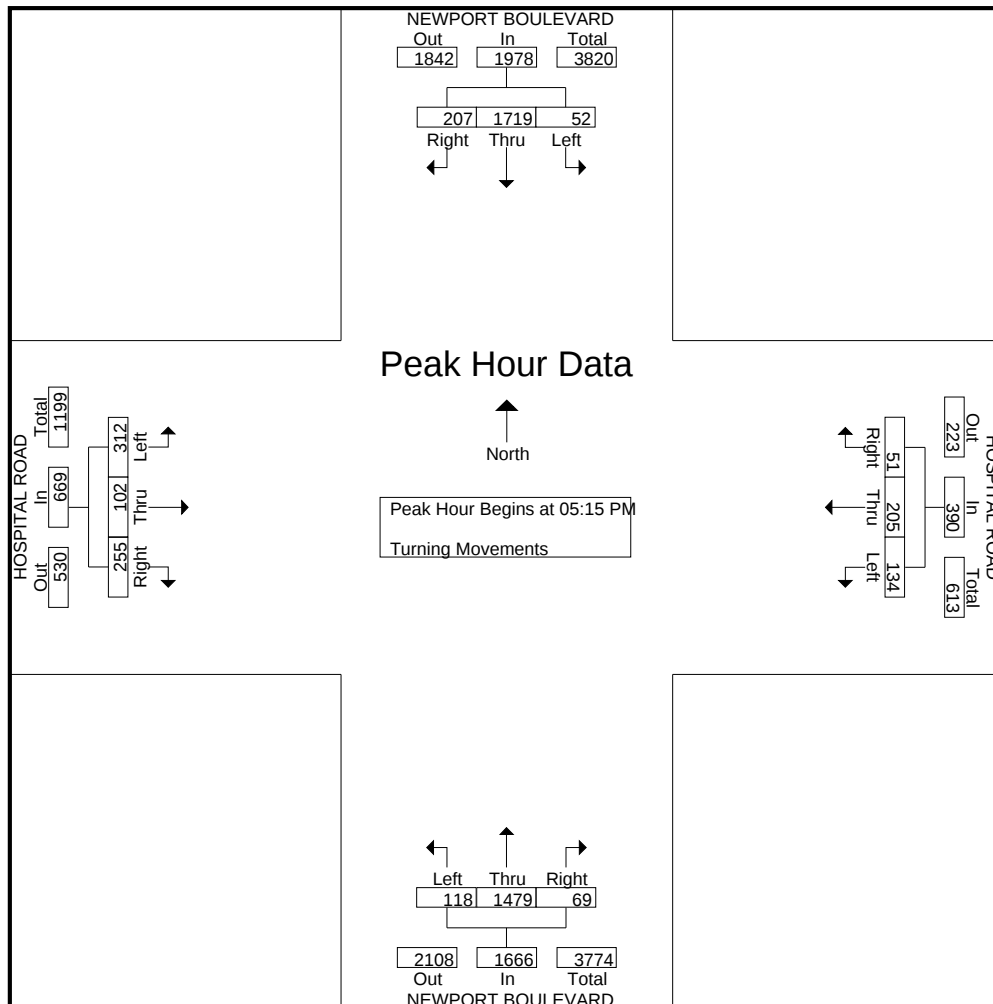
	NEWPORT BOULEVARD Southbound				HOSPITAL ROAD Westbound				NEWPORT BOULEVARD Northbound				HOSPITAL ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	73	321	16	410	8	59	14	81	28	472	24	524	48	65	63	176	1191
08:00 AM	81	294	18	393	3	66	18	87	14	446	25	485	44	26	62	132	1097
08:15 AM	97	331	5	433	8	40	21	69	13	410	26	449	62	11	52	125	1076
08:30 AM	102	329	13	444	8	46	13	67	19	475	22	516	44	19	36	99	1126
Total Volume	353	1275	52	1680	27	211	66	304	74	1803	97	1974	198	121	213	532	4490
% App. Total	21	75.9	3.1		8.9	69.4	21.7		3.7	91.3	4.9		37.2	22.7	40		
PHF	.865	.963	.722	.946	.844	.799	.786	.874	.661	.949	.933	.942	.798	.465	.845	.756	.942



City: NEWPORT BEACH
N-S Direction: NEWPORT BOULEVARD
E-W Direction: HOSPITAL ROAD

File Name : H1302033
Site Code : 00003874
Start Date : 3/12/2013
Page No : 3

	NEWPORT BOULEVARD Southbound				HOSPITAL ROAD Westbound				NEWPORT BOULEVARD Northbound				HOSPITAL ROAD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:15 PM																	
05:15 PM	55	442	17	514	19	49	41	109	13	402	27	442	81	27	115	223	1288
05:30 PM	33	421	14	468	10	64	28	102	19	363	27	409	59	29	72	160	1139
05:45 PM	53	437	10	500	14	41	32	87	20	384	33	437	61	23	67	151	1175
06:00 PM	66	419	11	496	8	51	33	92	17	330	31	378	54	23	58	135	1101
Total Volume	207	1719	52	1978	51	205	134	390	69	1479	118	1666	255	102	312	669	4703
% App. Total	10.5	86.9	2.6		13.1	52.6	34.4		4.1	88.8	7.1		38.1	15.2	46.6		
PHF	.784	.972	.765	.962	.671	.801	.817	.894	.863	.920	.894	.942	.787	.879	.678	.750	.913



City: NEWPORT BEACH
N-S Direction: ORANGE STREET
E-W Direction: COAST HIGHWAY

File Name : h1302015
Site Code : 00003872
Start Date : 2/26/2013
Page No : 1

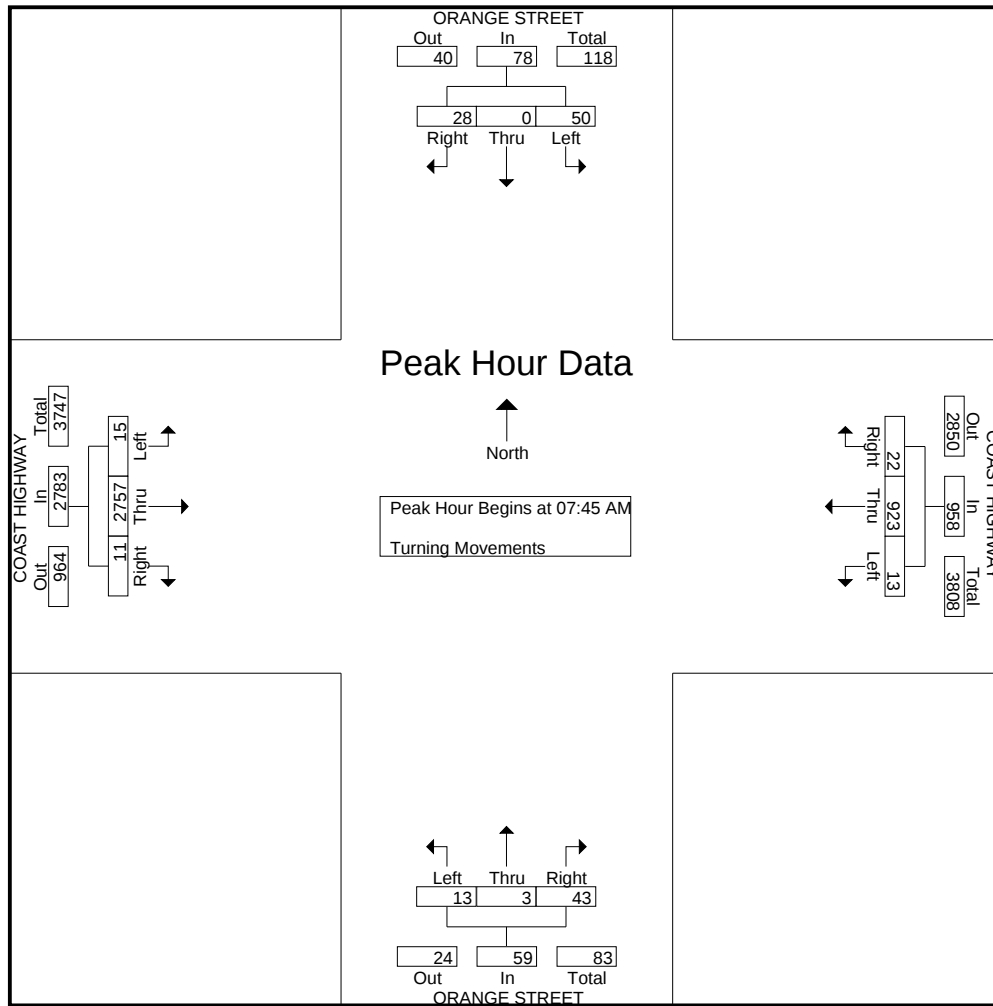
Groups Printed- Turning Movements

	ORANGE STREET Southbound			COAST HIGHWAY Westbound			ORANGE STREET Northbound			COAST HIGHWAY Eastbound			Int. Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
07:00 AM	4	0	10	3	120	2	8	0	5	2	330	0	484
07:15 AM	7	0	9	4	171	4	5	1	1	1	518	3	724
07:30 AM	11	2	15	2	160	1	16	0	5	4	615	2	833
07:45 AM	8	0	20	3	258	5	14	0	1	2	765	5	1081
Total	30	2	54	12	709	12	43	1	12	9	2228	10	3122
08:00 AM	2	0	16	9	209	2	13	0	3	3	641	4	902
08:15 AM	7	0	7	7	255	5	9	3	5	2	685	1	986
08:30 AM	11	0	7	3	201	1	7	0	4	4	666	5	909
08:45 AM	5	1	11	1	205	2	17	0	5	2	663	1	913
Total	25	1	41	20	870	10	46	3	17	11	2655	11	3710
*** BREAK ***													
04:30 PM	8	0	6	5	576	8	14	1	6	3	276	4	907
04:45 PM	3	0	8	5	580	11	10	0	2	2	243	10	874
Total	11	0	14	10	1156	19	24	1	8	5	519	14	1781
05:00 PM	10	0	8	6	581	4	12	0	9	5	277	9	921
05:15 PM	5	1	9	8	754	8	8	0	6	5	312	5	1121
05:30 PM	8	1	11	8	767	7	17	1	7	7	313	3	1150
05:45 PM	3	0	7	12	670	9	14	1	4	1	317	4	1042
Total	26	2	35	34	2772	28	51	2	26	18	1219	21	4234
06:00 PM	2	0	9	8	608	11	9	0	7	3	293	6	956
06:15 PM	5	0	3	7	553	7	6	1	4	4	299	14	903
Grand Total	99	5	156	91	6668	87	179	8	74	50	7213	76	14706
Apprch %	38.1	1.9	60	1.3	97.4	1.3	68.6	3.1	28.4	0.7	98.3	1	
Total %	0.7	0	1.1	0.6	45.3	0.6	1.2	0.1	0.5	0.3	49	0.5	

City: NEWPORT BEACH
N-S Direction: ORANGE STREET
E-W Direction: COAST HIGHWAY

File Name : h1302015
Site Code : 00003872
Start Date : 2/26/2013
Page No : 2

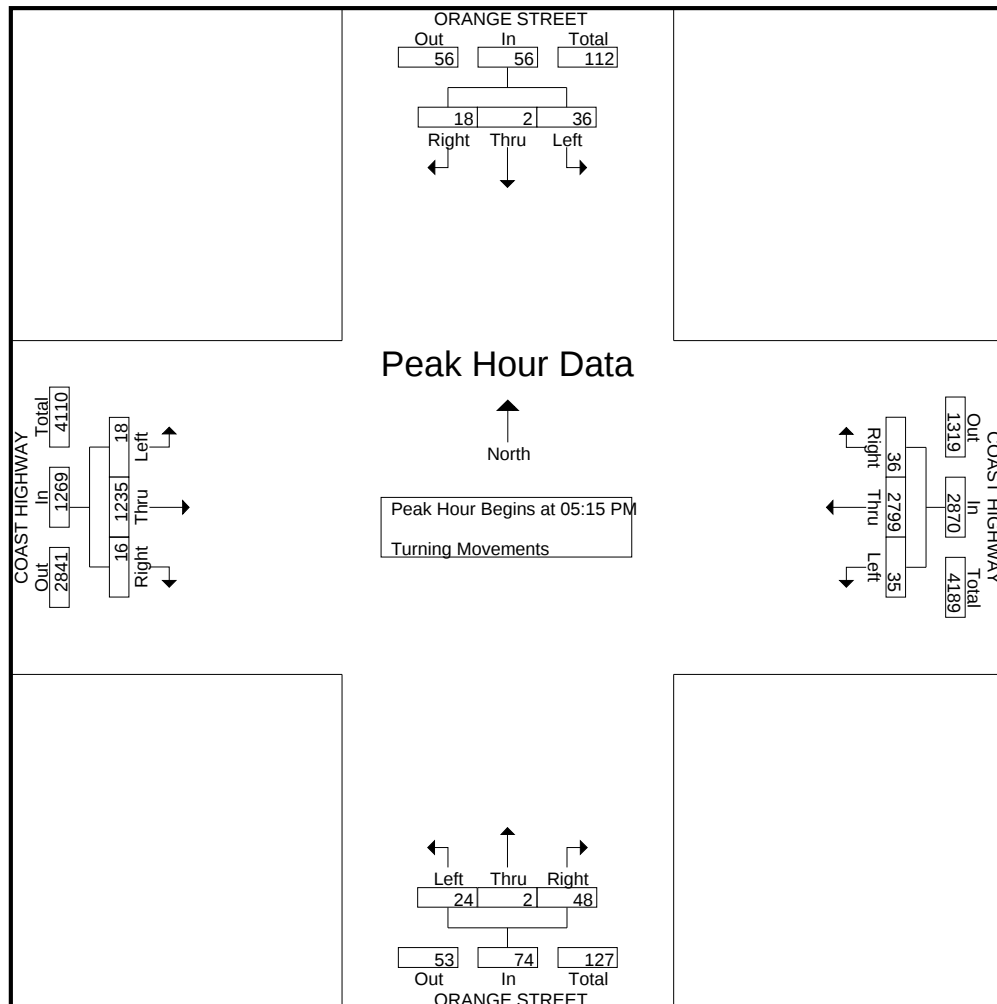
	ORANGE STREET Southbound				COAST HIGHWAY Westbound				ORANGE STREET Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	8	0	20	28	3	258	5	266	14	0	1	15	2	765	5	772	1081
08:00 AM	2	0	16	18	9	209	2	220	13	0	3	16	3	641	4	648	902
08:15 AM	7	0	7	14	7	255	5	267	9	3	5	17	2	685	1	688	986
08:30 AM	11	0	7	18	3	201	1	205	7	0	4	11	4	666	5	675	909
Total Volume	28	0	50	78	22	923	13	958	43	3	13	59	11	2757	15	2783	3878
% App. Total	35.9	0	64.1		2.3	96.3	1.4		72.9	5.1	22		0.4	99.1	0.5		
PHF	.636	.000	.625	.696	.611	.894	.650	.897	.768	.250	.650	.868	.688	.901	.750	.901	.897



City: NEWPORT BEACH
N-S Direction: ORANGE STREET
E-W Direction: COAST HIGHWAY

File Name : h1302015
Site Code : 00003872
Start Date : 2/26/2013
Page No : 3

	ORANGE STREET Southbound				COAST HIGHWAY Westbound				ORANGE STREET Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:15 PM																	
05:15 PM	5	1	9	15	8	754	8	770	8	0	6	14	5	312	5	322	1121
05:30 PM	8	1	11	20	8	767	7	782	17	1	7	25	7	313	3	323	1150
05:45 PM	3	0	7	10	12	670	9	691	14	1	4	19	1	317	4	322	1042
06:00 PM	2	0	9	11	8	608	11	627	9	0	7	16	3	293	6	302	956
Total Volume	18	2	36	56	36	2799	35	2870	48	2	24	74	16	1235	18	1269	4269
% App. Total	32.1	3.6	64.3		1.3	97.5	1.2		64.9	2.7	32.4		1.3	97.3	1.4		
PHF	.563	.500	.818	.700	.750	.912	.795	.918	.706	.500	.857	.740	.571	.974	.750	.982	.928



City: NEWPORT BEACH
N-S Direction: SUPERIOR AVENUE
E-W Direction: COAST HIGHWAY

File Name : H1302018
Site Code : 00005423
Start Date : 2/26/2013
Page No : 1

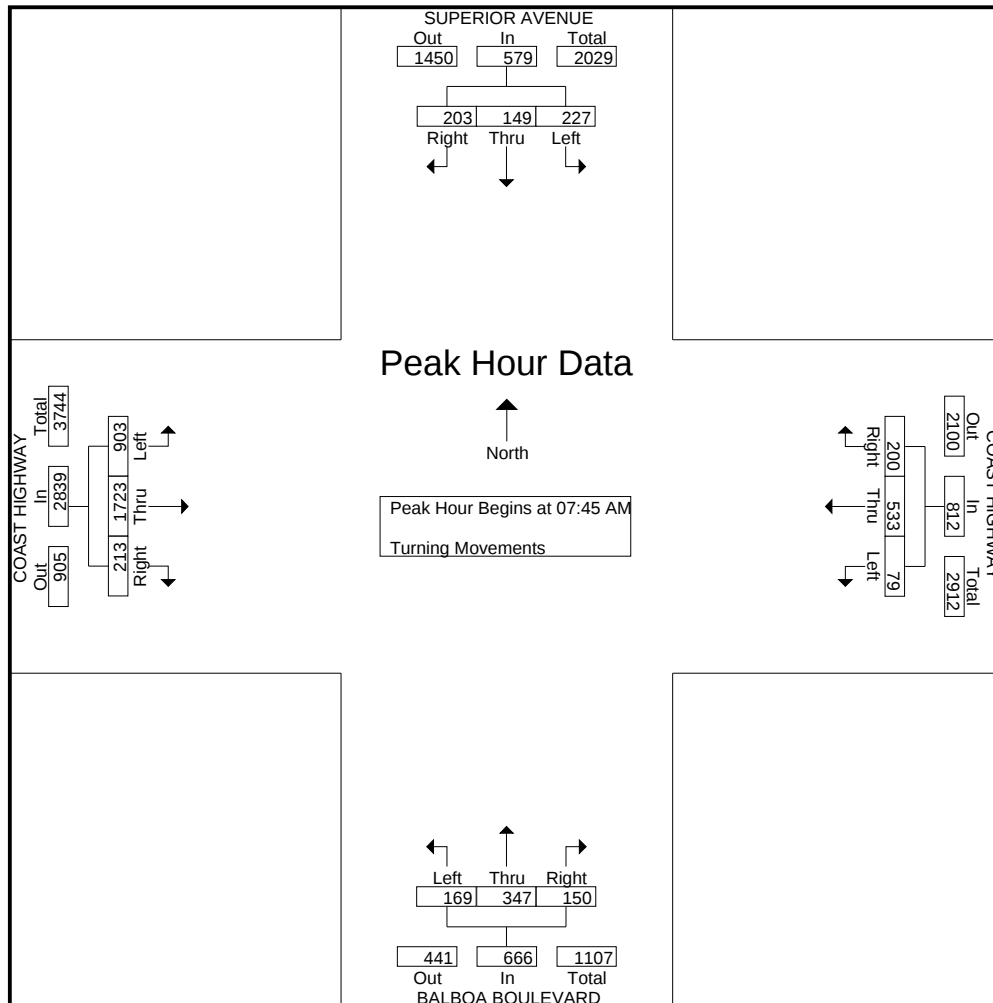
Groups Printed- Turning Movements

	SUPERIOR AVENUE Southbound			COAST HIGHWAY Westbound			BALBOA BOULEVARD Northbound			COAST HIGHWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	26	19	45	11	82	11	12	47	33	22	279	87	674
07:15 AM	35	19	41	27	104	8	28	55	34	30	386	112	879
07:30 AM	35	33	51	29	109	7	48	81	40	41	500	141	1115
07:45 AM	61	51	66	59	116	11	53	75	27	72	437	201	1229
Total	157	122	203	126	411	37	141	258	134	165	1602	541	3897
08:00 AM	50	36	51	46	148	31	34	104	66	48	421	244	1279
08:15 AM	50	38	61	44	151	22	33	93	37	50	422	206	1207
08:30 AM	42	24	49	51	118	15	30	75	39	43	443	252	1181
08:45 AM	53	36	39	62	136	14	41	84	35	47	404	225	1176
Total	195	134	200	203	553	82	138	356	177	188	1690	927	4843
*** BREAK ***													
04:30 PM	163	49	59	52	383	34	24	45	65	41	181	73	1169
04:45 PM	137	73	57	39	423	27	22	57	58	61	193	86	1233
Total	300	122	116	91	806	61	46	102	123	102	374	159	2402
05:00 PM	167	69	33	26	465	35	18	51	59	43	196	87	1249
05:15 PM	204	60	49	44	477	53	12	63	79	40	152	93	1326
05:30 PM	193	96	62	31	482	61	23	40	52	36	217	154	1447
05:45 PM	151	93	55	42	517	44	14	65	47	38	167	127	1360
Total	715	318	199	143	1941	193	67	219	237	157	732	461	5382
06:00 PM	116	56	27	57	379	44	8	42	58	58	181	83	1109
06:15 PM	135	70	46	33	410	84	13	49	56	38	222	100	1256
Grand Total	1618	822	791	653	4500	501	413	1026	785	708	4801	2271	18889
Apprch %	50.1	25.4	24.5	11.5	79.6	8.9	18.6	46.1	35.3	9.1	61.7	29.2	
Total %	8.6	4.4	4.2	3.5	23.8	2.7	2.2	5.4	4.2	3.7	25.4	12	

City: NEWPORT BEACH
N-S Direction: SUPERIOR AVENUE
E-W Direction: COAST HIGHWAY

File Name : H1302018
Site Code : 00005423
Start Date : 2/26/2013
Page No : 2

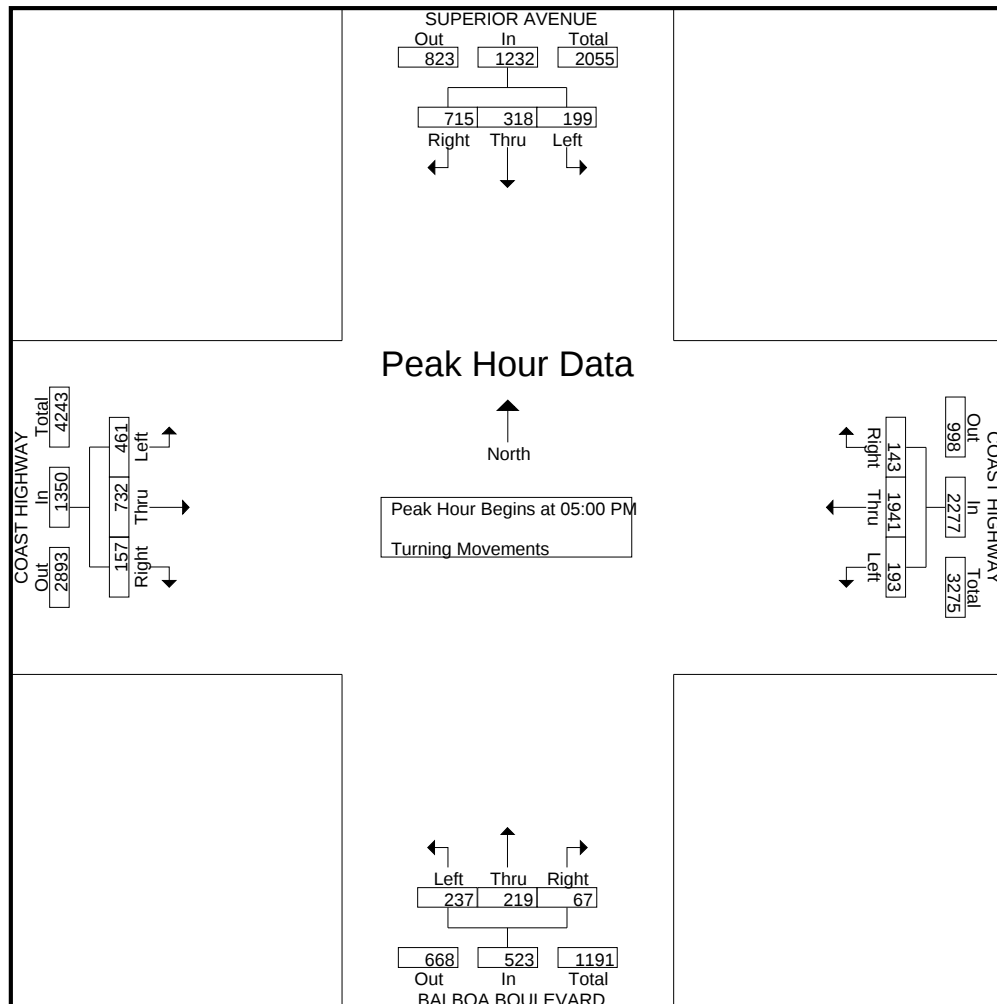
	SUPERIOR AVENUE Southbound				COAST HIGHWAY Westbound				BALBOA BOULEVARD Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	61	51	66	178	59	116	11	186	53	75	27	155	72	437	201	710	1229
08:00 AM	50	36	51	137	46	148	31	225	34	104	66	204	48	421	244	713	1279
08:15 AM	50	38	61	149	44	151	22	217	33	93	37	163	50	422	206	678	1207
08:30 AM	42	24	49	115	51	118	15	184	30	75	39	144	43	443	252	738	1181
Total Volume	203	149	227	579	200	533	79	812	150	347	169	666	213	1723	903	2839	4896
% App. Total	35.1	25.7	39.2		24.6	65.6	9.7		22.5	52.1	25.4		7.5	60.7	31.8		
PHF	.832	.730	.860	.813	.847	.882	.637	.902	.708	.834	.640	.816	.740	.972	.896	.962	.957



City: NEWPORT BEACH
N-S Direction: SUPERIOR AVENUE
E-W Direction: COAST HIGHWAY

File Name : H1302018
Site Code : 00005423
Start Date : 2/26/2013
Page No : 3

	SUPERIOR AVENUE Southbound				COAST HIGHWAY Westbound				BALBOA BOULEVARD Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	167	69	33	269	26	465	35	526	18	51	59	128	43	196	87	326	1249
05:15 PM	204	60	49	313	44	477	53	574	12	63	79	154	40	152	93	285	1326
05:30 PM	193	96	62	351	31	482	61	574	23	40	52	115	36	217	154	407	1447
05:45 PM	151	93	55	299	42	517	44	603	14	65	47	126	38	167	127	332	1360
Total Volume	715	318	199	1232	143	1941	193	2277	67	219	237	523	157	732	461	1350	5382
% App. Total	58	25.8	16.2		6.3	85.2	8.5		12.8	41.9	45.3		11.6	54.2	34.1		
PHF	.876	.828	.802	.877	.813	.939	.791	.944	.728	.842	.750	.849	.913	.843	.748	.829	.930



City: NEWPORT BEACH
N-S Direction: NEWPORT RAMP
E-W Direction: COAST HIGHWAY

File Name : H1302014
Site Code : 00003874
Start Date : 2/26/2013
Page No : 1

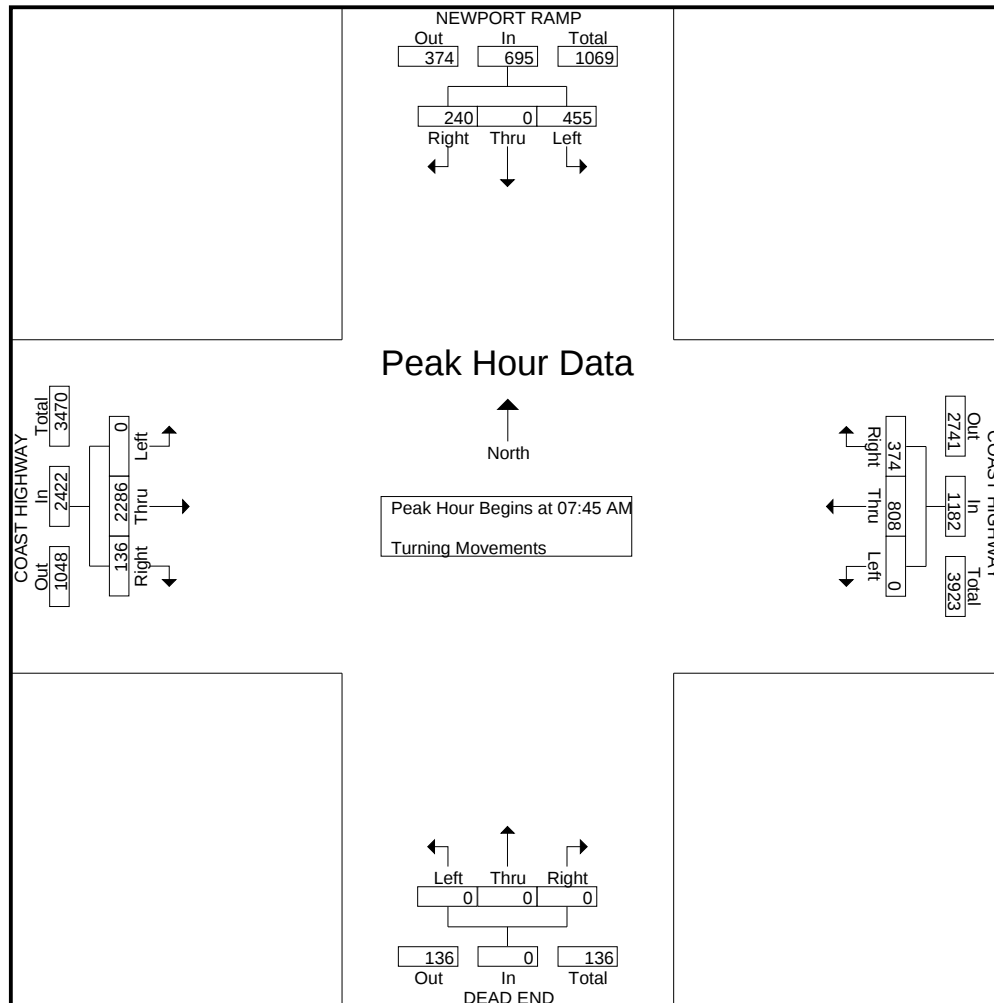
Groups Printed- Turning Movements

	NEWPORT RAMP Southbound			COAST HIGHWAY Westbound			DEAD END Northbound			COAST HIGHWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	58	0	60	36	102	0	0	0	0	20	310	0	586
07:15 AM	47	0	77	47	141	0	0	0	0	14	432	0	758
07:30 AM	40	0	80	62	149	0	0	0	0	38	523	0	892
07:45 AM	65	0	122	101	210	0	0	0	0	36	677	0	1211
Total	210	0	339	246	602	0	0	0	0	108	1942	0	3447
08:00 AM	60	0	122	119	216	0	0	0	0	34	540	0	1091
08:15 AM	54	0	112	75	194	0	0	0	0	31	553	0	1019
08:30 AM	61	0	99	79	188	0	0	0	0	35	516	0	978
08:45 AM	62	0	115	90	200	0	0	0	0	34	481	0	982
Total	237	0	448	363	798	0	0	0	0	134	2090	0	4070
*** BREAK ***													
04:30 PM	97	0	138	119	390	0	0	0	0	25	241	0	1010
04:45 PM	66	0	132	142	339	0	0	0	0	21	250	1	951
Total	163	0	270	261	729	0	0	0	0	46	491	1	1961
05:00 PM	93	0	124	141	408	0	0	0	0	20	263	0	1049
05:15 PM	107	0	161	142	533	0	0	0	0	16	340	0	1299
05:30 PM	122	0	160	137	506	0	0	0	0	25	292	0	1242
05:45 PM	82	0	103	178	472	0	0	0	0	28	313	0	1176
Total	404	0	548	598	1919	0	0	0	0	89	1208	0	4766
06:00 PM	84	0	100	154	434	0	0	0	0	27	240	0	1039
06:15 PM	104	0	86	142	405	0	0	0	0	33	255	0	1025
Grand Total	1202	0	1791	1764	4887	0	0	0	0	437	6226	1	16308
Apprch %	40.2	0	59.8	26.5	73.5	0	0	0	0	6.6	93.4	0	
Total %	7.4	0	11	10.8	30	0	0	0	0	2.7	38.2	0	

City: NEWPORT BEACH
N-S Direction: NEWPORT RAMP
E-W Direction: COAST HIGHWAY

File Name : H1302014
Site Code : 00003874
Start Date : 2/26/2013
Page No : 2

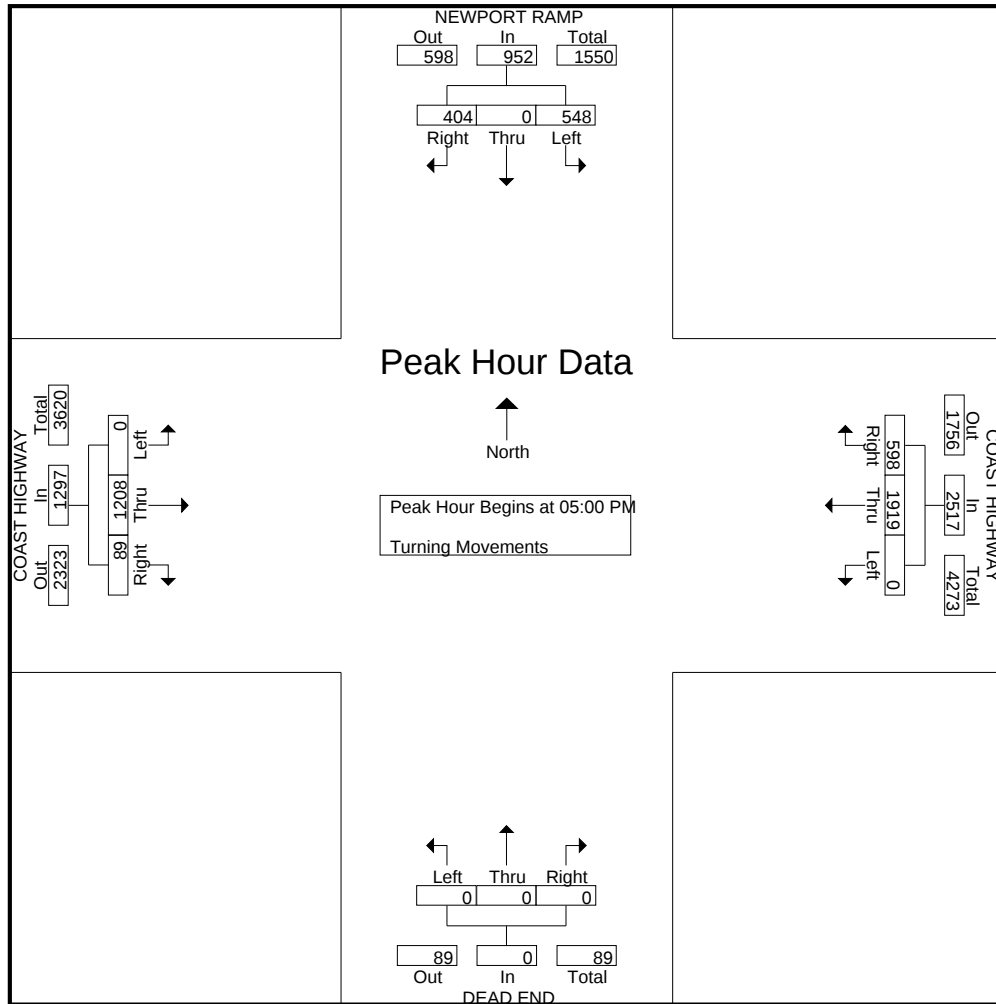
	NEWPORT RAMP Southbound				COAST HIGHWAY Westbound				DEAD END Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	65	0	122	187	101	210	0	311	0	0	0	0	36	677	0	713	1211
08:00 AM	60	0	122	182	119	216	0	335	0	0	0	0	34	540	0	574	1091
08:15 AM	54	0	112	166	75	194	0	269	0	0	0	0	31	553	0	584	1019
08:30 AM	61	0	99	160	79	188	0	267	0	0	0	0	35	516	0	551	978
Total Volume	240	0	455	695	374	808	0	1182	0	0	0	0	136	2286	0	2422	4299
% App. Total	34.5	0	65.5		31.6	68.4	0		0	0	0		5.6	94.4	0		
PHF	.923	.000	.932	.929	.786	.935	.000	.882	.000	.000	.000	.000	.944	.844	.000	.849	.887



City: NEWPORT BEACH
N-S Direction: NEWPORT RAMP
E-W Direction: COAST HIGHWAY

File Name : H1302014
Site Code : 00003874
Start Date : 2/26/2013
Page No : 3

	NEWPORT RAMP Southbound				COAST HIGHWAY Westbound				DEAD END Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	93	0	124	217	141	408	0	549	0	0	0	0	20	263	0	283	1049
05:15 PM	107	0	161	268	142	533	0	675	0	0	0	0	16	340	0	356	1299
05:30 PM	122	0	160	282	137	506	0	643	0	0	0	0	25	292	0	317	1242
05:45 PM	82	0	103	185	178	472	0	650	0	0	0	0	28	313	0	341	1176
Total Volume	404	0	548	952	598	1919	0	2517	0	0	0	0	89	1208	0	1297	4766
% App. Total	42.4	0	57.6		23.8	76.2	0		0	0	0		6.9	93.1	0		
PHF	.828	.000	.851	.844	.840	.900	.000	.932	.000	.000	.000	.000	.795	.888	.000	.911	.917



City: NEWPORT BEACH
N-S Direction: RIVERSIDE AVENUE
E-W Direction: COAST HIGHWAY

File Name : h1302016
Site Code : 00005061
Start Date : 2/28/2013
Page No : 1

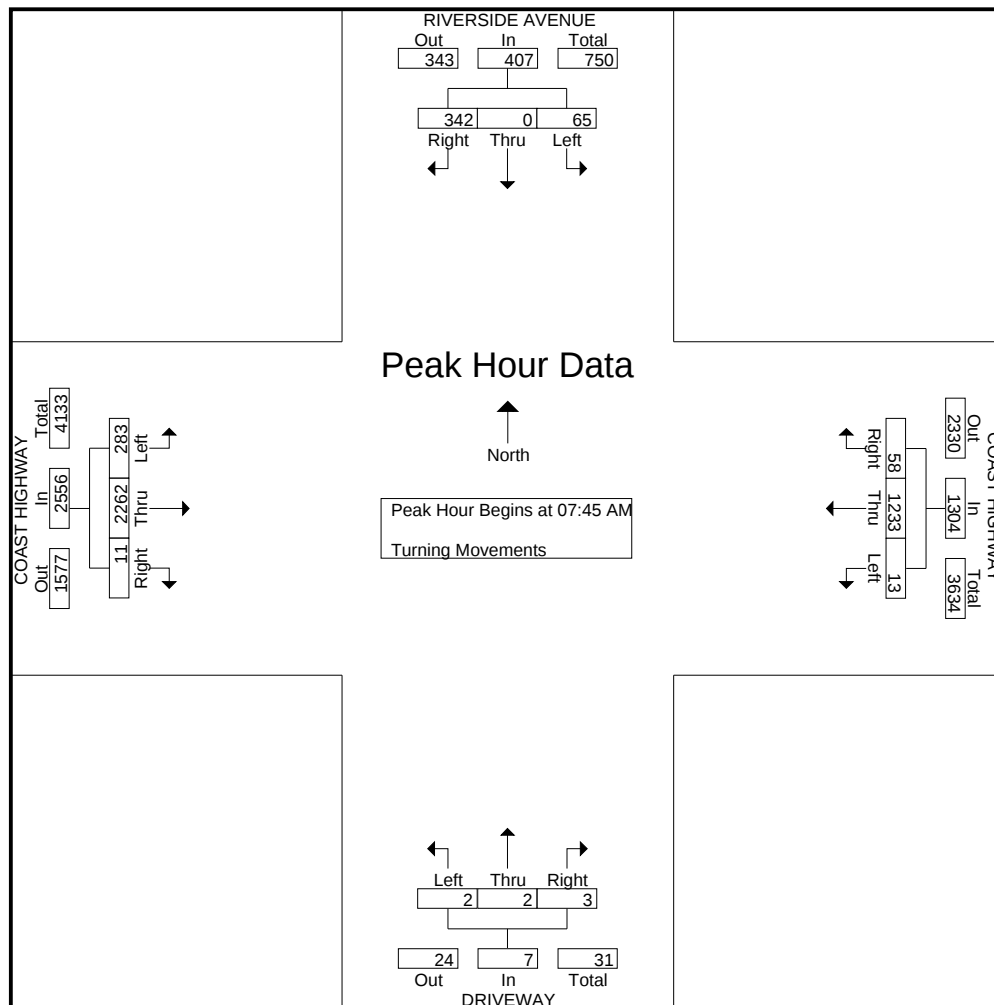
Groups Printed- Turning Movements

	RIVERSIDE AVENUE Southbound			COAST HIGHWAY Westbound			DRIVEWAY Northbound			COAST HIGHWAY Eastbound			Int. Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
07:00 AM	30	0	10	6	163	1	0	0	0	0	301	36	547
07:15 AM	45	0	14	6	196	0	0	0	0	0	362	46	669
07:30 AM	39	0	16	8	221	2	0	1	0	4	515	85	891
07:45 AM	99	0	17	16	291	1	2	2	0	4	535	97	1064
Total	213	0	57	36	871	4	2	3	0	8	1713	264	3171
08:00 AM	124	0	20	10	296	6	1	0	1	3	544	74	1079
08:15 AM	57	0	16	13	314	2	0	0	0	2	598	51	1053
08:30 AM	62	0	12	19	332	4	0	0	1	2	585	61	1078
08:45 AM	52	3	14	11	303	2	0	0	2	3	539	61	990
Total	295	3	62	53	1245	14	1	0	4	10	2266	247	4200
*** BREAK ***													
04:30 PM	89	1	15	20	570	10	2	2	6	4	397	58	1174
04:45 PM	93	1	28	21	485	12	4	0	9	4	341	91	1089
Total	182	2	43	41	1055	22	6	2	15	8	738	149	2263
05:00 PM	111	1	23	15	612	10	5	2	5	1	395	62	1242
05:15 PM	127	1	14	18	557	7	1	4	2	4	430	77	1242
05:30 PM	97	1	17	15	636	10	2	6	1	3	386	52	1226
05:45 PM	106	1	19	7	607	10	4	0	1	5	341	56	1157
Total	441	4	73	55	2412	37	12	12	9	13	1552	247	4867
06:00 PM	102	0	16	13	601	6	5	0	6	6	370	54	1179
06:15 PM	83	0	17	9	551	9	5	2	3	3	311	53	1046
Grand Total	1316	9	268	207	6735	92	31	19	37	48	6950	1014	16726
Apprch %	82.6	0.6	16.8	2.9	95.7	1.3	35.6	21.8	42.5	0.6	86.7	12.7	
Total %	7.9	0.1	1.6	1.2	40.3	0.6	0.2	0.1	0.2	0.3	41.6	6.1	

City: NEWPORT BEACH
N-S Direction: RIVERSIDE AVENUE
E-W Direction: COAST HIGHWAY

File Name : h1302016
Site Code : 00005061
Start Date : 2/28/2013
Page No : 2

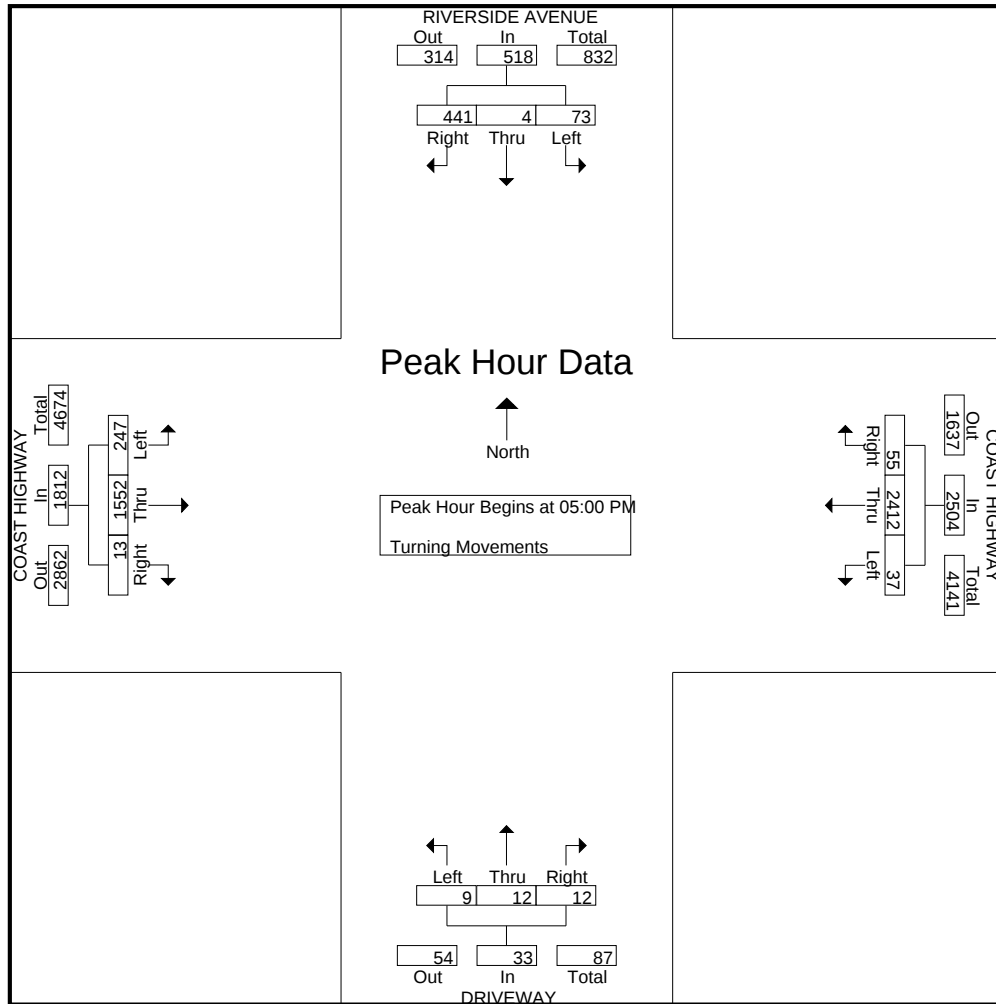
	RIVERSIDE AVENUE Southbound				COAST HIGHWAY Westbound				DRIVEWAY Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	99	0	17	116	16	291	1	308	2	2	0	4	4	535	97	636	1064
08:00 AM	124	0	20	144	10	296	6	312	1	0	1	2	3	544	74	621	1079
08:15 AM	57	0	16	73	13	314	2	329	0	0	0	0	2	598	51	651	1053
08:30 AM	62	0	12	74	19	332	4	355	0	0	1	1	2	585	61	648	1078
Total Volume	342	0	65	407	58	1233	13	1304	3	2	2	7	11	2262	283	2556	4274
% App. Total	84	0	16		4.4	94.6	1		42.9	28.6	28.6		0.4	88.5	11.1		
PHF	.690	.000	.813	.707	.763	.928	.542	.918	.375	.250	.500	.438	.688	.946	.729	.982	.990



City: NEWPORT BEACH
N-S Direction: RIVERSIDE AVENUE
E-W Direction: COAST HIGHWAY

File Name : h1302016
Site Code : 00005061
Start Date : 2/28/2013
Page No : 3

	RIVERSIDE AVENUE Southbound				COAST HIGHWAY Westbound				DRIVEWAY Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	111	1	23	135	15	612	10	637	5	2	5	12	1	395	62	458	1242
05:15 PM	127	1	14	142	18	557	7	582	1	4	2	7	4	430	77	511	1242
05:30 PM	97	1	17	115	15	636	10	661	2	6	1	9	3	386	52	441	1226
05:45 PM	106	1	19	126	7	607	10	624	4	0	1	5	5	341	56	402	1157
Total Volume	441	4	73	518	55	2412	37	2504	12	12	9	33	13	1552	247	1812	4867
% App. Total	85.1	0.8	14.1		2.2	96.3	1.5		36.4	36.4	27.3		0.7	85.7	13.6		
PHF	.868	1.00	.793	.912	.764	.948	.925	.947	.600	.500	.450	.688	.650	.902	.802	.886	.980



City: NEWPORT BEACH
N-S Direction: TUSTIN AVENUE
E-W Direction: COAST HIGHWAY

File Name : h1302017
Site Code : 00005060
Start Date : 2/28/2013
Page No : 1

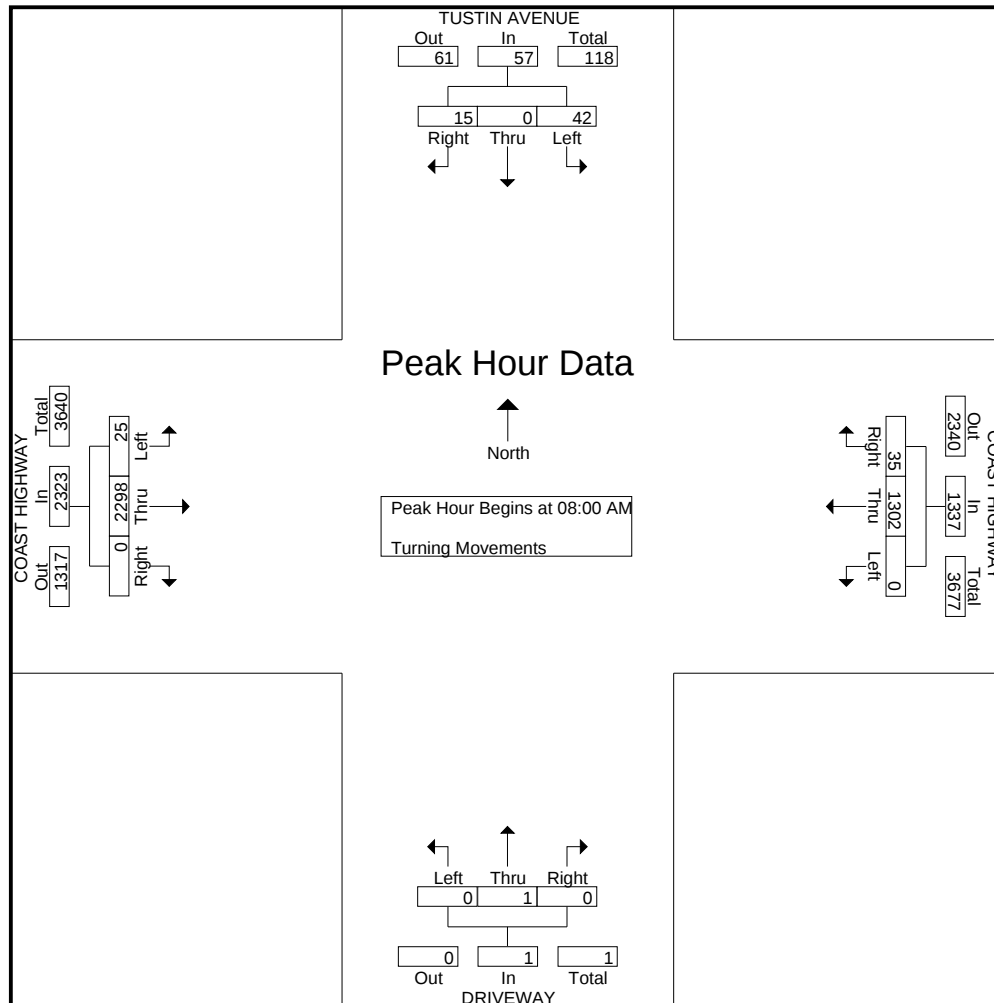
Groups Printed- Turning Movements

	TUSTIN AVENUE Southbound			COAST HIGHWAY Westbound			DRIVEWAY Northbound			COAST HIGHWAY Eastbound			Int. Total
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	
07:00 AM	1	1	3	3	159	0	0	0	1	0	339	2	509
07:15 AM	3	0	3	1	199	0	0	0	1	0	371	6	584
07:30 AM	4	1	1	6	226	0	0	0	0	0	502	4	744
07:45 AM	3	0	7	33	310	0	0	0	0	0	529	19	901
Total	11	2	14	43	894	0	0	0	2	0	1741	31	2738
08:00 AM	6	0	13	8	295	0	0	1	0	0	553	6	882
08:15 AM	5	0	13	8	318	0	0	0	0	0	613	5	962
08:30 AM	3	0	9	10	344	0	0	0	0	0	578	11	955
08:45 AM	1	0	7	9	345	0	0	0	0	0	554	3	919
Total	15	0	42	35	1302	0	0	1	0	0	2298	25	3718
*** BREAK ***													
04:30 PM	9	0	7	14	552	0	0	0	0	3	391	26	1002
04:45 PM	8	1	9	10	543	0	3	0	1	2	347	19	943
Total	17	1	16	24	1095	0	3	0	1	5	738	45	1945
05:00 PM	8	1	6	10	591	0	0	0	0	3	391	18	1028
05:15 PM	6	1	10	14	580	0	0	0	1	0	443	15	1070
05:30 PM	8	0	8	11	651	0	0	0	0	2	379	14	1073
05:45 PM	3	0	13	5	644	0	0	1	1	0	362	16	1045
Total	25	2	37	40	2466	0	0	1	2	5	1575	63	4216
06:00 PM	5	0	9	5	608	0	0	0	0	4	368	16	1015
06:15 PM	7	0	3	7	575	0	0	0	1	6	321	11	931
Grand Total	80	5	121	154	6940	0	3	2	6	20	7041	191	14563
Apprch %	38.8	2.4	58.7	2.2	97.8	0	27.3	18.2	54.5	0.3	97.1	2.6	
Total %	0.5	0	0.8	1.1	47.7	0	0	0	0	0.1	48.3	1.3	

City: NEWPORT BEACH
N-S Direction: TUSTIN AVENUE
E-W Direction: COAST HIGHWAY

File Name : h1302017
Site Code : 00005060
Start Date : 2/28/2013
Page No : 2

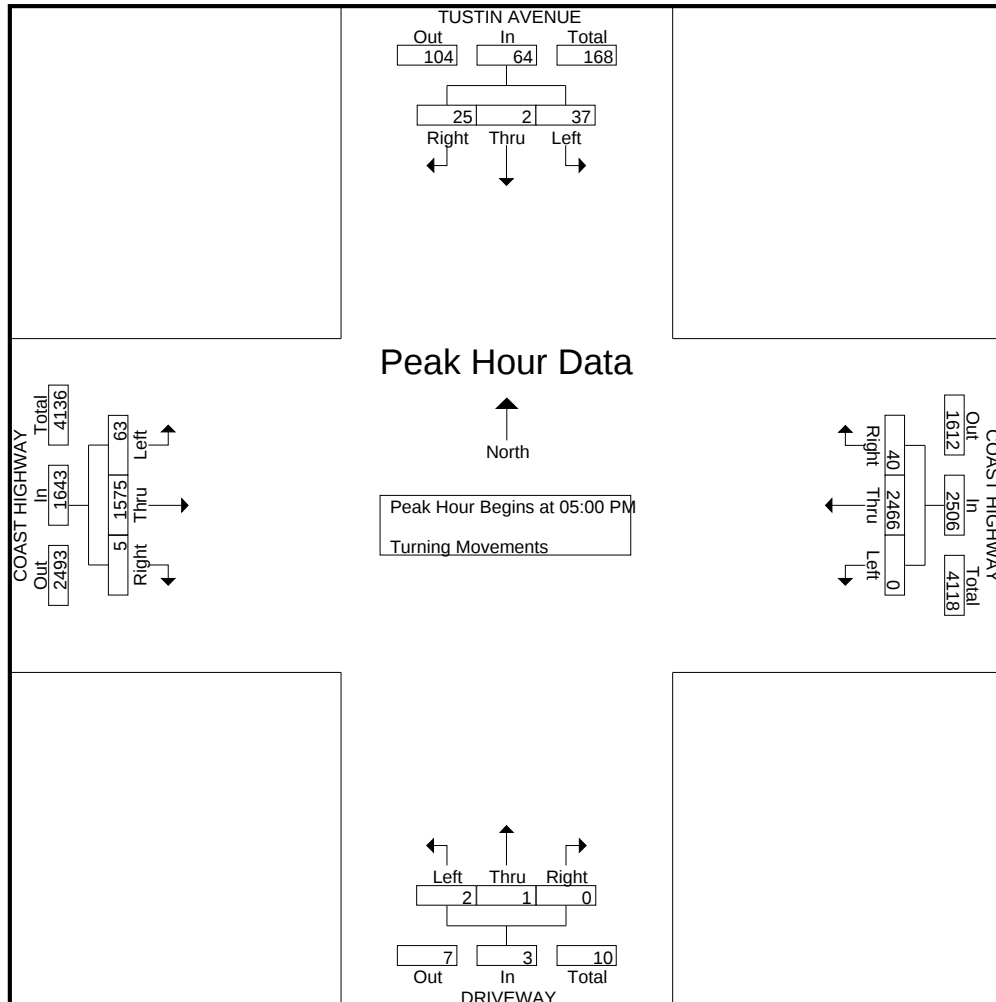
	TUSTIN AVENUE Southbound				COAST HIGHWAY Westbound				DRIVEWAY Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	6	0	13	19	8	295	0	303	0	1	0	1	0	553	6	559	882
08:15 AM	5	0	13	18	8	318	0	326	0	0	0	0	0	613	5	618	962
08:30 AM	3	0	9	12	10	344	0	354	0	0	0	0	0	578	11	589	955
08:45 AM	1	0	7	8	9	345	0	354	0	0	0	0	0	554	3	557	919
Total Volume	15	0	42	57	35	1302	0	1337	0	1	0	1	0	2298	25	2323	3718
% App. Total	26.3	0	73.7		2.6	97.4	0		0	100	0		0	98.9	1.1		
PHF	.625	.000	.808	.750	.875	.943	.000	.944	.000	.250	.000	.250	.000	.937	.568	.940	.966



City: NEWPORT BEACH
N-S Direction: TUSTIN AVENUE
E-W Direction: COAST HIGHWAY

File Name : h1302017
Site Code : 00005060
Start Date : 2/28/2013
Page No : 3

	TUSTIN AVENUE Southbound				COAST HIGHWAY Westbound				DRIVEWAY Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	8	1	6	15	10	591	0	601	0	0	0	0	3	391	18	412	1028
05:15 PM	6	1	10	17	14	580	0	594	0	0	1	1	0	443	15	458	1070
05:30 PM	8	0	8	16	11	651	0	662	0	0	0	0	2	379	14	395	1073
05:45 PM	3	0	13	16	5	644	0	649	0	1	1	2	0	362	16	378	1045
Total Volume	25	2	37	64	40	2466	0	2506	0	1	2	3	5	1575	63	1643	4216
% App. Total	39.1	3.1	57.8		1.6	98.4	0		0	33.3	66.7		0.3	95.9	3.8		
PHF	.781	.500	.712	.941	.714	.947	.000	.946	.000	.250	.500	.375	.417	.889	.875	.897	.982



City: NEWPORT BEACH
N-S Direction: DOVER-BAYSHORES
E-W Direction: COAST HIGHWAY

File Name : H1204023
Site Code : 00000554
Start Date : 4/25/2012
Page No : 1

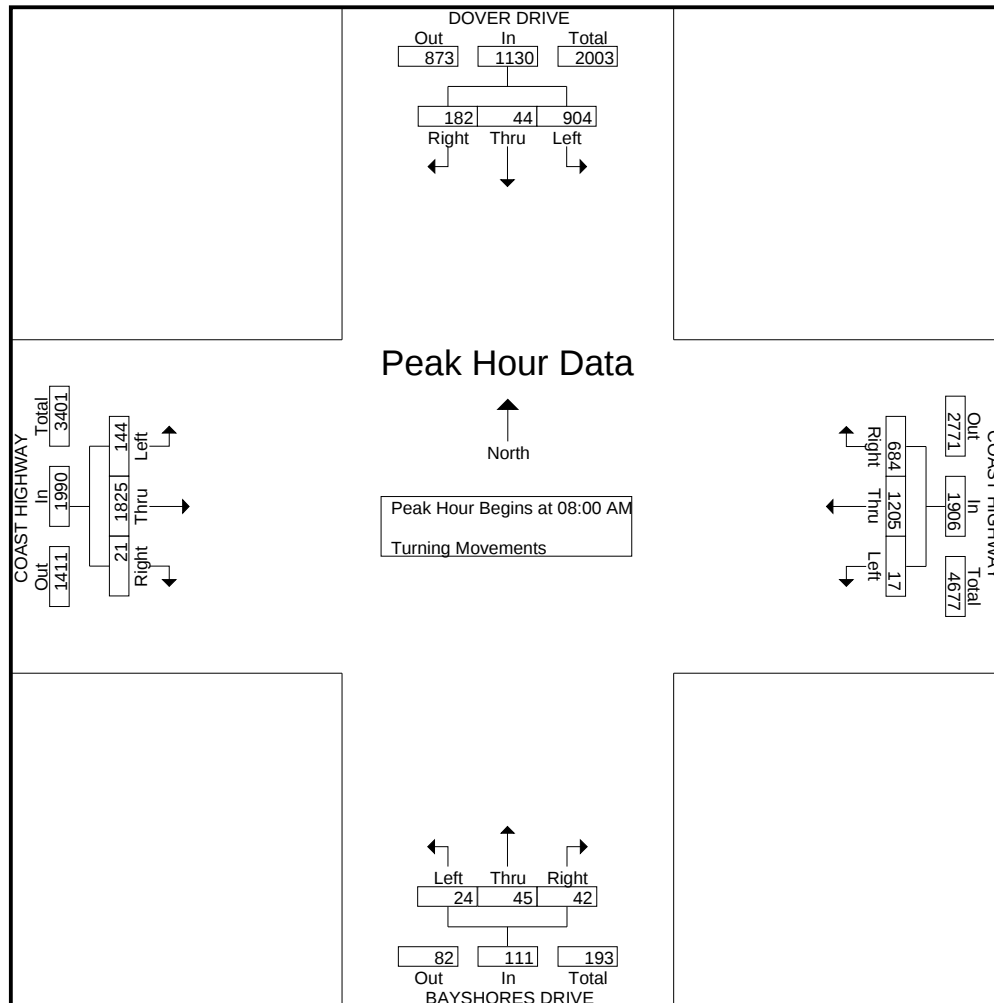
Groups Printed- Turning Movements

	DOVER DRIVE Southbound			COAST HIGHWAY Westbound			BAYSHORES DRIVE Northbound			COAST HIGHWAY Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	22	11	108	61	145	1	7	6	2	5	244	11	623
07:15 AM	35	6	174	63	189	1	5	6	3	8	282	16	788
07:30 AM	38	6	181	94	234	1	10	18	8	5	392	21	1008
07:45 AM	40	7	256	129	253	4	17	15	10	3	486	21	1241
Total	135	30	719	347	821	7	39	45	23	21	1404	69	3660
08:00 AM	41	14	169	168	295	5	13	4	7	9	449	33	1207
08:15 AM	48	8	245	159	302	8	12	12	5	4	452	29	1284
08:30 AM	48	6	202	173	297	2	10	18	6	5	453	41	1261
08:45 AM	45	16	288	184	311	2	7	11	6	3	471	41	1385
Total	182	44	904	684	1205	17	42	45	24	21	1825	144	5137
*** BREAK ***													
04:30 PM	31	17	175	260	467	7	3	8	4	4	389	39	1404
04:45 PM	37	15	209	268	463	10	4	4	8	4	384	31	1437
Total	68	32	384	528	930	17	7	12	12	8	773	70	2841
05:00 PM	32	12	181	258	509	10	9	9	3	7	379	32	1441
05:15 PM	34	12	230	323	544	16	10	11	4	4	389	29	1606
05:30 PM	32	12	221	305	515	13	15	9	8	5	356	28	1519
05:45 PM	38	13	208	284	486	9	16	3	1	6	353	30	1447
Total	136	49	840	1170	2054	48	50	32	16	22	1477	119	6013
06:00 PM	30	5	174	253	454	12	6	10	2	1	351	27	1325
06:15 PM	32	11	190	217	443	8	2	4	3	1	336	34	1281
Grand Total	583	171	3211	3199	5907	109	146	148	80	74	6166	463	20257
Apprch %	14.7	4.3	81	34.7	64.1	1.2	39	39.6	21.4	1.1	92	6.9	
Total %	2.9	0.8	15.9	15.8	29.2	0.5	0.7	0.7	0.4	0.4	30.4	2.3	

City: NEWPORT BEACH
N-S Direction: DOVER-BAYSHORES
E-W Direction: COAST HIGHWAY

File Name : H1204023
Site Code : 00000554
Start Date : 4/25/2012
Page No : 2

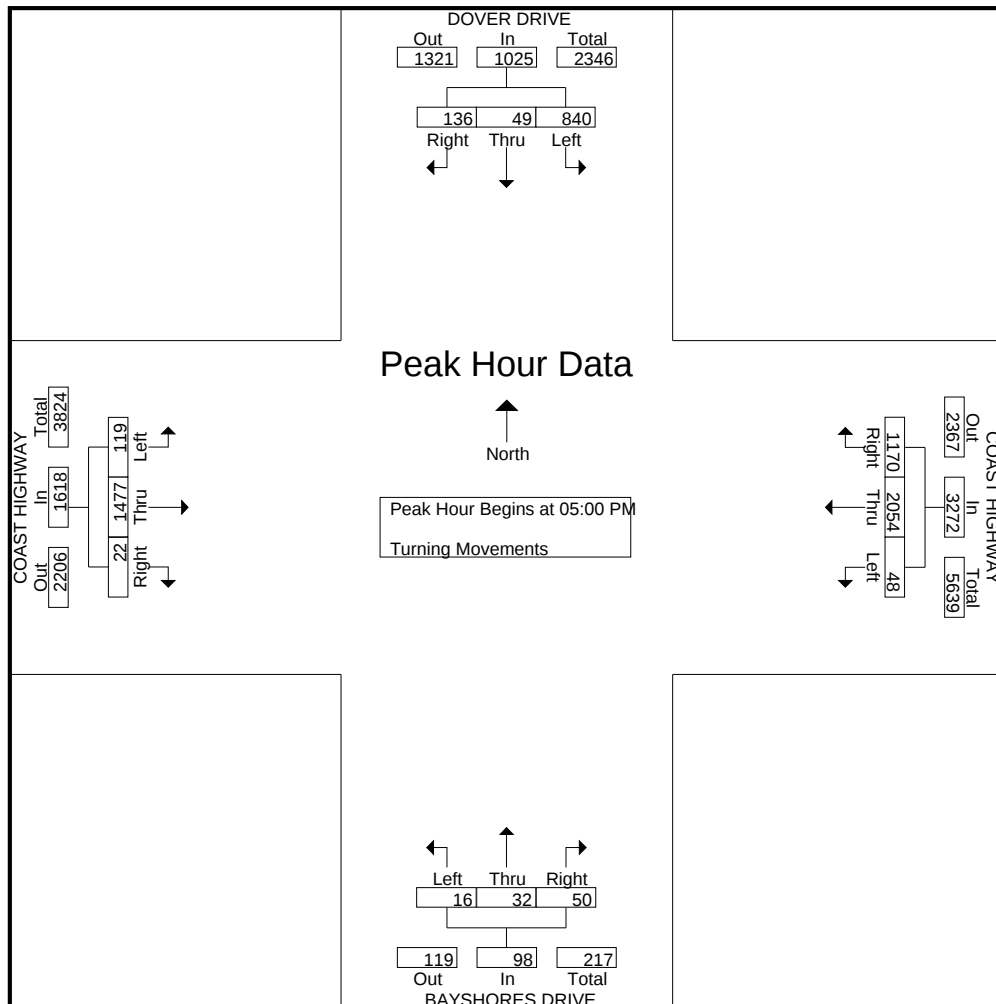
	DOVER DRIVE Southbound				COAST HIGHWAY Westbound				BAYSHORES DRIVE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	41	14	169	224	168	295	5	468	13	4	7	24	9	449	33	491	1207
08:15 AM	48	8	245	301	159	302	8	469	12	12	5	29	4	452	29	485	1284
08:30 AM	48	6	202	256	173	297	2	472	10	18	6	34	5	453	41	499	1261
08:45 AM	45	16	288	349	184	311	2	497	7	11	6	24	3	471	41	515	1385
Total Volume	182	44	904	1130	684	1205	17	1906	42	45	24	111	21	1825	144	1990	5137
% App. Total	16.1	3.9	80		35.9	63.2	0.9		37.8	40.5	21.6		1.1	91.7	7.2		
PHF	.948	.688	.785	.809	.929	.969	.531	.959	.808	.625	.857	.816	.583	.969	.878	.966	.927



City: NEWPORT BEACH
N-S Direction: DOVER-BAYSHORES
E-W Direction: COAST HIGHWAY

File Name : H1204023
Site Code : 00000554
Start Date : 4/25/2012
Page No : 3

	DOVER DRIVE Southbound				COAST HIGHWAY Westbound				BAYSHORES DRIVE Northbound				COAST HIGHWAY Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 06:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	32	12	181	225	258	509	10	777	9	9	3	21	7	379	32	418	1441
05:15 PM	34	12	230	276	323	544	16	883	10	11	4	25	4	389	29	422	1606
05:30 PM	32	12	221	265	305	515	13	833	15	9	8	32	5	356	28	389	1519
05:45 PM	38	13	208	259	284	486	9	779	16	3	1	20	6	353	30	389	1447
Total Volume	136	49	840	1025	1170	2054	48	3272	50	32	16	98	22	1477	119	1618	6013
% App. Total	13.3	4.8	82		35.8	62.8	1.5		51	32.7	16.3		1.4	91.3	7.4		
PHF	.895	.942	.913	.928	.906	.944	.750	.926	.781	.727	.500	.766	.786	.949	.930	.959	.936



ITM Peak Hour Summary

Prepared by:

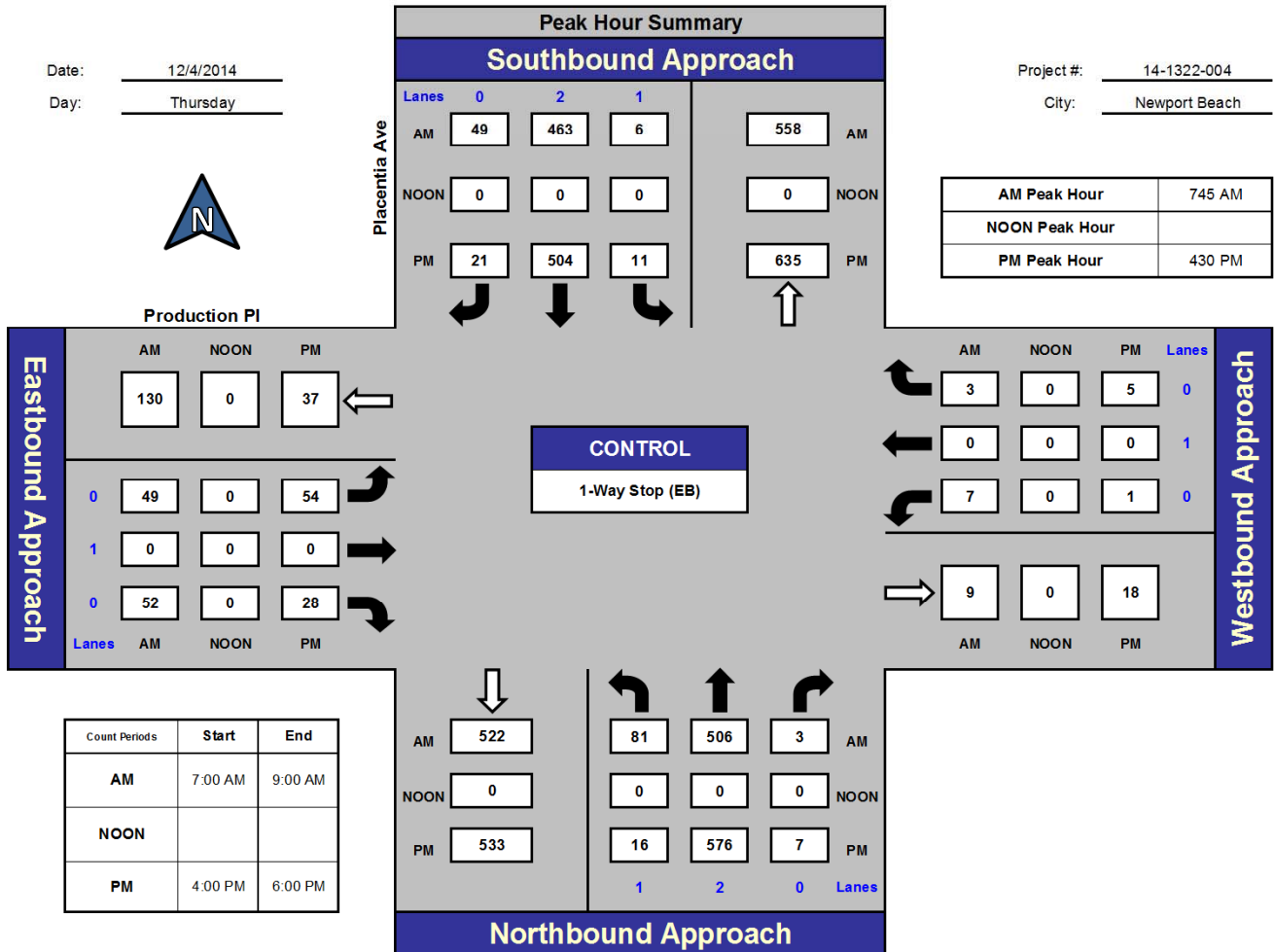


National Data & Surveying Services

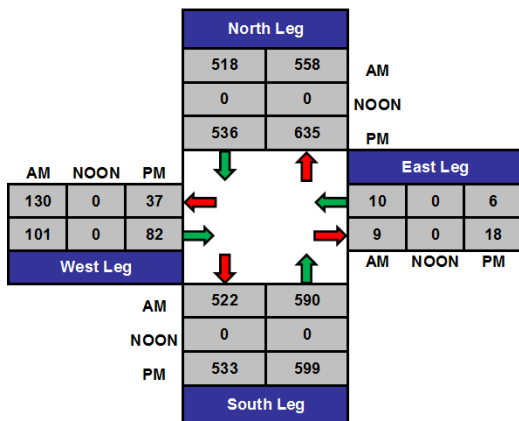
Placentia Ave and Production PI, Newport Beach

Date: 12/4/2014
Day: Thursday

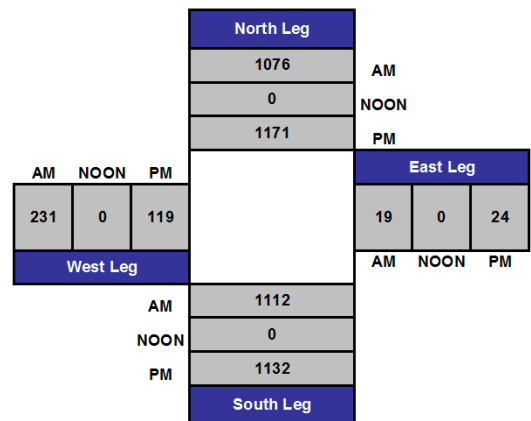
Project #: 14-1322-004
City: Newport Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

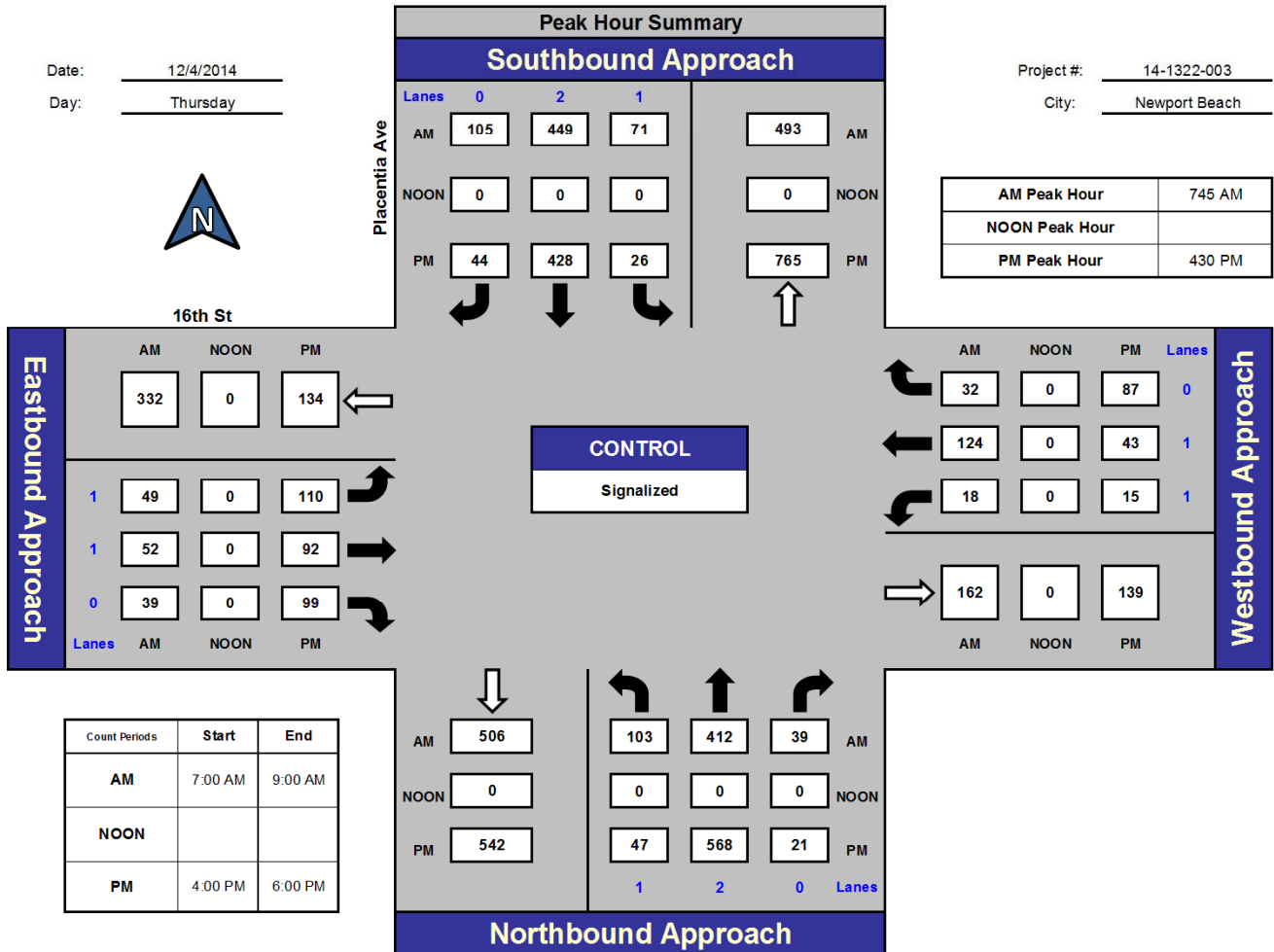


National Data & Surveying Services

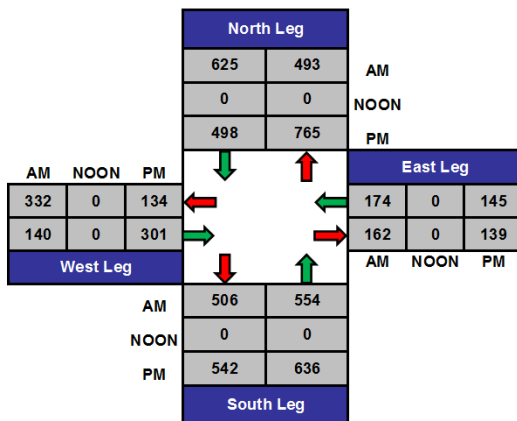
Placentia Ave and 16th St, Newport Beach

Date: 12/4/2014
Day: Thursday

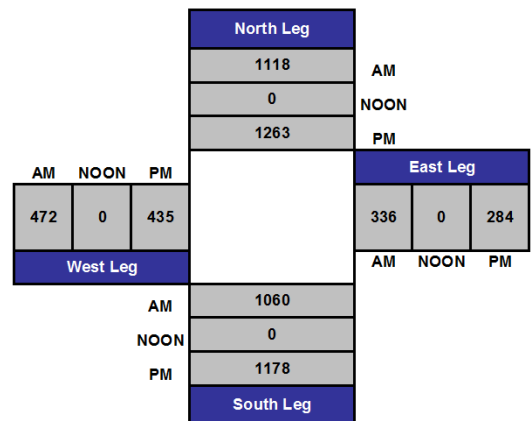
Project #: 14-1322-003
City: Newport Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

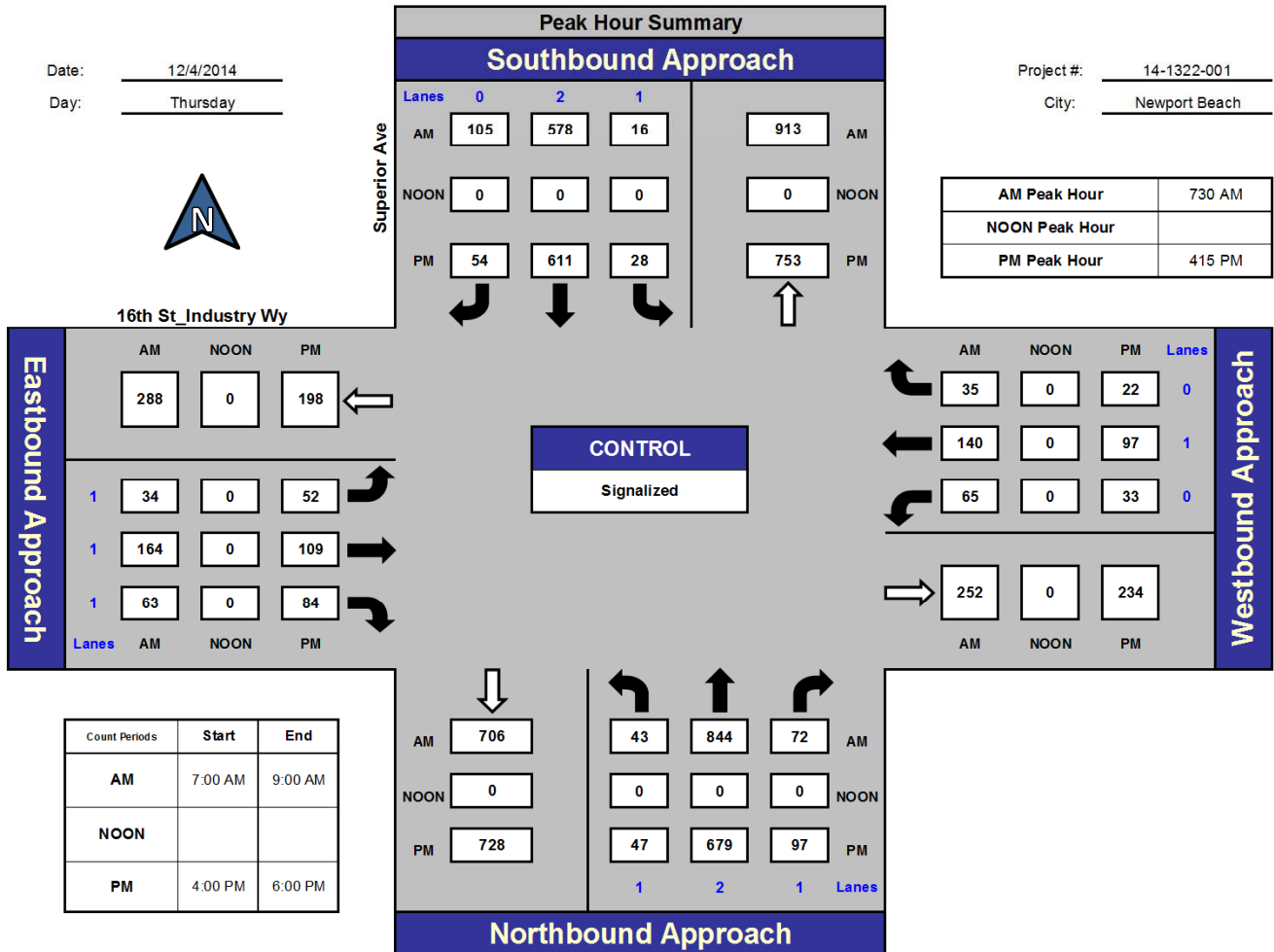


National Data & Surveying Services

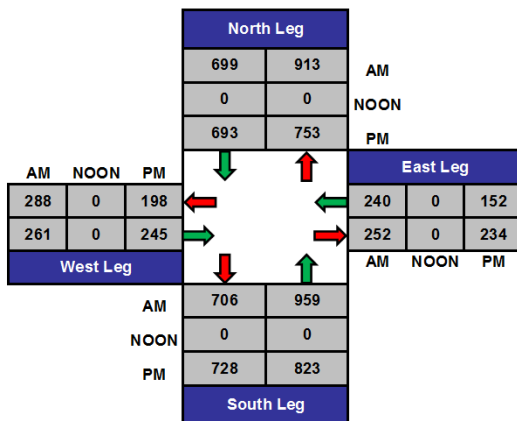
Superior Ave and 16th St Industry Wy, Newport Beach

Date: 12/4/2014
Day: Thursday

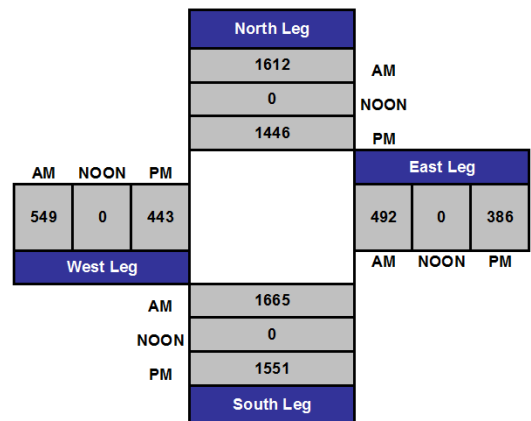
Project #: 14-1322-001
City: Newport Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

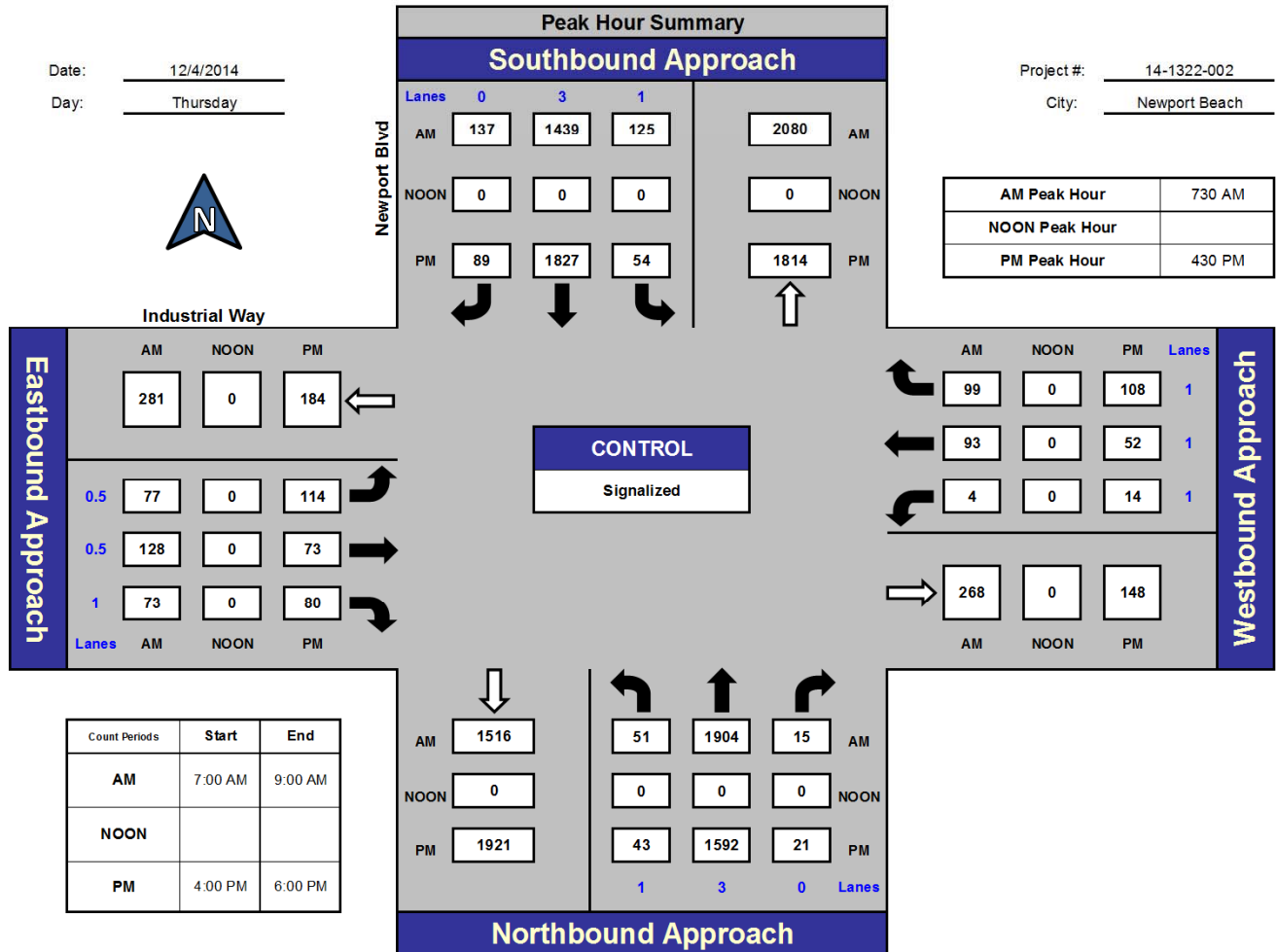


National Data & Surveying Services

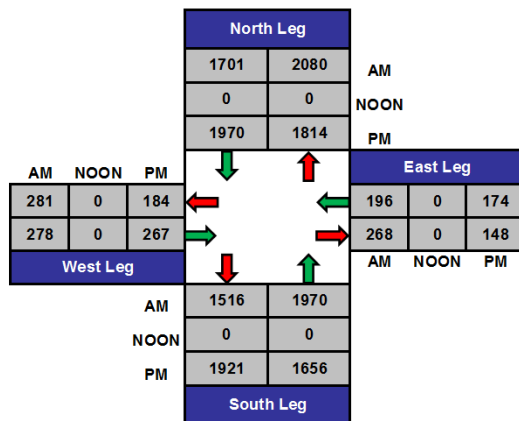
Newport Blvd and Industrial Way, Newport Beach

Date: 12/4/2014
Day: Thursday

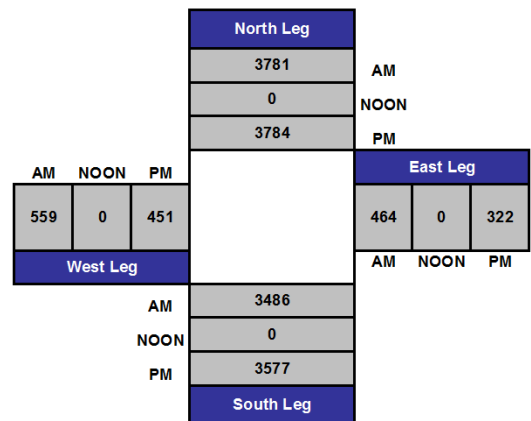
Project #: 14-1322-002
City: Newport Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

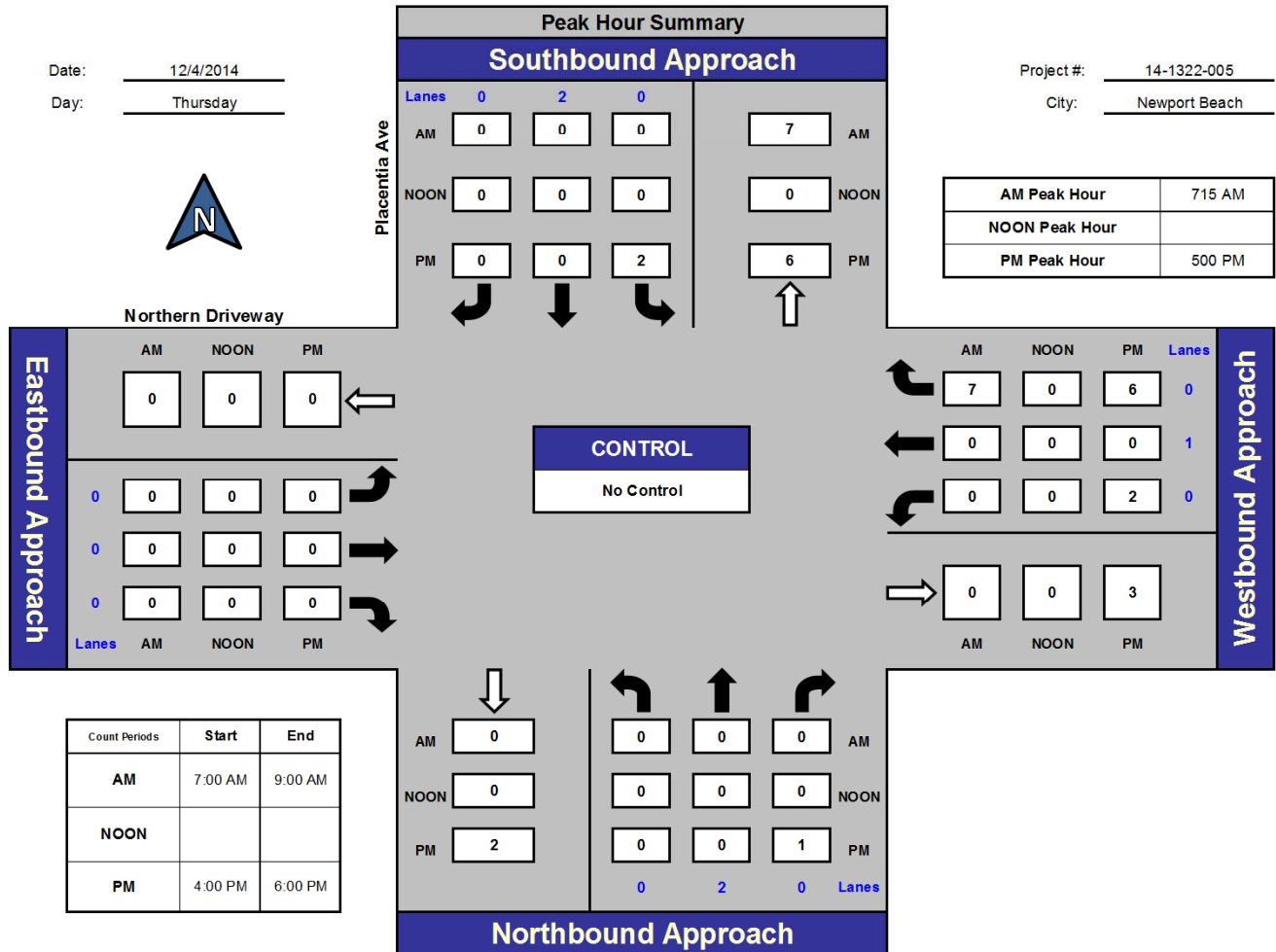


National Data & Surveying Services

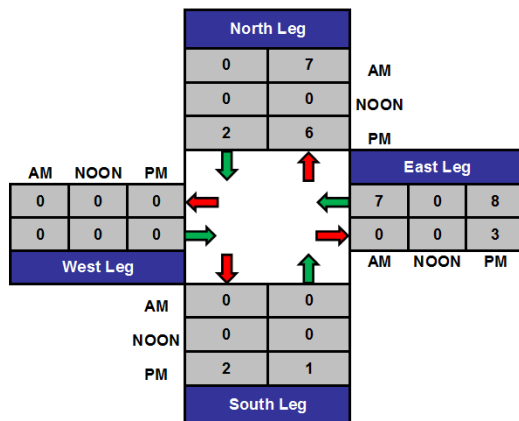
Placentia Ave and Northern Driveway, Newport Beach

Date: 12/4/2014
Day: Thursday

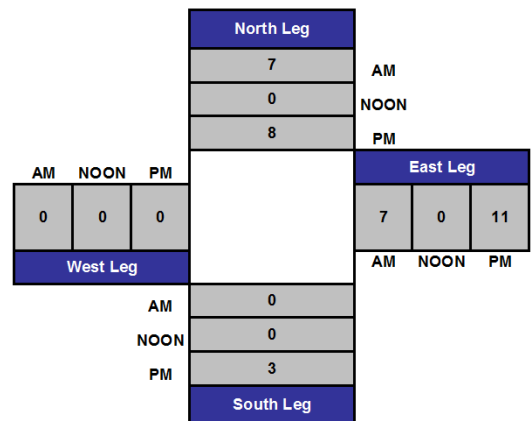
Project #: 14-1322-005
City: Newport Beach



Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

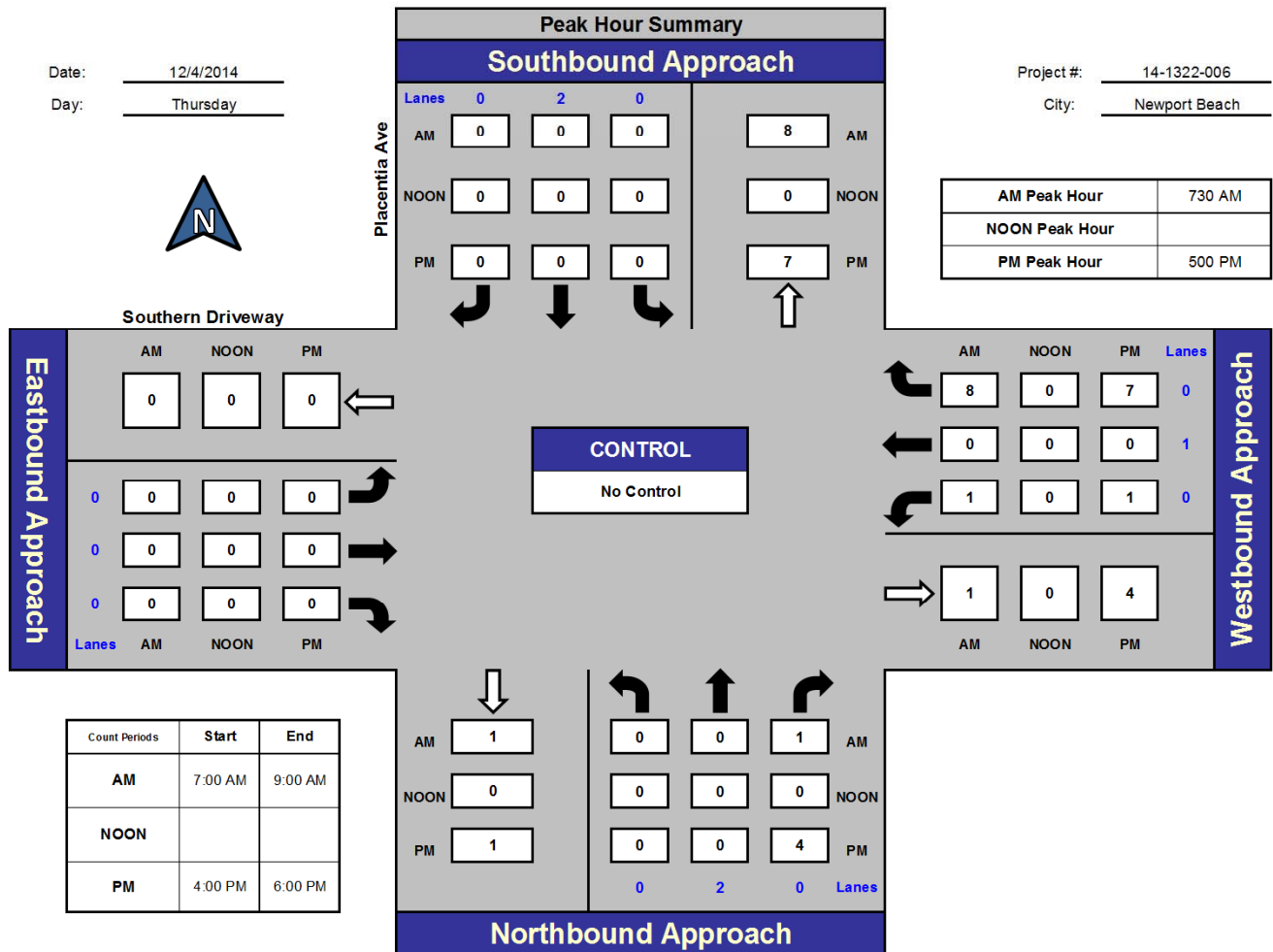


National Data & Surveying Services

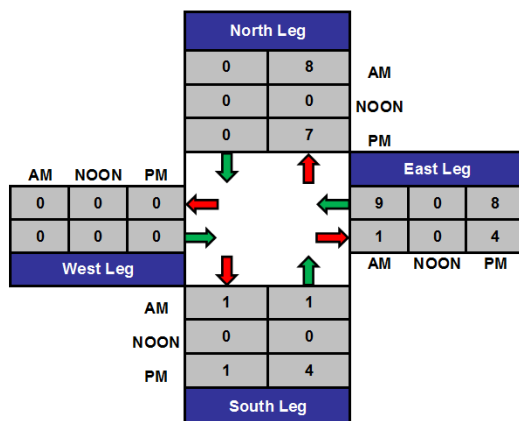
Placentia Ave and Southern Driveway, Newport Beach

Date: 12/4/2014
Day: Thursday

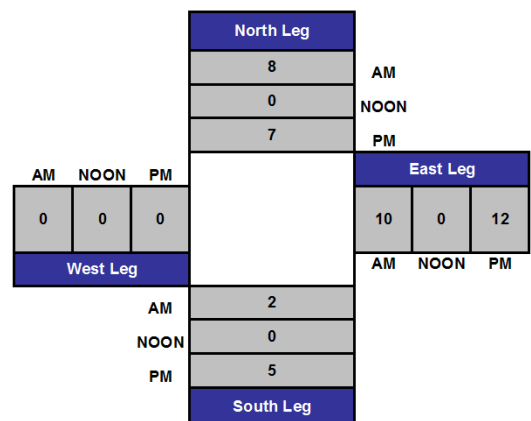
Project #: 14-1322-006
City: Newport Beach



Total Ins & Outs



Total Volume Per Leg





APPENDIX B

Regional Growth Percentages

CITY OF NEWPORT BEACH
REGIONAL TRAFFIC ANNUAL GROWTH RATE

COAST HIGHWAY

East city limit to MacArthur Boulevard	1%
MacArthur Boulevard to Jamboree Road	1%
Jamboree Road to Newport Boulevard	1%
Newport Boulevard to west city limit	1%

IRVINE AVENUE

All	1%
-----	----

JAMBOREE ROAD

Coast Highway to San Joaquin Hills Road	1%
San Joaquin Hills Road to Bison	1%
Bison to Bristol	1%
Bristol to Campus	1%

MACARTHUR BOULEVARD

Coast Highway to San Joaquin Hills Road	1%
San Joaquin Hills Road to north city limit	1%

NEWPORT BOULEVARD

Coast Highway to north city limit	1%
-----------------------------------	----

Street segments not listed are assumed to have 0% regional growth.



APPENDIX C

Existing (2014) Intersection Level of Service Worksheets

Existing AM Thu Mar 12, 2015 13:49:07 Page 2-1

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.563
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 52 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:	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:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	14	183	73	25	282	316	349	930	22	95	273	8
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:	14	183	73	25	282	316	349	930	22	95	273	8
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:	14	183	73	25	282	316	349	930	22	95	273	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	183	73	25	282	316	349	930	22	95	273	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	183	73	25	282	316	349	930	22	95	273	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	183	73	25	282	316	349	930	22	95	273	8

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	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	0.71	0.29	1.00	1.00	1.00	1.00	1.95	0.05	1.00	1.94	0.06
Final Sat.:	1600	1144	456	1600	1600	1600	1600	3126	74	1600	3109	91

Capacity Analysis Module:

Vol/Sat:	0.01	0.16	0.16	0.02	0.18	0.20	0.22	0.30	0.30	0.06	0.09	0.09
Crit Moves:	****			****			****			****		

Existing AM Thu Mar 12, 2015 13:49:07 Page 3-1

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.578
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 54 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:	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:	1	0	3	1	0	3	2	0	1	1	0	1

Volume Module:

Base Vol:	98	1821	75	53	1288	357	213	121	198	66	211	27
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:	98	1821	75	53	1288	357	213	121	198	66	211	27
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:	98	1821	75	53	1288	357	213	121	198	66	211	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	98	1821	75	53	1288	357	213	121	198	66	211	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	98	1821	75	53	1288	357	213	121	198	66	211	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	98	1821	75	53	1288	357	213	121	198	66	211	27

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00	1.77	0.23
Final Sat.:	1600	4800	1600	1600	4800	1600	3200	1600	1600	1600	2837	363

Capacity Analysis Module:

Vol/Sat:	0.06	0.38	0.05	0.03	0.27	0.22	0.07	0.08	0.12	0.04	0.07	0.07
Crit Moves:	****			****			****			****		

Existing AM Thu Mar 12, 2015 13:49:07 Page 4-1

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.649
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 53 Level Of Service: B

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	1	0	2	1	0	3

Volume Module:

Base Vol:	13	3	43	50	0	28	15	2785	11	13	932	22
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	3	43	50	0	28	15	2785	11	13	932	22
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	3	43	50	0	28	15	2785	11	13	932	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	3	43	50	0	28	15	2785	11	13	932	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	3	43	50	0	28	15	2785	11	13	932	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	3	43	50	0	28	15	2785	11	13	932	22

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.81	0.19	1.00	1.00	0.00	1.00	1.00	2.99	0.01	1.00	3.00	1.00
Final Sat.:	1300	300	1600	1600	0	1600	1600	4781	19	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.03	0.03	0.00	0.02	0.01	0.58	0.01	0.19	0.01	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Existing AM Thu Mar 12, 2015 13:49:07 Page 5-1

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.653
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 66 Level Of Service: B

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			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	1	0	1	1	0	2	0	3	1	0	4

Volume Module:

Base Vol:	169	347	150	227	149	203	912	1740	215	80	538	202
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:	169	347	150	227	149	203	912	1740	215	80	538	202
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:	169	347	150	227	149	203	912	1740	215	80	538	202
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	169	347	150	227	149	203	912	1740	215	80	538	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	347	150	227	149	203	912	1740	215	80	538	202
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	347	150	227	149	203	912	1740	215	80	538	202
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	1.33	0.67	1.81	1.19	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	1600	2123	1077	2898	1902	3200	3200	4800	1600	1600	6400	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.16	0.14	0.08	0.08	0.06	0.28	0.36	0.13	0.05	0.08	0.13
OvlAdjV/S:						0.00						
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Existing AM Thu Mar 12, 2015 13:49:07 Page 6-1

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

Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.873
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 179 Level Of Service: D

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			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	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	2	0	0	0	0	2	0	0	3

Volume Module:

Base Vol:	0	0	0	460	0	242	0	2309	137	0	816	378
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	460	0	242	0	2309	137	0	816	378
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:	0	0	0	460	0	242	0	2309	137	0	816	378
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	460	0	242	0	2309	0	0	816	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	460	0	242	0	2309	0	0	816	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	460	0	242	0	2309	0	0	816	0

Saturation Flow Module:

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

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.14	0.00	0.15	0.00	0.72	0.00	0.00	0.17	0.00
Crit Moves:				****			****			****		

Existing AM Thu Mar 12, 2015 13:49:07 Page 7-1

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

Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.771
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 81 Level Of Service: C

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			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:	0	0	1	0	0	0	1	0	1	0	0	1

Volume Module:

Base Vol:	2	2	3	65	0	342	286	2285	11	13	1245	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:	2	2	3	65	0	342	286	2285	11	13	1245	59
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:	2	2	3	65	0	342	286	2285	11	13	1245	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:	2	2	3	65	0	342	286	2285	11	13	1245	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	2	3	65	0	342	286	2285	11	13	1245	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:	2	2	3	65	0	342	286	2285	11	13	1245	59
OvlAdjVol:							56					

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.29	0.43	1.00	0.00	1.00	1.00	1.99	0.01	1.00	3.00	1.00
Final Sat.:	457	457	686	1600	0	1600	1600	3185	15	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.21	0.18	0.72	0.72	0.01	0.26	0.04
OvlAdjV/S:				0.04								
Crit Moves:				****			****			****		

Existing AM Thu Mar 12, 2015 13:49:07 Page 8-1

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: C

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 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 0 0 0 42 0 15 25 2321 0 0 1315 35
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 42 0 15 25 2321 0 0 1315 35
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: 0 0 0 42 0 15 25 2321 0 0 1315 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 42 0 15 25 2321 0 0 1315 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 42 0 15 25 2321 0 0 1315 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 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 42 0 15 25 2321 0 0 1315 35

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.92 0.08
Final Sat.: 0 1600 0 1179 0 421 1600 3200 0 0 4676 124

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.04 0.02 0.73 0.00 0.00 0.28 0.28
Crit Moves: ****

Existing AM Thu Mar 12, 2015 13:49:07 Page 9-1

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.618
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: B

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 45 42 904 44 182 147 1862 21 17 1229 698
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: 24 45 42 904 44 182 147 1862 21 17 1229 698
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: 24 45 42 904 44 182 147 1862 21 17 1229 698
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 45 42 904 44 182 147 1862 21 17 1229 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 45 42 904 44 182 147 1862 21 17 1229 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: 24 45 42 904 44 182 147 1862 21 17 1229 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 1.03 0.97 3.00 1.00 1.00 2.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1600 1655 1545 4800 1600 1600 3200 4746 54 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.03 0.03 0.19 0.03 0.11 0.05 0.39 0.39 0.01 0.26 0.00
Crit Moves: ****

Existing AM Thu Mar 12, 2015 13:49:07 Page 10-1

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Placentia Avenue/Production Place

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: C[20.0]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

Volume Module:
Base Vol: 81 506 3 6 463 49 49 0 52 7 0 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 81 506 3 6 463 49 49 0 52 7 0 3
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: 81 506 3 6 463 49 49 0 52 7 0 3
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 81 506 3 6 463 49 49 0 52 7 0 3
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 81 506 3 6 463 49 49 0 52 7 0 3

Critical Gap Module:
Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 512 xxxx xxxx 509 xxxx xxxx 915 1171 256 913 1194 255
Potent Cap.: 1064 xxxx xxxx 1066 xxxx xxxx 231 194 749 232 188 751
Move Cap.: 1064 xxxx xxxx 1066 xxxx xxxx 216 179 749 202 173 751
Volume/Cap: 0.08 xxxx xxxx 0.01 xxxx xxxx 0.23 0.00 0.07 0.03 0.00 0.00

Level Of Service Module:
2Way95thQ: 0.2 xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Control Del: 8.7 xxxx xxxx 8.4 xxxx xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move: A * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 341 xxxx xxxx 259 xxxx
SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 1.2 xxxx xxxx 0.1 xxxx
Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 20.0 xxxx xxxx 19.5 xxxx
Shared LOS: * * * * * * * * * * C * C *
ApproachDel: xxxxxx xxxxxx 20.0 19.5
ApproachLOS: * * C C

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

Existing AM Thu Mar 12, 2015 13:49:07 Page 11-1

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

Intersection #10 Placentia Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.366
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 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: 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 1 1 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1 0

Volume Module:
Base Vol: 103 412 39 71 449 105 49 52 39 18 124 32
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: 103 412 39 71 449 105 49 52 39 18 124 32
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: 103 412 39 71 449 105 49 52 39 18 124 32
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 103 412 39 71 449 105 49 52 39 18 124 32
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 103 412 39 71 449 105 49 52 39 18 124 32
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 103 412 39 71 449 105 49 52 39 18 124 32

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 1.62 0.38 1.00 0.57 0.43 1.00 0.79 0.21
Final Sat.: 1600 2923 277 1600 2594 606 1600 914 686 1600 1272 328

Capacity Analysis Module:
Vol/Sat: 0.06 0.14 0.14 0.04 0.17 0.17 0.03 0.06 0.06 0.01 0.10 0.10
Crit Moves: ****

Existing AM Thu Mar 12, 2015 13:49:07 Page 12-1

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

 Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.456
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 26 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:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	0	1

Volume Module:

Base Vol:	43	844	72	16	578	105	34	164	63	65	140	35
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	844	72	16	578	105	34	164	63	65	140	35
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:	43	844	72	16	578	105	34	164	63	65	140	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	844	72	16	578	105	34	164	63	65	140	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	844	72	16	578	105	34	164	63	65	140	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	844	72	16	578	105	34	164	63	65	140	35

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.69	0.31	1.00	0.72	0.28	0.27	0.58	0.15
Final Sat.:	1600	3200	1600	1600	2708	492	1600	1156	444	433	933	233

Capacity Analysis Module:

Vol/Sat:	0.03	0.26	0.05	0.01	0.21	0.21	0.02	0.14	0.14	0.04	0.15	0.15
Crit Moves:	****			****			****			****		

Existing AM Thu Mar 12, 2015 13:49:07 Page 13-1

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

 Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.609
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 37 Level Of Service: B

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

Volume Module:

Base Vol:	51	1904	15	125	1439	137	77	128	73	4	93	99
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:	51	1904	15	125	1439	137	77	128	73	4	93	99
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:	51	1904	15	125	1439	137	77	128	73	4	93	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	51	1904	15	125	1439	137	77	128	73	4	93	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	1904	15	125	1439	137	77	128	73	4	93	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	1904	15	125	1439	137	77	128	73	4	93	99

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.98	0.02	1.00	2.74	0.26	0.38	0.62	1.00	1.00	1.00	1.00
Final Sat.:	1600	4762	38	1600	4383	417	601	999	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.40	0.40	0.08	0.33	0.33	0.05	0.13	0.05	0.00	0.06	0.06
Crit Moves:	****			****			****			****		

Existing PM Thu Mar 12, 2015 13:49:21 Page 2-1

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.673
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 70 Level Of Service: B

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:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	42	276	68	19	182	409	233	548	19	104	781	5
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:	42	276	68	19	182	409	233	548	19	104	781	5
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:	42	276	68	19	182	409	233	548	19	104	781	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	42	276	68	19	182	409	233	548	19	104	781	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	276	68	19	182	409	233	548	19	104	781	5
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	42	276	68	19	182	409	233	548	19	104	781	5

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	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	0.80	0.20	1.00	1.00	1.00	1.00	1.93	0.07	1.00	1.99	0.01
Final Sat.:	1600	1284	316	1600	1600	1600	1600	3093	107	1600	3180	20

Capacity Analysis Module:

Vol/Sat:	0.03	0.22	0.21	0.01	0.11	0.26	0.15	0.18	0.18	0.07	0.25	0.25
Crit Moves:	****					****	****			****		

Existing PM Thu Mar 12, 2015 13:49:21 Page 3-1

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.679
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 71 Level Of Service: B

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

Volume Module:

Base Vol:	119	1494	70	53	1736	209	312	102	255	134	205	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	119	1494	70	53	1736	209	312	102	255	134	205	51
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:	119	1494	70	53	1736	209	312	102	255	134	205	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	119	1494	70	53	1736	209	312	102	255	134	205	51
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	119	1494	70	53	1736	209	312	102	255	134	205	51
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	119	1494	70	53	1736	209	312	102	255	134	205	51

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00	1.60	0.40
Final Sat.:	1600	4800	1600	1600	4800	1600	3200	1600	1600	1600	2563	638

Capacity Analysis Module:

Vol/Sat:	0.07	0.31	0.04	0.03	0.36	0.13	0.10	0.06	0.16	0.08	0.08	0.08
Crit Moves:	****			****					****	****		

Existing PM Thu Mar 12, 2015 13:49:21 Page 4-1

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.653
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 54 Level Of Service: B

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	1	0	2	1	0	3

Volume Module:

Base Vol:	24	2	48	36	2	18	18	1247	16	35	2827	36
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:	24	2	48	36	2	18	18	1247	16	35	2827	36
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:	24	2	48	36	2	18	18	1247	16	35	2827	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:	24	2	48	36	2	18	18	1247	16	35	2827	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	2	48	36	2	18	18	1247	16	35	2827	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:	24	2	48	36	2	18	18	1247	16	35	2827	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:	0.92	0.08	1.00	0.95	0.05	1.00	1.00	2.96	0.04	1.00	3.00	1.00
Final Sat.:	1477	123	1600	1516	84	1600	1600	4739	61	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.26	0.26	0.02	0.59	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Existing PM Thu Mar 12, 2015 13:49:21 Page 5-1

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.669
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 69 Level Of Service: B

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			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	1	0	1	1	0	2	0	3	1	0	4

Volume Module:

Base Vol:	237	219	67	199	318	715	466	739	159	195	1960	144
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:	237	219	67	199	318	715	466	739	159	195	1960	144
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:	237	219	67	199	318	715	466	739	159	195	1960	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	237	219	67	199	318	715	466	739	159	195	1960	144
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	219	67	199	318	715	466	739	159	195	1960	144
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	237	219	67	199	318	715	466	739	159	195	1960	144
OvlAdjVol:						249						

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.36	1.26	0.38	1.15	1.85	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	2175	2010	615	1848	2952	3200	3200	4800	1600	1600	6400	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.11	0.11	0.11	0.11	0.22	0.15	0.15	0.10	0.12	0.31	0.09
OvlAdjV/S:						0.08						
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Existing PM Thu Mar 12, 2015 13:49:21 Page 6-1

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

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.659
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 67 Level Of Service: B

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	Ignore	Ignore
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Y+R:	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0	4.0 4.0 4.0
Lanes:	0 0 0 0 0	2 0 0 0 1	0 0 2 0 1	0 0 3 0 1

Volume Module:

Base Vol:	0 0 0	553 0 408	0 1220 90	0 1938 604
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	553 0 408	0 1220 90	0 1938 604
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:	0 0 0	553 0 408	0 1220 90	0 1938 604
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
PHF Volume:	0 0 0	553 0 408	0 1220 0	0 1938 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	553 0 408	0 1220 0	0 1938 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
FinalVolume:	0 0 0	553 0 408	0 1220 0	0 1938 0

Saturation Flow Module:

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

Capacity Analysis Module:

Vol/Sat:	0.00 0.00 0.00	0.17 0.00 0.26	0.00 0.38 0.00	0.00 0.40 0.00
Crit Moves:	****	****	****	****

Existing PM Thu Mar 12, 2015 13:49:21 Page 7-1

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

 Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.789
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 88 Level Of Service: C

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	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:	0 0 1! 0 0	0 1 0 0 1	1 0 1 1 0	1 0 3 0 1

Volume Module:

Base Vol:	9 12 12	73 4 441	249 1568 13	37 2436 56
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	9 12 12	73 4 441	249 1568 13	37 2436 56
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:	9 12 12	73 4 441	249 1568 13	37 2436 56
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Volume:	9 12 12	73 4 441	249 1568 13	37 2436 56
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	9 12 12	73 4 441	249 1568 13	37 2436 56
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	9 12 12	73 4 441	249 1568 13	37 2436 56
OvlAdjVol:		192		

Saturation Flow Module:

Sat/Lane:	1600 1600 1600	1600 1600 1600	1600 1600 1600	1600 1600 1600
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	0.27 0.37 0.36	0.95 0.05 1.00	1.00 1.98 0.02	1.00 3.00 1.00
Final Sat.:	436 582 582	1517 83 1600	1600 3174 26	1600 4800 1600

Capacity Analysis Module:

Vol/Sat:	0.01 0.02 0.02	0.05 0.05 0.28	0.16 0.49 0.49	0.02 0.51 0.04
OvlAdjV/S:		0.12		
Crit Moves:	****	****	****	****

Existing PM Thu Mar 12, 2015 13:49:21 Page 8-1

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.609
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

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 0 0 0 1 0 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 1 0 37 2 25 64 1591 5 0 2491 40
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: 2 1 0 37 2 25 64 1591 5 0 2491 40
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 0 37 2 25 64 1591 5 0 2491 40
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1 0 37 2 25 64 1591 5 0 2491 40

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.67 0.33 0.00 0.58 0.03 0.39 1.00 1.99 0.01 0.00 2.95 0.05
Final Sat.: 1067 533 0 925 50 625 1600 3190 10 0 4724 76

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.02 0.04 0.04 0.04 0.50 0.50 0.00 0.53 0.53
Crit Moves: ****

Existing PM Thu Mar 12, 2015 13:49:21 Page 9-1

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.681
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: B

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 16 32 50 840 49 136 121 1507 22 49 2095 1193
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 32 50 840 49 136 121 1507 22 49 2095 1193
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 32 50 840 49 136 121 1507 22 49 2095 1193
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 32 50 840 49 136 121 1507 22 49 2095 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 32 50 840 49 136 121 1507 22 49 2095 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: 16 32 50 840 49 136 121 1507 22 49 2095 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 3.00 1.00 1.00 2.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1600 1600 1600 4800 1600 1600 3200 4731 69 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.17 0.03 0.09 0.04 0.32 0.32 0.03 0.44 0.00
Crit Moves: ****

Existing PM Wed Apr 15, 2015 18:53:51 Page 2-1

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Placentia Avenue/Production Place

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[20.0]

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1 0 0 0

Volume Module:
 Base Vol: 16 576 7 11 504 21 54 0 28 1 0 0 5
 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: 16 576 7 11 504 21 54 0 28 1 0 0 5
 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: 16 576 7 11 504 21 54 0 28 1 0 0 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 16 576 7 11 504 21 54 0 28 1 0 0 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 16 576 7 11 504 21 54 0 28 1 0 0 5

Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
 FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
 Cnflct Vol: 525 xxxx xxxx 583 xxxx xxxx 857 1152 263 886 1159 292
 Potent Cap.: 1052 xxxx xxxx 1001 xxxx xxxx 254 199 742 242 198 711
 Move Cap.: 1052 xxxx xxxx 1001 xxxx xxxx 248 194 742 229 192 711
 Volume/Cap: 0.02 xxxx xxxx 0.01 xxxx xxxx 0.22 0.00 0.04 0.00 0.00 0.01

Level Of Service Module:
 2Way95thQ: 0.0 xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 Control Del: 8.5 xxxx xxxx 8.6 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 LOS by Move: A * * A * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 321 xxxx xxxx 526 xxxx
 SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 1.0 xxxx xxxx 0.0 xxxx
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 20.0 xxxx xxxx 11.9 xxxx
 Shared LOS: * * * * * * * C * B *
 ApproachDel: xxxxxx xxxxxx 20.0 11.9
 ApproachLOS: * * C B

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

Existing PM Wed Apr 15, 2015 18:53:51 Page 3-1

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

Intersection #10 Placentia Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.350
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 22 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: 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 1 1 0 1 0 1 1 0 1 0 0 1 0 1 0

Volume Module:
 Base Vol: 47 568 21 26 428 44 110 92 99 15 43 87
 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: 47 568 21 26 428 44 110 92 99 15 43 87
 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: 47 568 21 26 428 44 110 92 99 15 43 87
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 47 568 21 26 428 44 110 92 99 15 43 87
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 47 568 21 26 428 44 110 92 99 15 43 87
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 47 568 21 26 428 44 110 92 99 15 43 87

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 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 1.93 0.07 1.00 1.81 0.19 1.00 0.48 0.52 1.00 0.33 0.67
 Final Sat.: 1600 3086 114 1600 2902 298 1600 771 829 1600 529 1071

Capacity Analysis Module:
 Vol/Sat: 0.03 0.18 0.18 0.02 0.15 0.15 0.07 0.12 0.12 0.01 0.08 0.08
 Crit Moves: ****

Existing PM Wed Apr 15, 2015 18:53:52 Page 4-1

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

 Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.378
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 23 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:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	0	0	1

Volume Module:

Base Vol:	47	679	97	28	611	54	52	109	84	33	97	22
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:	47	679	97	28	611	54	52	109	84	33	97	22
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:	47	679	97	28	611	54	52	109	84	33	97	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	47	679	97	28	611	54	52	109	84	33	97	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	47	679	97	28	611	54	52	109	84	33	97	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	47	679	97	28	611	54	52	109	84	33	97	22

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.84	0.16	1.00	0.56	0.44	0.22	0.64	0.14
Final Sat.:	1600	3200	1600	1600	2940	260	1600	904	696	347	1021	232

Capacity Analysis Module:

Vol/Sat:	0.03	0.21	0.06	0.02	0.21	0.03	0.12	0.12	0.02	0.10	0.09
Crit Moves:	****			****		****			****		

Existing PM Wed Apr 15, 2015 18:53:53 Page 5-1

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

 Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.565
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 33 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:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	2	0	1	0	0	1	0

Volume Module:

Base Vol:	43	1592	21	54	1827	89	114	73	80	14	52	108
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	1592	21	54	1827	89	114	73	80	14	52	108
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:	43	1592	21	54	1827	89	114	73	80	14	52	108
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	1592	21	54	1827	89	114	73	80	14	52	108
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	1592	21	54	1827	89	114	73	80	14	52	108
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	1592	21	54	1827	89	114	73	80	14	52	108

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	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	2.96	0.04	1.00	2.86	0.14	0.61	0.39	1.00	1.00	1.00	1.00
Final Sat.:	1600	4738	62	1600	4577	223	975	625	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.34	0.34	0.03	0.40	0.40	0.07	0.12	0.05	0.01	0.03	0.07
Crit Moves:	****			****		****						



APPENDIX D

Existing (2014) Plus Project Intersection Level of Service Worksheets

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.566
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 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: 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: 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
Base Vol: 14 183 73 25 282 316 349 930 22 95 273 8
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: 14 183 73 25 282 316 349 930 22 95 273 8
Added Vol: 0 2 0 0 5 5 2 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 14 185 73 25 287 321 351 930 22 95 273 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 185 73 25 287 321 351 930 22 95 273 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 14 185 73 25 287 321 351 930 22 95 273 8
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 185 73 25 287 321 351 930 22 95 273 8

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 0.72 0.28 1.00 1.00 1.00 1.00 1.95 0.05 1.00 1.94 0.06
Final Sat.: 1600 1147 453 1600 1600 1600 1600 3126 74 1600 3109 91

Capacity Analysis Module:
Vol/Sat: 0.01 0.16 0.16 0.02 0.18 0.20 0.22 0.30 0.30 0.06 0.09 0.09
Crit Moves: **** **** **** ****

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.581
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 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: 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: 1 0 3 0 1 1 0 3 0 1 2 0 1 0 1 1 0 1 1 0

Volume Module:
Base Vol: 98 1821 75 53 1288 357 213 121 198 66 211 27
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: 98 1821 75 53 1288 357 213 121 198 66 211 27
Added Vol: 1 0 0 0 0 0 0 0 5 0 1 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 99 1821 75 53 1288 357 213 121 203 66 212 27
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 99 1821 75 53 1288 357 213 121 203 66 212 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 99 1821 75 53 1288 357 213 121 203 66 212 27
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 99 1821 75 53 1288 357 213 121 203 66 212 27

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.77 0.23
Final Sat.: 1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2838 362

Capacity Analysis Module:
Vol/Sat: 0.06 0.38 0.05 0.03 0.27 0.22 0.07 0.08 0.13 0.04 0.07 0.07
Crit Moves: **** **** **** ****

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

 Intersection #3 Orange Street/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.649
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 53 Level Of Service: B

 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 13 3 43 50 0 28 15 2785 11 13 932 22
 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 3 43 50 0 28 15 2785 11 13 932 22
 Added Vol: 0 0 0 0 0 0 0 0 1 0 0 3 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 13 3 43 50 0 28 15 2786 11 13 935 22
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 3 43 50 0 28 15 2786 11 13 935 22
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 13 3 43 50 0 28 15 2786 11 13 935 22
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 13 3 43 50 0 28 15 2786 11 13 935 22

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.81 0.19 1.00 1.00 0.00 1.00 1.00 2.99 0.01 1.00 3.00 1.00
 Final Sat.: 1300 300 1600 1600 0 1600 1600 4781 19 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.01 0.03 0.03 0.00 0.02 0.01 0.58 0.01 0.19 0.01
 Crit Moves: **** **

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

 Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.654
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 66 Level Of Service: B

 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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

 Volume Module:
 Base Vol: 169 347 150 227 149 203 912 1740 215 80 538 202
 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: 169 347 150 227 149 203 912 1740 215 80 538 202
 Added Vol: 0 0 0 1 1 3 1 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 169 347 150 228 150 206 913 1740 215 80 538 202
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 169 347 150 228 150 206 913 1740 215 80 538 202
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 169 347 150 228 150 206 913 1740 215 80 538 202
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 169 347 150 228 150 206 913 1740 215 80 538 202
 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 1.33 0.67 1.81 1.19 2.00 2.00 3.00 1.00 1.00 4.00 1.00
 Final Sat.: 1600 2123 1077 2895 1905 3200 3200 4800 1600 1600 6400 1600

 Capacity Analysis Module:
 Vol/Sat: 0.11 0.16 0.14 0.08 0.08 0.06 0.29 0.36 0.13 0.05 0.08 0.13
 OvlAdjV/S: 0.00
 Crit Moves: **** **

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

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.873
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: D

 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 Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 3 0 1

 Volume Module:
 Base Vol: 0 0 0 460 0 242 0 2309 137 0 816 378
 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 0 460 0 242 0 2309 137 0 816 378
 Added Vol: 0 0 0 4 0 0 0 1 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 464 0 242 0 2310 137 0 816 378
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 0 464 0 242 0 2310 0 0 816 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 464 0 242 0 2310 0 0 816 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 464 0 242 0 2310 0 0 816 0

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

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.15 0.00 0.15 0.00 0.72 0.00 0.00 0.17 0.00
 Crit Moves: *****

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

 Intersection #6 Riverside Drive/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.772
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 82 Level Of Service: C

 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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 2 2 3 65 0 342 286 2285 11 13 1245 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: 2 2 3 65 0 342 286 2285 11 13 1245 59
 Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 2 2 3 65 0 342 286 2290 11 13 1247 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: 2 2 3 65 0 342 286 2290 11 13 1247 59
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 2 3 65 0 342 286 2290 11 13 1247 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: 2 2 3 65 0 342 286 2290 11 13 1247 59
 OvlAdjVol: 56

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.28 0.29 0.43 1.00 0.00 1.00 1.00 1.99 0.01 1.00 3.00 1.00
 Final Sat.: 457 457 686 1600 0 1600 1600 3185 15 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.21 0.18 0.72 0.72 0.01 0.26 0.04
 OvlAdjV/S: 0.04
 Crit Moves: *****

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.763
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: C

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 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 0 0 0 42 0 15 25 2321 0 0 1315 35
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 42 0 15 25 2321 0 0 1315 35
Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 42 0 15 25 2326 0 0 1317 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 42 0 15 25 2326 0 0 1317 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 42 0 15 25 2326 0 0 1317 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 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 42 0 15 25 2326 0 0 1317 35

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.92 0.08
Final Sat.: 0 1600 0 1179 0 421 1600 3200 0 0 4676 124

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.04 0.02 0.73 0.00 0.00 0.28 0.28
Crit Moves: ****

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.619
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: B

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 45 42 904 44 182 147 1862 21 17 1229 698
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: 24 45 42 904 44 182 147 1862 21 17 1229 698
Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 24 45 42 904 44 182 147 1867 21 17 1231 698
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 45 42 904 44 182 147 1867 21 17 1231 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 45 42 904 44 182 147 1867 21 17 1231 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: 24 45 42 904 44 182 147 1867 21 17 1231 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 1.03 0.97 3.00 1.00 1.00 2.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1600 1655 1545 4800 1600 1600 3200 4747 53 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.03 0.03 0.19 0.03 0.11 0.05 0.39 0.39 0.01 0.26 0.00
Crit Moves: ****

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #9 Placentia Avenue/Production Place
*****
Average Delay (sec/veh):      2.7      Worst Case Level Of Service: C[ 20.5]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 1 0      1 0 1 1 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      81 506      3      6 463      49      49 0      52      7 0      3
Growth Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Initial Bse:      81 506      3      6 463      49      49 0      52      7 0      3
Added Vol:      0 0      5      5 0      0      0 0      0      0 10      0 10
PasserByVol:      0 0      0      0 0      0      0 0      0      0 0      0
Initial Fut:      81 506      8      11 463      49      49 0      52      17 0      13
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      81 506      8      11 463      49      49 0      52      17 0      13
Reduct Vol:      0 0      0      0 0      0      0 0      0      0 0      0
FinalVolume:      81 506      8      11 463      49      49 0      52      17 0      13
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:      4.1 xxxx xxxx      4.1 xxxx xxxx      7.5 6.5      6.9      7.5 6.5      6.9
FollowUpTim:      2.2 xxxx xxxx      2.2 xxxx xxxx      3.5 4.0      3.3      3.5 4.0      3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      512 xxxx xxxx      514 xxxx xxxx      925 1186      256      926 1206      257
Potent Cap.:      1064 xxxx xxxx      1062 xxxx xxxx      227 190      749      227 185      748
Move Cap.:      1064 xxxx xxxx      1062 xxxx xxxx      209 174      749      197 169      748
Volume/Cap:      0.08 xxxx xxxx      0.01 xxxx xxxx      0.23 0.00      0.07      0.09 0.00      0.02
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:      0.2 xxxx xxxx      0.0 xxxx xxxx      xxxx xxxx      xxxx      xxxx xxxx
Control Del:      8.7 xxxx xxxx      8.4 xxxx xxxx      xxxx xxxx      xxxx      xxxx xxxx
LOS by Move:      A * *      A * *      * * *      * * *      * * *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:      xxxx xxxx xxxx      xxxx xxxx xxxx      xxxx 332      xxxx      xxxx 290      xxxx
SharedQueue:      xxxx xxxx xxxx      xxxx xxxx xxxx      xxxx 1.3      xxxx      xxxx 0.3      xxxx
Shrd ConDel:      xxxx xxxx xxxx      xxxx xxxx xxxx      xxxx 20.5      xxxx      xxxx 18.9      xxxx
Shared LOS:      * * *      * * *      * C      * C
ApproachDel:      xxxxxx      xxxxxx      20.5      18.9
ApproachLOS:      *      *      C      C
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Placentia Avenue/16th Street
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.366
Loss Time (sec):      0      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:      23      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:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      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 1 1 0      1 0 1 1 0      1 0 0 1 0      1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      103 412      39      71 449      105      49 52      39      18 124      32
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:      103 412      39      71 449      105      49 52      39      18 124      32
Added Vol:      0 2      8      0 1      0      0 0      0      4 0      0
PasserByVol:      0 0      0      0 0      0      0 0      0      0 0      0
Initial Fut:      103 414      47      71 450      105      49 52      39      22 124      32
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      103 414      47      71 450      105      49 52      39      22 124      32
Reduct Vol:      0 0      0      0 0      0      0 0      0      0 0      0
Reduced Vol:      103 414      47      71 450      105      49 52      39      22 124      32
PCE Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
MLF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
FinalVolume:      103 414      47      71 450      105      49 52      39      22 124      32
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600      1600      1600 1600      1600      1600 1600      1600      1600 1600      1600
Adjustment:      1.00 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 1.80      0.20      1.00 1.62      0.38      1.00 0.57      0.43      1.00 0.79      0.21
Final Sat.:      1600 2874      326      1600 2595      605      1600 914      686      1600 1272      328
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.06 0.14      0.14      0.04 0.17      0.17      0.03 0.06      0.06      0.01 0.10      0.10
Crit Moves:      ****      ****      ****      ****
*****
```

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

 Intersection #11 Superior Avenue/16th Street

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.459
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 27 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: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 0 0 1! 0 0

 Volume Module:
 Base Vol: 43 844 72 16 578 105 34 164 63 65 140 35
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 43 844 72 16 578 105 34 164 63 65 140 35
 Added Vol: 0 0 0 0 0 2 4 4 0 0 2 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 43 844 72 16 578 107 38 168 63 65 142 35
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 43 844 72 16 578 107 38 168 63 65 142 35
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 43 844 72 16 578 107 38 168 63 65 142 35
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 43 844 72 16 578 107 38 168 63 65 142 35

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.00 1.00 1.00 1.69 0.31 1.00 0.73 0.27 0.27 0.59 0.14
 Final Sat.: 1600 3200 1600 1600 2700 500 1600 1164 436 430 939 231

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.26 0.05 0.01 0.21 0.21 0.02 0.14 0.14 0.04 0.15 0.15
 Crit Moves: ****

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

 Intersection #12 Newport Boulevard/Industrial Way

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.611
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 37 Level Of Service: B

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

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

 Volume Module:
 Base Vol: 51 1904 15 125 1439 137 77 128 73 4 93 99
 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: 51 1904 15 125 1439 137 77 128 73 4 93 99
 Added Vol: 0 0 0 0 0 2 4 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 51 1904 15 125 1439 139 81 128 73 4 93 99
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 51 1904 15 125 1439 139 81 128 73 4 93 99
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 51 1904 15 125 1439 139 81 128 73 4 93 99
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 51 1904 15 125 1439 139 81 128 73 4 93 99

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.98 0.02 1.00 2.74 0.26 0.39 0.61 1.00 1.00 1.00 1.00
 Final Sat.: 1600 4762 38 1600 4377 423 620 980 1600 1600 1600 1600

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.40 0.40 0.08 0.33 0.33 0.05 0.13 0.05 0.00 0.06 0.06
 Crit Moves: ****

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.679
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: B

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: 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
Base Vol: 42 276 68 19 182 409 233 548 19 104 781 5
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: 42 276 68 19 182 409 233 548 19 104 781 5
Added Vol: 0 6 0 0 4 4 6 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 42 282 68 19 186 413 239 548 19 104 781 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 42 282 68 19 186 413 239 548 19 104 781 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 42 282 68 19 186 413 239 548 19 104 781 5
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 42 282 68 19 186 413 239 548 19 104 781 5

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 0.81 0.19 1.00 1.00 1.00 1.00 1.93 0.07 1.00 1.99 0.01
Final Sat.: 1600 1289 311 1600 1600 1600 1600 3093 107 1600 3180 20

Capacity Analysis Module:
Vol/Sat: 0.03 0.22 0.22 0.01 0.12 0.26 0.15 0.18 0.18 0.07 0.25 0.25
Crit Moves: **** ****

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.684
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: B

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

Volume Module:
Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 119 1494 70 53 1736 209 312 102 255 134 205 51
Added Vol: 4 0 0 0 0 0 0 0 4 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 123 1494 70 53 1736 209 312 102 259 134 208 51
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 1494 70 53 1736 209 312 102 259 134 208 51
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 123 1494 70 53 1736 209 312 102 259 134 208 51
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 123 1494 70 53 1736 209 312 102 259 134 208 51

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.61 0.39
Final Sat.: 1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2570 630

Capacity Analysis Module:
Vol/Sat: 0.08 0.31 0.04 0.03 0.36 0.13 0.10 0.06 0.16 0.08 0.08 0.08
Crit Moves: **** ****

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: B

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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 2 48 36 2 18 18 1247 16 35 2827 36
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: 24 2 48 36 2 18 18 1247 16 35 2827 36
Added Vol: 0 0 0 0 0 0 0 4 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 24 2 48 36 2 18 18 1251 16 35 2829 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: 24 2 48 36 2 18 18 1251 16 35 2829 36
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 2 48 36 2 18 18 1251 16 35 2829 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: 24 2 48 36 2 18 18 1251 16 35 2829 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: 0.92 0.08 1.00 0.95 0.05 1.00 1.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1477 123 1600 1516 84 1600 1600 4739 61 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.03 0.02 0.02 0.01 0.01 0.26 0.26 0.02 0.59 0.02
Crit Moves: **** **

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.671
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: B

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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

Volume Module:
Base Vol: 237 219 67 199 318 715 466 739 159 195 1960 144
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: 237 219 67 199 318 715 466 739 159 195 1960 144
Added Vol: 0 1 0 1 1 2 4 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 237 220 67 200 319 717 470 739 159 195 1960 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: 237 220 67 200 319 717 470 739 159 195 1960 145
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 237 220 67 200 319 717 470 739 159 195 1960 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: 237 220 67 200 319 717 470 739 159 195 1960 145
OvlAdjVol: 247

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.36 1.26 0.38 1.16 1.84 2.00 2.00 3.00 1.00 1.00 4.00 1.00
Final Sat.: 2172 2015 613 1850 2950 3200 3200 4800 1600 1600 6400 1600

Capacity Analysis Module:
Vol/Sat: 0.11 0.11 0.11 0.11 0.11 0.22 0.15 0.15 0.10 0.12 0.31 0.09
OvlAdjV/S: 0.08
Crit Moves: **** **

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

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.659
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 67 Level Of Service: B

 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 Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 3 0 1

 Volume Module:
 Base Vol: 0 0 0 553 0 408 0 1220 90 0 1938 604
 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 0 553 0 408 0 1220 90 0 1938 604
 Added Vol: 0 0 0 3 0 0 0 1 0 0 1 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 0 0 0 556 0 408 0 1221 90 0 1939 604
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 0 556 0 408 0 1221 0 0 1939 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 556 0 408 0 1221 0 0 1939 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 556 0 408 0 1221 0 0 1939 0

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

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.17 0.00 0.26 0.00 0.38 0.00 0.00 0.40 0.00
 Crit Moves: **** *

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

 Intersection #6 Riverside Drive/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.790
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 89 Level Of Service: C

 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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 9 12 12 73 4 441 249 1568 13 37 2436 56
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 9 12 12 73 4 441 249 1568 13 37 2436 56
 Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 9 12 12 73 4 441 249 1572 13 37 2442 56
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 9 12 12 73 4 441 249 1572 13 37 2442 56
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 9 12 12 73 4 441 249 1572 13 37 2442 56
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 9 12 12 73 4 441 249 1572 13 37 2442 56
 OvlAdjVol: 192

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.27 0.37 0.36 0.95 0.05 1.00 1.00 1.98 0.02 1.00 3.00 1.00
 Final Sat.: 436 582 582 1517 83 1600 1600 3174 26 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.02 0.02 0.05 0.05 0.28 0.16 0.50 0.50 0.02 0.51 0.04
 OvlAdjV/S: 0.12
 Crit Moves: **** *

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.610
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

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 0 0 0 1 0 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 1 0 37 2 25 64 1591 5 0 2491 40
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2 1 0 37 2 25 64 1595 5 0 2497 40
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 0 37 2 25 64 1595 5 0 2497 40
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1 0 37 2 25 64 1595 5 0 2497 40
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1 0 37 2 25 64 1595 5 0 2497 40

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.67 0.33 0.00 0.58 0.03 0.39 1.00 1.99 0.01 0.00 2.95 0.05
Final Sat.: 1067 533 0 925 50 625 1600 3190 10 0 4724 76

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.02 0.04 0.04 0.04 0.50 0.50 0.00 0.53 0.53
Crit Moves: **** **** **** ****

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.682
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: B

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 16 32 50 840 49 136 121 1507 22 49 2095 1193
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 32 50 840 49 136 121 1507 22 49 2095 1193
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 32 50 840 49 136 121 1511 22 49 2101 1193
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 32 50 840 49 136 121 1511 22 49 2101 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 32 50 840 49 136 121 1511 22 49 2101 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: 16 32 50 840 49 136 121 1511 22 49 2101 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 3.00 1.00 1.00 2.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1600 1600 1600 4800 1600 1600 3200 4731 69 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.17 0.03 0.09 0.04 0.32 0.32 0.03 0.44 0.00
Crit Moves: **** **** **** ****

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #9 Placentia Avenue/Production Place
*****
Average Delay (sec/veh):      1.9      Worst Case Level Of Service: C[ 21.2]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 1 0      1 0 1 1 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      16 576      7      11 504      21      54 0      28      1 0      5
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:      16 576      7      11 504      21      54 0      28      1 0      5
Added Vol:      0 0      13      0      0      0      0      8 0      8
PasserByVol:      0 0      0      0      0      0      0      0 0      0
Initial Fut:      16 576      20      24 504      21      54 0      28      9 0      13
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      16 576      20      24 504      21      54 0      28      9 0      13
Reduct Vol:      0 0      0      0      0      0      0      0 0      0
FinalVolume:      16 576      20      24 504      21      54 0      28      9 0      13
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:      4.1 xxxx xxxx      4.1 xxxx xxxx      7.5 6.5 6.9      7.5 6.5 6.9
FollowUpTim:      2.2 xxxx xxxx      2.2 xxxx xxxx      3.5 4.0 3.3      3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      525 xxxx xxxx      596 xxxx xxxx      883 1191      263      918 1191      298
Potent Cap.:      1052 xxxx xxxx      990 xxxx xxxx      244 189      742      230 189      704
Move Cap.:      1052 xxxx xxxx      990 xxxx xxxx      232 182      742      214 182      704
Volume/Cap:      0.02 xxxx xxxx      0.02 xxxx xxxx      0.23 0.00      0.04      0.04 0.00      0.02
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:      0.0 xxxx xxxx      0.1 xxxx xxxx      xxxx xxxx xxxx      xxxx xxxx xxxx
Control Del:      8.5 xxxx xxxx      8.7 xxxx xxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx
LOS by Move:      A * * *      A * * *      * * * *      * * * *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:      xxxx xxxx xxxxx      xxxx xxxx xxxxx      xxxx 303 xxxxx      xxxx 364 xxxxx
SharedQueue:xxxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx 1.1 xxxxx xxxxx      0.2 xxxxx
Shrd ConDel:xxxxxx xxxx xxxxx      xxxxx xxxx xxxxx      xxxxx 21.2 xxxxx xxxxx      15.5 xxxxx
Shared LOS:      * * * *      * * * *      * C      * C
ApproachDel:      xxxxxx      xxxxxx      21.2      15.5
ApproachLOS:      *      *      C      C
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Placentia Avenue/16th Street
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.353
Loss Time (sec):      0      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:      22      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:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      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      4.0 4.0      4.0
Lanes:      1 0 1 1 0      1 0 1 1 0      1 0 0 1 0      1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      47 568      21      26 428      44      110 92      99      15 43      87
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:      47 568      21      26 428      44      110 92      99      15 43      87
Added Vol:      0 2      6      0 3      0      0 0      0      10 0      0
PasserByVol:      0 0      0      0      0      0      0 0      0      0
Initial Fut:      47 570      27      26 431      44      110 92      99      25 43      87
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      47 570      27      26 431      44      110 92      99      25 43      87
Reduct Vol:      0 0      0      0      0      0      0 0      0      0
Reduced Vol:      47 570      27      26 431      44      110 92      99      25 43      87
PCE Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
MLF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
FinalVolume:      47 570      27      26 431      44      110 92      99      25 43      87
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600      1600      1600 1600      1600      1600 1600      1600      1600 1600      1600
Adjustment:      1.00 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 1.91      0.09      1.00 1.81      0.19      1.00 0.48      0.52      1.00 0.33      0.67
Final Sat.:      1600 3055      145      1600 2904      296      1600 771      829      1600 529      1071
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.03 0.19      0.19      0.02 0.15      0.15      0.07 0.12      0.12      0.02 0.08      0.08
Crit Moves:      ****      ****      ****      ****
*****
```

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

Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.382
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 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: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 0 0 1! 0 0

Volume Module:
Base Vol: 47 679 97 28 611 54 52 109 84 33 97 22
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: 47 679 97 28 611 54 52 109 84 33 97 22
Added Vol: 0 0 0 0 0 5 3 3 0 0 5 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 47 679 97 28 611 59 55 112 84 33 102 22
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 47 679 97 28 611 59 55 112 84 33 102 22
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 47 679 97 28 611 59 55 112 84 33 102 22
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 47 679 97 28 611 59 55 112 84 33 102 22

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.82 0.18 1.00 0.57 0.43 0.21 0.65 0.14
Final Sat.: 1600 3200 1600 1600 2918 282 1600 914 686 336 1039 224

Capacity Analysis Module:
Vol/Sat: 0.03 0.21 0.06 0.02 0.21 0.03 0.12 0.12 0.02 0.10 0.10
Crit Moves: ****

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

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.568
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 33 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: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 1 0 1 0 2 1 0 0 1 0 0 1 1 0 1 0 1

Volume Module:
Base Vol: 43 1592 21 54 1827 89 114 73 80 14 52 108
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 43 1592 21 54 1827 89 114 73 80 14 52 108
Added Vol: 0 0 0 0 0 5 3 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 43 1592 21 54 1827 94 117 73 80 14 52 108
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 43 1592 21 54 1827 94 117 73 80 14 52 108
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 43 1592 21 54 1827 94 117 73 80 14 52 108
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 43 1592 21 54 1827 94 117 73 80 14 52 108

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 2.96 0.04 1.00 2.85 0.15 0.62 0.38 1.00 1.00 1.00 1.00
Final Sat.: 1600 4738 62 1600 4565 235 985 615 1600 1600 1600 1600

Capacity Analysis Module:
Vol/Sat: 0.03 0.34 0.34 0.03 0.40 0.40 0.07 0.12 0.05 0.01 0.03 0.07
Crit Moves: ****



APPENDIX E

Approved Projects

24-NOV-14

Traffic Phasing Data
Projects Less Than 100% Complete

page: 1

Project Number	Project Name	Percent
148	FASHION ISLAND EXPANSION	40 %
154	TEMPLE BAT YAHM EXPANSION	65 %
910	NEWPORT DUNES	0 %
945	HOAG HOSPITAL PHASE III	0 %
949	ST. MARK PRESBYTERIAN CHU	77 %
955	2300 NEWPORT BLVD	0 %
958	HOAG HEALTH CENTER	85 %
959	NORTH NEWPORT CENTER	0 %
960	SANTA BARBARA CONDO (MARR	0 %
962	328 OLD NEWPORT MEDICAL O	0 %
964	BAYVIEW MEDICAL OFFICE -	0 %
965	MARINER'S POINTE 23,015 S	0 %
966	4221 DOLPHIN STRIKER - 13	55 %
967	SAN JOAQUIN HILLS PLZA RE	0 %
968	UPTOWN NEWPORT (PHASE 2)	0 %
969	UPTOWN NEWPORT (PHASE 1)	0 %
970	MARINA PARK	0 %
971	BACK BAY LANDING 300 ECH	0 %
972	WESTCLIFF DRIVE MEDICAL P	0 %
973	LIDO HOUSE HOTEL TRAFFIC	0 %

Traffic Phasing Ordinance
Approved Projects 80% Volume Summary
Intersection Report

		<u>Int. Number</u>		<u>Int. Name</u>													
		2565		SUPERIOR AVE / PLACENTIA AVE													
		1 Hr Peak Totals				1 Hr Peak											
		<u>NB</u>	<u>SB</u>	<u>EB</u>	<u>WB</u>	<u>NL</u>	<u>NT</u>	<u>NR</u>	<u>SL</u>	<u>ST</u>	<u>SR</u>	<u>EL</u>	<u>ET</u>	<u>ER</u>	<u>WL</u>	<u>WT</u>	<u>WR</u>
AM		12	8	9	8		5	7		8			9		4	4	
PM		21	5	12	37		12	9		5			12		16	21	

		<u>Int. Number</u>	<u>Int. Name</u>															
		2620	NEWPORT BLVD / COAST HWY W															
		1 Hr Peak Totals				1 Hr Peak												
		<u>NB</u>	<u>SB</u>	<u>EB</u>	<u>WB</u>	<u>NL</u>	<u>NT</u>	<u>NR</u>	<u>SL</u>	<u>ST</u>	<u>SR</u>	<u>EL</u>	<u>ET</u>	<u>ER</u>	<u>WL</u>	<u>WT</u>	<u>WR</u>	
AM			54	34	66				19		35		23	10		53	14	
PM			52	102	64				33		19		89	14		50	14	

		<u>Int. Number</u>	<u>Int. Name</u>															
		2630	RIVERSIDE AVE / COAST HWY W															
		1 Hr Peak Totals				1 Hr Peak												
		<u>NB</u>	<u>SB</u>	<u>EB</u>	<u>WB</u>	<u>NL</u>	<u>NT</u>	<u>NR</u>	<u>SL</u>	<u>ST</u>	<u>SR</u>	<u>EL</u>	<u>ET</u>	<u>ER</u>	<u>WL</u>	<u>WT</u>	<u>WR</u>	
AM			2	127	105				1		1		127			105		
PM			2	147	155				2			1	146			154	1	

		<u>Int. Number</u>		<u>Int. Name</u>													
		2635		COAST HWY W / TUSTIN AVE													
		1 Hr Peak Totals				1 Hr Peak											
		<u>NB</u>	<u>SB</u>	<u>EB</u>	<u>WB</u>	<u>NL</u>	<u>NT</u>	<u>NR</u>	<u>SL</u>	<u>ST</u>	<u>SR</u>	<u>EL</u>	<u>ET</u>	<u>ER</u>	<u>WL</u>	<u>WT</u>	<u>WR</u>
AM				127	105								127			105	
PM				147	156								147			156	

Traffic Phasing Ordinance
Approved Projects 80% Volume Summary
Intersection Report

	<u>Int. Number</u>				<u>Int. Name</u>												
	2480				BEACON ST / HOSPITAL RD NEWPORT BLVD												
	1 Hr Peak Totals				1 Hr Peak												
	<u>NB</u>	<u>SB</u>	<u>EB</u>	<u>WB</u>	<u>NL</u>	<u>NT</u>	<u>NR</u>	<u>SL</u>	<u>ST</u>	<u>SR</u>	<u>EL</u>	<u>ET</u>	<u>ER</u>	<u>WL</u>	<u>WT</u>	<u>WR</u>	
AM	72	99	19	6	10	56	6	8	81	10	12	5	3	2	2	2	
PM	95	79	35	29	10	81	5	5	69	6	19	3	12	9	7	13	

		<u>Int. Number</u>	<u>Int. Name</u>															
		2285	COAST HWY W / ORANGE ST															
		1 Hr Peak Totals				1 Hr Peak												
		<u>NB</u>	<u>SB</u>	<u>EB</u>	<u>WB</u>	<u>NL</u>	<u>NT</u>	<u>NR</u>	<u>SL</u>	<u>ST</u>	<u>SR</u>	<u>EL</u>	<u>ET</u>	<u>ER</u>	<u>WL</u>	<u>WT</u>	<u>WR</u>	
AM				51	33								51			33		
PM				40	63								40			63		

		<u>Int. Number</u>	<u>Int. Name</u>														
		1855	COAST HWY W / SUPERIOR AVE BALBOA BLVD														
		1 Hr Peak Totals				1 Hr Peak											
		NB	SB	EB	WB	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
AM		3	4	66	47	1	3			1	4	7	58	1		47	
PM		4	22	57	77	1	3			6	16	9	45	3		77	

		<u>Int. Number</u>		<u>Int. Name</u>													
		3060		COAST HWY W / DOVER DR BAYSHORE DR													
		1 Hr Peak Totals				1 Hr Peak											
		<u>NB</u>	<u>SB</u>	<u>EB</u>	<u>WB</u>	<u>NL</u>	<u>NT</u>	<u>NR</u>	<u>SL</u>	<u>ST</u>	<u>SR</u>	<u>EL</u>	<u>ET</u>	<u>ER</u>	<u>WL</u>	<u>WT</u>	<u>WR</u>
AM			46	124	125				33		14	22	103			89	35
PM			78	151	179				45		33	36	115			132	47



APPENDIX F

Future (2019) Plus Approved Plus Growth Intersection Level of Service Worksheets - TPO

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 2-1

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.568
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 53 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:	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:	1	0	0	1	0	0	1	0	1	1	0	1

Volume Module:

Base Vol:	14	183	73	25	282	316	349	930	22	95	273	8
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:	14	183	73	25	282	316	349	930	22	95	273	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	5	7	0	8	0	0	9	0	4	4	0
Initial Fut:	14	188	80	25	290	316	349	939	22	99	277	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	188	80	25	290	316	349	939	22	99	277	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	188	80	25	290	316	349	939	22	99	277	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	188	80	25	290	316	349	939	22	99	277	8

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	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	0.70	0.30	1.00	1.00	1.00	1.00	1.95	0.05	1.00	1.94	0.06
Final Sat.:	1600	1122	478	1600	1600	1600	1600	3127	73	1600	3110	90

Capacity Analysis Module:

Vol/Sat:	0.01	0.17	0.17	0.02	0.18	0.20	0.22	0.30	0.30	0.06	0.09	0.09
Crit Moves:	****			****			****			****		

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 3-1

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.618
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: B

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

Volume Module:

Base Vol:	98	1821	75	53	1288	357	213	121	198	66	211	27
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	103	1912	79	56	1352	375	213	121	198	66	211	27
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	56	6	8	81	10	12	5	3	2	2	2
Initial Fut:	113	1968	85	64	1433	385	225	126	201	68	213	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	1968	85	64	1433	385	225	126	201	68	213	29
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	113	1968	85	64	1433	385	225	126	201	68	213	29
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	113	1968	85	64	1433	385	225	126	201	68	213	29

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00	1.76	0.24
Final Sat.:	1600	4800	1600	1600	4800	1600	3200	1600	1600	1600	2817	383

Capacity Analysis Module:

Vol/Sat:	0.07	0.41	0.05	0.04	0.30	0.24	0.07	0.08	0.13	0.04	0.08	0.08
Crit Moves:	****			****			****			****		

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 4-1

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.689
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: B

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	1	0	2	1	0	3

Volume Module:

Base Vol:	13	3	43	50	0	28	15	2785	11	13	932	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	13	3	43	50	0	28	16	2924	12	14	979	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	51	0	0	33	0
Initial Fut:	13	3	43	50	0	28	16	2975	12	14	1012	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	3	43	50	0	28	16	2975	12	14	1012	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	3	43	50	0	28	16	2975	12	14	1012	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	3	43	50	0	28	16	2975	12	14	1012	23

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.81	0.19	1.00	1.00	0.00	1.00	1.00	2.99	0.01	1.00	3.00	1.00
Final Sat.:	1300	300	1600	1600	0	1600	1600	4781	19	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.03	0.03	0.00	0.02	0.01	0.62	0.62	0.01	0.21	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 5-1

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.688
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 73 Level Of Service: B

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			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	1	0	1	1	0	2	0	3	1	0	4

Volume Module:

Base Vol:	169	347	150	227	149	203	912	1740	215	80	538	202
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	169	347	150	227	149	203	958	1827	226	84	565	212
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	1	3	0	0	1	4	7	58	1	0	47	0
Initial Fut:	170	350	150	227	150	207	965	1885	227	84	612	212
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	170	350	150	227	150	207	965	1885	227	84	612	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	350	150	227	150	207	965	1885	227	84	612	212
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	170	350	150	227	150	207	965	1885	227	84	612	212

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	1.33	0.67	1.81	1.19	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	1600	2126	1074	2890	1910	3200	3200	4800	1600	1600	6400	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.16	0.14	0.08	0.08	0.06	0.30	0.39	0.14	0.05	0.10	0.13
OvlAdjV/S:						0.00						
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 6-1

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

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.946
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

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			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	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	2	0	0	1	0	0	2	0	1

Volume Module:

Base Vol:	0	0	0	460	0	242	0	2309	137	0	816	378
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	483	0	254	0	2424	144	0	857	397
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	19	0	35	0	23	10	0	53	14
Initial Fut:	0	0	0	502	0	289	0	2447	154	0	910	411
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	502	0	289	0	2447	0	0	910	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	502	0	289	0	2447	0	0	910	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	502	0	289	0	2447	0	0	910	0

Saturation Flow Module:

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

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.18	0.00	0.76	0.00	0.00	0.19	0.00
Crit Moves:				****	****		****		****			

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 7-1

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

 Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.847
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 122 Level Of Service: D

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			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:	0	0	1	0	0	0	1	0	1	0	3	0

Volume Module:

Base Vol:	2	2	3	65	0	342	286	2285	11	13	1245	59
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	2	2	3	65	0	342	300	2399	12	14	1307	62
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	1	0	1	0	127	0	0	105	0
Initial Fut:	2	2	3	66	0	343	300	2526	12	14	1412	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:	2	2	3	66	0	343	300	2526	12	14	1412	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	2	3	66	0	343	300	2526	12	14	1412	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:	2	2	3	66	0	343	300	2526	12	14	1412	62
OvlAdjVol:				43								

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.28	0.29	0.43	1.00	0.00	1.00	1.00	1.99	0.01	1.00	3.00	1.00
Final Sat.:	457	457	686	1600	0	1600	1600	3185	15	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.00	0.21	0.19	0.79	0.79	0.01	0.29	0.04
OvlAdjV/S:				0.03								
Crit Moves:	****			****			****			****		

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 8-1

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.837
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 114 Level Of Service: D

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 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 0 1 0 42 0 15 25 2321 0 0 1315 35
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 0 1 0 42 0 15 26 2437 0 0 1381 37
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 127 0 0 105 0
Initial Fut: 0 1 0 42 0 15 26 2564 0 0 1486 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 1 0 42 0 15 26 2564 0 0 1486 37
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1 0 42 0 15 26 2564 0 0 1486 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1 0 42 0 15 26 2564 0 0 1486 37

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.93 0.07
Final Sat.: 0 1600 0 1179 0 421 1600 3200 0 0 4684 116

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.04 0.02 0.80 0.00 0.00 0.32 0.32
Crit Moves: ****

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 9-1

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.667
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 68 Level Of Service: B

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 45 42 904 44 182 147 1862 21 17 1229 698
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 24 45 42 904 44 182 154 1955 22 18 1290 733
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 33 0 14 22 103 0 0 89 35
Initial Fut: 24 45 42 937 44 196 176 2058 22 18 1379 768
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 45 42 937 44 196 176 2058 22 18 1379 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 45 42 937 44 196 176 2058 22 18 1379 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: 24 45 42 937 44 196 176 2058 22 18 1379 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 1.03 0.97 3.00 1.00 1.00 2.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1600 1655 1545 4800 1600 1600 3200 4749 51 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.03 0.03 0.20 0.03 0.12 0.06 0.43 0.43 0.01 0.29 0.00
Crit Moves: ****

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 10-1

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Placentia Avenue/Production Place

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: C[20.3]

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

Volume Module:
 Base Vol: 81 506 3 6 463 49 49 0 52 7 0 3
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 81 506 3 6 463 49 49 0 52 7 0 3
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 5 0 0 8 0 0 0 0 0 0 0
 Initial Fut: 81 511 3 6 471 49 49 0 52 7 0 3
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 81 511 3 6 471 49 49 0 52 7 0 3
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 81 511 3 6 471 49 49 0 52 7 0 3

Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
 FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
 Cnflct Vol: 520 xxxx xxxx 514 xxxx xxxx 925 1184 260 922 1207 257
 Potent Cap.: 1056 xxxx xxxx 1062 xxxx xxxx 227 191 745 228 185 748
 Move Cap.: 1056 xxxx xxxx 1062 xxxx xxxx 212 175 745 199 170 748
 Volume/Cap: 0.08 xxxx xxxx 0.01 xxxx xxxx 0.23 0.00 0.07 0.04 0.00 0.00

Level Of Service Module:
 2Way95thQ: 0.2 xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 Control Del: 8.7 xxxx xxxx 8.4 xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 LOS by Move: A * * A * * * * * * * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 336 xxxx xxxx 255 xxxx
 SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 1.2 xxxx xxxx 0.1 xxxx
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 20.3 xxxx xxxx 19.7 xxxx
 Shared LOS: * * * * * * * * * * * C * * C *
 ApproachDel: xxxxxx xxxxxx 20.3 19.7
 ApproachLOS: * * C C

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

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 11-1

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

Intersection #10 Placentia Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.386
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 23 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: 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 1 1 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1 0

Volume Module:
 Base Vol: 103 412 39 71 449 105 49 52 39 18 124 32
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 108 433 41 75 471 110 51 55 41 19 130 34
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 5 0 0 8 0 0 0 0 0 0 0
 Initial Fut: 108 438 41 75 479 110 51 55 41 19 130 34
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 108 438 41 75 479 110 51 55 41 19 130 34
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 108 438 41 75 479 110 51 55 41 19 130 34
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 108 438 41 75 479 110 51 55 41 19 130 34

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 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 1.63 0.37 1.00 0.57 0.43 1.00 0.79 0.21
 Final Sat.: 1600 2926 274 1600 2602 598 1600 914 686 1600 1272 328

Capacity Analysis Module:
 Vol/Sat: 0.07 0.15 0.15 0.05 0.18 0.18 0.03 0.06 0.06 0.01 0.10 0.10
 Crit Moves: **** **** ****

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 12-1

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

 Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.484
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 28 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:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	0	1

Volume Module:

Base Vol:	43	844	72	16	578	105	34	164	63	65	140	35
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	45	886	76	17	607	110	36	172	66	68	147	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	16	0	0	8	0	0	0	0	0	0	0
Initial Fut:	45	902	76	17	615	110	36	172	66	68	147	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	902	76	17	615	110	36	172	66	68	147	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	902	76	17	615	110	36	172	66	68	147	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	902	76	17	615	110	36	172	66	68	147	37

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.70	0.30	1.00	0.72	0.28	0.27	0.58	0.15
Final Sat.:	1600	3200	1600	1600	2713	487	1600	1156	444	433	933	233

Capacity Analysis Module:

Vol/Sat:	0.03	0.28	0.05	0.01	0.23	0.23	0.02	0.15	0.15	0.04	0.16	0.16
Crit Moves:	****			****			****			****		

Future+Approved AM Thu Mar 12, 2015 13:40:39 Page 13-1

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

 Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.654
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 42 Level Of Service: B

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

Volume Module:

Base Vol:	51	1904	15	125	1439	137	77	128	73	4	93	99
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	54	1999	16	131	1511	144	81	134	77	4	98	104
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	70	0	0	99	0	0	0	0	0	0	0
Initial Fut:	54	2069	16	131	1610	144	81	134	77	4	98	104
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	2069	16	131	1610	144	81	134	77	4	98	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	2069	16	131	1610	144	81	134	77	4	98	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	2069	16	131	1610	144	81	134	77	4	98	104

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.98	0.02	1.00	2.75	0.25	0.38	0.62	1.00	1.00	1.00	1.00
Final Sat.:	1600	4764	36	1600	4406	394	601	999	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.43	0.43	0.08	0.37	0.37	0.05	0.13	0.05	0.00	0.06	0.06
Crit Moves:	****			****			****			****		

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 2-1

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.673
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 70 Level Of Service: B

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: 1 0 0 1 0 1 0 1 0 1 0 1

Volume Module:
 Base Vol: 42 276 68 19 182 409 223 548 19 104 781 5
 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: 42 276 68 19 182 409 223 548 19 104 781 5
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 12 9 0 5 0 0 12 0 16 21 0
 Initial Fut: 42 288 77 19 187 409 223 560 19 120 802 5
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 42 288 77 19 187 409 223 560 19 120 802 5
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 42 288 77 19 187 409 223 560 19 120 802 5
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 42 288 77 19 187 409 223 560 19 120 802 5

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 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 0.79 0.21 1.00 1.00 1.00 1.00 1.93 0.07 1.00 1.99 0.01
 Final Sat.: 1600 1262 338 1600 1600 1600 1600 3095 105 1600 3180 20

Capacity Analysis Module:
 Vol/Sat: 0.03 0.23 0.23 0.01 0.12 0.26 0.14 0.18 0.18 0.08 0.25 0.25
 Crit Moves: ****

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 3-1

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.735
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 86 Level Of Service: C

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

Volume Module:
 Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 125 1569 74 56 1823 219 312 102 255 134 205 51
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 81 5 5 69 6 19 3 12 9 7 13
 Initial Fut: 135 1650 79 61 1892 225 331 105 267 143 212 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: 135 1650 79 61 1892 225 331 105 267 143 212 64
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 135 1650 79 61 1892 225 331 105 267 143 212 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: 135 1650 79 61 1892 225 331 105 267 143 212 64

Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.54 0.46
 Final Sat.: 1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2458 742

Capacity Analysis Module:
 Vol/Sat: 0.08 0.34 0.05 0.04 0.39 0.14 0.10 0.07 0.17 0.09 0.09 0.09
 Crit Moves: ****

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 4-1

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.696
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 61 Level Of Service: B

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

Volume Module:

Base Vol:	24	2	48	36	2	18	18	1247	16	35	2827	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	24	2	48	36	2	18	19	1309	17	37	2968	38
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	40	0	0	63	0
Initial Fut:	24	2	48	36	2	18	19	1349	17	37	3031	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	2	48	36	2	18	19	1349	17	37	3031	38
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	2	48	36	2	18	19	1349	17	37	3031	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	2	48	36	2	18	19	1349	17	37	3031	38

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.92	0.08	1.00	0.95	0.05	1.00	1.00	2.96	0.04	1.00	3.00	1.00
Final Sat.:	1477	123	1600	1516	84	1600	1600	4741	59	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.28	0.28	0.02	0.63	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 5-1

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.708
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 78 Level Of Service: C

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			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	1	0	1	1	0	2	2	0	3	0	1

Volume Module:

Base Vol:	237	219	67	199	318	715	466	739	159	195	1960	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	237	219	67	199	318	715	489	776	167	205	2058	151
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	1	3	0	0	6	16	9	45	3	0	77	0
Initial Fut:	238	222	67	199	324	731	498	821	170	205	2135	151
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	238	222	67	199	324	731	498	821	170	205	2135	151
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	238	222	67	199	324	731	498	821	170	205	2135	151
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	238	222	67	199	324	731	498	821	170	205	2135	151
OvlAdjVol:						233						

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.36	1.26	0.38	1.14	1.86	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	2168	2022	610	1826	2974	3200	3200	4800	1600	1600	6400	1600

Capacity Analysis Module:

Vol/Sat:	0.11	0.11	0.11	0.11	0.11	0.23	0.16	0.17	0.11	0.13	0.33	0.09
OvlAdjV/S:						0.07						
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 6-1

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

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.714
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 80 Level Of Service: C

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			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	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	2	0	0	0	0	2	0	0	3

Volume Module:

Base Vol:	0	0	0	553	0	408	0	1220	90	0	1938	604
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	581	0	428	0	1281	95	0	2035	634
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	33	0	19	0	89	14	0	50	14
Initial Fut:	0	0	0	614	0	447	0	1370	109	0	2085	648
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	614	0	447	0	1370	0	0	2085	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	614	0	447	0	1370	0	0	2085	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	614	0	447	0	1370	0	0	2085	0

Saturation Flow Module:

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

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.19	0.00	0.28	0.00	0.43	0.00	0.00	0.43	0.00
Crit Moves:				****	****					****		

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 7-1

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

 Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.846
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 121 Level Of Service: D

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			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:	0	0	1	0	0	0	1	0	1	0	0	3

Volume Module:

Base Vol:	9	12	12	73	4	441	249	1568	13	37	2436	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	9	12	12	73	4	441	261	1646	14	39	2558	59
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	2	0	0	1	146	0	0	154	1
Initial Fut:	9	12	12	75	4	441	262	1792	14	39	2712	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:	9	12	12	75	4	441	262	1792	14	39	2712	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	12	75	4	441	262	1792	14	39	2712	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:	9	12	12	75	4	441	262	1792	14	39	2712	60
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:	0.27	0.37	0.36	0.95	0.05	1.00	1.00	1.98	0.02	1.00	3.00	1.00
Final Sat.:	436	582	582	1519	81	1600	1600	3176	24	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.02	0.05	0.05	0.28	0.16	0.56	0.56	0.02	0.56	0.04
OvlAdjV/S:				0.11								
Crit Moves:	****			****			****			****		

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 8-1

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.669
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 56 Level Of Service: B

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	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	2	1	0	37	2	25	64	1591	5	0	2491	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	2	1	0	37	2	25	67	1671	5	0	2616	42
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	147	0	0	156	0
Initial Fut:	2	1	0	37	2	25	67	1818	5	0	2772	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1	0	37	2	25	67	1818	5	0	2772	42
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1	0	37	2	25	67	1818	5	0	2772	42
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1	0	37	2	25	67	1818	5	0	2772	42

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.67	0.33	0.00	0.58	0.03	0.39	1.00	1.99	0.01	0.00	2.96	0.04
Final Sat.:	1067	533	0	925	50	625	1600	3191	9	0	4728	72

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.02	0.04	0.04	0.04	0.57	0.57	0.00	0.59	0.59
Crit Moves:	****			****			****			****		

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 9-1

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.752
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 92 Level Of Service: C

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			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	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	2	0	2	1	0	1

Volume Module:

Base Vol:	16	32	50	840	49	136	121	1507	22	49	2095	1193
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	16	32	50	840	49	136	127	1582	23	51	2200	1253
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	45	0	33	36	115	0	0	132	47
Initial Fut:	16	32	50	885	49	169	163	1697	23	51	2332	1300
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	16	32	50	885	49	169	163	1697	23	51	2332	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	32	50	885	49	169	163	1697	23	51	2332	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	16	32	50	885	49	169	163	1697	23	51	2332	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	3.00	1.00	1.00	2.00	2.96	0.04	1.00	3.00	1.00
Final Sat.:	1600	1600	1600	4800	1600	1600	3200	4736	64	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.03	0.18	0.03	0.11	0.05	0.36	0.36	0.03	0.49	0.00
Crit Moves:	****			****			****			****		

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 10-1

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Placentia Avenue/Production Place

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[20.4]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0

Volume Module:
Base Vol: 16 576 7 11 504 21 54 0 28 1 0 0 5
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: 16 576 7 11 504 21 54 0 28 1 0 0 5
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 12 0 0 5 0 0 0 0 0 0 0
Initial Fut: 16 588 7 11 509 21 54 0 28 1 0 0 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 16 588 7 11 509 21 54 0 28 1 0 0 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 16 588 7 11 509 21 54 0 28 1 0 0 5

Critical Gap Module:
Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 530 xxxx xxxx 595 xxxx xxxx 868 1169 265 900 1176 298
Potent Cap.: 1048 xxxx xxxx 991 xxxx xxxx 250 195 739 237 193 705
Move Cap.: 1048 xxxx xxxx 991 xxxx xxxx 243 190 739 223 188 705
Volume/Cap: 0.02 xxxx xxxx 0.01 xxxx xxxx 0.22 0.00 0.04 0.00 0.00 0.01

Level Of Service Module:
2Way95thQ: 0.0 xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Control Del: 8.5 xxxx xxxx 8.7 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move: A * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 315 xxxx xxxx 518 xxxx
SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 1.0 xxxx xxxx 0.0 xxxx
Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 20.4 xxxx xxxx 12.0 xxxx
Shared LOS: * * * * * * * * * * C * * B *
ApproachDel: xxxxxx xxxxxx 20.4 12.0
ApproachLOS: * * C B

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

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 11-1

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

Intersection #10 Placentia Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.372
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 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: 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 1 1 0 1 0 1 1 0 1 0 0 1 0

Volume Module:
Base Vol: 47 568 21 26 428 44 110 92 99 15 43 87
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 49 596 22 27 449 46 116 97 104 16 45 91
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 12 0 0 5 0 0 0 0 0 0 0
Initial Fut: 49 608 22 27 454 46 116 97 104 16 45 91
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 49 608 22 27 454 46 116 97 104 16 45 91
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 608 22 27 454 46 116 97 104 16 45 91
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 49 608 22 27 454 46 116 97 104 16 45 91

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 1.93 0.07 1.00 1.82 0.18 1.00 0.48 0.52 1.00 0.33 0.67
Final Sat.: 1600 3088 112 1600 2905 295 1600 771 829 1600 529 1071

Capacity Analysis Module:
Vol/Sat: 0.03 0.20 0.20 0.02 0.16 0.16 0.07 0.13 0.13 0.01 0.09 0.09
Crit Moves: ****

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 12-1

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

Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.409
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 24 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:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	0	1	0	0	1

Volume Module:

Base Vol:	47	679	97	28	611	54	52	109	84	33	97	22
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	49	713	102	29	642	57	55	114	88	35	102	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	21	0	0	37	0	0	0	0	0	0	0
Initial Fut:	49	734	102	29	679	57	55	114	88	35	102	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	734	102	29	679	57	55	114	88	35	102	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	734	102	29	679	57	55	114	88	35	102	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	734	102	29	679	57	55	114	88	35	102	23

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.85	0.15	1.00	0.56	0.44	0.22	0.64	0.14
Final Sat.:	1600	3200	1600	1600	2953	247	1600	904	696	347	1021	232

Capacity Analysis Module:

Vol/Sat:	0.03	0.23	0.06	0.02	0.23	0.23	0.03	0.13	0.13	0.02	0.10	0.10
Crit Moves:	****			****			****			****		

Future+Approved PM Thu Mar 12, 2015 13:40:55 Page 13-1

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

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.610
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 37 Level Of Service: B

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

Volume Module:

Base Vol:	43	1592	21	54	1827	89	114	73	80	14	52	108
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	45	1672	22	57	1918	93	120	77	84	15	55	113
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	113	0	0	80	0	0	0	0	0	0	0
Initial Fut:	45	1785	22	57	1998	93	120	77	84	15	55	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	45	1785	22	57	1998	93	120	77	84	15	55	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1785	22	57	1998	93	120	77	84	15	55	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1785	22	57	1998	93	120	77	84	15	55	113

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	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	2.96	0.04	1.00	2.87	0.13	0.61	0.39	1.00	1.00	1.00	1.00
Final Sat.:	1600	4741	59	1600	4586	214	975	625	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.38	0.38	0.04	0.44	0.44	0.07	0.12	0.05	0.01	0.03	0.07
Crit Moves:	****			****			****			****		



APPENDIX G

TPO Analysis One Percent Threshold Calculation Worksheets

AM Peak Hour

	No Analysis Required												
Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
1. Placentia Avenue/Superior Avenue													
Base (Existing+Growth)	14	183	73	25	282	316	349	930	22	95	273	8	2570
Proposed Project Trips	0	2	0	0	5	5	2	0	0	0	0	0	14
Approved Project Trips	0	5	7	0	8	0	0	9	0	4	4	0	37
Total Base Volume (Base+Approved)	14	188	80	25	290	316	349	939	22	99	277	8	2607
Total Approach Volume of Base		282			631			1310			384		
Project Trip at Approaches		2			10			2			0		
1% of Base Volume		2.82			6.31			13.1			3.84		
2. Newport Boulevard/Hospital Road													
Base (Existing+Growth)	101	1876	77	55	1327	368	213	121	198	66	211	27	4639
Proposed Project Trips	1	0	0	0	0	0	0	0	5	0	1	0	7
Approved Project Trips	10	56	6	8	81	10	12	5	3	2	2	2	197
Total Base Volume (Base+Approved)	111	1932	83	63	1408	378	225	126	201	68	213	29	4836
Total Approach Volume of Base		2126			1849			552			310		
Project Trip at Approaches		1			0			5			1		
1% of Base Volume		21.26			18.49			5.52			3.1		
3. Orange Street/Coast Highway													
Base (Existing+Growth)	13	3	43	50	0	28	15	2869	11	13	960	23	4028
Proposed Project Trips	0	0	0	0	0	0	0	1	0	0	3	0	4
Approved Project Trips	0	0	0	0	0	0	0	51	0	0	33	0	84
Total Base Volume (Base+Approved)	13	3	43	50	0	28	15	2920	11	13	993	23	4112
Total Approach Volume of Base		59			78			2946			1029		
Project Trip at Approaches		0			0			1			3		
1% of Base Volume		0.59			0.78			29.46			10.29		
4. Superior Avenue/Coast Highway													
Base (Existing+Growth)	171	350	152	229	150	205	930	1775	219	81	549	206	5018
Proposed Project Trips	0	0	0	1	1	3	1	0	0	0	0	0	6
Approved Project Trips	1	3	0	0	1	4	7	58	1	0	47	0	122
Total Base Volume (Base+Approved)	172	353	152	229	151	209	937	1833	220	81	596	206	
Total Approach Volume of Base		677			589			2990			883		
Project Trip at Approaches		0			5			1			0		
1% of Base Volume		6.77			5.89			29.9			8.83		
5. Newport Boulevard SB Ramps/Coast Highway													
Base (Existing+Growth)	0	0	0	469	0	247	0	2378	0	0	840	389	4324
Proposed Project Trips	0	0	0	4	0	0	0	1	0	0	0	0	5
Approved Project Trips	0	0	0	19	0	35	0	23	10	0	53	14	154
Total Base Volume (Base+Approved)	0	0	0	488	0	282	0	2401	10	0	893	403	
Total Approach Volume of Base		0			770			2411			1296		
Project Trip at Approaches		0			4			1			0		
1% of Base Volume		0			7.7			24.11			12.96		
6. Riverside Avenue/Coast Highway													
Base (Existing+Growth)	2	2	3	65	0	342	295	2354	11	13	1282	61	4430
Proposed Project Trips	0	0	0	0	0	0	0	5	0	0	2	0	7
Approved Project Trips	0	0	0	1	0	1	0	127	0	0	105	0	234
Total Base Volume (Base+Approved)	2	2	3	66	0	343	295	2481	11	13	1387	61	
Total Approach Volume of Base		7			409			2787			1461		
Project Trip at Approaches		0			0			5			2		
1% of Base Volume		0.07			4.09			27.87			14.61		
7. Tustin Avenue/Coast Highway													
Base (Existing+Growth)	0	1	0	42	0	15	26	2391	0	0	1354	36	3865
Proposed Project Trips	0	0	0	0	0	0	0	5	0	0	2	0	7
Approved Project Trips	0	0	0	0	0	0	0	127	0	0	105	0	232
Total Base Volume (Base+Approved)	0	1	0	42	0	15	26	2518	0	0	1459	36	
Total Approach Volume of Base		1			57			2544			1495		
Project Trip at Approaches		0			0			5			2		
1% of Base Volume		0.01			0.57			25.44			14.95		
8. Dover Drive/Coast Highway													
Base (Existing+Growth)	24	45	42	904	44	182	148	1880	22	18	1241	705	5254
Proposed Project Trips	0	0	0	0	0	0	0	5	0	0	2	0	7
Approved Project Trips	0	0	0	33	0	14	22	103	0	0	89	35	296
Total Base Volume (Base+Approved)	24	45	42	937	44	196	170	1983	22	18	1330	740	
Total Approach Volume of Base		111			1177			2175			2088		
Project Trip at Approaches		0			0			5			2		
1% of Base Volume		1.11			11.77			21.75			20.88		

9. Placentia Avenue/Production Place													
Base (Existing+Growth)	81	506	3	6	463	49	49	0	52	7	0	3	1219
Proposed Project Trips	0	0	5	5	0	0	0	0	0	10	0	10	30
Approved Project Trips	0	5	0	0	8	0	0	0	0	0	0	0	13
Total Base Volume (Base+Approved)	81	511	3	6	471	49	49	0	52	7	0	3	
Total Approach Volume of Base		595			526			101			10		
Project Trip at Approaches		5			5			0			20		
1% of Base Volume		5.95			5.26			1.01			0.1		
10. Placentia Avenue/16th Street													
Base (Existing+Growth)	103	412	39	71	449	105	49	52	39	18	124	32	1493
Proposed Project Trips	0	2	8	0	1	0	0	0	0	4	0	0	15
Approved Project Trips	0	5	0	0	8	0	0	0	0	0	0	0	13
Total Base Volume (Base+Approved)	103	417	39	71	457	105	49	52	39	18	124	32	
Total Approach Volume of Base		559			633			140			174		
Project Trip at Approaches		10			1			0			4		
1% of Base Volume		5.59			6.33			1.4			1.74		
11. Superior Avenue/16th Street-Industrial Way													
Base (Existing+Growth)	43	844	72	16	578	105	34	164	63	65	140	35	2159
Proposed Project Trips	0	0	0	0	0	2	4	4	0	0	2	0	12
Approved Project Trips	0	16	0	0	8	0	0	0	0	0	0	0	24
Total Base Volume (Base+Approved)	43	860	72	16	586	105	34	164	63	65	140	35	
Total Approach Volume of Base		975			707			261			240		
Project Trip at Approaches		0			2			8			2		
1% of Base Volume		9.75			7.07			2.61			2.4		
12. Newport Boulevard/Industrial Way													
Base (Existing+Growth)	53	1961	15	129	1482	141	77	128	73	4	93	99	4255
Proposed Project Trips	0	0	0	0	0	2	4	0	0	0	0	0	6
Approved Project Trips	0	70	0	0	99	0	0	0	0	0	0	0	169
Total Base Volume (Base+Approved)	53	2031	15	129	1581	141	77	128	73	4	93	99	
Total Approach Volume of Base		2099			1851			278			196		
Project Trip at Approaches		0			2			4			0		
1% of Base Volume		20.99			18.51			2.78			1.96		

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PM Peak Hour

	No Analysis Required												
Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
1. Placentia Avenue/Superior Avenue													
Base (Existing+Growth)	42	276	68	19	182	409	223	548	19	104	781	5	2676
Proposed Project Trips	0	6	0	0	4	4	6	0	0	0	0	0	20
Approved Project Trips	0	12	9	0	5	0	0	12	0	16	21	0	75
Total Base Volume (Base+Approved)	42	288	77	19	187	409	223	560	19	120	802	5	
Total Approach Volume of Base		407			615			802			927		
Project Trip at Approaches		6			8			6			0		
1% of Base Volume		4.07			6.15			8.02			9.27		
2. Newport Boulevard/Hospital Road													
Base (Existing+Growth)	123	1539	72	55	1788	215	312	102	255	134	205	51	4850
Proposed Project Trips	4	0	0	0	0	0	0	0	4	0	3	0	11
Approved Project Trips	10	81	5	5	69	6	19	3	12	9	7	13	239
Total Base Volume (Base+Approved)	133	1620	77	60	1857	221	331	105	267	143	212	64	
Total Approach Volume of Base		1830			2138			703			419		
Project Trip at Approaches		4			0			4			3		
1% of Base Volume		18.3			21.38			7.03			4.19		
3. Orange Street/Coast Highway													
Base (Existing+Growth)	24	2	48	36	2	18	19	1284	16	36	2912	37	4434
Proposed Project Trips	0	0	0	0	0	0	0	4	0	0	2	0	6
Approved Project Trips	0	0	0	0	0	0	0	40	0	0	63	0	103
Total Base Volume (Base+Approved)	24	2	48	36	2	18	19	1324	16	36	2975	37	
Total Approach Volume of Base		74			56			1359			3048		
Project Trip at Approaches		0			0			4			2		
1% of Base Volume		0.74			0.56			13.59			30.48		
4. Superior Avenue/Coast Highway													
Base (Existing+Growth)	237	219	67	199	318	715	480	761	164	201	2019	148	5528
Proposed Project Trips	0	1	0	1	1	2	4	0	0	0	0	1	10
Approved Project Trips	1	3	0	0	6	16	9	45	3	0	77	0	160
Total Base Volume (Base+Approved)	238	222	67	199	324	731	489	806	167	201	2096	148	
Total Approach Volume of Base		527			1254			1462			2445		
Project Trip at Approaches		1			4			4			1		
1% of Base Volume		5.27			12.54			14.62			24.45		
5. Newport Boulevard SB Ramps/Coast Highway													
Base (Existing+Growth)	0	0	0	564	0	416	0	1257	0	0	1996	622	4855
Proposed Project Trips	0	0	0	3	0	0	0	1	0	0	1	0	5
Approved Project Trips	0	0	0	33	0	19	0	89	14	0	50	14	219
Total Base Volume (Base+Approved)	0	0	0	597	0	435	0	1346	14	0	2046	636	
Total Approach Volume of Base		0			1032			1360			2682		
Project Trip at Approaches		0			3			1			1		
1% of Base Volume		0			10.32			13.6			26.82		
6. Riverside Avenue/Coast Highway													
Base (Existing+Growth)	9	12	12	73	4	441	256	1615	13	38	2509	58	5041
Proposed Project Trips	0	0	0	0	0	0	0	4	0	0	6	0	10
Approved Project Trips	0	0	0	2	0	0	1	146	0	0	154	1	304
Total Base Volume (Base+Approved)	9	12	12	75	4	441	257	1761	13	38	2663	59	
Total Approach Volume of Base		33			520			2031			2760		
Project Trip at Approaches		0			0			4			6		
1% of Base Volume		0.33			5.2			20.31			27.6		
7. Tustin Avenue/Coast Highway													
Base (Existing+Growth)	2	1	0	37	2	25	66	1639	5	0	2566	41	4384
Proposed Project Trips	0	0	0	0	0	0	0	4	0	0	6	0	10
Approved Project Trips	0	0	0	0	0	0	0	147	0	0	156	0	303
Total Base Volume (Base+Approved)	2	1	0	37	2	25	66	1786	5	0	2722	41	
Total Approach Volume of Base		3			64			1857			2763		
Project Trip at Approaches		0			0			4			6		
1% of Base Volume		0.03			0.64			18.57			27.63		
8. Dover Drive/Coast Highway													
Base (Existing+Growth)	16	32	50	840	49	136	125	1552	23	50	2158	1229	6260
Proposed Project Trips	0	0	0	0	0	0	0	4	0	0	6	0	10
Approved Project Trips	0	0	0	45	0	33	36	115	0	0	132	47	408
Total Base Volume (Base+Approved)	16	32	50	885	49	169	161	1667	23	50	2290	1276	
Total Approach Volume of Base		98			1103			1851			3616		
Project Trip at Approaches		0			0			4			6		
1% of Base Volume		0.98			11.03			18.51			36.16		

9. Placentia Avenue/Production Place													
Base (Existing+Growth)	16	576	7	11	504	21	54	0	28	1	0	5	1223
Proposed Project Trips	0	0	13	13	0	0	0	0	0	8	0	8	42
Approved Project Trips	0	12	0	0	5	0	0	0	0	0	0	0	17
Total Base Volume (Base+Approved)	16	588	7	11	509	21	54	0	28	1	0	5	
Total Approach Volume of Base		611			541			82			6		
Project Trip at Approaches		13			13			0			16		
1% of Base Volume		6.11			5.41			0.82			0.06		
10. Placentia Avenue/16th Street													
Base (Existing+Growth)	47	568	21	26	428	44	110	92	99	15	43	87	1580
Proposed Project Trips	0	2	6	0	3	0	0	0	0	10	0	0	21
Approved Project Trips	0	12	0	0	5	0	0	0	0	0	0	0	17
Total Base Volume (Base+Approved)	47	580	21	26	433	44	110	92	99	15	43	87	
Total Approach Volume of Base		648			503			301			145		
Project Trip at Approaches		8			3			0			10		
1% of Base Volume		6.48			5.03			3.01			1.45		
11. Superior Avenue/16th Street-Industrial Way													
Base (Existing+Growth)	47	679	97	28	611	54	52	109	84	33	97	22	1913
Proposed Project Trips	0	0	0	0	0	5	3	3	0	0	5	0	16
Approved Project Trips	0	21	0	0	37	0	0	0	0	0	0	0	58
Total Base Volume (Base+Approved)	47	700	97	28	648	54	52	109	84	33	97	22	
Total Approach Volume of Base		844			730			245			152		
Project Trip at Approaches		0			5			6			5		
1% of Base Volume		8.44			7.3			2.45			1.52		
12. Newport Boulevard/Industrial Way													
Base (Existing+Growth)	44	1640	22	56	1882	92	114	73	80	14	52	108	4176
Proposed Project Trips	0	0	0	0	0	5	3	0	0	0	0	0	8
Approved Project Trips	0	113	0	0	80	0	0	0	0	0	0	0	193
Total Base Volume (Base+Approved)	44	1753	22	56	1962	92	114	73	80	14	52	108	
Total Approach Volume of Base		1819			2110			267			174		
Project Trip at Approaches		0			5			3			0		
1% of Base Volume		18.19			21.1			2.67			1.74		

Traf	fix 8	.0.07	15 (c)	2008	Dowli	ng Ass	oc. Li	cense	d to D	KS ASS	OC.,	OAKLAN	D,CA
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APPENDIX H

Future (2019) Plus Approved Plus Growth Plus Project Intersection Level of Service Worksheets - TPO

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #1 Placentia Avenue/Superior Avenue
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.572
Loss Time (sec):   0           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     53          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:      Protected      Protected      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
Lanes:        1 0 0 1 0 1 1 0 1 0 1 1 0 1 1 0 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      14 183 73 25 282 316 349 930 22 95 273 8
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:    14 183 73 25 282 316 349 930 22 95 273 8
Added Vol:     0 2 0 0 5 5 2 0 0 0 0 0 0
PasserByVol:   0 5 7 0 8 0 0 9 0 4 4 0 0
Initial Fut:    14 190 80 25 295 321 351 939 22 99 277 8
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    14 190 80 25 295 321 351 939 22 99 277 8
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   14 190 80 25 295 321 351 939 22 99 277 8
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   14 190 80 25 295 321 351 939 22 99 277 8
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 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 0.70 0.30 1.00 1.00 1.00 1.00 1.95 0.05 1.00 1.94 0.06
Final Sat.:    1600 1126 474 1600 1600 1600 1600 3127 73 1600 3110 90
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.01 0.17 0.17 0.02 0.18 0.20 0.22 0.30 0.30 0.06 0.09 0.09
Crit Moves:    ****          ****          ****
*****
```

```
-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #2 Newport Boulevard/Hospital Road
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.621
Loss Time (sec):   0           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     60          Level Of Service:          B
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Protected      Protected      Protected      Protected
Rights:      Include      Include      Include      Include
Min. Green:    0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Y+R:          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:        1 0 3 0 1 1 0 3 0 1 2 0 1 0 1 1 0 1 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      98 1821 75 53 1288 357 213 121 198 66 211 27
Growth Adj:    1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    98 1821 75 53 1288 357 213 121 198 66 211 27
Added Vol:     1 0 0 0 0 0 0 0 0 5 0 1 0
PasserByVol:   10 56 6 8 81 10 12 5 3 2 2 2
Initial Fut:    114 1968 85 64 1433 385 225 126 206 68 214 29
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    114 1968 85 64 1433 385 225 126 206 68 214 29
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   114 1968 85 64 1433 385 225 126 206 68 214 29
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   114 1968 85 64 1433 385 225 126 206 68 214 29
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.76 0.24
Final Sat.:    1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2818 382
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.07 0.41 0.05 0.04 0.30 0.24 0.07 0.08 0.13 0.04 0.08 0.08
Crit Moves:    ****          ****          ****
*****
```

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

 Intersection #3 Orange Street/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.689
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 60 Level Of Service: B

 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 13 3 43 50 0 28 15 2785 11 13 932 22
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 13 3 43 50 0 28 16 2924 12 14 979 23
 Added Vol: 0 0 0 0 0 0 0 1 0 0 3 0
 PasserByVol: 0 0 0 0 0 0 0 51 0 0 33 0
 Initial Fut: 13 3 43 50 0 28 16 2976 12 14 1015 23
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 3 43 50 0 28 16 2976 12 14 1015 23
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 13 3 43 50 0 28 16 2976 12 14 1015 23
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 13 3 43 50 0 28 16 2976 12 14 1015 23

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.81 0.19 1.00 1.00 0.00 1.00 1.00 2.99 0.01 1.00 3.00 1.00
 Final Sat.: 1300 300 1600 1600 0 1600 1600 4781 19 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.01 0.03 0.03 0.00 0.02 0.01 0.62 0.62 0.01 0.21 0.01
 Crit Moves: ****

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

 Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.689
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 73 Level Of Service: B

 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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

 Volume Module:
 Base Vol: 169 347 150 227 149 203 912 1740 215 80 538 202
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 169 347 150 227 149 203 958 1827 226 84 565 212
 Added Vol: 0 0 0 1 1 3 1 0 0 0 0 0
 PasserByVol: 1 3 0 0 1 4 7 58 1 0 47 0
 Initial Fut: 170 350 150 228 151 210 966 1885 227 84 612 212
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 170 350 150 228 151 210 966 1885 227 84 612 212
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 170 350 150 228 151 210 966 1885 227 84 612 212
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 170 350 150 228 151 210 966 1885 227 84 612 212
 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 1.33 0.67 1.80 1.20 2.00 2.00 3.00 1.00 1.00 4.00 1.00
 Final Sat.: 1600 2126 1074 2888 1912 3200 3200 4800 1600 1600 6400 1600

 Capacity Analysis Module:
 Vol/Sat: 0.11 0.16 0.14 0.08 0.08 0.07 0.30 0.39 0.14 0.05 0.10 0.13
 OvlAdjV/S: 0.00
 Crit Moves: ****

```
-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.946
Loss Time (sec):   0           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    180          Level Of Service:          E
*****
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      Ignore      Ignore
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
Lanes:        0 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 3 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 0 0 0 460 0 242 0 2309 137 0 816 378
Growth Adj:    1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse:    0 0 0 0 483 0 254 0 2424 144 0 857 397
Added Vol:     0 0 0 0 4 0 0 0 0 1 0 0 0 0
PasserByVol:   0 0 0 0 19 0 35 0 23 10 0 53 14
Initial Fut:    0 0 0 0 506 0 289 0 2448 154 0 910 411
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0 0 0 0 506 0 289 0 2448 0 0 910 0
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   0 0 0 0 506 0 289 0 2448 0 0 910 0
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   0 0 0 0 506 0 289 0 2448 0 0 910 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
Final Sat.:    0 0 0 0 3200 0 1600 0 3200 1600 0 4800 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.00 0.00 0.00 0.16 0.00 0.18 0.00 0.77 0.00 0.00 0.19 0.00
Crit Moves:    *****
*****
```

```
-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #6 Riverside Drive/Coast Highway
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.849
Loss Time (sec):   0           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:    123          Level Of Service:          D
*****
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      Ovl      Include      Include
Min. Green:    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
Lanes:        0 0 1! 0 0 0 1 0 0 1 1 0 1 1 0 1 0 3 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      2 2 3 65 0 342 286 2285 11 13 1245 59
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse:    2 2 3 65 0 342 300 2399 12 14 1307 62
Added Vol:     0 0 0 0 0 0 0 5 0 0 0 2 0
PasserByVol:   0 0 0 1 0 1 0 127 0 0 105 0
Initial Fut:    2 2 3 66 0 343 300 2531 12 14 1414 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:    2 2 3 66 0 343 300 2531 12 14 1414 62
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   2 2 3 66 0 343 300 2531 12 14 1414 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:   2 2 3 66 0 343 300 2531 12 14 1414 62
OvlAdjVol:     43
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         0.28 0.29 0.43 1.00 0.00 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.:    457 457 686 1600 0 1600 1600 3185 15 1600 4800 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.00 0.00 0.00 0.04 0.00 0.21 0.19 0.79 0.79 0.01 0.29 0.04
OvlAdjV/S:     0.03
Crit Moves:    *****
*****
```

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 115 Level Of Service: D

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 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 0 1 0 42 0 15 25 2321 0 0 1315 35
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 0 1 0 42 0 15 26 2437 0 0 1381 37
Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 127 0 0 105 0
Initial Fut: 0 1 0 42 0 15 26 2569 0 0 1488 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 1 0 42 0 15 26 2569 0 0 1488 37
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1 0 42 0 15 26 2569 0 0 1488 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1 0 42 0 15 26 2569 0 0 1488 37

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.93 0.07
Final Sat.: 0 1600 0 1179 0 421 1600 3200 0 0 4684 116

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.04 0.02 0.80 0.00 0.00 0.32 0.32
Crit Moves: ****

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.668
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: B

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 45 42 904 44 182 147 1862 21 17 1229 698
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 24 45 42 904 44 182 154 1955 22 18 1290 733
Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
PasserByVol: 0 0 0 33 0 14 22 103 0 0 89 35
Initial Fut: 24 45 42 937 44 196 176 2063 22 18 1381 768
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 45 42 937 44 196 176 2063 22 18 1381 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 45 42 937 44 196 176 2063 22 18 1381 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: 24 45 42 937 44 196 176 2063 22 18 1381 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 1.03 0.97 3.00 1.00 1.00 2.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1600 1655 1545 4800 1600 1600 3200 4749 51 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.03 0.03 0.20 0.03 0.12 0.06 0.43 0.43 0.01 0.29 0.00
Crit Moves: ****

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Placentia Avenue/Production Place

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: C[20.9]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0

Volume Module:
Base Vol: 81 506 3 6 463 49 49 0 52 7 0 3
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 81 506 3 6 463 49 49 0 52 7 0 3
Added Vol: 0 0 5 5 0 0 0 0 0 10 0 10
PasserByVol: 0 5 0 0 8 0 0 0 0 0 0 0
Initial Fut: 81 511 8 11 471 49 49 0 52 17 0 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 81 511 8 11 471 49 49 0 52 17 0 13
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 81 511 8 11 471 49 49 0 52 17 0 13

Critical Gap Module:
Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 520 xxxx xxxx 519 xxxx xxxx 935 1199 260 935 1219 260
Potent Cap.: 1056 xxxx xxxx 1057 xxxx xxxx 223 187 745 223 182 745
Move Cap.: 1056 xxxx xxxx 1057 xxxx xxxx 205 171 745 194 166 745
Volume/Cap: 0.08 xxxx xxxx 0.01 xxxx xxxx 0.24 0.00 0.07 0.09 0.00 0.02

Level Of Service Module:
2Way95thQ: 0.2 xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Control Del: 8.7 xxxx xxxx 8.4 xxxx xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move: A * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 327 xxxx xxxx 286 xxxx
SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 1.3 xxxx xxxx 0.3 xxxx
Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 20.9 xxxx xxxx 19.1 xxxx
Shared LOS: * * * * * * * * * * C * * C *
ApproachDel: xxxxxx xxxxxx 20.9 19.1
ApproachLOS: * * * C C

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

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

Intersection #10 Placentia Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.387
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 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: 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
Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 1 0

Volume Module:
Base Vol: 103 412 39 71 449 105 49 52 39 18 124 32
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 108 433 41 75 471 110 51 55 41 19 130 34
Added Vol: 0 2 8 0 1 0 0 0 0 4 0 0
PasserByVol: 0 5 0 0 8 0 0 0 0 0 0 0
Initial Fut: 108 440 49 75 480 110 51 55 41 23 130 34
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 108 440 49 75 480 110 51 55 41 23 130 34
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 108 440 49 75 480 110 51 55 41 23 130 34
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 108 440 49 75 480 110 51 55 41 23 130 34

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 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 1.80 0.20 1.00 1.63 0.37 1.00 0.57 0.43 1.00 0.79 0.21
Final Sat.: 1600 2879 321 1600 2603 597 1600 914 686 1600 1272 328

Capacity Analysis Module:
Vol/Sat: 0.07 0.15 0.15 0.05 0.18 0.18 0.03 0.06 0.06 0.01 0.10 0.10
Crit Moves: **** * * * * *

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

Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.487
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 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: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 0 0 1! 0 0

Volume Module:
Base Vol: 43 844 72 16 578 105 34 164 63 65 140 35
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 45 886 76 17 607 110 36 172 66 68 147 37
Added Vol: 0 0 0 0 0 2 4 4 0 0 2 0
PasserByVol: 0 16 0 0 8 0 0 0 0 0 0 0
Initial Fut: 45 902 76 17 615 112 40 176 66 68 149 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 45 902 76 17 615 112 40 176 66 68 149 37
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 45 902 76 17 615 112 40 176 66 68 149 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 45 902 76 17 615 112 40 176 66 68 149 37

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.69 0.31 1.00 0.73 0.27 0.27 0.59 0.14
Final Sat.: 1600 3200 1600 1600 2706 494 1600 1163 437 430 939 231

Capacity Analysis Module:
Vol/Sat: 0.03 0.28 0.05 0.01 0.23 0.23 0.02 0.15 0.15 0.04 0.16 0.16
Crit Moves: ****

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

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.656
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

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

Volume Module:
Base Vol: 51 1904 15 125 1439 137 77 128 73 4 93 99
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 54 1999 16 131 1511 144 81 134 77 4 98 104
Added Vol: 0 0 0 0 0 2 4 0 0 0 0 0
PasserByVol: 0 70 0 0 99 0 0 0 0 0 0 0
Initial Fut: 54 2069 16 131 1610 146 85 134 77 4 98 104
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 54 2069 16 131 1610 146 85 134 77 4 98 104
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 54 2069 16 131 1610 146 85 134 77 4 98 104
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 54 2069 16 131 1610 146 85 134 77 4 98 104

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.98 0.02 1.00 2.75 0.25 0.39 0.61 1.00 1.00 1.00 1.00
Final Sat.: 1600 4764 36 1600 4401 399 619 981 1600 1600 1600 1600

Capacity Analysis Module:
Vol/Sat: 0.03 0.43 0.43 0.08 0.37 0.37 0.05 0.14 0.05 0.00 0.06 0.06
Crit Moves: ****

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.680
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: B

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: 1 0 0 1 0 1 0 1 0 1 0 1

Volume Module:
Base Vol: 42 276 68 19 182 409 223 548 19 104 781 5
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: 42 276 68 19 182 409 223 548 19 104 781 5
Added Vol: 0 6 0 0 4 4 6 0 0 0 0 0
PasserByVol: 0 12 9 0 5 0 0 12 0 16 21 0
Initial Fut: 42 294 77 19 191 413 229 560 19 120 802 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 42 294 77 19 191 413 229 560 19 120 802 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 42 294 77 19 191 413 229 560 19 120 802 5
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 42 294 77 19 191 413 229 560 19 120 802 5

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 0.79 0.21 1.00 1.00 1.00 1.00 1.93 0.07 1.00 1.99 0.01
Final Sat.: 1600 1268 332 1600 1600 1600 1600 3095 105 1600 3180 20

Capacity Analysis Module:
Vol/Sat: 0.03 0.23 0.23 0.01 0.12 0.26 0.14 0.18 0.18 0.08 0.25 0.25
Crit Moves: **** *

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 88 Level Of Service: C

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

Volume Module:
Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 125 1569 74 56 1823 219 312 102 255 134 205 51
Added Vol: 4 0 0 0 0 0 0 0 4 0 3 0
PasserByVol: 10 81 5 5 69 6 19 3 12 9 7 13
Initial Fut: 139 1650 79 61 1892 225 331 105 271 143 215 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: 139 1650 79 61 1892 225 331 105 271 143 215 64
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 139 1650 79 61 1892 225 331 105 271 143 215 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: 139 1650 79 61 1892 225 331 105 271 143 215 64

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.54 0.46
Final Sat.: 1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2466 734

Capacity Analysis Module:
Vol/Sat: 0.09 0.34 0.05 0.04 0.39 0.14 0.10 0.07 0.17 0.09 0.09 0.09
Crit Moves: **** *

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.696
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 61 Level Of Service: B

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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 2 48 36 2 18 18 1247 16 35 2827 36
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 24 2 48 36 2 18 19 1309 17 37 2968 38
Added Vol: 0 0 0 0 0 0 0 4 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 40 0 0 63 0
Initial Fut: 24 2 48 36 2 18 19 1353 17 37 3033 38
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 2 48 36 2 18 19 1353 17 37 3033 38
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 2 48 36 2 18 19 1353 17 37 3033 38
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 24 2 48 36 2 18 19 1353 17 37 3033 38

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.92 0.08 1.00 0.95 0.05 1.00 1.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1477 123 1600 1516 84 1600 1600 4741 59 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.03 0.02 0.02 0.01 0.01 0.29 0.29 0.02 0.63 0.02
Crit Moves: **** **

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.710
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 79 Level Of Service: C

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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

Volume Module:
Base Vol: 237 219 67 199 318 715 466 739 159 195 1960 144
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 237 219 67 199 318 715 489 776 167 205 2058 151
Added Vol: 0 1 0 1 1 2 4 0 0 0 0 1
PasserByVol: 1 3 0 0 6 16 9 45 3 0 77 0
Initial Fut: 238 223 67 200 325 733 502 821 170 205 2135 152
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 238 223 67 200 325 733 502 821 170 205 2135 152
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 238 223 67 200 325 733 502 821 170 205 2135 152
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 238 223 67 200 325 733 502 821 170 205 2135 152
OvlAdjVol: 231

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.35 1.27 0.38 1.14 1.86 2.00 2.00 3.00 1.00 1.00 4.00 1.00
Final Sat.: 2165 2027 608 1829 2971 3200 3200 4800 1600 1600 6400 1600

Capacity Analysis Module:
Vol/Sat: 0.11 0.11 0.11 0.11 0.11 0.23 0.16 0.17 0.11 0.13 0.33 0.10
OvlAdjV/S: 0.07
Crit Moves: **** **

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

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.714
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 80 Level Of Service: C

 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 Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 3 0 1

 Volume Module:
 Base Vol: 0 0 0 553 0 408 0 1220 90 0 1938 604
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 0 0 0 581 0 428 0 1281 95 0 2035 634
 Added Vol: 0 0 0 3 0 0 0 1 0 0 0 1 0
 PasserByVol: 0 0 0 33 0 19 0 89 14 0 50 14
 Initial Fut: 0 0 0 617 0 447 0 1371 109 0 2086 648
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 0 617 0 447 0 1371 0 0 2086 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 617 0 447 0 1371 0 0 2086 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 617 0 447 0 1371 0 0 2086 0

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

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.19 0.00 0.28 0.00 0.43 0.00 0.00 0.43 0.00
 Crit Moves: **** *

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

 Intersection #6 Riverside Drive/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.847
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 122 Level Of Service: D

 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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 9 12 12 73 4 441 249 1568 13 37 2436 56
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 9 12 12 73 4 441 261 1646 14 39 2558 59
 Added Vol: 0 0 0 0 0 0 0 4 0 0 0 0
 PasserByVol: 0 0 0 2 0 0 1 146 0 0 154 1
 Initial Fut: 9 12 12 75 4 441 262 1796 14 39 2718 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: 9 12 12 75 4 441 262 1796 14 39 2718 60
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 9 12 12 75 4 441 262 1796 14 39 2718 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: 9 12 12 75 4 441 262 1796 14 39 2718 60
 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: 0.27 0.37 0.36 0.95 0.05 1.00 1.00 1.98 0.02 1.00 3.00 1.00
 Final Sat.: 436 582 582 1519 81 1600 1600 3176 24 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.02 0.02 0.05 0.05 0.28 0.16 0.57 0.57 0.02 0.57 0.04
 OvlAdjV/S: 0.11
 Crit Moves: **** *

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.671
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 Level Of Service: B

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 0 0 0 1 0 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 2 1 0 37 2 25 67 1671 5 0 2616 42
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 0 0 0 0 147 0 0 156 0
Initial Fut: 2 1 0 37 2 25 67 1822 5 0 2778 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 0 37 2 25 67 1822 5 0 2778 42
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1 0 37 2 25 67 1822 5 0 2778 42
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1 0 37 2 25 67 1822 5 0 2778 42

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.67 0.33 0.00 0.58 0.03 0.39 1.00 1.99 0.01 0.00 2.96 0.04
Final Sat.: 1067 533 0 925 50 625 1600 3191 9 0 4728 72

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.02 0.04 0.04 0.04 0.57 0.57 0.00 0.59 0.59
Crit Moves: **** **** **** ****

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.754
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 93 Level Of Service: C

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 16 32 50 840 49 136 121 1507 22 49 2095 1193
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 16 32 50 840 49 136 127 1582 23 51 2200 1253
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 45 0 33 36 115 0 0 132 47
Initial Fut: 16 32 50 885 49 169 163 1701 23 51 2338 1300
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 32 50 885 49 169 163 1701 23 51 2338 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 32 50 885 49 169 163 1701 23 51 2338 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: 16 32 50 885 49 169 163 1701 23 51 2338 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 3.00 1.00 1.00 2.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1600 1600 1600 4800 1600 1600 3200 4736 64 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.18 0.03 0.11 0.05 0.36 0.36 0.03 0.49 0.00
Crit Moves: **** **** **** ****

Future+Approved+Project (TPThu Mar 12, 2015 13:43:17) Page 10-1

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #9 Placentia Avenue/Production Place

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: C[21.6]

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

Volume Module:
Base Vol: 16 576 7 11 504 21 54 0 28 1 0 0 5
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: 16 576 7 11 504 21 54 0 28 1 0 0 5
Added Vol: 0 0 13 13 0 0 0 0 0 8 0 8
PasserByVol: 0 12 0 0 5 0 0 0 0 0 0 0
Initial Fut: 16 588 20 24 509 21 54 0 28 9 0 13
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 16 588 20 24 509 21 54 0 28 9 0 13
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 16 588 20 24 509 21 54 0 28 9 0 13

Critical Gap Module:
Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 530 xxxx xxxx 608 xxxx xxxx 894 1208 265 933 1208 304
Potent Cap.: 1048 xxxx xxxx 980 xxxx xxxx 239 185 739 224 185 698
Move Cap.: 1048 xxxx xxxx 980 xxxx xxxx 228 177 739 209 177 698
Volume/Cap: 0.02 xxxx xxxx 0.02 xxxx xxxx 0.24 0.00 0.04 0.04 0.00 0.02

Level Of Service Module:
2Way95thQ: 0.0 xxxx xxxx 0.1 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Control Del: 8.5 xxxx xxxx 8.8 xxxx xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move: A * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 298 xxxx 357 xxxx
SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 1.1 xxxxx xxxx 0.2 xxxxx
Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 21.6 xxxxx xxxx 15.7 xxxxx
Shared LOS: * * * * * * * * * * C * C *
ApproachDel: xxxxxx xxxxxx 21.6 15.7
ApproachLOS: * * C C

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

Future+Approved+Project (TPThu Mar 12, 2015 13:43:17) Page 11-1

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

Intersection #10 Placentia Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.374
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 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: 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 1 1 0 1 0 1 1 0 1 0 0 1 0 1 0 0 1 0

Volume Module:
Base Vol: 47 568 21 26 428 44 110 92 99 15 43 87
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 49 596 22 27 449 46 116 97 104 16 45 91
Added Vol: 0 2 6 0 3 0 0 0 0 10 0 0
PasserByVol: 0 12 0 0 5 0 0 0 0 0 0 0
Initial Fut: 49 610 28 27 457 46 116 97 104 26 45 91
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 49 610 28 27 457 46 116 97 104 26 45 91
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 610 28 27 457 46 116 97 104 26 45 91
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 49 610 28 27 457 46 116 97 104 26 45 91

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 1.91 0.09 1.00 1.82 0.18 1.00 0.48 0.52 1.00 0.33 0.67
Final Sat.: 1600 3059 141 1600 2906 294 1600 771 829 1600 529 1071

Capacity Analysis Module:
Vol/Sat: 0.03 0.20 0.20 0.02 0.16 0.16 0.07 0.13 0.13 0.02 0.09 0.09
Crit Moves: **** * * * * *

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

Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.412
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: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 0 0 1! 0 0

Volume Module:
Base Vol: 47 679 97 28 611 54 52 109 84 33 97 22
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 49 713 102 29 642 57 55 114 88 35 102 23
Added Vol: 0 0 0 0 0 5 3 3 0 0 5 0
PasserByVol: 0 21 0 0 37 0 0 0 0 0 0 0
Initial Fut: 49 734 102 29 679 62 58 117 88 35 107 23
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 49 734 102 29 679 62 58 117 88 35 107 23
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 734 102 29 679 62 58 117 88 35 107 23
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 49 734 102 29 679 62 58 117 88 35 107 23

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.83 0.17 1.00 0.57 0.43 0.21 0.65 0.14
Final Sat.: 1600 3200 1600 1600 2933 267 1600 914 686 337 1039 225

Capacity Analysis Module:
Vol/Sat: 0.03 0.23 0.06 0.02 0.23 0.23 0.04 0.13 0.13 0.02 0.10 0.10
Crit Moves: ****

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

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.613
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

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

Volume Module:
Base Vol: 43 1592 21 54 1827 89 114 73 80 14 52 108
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 45 1672 22 57 1918 93 120 77 84 15 55 113
Added Vol: 0 0 0 0 0 5 3 0 0 0 0 0
PasserByVol: 0 113 0 0 80 0 0 0 0 0 0 0
Initial Fut: 45 1785 22 57 1998 98 123 77 84 15 55 113
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 45 1785 22 57 1998 98 123 77 84 15 55 113
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 45 1785 22 57 1998 98 123 77 84 15 55 113
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 45 1785 22 57 1998 98 123 77 84 15 55 113

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 2.96 0.04 1.00 2.86 0.14 0.62 0.38 1.00 1.00 1.00 1.00
Final Sat.: 1600 4741 59 1600 4575 225 985 615 1600 1600 1600 1600

Capacity Analysis Module:
Vol/Sat: 0.03 0.38 0.38 0.04 0.44 0.44 0.08 0.12 0.05 0.01 0.03 0.07
Crit Moves: ****



APPENDIX I

Cumulative Projects

Cumulative Project List - November 2014

Projects of significant size to have a potential cumulative impact

**Note: Highlighted projects do not result in an increase in traffic generation; however, may have other cumulative impacts to consider (i.e. construction, noise, air quality).*

Newport Beach Country Club*	1600 E. Coast Hwy	• 5 res. d.u • 27 hotel units with a 2,048 g.s.f. concierge and guest center • 3,523 g.s.f. tennis club with a 6,718 g.s.f. spa • 51,213 g.s.f. golf club with accessory facilities • 7 tennis courts and a swimming pool.
Banning Ranch	4520 W. Coast Hwy	1,375 d.u., 75,000 g.s.f. commercial retail, 75-room accommodations, parks, and open space.
Koll	4343 Von Karman Ave	New: • 260 residential d.u. • 3,400 g.s.f. commercial
Balboa Marina West Expansion	Southwest corner of Bayside Dr at E. Coast Hwy	New: 16,274 g.s.f restaurant, 200 g.s.f. office, and 36 marina berths
ExplorOcean	600 E. Bay Ave, 209 Washington St, 600 and 608 Balboa Blvd, and 200 Palm St	New: • 70,295 s.f. ocean literacy facility • 6,500 s.f. floating classroom (waterside) Existing: • 26,219 s.f. Commercial • 63-metered space surface parking lot
Ebb Tide	1560 Placentia Ave	New: 83 d.u. single family residential Existing: 73 d.u. mobile home park
Newport Executive Center	20372 Birch St	New: 63,378 s.f. medical office Existing: 2 DU Single-Family
Newport Coast		See Staff for update.

Table 2

Project Trip Generation¹

Land Use	Quantity	Units ²	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Trip Generation Rates</u>									
Quality Restaurant ³		TSF	0.66	0.15	0.81	5.02	2.47	7.49	89.95
Office		TSF	1.37	0.19	1.56	0.25	1.24	1.49	11.03
Marina		Berth	0.03	0.05	0.08	0.11	0.08	0.19	2.96
<u>Existing Trips Generated⁴</u>									
Yacht Brokerage	1.2	TSF	2	0	2	0	1	1	13
<u>Proposed Trips Generated</u>									
Quality Restaurant ⁵	16.274	TSF	11	2	13	82	40	122	1,464
- Pass-By ⁶			0	0	0	-36	-18	-54	-54
Office	0.200	TSF	0	0	0	0	0	0	2
Marina	36	Berth	1	2	3	4	3	7	107
Subtotal			12	4	16	50	25	75	1,519
Net New Trips			10	4	14	50	24	74	1,506

¹ Source: Institute of Transportation Engineers, Trip Generation, 9th Edition, 2012, Land Use Categories 931, 710, and 420.

² TSF = Thousand Square Feet

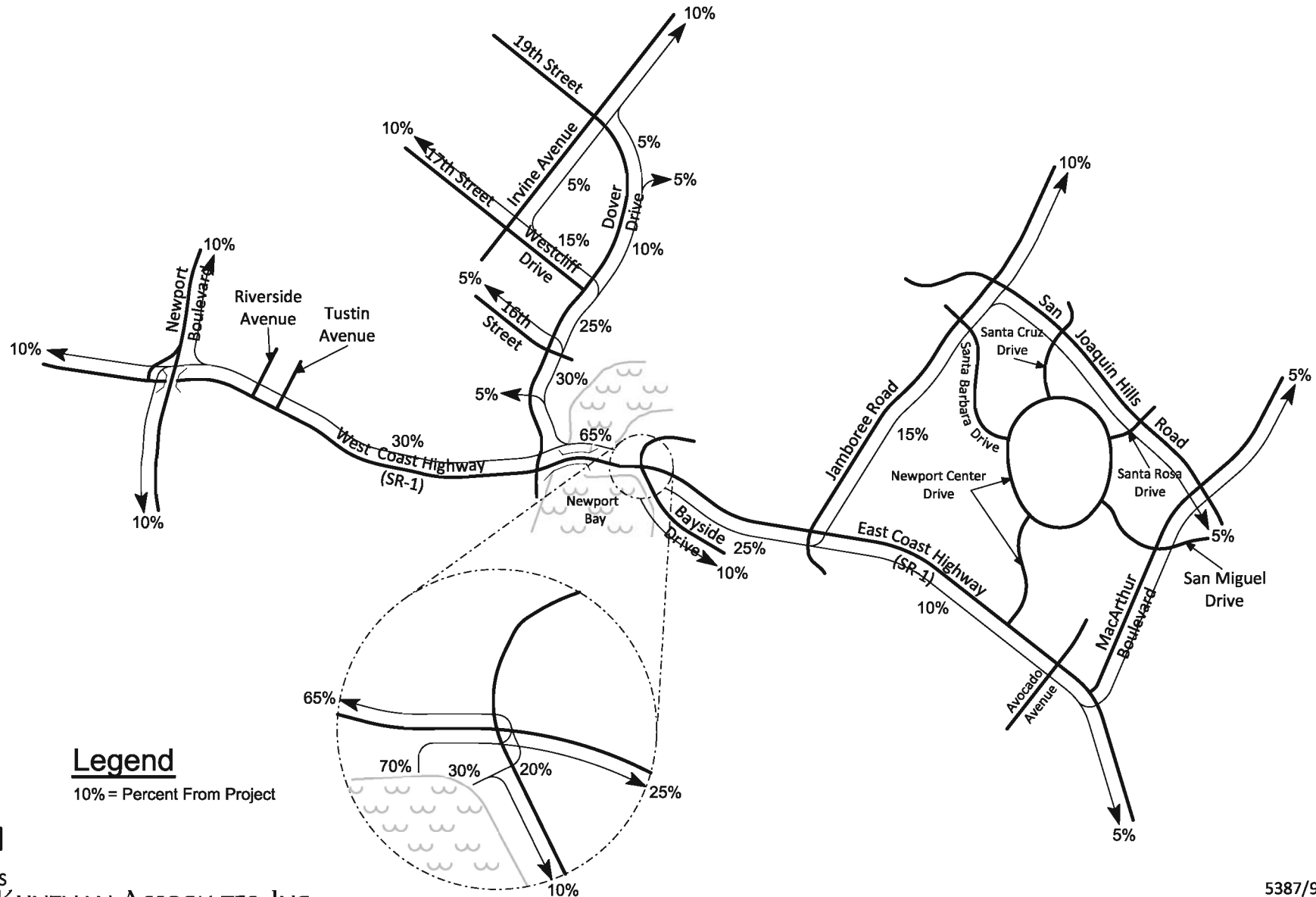
³ Institute of Transportation Engineers, Trip Generation, does not provide inbound/outbound splits for the peak hour of adjacent street traffic (one hour between 7:00 AM - 9:00 AM) for the Quality Restaurant land use. Therefore, the inbound/outbound splits for the AM peak hour of generator were used.

⁴ The marina restrooms generate nominal trips. The yacht brokerage and marina restrooms will be accommodated within the new development.

⁵ The quality restaurant will include patio/etc. that is ancillary to the restaurant. The building total is 19,400 square feet.

⁶ The traffic volumes have been reduced by 44% for the quality restaurant as a result of pass-by trips obtained from the Institute of Transportation Engineers, Trip Generation Handbook, 2nd Edition, 2004.

Figure 9
Project Outbound Trip Distribution



KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

5387/9

Figure 10
Project Inbound Trip Distribution

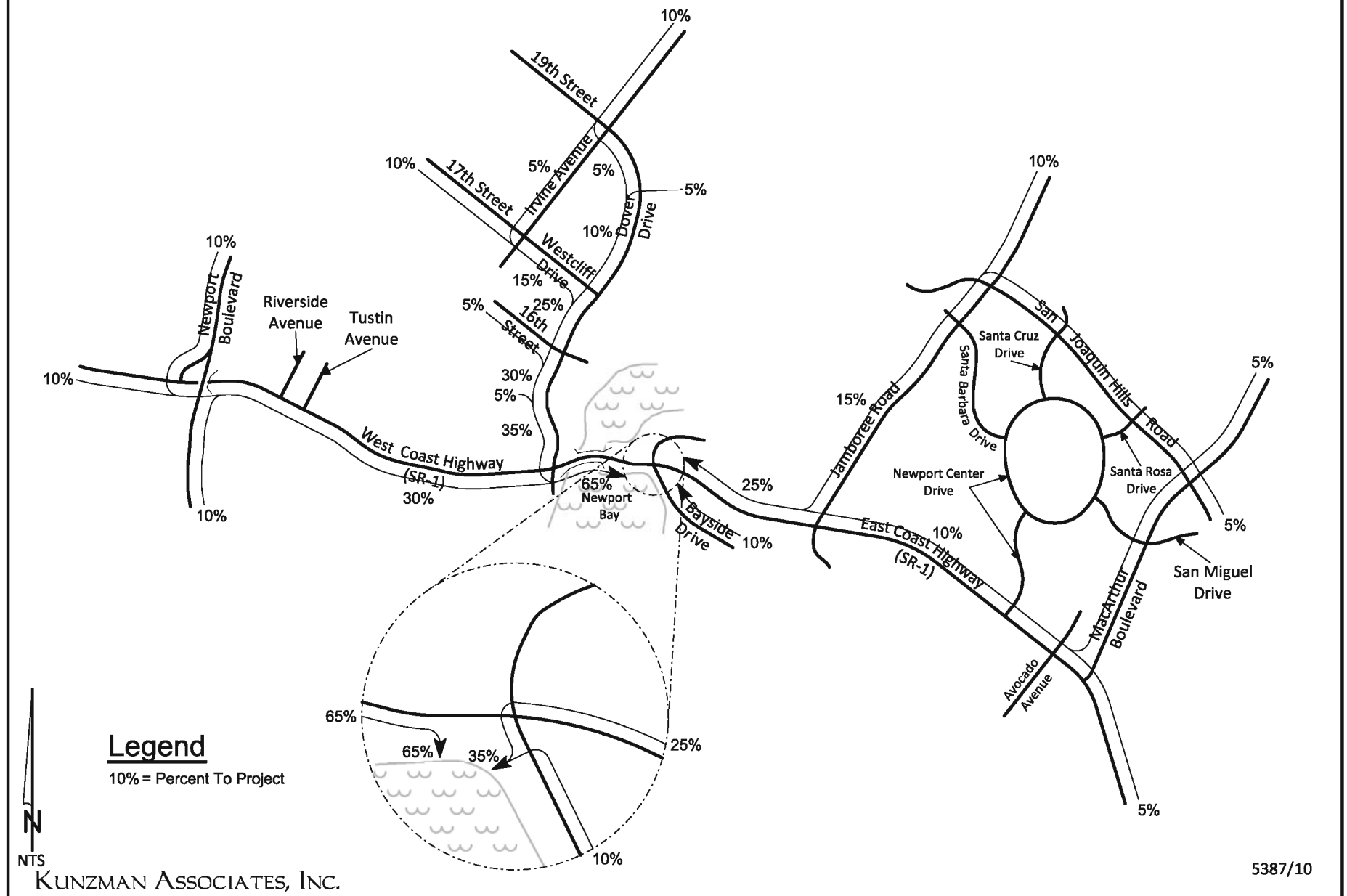
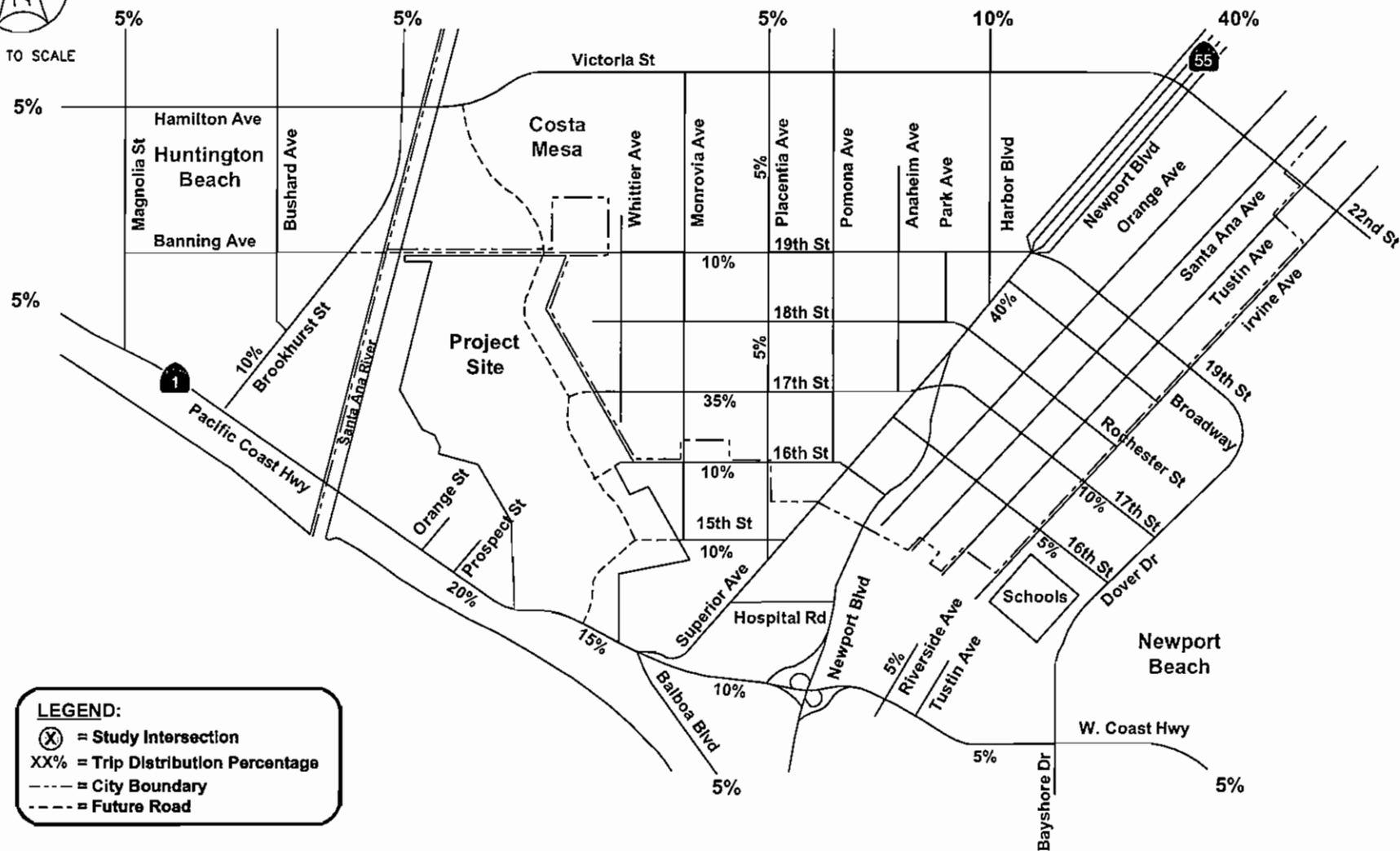


TABLE 2
SUMMARY OF PROJECT TRIP GENERATION
NEWPORT BANNING RANCH

TRIP RATES										
Land Use	ITE Code	Trips per	Trip Generation Rates							
			Daily	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Single-Family Detached Housing	210	DU	9.57	0.19	0.56	0.75	0.64	0.37	1.01	
Residential Condominium/Townhouse	230	DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52	
Resort Hotel ¹	330	Room	4.90	0.22	0.09	0.31	0.18	0.24	0.42	
Park ²	412	Acre	2.28	0.01	0.00	0.01	0.02	0.04	0.06	
Soccer Complex	488	Field	71.33	0.70	0.70	1.40	14.26	6.41	20.67	
Tennis Courts	490	Court	31.04	0.84	0.84	1.68	1.94	1.94	3.88	
Shopping Center ³	820	KSF	Equation - See Below							
PROJECT TRIP GENERATION										
Project Area	Land Use	Units		Trip Generation Estimates						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
South Family Village	Single-Family Detached Housing	141	DU	1,349	27	79	106	90	52	142
	Park	28	Acre	64	0	0	0	1	1	2
	Soccer Complex	4	Fields	285	3	3	6	57	26	83
	Tennis Courts	6	Courts	186	5	5	10	12	12	24
	Subtotal			1,884	35	87	122	160	91	251
Resort Colony	Residential Condominium/Townhouse	87	DU	505	6	32	38	30	15	45
	Resort Hotel	75	Rooms	368	17	7	24	14	18	32
	Subtotal			873	23	39	62	44	33	77
North Family Village	Single-Family Detached Housing	282	DU	2,699	54	158	212	180	104	284
	Residential Condominium/Townhouse	135	DU	784	9	50	59	47	23	70
	Subtotal			3,483	63	208	271	227	127	354
Urban Colony	Residential Condominium/Townhouse	730	DU	4,241	51	270	321	256	124	380
	Shopping Center	75.0	KSF	5,634	79	51	130	257	268	525
	Subtotal			9,875	130	321	451	513	392	905
Total Before Internal Capture/Pass-by				16,115	251	655	906	944	643	1,587
Internal Capture ⁴				1,126				55	55	110
Pass-By Reduction for Shopping Center (10%) ⁵								23	24	47
Total Project Trips				14,989	251	655	906	866	564	1,430
Source: Institute of Transportation Engineers publication "Trip Generation", 8th Edition										
DU = Dwelling Unit, KSF = 1,000 Square Feet										
¹ ITE Land Use Category 330 Resort Hotel does not provide a daily trip rate. ITE Land Use Category 311 - All Suites Hotel was used for daily trips.										
² Trip generation is based on ITE Land Use County Park (Land Use 412) because this category includes peak hour trip rates.										
³ Trip rates for Shopping Center are derived from the following regression equations: T = Trip Ends, X = units in KSF										
ADT: Ln(T) = 0.65 Ln(X) + 5.83										
AM Peak Hour: Ln(T) = 0.59 Ln(X) + 2.32										
PM Peak Hour: Ln(T) = 0.67 Ln(X) + 3.37										
⁴ Source: Institute of Transportation Engineers (ITE) publication "Trip Generation Handbook". See Internal Capture Worksheets in Appendix C.										
⁵ Note: The ITE publication "Trip Generation Handbook" indicates pass-by for a shopping center is 34% in the PM peak hour. 10% is assumed here, for a conservative approach. Pass-by reduction is taken on balance of retail trips, after Internal Capture reduction										



NOT TO SCALE



**FIGURE 9
PROJECT TRIP DISTRIBUTION**

**Koll-Conexant
4311 Jamboree Road**

Trip Generation Rates

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Office	ITE-8th		TSF	1.36	0.19	1.55	0.25	1.24	1.49	11.01
General Light Industrial	ITE-8th		TSF	0.81	0.11	0.92	0.12	0.85	0.97	6.97
Apartments	ITE-8th		DU	0.1	0.41	0.51	0.4	0.22	0.62	6.65

Existing Use

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Office	ITE-8th	167	TSF	227	32	259	42	207	249	1839
Industrial	ITE-8th	269	TSF	218	30	247	32	229	261	1875
	ITE-8th									
	ITE-8th									
Total				445	61	506	74	436	510	3714

Proposed Use

Land Use	Rate Type	Size	Unit	AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	Total
Apartment	ITE-8th	974	DU	97	399	497	390	214	604	6477
	ITE-8th		TSF	0	0	0	0	0	0	0
	ITE-8th		TSF	0	0	0	0	0	0	0
	ITE-8th		TSF	0	0	0	0	0	0	0
Total				97	399	497	390	214	604	6477

Net Increase				-348	338	-10	316	-221	94	2764
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Note: Do not assign negative trips to the circulation system

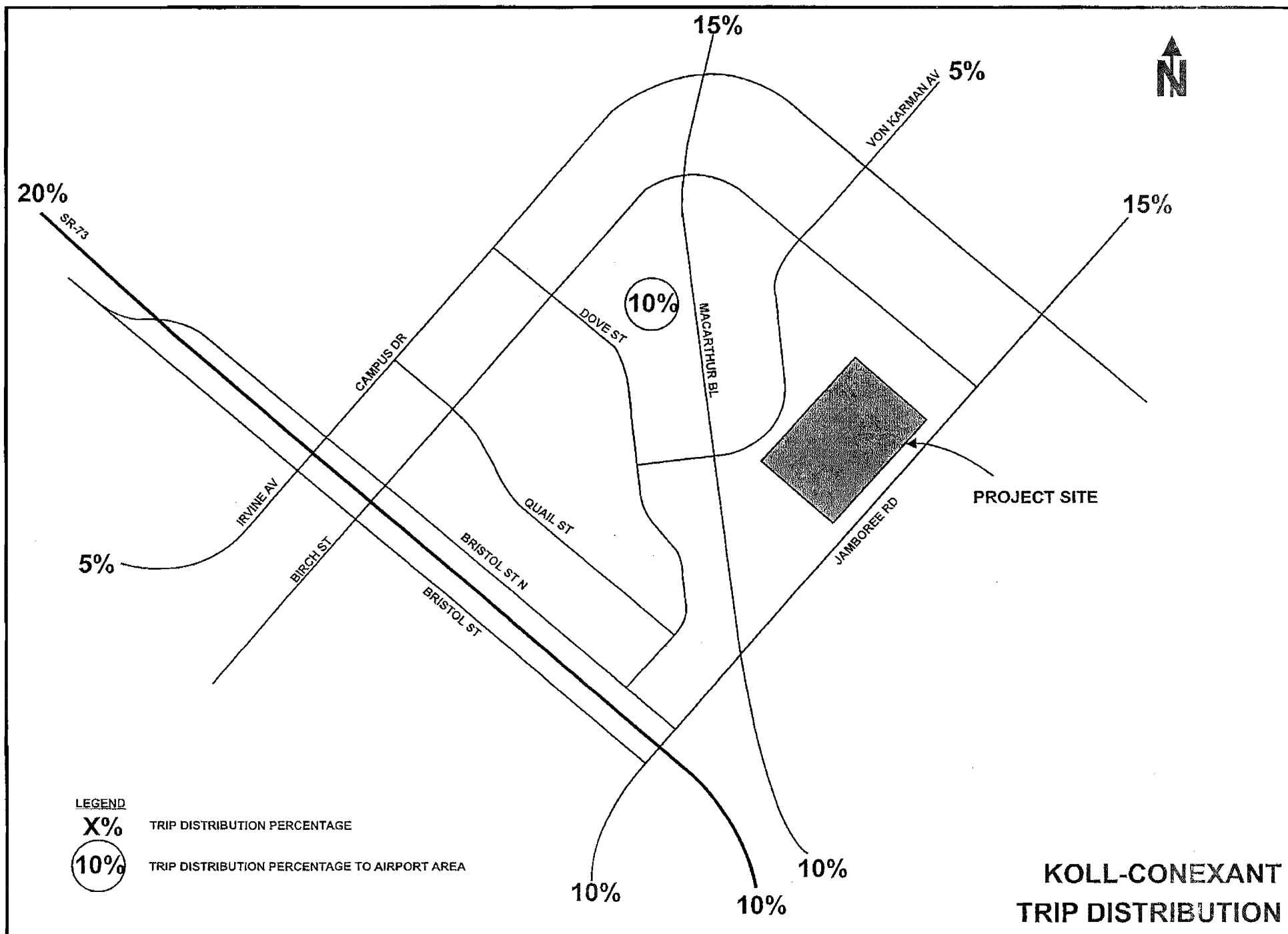


TABLE 12-1

NEWPORT COAST

TRIP GENERATION RATES¹

LAND USE	UNITS ²	PEAK HOUR				DAILY
		AM		PM		
		IN	OUT	IN	OUT	
Condominium/Townhouse	DU	0.17	0.49	0.47	0.36	8.10
Multi Family Dwelling	DU	0.90	0.42	0.43	0.20	6.47
Single Family Detached Residential	DU	0.20	0.70	0.70	0.40	11.00
State Park (gross acres)	AC	0.21	0.90	0.29	0.31	19.15

0.09
Verify trip gen.

¹ Source: City of Newport Beach Trip Generation Rates

² DU = Dwelling Units
AC = Acres

TABLE 12-2

PROJECT TRIP GENERATION

TAZ	PLANNING AREA	LAND USE	QUANTITY	UNITS ¹	PEAK HOUR				DAILY
					AM		PM		
					IN	OUT	IN	OUT	
1	1A	Condominium/Townhouse	121	DU	21	59	57	44	980
	1B	Single Family Detached Residential	36	DU	7	25	25	14	396
	1C	Condominium/Townhouse	888	DU	151	435	417	320	7,193
	2A	Single Family Detached Residential	206	DU	41	144	144	82	2,266
	13C	Multi Family Dwelling	116	DU	104	49	50	23	751
	13D	Multi Family Dwelling	116	DU	104	49	50	23	751
	13E	Multi Family Dwelling	116	DU	104	49	50	23	751
TOTAL FOR TAZ 1					532	810	793	529	13,088
2	3A	Single Family Detached Residential	347	DU	69	243	243	139	3,817
	3B	Single Family Detached Residential	450	DU	90	315	315	180	4,950
	4B	Single Family Detached Residential	587	DU	117	411	411	235	6,457
	13A	Multi Family Dwelling	117	DU	105	49	50	23	757
	13B	Multi Family Dwelling	117	DU	105	49	50	23	757
	14	Single Family Detached Residential	26	DU	5	18	18	10	286
	17	State Park (gross acres)	2,807	AC	589	2,526	814	870	53,754
TOTAL FOR TAZ 2					1,080	3,611	1,901	1,480	70,778
3	2B	Single Family Detached Residential	62	DU	12	43	43	25	682
	4A	Single Family Detached Residential	784	DU	157	549	549	314	8,624
TOTAL FOR TAZ 3					169	592	592	339	9,306
4	2C	Single Family Detached Residential	307	DU	61	215	215	123	3,377
	5	Single Family Detached Residential	300	DU	60	210	210	120	3,300
	6	Single Family Detached Residential	75	DU	15	53	53	30	825
	8	Condominium/Townhouse	289	DU	49	142	136	104	2,341
TOTAL FOR TAZ 4					185	620	614	377	9,843
TOTAL FOR ALL ZONES					1,966	5,633	3,900	2,725	103,015

¹ DU = Dwelling Units
AC = Acres

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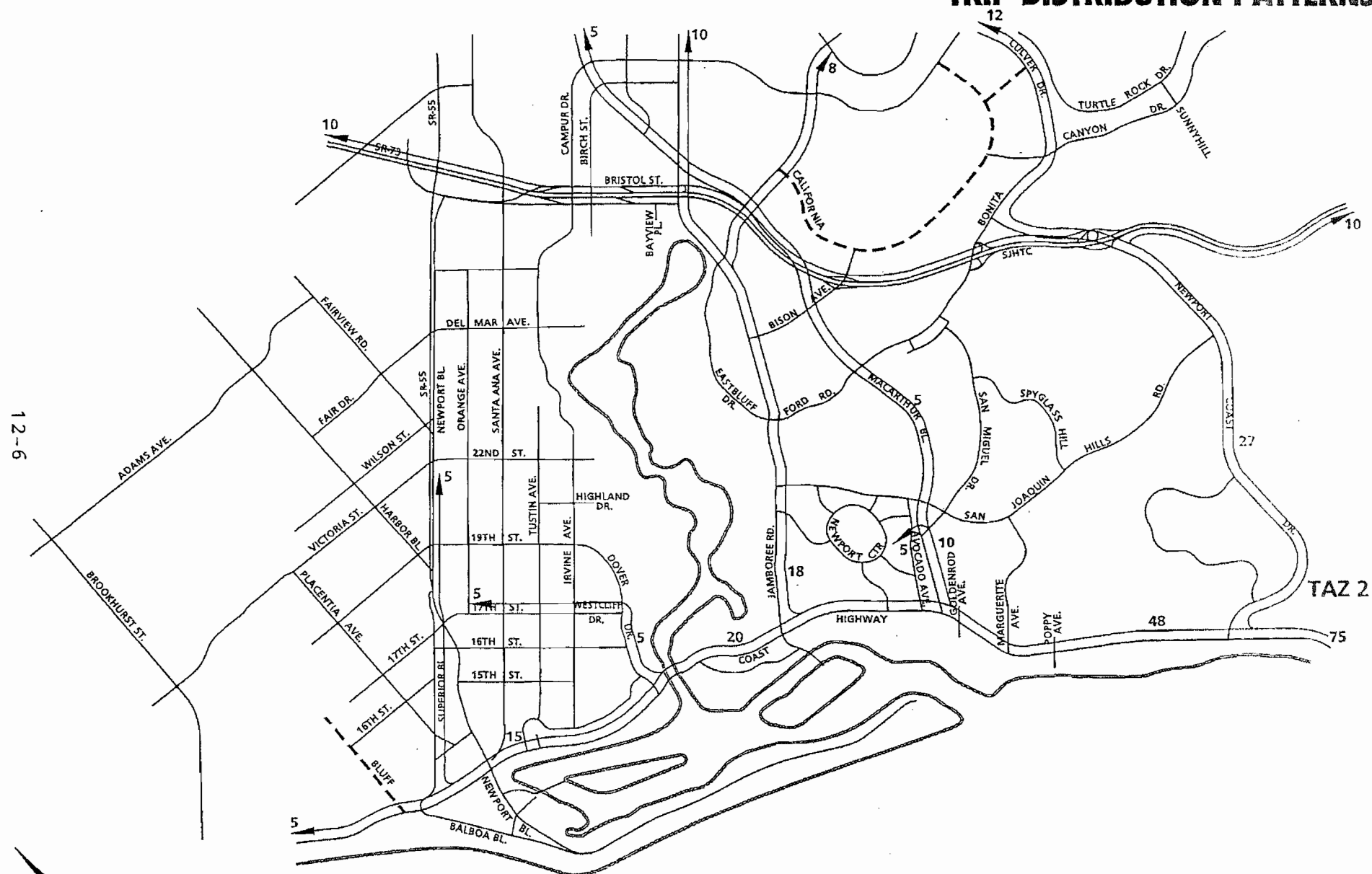
- 70% OF DU'S ARE
BUILT. ONLY 30%
IS CUMULATIVE PROJECT
THE

- ASSUME STATE PARK
IS EXISTING.

EXTRA



**URBAN
CROSSROADS**



EXHIBIT





**TABLE 2
SUMMARY OF PROJECT TRIP GENERATION
NEWPORT EXECUTIVE CENTER**

Land Use	ITE Code	Unit	Trip Generation Rates ¹						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Medical-Dental Office Building	720	KSF	36.13	1.89	0.50	2.39	1.00	2.57	3.57
Single-Family Detached Housing	210	DU	9.52	0.19	0.56	0.75	0.63	0.37	1.00
Land Use	Quantity	Unit	Trip Generation Estimates						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Medical Office - Building 1	19,978	KSF	722	38	10	48	20	51	71
Medical Office - Building 2	44,000	KSF	1,590	83	22	105	44	113	157
Removal of Existing Land Uses:									
Single Family Detached Housing	-2	DU	-19	0	-1	-1	-1	-1	-2
Total Project Trips			2,293	121	31	152	63	163	226
¹ Source: Institute of Transportation Engineers (ITE) <u>Trip Generation Manual</u> , 9th Edition									

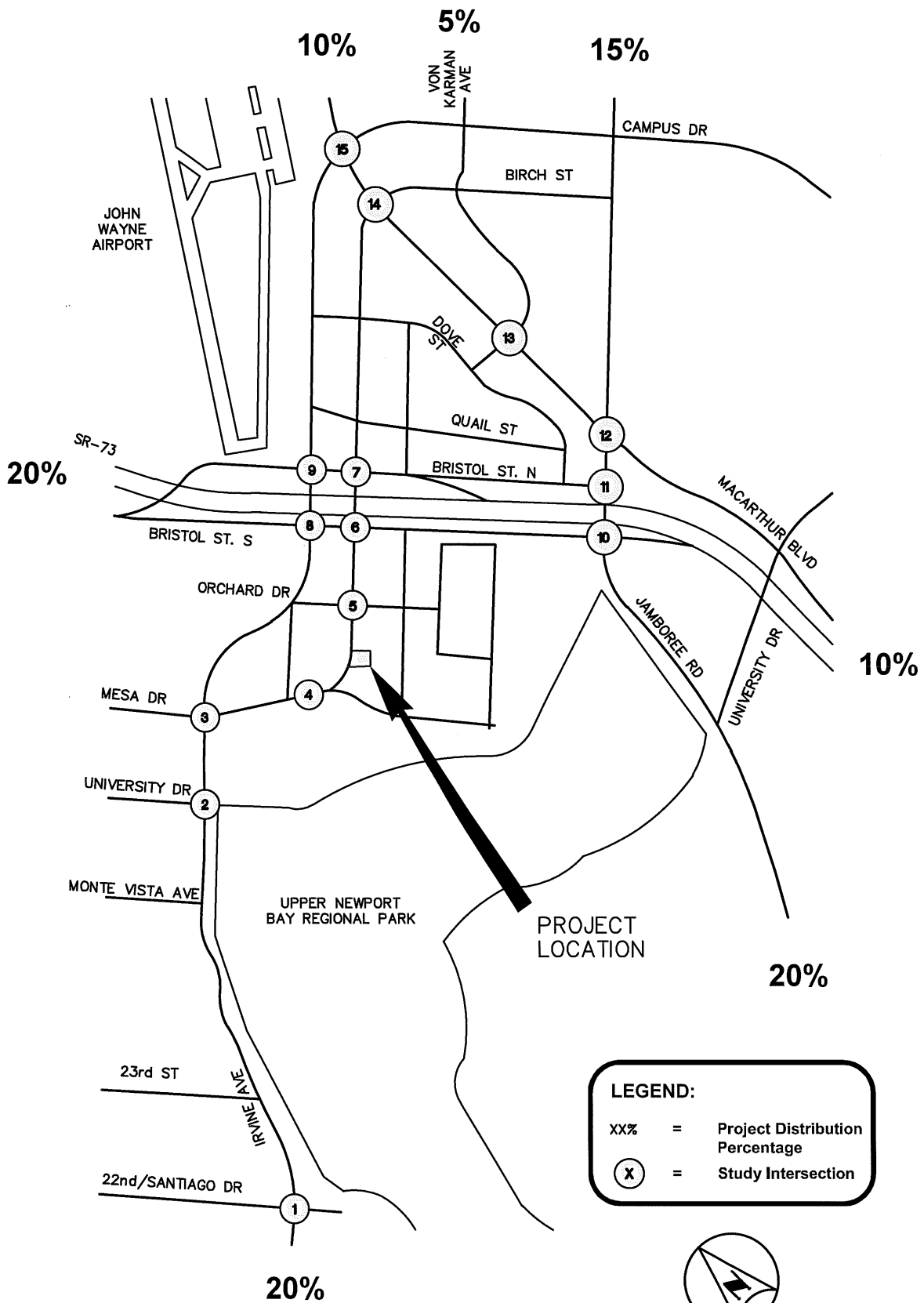


FIGURE 5
PROJECT TRIP DISTRIBUTION



APPENDIX J

**Future (2019) Plus Approved Plus Cumulative Growth
Intersection Level of Service Worksheets**

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.571
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 53 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: 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: 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
Base Vol: 14 183 73 25 282 316 349 930 22 95 273 8
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: 14 183 73 25 282 316 349 930 22 95 273 8
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 38 7 0 21 0 0 17 0 4 6 0
Initial Fut: 14 221 80 25 303 316 349 947 22 99 279 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 221 80 25 303 316 349 947 22 99 279 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 14 221 80 25 303 316 349 947 22 99 279 8
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 221 80 25 303 316 349 947 22 99 279 8

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 0.73 0.27 1.00 1.00 1.00 1.00 1.95 0.05 1.00 1.94 0.06
Final Sat.: 1600 1175 425 1600 1600 1600 1600 3127 73 1600 3111 89

Capacity Analysis Module:
Vol/Sat: 0.01 0.19 0.19 0.02 0.19 0.20 0.22 0.30 0.30 0.06 0.09 0.09
Crit Moves: **** **** **** ****

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.636
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: B

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

Volume Module:
Base Vol: 98 1821 75 53 1288 357 213 121 198 66 211 27
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 103 1912 79 56 1352 375 213 121 198 66 211 27
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 10 144 6 8 131 10 12 5 3 2 2 2
Initial Fut: 113 2056 85 64 1483 385 225 126 201 68 213 29
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 2056 85 64 1483 385 225 126 201 68 213 29
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 113 2056 85 64 1483 385 225 126 201 68 213 29
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 113 2056 85 64 1483 385 225 126 201 68 213 29

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.76 0.24
Final Sat.: 1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2817 383

Capacity Analysis Module:
Vol/Sat: 0.07 0.43 0.05 0.04 0.31 0.24 0.07 0.08 0.13 0.04 0.08 0.08
Crit Moves: **** **** **** ****

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

 Intersection #3 Orange Street/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.706
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 63 Level Of Service: C

 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 13 3 43 50 0 28 15 2785 11 13 932 22
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 13 3 43 50 0 28 16 2924 12 14 979 23
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 135 0 0 215 0
 Initial Fut: 13 3 43 50 0 28 16 3059 12 14 1194 23
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 3 43 50 0 28 16 3059 12 14 1194 23
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 13 3 43 50 0 28 16 3059 12 14 1194 23
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 13 3 43 50 0 28 16 3059 12 14 1194 23

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.81 0.19 1.00 1.00 0.00 1.00 1.00 2.99 0.01 1.00 3.00 1.00
 Final Sat.: 1300 300 1600 1600 0 1600 1600 4782 18 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.01 0.03 0.03 0.00 0.02 0.01 0.64 0.64 0.01 0.25 0.01
 Crit Moves: **** *

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

 Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.708
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 78 Level Of Service: C

 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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

 Volume Module:
 Base Vol: 169 347 150 227 149 203 912 1740 215 80 538 202
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 169 347 150 227 149 203 958 1827 226 84 565 212
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 14 3 0 0 1 4 7 158 34 0 123 0
 Initial Fut: 183 350 150 227 150 207 965 1985 260 84 688 212
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 183 350 150 227 150 207 965 1985 260 84 688 212
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 183 350 150 227 150 207 965 1985 260 84 688 212
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 183 350 150 227 150 207 965 1985 260 84 688 212
 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 1.34 0.66 1.81 1.19 2.00 2.00 3.00 1.00 1.00 4.00 1.00
 Final Sat.: 1600 2143 1057 2890 1910 3200 3200 4800 1600 1600 6400 1600

 Capacity Analysis Module:
 Vol/Sat: 0.11 0.16 0.14 0.08 0.08 0.06 0.30 0.41 0.16 0.05 0.11 0.13
 OvlAdjV/S: 0.00
 Crit Moves: **** *

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

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.979
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 180 Level Of Service: E

 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 Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 3 0 1

 Volume Module:
 Base Vol: 0 0 0 460 0 242 0 2309 137 0 816 378
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 0 0 0 483 0 254 0 2424 144 0 857 397
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 22 0 38 0 123 10 0 126 107
 Initial Fut: 0 0 0 505 0 292 0 2547 154 0 983 504
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 0 505 0 292 0 2547 0 0 983 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 505 0 292 0 2547 0 0 983 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 505 0 292 0 2547 0 0 983 0

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

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.16 0.00 0.18 0.00 0.80 0.00 0.00 0.20 0.00
 Crit Moves: *****

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

 Intersection #6 Riverside Drive/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.878
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 153 Level Of Service: D

 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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 2 2 3 65 0 342 286 2285 11 13 1245 59
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 2 2 3 65 0 342 300 2399 12 14 1307 62
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 1 0 7 33 227 0 0 265 0
 Initial Fut: 2 2 3 66 0 349 333 2626 12 14 1572 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: 2 2 3 66 0 349 333 2626 12 14 1572 62
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 2 3 66 0 349 333 2626 12 14 1572 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: 2 2 3 66 0 349 333 2626 12 14 1572 62
 OvlAdjVol: 16

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.28 0.29 0.43 1.00 0.00 1.00 1.00 1.99 0.01 1.00 3.00 1.00
 Final Sat.: 457 457 686 1600 0 1600 1600 3186 14 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.22 0.21 0.82 0.82 0.01 0.33 0.04
 OvlAdjV/S: 0.01
 Crit Moves: *****

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 141 Level Of Service: D

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

Volume Module:
Base Vol: 0 1 0 42 0 15 25 2321 0 0 1315 35
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 0 1 0 42 0 15 26 2437 0 0 1381 37
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 227 0 0 265 0
Initial Fut: 0 1 0 42 0 15 26 2664 0 0 1646 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 1 0 42 0 15 26 2664 0 0 1646 37
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1 0 42 0 15 26 2664 0 0 1646 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1 0 42 0 15 26 2664 0 0 1646 37

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.93 0.07
Final Sat.: 0 1600 0 1179 0 421 1600 3200 0 0 4695 105

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.04 0.02 0.83 0.00 0.00 0.35 0.35
Crit Moves: ****

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.689
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 73 Level Of Service: B

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 45 42 904 44 182 147 1862 21 17 1229 698
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 24 45 42 904 44 182 154 1955 22 18 1290 733
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 37 0 14 22 203 0 0 249 83
Initial Fut: 24 45 42 941 44 196 176 2158 22 18 1539 816
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 24 45 42 941 44 196 176 2158 22 18 1539 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 45 42 941 44 196 176 2158 22 18 1539 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: 24 45 42 941 44 196 176 2158 22 18 1539 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 1.03 0.97 3.00 1.00 1.00 2.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1600 1655 1545 4800 1600 1600 3200 4751 49 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.03 0.03 0.20 0.03 0.12 0.06 0.45 0.45 0.01 0.32 0.00
Crit Moves: ****

 Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Placentia Avenue/Production Place

 Average Delay (sec/veh): 2.4 Worst Case Level Of Service: C[21.2]

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 -----|-----|-----|-----|
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 81 506 3 6 463 49 49 0 52 7 0 3
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 81 506 3 6 463 49 49 0 52 7 0 3
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 38 0 0 21 0 0 0 0 0 0 0
 Initial Fut: 81 544 3 6 484 49 49 0 52 7 0 3
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 81 544 3 6 484 49 49 0 52 7 0 3
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 81 544 3 6 484 49 49 0 52 7 0 3
 -----|-----|-----|-----|
 Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
 FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3
 -----|-----|-----|-----|
 Capacity Module:
 Cnflct Vol: 533 xxxx xxxx 547 xxxx xxxx 955 1230 267 962 1253 274
 Potent Cap.: 1045 xxxx xxxx 1033 xxxx xxxx 216 179 738 214 174 730
 Move Cap.: 1045 xxxx xxxx 1033 xxxx xxxx 202 164 738 186 159 730
 Volume/Cap: 0.08 xxxx xxxx 0.01 xxxx xxxx 0.24 0.00 0.07 0.04 0.00 0.00
 -----|-----|-----|-----|
 Level Of Service Module:
 2Way95thQ: 0.3 xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 Control Del: 8.7 xxxx xxxx 8.5 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 LOS by Move: A * * A * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 322 xxxx xxxx 239 xxxx
 SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 1.3 xxxxx xxxx 0.1 xxxxx
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 21.2 xxxxx xxxx 20.7 xxxxx
 Shared LOS: * * * * * * * C * C *
 ApproachDel: xxxxxx xxxxxx 21.2 20.7
 ApproachLOS: * * C C

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

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

 Intersection #10 Placentia Avenue/16th Street

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.402
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 24 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: 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
 Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 0 1 0
 -----|-----|-----|-----|
 Volume Module:
 Base Vol: 103 412 39 71 449 105 49 52 39 18 124 32
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 108 433 41 75 471 110 51 55 41 19 130 34
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 38 0 0 21 0 0 8 0 0 18 0
 Initial Fut: 108 471 41 75 492 110 51 63 41 19 148 34
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 108 471 41 75 492 110 51 63 41 19 148 34
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 108 471 41 75 492 110 51 63 41 19 148 34
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 108 471 41 75 492 110 51 63 41 19 148 34
 -----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 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 1.84 0.16 1.00 1.63 0.37 1.00 0.60 0.40 1.00 0.82 0.18
 Final Sat.: 1600 2944 256 1600 2615 585 1600 967 633 1600 1304 296
 -----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.07 0.16 0.16 0.05 0.19 0.19 0.03 0.06 0.06 0.01 0.11 0.11
 Crit Moves: **** * * * * *

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

Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.492
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 28 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: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 0 0 1! 0 0

Volume Module:
Base Vol: 43 844 72 16 578 105 34 164 63 65 140 35
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 45 886 76 17 607 110 36 172 66 68 147 37
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 24 0 0 10 0 0 8 0 0 18 0
Initial Fut: 45 910 76 17 617 110 36 180 66 68 165 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 45 910 76 17 617 110 36 180 66 68 165 37
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 45 910 76 17 617 110 36 180 66 68 165 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 45 910 76 17 617 110 36 180 66 68 165 37

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.70 0.30 1.00 0.73 0.27 0.25 0.61 0.14
Final Sat.: 1600 3200 1600 1600 2715 485 1600 1170 430 404 978 218

Capacity Analysis Module:
Vol/Sat: 0.03 0.28 0.05 0.01 0.23 0.23 0.02 0.15 0.15 0.04 0.17 0.17
Crit Moves: ****

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

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.673
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

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

Volume Module:
Base Vol: 51 1904 15 125 1439 137 77 128 73 4 93 99
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 54 1999 16 131 1511 144 81 134 77 4 98 104
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 9 149 0 0 145 9 4 0 4 0 0 0
Initial Fut: 63 2148 16 131 1656 153 85 134 81 4 98 104
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 63 2148 16 131 1656 153 85 134 81 4 98 104
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 63 2148 16 131 1656 153 85 134 81 4 98 104
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 63 2148 16 131 1656 153 85 134 81 4 98 104

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.98 0.02 1.00 2.75 0.25 0.39 0.61 1.00 1.00 1.00 1.00
Final Sat.: 1600 4765 35 1600 4394 406 619 981 1600 1600 1600 1600

Capacity Analysis Module:
Vol/Sat: 0.04 0.45 0.45 0.08 0.38 0.38 0.05 0.14 0.05 0.00 0.06 0.06
Crit Moves: ****

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.676
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 70 Level Of Service: B

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: 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
Base Vol: 42 276 68 19 182 409 223 548 19 104 781 5
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: 42 276 68 19 182 409 223 548 19 104 781 5
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 40 9 0 49 0 0 15 0 16 29 0
Initial Fut: 42 316 77 19 231 409 223 563 19 120 810 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 42 316 77 19 231 409 223 563 19 120 810 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 42 316 77 19 231 409 223 563 19 120 810 5
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 42 316 77 19 231 409 223 563 19 120 810 5

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 0.80 0.20 1.00 1.00 1.00 1.00 1.93 0.07 1.00 1.99 0.01
Final Sat.: 1600 1287 313 1600 1600 1600 1600 3096 104 1600 3180 20

Capacity Analysis Module:
Vol/Sat: 0.03 0.25 0.25 0.01 0.14 0.26 0.14 0.18 0.18 0.08 0.25 0.25
Crit Moves: **** ****

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.756
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 93 Level Of Service: C

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

Volume Module:
Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 125 1569 74 56 1823 219 312 102 255 134 205 51
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 10 150 5 5 169 6 19 3 12 9 7 13
Initial Fut: 135 1719 79 61 1992 225 331 105 267 143 212 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: 135 1719 79 61 1992 225 331 105 267 143 212 64
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 135 1719 79 61 1992 225 331 105 267 143 212 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: 135 1719 79 61 1992 225 331 105 267 143 212 64

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.54 0.46
Final Sat.: 1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2458 742

Capacity Analysis Module:
Vol/Sat: 0.08 0.36 0.05 0.04 0.41 0.14 0.10 0.07 0.17 0.09 0.09 0.09
Crit Moves: ****

Level Of Service Computation Report

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.729
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 69 Level Of Service: C

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

Volume Module:

Base Vol:	24	2	48	36	2	18	18	1247	16	35	2827	36
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	24	2	48	36	2	18	19	1309	17	37	2968	38
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	270	0	0	223	0
Initial Fut:	24	2	48	36	2	18	19	1579	17	37	3191	38
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	2	48	36	2	18	19	1579	17	37	3191	38
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	2	48	36	2	18	19	1579	17	37	3191	38
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	24	2	48	36	2	18	19	1579	17	37	3191	38

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.92	0.08	1.00	0.95	0.05	1.00	1.00	2.97	0.03	1.00	3.00	1.00
Final Sat.:	1477	123	1600	1516	84	1600	1600	4749	51	1600	4800	1600

Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.33	0.33	0.02	0.66	0.02
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

Level Of Service Computation Report

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.738
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 87 Level Of Service: C

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			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	1	0	1	1	0	2	2	0	3	0	1

Volume Module:

Base Vol:	237	219	67	199	318	715	466	739	159	195	1960	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	237	219	67	199	318	715	489	776	167	205	2058	151
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	44	3	0	0	6	16	9	158	31	0	211	0
Initial Fut:	281	222	67	199	324	731	498	934	198	205	2269	151
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	281	222	67	199	324	731	498	934	198	205	2269	151
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	281	222	67	199	324	731	498	934	198	205	2269	151
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	281	222	67	199	324	731	498	934	198	205	2269	151
OvlAdjVol:						233						

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.48	1.17	0.35	1.14	1.86	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	2361	1872	567	1826	2974	3200	3200	4800	1600	1600	6400	1600

Capacity Analysis Module:

Vol/Sat:	0.12	0.12	0.12	0.11	0.11	0.23	0.16	0.19	0.12	0.13	0.35	0.09
OvlAdjV/S:						0.07						
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.749
Loss Time (sec):   0          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     91          Level Of Service:           C
*****
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      Ignore      Ignore
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
Lanes:        0 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 3 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 0 0 0 553 0 408 0 1220 90 0 1938 604
Growth Adj:    1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse:    0 0 0 0 581 0 428 0 1281 95 0 2035 634
Added Vol:     0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:   0 0 0 0 46 0 35 0 202 14 0 168 54
Initial Fut:   0 0 0 0 627 0 463 0 1483 109 0 2203 688
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0 0 0 0 627 0 463 0 1483 0 0 2203 0
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   0 0 0 0 627 0 463 0 1483 0 0 2203 0
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   0 0 0 0 627 0 463 0 1483 0 0 2203 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
Final Sat.:    0 0 0 0 3200 0 1600 0 3200 1600 0 4800 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.00 0.00 0.00 0.20 0.00 0.29 0.00 0.46 0.00 0.00 0.46 0.00
Crit Moves:    ****
*****
```

```
-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #6 Riverside Drive/Coast Highway
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.887
Loss Time (sec):   0          Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     165          Level Of Service:           D
*****
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      Ovl      Include      Include
Min. Green:    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
Lanes:        0 0 1! 0 0 0 1 0 0 1 1 0 1 0 1 0 3 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      9 12 12 73 4 441 249 1568 13 37 2436 56
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse:    9 12 12 73 4 441 261 1646 14 39 2558 59
Added Vol:     0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:   0 0 0 0 2 0 20 33 336 0 0 292 1
Initial Fut:   9 12 12 75 4 461 294 1982 14 39 2850 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:    9 12 12 75 4 461 294 1982 14 39 2850 60
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   9 12 12 75 4 461 294 1982 14 39 2850 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:   9 12 12 75 4 461 294 1982 14 39 2850 60
OvlAdjVol:     167
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         0.27 0.37 0.36 0.95 0.05 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.:    436 582 582 1519 81 1600 1600 3178 22 1600 4800 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.01 0.02 0.02 0.05 0.05 0.29 0.18 0.62 0.62 0.02 0.59 0.04
OvlAdjV/S:     0.10
Crit Moves:    ****
*****
```

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.698
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: B

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 0 0 0 1 0 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 2 1 0 37 2 25 67 1671 5 0 2616 42
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 337 0 0 294 0
Initial Fut: 2 1 0 37 2 25 67 2008 5 0 2910 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 0 37 2 25 67 2008 5 0 2910 42
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1 0 37 2 25 67 2008 5 0 2910 42
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1 0 37 2 25 67 2008 5 0 2910 42

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.67 0.33 0.00 0.58 0.03 0.39 1.00 1.99 0.01 0.00 2.96 0.04
Final Sat.: 1067 533 0 925 50 625 1600 3192 8 0 4732 68

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.02 0.04 0.04 0.04 0.63 0.63 0.00 0.61 0.61
Crit Moves: **** **** **** ****

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.785
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 106 Level Of Service: C

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 16 32 50 840 49 136 121 1507 22 49 2095 1193
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 16 32 50 840 49 136 127 1582 23 51 2200 1253
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 63 0 33 36 305 0 0 270 83
Initial Fut: 16 32 50 903 49 169 163 1887 23 51 2470 1336
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 32 50 903 49 169 163 1887 23 51 2470 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 32 50 903 49 169 163 1887 23 51 2470 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: 16 32 50 903 49 169 163 1887 23 51 2470 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 3.00 1.00 1.00 2.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1600 1600 1600 4800 1600 1600 3200 4742 58 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.19 0.03 0.11 0.05 0.40 0.40 0.03 0.51 0.00
Crit Moves: **** **** **** ****

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-----
Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #9 Placentia Avenue/Production Place
*****
Average Delay (sec/veh):      1.6      Worst Case Level Of Service: C[ 22.3]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 1 0      1 0 1 1 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      16 576      7      11 504      21      54 0      28      1 0      5
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:      16 576      7      11 504      21      54 0      28      1 0      5
Added Vol:      0 0      0      0 0      0      0 0      0      0 0      0
PasserByVol:      0 40      0      0 49      0      0 0      0      0 0      0
Initial Fut:      16 616      7      11 553      21      54 0      28      1 0      5
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      16 616      7      11 553      21      54 0      28      1 0      5
Reduct Vol:      0 0      0      0 0      0      0 0      0      0 0      0
FinalVolume:      16 616      7      11 553      21      54 0      28      1 0      5
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:      4.1 xxxx xxxx      4.1 xxxx xxxx      7.5 6.5 6.9      7.5 6.5 6.9
FollowUpTim:      2.2 xxxx xxxx      2.2 xxxx xxxx      3.5 4.0 3.3      3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      574 xxxx xxxx      623 xxxx xxxx      926 1241      287      950 1248      312
Potent Cap.:      1009 xxxx xxxx      968 xxxx xxxx      227 177      716      218 175      690
Move Cap.:      1009 xxxx xxxx      968 xxxx xxxx      221 172      716      205 170      690
Volume/Cap:      0.02 xxxx xxxx      0.01 xxxx xxxx      0.24 0.00      0.04      0.00 0.00      0.01
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:      0.0 xxxx xxxx      0.0 xxxx xxxx      xxxx xxxx xxxx      xxxx xxxx xxxx
Control Del:      8.6 xxxx xxxx      8.8 xxxx xxxx      xxxxx xxxx xxxxx      xxxxx xxxx xxxxx
LOS by Move:      A * *      A * *      * * *      * * *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:      xxxx xxxx xxxx      xxxx xxxx xxxx      xxxx 289 xxxxx      xxxx 495 xxxxx
SharedQueue:      xxxxx xxxx xxxx      xxxxx xxxx xxxx      xxxxx 1.1 xxxxx      xxxxx 0.0 xxxxx
Shrd ConDel:      xxxxx xxxx xxxx      xxxxx xxxx xxxx      xxxxx 22.3 xxxxx      xxxxx 12.4 xxxxx
Shared LOS:      * * *      * * *      * C      * B
ApproachDel:      xxxxxx      xxxxxx      22.3      12.4
ApproachLOS:      *      *      C      B
*****
Note: Queue reported is the number of cars per lane.
*****
```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Placentia Avenue/16th Street
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.386
Loss Time (sec):      0      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:      23      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:      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 1 1 0      1 0 1 1 0      1 0 0 1 0      1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      47 568      21      26 428      44      110 92      99      15 43      87
Growth Adj:      1.05 1.05      1.05      1.05 1.05      1.05      1.05 1.05      1.05      1.05 1.05      1.05
Initial Bse:      49 596      22      27 449      46      116 97      104      16 45      91
Added Vol:      0 0      0      0 0      0      0 0      0      0 0      0
PasserByVol:      0 40      0      0 49      0      0 18      0      0 9      0
Initial Fut:      49 636      22      27 498      46      116 115      104      16 54      91
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      49 636      22      27 498      46      116 115      104      16 54      91
Reduct Vol:      0 0      0      0 0      0      0 0      0      0 0      0
Reduced Vol:      49 636      22      27 498      46      116 115      104      16 54      91
PCE Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
MLF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
FinalVolume:      49 636      22      27 498      46      116 115      104      16 54      91
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600      1600      1600 1600      1600      1600 1600      1600      1600 1600      1600
Adjustment:      1.00 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 1.93      0.07      1.00 1.83      0.17      1.00 0.52      0.48      1.00 0.37      0.63
Final Sat.:      1600 3093      107      1600 2929      271      1600 839      761      1600 595      1005
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.03 0.21      0.21      0.02 0.17      0.17      0.07 0.14      0.14      0.01 0.09      0.09
Crit Moves:      ****      ****      ****
*****
```

Level Of Service Computation Report

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

Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.423
 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:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	0	1	1	0	1	0	0	1	0

Volume Module:

Base Vol:	47	679	97	28	611	54	52	109	84	33	97	22
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	49	713	102	29	642	57	55	114	88	35	102	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	24	0	0	45	0	0	18	0	0	9	0
Initial Fut:	49	737	102	29	687	57	55	132	88	35	111	23
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	737	102	29	687	57	55	132	88	35	111	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	49	737	102	29	687	57	55	132	88	35	111	23
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	49	737	102	29	687	57	55	132	88	35	111	23

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	1.00	1.00	1.85	0.15	1.00	0.60	0.40	0.20	0.66	0.14
Final Sat.:	1600	3200	1600	1600	2956	244	1600	960	640	329	1052	219

Capacity Analysis Module:

Vol/Sat:	0.03	0.23	0.06	0.02	0.23	0.23	0.03	0.14	0.14	0.02	0.11	0.11
Crit Moves:	****			****			****			****		

Level Of Service Computation Report

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

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.641
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 40 Level Of Service: B

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

Volume Module:

Base Vol:	43	1592	21	54	1827	89	114	73	80	14	52	108
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	45	1672	22	57	1918	93	120	77	84	15	55	113
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	178	0	0	171	5	9	0	9	0	0	0
Initial Fut:	54	1850	22	57	2089	98	129	77	93	15	55	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	1850	22	57	2089	98	129	77	93	15	55	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	1850	22	57	2089	98	129	77	93	15	55	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	1850	22	57	2089	98	129	77	93	15	55	113

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	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	2.96	0.04	1.00	2.87	0.13	0.63	0.37	1.00	1.00	1.00	1.00
Final Sat.:	1600	4743	57	1600	4584	216	1003	597	1600	1600	1600	1600

Capacity Analysis Module:

Vol/Sat:	0.03	0.39	0.39	0.04	0.46	0.46	0.08	0.13	0.06	0.01	0.03	0.07
Crit Moves:	****			****			****			****		



APPENDIX K

Future (2019) Plus Approved Plus Cumulative Plus Growth Plus Project Intersection Level of Service Worksheets

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.574
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 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: 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: 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
Base Vol: 14 183 73 25 282 316 349 930 22 95 273 8
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: 14 183 73 25 282 316 349 930 22 95 273 8
Added Vol: 0 2 0 0 5 5 2 0 0 0 0 0
PasserByVol: 0 38 7 0 21 0 0 17 0 4 6 0
Initial Fut: 14 223 80 25 308 321 351 947 22 99 279 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 14 223 80 25 308 321 351 947 22 99 279 8
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 14 223 80 25 308 321 351 947 22 99 279 8
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 14 223 80 25 308 321 351 947 22 99 279 8

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 0.74 0.26 1.00 1.00 1.00 1.00 1.95 0.05 1.00 1.94 0.06
Final Sat.: 1600 1178 422 1600 1600 1600 1600 3127 73 1600 3111 89

Capacity Analysis Module:
Vol/Sat: 0.01 0.19 0.19 0.02 0.19 0.20 0.22 0.30 0.30 0.06 0.09 0.09
Crit Moves: ****

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.639
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: B

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

Volume Module:
Base Vol: 98 1821 75 53 1288 357 213 121 198 66 211 27
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 103 1912 79 56 1352 375 213 121 198 66 211 27
Added Vol: 1 0 0 0 0 0 0 0 5 0 1 0
PasserByVol: 10 144 6 8 131 10 12 5 3 2 2 2
Initial Fut: 114 2056 85 64 1483 385 225 126 206 68 214 29
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 114 2056 85 64 1483 385 225 126 206 68 214 29
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 114 2056 85 64 1483 385 225 126 206 68 214 29
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 114 2056 85 64 1483 385 225 126 206 68 214 29

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.76 0.24
Final Sat.: 1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2818 382

Capacity Analysis Module:
Vol/Sat: 0.07 0.43 0.05 0.04 0.31 0.24 0.07 0.08 0.13 0.04 0.08 0.08
Crit Moves: ****

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.707
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: C

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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 13 3 43 50 0 28 15 2785 11 13 932 22
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 13 3 43 50 0 28 16 2924 12 14 979 23
Added Vol: 0 0 0 0 0 0 0 1 0 0 3 0
PasserByVol: 0 0 0 0 0 0 0 135 0 0 215 0
Initial Fut: 13 3 43 50 0 28 16 3060 12 14 1197 23
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 3 43 50 0 28 16 3060 12 14 1197 23
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 13 3 43 50 0 28 16 3060 12 14 1197 23
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 13 3 43 50 0 28 16 3060 12 14 1197 23

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.81 0.19 1.00 1.00 0.00 1.00 1.00 2.99 0.01 1.00 3.00 1.00
Final Sat.: 1300 300 1600 1600 0 1600 1600 4782 18 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.03 0.03 0.00 0.02 0.01 0.64 0.64 0.01 0.25 0.01
Crit Moves: ****

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.708
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: C

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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

Volume Module:
Base Vol: 169 347 150 227 149 203 912 1740 215 80 538 202
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 169 347 150 227 149 203 958 1827 226 84 565 212
Added Vol: 0 0 0 1 1 3 1 0 0 0 0 0
PasserByVol: 14 3 0 0 1 4 7 158 34 0 123 0
Initial Fut: 183 350 150 228 151 210 966 1985 260 84 688 212
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 183 350 150 228 151 210 966 1985 260 84 688 212
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 183 350 150 228 151 210 966 1985 260 84 688 212
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 183 350 150 228 151 210 966 1985 260 84 688 212
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 1.34 0.66 1.80 1.20 2.00 2.00 3.00 1.00 1.00 4.00 1.00
Final Sat.: 1600 2143 1057 2888 1912 3200 3200 4800 1600 1600 6400 1600

Capacity Analysis Module:
Vol/Sat: 0.11 0.16 0.14 0.08 0.08 0.07 0.30 0.41 0.16 0.05 0.11 0.13
OvlAdjV/S: 0.00
Crit Moves: ****

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.979
Loss Time (sec):   0           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     180          Level Of Service:          E
*****
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      Ignore      Ignore
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
Lanes:         0 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 3 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      0 0 0 0 460 0 242 0 2309 137 0 816 378
Growth Adj:    1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse:    0 0 0 0 483 0 254 0 2424 144 0 857 397
Added Vol:     0 0 0 0 4 0 0 0 1 0 0 0 0
PasserByVol:   0 0 0 0 22 0 38 0 123 10 0 126 107
Initial Fut:    0 0 0 0 509 0 292 0 2548 154 0 983 504
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:    0 0 0 0 509 0 292 0 2548 0 0 983 0
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   0 0 0 0 509 0 292 0 2548 0 0 983 0
PCE Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   0 0 0 0 509 0 292 0 2548 0 0 983 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
Final Sat.:    0 0 0 0 3200 0 1600 0 3200 1600 0 4800 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.00 0.00 0.00 0.16 0.00 0.18 0.00 0.80 0.00 0.00 0.20 0.00
Crit Moves:    *****
*****
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #6 Riverside Drive/Coast Highway
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.880
Loss Time (sec):   0           Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     155          Level Of Service:          D
*****
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      Ovl      Include      Include
Min. Green:    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
Lanes:         0 0 1! 0 0 0 1 0 0 1 1 0 1 1 0 1 0 3 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      2 2 3 65 0 342 286 2285 11 13 1245 59
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse:    2 2 3 65 0 342 300 2399 12 14 1307 62
Added Vol:     0 0 0 0 0 0 0 5 0 0 0 0
PasserByVol:   0 0 0 1 0 7 33 227 0 0 265 0
Initial Fut:    2 2 3 66 0 349 333 2631 12 14 1574 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:    2 2 3 66 0 349 333 2631 12 14 1574 62
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   2 2 3 66 0 349 333 2631 12 14 1574 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:   2 2 3 66 0 349 333 2631 12 14 1574 62
OvlAdjVol:     16
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:         0.28 0.29 0.43 1.00 0.00 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.:    457 457 686 1600 0 1600 1600 3186 14 1600 4800 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.00 0.00 0.00 0.04 0.00 0.22 0.21 0.83 0.83 0.01 0.33 0.04
OvlAdjV/S:     0.01
Crit Moves:    *****
*****
```

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

 Intersection #7 Tustin Avenue/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.870
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 143 Level Of Service: D

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

 Volume Module:
 Base Vol: 0 1 0 42 0 15 25 2321 0 0 1315 35
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 0 1 0 42 0 15 26 2437 0 0 1381 37
 Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
 PasserByVol: 0 0 0 0 0 0 0 227 0 0 265 0
 Initial Fut: 0 1 0 42 0 15 26 2669 0 0 1648 37
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 1 0 42 0 15 26 2669 0 0 1648 37
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1 0 42 0 15 26 2669 0 0 1648 37
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1 0 42 0 15 26 2669 0 0 1648 37

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 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 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.93 0.07
 Final Sat.: 0 1600 0 1179 0 421 1600 3200 0 0 4695 105

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.03 0.00 0.04 0.02 0.83 0.00 0.00 0.35 0.35
 Crit Moves: ****

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

 Intersection #8 Dover Drive/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.690
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 73 Level Of Service: B

 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 Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 24 45 42 904 44 182 147 1862 21 17 1229 698
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 24 45 42 904 44 182 154 1955 22 18 1290 733
 Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
 PasserByVol: 0 0 0 37 0 14 22 203 0 0 249 83
 Initial Fut: 24 45 42 941 44 196 176 2163 22 18 1541 816
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 24 45 42 941 44 196 176 2163 22 18 1541 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 24 45 42 941 44 196 176 2163 22 18 1541 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: 24 45 42 941 44 196 176 2163 22 18 1541 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 1.03 0.97 3.00 1.00 1.00 2.00 2.97 0.03 1.00 3.00 1.00
 Final Sat.: 1600 1655 1545 4800 1600 1600 3200 4752 48 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.02 0.03 0.03 0.20 0.03 0.12 0.06 0.46 0.46 0.01 0.32 0.00
 Crit Moves: ****

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #9 Placentia Avenue/Production Place
*****
Average Delay (sec/veh):      2.8      Worst Case Level Of Service: C[ 21.8]
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      1 0 1 1 0      1 0 1 1 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      81 506      3      6 463      49      49 0      52      7 0      3
Growth Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
Initial Bse:      81 506      3      6 463      49      49 0      52      7 0      3
Added Vol:      0 0      5      5 0      0      0 0      0      10 0      10
PasserByVol:      0 38      0      0 21      0      0 0      0      0 0      0
Initial Fut:      81 544      8      11 484      49      49 0      52      17 0      13
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      81 544      8      11 484      49      49 0      52      17 0      13
Reduct Vol:      0 0      0      0 0      0      0 0      0      0 0      0
FinalVolume:      81 544      8      11 484      49      49 0      52      17 0      13
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:      4.1 xxxx xxxx      4.1 xxxx xxxx      7.5 6.5 6.9      7.5 6.5 6.9
FollowUpTim:      2.2 xxxx xxxx      2.2 xxxx xxxx      3.5 4.0 3.3      3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      533 xxxx xxxx      552 xxxx xxxx      965 1245      267      974 1265      276
Potent Cap.:      1045 xxxx xxxx      1028 xxxx xxxx      213 176      738      209 171      727
Move Cap.:      1045 xxxx xxxx      1028 xxxx xxxx      195 160      738      181 156      727
Volume/Cap:      0.08 xxxx xxxx      0.01 xxxx xxxx      0.25 0.00      0.07      0.09 0.00      0.02
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:      0.3 xxxx xxxx      0.0 xxxx xxxx      xxxx xxxx xxxx      xxxx xxxx xxxx
Control Del:      8.7 xxxx xxxx      8.5 xxxx xxxx      xxxx xxxx xxxx      xxxx xxxx xxxx
LOS by Move:      A * *      A * *      * * *      * * *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:      xxxx xxxx xxxx      xxxx xxxx xxxx      xxxx 314 xxxx      xxxx 269 xxxx
SharedQueue:      xxxx xxxx xxxx      xxxx xxxx xxxx      xxxx 1.4 xxxx      xxxx 0.4 xxxx
Shrd ConDel:      xxxx xxxx xxxx      xxxx xxxx xxxx      xxxx 21.8 xxxx      xxxx 20.1 xxxx
Shared LOS:      * * *      * * *      * C      * C
ApproachDel:      xxxxxx      xxxxxx      21.8      20.1
ApproachLOS:      *      *      C      C
*****
Note: Queue reported is the number of cars per lane.
*****
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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #10 Placentia Avenue/16th Street
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.402
Loss Time (sec):      0      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:      24      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:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      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      4.0 4.0 4.0
Lanes:      1 0 1 1 0      1 0 1 1 0      1 0 0 1 0      1 0 0 1 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      103 412      39      71 449      105      49 52      39      18 124      32
Growth Adj:      1.05 1.05      1.05      1.05 1.05      1.05      1.05 1.05      1.05      1.05 1.05      1.05
Initial Bse:      108 433      41      75 471      110      51 55      41      19 130      34
Added Vol:      0 2      8      0 1      0      0 0      0      4 0      0
PasserByVol:      0 38      0      0 21      0      0 8      0      0 18      0
Initial Fut:      108 473      49      75 493      110      51 63      41      23 148      34
User Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
PHF Volume:      108 473      49      75 493      110      51 63      41      23 148      34
Reduct Vol:      0 0      0      0 0      0      0 0      0      0 0      0
Reduced Vol:      108 473      49      75 493      110      51 63      41      23 148      34
PCE Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
MLF Adj:      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00      1.00 1.00      1.00
FinalVolume:      108 473      49      75 493      110      51 63      41      23 148      34
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1600 1600      1600      1600 1600      1600      1600 1600      1600      1600 1600      1600
Adjustment:      1.00 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 1.63      0.37      1.00 0.60      0.40      1.00 0.82      0.18
Final Sat.:      1600 2900      300      1600 2616      584      1600 967      633      1600 1304      296
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.07 0.16      0.16      0.05 0.19      0.19      0.03 0.06      0.06      0.01 0.11      0.11
Crit Moves:      ****      ****      ****      ****
*****
```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #11 Superior Avenue/16th Street
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.494
Loss Time (sec):   0      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     28      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:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:      0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Y+R:      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:      1 0 2 0 1      1 0 1 1 0      1 0 0 1 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module:
Base Vol:      43 844 72 16 578 105 34 164 63 65 140 35
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 45 886 76 17 607 110 36 172 66 68 147 37
Added Vol:      0 0 0      0 0 0 2      4 4 0      0 2 0 0
PasserByVol: 0 24 0 0 0 10 0 0 8 0 0 18 0
Initial Fut: 45 910 76 17 617 112 40 184 66 68 167 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 45 910 76 17 617 112 40 184 66 68 167 37
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 45 910 76 17 617 112 40 184 66 68 167 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 45 910 76 17 617 112 40 184 66 68 167 37
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.69 0.31 1.00 0.74 0.26 0.25 0.61 0.14
Final Sat.: 1600 3200 1600 1600 2707 493 1600 1177 423 401 982 216
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.03 0.28 0.05 0.01 0.23 0.23 0.02 0.16 0.16 0.04 0.17 0.17
Crit Moves: ****
*****
```

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #12 Newport Boulevard/Industrial Way
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.675
Loss Time (sec):   0      Average Delay (sec/veh):      xxxxxx
Optimal Cycle:     44      Level Of Service:      B
*****
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 0 0 0
Y+R:      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0      4.0 4.0 4.0
Lanes:      1 0 2 1 0      1 0 2 1 0      0 1 0 0 1      1 0 1 0 1
-----|-----|-----|-----|
Volume Module:
Base Vol:      51 1904 15 125 1439 137 77 128 73 4 93 99
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 54 1999 16 131 1511 144 81 134 77 4 98 104
Added Vol:      0 0 0      0 0 0 2      4 0 0      0 0 0 0
PasserByVol: 9 149 0 0 0 145 9 4 0 4 0 0 0
Initial Fut: 63 2148 16 131 1656 155 89 134 81 4 98 104
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 63 2148 16 131 1656 155 89 134 81 4 98 104
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 63 2148 16 131 1656 155 89 134 81 4 98 104
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 63 2148 16 131 1656 155 89 134 81 4 98 104
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.98 0.02 1.00 2.74 0.26 0.40 0.60 1.00 1.00 1.00 1.00
Final Sat.: 1600 4765 35 1600 4390 410 637 963 1600 1600 1600 1600
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat: 0.04 0.45 0.45 0.08 0.38 0.38 0.06 0.14 0.05 0.00 0.06 0.06
Crit Moves: ****
*****
```

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

Intersection #1 Placentia Avenue/Superior Avenue

Cycle (sec): 100 Critical Vol./Cap.(X): 0.682
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 72 Level Of Service: B

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: 1 0 0 1 0 1 0 1 0 1 1 0

Volume Module:
Base Vol: 42 276 68 19 182 409 223 548 19 104 781 5
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: 42 276 68 19 182 409 223 548 19 104 781 5
Added Vol: 0 6 0 0 4 4 6 0 0 0 0 0
PasserByVol: 0 40 9 0 49 0 0 15 0 16 29 0
Initial Fut: 42 322 77 19 235 413 229 563 19 120 810 5
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 42 322 77 19 235 413 229 563 19 120 810 5
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 42 322 77 19 235 413 229 563 19 120 810 5
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 42 322 77 19 235 413 229 563 19 120 810 5

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 0.81 0.19 1.00 1.00 1.00 1.00 1.93 0.07 1.00 1.99 0.01
Final Sat.: 1600 1291 309 1600 1600 1600 1600 3096 104 1600 3180 20

Capacity Analysis Module:
Vol/Sat: 0.03 0.25 0.25 0.01 0.15 0.26 0.14 0.18 0.18 0.08 0.25 0.25
Crit Moves: ****

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

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.761
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 95 Level Of Service: C

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

Volume Module:
Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 125 1569 74 56 1823 219 312 102 255 134 205 51
Added Vol: 4 0 0 0 0 0 0 0 4 0 3 0
PasserByVol: 10 150 5 5 169 6 19 3 12 9 7 13
Initial Fut: 139 1719 79 61 1992 225 331 105 271 143 215 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: 139 1719 79 61 1992 225 331 105 271 143 215 64
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 139 1719 79 61 1992 225 331 105 271 143 215 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: 139 1719 79 61 1992 225 331 105 271 143 215 64

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.54 0.46
Final Sat.: 1600 4800 1600 1600 4800 1600 3200 1600 1600 1600 2466 734

Capacity Analysis Module:
Vol/Sat: 0.09 0.36 0.05 0.04 0.41 0.14 0.10 0.07 0.17 0.09 0.09 0.09
Crit Moves: ****

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

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.730
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: C

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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 2 48 36 2 18 18 1247 16 35 2827 36
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 24 2 48 36 2 18 19 1309 17 37 2968 38
Added Vol: 0 0 0 0 0 0 0 4 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 270 0 0 223 0
Initial Fut: 24 2 48 36 2 18 19 1583 17 37 3193 38
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 2 48 36 2 18 19 1583 17 37 3193 38
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 2 48 36 2 18 19 1583 17 37 3193 38
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 24 2 48 36 2 18 19 1583 17 37 3193 38

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.92 0.08 1.00 0.95 0.05 1.00 1.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1477 123 1600 1516 84 1600 1600 4750 50 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.03 0.02 0.02 0.01 0.01 0.33 0.33 0.02 0.67 0.02
Crit Moves: **** *

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

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 88 Level Of Service: C

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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

Volume Module:
Base Vol: 237 219 67 199 318 715 466 739 159 195 1960 144
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 237 219 67 199 318 715 489 776 167 205 2058 151
Added Vol: 0 1 0 1 1 2 4 0 0 0 0 1
PasserByVol: 44 3 0 0 6 16 9 158 31 0 211 0
Initial Fut: 281 223 67 200 325 733 502 934 198 205 2269 152
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 281 223 67 200 325 733 502 934 198 205 2269 152
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 281 223 67 200 325 733 502 934 198 205 2269 152
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 281 223 67 200 325 733 502 934 198 205 2269 152
OvlAdjVol: 231

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.48 1.17 0.35 1.14 1.86 2.00 2.00 3.00 1.00 1.00 4.00 1.00
Final Sat.: 2358 1877 565 1829 2971 3200 3200 4800 1600 1600 6400 1600

Capacity Analysis Module:
Vol/Sat: 0.12 0.12 0.12 0.11 0.11 0.23 0.16 0.19 0.12 0.13 0.35 0.10
OvlAdjV/S: 0.07
Crit Moves: **** *

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

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.749
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 91 Level Of Service: C

 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 Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1 0 0 3 0 1

 Volume Module:
 Base Vol: 0 0 0 553 0 408 0 1220 90 0 1938 604
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 0 0 0 581 0 428 0 1281 95 0 2035 634
 Added Vol: 0 0 0 3 0 0 0 1 0 0 1 0
 PasserByVol: 0 0 0 46 0 35 0 202 14 0 168 54
 Initial Fut: 0 0 0 630 0 463 0 1484 109 0 2204 688
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 0 630 0 463 0 1484 0 0 2204 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 630 0 463 0 1484 0 0 2204 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 0 0 630 0 463 0 1484 0 0 2204 0

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

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.20 0.00 0.29 0.00 0.46 0.00 0.00 0.46 0.00
 Crit Moves: **** *

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

 Intersection #6 Riverside Drive/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.889
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 167 Level Of Service: D

 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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 9 12 12 73 4 441 249 1568 13 37 2436 56
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 9 12 12 73 4 441 261 1646 14 39 2558 59
 Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
 PasserByVol: 0 0 0 2 0 20 33 336 0 0 292 1
 Initial Fut: 9 12 12 75 4 461 294 1986 14 39 2856 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: 9 12 12 75 4 461 294 1986 14 39 2856 60
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 9 12 12 75 4 461 294 1986 14 39 2856 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: 9 12 12 75 4 461 294 1986 14 39 2856 60
 OvlAdjVol: 167

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.27 0.37 0.36 0.95 0.05 1.00 1.00 1.99 0.01 1.00 3.00 1.00
 Final Sat.: 436 582 582 1519 81 1600 1600 3178 22 1600 4800 1600

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.02 0.02 0.05 0.05 0.29 0.18 0.63 0.63 0.02 0.59 0.04
 OvlAdjV/S: 0.10
 Crit Moves: **** *

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

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: B

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 0 0 0 1 0 0 1 0 1 0 0 0 2 1 0

Volume Module:
Base Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 2 1 0 37 2 25 67 1671 5 0 2616 42
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 0 0 0 0 337 0 0 294 0
Initial Fut: 2 1 0 37 2 25 67 2012 5 0 2916 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 0 37 2 25 67 2012 5 0 2916 42
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1 0 37 2 25 67 2012 5 0 2916 42
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1 0 37 2 25 67 2012 5 0 2916 42

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.67 0.33 0.00 0.58 0.03 0.39 1.00 1.99 0.01 0.00 2.96 0.04
Final Sat.: 1067 533 0 925 50 625 1600 3192 8 0 4732 68

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.02 0.04 0.04 0.04 0.63 0.63 0.00 0.62 0.62
Crit Moves: **** **** **** ****

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

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 107 Level Of Service: C

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 16 32 50 840 49 136 121 1507 22 49 2095 1193
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 16 32 50 840 49 136 127 1582 23 51 2200 1253
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 63 0 33 36 305 0 0 270 83
Initial Fut: 16 32 50 903 49 169 163 1891 23 51 2476 1336
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 32 50 903 49 169 163 1891 23 51 2476 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 32 50 903 49 169 163 1891 23 51 2476 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: 16 32 50 903 49 169 163 1891 23 51 2476 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 3.00 1.00 1.00 2.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1600 1600 1600 4800 1600 1600 3200 4742 58 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.19 0.03 0.11 0.05 0.40 0.40 0.03 0.52 0.00
Crit Moves: **** **** ****

 Level Of Service Computation Report
 2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #9 Placentia Avenue/Production Place

 Average Delay (sec/veh): 2.0 Worst Case Level Of Service: C[23.8]

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0

 Volume Module:
 Base Vol: 16 576 7 11 504 21 54 0 28 1 0 0 5
 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: 16 576 7 11 504 21 54 0 28 1 0 0 5
 Added Vol: 0 0 13 13 0 0 0 0 0 8 0 8
 PasserByVol: 0 40 0 0 49 0 0 0 0 0 0 0
 Initial Fut: 16 616 20 24 553 21 54 0 28 9 0 13
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 16 616 20 24 553 21 54 0 28 9 0 13
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 16 616 20 24 553 21 54 0 28 9 0 13

 Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9
 FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3

 Capacity Module:
 Cnflct Vol: 574 xxxx xxxx 636 xxxx xxxx 952 1280 287 983 1280 318
 Potent Cap.: 1009 xxxx xxxx 957 xxxx xxxx 217 167 716 206 167 684
 Move Cap.: 1009 xxxx xxxx 957 xxxx xxxx 206 161 716 192 160 684
 Volume/Cap: 0.02 xxxx xxxx 0.03 xxxx xxxx 0.26 0.00 0.04 0.05 0.00 0.02

 Level Of Service Module:
 2Way95thQ: 0.0 xxxx xxxx 0.1 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 Control Del: 8.6 xxxx xxxx 8.9 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx
 LOS by Move: A * * A * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 273 xxxx xxxx 334 xxxx
 SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 1.2 xxxx xxxx 0.2 xxxx
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 23.8 xxxx xxxx 16.5 xxxx
 Shared LOS: * * * * * * * C * C *
 ApproachDel: xxxxxx xxxxxx 23.8 16.5
 ApproachLOS: * * C C

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

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

 Intersection #10 Placentia Avenue/16th Street

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.388
 Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
 Optimal Cycle: 24 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: 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 1 1 0 1 0 1 1 0 1 0 0 1 0

 Volume Module:
 Base Vol: 47 568 21 26 428 44 110 92 99 15 43 87
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 49 596 22 27 449 46 116 97 104 16 45 91
 Added Vol: 0 2 6 0 3 0 0 0 0 10 0 0
 PasserByVol: 0 40 0 0 49 0 0 18 0 0 9 0
 Initial Fut: 49 638 28 27 501 46 116 115 104 26 54 91
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 49 638 28 27 501 46 116 115 104 26 54 91
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 49 638 28 27 501 46 116 115 104 26 54 91
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 49 638 28 27 501 46 116 115 104 26 54 91

 Saturation Flow Module:
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
 Adjustment: 1.00 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 1.92 0.08 1.00 1.83 0.17 1.00 0.52 0.48 1.00 0.37 0.63
 Final Sat.: 1600 3065 135 1600 2930 270 1600 839 761 1600 595 1005

 Capacity Analysis Module:
 Vol/Sat: 0.03 0.21 0.21 0.02 0.17 0.17 0.07 0.14 0.14 0.02 0.09 0.09
 Crit Moves: **** * * * * *

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

Intersection #11 Superior Avenue/16th Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.426
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: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 0 1 1 0 1 1 0 1 0 0 0 1! 0 0

Volume Module:
Base Vol: 47 679 97 28 611 54 52 109 84 33 97 22
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 49 713 102 29 642 57 55 114 88 35 102 23
Added Vol: 0 0 0 0 0 5 3 3 0 0 5 0
PasserByVol: 0 24 0 0 45 0 0 18 0 0 9 0
Initial Fut: 49 737 102 29 687 62 58 135 88 35 116 23
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 49 737 102 29 687 62 58 135 88 35 116 23
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 49 737 102 29 687 62 58 135 88 35 116 23
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 49 737 102 29 687 62 58 135 88 35 116 23

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 1.00 1.00 1.84 0.16 1.00 0.61 0.39 0.20 0.67 0.13
Final Sat.: 1600 3200 1600 1600 2936 264 1600 969 631 319 1068 213

Capacity Analysis Module:
Vol/Sat: 0.03 0.23 0.06 0.02 0.23 0.23 0.04 0.14 0.14 0.02 0.11 0.11
Crit Moves: ****

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

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.644
Loss Time (sec): 0 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 40 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

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

Volume Module:
Base Vol: 43 1592 21 54 1827 89 114 73 80 14 52 108
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 45 1672 22 57 1918 93 120 77 84 15 55 113
Added Vol: 0 0 0 0 0 5 3 0 0 0 0 0
PasserByVol: 9 178 0 0 171 5 9 0 9 0 0 0
Initial Fut: 54 1850 22 57 2089 103 132 77 93 15 55 113
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 54 1850 22 57 2089 103 132 77 93 15 55 113
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 54 1850 22 57 2089 103 132 77 93 15 55 113
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 54 1850 22 57 2089 103 132 77 93 15 55 113

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 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 2.96 0.04 1.00 2.86 0.14 0.63 0.37 1.00 1.00 1.00 1.00
Final Sat.: 1600 4743 57 1600 4574 226 1011 589 1600 1600 1600 1600

Capacity Analysis Module:
Vol/Sat: 0.03 0.39 0.39 0.04 0.46 0.46 0.08 0.13 0.06 0.01 0.03 0.07
Crit Moves: ****



APPENDIX L

Existing (2014) No Project and Plus Project Intersection Level of Service Worksheets (HCM Methodology)

Existing AM Thu Mar 12, 2015 13:47:27 Page 2-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.587
Loss Time (sec): 8 Average Delay (sec/veh): 19.6
Optimal Cycle: 37 Level Of Service: B

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

Volume Module:
Base Vol: 98 1821 75 53 1288 357 213 121 198 66 211 27
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: 98 1821 75 53 1288 357 213 121 198 66 211 27
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: 98 1821 75 53 1288 357 213 121 198 66 211 27
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 98 1821 75 53 1288 357 213 121 198 66 211 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 98 1821 75 53 1288 357 213 121 198 66 211 27
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 98 1821 75 53 1288 357 213 121 198 66 211 27

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.92 1.00 0.85 0.95 0.93 0.93
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.77 0.23
Final Sat.: 1805 5187 1615 1805 5187 1615 3502 1900 1615 1805 3146 403

Capacity Analysis Module:
Vol/Sat: 0.05 0.35 0.05 0.03 0.25 0.22 0.06 0.06 0.12 0.04 0.07 0.07
Crit Moves: ****
Green/Cycle: 0.12 0.60 0.60 0.05 0.53 0.53 0.13 0.21 0.21 0.06 0.14 0.14
Volume/Cap: 0.47 0.59 0.08 0.59 0.47 0.42 0.47 0.30 0.59 0.59 0.47 0.47
Uniform Del: 41.3 12.4 8.4 46.5 14.6 14.0 40.4 33.4 35.7 45.6 39.4 39.4
IncrmntDel: 1.6 0.3 0.0 9.6 0.1 0.3 0.8 0.4 2.7 7.8 0.7 0.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 42.9 12.7 8.5 56.1 14.7 14.4 41.2 33.8 38.3 53.4 40.1 40.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 42.9 12.7 8.5 56.1 14.7 14.4 41.2 33.8 38.3 53.4 40.1 40.1
LOS by Move: D B A E B B D C D D D D
HCM2kAvgQ: 3 13 1 2 9 6 4 3 6 3 4 4

Existing AM Thu Mar 12, 2015 13:47:27 Page 3-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.622
Loss Time (sec): 6 Average Delay (sec/veh): 4.2
Optimal Cycle: 35 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: 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 13 3 43 50 0 28 15 2785 11 13 932 22
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 3 43 50 0 28 15 2785 11 13 932 22
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 3 43 50 0 28 15 2785 11 13 932 22
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 3 43 50 0 28 15 2785 11 13 932 22
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 13 3 43 50 0 28 15 2785 11 13 932 22
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 13 3 43 50 0 28 15 2785 11 13 932 22

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.75 0.75 0.85 0.70 1.00 0.85 0.95 0.91 0.91 0.95 0.91 0.85
Lanes: 0.81 0.19 1.00 1.00 0.00 1.00 1.00 2.99 0.01 1.00 3.00 1.00
Final Sat.: 1150 265 1615 1334 0 1615 1805 5161 20 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.03 0.04 0.00 0.02 0.01 0.54 0.54 0.01 0.18 0.01
Crit Moves: ****
Green/Cycle: 0.06 0.06 0.06 0.06 0.00 0.06 0.04 0.87 0.87 0.01 0.84 0.84
Volume/Cap: 0.19 0.19 0.44 0.62 0.00 0.29 0.21 0.62 0.62 0.62 0.21 0.02
Uniform Del: 44.7 44.7 45.4 45.9 0.0 44.9 46.6 1.9 1.9 49.2 1.5 1.3
IncrmntDel: 1.1 1.1 3.2 14.1 0.0 1.6 1.5 0.3 0.3 46.1 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 45.7 45.7 48.5 59.9 0.0 46.6 48.1 2.2 2.2 95.3 1.6 1.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 45.7 45.7 48.5 59.9 0.0 46.6 48.1 2.2 2.2 95.3 1.6 1.3
LOS by Move: D D D E A D D A A F A A
HCM2kAvgQ: 1 1 2 3 0 1 1 10 10 0 2 0

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.654
 Loss Time (sec): 8 Average Delay (sec/veh): 27.0
 Optimal Cycle: 43 Level Of Service: C

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			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	1	0	1	1	0	2	2	0	3	0	1

Volume Module:												
Base Vol:	169	347	150	227	149	203	912	1740	215	80	538	202
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:	169	347	150	227	149	203	912	1740	215	80	538	202
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:	169	347	150	227	149	203	912	1740	215	80	538	202
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	169	347	150	227	149	203	912	1740	215	80	538	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	347	150	227	149	203	912	1740	215	80	538	202
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	347	150	227	149	203	912	1740	215	80	538	202

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.91	0.91	0.92	0.92	0.75	0.92	0.91	0.85	0.95	0.91	0.85
Lanes:	1.00	1.40	0.60	1.81	1.19	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	1721	2403	1039	3174	2084	2842	3502	5187	1615	1805	6916	1615

Capacity Analysis Module:												
Vol/Sat:	0.10	0.14	0.14	0.07	0.07	0.07	0.26	0.34	0.13	0.04	0.08	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.22	0.22	0.22	0.11	0.11	0.51	0.40	0.52	0.52	0.07	0.19	0.19
Volume/Cap:	0.44	0.65	0.65	0.65	0.65	0.14	0.65	0.64	0.26	0.64	0.41	0.65
Uniform Del:	33.7	35.5	35.5	42.7	42.7	13.0	24.5	17.3	13.2	45.4	35.5	37.4
IncrcmntDel:	0.2	1.5	1.5	2.7	2.7	0.0	1.1	0.5	0.2	11.0	0.2	5.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	33.9	37.0	37.0	45.4	45.4	13.1	25.6	17.8	13.4	56.4	35.7	42.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.9	37.0	37.0	45.4	45.4	13.1	25.6	17.8	13.4	56.4	35.7	42.3
LOS by Move:	C	D	D	D	D	B	C	B	B	E	D	D
HCM2kAvgQ:	5	8	8	5	5	2	11	14	3	3	4	6

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.822
 Loss Time (sec): 4 Average Delay (sec/veh): 14.7
 Optimal Cycle: 55 Level Of Service: B

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			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	0	2	0	0	1

Volume Module:												
Base Vol:	0	0	0	460	0	242	0	2309	137	0	816	378
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	460	0	242	0	2309	137	0	816	378
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:	0	0	0	460	0	242	0	2309	137	0	816	378
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	460	0	242	0	2309	0	0	816	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	460	0	242	0	2309	0	0	816	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	460	0	242	0	2309	0	0	816	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.85	1.00	0.95	1.00	1.00	0.91	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	3502	0	1615	0	3610	1900	0	5187	1900

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.15	0.00	0.64	0.00	0.00	0.16	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.18	0.00	0.18	0.00	0.78	0.00	0.00	0.78	0.00
Volume/Cap:	0.00	0.00	0.00	0.72	0.00	0.82	0.00	0.82	0.00	0.00	0.20	0.00
Uniform Del:	0.0	0.0	0.0	38.5	0.0	39.3	0.0	6.9	0.0	0.0	2.9	0.0
IncrcmntDel:	0.0	0.0	0.0	4.0	0.0	16.8	0.0	2.1	0.0	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	42.5	0.0	56.1	0.0	8.9	0.0	0.0	3.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	42.5	0.0	56.1	0.0	8.9	0.0	0.0	3.0	0.0
LOS by Move:	A	A	A	D	A	E	A	A	A	A	A	A
HCM2kAvgQ:	0	0	0	8	0	10	0	24	0	0	2	0

Existing AM Thu Mar 12, 2015 13:47:27 Page 6-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.742
Loss Time (sec): 6 Average Delay (sec/veh): 11.4
Optimal Cycle: 48 Level Of Service: B

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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 3 0 1

Volume Module:
Base Vol: 2 2 3 65 0 342 286 2285 11 13 1245 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: 2 2 3 65 0 342 286 2285 11 13 1245 59
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: 2 2 3 65 0 342 286 2285 11 13 1245 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: 2 2 3 65 0 342 286 2285 11 13 1245 59
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 2 3 65 0 342 286 2285 11 13 1245 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: 2 2 3 65 0 342 286 2285 11 13 1245 59

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.77 1.00 0.85 0.95 0.95 0.95 0.95 0.91 0.85
Lanes: 0.28 0.29 0.43 1.00 0.00 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.: 497 497 746 1457 0 1615 1805 3589 17 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.21 0.16 0.64 0.64 0.01 0.24 0.04
Crit Moves: ****
Green/Cycle: 0.07 0.07 0.07 0.07 0.00 0.42 0.35 0.86 0.86 0.01 0.52 0.52
Volume/Cap: 0.06 0.06 0.06 0.62 0.00 0.51 0.46 0.74 0.74 0.74 0.46 0.07
Uniform Del: 43.2 43.2 43.2 45.1 0.0 21.6 25.5 2.8 2.8 49.4 15.0 11.8
IncrmntDel: 0.2 0.2 0.2 10.9 0.0 0.6 0.5 1.0 1.0 96.4 0.1 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 43.4 43.4 43.4 56.0 0.0 22.2 26.0 3.7 3.7 145.8 15.1 11.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.4 43.4 43.4 56.0 0.0 22.2 26.0 3.7 3.7 145.8 15.1 11.8
LOS by Move: D D D E A C C A A F B B
HCM2kAvgQ: 0 0 0 3 0 8 7 16 16 1 9 1

Existing AM Thu Mar 12, 2015 13:47:27 Page 7-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.727
Loss Time (sec): 6 Average Delay (sec/veh): 3.8
Optimal Cycle: 45 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: 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 0 1 0 1 1 0

Volume Module:
Base Vol: 0 0 0 42 0 15 25 2321 0 0 1315 35
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 42 0 15 25 2321 0 0 1315 35
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: 0 0 0 42 0 15 25 2321 0 0 1315 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 42 0 15 25 2321 0 0 1315 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 42 0 15 25 2321 0 0 1315 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 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 42 0 15 25 2321 0 0 1315 35

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 1.00 0.74 0.95 0.95 0.95 1.00 0.91 0.91
Lanes: 0.00 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.92 0.08
Final Sat.: 0 1900 0 1042 0 372 1805 3610 0 0 5032 134

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.04 0.01 0.64 0.00 0.00 0.26 0.26
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.06 0.00 0.06 0.04 0.88 0.00 0.00 0.84 0.84
Volume/Cap: 0.00 0.00 0.00 0.73 0.00 0.73 0.31 0.73 0.00 0.00 0.31 0.31
Uniform Del: 0.0 0.0 0.0 46.5 0.0 46.5 46.3 1.9 0.0 0.0 1.7 1.7
IncrmntDel: 0.0 0.0 0.0 28.6 0.0 28.6 2.2 0.9 0.0 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 75.1 0.0 75.1 48.5 2.7 0.0 0.0 1.8 1.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 75.1 0.0 75.1 48.5 2.7 0.0 0.0 1.8 1.8
LOS by Move: A A A E A E D A A A A
HCM2kAvgQ: 0 0 0 3 0 3 1 13 0 0 3 3

Existing AM Thu Mar 12, 2015 13:47:27 Page 8-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.621
Loss Time (sec): 8 Average Delay (sec/veh): 21.1
Optimal Cycle: 40 Level Of Service: C

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 45 42 904 44 182 147 1862 21 17 1229 698
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: 24 45 42 904 44 182 147 1862 21 17 1229 698
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: 24 45 42 904 44 182 147 1862 21 17 1229 698
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 45 42 904 44 182 147 1862 21 17 1229 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 45 42 904 44 182 147 1862 21 17 1229 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: 24 45 42 904 44 182 147 1862 21 17 1229 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.88 0.88 0.92 1.00 0.85 0.92 0.91 0.91 0.95 0.91 1.00
Lanes: 1.00 1.03 0.97 3.00 1.00 1.00 2.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1805 1733 1617 5253 1900 1615 3502 5119 58 1805 5187 1900

Capacity Analysis Module:
Vol/Sat: 0.01 0.03 0.03 0.17 0.02 0.11 0.04 0.36 0.36 0.01 0.24 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.04 0.04 0.28 0.28 0.28 0.09 0.59 0.59 0.02 0.51 0.00
Volume/Cap: 0.32 0.62 0.62 0.62 0.08 0.41 0.46 0.62 0.62 0.62 0.46 0.00
Uniform Del: 46.5 47.1 47.1 31.6 26.7 29.4 43.2 13.5 13.5 49.0 15.7 0.0
IncrmntDel: 2.4 8.3 8.3 0.8 0.1 0.6 1.1 0.4 0.4 36.7 0.1 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 48.9 55.4 55.4 32.4 26.8 30.0 44.3 13.9 13.9 85.6 15.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 48.9 55.4 55.4 32.4 26.8 30.0 44.3 13.9 13.9 85.6 15.8 0.0
LOS by Move: D E E C C C D B B F B A
HCM2kAvgQ: 1 2 2 9 1 5 2 13 13 1 9 0

Existing AM Thu Mar 12, 2015 13:47:27 Page 9-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.910
Loss Time (sec): 4 Average Delay (sec/veh): 10.7
Optimal Cycle: 92 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

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

Volume Module:
Base Vol: 51 1904 15 125 1439 137 77 128 73 4 93 99
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: 51 1904 15 125 1439 137 77 128 73 4 93 99
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: 51 1904 15 125 1439 137 77 128 73 4 93 99
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 51 1904 15 125 1439 137 77 128 73 4 93 99
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 51 1904 15 125 1439 137 77 128 73 4 93 99
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 51 1904 15 125 1439 137 77 128 73 4 93 99

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.14 0.91 0.91 0.09 0.90 0.90 0.76 0.76 0.85 0.27 1.00 0.85
Lanes: 1.00 2.98 0.02 1.00 2.74 0.26 0.38 0.62 1.00 1.00 1.00 1.00
Final Sat.: 258 5141 41 171 4675 445 539 896 1615 515 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.20 0.37 0.37 0.73 0.31 0.31 0.14 0.14 0.05 0.01 0.05 0.06
Crit Moves: ****
Green/Cycle: 0.80 0.80 0.80 0.80 0.80 0.80 0.16 0.16 0.16 0.16 0.16 0.16
Volume/Cap: 0.25 0.46 0.46 0.91 0.38 0.38 0.91 0.91 0.29 0.05 0.31 0.39
Uniform Del: 2.4 3.1 3.1 7.2 2.8 2.8 41.5 41.5 37.2 35.8 37.4 37.9
IncrmntDel: 0.6 0.1 0.1 50.6 0.1 0.1 36.5 36.5 0.6 0.3 0.6 1.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 3.0 3.2 3.2 57.8 2.9 2.9 77.9 77.9 37.8 36.1 38.0 38.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.0 3.2 3.2 57.8 2.9 2.9 77.9 77.9 37.8 36.1 38.0 38.9
LOS by Move: A A A E A A E E D D D D
HCM2kAvgQ: 0 7 7 6 5 5 7 7 2 0 3 3

Existing PM Thu Mar 12, 2015 13:47:07 Page 2-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.688
Loss Time (sec): 8 Average Delay (sec/veh): 24.3
Optimal Cycle: 47 Level Of Service: C

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

Volume Module:
Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 119 1494 70 53 1736 209 312 102 255 134 205 51
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: 119 1494 70 53 1736 209 312 102 255 134 205 51
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 119 1494 70 53 1736 209 312 102 255 134 205 51
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 119 1494 70 53 1736 209 312 102 255 134 205 51

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.92 1.00 0.85 0.95 0.92 0.92
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.60 0.40
Final Sat.: 1805 5187 1615 1805 5187 1615 3502 1900 1615 1805 2804 698

Capacity Analysis Module:
Vol/Sat: 0.07 0.29 0.04 0.03 0.33 0.13 0.09 0.05 0.16 0.07 0.07 0.07
Crit Moves: ****
Green/Cycle: 0.10 0.53 0.53 0.05 0.49 0.49 0.19 0.23 0.23 0.11 0.15 0.15
Volume/Cap: 0.69 0.54 0.08 0.54 0.69 0.27 0.48 0.23 0.69 0.69 0.48 0.48
Uniform Del: 43.8 15.6 11.6 46.1 19.8 15.1 36.4 31.4 35.2 43.0 38.8 38.8
IncrmntDel: 11.1 0.2 0.0 6.3 0.8 0.2 0.6 0.3 5.4 9.9 0.7 0.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 54.8 15.8 11.7 52.4 20.6 15.3 37.0 31.6 40.6 52.9 39.5 39.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 54.8 15.8 11.7 52.4 20.6 15.3 37.0 31.6 40.6 52.9 39.5 39.5
LOS by Move: D B B D C B D C D D D
HCM2kAvgQ: 5 11 1 2 15 4 5 3 8 5 4 4

Existing PM Thu Mar 12, 2015 13:47:07 Page 3-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.622
Loss Time (sec): 6 Average Delay (sec/veh): 4.2
Optimal Cycle: 35 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: 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 2 48 36 2 18 18 1247 16 35 2827 36
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: 24 2 48 36 2 18 18 1247 16 35 2827 36
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: 24 2 48 36 2 18 18 1247 16 35 2827 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: 24 2 48 36 2 18 18 1247 16 35 2827 36
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 2 48 36 2 18 18 1247 16 35 2827 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: 24 2 48 36 2 18 18 1247 16 35 2827 36

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.80 0.80 0.85 0.82 0.82 0.85 0.95 0.91 0.91 0.95 0.91 0.85
Lanes: 0.92 0.08 1.00 0.95 0.05 1.00 1.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1408 117 1615 1469 82 1615 1805 5111 66 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.03 0.02 0.02 0.01 0.01 0.24 0.24 0.02 0.55 0.02
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.05 0.05 0.05 0.02 0.83 0.83 0.07 0.88 0.88
Volume/Cap: 0.36 0.36 0.62 0.51 0.51 0.23 0.62 0.30 0.30 0.30 0.62 0.03
Uniform Del: 46.1 46.1 46.7 46.5 46.5 45.8 48.9 2.0 2.0 44.5 1.7 0.8
IncrmntDel: 3.0 3.0 14.7 6.0 6.0 1.6 35.2 0.0 0.0 1.4 0.3 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 49.1 49.1 61.4 52.5 52.5 47.4 84.1 2.0 2.0 45.9 2.0 0.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.1 49.1 61.4 52.5 52.5 47.4 84.1 2.0 2.0 45.9 2.0 0.8
LOS by Move: D D E D D D F A A D A A
HCM2kAvgQ: 1 1 3 2 2 1 1 3 3 1 9 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 8 Average Delay (sec/veh): 30.1
Optimal Cycle: 47 Level Of Service: C

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			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	1	0	1	1	0	2	2	0	3	0	1

Volume Module:												
Base Vol:	237	219	67	199	318	715	466	739	159	195	1960	144
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:	237	219	67	199	318	715	466	739	159	195	1960	144
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:	237	219	67	199	318	715	466	739	159	195	1960	144
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	237	219	67	199	318	715	466	739	159	195	1960	144
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	237	219	67	199	318	715	466	739	159	195	1960	144
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	237	219	67	199	318	715	466	739	159	195	1960	144

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.91	0.91	0.93	0.93	0.75	0.92	0.91	0.85	0.95	0.91	0.85
Lanes:	1.36	1.26	0.38	1.15	1.85	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	2354	2175	666	2045	3267	2842	3502	5187	1615	1805	6916	1615

Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.10	0.10	0.10	0.25	0.13	0.14	0.10	0.11	0.28	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.15	0.15	0.15	0.17	0.17	0.36	0.19	0.34	0.34	0.26	0.41	0.41
Volume/Cap:	0.69	0.69	0.69	0.57	0.57	0.69	0.69	0.42	0.29	0.42	0.69	0.22
Uniform Del:	40.6	40.6	40.6	38.0	38.0	27.0	37.6	25.2	24.0	30.7	24.3	19.1
IncRemntDel:	2.7	2.7	2.7	0.8	0.8	2.0	3.1	0.2	0.3	0.6	0.7	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	43.3	43.3	43.3	38.9	38.9	29.0	40.7	25.3	24.2	31.3	25.0	19.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.3	43.3	43.3	38.9	38.9	29.0	40.7	25.3	24.2	31.3	25.0	19.3
LOS by Move:	D	D	D	D	D	C	D	C	C	C	B	B
HCM2kAvgQ:	7	7	7	6	6	12	7	6	3	5	13	3

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.652
Loss Time (sec): 4 Average Delay (sec/veh): 17.1
Optimal Cycle: 31 Level Of Service: B

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			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	0	2	0	3	0

Volume Module:												
Base Vol:	0	0	0	553	0	408	0	1220	90	0	1938	604
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	553	0	408	0	1220	90	0	1938	604
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:	0	0	0	553	0	408	0	1220	90	0	1938	604
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	553	0	408	0	1220	0	0	1938	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	553	0	408	0	1220	0	0	1938	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	553	0	408	0	1220	0	0	1938	0

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.85	1.00	0.95	1.00	1.00	0.91	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	3502	0	1615	0	3610	1900	0	5187	1900

Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.16	0.00	0.25	0.00	0.34	0.00	0.00	0.37	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.39	0.00	0.39	0.00	0.57	0.00	0.00	0.57	0.00
Volume/Cap:	0.00	0.00	0.00	0.41	0.00	0.65	0.00	0.59	0.00	0.00	0.65	0.00
Uniform Del:	0.0	0.0	0.0	22.3	0.0	25.1	0.0	13.8	0.0	0.0	14.6	0.0
IncRemntDel:	0.0	0.0	0.0	0.2	0.0	2.5	0.0	0.5	0.0	0.0	0.5	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	22.5	0.0	27.6	0.0	14.2	0.0	0.0	15.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	22.5	0.0	27.6	0.0	14.2	0.0	0.0	15.1	0.0
LOS by Move:	A	A	A	C	A	C	A	B	A	A	B	A
HCM2kAvgQ:	0	0	0	6	0	11	0	13	0	0	15	0

Existing PM Thu Mar 12, 2015 13:47:07 Page 6-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.790
Loss Time (sec): 6 Average Delay (sec/veh): 17.9
Optimal Cycle: 56 Level Of Service: B

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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 3 0 1

Volume Module:
Base Vol: 9 12 12 73 4 441 249 1568 13 37 2436 56
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 9 12 12 73 4 441 249 1568 13 37 2436 56
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: 9 12 12 73 4 441 249 1568 13 37 2436 56
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 9 12 12 73 4 441 249 1568 13 37 2436 56
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 9 12 12 73 4 441 249 1568 13 37 2436 56
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 9 12 12 73 4 441 249 1568 13 37 2436 56

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.90 0.90 0.75 0.75 0.85 0.95 0.95 0.95 0.95 0.91 0.85
Lanes: 0.27 0.37 0.36 0.95 0.95 1.00 1.00 1.98 0.02 1.00 3.00 1.00
Final Sat.: 469 625 625 1349 74 1615 1805 3577 30 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.05 0.05 0.27 0.14 0.44 0.44 0.02 0.47 0.03
Crit Moves: ****
Green/Cycle: 0.17 0.17 0.17 0.17 0.17 0.35 0.17 0.73 0.73 0.03 0.59 0.59
Volume/Cap: 0.11 0.11 0.11 0.32 0.32 0.79 0.79 0.60 0.60 0.60 0.79 0.60
Uniform Del: 35.0 35.0 35.0 36.3 36.3 29.5 39.5 6.3 6.3 47.6 15.5 8.5
IncrmntDel: 0.2 0.2 0.2 0.8 0.8 7.5 12.6 0.4 0.4 14.9 1.4 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 35.2 35.2 35.2 37.1 37.1 36.9 52.1 6.6 6.6 62.5 17.0 8.5
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 35.2 35.2 35.2 37.1 37.1 36.9 52.1 6.6 6.6 62.5 17.0 8.5
LOS by Move: D D D D D D A A E B A A
HCM2kAvgQ: 1 1 1 2 2 14 9 12 12 1 21 1

Existing PM Thu Mar 12, 2015 13:47:07 Page 7-1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.604
Loss Time (sec): 6 Average Delay (sec/veh): 4.6
Optimal Cycle: 33 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: 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 0 0 0 1! 0 0 1 0 1 1 0 0 2 1 0

Volume Module:
Base Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 2 1 0 37 2 25 64 1591 5 0 2491 40
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: 2 1 0 37 2 25 64 1591 5 0 2491 40
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 0 37 2 25 64 1591 5 0 2491 40
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1 0 37 2 25 64 1591 5 0 2491 40

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.89 0.89 1.00 0.77 0.77 0.77 0.95 0.95 0.95 1.00 0.91 0.91
Lanes: 0.67 0.33 0.00 0.58 0.03 0.39 1.00 1.99 0.01 0.00 2.95 0.05
Final Sat.: 1132 566 0 848 46 573 1805 3599 11 0 5095 82

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.04 0.04 0.04 0.44 0.44 0.00 0.49 0.49
Crit Moves: ****
Green/Cycle: 0.07 0.07 0.00 0.07 0.07 0.07 0.06 0.87 0.87 0.00 0.81 0.81
Volume/Cap: 0.02 0.02 0.00 0.60 0.60 0.60 0.60 0.51 0.51 0.00 0.60 0.60
Uniform Del: 43.1 43.1 0.0 45.0 45.0 45.0 45.9 1.6 1.6 0.0 3.6 3.6
IncrmntDel: 0.1 0.1 0.0 9.5 9.5 9.5 9.5 0.1 0.1 0.0 0.3 0.3
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00
Delay/Veh: 43.2 43.2 0.0 54.5 54.5 54.5 55.5 1.7 1.7 0.0 3.8 3.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.2 43.2 0.0 54.5 54.5 54.5 55.5 1.7 1.7 0.0 3.8 3.8
LOS by Move: D D A D D E A A A A A
HCM2kAvgQ: 0 0 0 3 3 3 2 6 6 0 11 11

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.684
Loss Time (sec): 8 Average Delay (sec/veh): 20.5
Optimal Cycle: 46 Level Of Service: C

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			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	1	1	0	3	0	1	0	1	2	0	2

Volume Module:

Base Vol:	16	32	50	840	49	136	121	1507	22	49	2095	1193
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	32	50	840	49	136	121	1507	22	49	2095	1193
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	32	50	840	49	136	121	1507	22	49	2095	1193
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	32	50	840	49	136	121	1507	22	49	2095	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	16	32	50	840	49	136	121	1507	22	49	2095	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	16	32	50	840	49	136	121	1507	22	49	2095	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.86	0.86	0.92	1.00	0.85	0.92	0.91	0.91	0.95	0.91	1.00
Lanes:	1.00	1.00	1.00	3.00	1.00	1.00	2.00	2.96	0.04	1.00	3.00	1.00
Final Sat.:	1805	1641	1641	5253	1900	1615	3502	5102	74	1805	5187	1900

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.03	0.16	0.03	0.08	0.03	0.30	0.30	0.03	0.40	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.04	0.04	0.04	0.23	0.23	0.23	0.05	0.59	0.59	0.05	0.59	0.00
Volume/Cap:	0.20	0.44	0.68	0.68	0.11	0.36	0.68	0.50	0.50	0.50	0.68	0.00
Uniform Del:	46.0	46.5	47.1	34.9	30.1	32.0	46.7	12.1	12.1	46.0	14.0	0.0
IncRemntDel:	1.2	1.6	15.1	1.6	0.1	0.6	10.5	0.1	0.1	4.1	0.6	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	47.3	48.2	62.1	36.5	30.2	32.6	57.2	12.2	12.2	50.1	14.7	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.3	48.2	62.1	36.5	30.2	32.6	57.2	12.2	12.2	50.1	14.7	0.0
LCS by Move:	D	D	E	D	C	C	E	B	B	D	B	A
HCM2kAvgQ:	1	2	3	9	1	4	2	10	10	2	17	0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.545
Loss Time (sec): 4 Average Delay (sec/veh): 9.3
Optimal Cycle: 24 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:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	2	1	0	1	0	2	1	0	1	0

Volume Module:

Base Vol:	43	1592	21	54	1827	89	114	73	80	14	52	108
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	1592	21	54	1827	89	114	73	80	14	52	108
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:	43	1592	21	54	1827	89	114	73	80	14	52	108
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	45	1672	22	57	1919	93	120	77	84	15	55	113
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	45	1672	22	57	1919	93	120	77	84	15	55	113
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	45	1672	22	57	1919	93	120	77	84	15	55	113

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.07	0.91	0.91	0.11	0.90	0.90	0.78	0.78	0.85	0.44	1.00	0.85
Lanes:	1.00	2.96	0.04	1.00	2.86	0.14	0.61	0.39	1.00	1.00	1.00	1.00
Final Sat.:	133	5109	67	205	4911	239	903	579	1615	836	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.34	0.33	0.33	0.28	0.39	0.39	0.13	0.13	0.05	0.02	0.03	0.07
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.72	0.72	0.72	0.72	0.72	0.72	0.24	0.24	0.24	0.24	0.24	0.24
Volume/Cap:	0.47	0.46	0.46	0.39	0.55	0.55	0.55	0.55	0.21	0.07	0.12	0.29
Uniform Del:	6.1	6.0	6.0	5.5	6.6	6.6	33.0	33.0	30.2	29.2	29.5	30.8
IncRemntDel:	3.7	0.1	0.1	1.7	0.2	0.2	1.7	1.7	0.3	0.2	0.1	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	9.8	6.0	6.0	7.2	6.8	6.8	34.8	34.8	30.5	29.3	29.6	31.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.8	6.0	6.0	7.2	6.8	6.8	34.8	34.8	30.5	29.3	29.6	31.2
LCS by Move:	A	A	A	A	A	A	C	C	C	C	C	C
HCM2kAvgQ:	1	8	8	1	11	11	5	5	2	0	1	3

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.590
 Loss Time (sec): 8 Average Delay (sec/veh): 19.7
 Optimal Cycle: 38 Level Of Service: B

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

Volume Module:

Base Vol:	98	1821	75	53	1288	357	213	121	198	66	211	27
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:	98	1821	75	53	1288	357	213	121	198	66	211	27
Added Vol:	1	0	0	0	0	0	0	0	5	0	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	99	1821	75	53	1288	357	213	121	203	66	212	27
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	99	1821	75	53	1288	357	213	121	203	66	212	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	99	1821	75	53	1288	357	213	121	203	66	212	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	99	1821	75	53	1288	357	213	121	203	66	212	27

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.85	0.95	0.91	0.85	0.92	1.00	0.85	0.95	0.93	0.93
Lanes:	1.00	3.00	1.00	1.00	3.00	1.00	2.00	1.00	1.00	1.00	1.77	0.23
Final Sat.:	1805	5187	1615	1805	5187	1615	3502	1900	1615	1805	5148	401

Capacity Analysis Module:

Vol/Sat:	0.05	0.35	0.05	0.03	0.25	0.22	0.06	0.06	0.13	0.04	0.07	0.07
Crit Moves:	****			****			****			****		
Green/Cycle:	0.12	0.60	0.60	0.05	0.53	0.53	0.13	0.21	0.21	0.06	0.14	0.14
Volume/Cap:	0.47	0.59	0.08	0.59	0.47	0.42	0.47	0.30	0.59	0.59	0.47	0.47
Uniform Del:	41.3	12.6	8.6	46.5	14.8	14.3	40.2	33.1	35.4	45.7	39.2	39.2
IncRemntDel:	1.7	0.3	0.0	9.9	0.1	0.3	0.8	0.4	2.7	8.1	0.7	0.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	42.9	12.9	8.6	56.5	14.9	14.6	41.0	33.5	38.1	53.7	39.9	39.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.9	12.9	8.6	56.5	14.9	14.6	41.0	33.5	38.1	53.7	39.9	39.9
LOS by Move:	D	B	A	E	B	B	D	C	D	D	D	D
HCM2kAvgQ:	3	13	1	2	9	6	4	3	6	3	4	4

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.622
 Loss Time (sec): 6 Average Delay (sec/veh): 4.2
 Optimal Cycle: 35 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:	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	1	0	2	1	0	3

Volume Module:

Base Vol:	13	3	43	50	0	28	15	2785	11	13	932	22
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	3	43	50	0	28	15	2785	11	13	932	22
Added Vol:	0	0	0	0	0	0	0	1	0	0	3	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	13	3	43	50	0	28	15	2786	11	13	935	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	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	3	43	50	0	28	15	2786	11	13	935	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	3	43	50	0	28	15	2786	11	13	935	22
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	3	43	50	0	28	15	2786	11	13	935	22

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.75	0.75	0.85	0.70	1.00	0.85	0.95	0.91	0.91	0.95	0.91	0.85
Lanes:	0.81	0.19	1.00	1.00	0.00	1.00	1.00	2.99	0.01	1.00	3.00	1.00
Final Sat.:	1150	265	1615	1334	0	1615	1805	5161	20	1805	5187	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.01	0.03	0.04	0.00	0.02	0.01	0.54	0.54	0.01	0.18	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.06	0.06	0.06	0.06	0.00	0.06	0.04	0.87	0.87	0.01	0.84	0.84
Volume/Cap:	0.19	0.19	0.44	0.62	0.00	0.29	0.21	0.62	0.62	0.62	0.21	0.02
Uniform Del:	44.7	44.7	45.4	45.9	0.0	44.9	46.6	1.9	1.9	49.2	1.5	1.3
IncRemntDel:	1.1	1.1	3.2	14.1	0.0	1.6	1.5	0.3	0.3	46.2	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.7	45.7	48.5	60.0	0.0	46.6	48.1	2.2	2.2	95.4	1.6	1.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.7	45.7	48.5	60.0	0.0	46.6	48.1	2.2	2.2	95.4	1.6	1.3
LOS by Move:	D	D	D	E	A	D	D	A	A	F	A	A
HCM2kAvgQ:	1	1	2	3	0	1	1	10	10	0	2	0

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.654
 Loss Time (sec): 8 Average Delay (sec/veh): 27.0
 Optimal Cycle: 43 Level Of Service: C

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			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	1	0	1	1	0	2	2	0	3	0	1

Volume Module:

Base Vol:	169	347	150	227	149	203	912	1740	215	80	538	202
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:	169	347	150	227	149	203	912	1740	215	80	538	202
Added Vol:	0	0	0	1	1	3	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	169	347	150	228	150	206	913	1740	215	80	538	202
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	169	347	150	228	150	206	913	1740	215	80	538	202
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	169	347	150	228	150	206	913	1740	215	80	538	202
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	169	347	150	228	150	206	913	1740	215	80	538	202

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.91	0.91	0.92	0.92	0.75	0.92	0.91	0.85	0.95	0.91	0.85
Lanes:	1.00	1.40	0.60	1.81	1.19	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	1721	2403	1039	3171	2086	2842	3502	5187	1615	1805	6916	1615

Capacity Analysis Module:

Vol/Sat:	0.10	0.14	0.14	0.07	0.07	0.07	0.26	0.34	0.13	0.04	0.08	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.22	0.22	0.22	0.11	0.11	0.51	0.40	0.52	0.52	0.07	0.19	0.19
Volume/Cap:	0.45	0.65	0.65	0.65	0.65	0.14	0.65	0.64	0.26	0.64	0.41	0.65
Uniform Del:	33.7	35.5	35.5	42.7	42.7	13.0	24.5	17.3	13.2	45.4	35.5	37.4
IncrcmntDel:	0.2	1.5	1.5	2.7	2.7	0.0	1.1	0.5	0.2	11.1	0.2	5.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	33.9	37.0	37.0	45.4	45.4	13.1	25.6	17.8	13.4	56.4	35.7	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.9	37.0	37.0	45.4	45.4	13.1	25.6	17.8	13.4	56.4	35.7	42.4
LOS by Move:	C	D	D	D	D	B	C	B	B	E	D	D
HCM2kAvgQ:	5	8	8	5	5	2	11	14	3	3	4	6

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.823
 Loss Time (sec): 4 Average Delay (sec/veh): 14.7
 Optimal Cycle: 55 Level Of Service: B

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			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	0	2	0	0	1	0	0

Volume Module:

Base Vol:	0	0	0	460	0	242	0	2309	137	0	816	378
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	460	0	242	0	2309	137	0	816	378
Added Vol:	0	0	0	4	0	0	0	1	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	464	0	242	0	2310	137	0	816	378
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	464	0	242	0	2310	0	0	816	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	464	0	242	0	2310	0	0	816	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	464	0	242	0	2310	0	0	816	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.85	1.00	0.95	1.00	1.00	0.91	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	3502	0	1615	0	3610	1900	0	5187	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.15	0.00	0.64	0.00	0.00	0.16	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.18	0.00	0.18	0.00	0.78	0.00	0.00	0.78	0.00
Volume/Cap:	0.00	0.00	0.00	0.73	0.00	0.82	0.00	0.82	0.00	0.00	0.20	0.00
Uniform Del:	0.0	0.0	0.0	38.6	0.0	39.3	0.0	6.9	0.0	0.0	2.9	0.0
IncrcmntDel:	0.0	0.0	0.0	4.2	0.0	16.8	0.0	2.1	0.0	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	42.8	0.0	56.1	0.0	8.9	0.0	0.0	3.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	42.8	0.0	56.1	0.0	8.9	0.0	0.0	3.0	0.0
LOS by Move:	A	A	A	D	A	E	A	A	A	A	A	A
HCM2kAvgQ:	0	0	0	8	0	10	0	24	0	0	2	0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.743
Loss Time (sec): 6 Average Delay (sec/veh): 11.4
Optimal Cycle: 48 Level Of Service: B

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 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
Lanes: 0 0 1! 0 0 0 1 0 0 1 0 1

Volume Module:
Base Vol: 2 2 3 65 0 342 286 2285 11 13 1245 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
Initial Bse: 2 2 3 65 0 342 286 2285 11 13 1245 59
Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 2 2 3 65 0 342 286 2290 11 13 1247 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
PHF Adj: 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 2 3 65 0 342 286 2290 11 13 1247 59
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 2 3 65 0 342 286 2290 11 13 1247 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
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 2 3 65 0 342 286 2290 11 13 1247 59

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.92 0.92 0.77 1.00 0.85 0.95 0.95 0.95 0.95 0.91 0.85
Lanes: 0.28 0.29 0.43 1.00 0.00 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.: 497 497 746 1457 0 1615 1805 3589 17 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.21 0.16 0.64 0.64 0.01 0.24 0.04
Crit Moves: ****
Green/Cycle: 0.07 0.07 0.07 0.07 0.00 0.42 0.34 0.86 0.86 0.01 0.52 0.52
Volume/Cap: 0.06 0.06 0.06 0.62 0.00 0.51 0.46 0.74 0.74 0.74 0.46 0.07
Uniform Del: 43.3 43.3 43.3 45.1 0.0 21.6 25.5 2.8 2.8 49.4 15.0 11.8
IncrmntDel: 0.2 0.2 0.2 11.0 0.0 0.6 0.5 1.0 1.0 97.1 0.1 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 43.4 43.4 43.4 56.1 0.0 22.2 26.0 3.8 3.8 146.5 15.1 11.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.4 43.4 43.4 56.1 0.0 22.2 26.0 3.8 3.8 146.5 15.1 11.8
LOS by Move: D D D E A C C A A F B B
HCM2kAvgQ: 0 0 0 3 0 8 7 16 16 1 9 1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.728
Loss Time (sec): 6 Average Delay (sec/veh): 3.8
Optimal Cycle: 46 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: 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
Lanes: 0 0 1! 0 0 0 0 1! 0 0 1 0 1 0

Volume Module:
Base Vol: 0 0 0 42 0 15 25 2321 0 0 1315 35
Growth Adj: 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 42 0 15 25 2321 0 0 1315 35
Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 42 0 15 25 2326 0 0 1317 35
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 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 42 0 15 25 2326 0 0 1317 35
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 42 0 15 25 2326 0 0 1317 35
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 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 42 0 15 25 2326 0 0 1317 35

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 1.00 0.74 0.95 0.95 0.95 1.00 0.91 0.91
Lanes: 0.00 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.92 0.08
Final Sat.: 0 1900 0 1042 0 372 1805 3610 0 0 5033 134

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.04 0.01 0.64 0.00 0.00 0.26 0.26
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.06 0.00 0.06 0.04 0.88 0.00 0.00 0.84 0.84
Volume/Cap: 0.00 0.00 0.00 0.73 0.00 0.73 0.31 0.73 0.00 0.00 0.31 0.31
Uniform Del: 0.0 0.0 0.0 46.5 0.0 46.5 46.3 1.9 0.0 0.0 1.7 1.7
IncrmntDel: 0.0 0.0 0.0 28.9 0.0 28.9 2.2 0.9 0.0 0.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 0.0 0.0 75.4 0.0 75.4 48.5 2.7 0.0 0.0 1.8 1.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 75.4 0.0 75.4 48.5 2.7 0.0 0.0 1.8 1.8
LOS by Move: A A A E A E D A A A A
HCM2kAvgQ: 0 0 0 3 0 3 1 13 0 0 3 3

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.622
 Loss Time (sec): 8 Average Delay (sec/veh): 21.1
 Optimal Cycle: 40 Level Of Service: C

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			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	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	3	0	1	2	0	1

Volume Module:

Base Vol:	24	45	42	904	44	182	147	1862	21	17	1229	698
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:	24	45	42	904	44	182	147	1862	21	17	1229	698
Added Vol:	0	0	0	0	0	0	0	5	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	45	42	904	44	182	147	1867	21	17	1231	698
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	24	45	42	904	44	182	147	1867	21	17	1231	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	45	42	904	44	182	147	1867	21	17	1231	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	24	45	42	904	44	182	147	1867	21	17	1231	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.88	0.88	0.92	1.00	0.85	0.92	0.91	0.91	0.95	0.91	1.00
Lanes:	1.00	1.03	0.97	3.00	1.00	1.00	2.00	2.97	0.03	1.00	3.00	1.00
Final Sat.:	1805	1733	1617	5253	1900	1615	3502	5119	58	1805	5187	1900

Capacity Analysis Module:

Vol/Sat:	0.01	0.03	0.03	0.17	0.02	0.11	0.04	0.36	0.36	0.01	0.24	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.04	0.04	0.04	0.28	0.28	0.28	0.09	0.59	0.59	0.02	0.51	0.00
Volume/Cap:	0.32	0.62	0.62	0.62	0.08	0.41	0.46	0.62	0.62	0.62	0.46	0.00
Uniform Del:	46.5	47.1	47.1	31.6	26.8	29.5	43.2	13.5	13.5	49.0	15.7	0.0
IncRemntDel:	2.4	8.4	8.4	0.8	0.1	0.6	1.1	0.4	0.4	37.0	0.1	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	49.0	55.5	55.5	32.4	26.8	30.1	44.3	13.9	13.9	85.9	15.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.0	55.5	55.5	32.4	26.8	30.1	44.3	13.9	13.9	85.9	15.8	0.0
LOS by Move:	D	E	E	C	C	C	D	B	B	F	B	A
HCM2kAvgQ:	1	2	2	9	1	5	2	13	13	1	9	0

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.923
 Loss Time (sec): 4 Average Delay (sec/veh): 11.0
 Optimal Cycle: 102 Level Of Service: B

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

Volume Module:

Base Vol:	51	1904	15	125	1439	137	77	128	73	4	93	99
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:	51	1904	15	125	1439	137	77	128	73	4	93	99
Added Vol:	0	0	0	0	0	2	4	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	51	1904	15	125	1439	139	81	128	73	4	93	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	51	1904	15	125	1439	139	81	128	73	4	93	99
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	51	1904	15	125	1439	139	81	128	73	4	93	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	51	1904	15	125	1439	139	81	128	73	4	93	99

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.14	0.91	0.91	0.09	0.90	0.90	0.75	0.75	0.85	0.27	1.00	0.85
Lanes:	1.00	2.98	0.02	1.00	2.74	0.26	0.39	0.61	1.00	1.00	1.00	1.00
Final Sat.:	257	5141	41	169	4669	451	552	872	1615	511	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.20	0.37	0.37	0.74	0.31	0.31	0.15	0.15	0.05	0.01	0.05	0.06
Crit Moves:	****			****			****			****		
Green/Cycle:	0.80	0.80	0.80	0.80	0.80	0.80	0.16	0.16	0.16	0.16	0.16	0.16
Volume/Cap:	0.25	0.46	0.46	0.92	0.38	0.38	0.92	0.92	0.28	0.05	0.31	0.39
Uniform Del:	2.5	3.1	3.1	7.6	2.9	2.9	41.4	41.4	37.0	35.6	37.2	37.7
IncRemntDel:	0.6	0.1	0.1	54.4	0.1	0.1	39.2	39.2	0.6	0.3	0.6	1.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	3.1	3.2	3.2	62.0	2.9	2.9	80.6	80.6	37.6	35.9	37.8	38.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.1	3.2	3.2	62.0	2.9	2.9	80.6	80.6	37.6	35.9	37.8	38.6
LOS by Move:	A	A	A	E	A	A	F	F	D	D	D	D
HCM2kAvgQ:	0	7	7	6	5	5	8	8	2	0	3	3

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 8 Average Delay (sec/veh): 24.5
Optimal Cycle: 47 Level Of Service: C

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
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 1 0 3 0 1 2 0 1 0 1 1 0 1 0

Volume Module:
Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 119 1494 70 53 1736 209 312 102 255 134 205 51
Added Vol: 4 0 0 0 0 0 0 0 4 0 3 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 123 1494 70 53 1736 209 312 102 259 134 208 51
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 1494 70 53 1736 209 312 102 259 134 208 51
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 123 1494 70 53 1736 209 312 102 259 134 208 51
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 123 1494 70 53 1736 209 312 102 259 134 208 51

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.92 1.00 0.85 0.95 0.92 0.92
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.61 0.39
Final Sat.: 1805 5187 1615 1805 5187 1615 3502 1900 1615 1805 2812 690

Capacity Analysis Module:
Vol/Sat: 0.07 0.29 0.04 0.03 0.33 0.13 0.09 0.05 0.16 0.07 0.07 0.07
Crit Moves: ****
Green/Cycle: 0.10 0.53 0.53 0.05 0.48 0.48 0.19 0.23 0.23 0.11 0.15 0.15
Volume/Cap: 0.69 0.55 0.08 0.55 0.69 0.27 0.48 0.23 0.69 0.69 0.48 0.48
Uniform Del: 43.6 15.7 11.7 46.1 20.1 15.3 36.5 31.2 35.2 43.1 38.7 38.7
IncrmntDel: 11.2 0.2 0.0 6.3 0.9 0.2 0.6 0.3 5.5 10.3 0.7 0.7
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 54.8 15.9 11.7 52.5 20.9 15.5 37.0 31.5 40.7 53.4 39.4 39.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 54.8 15.9 11.7 52.5 20.9 15.5 37.0 31.5 40.7 53.4 39.4 39.4
LOS by Move: D B B D C B D C D D D D
HCM2kAvgQ: 5 11 1 2 15 4 5 3 9 5 4 4

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.622
Loss Time (sec): 6 Average Delay (sec/veh): 4.2
Optimal Cycle: 35 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: 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 2 48 36 2 18 18 1247 16 35 2827 36
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: 24 2 48 36 2 18 18 1247 16 35 2827 36
Added Vol: 0 0 0 0 0 0 0 4 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 24 2 48 36 2 18 18 1251 16 35 2829 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: 24 2 48 36 2 18 18 1251 16 35 2829 36
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 2 48 36 2 18 18 1251 16 35 2829 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: 24 2 48 36 2 18 18 1251 16 35 2829 36

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.81 0.81 0.85 0.82 0.82 0.85 0.95 0.91 0.91 0.95 0.91 0.85
Lanes: 0.92 0.08 1.00 0.95 0.05 1.00 1.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1412 118 1615 1472 82 1615 1805 5111 65 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.03 0.02 0.02 0.01 0.01 0.24 0.24 0.02 0.55 0.02
Crit Moves: ****
Green/Cycle: 0.05 0.05 0.05 0.05 0.05 0.05 0.02 0.83 0.83 0.07 0.88 0.88
Volume/Cap: 0.36 0.36 0.62 0.51 0.51 0.23 0.62 0.30 0.30 0.30 0.62 0.03
Uniform Del: 46.1 46.1 46.7 46.5 46.5 45.9 48.9 2.0 2.0 44.5 1.7 0.8
IncrmntDel: 3.0 3.0 14.7 5.9 5.9 1.6 35.3 0.0 0.0 1.4 0.3 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 49.1 49.1 61.5 52.4 52.4 47.4 84.2 2.0 2.0 45.9 2.0 0.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.1 49.1 61.5 52.4 52.4 47.4 84.2 2.0 2.0 45.9 2.0 0.8
LOS by Move: D D E D D D F A A D A A
HCM2kAvgQ: 1 1 3 2 2 1 1 3 3 1 9 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.692
Loss Time (sec): 8 Average Delay (sec/veh): 30.1
Optimal Cycle: 47 Level Of Service: C

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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

Volume Module:
Base Vol: 237 219 67 199 318 715 466 739 159 195 1960 144
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: 237 219 67 199 318 715 466 739 159 195 1960 144
Added Vol: 0 1 0 1 1 2 4 0 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 237 220 67 200 319 717 470 739 159 195 1960 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: 237 220 67 200 319 717 470 739 159 195 1960 145
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 237 220 67 200 319 717 470 739 159 195 1960 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: 237 220 67 200 319 717 470 739 159 195 1960 145

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.91 0.91 0.91 0.93 0.93 0.75 0.92 0.91 0.85 0.95 0.91 0.85
Lanes: 1.36 1.26 0.38 1.16 1.84 2.00 2.00 3.00 1.00 1.00 4.00 1.00
Final Sat.: 2350 2181 664 2047 3265 2842 3502 5187 1615 1805 6916 1615

Capacity Analysis Module:
Vol/Sat: 0.10 0.10 0.10 0.10 0.10 0.25 0.13 0.14 0.10 0.11 0.28 0.09
Crit Moves: ****
Green/Cycle: 0.15 0.15 0.15 0.17 0.17 0.36 0.19 0.34 0.34 0.26 0.41 0.41
Volume/Cap: 0.69 0.69 0.69 0.57 0.57 0.69 0.69 0.42 0.29 0.42 0.69 0.22
Uniform Del: 40.6 40.6 40.6 38.1 38.1 27.0 37.5 25.1 23.9 30.7 24.3 19.1
IncrmntDel: 2.8 2.8 2.8 0.9 0.9 2.0 3.1 0.2 0.3 0.6 0.7 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 43.3 43.3 43.3 39.0 39.0 29.0 40.6 25.3 24.2 31.3 25.1 19.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.3 43.3 43.3 39.0 39.0 29.0 40.6 25.3 24.2 31.3 25.1 19.3
LOS by Move: D D D D D C D C C C B
HCM2kAvgQ: 7 7 6 6 12 7 6 3 5 13 3

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.653
Loss Time (sec): 4 Average Delay (sec/veh): 17.1
Optimal Cycle: 31 Level Of Service: B

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 Ignore Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 2 0 1

Volume Module:
Base Vol: 0 0 0 553 0 408 0 1220 90 0 1938 604
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 0 553 0 408 0 1220 90 0 1938 604
Added Vol: 0 0 0 3 0 0 0 1 0 0 0 1
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 0 0 556 0 408 0 1221 90 0 1939 604
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 556 0 408 0 1221 0 0 1939 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 556 0 408 0 1221 0 0 1939 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 0 0 0 556 0 408 0 1221 0 0 1939 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.92 1.00 0.85 1.00 0.95 1.00 1.00 0.91 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
Final Sat.: 0 0 0 3502 0 1615 0 3610 1900 0 5187 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.16 0.00 0.25 0.00 0.34 0.00 0.00 0.37 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.39 0.00 0.39 0.00 0.57 0.00 0.00 0.57 0.00
Volume/Cap: 0.00 0.00 0.00 0.41 0.00 0.65 0.00 0.59 0.00 0.00 0.65 0.00
Uniform Del: 0.0 0.0 0.0 22.3 0.0 25.1 0.0 13.8 0.0 0.0 14.6 0.0
IncrmntDel: 0.0 0.0 0.0 0.2 0.0 2.5 0.0 0.5 0.0 0.0 0.5 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 22.5 0.0 27.6 0.0 14.2 0.0 0.0 15.1 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 22.5 0.0 27.6 0.0 14.2 0.0 0.0 15.1 0.0
LOS by Move: A A A C A C A B A A B A
HCM2kAvgQ: 0 0 0 6 0 11 0 13 0 0 15 0

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.791
 Loss Time (sec): 6 Average Delay (sec/veh): 17.9
 Optimal Cycle: 56 Level Of Service: B

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			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:	0	1	0	0	1	0	1	0	1	1	0	3

Volume Module:

Base Vol:	9	12	12	73	4	441	249	1568	13	37	2436	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	9	12	12	73	4	441	249	1568	13	37	2436	56
Added Vol:	0	0	0	0	0	0	0	4	0	0	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	9	12	12	73	4	441	249	1572	13	37	2442	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	9	12	12	73	4	441	249	1572	13	37	2442	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	9	12	12	73	4	441	249	1572	13	37	2442	56
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	9	12	12	73	4	441	249	1572	13	37	2442	56

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.90	0.90	0.75	0.75	0.85	0.95	0.95	0.95	0.95	0.91	0.85
Lanes:	0.27	0.37	0.36	0.95	0.05	1.00	1.00	1.98	0.02	1.00	3.00	1.00
Final Sat.:	469	625	625	1349	74	1615	1805	3577	30	1805	5187	1615

Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.02	0.05	0.05	0.27	0.14	0.44	0.44	0.02	0.47	0.03
Crit Moves:	*****											
Green/Cycle:	0.17	0.17	0.17	0.17	0.17	0.35	0.17	0.73	0.73	0.03	0.59	0.59
Volume/Cap:	0.11	0.11	0.11	0.32	0.32	0.79	0.79	0.60	0.60	0.60	0.79	0.06
Uniform Del:	35.1	35.1	35.1	36.4	36.4	29.5	39.5	6.3	6.3	47.6	15.5	8.5
IncrementDel:	0.2	0.2	0.2	0.8	0.8	7.6	12.8	0.4	0.4	15.1	1.5	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	35.2	35.2	35.2	37.1	37.1	37.1	52.3	6.6	6.6	62.7	17.0	8.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.2	35.2	35.2	37.1	37.1	37.1	52.3	6.6	6.6	62.7	17.0	8.5
LCS by Move:	D	D	D	D	D	D	A	A	A	E	B	A
HCM2kAvgQ:	1	1	1	2	2	14	9	12	12	1	21	1

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.606
 Loss Time (sec): 6 Average Delay (sec/veh): 4.6
 Optimal Cycle: 33 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:	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	0	1	0	1	1	0	0	2

Volume Module:

Base Vol:	2	1	0	37	2	25	64	1591	5	0	2491	40
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	1	0	37	2	25	64	1591	5	0	2491	40
Added Vol:	0	0	0	0	0	0	0	4	0	0	6	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	1	0	37	2	25	64	1595	5	0	2497	40
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	1	0	37	2	25	64	1595	5	0	2497	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	1	0	37	2	25	64	1595	5	0	2497	40
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	1	0	37	2	25	64	1595	5	0	2497	40

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.89	1.00	0.77	0.77	0.77	0.95	0.95	0.95	1.00	0.91	0.91
Lanes:	0.67	0.33	0.00	0.58	0.03	0.39	1.00	1.99	0.01	0.00	2.95	0.05
Final Sat.:	1132	566	0	848	46	573	1805	3599	11	0	5095	82

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.04	0.04	0.04	0.04	0.44	0.44	0.00	0.49	0.49
Crit Moves:	*****											
Green/Cycle:	0.07	0.07	0.00	0.07	0.07	0.07	0.06	0.87	0.87	0.00	0.81	0.81
Volume/Cap:	0.02	0.02	0.00	0.61	0.61	0.61	0.61	0.51	0.51	0.00	0.61	0.61
Uniform Del:	43.1	43.1	0.0	45.0	45.0	45.0	45.9	1.6	1.6	0.0	3.6	3.6
IncrementDel:	0.1	0.1	0.0	9.6	9.6	9.6	9.6	0.1	0.1	0.0	0.3	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Delay/Veh:	43.2	43.2	0.0	54.7	54.7	54.7	55.6	1.7	1.7	0.0	3.8	3.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.2	43.2	0.0	54.7	54.7	54.7	55.6	1.7	1.7	0.0	3.8	3.8
LCS by Move:	D	D	A	D	D	D	E	A	A	A	A	A
HCM2kAvgQ:	0	0	0	3	3	3	2	6	6	0	11	11

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.685
Loss Time (sec): 8 Average Delay (sec/veh): 20.5
Optimal Cycle: 46 Level Of Service: C

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 16 32 50 840 49 136 121 1507 22 49 2095 1193
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 32 50 840 49 136 121 1507 22 49 2095 1193
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 16 32 50 840 49 136 121 1511 22 49 2101 1193
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 32 50 840 49 136 121 1511 22 49 2101 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 32 50 840 49 136 121 1511 22 49 2101 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: 16 32 50 840 49 136 121 1511 22 49 2101 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.86 0.86 0.92 1.00 0.85 0.92 0.91 0.91 0.95 0.91 1.00
Lanes: 1.00 1.00 1.00 3.00 1.00 1.00 2.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1805 1641 1641 5253 1900 1615 3502 5102 74 1805 5187 1900

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.16 0.03 0.08 0.03 0.30 0.30 0.03 0.41 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.04 0.04 0.23 0.23 0.23 0.05 0.59 0.59 0.05 0.59 0.00
Volume/Cap: 0.20 0.44 0.68 0.68 0.11 0.36 0.68 0.50 0.50 0.50 0.68 0.00
Uniform Del: 46.1 46.6 47.1 35.0 30.2 32.1 46.7 12.1 12.1 46.0 14.0 0.0
IncrmntDel: 1.2 1.6 15.2 1.6 0.1 0.6 10.6 0.1 0.1 4.2 0.7 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 47.3 48.2 62.3 36.6 30.3 32.7 57.3 12.2 12.2 50.2 14.7 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 47.3 48.2 62.3 36.6 30.3 32.7 57.3 12.2 12.2 50.2 14.7 0.0
LOS by Move: D D E D C C E B B D B A
HCM2kAvgQ: 1 2 3 9 1 4 2 10 10 2 17 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.549
Loss Time (sec): 4 Average Delay (sec/veh): 9.4
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: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 1 0 1 0 2 1 0 0 1 0 0 1 1 0 1 0 1

Volume Module:
Base Vol: 43 1592 21 54 1827 89 114 73 80 14 52 108
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 43 1592 21 54 1827 89 114 73 80 14 52 108
Added Vol: 0 0 0 0 0 5 3 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 43 1592 21 54 1827 94 117 73 80 14 52 108
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 45 1672 22 57 1919 99 123 77 84 15 55 113
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 45 1672 22 57 1919 99 123 77 84 15 55 113
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 45 1672 22 57 1919 99 123 77 84 15 55 113

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.07 0.91 0.91 0.11 0.90 0.90 0.78 0.78 0.85 0.44 1.00 0.85
Lanes: 1.00 2.96 0.04 1.00 2.85 0.15 0.62 0.38 1.00 1.00 1.00 1.00
Final Sat.: 131 5109 67 205 4899 252 908 566 1615 830 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.34 0.33 0.33 0.28 0.39 0.39 0.14 0.14 0.05 0.02 0.03 0.07
Crit Moves: ****
Green/Cycle: 0.71 0.71 0.71 0.71 0.71 0.71 0.25 0.25 0.25 0.25 0.25 0.25
Volume/Cap: 0.48 0.46 0.46 0.39 0.55 0.55 0.55 0.55 0.21 0.07 0.12 0.28
Uniform Del: 6.3 6.1 6.1 5.7 6.7 6.7 32.8 32.8 29.9 28.9 29.2 30.5
IncrmntDel: 3.9 0.1 0.1 1.7 0.2 0.2 1.8 1.8 0.3 0.1 0.1 0.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 10.2 6.2 6.2 7.4 6.9 6.9 34.6 34.6 30.2 29.0 29.3 30.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.2 6.2 6.2 7.4 6.9 6.9 34.6 34.6 30.2 29.0 29.3 30.9
LOS by Move: B A A A A C C C C C C C
HCM2kAvgQ: 1 8 8 1 11 11 5 5 2 0 1 3



APPENDIX M

Future (2019) Plus Approved Plus Cumulative Plus Growth No Project and Plus Project Intersection Level of Service Worksheets (HCM Methodology)

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.645
Loss Time (sec): 8 Average Delay (sec/veh): 19.6
Optimal Cycle: 42 Level Of Service: B

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

Volume Module:
Base Vol: 98 1821 75 53 1288 357 213 121 198 66 211 27
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 193 1912 79 56 1352 375 213 121 198 66 211 27
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 10 144 6 8 131 10 12 5 3 2 2 2
Initial Fut: 113 2056 85 64 1483 385 225 126 201 68 213 29
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 2056 85 64 1483 385 225 126 201 68 213 29
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 113 2056 85 64 1483 385 225 126 201 68 213 29
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 113 2056 85 64 1483 385 225 126 201 68 213 29

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.92 1.00 0.85 0.95 0.93 0.93
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.76 0.24
Final Sat.: 1805 5187 1615 1805 5187 1615 3502 1900 1615 1805 3120 425

Capacity Analysis Module:
Vol/Sat: 0.06 0.40 0.05 0.04 0.29 0.24 0.06 0.07 0.12 0.04 0.07 0.07
Crit Moves: ****
Green/Cycle: 0.12 0.61 0.61 0.05 0.55 0.55 0.12 0.19 0.19 0.06 0.13 0.13
Volume/Cap: 0.52 0.65 0.09 0.65 0.52 0.43 0.53 0.34 0.65 0.65 0.53 0.53
Uniform Del: 41.3 12.3 7.9 46.3 14.3 13.4 41.2 34.9 37.2 46.1 40.7 40.7
IncrmntDel: 2.3 0.5 0.0 13.8 0.2 0.3 1.2 0.6 4.6 13.0 1.2 1.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 43.6 12.8 7.9 60.2 14.4 13.7 42.4 35.5 41.8 59.1 41.8 41.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 43.6 12.8 7.9 60.2 14.4 13.7 42.4 35.5 41.8 59.1 41.8 41.8
LOS by Move: D B A E B B D D D E D D
HCM2kAvgQ: 4 15 1 2 10 7 4 4 7 3 4 4

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.667
Loss Time (sec): 6 Average Delay (sec/veh): 4.1
Optimal Cycle: 39 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: 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 13 3 43 50 0 28 15 2785 11 13 932 22
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 13 3 43 50 0 28 16 2924 12 14 979 23
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 135 0 0 215 0
Initial Fut: 13 3 43 50 0 28 16 3059 12 14 1194 23
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 3 43 50 0 28 16 3059 12 14 1194 23
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 13 3 43 50 0 28 16 3059 12 14 1194 23
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 13 3 43 50 0 28 16 3059 12 14 1194 23

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.89 0.89 0.85 0.98 1.00 0.85 0.95 0.91 0.91 0.95 0.91 0.85
Lanes: 0.81 0.19 1.00 1.00 0.00 1.00 1.00 2.99 0.01 1.00 3.00 1.00
Final Sat.: 1366 315 1615 1858 0 1615 1805 5162 19 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.01 0.01 0.03 0.03 0.00 0.02 0.01 0.59 0.59 0.01 0.23 0.01
Crit Moves: ****
Green/Cycle: 0.04 0.04 0.04 0.04 0.00 0.04 0.03 0.89 0.89 0.01 0.87 0.87
Volume/Cap: 0.24 0.24 0.66 0.67 0.00 0.43 0.27 0.67 0.67 0.67 0.27 0.02
Uniform Del: 46.5 46.5 47.3 47.3 0.0 46.9 47.2 1.5 1.5 49.2 1.2 0.9
IncrmntDel: 1.8 1.8 22.3 20.6 0.0 4.5 2.4 0.4 0.4 61.0 0.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 48.3 48.3 69.6 67.9 0.0 51.4 49.6 1.9 1.9 110.3 1.2 0.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 48.3 48.3 69.6 67.9 0.0 51.4 49.6 1.9 1.9 110.3 1.2 0.9
LOS by Move: D D E E A D D A A F A A
HCM2kAvgQ: 1 1 2 3 0 1 1 11 11 0 2 0

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.702
 Loss Time (sec): 8 Average Delay (sec/veh): 27.1
 Optimal Cycle: 49 Level Of Service: C

 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 Ovl Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 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 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

 Volume Module:
 Base Vol: 169 347 150 227 149 203 912 1740 215 80 538 202
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 169 347 150 227 149 203 958 1827 226 84 565 212
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 14 3 0 0 1 4 7 158 34 0 123 0
 Initial Fut: 183 350 150 227 150 207 965 1985 260 84 688 212
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 183 350 150 227 150 207 965 1985 260 84 688 212
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 183 350 150 227 150 207 965 1985 260 84 688 212
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 183 350 150 227 150 207 965 1985 260 84 688 212

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.91 0.91 0.91 0.92 0.92 0.75 0.92 0.91 0.85 0.95 0.91 0.85
 Lanes: 1.00 1.40 0.60 1.81 1.19 2.00 2.00 3.00 1.00 1.00 4.00 1.00
 Final Sat.: 1723 2412 1034 3166 2092 2842 3502 5187 1615 1805 6916 1615

 Capacity Analysis Module:
 Vol/Sat: 0.11 0.15 0.15 0.07 0.07 0.07 0.28 0.38 0.16 0.05 0.10 0.13
 Crit Moves: ****
 Green/Cycle: 0.21 0.21 0.21 0.10 0.10 0.52 0.41 0.54 0.54 0.07 0.20 0.20
 Volume/Cap: 0.51 0.70 0.70 0.70 0.70 0.14 0.67 0.70 0.30 0.70 0.50 0.67
 Uniform Del: 35.2 36.8 36.8 43.4 43.4 12.6 23.7 16.8 12.3 45.7 35.8 37.1
 IncremntDel: 0.3 2.3 2.3 4.2 4.2 0.0 1.2 0.8 0.2 17.1 0.3 5.3
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 35.6 39.1 39.1 47.6 47.6 12.7 24.9 17.6 12.5 62.8 36.1 42.3
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 35.6 39.1 39.1 47.6 47.6 12.7 24.9 17.6 12.5 62.8 36.1 42.3
 LOS by Move: D D D D D B C B B E D D
 HCM2kAvgQ: 6 9 9 5 5 2 12 16 4 3 5 6

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.923
 Loss Time (sec): 4 Average Delay (sec/veh): 19.5
 Optimal Cycle: 102 Level Of Service: B

 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 Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 3 0 1

 Volume Module:
 Base Vol: 0 0 0 460 0 242 0 2309 137 0 816 378
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 0 0 0 483 0 254 0 2424 144 0 857 397
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 22 0 38 0 123 10 0 126 107
 Initial Fut: 0 0 0 505 0 292 0 2547 154 0 983 504
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
 PHF Volume: 0 0 0 505 0 292 0 2547 0 0 983 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 505 0 292 0 2547 0 0 983 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
 FinalVolume: 0 0 0 505 0 292 0 2547 0 0 983 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.92 1.00 0.85 1.00 0.95 1.00 1.00 0.91 1.00
 Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
 Final Sat.: 0 0 0 3502 0 1615 0 3610 1900 0 5187 1900

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.14 0.00 0.18 0.00 0.71 0.00 0.00 0.19 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.20 0.00 0.20 0.00 0.76 0.00 0.00 0.76 0.00
 Volume/Cap: 0.00 0.00 0.00 0.74 0.00 0.92 0.00 0.92 0.00 0.00 0.25 0.00
 Uniform Del: 0.0 0.0 0.0 37.8 0.0 39.5 0.0 9.4 0.0 0.0 3.4 0.0
 IncremntDel: 0.0 0.0 0.0 4.2 0.0 31.5 0.0 5.9 0.0 0.0 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
 Delay/Veh: 0.0 0.0 0.0 42.0 0.0 71.0 0.0 15.3 0.0 0.0 3.5 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 0.0 0.0 42.0 0.0 71.0 0.0 15.3 0.0 0.0 3.5 0.0
 LOS by Move: A A A D A E A B A A A A
 HCM2kAvgQ: 0 0 0 9 0 13 0 35 0 0 3 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.838
Loss Time (sec): 6 Average Delay (sec/veh): 12.9
Optimal Cycle: 68 Level Of Service: B

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 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: 0 0 1! 0 0 0 1 0 0 0 1 0 0 3 0 1

Volume Module:
Base Vol: 2 2 3 65 0 342 286 2285 11 13 1245 59
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 2 2 3 65 0 342 300 2399 12 14 1307 62
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 1 0 7 33 227 0 0 265 0
Initial Fut: 2 2 3 66 0 349 333 2626 12 14 1572 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: 2 2 3 66 0 349 333 2626 12 14 1572 62
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 2 3 66 0 349 333 2626 12 14 1572 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: 2 2 3 66 0 349 333 2626 12 14 1572 62

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.82 0.82 0.82 0.71 1.00 0.85 0.95 0.95 0.95 0.95 0.91 0.85
Lanes: 0.28 0.29 0.43 1.00 0.00 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.: 443 443 665 1347 0 1615 1805 3591 16 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.05 0.00 0.22 0.18 0.73 0.73 0.01 0.30 0.04
Crit Moves: ****
Green/Cycle: 0.06 0.06 0.06 0.06 0.00 0.39 0.33 0.87 0.87 0.01 0.55 0.55
Volume/Cap: 0.08 0.08 0.08 0.84 0.00 0.55 0.55 0.84 0.84 0.84 0.55 0.07
Uniform Del: 44.5 44.5 44.5 46.6 0.0 23.6 27.2 3.0 3.0 49.5 14.7 10.6
IncrmntDel: 0.4 0.4 0.4 51.5 0.0 1.0 1.1 2.1 2.1 143.1 0.2 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 44.9 44.9 44.9 98.1 0.0 24.6 28.3 5.2 5.2 192.6 14.9 10.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 44.9 44.9 44.9 98.1 0.0 24.6 28.3 5.2 5.2 192.6 14.9 10.7
LOS by Move: D D D F A C C A F B B
HCM2kAvgQ: 0 0 0 4 0 9 9 23 23 1 11 1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.828
Loss Time (sec): 6 Average Delay (sec/veh): 4.7
Optimal Cycle: 65 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: 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 0 1 0 1 1 0 0 0 0 2 1 0

Volume Module:
Base Vol: 0 1 0 42 0 15 25 2321 0 0 1315 35
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 0 1 0 42 0 15 26 2437 0 0 1381 37
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 227 0 0 265 0
Initial Fut: 0 1 0 42 0 15 26 2664 0 0 1646 37
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 1 0 42 0 15 26 2664 0 0 1646 37
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1 0 42 0 15 26 2664 0 0 1646 37
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1 0 42 0 15 26 2664 0 0 1646 37

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.74 1.00 0.74 0.95 0.95 0.95 1.00 0.91 0.91
Lanes: 0.00 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.93 0.07
Final Sat.: 0 1900 0 1042 0 372 1805 3610 0 0 5058 113

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.04 0.01 0.74 0.00 0.00 0.33 0.33
Crit Moves: ****
Green/Cycle: 0.00 0.05 0.00 0.05 0.00 0.05 0.04 0.89 0.00 0.00 0.85 0.85
Volume/Cap: 0.00 0.01 0.00 0.83 0.00 0.83 0.38 0.83 0.00 0.00 0.38 0.38
Uniform Del: 0.0 45.3 0.0 47.2 0.0 47.2 46.9 2.3 0.0 0.0 1.6 1.6
IncrmntDel: 0.0 0.0 0.0 53.8 0.0 53.8 3.5 1.9 0.0 0.0 0.1 0.1
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
Delay/Veh: 0.0 45.3 0.0 101.0 0.0 101.0 50.4 4.2 0.0 0.0 1.7 1.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 45.3 0.0 101.0 0.0 101.0 50.4 4.2 0.0 0.0 1.7 1.7
LOS by Move: A D A F A F D A A A A A
HCM2kAvgQ: 0 0 0 4 0 4 1 18 0 0 4 4

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.691
Loss Time (sec): 8 Average Delay (sec/veh): 21.4
Optimal Cycle: 47 Level Of Service: C

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 24 45 42 904 44 182 147 1862 21 17 1229 698
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 24 45 42 904 44 182 154 1955 22 18 1290 733
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 37 0 14 22 203 0 0 249 83
Initial Fut: 24 45 42 941 44 196 176 2158 22 18 1539 816
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 24 45 42 941 44 196 176 2158 22 18 1539 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 45 42 941 44 196 176 2158 22 18 1539 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: 24 45 42 941 44 196 176 2158 22 18 1539 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.88 0.88 0.92 1.00 0.85 0.92 0.91 0.91 0.95 0.91 1.00
Lanes: 1.00 1.03 0.97 3.00 1.00 1.00 2.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1805 1733 1617 5253 1900 1615 3502 5129 52 1805 5187 1900

Capacity Analysis Module:
Vol/Sat: 0.01 0.03 0.03 0.18 0.02 0.12 0.05 0.42 0.42 0.01 0.30 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.04 0.04 0.26 0.26 0.26 0.09 0.61 0.61 0.01 0.53 0.00
Volume/Cap: 0.35 0.69 0.69 0.69 0.09 0.47 0.56 0.69 0.69 0.69 0.56 0.00
Uniform Del: 46.9 47.5 47.5 33.4 28.1 31.2 43.6 13.2 13.2 49.1 15.5 0.0
IncrmntDel: 3.2 15.2 15.2 1.5 0.1 0.8 2.2 0.7 0.7 57.8 0.3 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 50.1 62.7 62.7 35.0 28.2 32.1 45.8 13.9 13.9 106.9 15.8 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 50.1 62.7 62.7 35.0 28.2 32.1 45.8 13.9 13.9 106.9 15.8 0.0
LOS by Move: D E E C C C D B B F B A
HCM2kAvgQ: 1 3 3 10 1 5 3 16 16 2 12 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 1.237
Loss Time (sec): 4 Average Delay (sec/veh): 18.6
Optimal Cycle: 180 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

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

Volume Module:
Base Vol: 51 1904 15 125 1439 137 77 128 73 4 93 99
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 54 1999 16 131 1511 144 81 134 77 4 98 104
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 9 149 0 0 145 9 4 0 4 0 0 0
Initial Fut: 63 2148 16 131 1656 153 85 134 81 4 98 104
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 63 2148 16 131 1656 153 85 134 81 4 98 104
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 63 2148 16 131 1656 153 85 134 81 4 98 104
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 63 2148 16 131 1656 153 85 134 81 4 98 104

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.11 0.91 0.91 0.07 0.90 0.90 0.67 0.67 0.85 0.29 1.00 0.85
Lanes: 1.00 2.98 0.02 1.00 2.75 0.25 0.39 0.61 1.00 1.00 1.00 1.00
Final Sat.: 200 5144 38 129 4687 433 493 782 1615 549 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.31 0.42 0.42 1.02 0.35 0.35 0.17 0.17 0.05 0.01 0.05 0.06
Crit Moves: ****
Green/Cycle: 0.82 0.82 0.82 0.82 0.82 0.82 0.14 0.14 0.14 0.14 0.14 0.14
Volume/Cap: 0.38 0.51 0.51 1.24 0.43 0.43 1.24 1.24 0.36 0.06 0.37 0.46
Uniform Del: 2.3 2.8 2.8 8.9 2.5 2.5 43.1 43.1 39.0 37.4 39.1 39.6
IncrmntDel: 1.5 0.1 0.1 164.3 0.1 0.1 145.6 146 1.0 0.3 0.9 1.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 3.8 2.9 2.9 173.3 2.5 2.5 188.7 189 40.0 37.7 40.0 41.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 3.8 2.9 2.9 173.3 2.5 2.5 188.7 189 40.0 37.7 40.0 41.1
LOS by Move: A A A F A A F F D D D D
HCM2kAvgQ: 1 7 7 10 6 6 12 12 2 0 3 3

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #2 Newport Boulevard/Hospital Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.764
 Loss Time (sec): 8 Average Delay (sec/veh): 25.2
 Optimal Cycle: 58 Level Of Service: C

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

 Volume Module:
 Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 125 1569 74 56 1823 219 312 102 255 134 205 51
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 10 150 5 5 169 6 19 3 12 9 7 13
 Initial Fut: 135 1719 79 61 1992 225 331 105 267 143 212 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: 135 1719 79 61 1992 225 331 105 267 143 212 64
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 135 1719 79 61 1992 225 331 105 267 143 212 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: 135 1719 79 61 1992 225 331 105 267 143 212 64

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.92 1.00 0.85 0.95 0.92 0.92
 Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.54 0.46
 Final Sat.: 1805 5187 1615 1805 5187 1615 3502 1900 1615 1805 2676 808

 Capacity Analysis Module:
 Vol/Sat: 0.07 0.33 0.05 0.03 0.38 0.14 0.09 0.06 0.17 0.08 0.08 0.08
 Crit Moves: ****
 Green/Cycle: 0.10 0.54 0.54 0.06 0.50 0.50 0.17 0.22 0.22 0.10 0.15 0.15
 Volume/Cap: 0.76 0.61 0.09 0.61 0.76 0.28 0.54 0.26 0.76 0.76 0.54 0.54
 Uniform Del: 44.0 15.5 10.9 46.2 20.1 14.4 37.7 32.5 36.8 43.6 39.6 39.6
 IncrmtDel: 17.9 0.4 0.0 10.4 1.4 0.2 1.0 0.3 9.7 17.0 1.2 1.2
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 61.8 15.9 10.9 56.6 21.5 14.6 38.7 32.8 46.5 60.6 40.8 40.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 61.8 15.9 10.9 56.6 21.5 14.6 38.7 32.8 46.5 60.6 40.8 40.8
 LOS by Move: E B B E C B D C D E D D
 HCM2kAvgQ: 6 13 1 2 18 4 5 3 10 6 5 5

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #3 Orange Street/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.697
 Loss Time (sec): 6 Average Delay (sec/veh): 4.3
 Optimal Cycle: 42 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: 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
 Lanes: 0 1 0 0 1 0 1 0 0 1 1 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 24 2 48 36 2 18 18 1247 16 35 2827 36
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 24 2 48 36 2 18 19 1399 17 37 2968 38
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 270 0 0 223 0
 Initial Fut: 24 2 48 36 2 18 19 1579 17 37 3191 38
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 2 48 36 2 18 19 1579 17 37 3191 38
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 24 2 48 36 2 18 19 1579 17 37 3191 38
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 24 2 48 36 2 18 19 1579 17 37 3191 38

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.90 0.90 0.85 0.92 0.92 0.85 0.95 0.91 0.91 0.95 0.91 0.85
 Lanes: 0.92 0.08 1.00 0.95 0.05 1.00 1.00 2.97 0.03 1.00 3.00 1.00
 Final Sat.: 1580 132 1615 1647 92 1615 1805 5122 54 1805 5187 1615

 Capacity Analysis Module:
 Vol/Sat: 0.02 0.02 0.03 0.02 0.02 0.01 0.01 0.31 0.31 0.02 0.62 0.02
 Crit Moves: ****
 Green/Cycle: 0.04 0.04 0.04 0.04 0.04 0.02 0.84 0.84 0.06 0.88 0.88
 Volume/Cap: 0.36 0.36 0.70 0.51 0.51 0.26 0.70 0.37 0.37 0.37 0.70 0.03
 Uniform Del: 46.5 46.5 47.2 46.9 46.9 46.3 49.0 1.8 1.8 45.5 1.8 0.7
 IncrmtDel: 3.0 3.0 26.9 6.0 6.0 2.0 57.6 0.1 0.1 2.3 0.5 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 49.5 49.5 74.2 52.8 52.8 48.4 106.6 1.9 1.9 47.8 2.3 0.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 49.5 49.5 74.2 52.8 52.8 48.4 106.6 1.9 1.9 47.8 2.3 0.7
 LOS by Move: D D E D D D F A A D A A
 HCM2kAvgQ: 1 1 3 2 2 1 2 4 4 1 11 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.756
Loss Time (sec): 8 Average Delay (sec/veh): 30.5
Optimal Cycle: 56 Level Of Service: C

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 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 1 0 1 0 1 1 1 0 2 2 0 3 0 1 1 0 4 0 1

Volume Module:
Base Vol: 237 219 67 199 318 715 466 739 159 195 1960 144
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 237 219 67 199 318 715 489 776 167 205 2058 151
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 44 3 0 0 6 16 9 158 31 0 211 0
Initial Fut: 281 222 67 199 324 731 498 934 198 205 2269 151
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 281 222 67 199 324 731 498 934 198 205 2269 151
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 281 222 67 199 324 731 498 934 198 205 2269 151
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 281 222 67 199 324 731 498 934 198 205 2269 151

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.91 0.91 0.91 0.93 0.93 0.75 0.92 0.91 0.85 0.95 0.91 0.85
Lanes: 1.48 1.17 0.35 1.14 1.86 2.00 2.00 3.00 1.00 1.00 4.00 1.00
Final Sat.: 2559 2021 610 2021 3291 2842 3502 5187 1615 1805 6916 1615

Capacity Analysis Module:
Vol/Sat: 0.11 0.11 0.11 0.10 0.10 0.26 0.14 0.18 0.12 0.11 0.33 0.09
Crit Moves: ****
Green/Cycle: 0.15 0.15 0.15 0.15 0.15 0.34 0.19 0.38 0.38 0.24 0.43 0.43
Volume/Cap: 0.76 0.76 0.76 0.65 0.65 0.76 0.76 0.47 0.32 0.47 0.76 0.22
Uniform Del: 41.0 41.0 41.0 39.9 39.9 29.3 38.4 23.3 21.8 32.5 23.8 17.7
IncrmntDel: 4.4 4.4 4.4 1.8 1.8 3.4 5.0 0.2 0.3 0.8 1.1 0.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 45.4 45.4 45.4 41.7 41.7 32.7 43.4 23.5 22.1 33.3 25.0 17.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 45.4 45.4 45.4 41.7 41.7 32.7 43.4 23.5 22.1 33.3 25.0 17.8
LOS by Move: D D D D D C D C C C C B
HCM2kAvgQ: 8 8 8 6 6 13 8 8 4 5 16 3

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.741
Loss Time (sec): 4 Average Delay (sec/veh): 19.0
Optimal Cycle: 40 Level Of Service: B

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 Ignore Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 0 0 0 2 0 0 0 1 0 0 3 0 1

Volume Module:
Base Vol: 0 0 0 553 0 408 0 1220 90 0 1938 604
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 0 0 0 581 0 428 0 1281 95 0 2035 634
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 46 0 35 0 202 14 0 168 14
Initial Fut: 0 0 0 627 0 463 0 1483 109 0 2203 648
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Volume: 0 0 0 627 0 463 0 1483 0 0 2203 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 627 0 463 0 1483 0 0 2203 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
FinalVolume: 0 0 0 627 0 463 0 1483 0 0 2203 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.92 1.00 0.85 1.00 0.95 1.00 1.00 0.91 1.00
Lanes: 0.00 0.00 0.00 2.00 0.00 1.00 0.00 2.00 1.00 0.00 3.00 1.00
Final Sat.: 0 0 0 3502 0 1615 0 3610 1900 0 5187 1900

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.18 0.00 0.29 0.00 0.41 0.00 0.00 0.42 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.39 0.00 0.39 0.00 0.57 0.00 0.00 0.57 0.00
Volume/Cap: 0.00 0.00 0.00 0.46 0.00 0.74 0.00 0.72 0.00 0.00 0.74 0.00
Uniform Del: 0.0 0.0 0.0 22.9 0.0 26.3 0.0 15.5 0.0 0.0 15.9 0.0
IncrmntDel: 0.0 0.0 0.0 0.3 0.0 4.7 0.0 1.2 0.0 0.0 1.0 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 0.00 0.00 1.00 0.00 1.00 0.00 1.00 0.00 0.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 23.1 0.0 31.1 0.0 16.7 0.0 0.0 16.9 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 23.1 0.0 31.1 0.0 16.7 0.0 0.0 16.9 0.0
LOS by Move: A A A C A C A B A A B A
HCM2kAvgQ: 0 0 0 8 0 14 0 17 0 0 19 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.888
Loss Time (sec): 6 Average Delay (sec/veh): 20.4
Optimal Cycle: 87 Level Of Service: C

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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 3 0 1

Volume Module:
Base Vol: 9 12 12 73 4 441 249 1568 13 37 2436 56
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 9 12 12 73 4 441 261 1646 14 39 2558 59
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 2 0 20 33 336 0 0 292 1
Initial Fut: 9 12 12 75 4 461 294 1982 14 39 2850 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: 9 12 12 75 4 461 294 1982 14 39 2850 60
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 9 12 12 75 4 461 294 1982 14 39 2850 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: 9 12 12 75 4 461 294 1982 14 39 2850 60

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.90 0.90 0.75 0.75 0.85 0.95 0.95 0.95 0.95 0.91 0.85
Lanes: 0.27 0.37 0.36 0.95 0.95 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.: 468 624 624 1344 72 1615 1805 3582 25 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.06 0.06 0.29 0.16 0.55 0.55 0.02 0.55 0.04
Crit Moves: ****
Green/Cycle: 0.14 0.14 0.14 0.14 0.14 0.32 0.18 0.77 0.77 0.03 0.62 0.62
Volume/Cap: 0.14 0.14 0.14 0.41 0.41 0.89 0.89 0.72 0.72 0.72 0.89 0.66
Uniform Del: 37.9 37.9 37.9 39.4 39.4 32.2 39.8 5.8 5.8 48.1 16.1 7.6
IncrmntDel: 0.3 0.3 0.3 1.4 1.4 16.9 24.0 0.9 0.9 36.7 3.4 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 38.2 38.2 38.2 40.8 40.8 49.1 63.8 6.7 6.7 84.8 19.6 7.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 38.2 38.2 38.2 40.8 40.8 49.1 63.8 6.7 6.7 84.8 19.6 7.6
LOS by Move: D D D D D E A A F B A A
HCM2kAvgQ: 1 1 1 3 3 17 12 17 17 1 28 1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 6 Average Delay (sec/veh): 5.0
Optimal Cycle: 41 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: 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 0 0 0 1! 0 0 1 0 1 1 0 0 0 2 1 0

Volume Module:
Base Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 2 1 0 37 2 25 67 1671 5 0 2616 42
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 337 0 0 294 0
Initial Fut: 2 1 0 37 2 25 67 2008 5 0 2910 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 0 37 2 25 67 2008 5 0 2910 42
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1 0 37 2 25 67 2008 5 0 2910 42
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1 0 37 2 25 67 2008 5 0 2910 42

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 1.00 0.77 0.77 0.77 0.95 0.95 0.95 1.00 0.91 0.91
Lanes: 0.67 0.33 0.00 0.58 0.03 0.39 1.00 1.99 0.01 0.00 2.96 0.04
Final Sat.: 1087 543 0 844 46 570 1805 3601 9 0 5103 74

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.04 0.04 0.04 0.56 0.56 0.00 0.57 0.57
Crit Moves: ****
Green/Cycle: 0.06 0.06 0.00 0.06 0.06 0.06 0.05 0.88 0.88 0.00 0.82 0.82
Volume/Cap: 0.03 0.03 0.00 0.69 0.69 0.69 0.69 0.64 0.64 0.00 0.69 0.69
Uniform Del: 44.0 44.0 0.0 45.9 45.9 45.9 46.5 1.7 1.7 0.0 3.6 3.6
IncrmntDel: 0.1 0.1 0.0 20.3 20.3 20.3 19.4 0.4 0.4 0.0 0.5 0.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00
Delay/Veh: 44.1 44.1 0.0 66.1 66.1 66.1 65.9 2.2 2.2 0.0 4.1 4.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 44.1 44.1 0.0 66.1 66.1 66.1 65.9 2.2 2.2 0.0 4.1 4.1
LOS by Move: D D A E E E A A A A A A
HCM2kAvgQ: 0 0 0 3 3 3 2 9 9 0 13 13

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #8 Dover Drive/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.788
 Loss Time (sec): 8 Average Delay (sec/veh): 21.9
 Optimal Cycle: 63 Level Of Service: C

 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 Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 16 32 50 840 49 136 121 1507 22 49 2095 1193
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 16 32 50 840 49 136 127 1582 23 51 2200 1253
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 63 0 33 36 305 0 0 270 83
 Initial Fut: 16 32 50 903 49 169 163 1887 23 51 2470 1336
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 32 50 903 49 169 163 1887 23 51 2470 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 16 32 50 903 49 169 163 1887 23 51 2470 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: 16 32 50 903 49 169 163 1887 23 51 2470 0

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.86 0.86 0.92 1.00 0.85 0.92 0.91 0.91 0.95 0.91 1.00
 Lanes: 1.00 1.00 1.00 3.00 1.00 1.00 2.00 2.96 0.04 1.00 3.00 1.00
 Final Sat.: 1805 1641 1641 5253 1900 1615 3502 5114 63 1805 5187 1900

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.02 0.03 0.17 0.03 0.10 0.05 0.37 0.37 0.03 0.48 0.00
 Crit Moves: ****
 Green/Cycle: 0.04 0.04 0.04 0.22 0.22 0.22 0.06 0.62 0.62 0.05 0.60 0.00
 Volume/Cap: 0.23 0.50 0.79 0.79 0.12 0.48 0.79 0.60 0.60 0.60 0.79 0.00
 Uniform Del: 46.6 47.1 47.7 36.9 31.4 34.1 46.4 11.7 11.7 46.7 15.0 0.0
 IncremntDel: 1.7 2.5 32.0 3.7 0.1 1.0 18.1 0.3 0.3 11.2 1.4 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.3 49.7 79.6 40.6 31.5 35.2 64.5 12.0 12.0 57.9 16.4 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.3 49.7 79.6 40.6 31.5 35.2 64.5 12.0 12.0 57.9 16.4 0.0
 LOS by Move: D D E D C D E B B E B A
 HCM2kAvgQ: 1 2 3 11 1 5 3 13 13 3 22 0

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #12 Newport Boulevard/Industrial Way

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.660
 Loss Time (sec): 4 Average Delay (sec/veh): 9.0
 Optimal Cycle: 32 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: Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
 Lanes: 1 0 2 1 0 1 0 2 1 0 0 1 0 0 1

 Volume Module:
 Base Vol: 43 1592 21 54 1827 89 114 73 80 14 52 108
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 45 1672 22 57 1918 93 120 77 84 15 55 113
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 9 178 0 0 171 5 9 0 9 0 0 0
 Initial Fut: 54 1850 22 57 2089 98 129 77 93 15 55 113
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 54 1850 22 57 2089 98 129 77 93 15 55 113
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 54 1850 22 57 2089 98 129 77 93 15 55 113
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 54 1850 22 57 2089 98 129 77 93 15 55 113

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.06 0.91 0.91 0.09 0.90 0.90 0.76 0.76 0.85 0.39 1.00 0.85
 Lanes: 1.00 2.96 0.04 1.00 2.87 0.13 0.63 0.37 1.00 1.00 1.00 1.00
 Final Sat.: 110 5116 61 169 4919 232 903 538 1615 739 1900 1615

 Capacity Analysis Module:
 Vol/Sat: 0.49 0.36 0.36 0.34 0.42 0.42 0.14 0.14 0.06 0.02 0.03 0.07
 Crit Moves: ****
 Green/Cycle: 0.74 0.74 0.74 0.74 0.74 0.74 0.22 0.22 0.22 0.22 0.22 0.22
 Volume/Cap: 0.66 0.49 0.49 0.45 0.57 0.57 0.66 0.66 0.27 0.09 0.13 0.33
 Uniform Del: 6.4 5.1 5.1 4.9 5.7 5.7 35.9 35.9 32.6 31.4 31.6 33.1
 IncremntDel: 18.2 0.1 0.1 2.6 0.2 0.2 5.2 5.2 0.4 0.3 0.1 0.5
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 24.6 5.2 5.2 7.5 5.9 5.9 41.0 41.0 33.0 31.6 31.8 33.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 24.6 5.2 5.2 7.5 5.9 5.9 41.0 41.0 33.0 31.6 31.8 33.6
 LOS by Move: C A A A A D D C C C C
 HCM2kAvgQ: 1 8 8 1 11 11 6 6 2 0 1 3

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #2 Newport Boulevard/Hospital Road

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.649
 Loss Time (sec): 8 Average Delay (sec/veh): 19.8
 Optimal Cycle: 43 Level Of Service: B

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

 Volume Module:
 Base Vol: 98 1821 75 53 1288 357 213 121 198 66 211 27
 Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 193 1912 79 56 1352 375 213 121 198 66 211 27
 Added Vol: 1 0 0 0 0 0 0 0 5 0 1 0
 PasserByVol: 10 144 6 8 131 10 12 5 3 2 2 2
 Initial Fut: 114 2056 85 64 1483 385 225 126 206 68 214 29
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 114 2056 85 64 1483 385 225 126 206 68 214 29
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 114 2056 85 64 1483 385 225 126 206 68 214 29
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 114 2056 85 64 1483 385 225 126 206 68 214 29

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.92 1.00 0.85 0.95 0.93 0.93
 Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.76 0.24
 Final Sat.: 1805 5187 1615 1805 5187 1615 3502 1900 1615 1805 3122 423

 Capacity Analysis Module:
 Vol/Sat: 0.06 0.40 0.05 0.04 0.29 0.24 0.06 0.07 0.13 0.04 0.07 0.07
 Crit Moves: ****
 Green/Cycle: 0.12 0.61 0.61 0.05 0.55 0.55 0.12 0.20 0.20 0.06 0.13 0.13
 Volume/Cap: 0.52 0.65 0.09 0.65 0.52 0.44 0.52 0.34 0.65 0.65 0.52 0.52
 Uniform Del: 41.3 12.5 8.0 46.3 14.5 13.6 41.1 34.6 37.0 46.1 40.5 40.5
 IncrmtDel: 2.3 0.5 0.0 14.2 0.2 0.3 1.1 0.5 4.7 13.4 1.1 1.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 43.7 13.0 8.0 60.6 14.7 13.9 42.2 35.1 41.6 59.5 41.6 41.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 43.7 13.0 8.0 60.6 14.7 13.9 42.2 35.1 41.6 59.5 41.6 41.6
 LOS by Move: D B A E B B D D D E D D
 HCM2kAvgQ: 4 15 1 2 10 7 4 4 4 3 4 4

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #3 Orange Street/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.667
 Loss Time (sec): 6 Average Delay (sec/veh): 4.1
 Optimal Cycle: 39 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: 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 13 3 43 50 0 28 15 2785 11 13 932 22
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 13 3 43 50 0 28 16 2924 12 14 979 23
 Added Vol: 0 0 0 0 0 0 0 1 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 135 0 0 215 0
 Initial Fut: 13 3 43 50 0 28 16 3060 12 14 1197 23
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 3 43 50 0 28 16 3060 12 14 1197 23
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 13 3 43 50 0 28 16 3060 12 14 1197 23
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 13 3 43 50 0 28 16 3060 12 14 1197 23

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.89 0.89 0.85 0.98 1.00 0.85 0.95 0.91 0.91 0.95 0.91 0.85
 Lanes: 0.81 0.19 1.00 1.00 0.00 1.00 1.00 2.99 0.01 1.00 3.00 1.00
 Final Sat.: 1366 315 1615 1858 0 1615 1805 5162 19 1805 5187 1615

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.01 0.03 0.03 0.00 0.02 0.01 0.59 0.59 0.01 0.23 0.01
 Crit Moves: ****
 Green/Cycle: 0.04 0.04 0.04 0.04 0.00 0.04 0.03 0.89 0.89 0.01 0.87 0.87
 Volume/Cap: 0.24 0.24 0.66 0.67 0.00 0.43 0.27 0.67 0.67 0.67 0.27 0.02
 Uniform Del: 46.5 46.5 47.3 47.3 0.0 46.9 47.2 1.5 1.5 49.2 1.2 0.9
 IncrmtDel: 1.8 1.8 22.3 20.7 0.0 4.5 2.4 0.4 0.4 61.1 0.0 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 48.3 48.3 69.6 68.0 0.0 51.4 49.6 1.9 1.9 110.4 1.2 0.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 48.3 48.3 69.6 68.0 0.0 51.4 49.6 1.9 1.9 110.4 1.2 0.9
 LOS by Move: D D E E A D D A A F A A
 HCM2kAvgQ: 1 1 2 3 0 1 1 11 11 0 2 0

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.703
 Loss Time (sec): 8 Average Delay (sec/veh): 27.1
 Optimal Cycle: 49 Level Of Service: C

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			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	1	0	1	0	1	2	0	3	0	1	0

Volume Module:

Base Vol:	169	347	150	227	149	203	912	1740	215	80	538	202
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	169	347	150	227	149	203	958	1827	226	84	565	212
Added Vol:	0	0	0	1	1	3	1	0	0	0	0	0
PasserByVol:	14	3	0	0	1	4	7	158	34	0	123	0
Initial Fut:	183	350	150	228	151	210	966	1985	260	84	688	212
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	183	350	150	228	151	210	966	1985	260	84	688	212
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	183	350	150	228	151	210	966	1985	260	84	688	212
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	183	350	150	228	151	210	966	1985	260	84	688	212

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.91	0.91	0.92	0.92	0.75	0.92	0.91	0.85	0.95	0.91	0.85
Lanes:	1.00	1.40	0.60	1.80	1.20	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	1723	2412	1034	3163	2095	2842	3502	5187	1615	1805	6916	1615

Capacity Analysis Module:

Vol/Sat:	0.11	0.15	0.15	0.07	0.07	0.07	0.28	0.38	0.16	0.05	0.10	0.13
Crit Moves:	****											
Green/Cycle:	0.21	0.21	0.21	0.10	0.10	0.52	0.41	0.54	0.54	0.07	0.20	0.20
Volume/Cap:	0.51	0.70	0.70	0.70	0.70	0.14	0.67	0.70	0.30	0.70	0.50	0.67
Uniform Del:	35.2	36.8	36.8	43.4	43.4	12.6	23.7	16.8	12.4	45.7	35.8	37.1
IncRemntDel:	0.3	2.3	2.3	4.2	4.2	0.0	1.2	0.8	0.2	17.1	0.3	5.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	35.6	39.2	39.2	47.6	47.6	12.7	24.9	17.6	12.5	62.9	36.1	42.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.6	39.2	39.2	47.6	47.6	12.7	24.9	17.6	12.5	62.9	36.1	42.4
LOS by Move:	D	D	D	D	D	B	C	B	B	E	D	D
HCM2kAvgQ:	6	9	9	5	5	2	12	16	4	3	5	6

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.924
 Loss Time (sec): 4 Average Delay (sec/veh): 19.6
 Optimal Cycle: 102 Level Of Service: B

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			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	0	2	0	3	0

Volume Module:

Base Vol:	0	0	0	460	0	242	0	2309	137	0	816	378
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	483	0	254	0	2424	144	0	857	397
Added Vol:	0	0	0	4	0	0	0	1	0	0	0	0
PasserByVol:	0	0	0	22	0	38	0	123	10	0	126	107
Initial Fut:	0	0	0	509	0	292	0	2548	154	0	983	504
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	509	0	292	0	2548	0	0	983	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	509	0	292	0	2548	0	0	983	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	509	0	292	0	2548	0	0	983	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.85	1.00	0.95	1.00	1.00	0.91	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	3502	0	1615	0	3610	1900	0	5187	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.18	0.00	0.71	0.00	0.00	0.19	0.00
Crit Moves:	****											
Green/Cycle:	0.00	0.00	0.00	0.20	0.00	0.20	0.00	0.76	0.00	0.00	0.76	0.00
Volume/Cap:	0.00	0.00	0.00	0.74	0.00	0.92	0.00	0.92	0.00	0.00	0.25	0.00
Uniform Del:	0.0	0.0	0.0	37.8	0.0	39.5	0.0	9.5	0.0	0.0	3.4	0.0
IncRemntDel:	0.0	0.0	0.0	4.4	0.0	31.5	0.0	5.9	0.0	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	42.2	0.0	71.0	0.0	15.4	0.0	0.0	3.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	42.2	0.0	71.0	0.0	15.4	0.0	0.0	3.5	0.0
LOS by Move:	A	A	A	D	A	E	A	B	A	A	A	A
HCM2kAvgQ:	0	0	0	9	0	13	0	35	0	0	3	0

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #6 Riverside Drive/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.830
 Loss Time (sec): 6 Average Delay (sec/veh): 12.5
 Optimal Cycle: 66 Level Of Service: B

 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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 3 0 1

 Volume Module:
 Base Vol: 2 2 3 65 0 342 286 2285 11 13 1245 59
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 2 2 3 65 0 342 300 2399 12 14 1307 62
 Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
 PasserByVol: 0 0 0 1 0 7 33 227 0 0 265 0
 Initial Fut: 2 2 3 66 0 349 333 2631 12 14 1574 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: 2 2 3 66 0 349 333 2631 12 14 1574 62
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 2 2 3 66 0 349 333 2631 12 14 1574 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: 2 2 3 66 0 349 333 2631 12 14 1574 62

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.59 0.59 0.59 0.86 1.00 0.85 0.95 0.95 0.95 0.95 0.91 0.85
 Lanes: 0.29 0.28 0.43 1.00 0.00 1.00 1.00 1.99 0.01 1.00 3.00 1.00
 Final Sat.: 321 321 482 1641 0 1615 1805 3591 16 1805 5187 1615

 Capacity Analysis Module:
 Vol/Sat: 0.01 0.01 0.01 0.04 0.00 0.22 0.18 0.73 0.73 0.01 0.30 0.04
 Crit Moves: *****
 Green/Cycle: 0.05 0.05 0.05 0.05 0.00 0.39 0.34 0.88 0.88 0.01 0.55 0.55
 Volume/Cap: 0.13 0.13 0.13 0.83 0.00 0.56 0.55 0.83 0.83 0.83 0.55 0.07
 Uniform Del: 45.6 45.6 45.6 47.2 0.0 24.1 26.9 2.6 2.6 49.5 14.3 10.3
 IncremntDel: 1.1 1.1 1.1 49.1 0.0 1.2 1.1 2.0 2.0 138.7 0.2 0.0
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Delay/Veh: 46.6 46.6 46.6 96.3 0.0 25.2 28.0 4.6 4.6 188.1 14.5 10.4
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 46.6 46.6 46.6 96.3 0.0 25.2 28.0 4.6 4.6 188.1 14.5 10.4
 LOS by Move: D D D F A C C A F B B
 HCM2kAvgQ: 0 0 0 4 0 9 21 1 1 11 1

 Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #7 Tustin Avenue/Coast Highway

 Cycle (sec): 100 Critical Vol./Cap.(X): 0.829
 Loss Time (sec): 6 Average Delay (sec/veh): 4.8
 Optimal Cycle: 65 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: 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 0 1 0 1 0 0 2 1 0

 Volume Module:
 Base Vol: 0 1 0 42 0 15 25 2321 0 0 1315 35
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
 Initial Bse: 0 1 0 42 0 15 26 2437 0 0 1381 37
 Added Vol: 0 0 0 0 0 0 0 5 0 0 2 0
 PasserByVol: 0 0 0 0 0 0 0 227 0 0 265 0
 Initial Fut: 0 1 0 42 0 15 26 2669 0 0 1648 37
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 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 1 0 42 0 15 26 2669 0 0 1648 37
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1 0 42 0 15 26 2669 0 0 1648 37
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 0 1 0 42 0 15 26 2669 0 0 1648 37

 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.74 1.00 0.74 0.95 0.95 0.95 1.00 0.91 0.91
 Lanes: 0.00 1.00 0.00 0.74 0.00 0.26 1.00 2.00 0.00 0.00 2.93 0.07
 Final Sat.: 0 1900 0 1042 0 372 1805 3610 0 0 5059 113

 Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.04 0.00 0.04 0.01 0.74 0.00 0.00 0.33 0.33
 Crit Moves: *****
 Green/Cycle: 0.00 0.05 0.00 0.05 0.00 0.05 0.04 0.89 0.00 0.00 0.85 0.85
 Volume/Cap: 0.00 0.01 0.00 0.83 0.00 0.83 0.38 0.83 0.00 0.00 0.38 0.38
 Uniform Del: 0.0 45.3 0.0 47.2 0.0 47.2 46.9 2.3 0.0 0.0 1.6 1.6
 IncremntDel: 0.0 0.0 0.0 54.3 0.0 54.3 3.5 1.9 0.0 0.0 0.1 0.1
 InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
 Delay Adj: 0.00 1.00 0.00 1.00 0.00 1.00 1.00 1.00 0.00 0.00 1.00 1.00
 Delay/Veh: 0.0 45.3 0.0 101.4 0.0 101.4 50.5 4.2 0.0 0.0 1.7 1.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 45.3 0.0 101.4 0.0 101.4 50.5 4.2 0.0 0.0 1.7 1.7
 LOS by Move: A D A F A F D A A A A A
 HCM2kAvgQ: 0 0 0 4 0 4 1 18 0 0 4 4

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.692
 Loss Time (sec): 8 Average Delay (sec/veh): 21.4
 Optimal Cycle: 47 Level Of Service: C

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			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	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	3	0	1	0	1	0

Volume Module:

Base Vol:	24	45	42	904	44	182	147	1862	21	17	1229	698
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	24	45	42	904	44	182	154	1955	22	18	1290	733
Added Vol:	0	0	0	0	0	0	0	5	0	0	2	0
PasserByVol:	0	0	0	37	0	14	22	203	0	0	249	83
Initial Fut:	24	45	42	941	44	196	176	2163	22	18	1541	816
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Volume:	24	45	42	941	44	196	176	2163	22	18	1541	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	45	42	941	44	196	176	2163	22	18	1541	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	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
FinalVolume:	24	45	42	941	44	196	176	2163	22	18	1541	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.88	0.88	0.92	1.00	0.85	0.92	0.91	0.91	0.95	0.91	1.00
Lanes:	1.00	1.03	0.97	3.00	1.00	1.00	2.00	2.97	0.03	1.00	3.00	1.00
Final Sat.:	1805	1733	1617	5253	1900	1615	3502	5130	52	1805	5187	1900

Capacity Analysis Module:

Vol/Sat:	0.01	0.03	0.03	0.18	0.02	0.12	0.05	0.42	0.42	0.01	0.30	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.04	0.04	0.04	0.26	0.26	0.26	0.09	0.61	0.61	0.01	0.53	0.00
Volume/Cap:	0.35	0.69	0.69	0.69	0.09	0.47	0.56	0.69	0.69	0.69	0.56	0.00
Uniform Del:	46.9	47.6	47.6	33.5	28.1	31.3	43.6	13.2	13.2	49.1	15.5	0.0
IncRemntDel:	3.2	15.3	15.3	1.6	0.1	0.8	2.2	0.7	0.7	58.2	0.3	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	50.1	62.8	62.8	35.0	28.2	32.1	45.8	13.9	13.9	107.3	15.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.1	62.8	62.8	35.0	28.2	32.1	45.8	13.9	13.9	107.3	15.8	0.0
LOS by Move:	D	E	E	D	C	C	D	B	B	F	B	A
HCM2kAvgQ:	1	3	3	10	1	5	3	16	16	2	12	0

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 1.258
 Loss Time (sec): 4 Average Delay (sec/veh): 19.3
 Optimal Cycle: 180 Level Of Service: B

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

Volume Module:

Base Vol:	51	1904	15	125	1439	137	77	128	73	4	93	99
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	54	1999	16	131	1511	144	81	134	77	4	98	104
Added Vol:	0	0	0	0	0	2	4	0	0	0	0	0
PasserByVol:	9	149	0	0	145	9	4	0	4	0	0	0
Initial Fut:	63	2148	16	131	1656	155	89	134	81	4	98	104
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	63	2148	16	131	1656	155	89	134	81	4	98	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	63	2148	16	131	1656	155	89	134	81	4	98	104
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	63	2148	16	131	1656	155	89	134	81	4	98	104

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.10	0.91	0.91	0.07	0.90	0.90	0.67	0.67	0.85	0.28	1.00	0.85
Lanes:	1.00	2.98	0.02	1.00	2.74	0.26	0.40	0.60	1.00	1.00	1.00	1.00
Final Sat.:	198	5144	38	127	4682	438	504	762	1615	540	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.32	0.42	0.42	1.03	0.35	0.35	0.18	0.18	0.05	0.01	0.05	0.06
Crit Moves:	****			****			****			****		
Green/Cycle:	0.82	0.82	0.82	0.82	0.82	0.82	0.14	0.14	0.14	0.14	0.14	0.14
Volume/Cap:	0.39	0.51	0.51	1.26	0.43	0.43	1.26	1.26	0.36	0.06	0.37	0.46
Uniform Del:	2.4	2.8	2.8	9.0	2.5	2.5	43.0	43.0	38.9	37.2	39.0	39.5
IncRemntDel:	1.5	0.1	0.1	172.6	0.1	0.1	153.4	153.0	1.0	0.3	0.9	1.5
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	3.9	2.9	2.9	181.6	2.6	2.6	196.4	196	39.9	37.6	39.8	41.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.9	2.9	2.9	181.6	2.6	2.6	196.4	196	39.9	37.6	39.8	41.0
LOS by Move:	A	A	A	F	A	A	F	F	D	D	D	D
HCM2kAvgQ:	1	8	8	10	6	6	13	13	2	0	3	3

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Newport Boulevard/Hospital Road

Cycle (sec): 100 Critical Vol./Cap.(X): 0.770
Loss Time (sec): 8 Average Delay (sec/veh): 25.5
Optimal Cycle: 59 Level Of Service: C

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

Volume Module:
Base Vol: 119 1494 70 53 1736 209 312 102 255 134 205 51
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 125 1569 74 56 1823 219 312 102 255 134 205 51
Added Vol: 4 0 0 0 0 0 0 0 4 0 3 0
PasserByVol: 10 150 5 5 169 6 19 3 12 9 7 13
Initial Fut: 139 1719 79 61 1992 225 331 105 271 143 215 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: 139 1719 79 61 1992 225 331 105 271 143 215 64
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 139 1719 79 61 1992 225 331 105 271 143 215 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: 139 1719 79 61 1992 225 331 105 271 143 215 64

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.85 0.95 0.91 0.85 0.92 1.00 0.85 0.95 0.92 0.92
Lanes: 1.00 3.00 1.00 1.00 3.00 1.00 2.00 1.00 1.00 1.00 1.54 0.46
Final Sat.: 1805 5187 1615 1805 5187 1615 3502 1900 1615 1805 2687 800

Capacity Analysis Module:
Vol/Sat: 0.08 0.33 0.05 0.03 0.38 0.14 0.09 0.06 0.17 0.08 0.08 0.08
Crit Moves: ****
Green/Cycle: 0.10 0.54 0.54 0.06 0.50 0.50 0.17 0.22 0.22 0.10 0.15 0.15
Volume/Cap: 0.77 0.61 0.09 0.61 0.77 0.28 0.54 0.25 0.77 0.77 0.54 0.54
Uniform Del: 43.9 15.6 10.9 46.2 29.4 14.6 37.7 32.4 36.7 43.7 39.5 39.5
IncrmntDel: 18.1 0.4 0.0 10.5 1.5 0.2 1.0 0.3 9.9 17.6 1.2 1.2
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 61.9 16.0 11.0 56.7 21.8 14.8 38.7 32.7 46.7 61.3 40.7 40.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 61.9 16.0 11.0 56.7 21.8 14.8 38.7 32.7 46.7 61.3 40.7 40.7
LOS by Move: E B B E C B D C D E D D
HCM2kAvgQ: 6 13 1 2 18 4 5 3 10 6 5 5

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Orange Street/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.698
Loss Time (sec): 6 Average Delay (sec/veh): 4.3
Optimal Cycle: 42 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: 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 1 0 0 1 1 0 2 1 0 1 0 3 0 1 1

Volume Module:
Base Vol: 24 2 48 36 2 18 18 1247 16 35 2827 36
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 24 2 48 36 2 18 19 1399 17 37 2968 38
Added Vol: 0 0 0 0 0 0 0 4 0 0 2 0
PasserByVol: 0 0 0 0 0 0 0 270 0 0 223 0
Initial Fut: 24 2 48 36 2 18 19 1583 17 37 3193 38
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 2 48 36 2 18 19 1583 17 37 3193 38
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 24 2 48 36 2 18 19 1583 17 37 3193 38
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 24 2 48 36 2 18 19 1583 17 37 3193 38

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.90 0.85 0.92 0.92 0.85 0.95 0.91 0.91 0.95 0.91 0.85
Lanes: 0.92 0.08 1.00 0.95 0.05 1.00 1.00 2.97 0.03 1.00 3.00 1.00
Final Sat.: 1580 132 1615 1647 92 1615 1805 5127 54 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.03 0.02 0.02 0.01 0.01 0.31 0.31 0.02 0.62 0.02
Crit Moves: ****
Green/Cycle: 0.04 0.04 0.04 0.04 0.04 0.02 0.84 0.84 0.06 0.88 0.88
Volume/Cap: 0.36 0.36 0.70 0.51 0.51 0.26 0.70 0.37 0.37 0.37 0.70 0.03
Uniform Del: 46.5 46.5 47.2 46.9 46.9 46.3 49.0 1.8 1.8 45.5 1.8 0.7
IncrmntDel: 3.0 3.0 27.0 6.0 6.0 2.0 57.7 0.1 0.1 2.3 0.5 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 49.5 49.5 74.3 52.9 52.9 48.4 106.8 1.9 1.9 47.8 2.3 0.7
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 49.5 49.5 74.3 52.9 52.9 48.4 106.8 1.9 1.9 47.8 2.3 0.7
LOS by Move: D D E D D D F A A D A A
HCM2kAvgQ: 1 1 3 2 2 1 2 4 4 1 11 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Superior Avenue-Balboa Boulevard/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.757
Loss Time (sec): 8 Average Delay (sec/veh): 30.6
Optimal Cycle: 57 Level Of Service: C

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			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	1	0	1	0	2	2	0	3	0	1	1

Volume Module:

Base Vol:	237	219	67	199	318	715	466	739	159	195	1960	144
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	237	219	67	199	318	715	489	776	167	205	2058	151
Added Vol:	0	1	0	1	1	2	4	0	0	0	0	1
PasserByVol:	44	3	0	0	6	16	9	158	31	0	211	0
Initial Fut:	281	223	67	200	325	733	502	934	198	205	2269	152
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	281	223	67	200	325	733	502	934	198	205	2269	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	281	223	67	200	325	733	502	934	198	205	2269	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	281	223	67	200	325	733	502	934	198	205	2269	152

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.91	0.91	0.91	0.93	0.93	0.75	0.92	0.91	0.85	0.95	0.91	0.85
Lanes:	1.48	1.17	0.35	1.14	1.86	2.00	2.00	3.00	1.00	1.00	4.00	1.00
Final Sat.:	2554	2027	609	2024	3288	2842	3502	5187	1615	1805	6916	1615

Capacity Analysis Module:

Vol/Sat:	0.11	0.11	0.11	0.10	0.10	0.26	0.14	0.18	0.12	0.11	0.33	0.09
Crit Moves:	****			****			****			****		
Green/Cycle:	0.15	0.15	0.15	0.15	0.15	0.34	0.19	0.38	0.38	0.24	0.43	0.43
Volume/Cap:	0.76	0.76	0.76	0.65	0.65	0.76	0.76	0.47	0.32	0.47	0.76	0.22
Uniform Del:	41.0	41.0	41.0	40.0	40.0	29.3	38.3	23.3	21.7	32.5	23.9	17.7
IncRemntDel:	4.4	4.4	4.4	1.9	1.9	3.5	5.0	0.2	0.3	0.8	1.1	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	45.4	45.4	45.4	41.9	41.9	32.7	43.3	23.4	22.0	33.3	25.0	17.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.4	45.4	45.4	41.9	41.9	32.7	43.3	23.4	22.0	33.3	25.0	17.9
LOS by Move:	D	D	D	D	D	C	D	C	C	C	B	B
HCM2kAvgQ:	8	8	6	6	6	13	8	8	4	5	16	3

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #5 Newport Boulevard Southbound Ramps/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.741
Loss Time (sec): 4 Average Delay (sec/veh): 19.0
Optimal Cycle: 40 Level Of Service: B

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			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	0	0	0	1	0	0	2	0	3	0

Volume Module:

Base Vol:	0	0	0	553	0	408	0	1220	90	0	1938	604
Growth Adj:	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Initial Bse:	0	0	0	581	0	428	0	1281	95	0	2035	634
Added Vol:	0	0	0	3	0	0	0	1	0	0	1	0
PasserByVol:	0	0	0	46	0	35	0	202	14	0	168	14
Initial Fut:	0	0	0	630	0	463	0	1484	109	0	2204	648
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	0	0	0	630	0	463	0	1484	0	0	2204	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	630	0	463	0	1484	0	0	2204	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	0	0	0	630	0	463	0	1484	0	0	2204	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.85	1.00	0.95	1.00	1.00	0.91	1.00
Lanes:	0.00	0.00	0.00	2.00	0.00	1.00	0.00	2.00	1.00	0.00	3.00	1.00
Final Sat.:	0	0	0	3502	0	1615	0	3610	1900	0	5187	1900

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.18	0.00	0.29	0.00	0.41	0.00	0.00	0.42	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.39	0.00	0.39	0.00	0.57	0.00	0.00	0.57	0.00
Volume/Cap:	0.00	0.00	0.00	0.46	0.00	0.74	0.00	0.72	0.00	0.00	0.74	0.00
Uniform Del:	0.0	0.0	0.0	22.9	0.0	26.4	0.0	15.5	0.0	0.0	15.8	0.0
IncRemntDel:	0.0	0.0	0.0	0.3	0.0	4.7	0.0	1.2	0.0	0.0	1.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Delay/Veh:	0.0	0.0	0.0	23.2	0.0	31.1	0.0	16.7	0.0	0.0	16.9	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	23.2	0.0	31.1	0.0	16.7	0.0	0.0	16.9	0.0
LOS by Move:	A	A	A	C	A	C	A	B	A	A	B	A
HCM2kAvgQ:	0	0	0	8	0	14	0	17	0	0	19	0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #6 Riverside Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.889
Loss Time (sec): 6 Average Delay (sec/veh): 20.5
Optimal Cycle: 88 Level Of Service: C

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 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: 0 0 1! 0 0 0 1 0 0 1 1 0 1 0 3 0 1

Volume Module:
Base Vol: 9 12 12 73 4 441 249 1568 13 37 2436 56
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 9 12 12 73 4 441 261 1646 14 39 2558 59
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 2 0 20 33 336 0 0 292 1
Initial Fut: 9 12 12 75 4 461 294 1986 14 39 2856 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: 9 12 12 75 4 461 294 1986 14 39 2856 60
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 9 12 12 75 4 461 294 1986 14 39 2856 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: 9 12 12 75 4 461 294 1986 14 39 2856 60

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.90 0.90 0.75 0.75 0.85 0.95 0.95 0.95 0.95 0.91 0.85
Lanes: 0.27 0.37 0.36 0.95 0.95 1.00 1.00 1.99 0.01 1.00 3.00 1.00
Final Sat.: 468 624 624 1344 72 1615 1805 3582 25 1805 5187 1615

Capacity Analysis Module:
Vol/Sat: 0.02 0.02 0.02 0.06 0.06 0.29 0.16 0.55 0.55 0.02 0.55 0.04
Crit Moves: ****
Green/Cycle: 0.14 0.14 0.14 0.14 0.14 0.32 0.18 0.77 0.77 0.03 0.62 0.62
Volume/Cap: 0.14 0.14 0.14 0.41 0.41 0.89 0.89 0.72 0.72 0.72 0.89 0.66
Uniform Del: 37.9 37.9 37.9 39.4 39.4 32.3 39.8 5.8 5.8 48.1 16.1 7.5
IncrmntDel: 0.3 0.3 0.3 1.4 1.4 17.1 24.2 0.9 0.9 37.0 3.5 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 38.2 38.2 38.2 40.8 40.8 49.4 64.0 6.7 6.7 85.1 19.6 7.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 38.2 38.2 38.2 40.8 40.8 49.4 64.0 6.7 6.7 85.1 19.6 7.6
LOS by Move: D D D D D E A A F B A A
HCM2kAvgQ: 1 1 1 3 3 17 12 17 17 1 28 1

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #7 Tustin Avenue/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.694
Loss Time (sec): 6 Average Delay (sec/veh): 5.0
Optimal Cycle: 41 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: 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 0 0 0 1! 0 0 1 0 1 1 0 0 0 2 1 0

Volume Module:
Base Vol: 2 1 0 37 2 25 64 1591 5 0 2491 40
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 2 1 0 37 2 25 67 1671 5 0 2616 42
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 0 0 0 0 337 0 0 294 0
Initial Fut: 2 1 0 37 2 25 67 2012 5 0 2916 42
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 2 1 0 37 2 25 67 2012 5 0 2916 42
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 2 1 0 37 2 25 67 2012 5 0 2916 42
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 2 1 0 37 2 25 67 2012 5 0 2916 42

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 1.00 0.77 0.77 0.77 0.95 0.95 0.95 1.00 0.91 0.91
Lanes: 0.67 0.33 0.00 0.58 0.03 0.39 1.00 1.99 0.01 0.00 2.96 0.04
Final Sat.: 1086 543 0 844 46 570 1805 3601 9 0 5103 74

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.04 0.04 0.04 0.04 0.56 0.56 0.00 0.57 0.57
Crit Moves: ****
Green/Cycle: 0.06 0.06 0.00 0.06 0.06 0.06 0.05 0.88 0.88 0.00 0.82 0.82
Volume/Cap: 0.03 0.03 0.00 0.69 0.69 0.69 0.69 0.64 0.64 0.00 0.69 0.69
Uniform Del: 44.0 44.0 0.0 45.9 45.9 45.9 46.5 1.7 1.7 0.0 3.6 3.6
IncrmntDel: 0.1 0.1 0.0 20.5 20.5 20.5 19.6 0.4 0.4 0.0 0.5 0.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00
Delay/Veh: 44.1 44.1 0.0 66.3 66.3 66.3 66.1 2.2 2.2 0.0 4.2 4.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 44.1 44.1 0.0 66.3 66.3 66.3 66.1 2.2 2.2 0.0 4.2 4.2
LOS by Move: D D A E E E A A A A A A
HCM2kAvgQ: 0 0 0 3 3 3 2 9 9 0 14 14

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #8 Dover Drive/Coast Highway

Cycle (sec): 100 Critical Vol./Cap.(X): 0.789
Loss Time (sec): 8 Average Delay (sec/veh): 21.9
Optimal Cycle: 63 Level Of Service: C

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 Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 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 3 0 1 0 1 2 0 2 1 0 1 0 3 0 1

Volume Module:
Base Vol: 16 32 50 840 49 136 121 1507 22 49 2095 1193
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 16 32 50 840 49 136 127 1582 23 51 2200 1253
Added Vol: 0 0 0 0 0 0 0 4 0 0 6 0
PasserByVol: 0 0 0 63 0 33 36 305 0 0 270 83
Initial Fut: 16 32 50 903 49 169 163 1891 23 51 2476 1336
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 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 32 50 903 49 169 163 1891 23 51 2476 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 16 32 50 903 49 169 163 1891 23 51 2476 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: 16 32 50 903 49 169 163 1891 23 51 2476 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.86 0.86 0.92 1.00 0.85 0.92 0.91 0.91 0.95 0.91 1.00
Lanes: 1.00 1.00 1.00 3.00 1.00 1.00 2.00 2.96 0.04 1.00 3.00 1.00
Final Sat.: 1805 1641 1641 5253 1900 1615 3502 5114 62 1805 5187 1900

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.03 0.17 0.03 0.10 0.05 0.37 0.37 0.03 0.48 0.00
Crit Moves: ****
Green/Cycle: 0.04 0.04 0.04 0.22 0.22 0.22 0.06 0.62 0.62 0.05 0.60 0.00
Volume/Cap: 0.23 0.51 0.79 0.79 0.12 0.48 0.79 0.60 0.60 0.60 0.79 0.00
Uniform Del: 46.6 47.1 47.7 36.9 31.4 34.2 46.4 11.7 11.7 46.7 15.0 0.0
IncrmntDel: 1.7 2.6 32.2 3.8 0.1 1.0 18.2 0.3 0.3 11.3 1.4 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 48.3 49.7 79.9 40.7 31.5 35.2 64.7 12.0 12.0 58.0 16.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 48.3 49.7 79.9 40.7 31.5 35.2 64.7 12.0 12.0 58.0 16.4 0.0
LOS by Move: D D E D C D E B B E B A
HCM2kAvgQ: 1 2 3 11 1 5 3 13 13 3 22 0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #12 Newport Boulevard/Industrial Way

Cycle (sec): 100 Critical Vol./Cap.(X): 0.672
Loss Time (sec): 4 Average Delay (sec/veh): 9.1
Optimal Cycle: 33 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: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 2 1 0 1 0 2 1 0 0 1 0 0 1

Volume Module:
Base Vol: 43 1592 21 54 1827 89 114 73 80 14 52 108
Growth Adj: 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05
Initial Bse: 45 1672 22 57 1918 93 120 77 84 15 55 113
Added Vol: 0 0 0 0 0 5 3 0 0 0 0 0
PasserByVol: 9 178 0 0 171 5 9 0 9 0 0 0
Initial Fut: 54 1850 22 57 2089 103 132 77 93 15 55 113
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 54 1850 22 57 2089 103 132 77 93 15 55 113
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 54 1850 22 57 2089 103 132 77 93 15 55 113
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 54 1850 22 57 2089 103 132 77 93 15 55 113

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.06 0.91 0.91 0.09 0.90 0.90 0.76 0.76 0.85 0.39 1.00 0.85
Lanes: 1.00 2.96 0.04 1.00 2.86 0.14 0.63 0.37 1.00 1.00 1.00 1.00
Final Sat.: 108 5116 61 169 4908 243 907 528 1615 732 1900 1615

Capacity Analysis Module:
Vol/Sat: 0.50 0.36 0.36 0.34 0.43 0.43 0.15 0.15 0.06 0.02 0.03 0.07
Crit Moves: ****
Green/Cycle: 0.74 0.74 0.74 0.74 0.74 0.74 0.22 0.22 0.22 0.22 0.22 0.22
Volume/Cap: 0.67 0.49 0.49 0.45 0.57 0.57 0.67 0.67 0.27 0.09 0.13 0.32
Uniform Del: 6.6 5.1 5.1 4.9 5.7 5.7 35.9 35.9 32.6 31.4 31.6 33.0
IncrmntDel: 20.0 0.1 0.1 2.6 0.2 0.2 5.7 5.7 0.4 0.3 0.1 0.5
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Delay/Veh: 26.5 5.2 5.2 7.5 5.9 5.9 41.6 41.6 33.0 31.6 31.8 33.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 26.5 5.2 5.2 7.5 5.9 5.9 41.6 41.6 33.0 31.6 31.8 33.6
LOS by Move: C A A A A D D C C C C
HCM2kAvgQ: 1 8 8 1 11 11 6 6 2 0 1 3
